DIGITAL MIXING CONSOLE/ PEAK METER BRIDGE/WOODEN SIDE PANELS

O2R96/MB02R96/SP02R96

SERVICE MANUAL

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IMPORTANT NOTICE

This manual has been provided for the use of authorized Yamaha Retailers and their service personnel. It has been assumed that basic service procedures inherent to the industry, and more specifically Yamaha Products, are already known and understood by the users, and have therefore not been restated.

WARNING : Failure to follow appropriate service and safety procedures when servicing this product may result in personal injury, destruction of expensive components and failure of the product to perform as specified. For these reasons, we advise all Yamaha product owners that all service required should be performed by an authorized Yamaha Retailer or the appointed service representative.

IMPORTANT : This presentation or sale of this manual to any individual or firm does not constitute authorization certification, recognition of any applicable technical capabilities, or establish a principal-agent relationship of any form.

The data provided is belived to be accurate and applicable to the unit(s) indicated on the cover. The research engineering, and service departments of Yamaha are continually striving to improve Yamaha products. Modifications are, therefore, inevitable and changes in specification are subject to change without notice or obligation to retrofit. Should any discrepancy appear to exist, please contact the distributor's Service Division.

WARNING : Static discharges can destroy expensive components. Discharge any static electricity your body may have accumulated by grounding yourself to the ground bus in the unit (heavy gauge black wires connect to this bus.)

IMPORTANT : Turn the unit OFF during disassembly and parts replacement. Recheck all work before you apply power to the unit.

WARNING: CHEMICAL CONTENT NOTICE!

The solder used in the production of this product contains LEAD. In addition, other electrical/electronic and/or plastic (Where applicable) components may also contain traces of chemicals found by the California Health and Welfare Agency (and possibly other entities) to cause cancer and/or birth defects or other reproductive harm.

DO NOT PLACE SOLDER, ELECTRICAL/ELECTRONIC OR PLASTIC COMPONENTS IN YOUR MOUTH FOR ANY REASON WHAT SO EVER!

Avoid prolonged, unprotected contact between solder and your skin! When soldering, do not inhale solder fumes or expose eyes to solder/flux vapor!

If you come in contact with solder or components located inside the enclosure of this product, wash your hands before handling food.

WARNING: THIS APPARATUS MUST BE EARTHED

IMPORTANT

THE WIRES IN THIS MAINS LEAD ARE COLOURED IN ACCORDANCE WITH THE FOLLOWING CODE:

GREEN-AND-YELLOW :	EARTH
BLUE :	NEUTRAL
BROWN :	LIVE

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured GREEN and YELLOW must be connected to the terminal in the plug which is marked by the letter E or by the safety earth symbol ⏚ or coloured GREEN and YELLOW.

The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLACK.

The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured RED.

* This applies only to products distributed by YAMAHA KEMBLE MUSIC (U.K.) LTD.

■ WARNING

Components having special characteristics are marked ⚠ and must be replaced with parts having specification equal to those originally installed.

LITHIUM BATTERY HANDLING

This product uses a lithium battery for memory back-up.

WARNING : Lithium batteries are dangerous because they can be exploded by improper handling. Observe the following precautions when handling or replacing lithium batteries.

- Leave lithium battery replacement to qualified service personnel.
- Always replace with batteries of the same type.
- When installing on the PC board by soldering, solder using the connection terminals provided on the battery cells.
- Never solder directly to the cells. Perform the soldering as quickly as possible.
- Never reverse the battery polarities when installing.
- Do not short the batteries.
- Do not attempt to recharge these batteries.
- Do not disasemble the batteries.
- Never heat batteries or throw them into fire.

ADVARSEL!
Lithiumbatteri-Eksplosionsfare ved fejlagtig handtering. Udskiftning ma kun ske med batteri af samme fabrikat og type. lever det brugte batteri tilbage til leverandren.

VARNING
Explosionsfara vid felaktigt batteribyte.
Anvand samma batterityp eller en ekvivalent typ som rekommenderas av apparattillverkaren.
Kassera anvant batteri enligt fabrikantens instruktion.

VAROITUS
Paristo voi rajahtaa, jos se on virheellisesti asennettu.
Vaihda paristo ainoastaan laitevalmistajan suosittelemaan tyyppiiin.
Havita kaytetty paristo valmistajan ohjeiden mukaisesti.

The following information complies with Dutch official Gazette 1995. 45; ESSENTIALS OF ORDER ON THE COLLECTION OF BATTERIES.

- Please refer to the diassembly procedure for the removal of Back-up Battery.
- Leest u voor het verwijderen van de backup batterij deze beschrijving.

Take care not to trap your fingers.

SPECIFICATIONS

• 02R96

General Spec

Number of scene memories		99
Sampling Frequency	**Internal**	44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz
	External	Normal rate: 44.1 kHz–10% to 48 kHz+6%
		Double rate: 88.2 kHz–10% to 96 kHz+6%
Signal Delay		Less than 2.0 ms CH INPUT to STEREO OUT (fs=48 kHz)
		Less than 1.1 ms CH INPUT to STEREO OUT (fs=96 kHz)
Fader		100 mm motorized with touch sense × 25
Fader Resolution		+10 to –96, –∞dB (256 steps/100 mm) input faders
		0 to –130, –∞dB (256 steps/100 mm) master faders, stereo fader
Total Harmonic Distortion[*1] (CH INPUT to STEREO OUT) (Input Gain=Min.)	fs=48 kHz	Less than 0.05% 20 Hz to 20 kHz @ +14 dB into 600Ω Less than 0.01% 1 kHz @ +18 dB into 600 Ω (fs=48 kHz)
	fs=96 kHz	Less than 0.05% 20 Hz to 40 kHz @ +14 dB into 600 Ω Less than 0.01% 1 kHz @ +18 dB into 600 Ω
Frequency Response (CH INPUT to STEREO OUT)		20 Hz–20 kHz, 0.5, –1.5 dB @ +4 dB into 600 Ω (fs=48 kHz)
		20 Hz–40 kHz, 0.5, –1.5 dB @ +4 dB into 600 Ω (fs=96 kHz)
Dynamic Range (maximum level to noise level)		110 dB typ. DA Converter (STEREO OUT)
		105 dB typ. AD+DA (to STEREO OUT) @ fs=48 kHz
		105 dB typ. AD+DA (to STEREO OUT) @ fs=96 kHz
Hum & Noise[*2] (20 Hz–20 kHz) Rs=150Ω Input Gain=Max. Input Pad =0 dB		–128 dB Equivalent Input Noise
		–92 dB residual output noise. STEREO OUT (STEREO OUT off)
		–92 dB (96 dB S/N) STEREO OUT (STEREO fader at nominal level and all CH INPUT faders at minimum level)
		–64 dB (68 dB S/N) STEREO OUTPUT (STEREO fader at nominal level and one CH INPUT fader at nominal level)
Maximum Voltage Gain		74 dB CH INPUT (CH1–24) to STEREO OUT/OMNI (BUS) OUT
		74 dB CH INPUT (CH1–24) to OMNI (AUX) OUT (via pre input fader)
		74 dB CH INPUT (CH1–24) to CONTROL ROOM MONITOR OUT (via STEREO bus)
Crosstalk (@ 1 kHz) Input Gain=Min.		–80 dB adjacent input channels (CH1–24)
		–80 dB input to output
AD Input (1 –16: A/B)	**Phantom switch**	+48 V DC is supplied to A (XLR-3-31 type) input
	Pad switch	0/26 dB attenuation
	Gain control	44 dB (–60 to –16), detented
	Peak indicator	LED (red) turns on when post HA level reaches 3 dB below clipping
	Signal indicator	LED (green) turns on when post HA level reaches 20 dB below nominal
	Insert	I/O (pre AD converter)
	Insert switch	on/off
	AD converter	24-bit linear, 128-times oversampling (fs=48 kHz)
AD Input (17 –24)	**Gain control**	44 dB (–34 to +10), detented
	Peak indicator	LED (red) turns on when post HA level reaches 3 dB below clipping
	Signal indicator	LED (green) turns on when post HA level reaches 20 dB below nominal
	AD converter	24-bit linear, 128-times oversampling (fs=48 kHz)
Analog Input (2TR IN ANALOG 1, 2)	**AD converter**	24-bit linear, 128-times oversampling (fs=48 kHz)

Option Input (SLOT 1–4)	**Available cards**	Optional digital interface cards (MY8, MY4 series)
Digital Input (2TR IN DIGITAL 1–3)	**SRC**	On/off (1:3 and 3:1 maximum input to output sample rate ratio)
Input Channel CH1–56	**Input patch**	—
	Phase	Normal/reverse
	Gate-type[*3]	On/off
		Key in: 12 ch Group (1–12, 13–24, 25–36, 37–48, 49–56)/AUX1–8
	Comp-type[*4]	On/off
		Key in: self /Stereo Link
		Pre EQ/pre fader/post fader
	Attenuator	–96.0 to +12.0 dB (0.1 dB step)
	EQ	4-band PEQ [*5]
		On/off
	Delay	0–43400 samples
	On/off	—
	Fader	100 mm motorized (INPUT/AUX1–8)
	Aux send	On/off
		AUX1–8; pre fader/post fader
	Solo	On/off
		Pre fader/after pan
	Pan	127 positions (Left= 1–63, Center, Right= 1–63)
	Surround pan	127 × 127 positions
	LFE level	–∞, –96 dB to +10 dB (256 step)
	Routing	STEREO, BUS1–8, DIRECT OUT
	Direct out	Pre EQ/pre fader/post fader
	Metering	Displayed on LCD
		Peak hold on/off
TALKBACK	**Level control**	Analog rotary potentiometer
	AD converter	24-bit linear, 128-times oversampling
	Talkback select	Built-in microphone/AD IN 1–16
	On/off	—
OSCILLATOR	**Level**	0 to –96 dB (1 dB step)
	On/off	—
	Waveform	Sine 100 Hz, sine 1 kHz, sine 10 kHz, pink noise, burst noise
	Routing	BUS1–8, AUX1–8, STEREO L, R
STEREO OUT	**DA converter**	24-bit linear, 128-times oversampling
OMNI OUT 1–8	**Output patch**	SURROUND MONITOR, STEREO, BUS1–8, AUX1–8, DIRECT OUT 1–56, INSERT OUT (CH1–56, BUS1–8, AUX1–8, STEREO)
	DA converter	24-bit linear, 128-times oversampling
CONTROL ROOM MONITOR OUT	**Monitor select**	STEREO, 2TR IN DIGITAL 1, 2TR IN DIGITAL 2, 2TR IN DIGITAL 3, 2TR IN ANALOG 1, 2TR IN ANALOG 2, ASSIGN 1, 2 (BUS 1–8/AUX 1–8)
	Mono	On/off
	Dimmer	On/off
	DA converter	24-bit linear, 128-times oversampling
	Level control	Analog rotary potentiometer
	Phones level	Analog rotary potentiometer
STUDIO MONITOR OUT	**Monitor select**	CONTROL ROOM, STEREO, AUX 7, AUX 8, TALKBACK
	DA converter	24-bit linear, 128-times oversampling
	Level control	Analog rotary potentiometer

2TR OUT DIGITAL 1–3	**Dither**	On/off
		Word length 16, 20, 24-bit
	Output patch	STEREO, BUS1–8, AUX 1–8, DIRECT OUT 1–56, INSERT OUT, CONTROL ROOM
Option Output (SLOT 1–4)	**Available card**	Optional digital interface card (MY8, MY4 series)
	Output patch	SURROUND MONITOR, STEREO, BUS1–8, AUX1–8, DIRECT OUT 1–56, INSERT OUT (CH1–56, BUS1–8, AUX1–8, STEREO)
	Dither	On/off
		Word length 16/20/24-bit
STEREO	**Comp-type**[*4]	On/off
		Pre EQ/pre fader/post fader
	Attenuator	–96.0 to +12.0 dB (0.1 dB step)
	EQ	4-band PEQ [*5]
		On/off
	On/off	—
	Fader	100 mm motorized
	Balance	127 positions (Left=1–63, Center, Right=1–63)
	Delay	0–43400 samples
	Metering	Displayed on LCD
		Peak hold on/off
BUS1–8	**Comp-type**[*4]	On/off
		Pre EQ/pre fader/post fader
	Attenuator	–96.0 to +12.0 dB (0.1 dB step)
	EQ	4-band PEQ [*5]
		On/off
	On/off	—
	Fader	100 mm motorized
	Delay	0–43400 samples
	Bus to stereo	Level (–∞, –130 dB to 0 dB)
		On/off
		Pan: 127 positions (Left=1–63, Center, Right=1–63)
	Metering	Displayed on LCD
		Peak hold on/off
AUX1–8	**Comp-type**[*4]	On/off
		Pre EQ/pre fader/post fader
	Attenuator	–96.0 to +12.0 dB (0.1 dB step)
	EQ	4-band PEQ [*5]
		On/off
	On/off	—
	Fader	100 mm motorized
	Delay	0–43400 samples
	Metering	Displayed on LCD
		Peak hold on/off

SURROUND MONITOR	**Mute**	On/off
	Solo	On/off
	Source	BUS1–8, SLOT 1–4
	Monitor to C-R	On/off
	Oscillator	Pink noise/500–2 kHz/1 kHz/50 Hz
	Monitor matrix	5.1 → 5.1, 5.1→ 3-1, 5.1 → ST, 3.1 → 3.1, 3.1→ ST
	Bass management	5 presets
	Monitor alignment	ATT (–12.0 dB to 12 dB 0.1 dB step), Delay (0–30.0 msec 0.02 msec step)
INTERNAL EFFECTS (EFFECT 1–4)	**Bypass**	On/off
	In/out	8-in, 8-out (EFFECT1): depends on effects type
		2-in, 2-out (EFFECT2–4): depends on effects type
	Effect-in from	AUX1–8/INSERT OUT/effect-out
	Effect-out to	Input patch/effect-in
Power Requirements	**Japan**	100 V, 50/60 Hz 190 W
	U.S.A./Canada	120 V, 60 Hz 200 W
	Other	220–240 V, 50/60 Hz 200 W
Dimensions	**(H x D x W)**	239 x 697 x 667 mm (9.4" x 27.4" x 26.3")
Net weight		34 kg (75 lbs)
Operating free-air temperature range		10–35°C (50–95°F)
Storage temperature range		–20 to 60°C (–4 to 140°F)
Supplied Accessories		AC Cable CD-ROM (Studio Manager)
Options		Digital interface card (MY8, MY4 series) PEAK METER BRIDGE: MB02R96 SIDE PANEL: SP02R96

*1. Total harmonic distortion is measured with a 6 dB/octave filter @ 80 kHz.
*2. Hum & Noise are measured with a 6 dB/octave filter @ 12.7 kHz; equivalent to a 20 kHz filter with infinite dB/octave attenuation.
*3. See“Gate Parameters” on page 8.
*4. See“Comp Parameters” on page 8.
*5. See“EQ Parameters” on page 7.

EQ Parameters

	LOW/HPF	L-MID	H-MID	HIGH /LPF
Q	0.1–10.0 (41 points) low shelving HPF	0.1–10.0 (41 points)		0.1–10.0 (41 points) high shelving LPF
F	21.2 Hz–20 kHz (1/12 oct step)			
G	±18 dB (0.1 dB step) HPF: on/off	±18 dB (0.1 dB step)		±18 dB (0.1 dB step) LPF: on/off

Gate Parameters

Gate	**Threshold**	–54 dB to 0 dB (0.1 dB step)
	Range	–70 dB to 0 dB (1 dB step)
	Attack	0 ms–120 ms (1 ms step)
	Hold	0.02 ms–1.96 s (216 points) @ 48 kHz
		0.02 ms–2.13 s (216 points) @ 44.1 kHz
		0.01 ms–981 ms (216 points) @ 96 kHz
		0.01 ms–1.06 s (216 points) @ 88.2 kHz
	Decay	5 ms–42.3 s (160 points) @ 48 kHz
		6 ms–46.0 s (160 points) @ 44.1 kHz
		3 ms–21.1 s (160 points) @ 96 kHz
		3 ms–23.0 s (160 points) @ 88.2 kHz
Ducking	**Threshold**	–54 dB to 0 dB (0.1 dB step)
	Range	–70 dB to 0 dB (1 dB step)
	Attack	0 ms–120 ms (1 ms step)
	Hold	0.02 ms–1.96 s (216 points) @ 48 kHz
		0.02 ms–2.13 s (216 points) @ 44.1 kHz
		0.01 ms–981 ms (216 points) @ 96 kHz
		0.01 ms–1.06 s (216 points) @ 88.2 kHz
	Decay	5 ms–42.3 s (160 points) @ 48 kHz
		6 ms–46.0 s (160 points) @ 44.1 kHz
		3 ms–21.1 s (160 points) @ 96 kHz
		3 ms–23.0 s (160 points) @ 88.2 kHz

Comp Parameters

Compressor	**Threshold**	–54 dB to 0 dB (0.1 dB step)
	Ratio (x :1)	x=1, 1.1, 1.3, 1.5, 1.7, 2, 2.5, 3, 3.5, 4, 5, 6, 8, 10, 20, ∞ (16 points)
	Out gain	0 dB to +18 dB (0.1 dB step)
	Knee	Hard, 1, 2, 3, 4, 5 (6 step)
	Attack	0 ms–120 ms (1 ms step)
	Release	5 ms–42.3 s (160 points) @ 48 kHz
		6 ms–46.0 s (160 points) @ 44.1 kHz
		3 ms–21.1 s (160 points) @ 96 kHz
		3 ms–23.0 s (160 points) @ 88.2 kHz
Expander	**Threshold**	–54 dB to 0 dB (0.1 dB step)
	Ratio (x :1)	x=1, 1.1, 1.3, 1.5, 1.7, 2, 2.5, 3, 3.5, 4, 5, 6, 8, 10, 20, ∞ (16 points)
	Out gain	0 dB to +18 dB (0.1 dB step)
	Knee	Hard, 1, 2, 3, 4, 5 (6 points)
	Attack	0 ms–120 ms (1 ms step)
	Release	5 ms–42.3 s (160 points) @ 48 kHz
		6 ms–46.0 s (160 points) @ 44.1 kHz
		3 ms–21.1 s (160 points) @ 96 kHz
		3 ms–23.0 s (160 points) @ 88.2 kHz

Compander H	**Threshold**	–54 dB to 0 dB (0.1 dB step)
	Ratio (x :1)	x=1, 1.1, 1.3, 1.5, 1.7, 2, 2.5, 3, 3.5, 4, 5, 6, 8, 10, 20 (15 points)
	Out gain	–18 dB to 0 dB (0.1 dB step)
	Width	1 dB–90 dB (1 dB step)
	Attack	0 ms–120 ms (1 ms step)
	Release	5 ms–42.3 s (160 points) @ 48 kHz
		6 ms–46.0 s (160 points) @ 44.1 kHz
		3 ms–21.1 s (160 points) @ 96 kHz
		3 ms–23.0 s (160 points) @ 88.2 kHz
Compander S	**Threshold**	–54 dB to 0 dB (0.1 dB step)
	Ratio (x :1)	x=1, 1.1, 1.3, 1.5, 1.7, 2, 2.5, 3, 3.5, 4, 5, 6, 8, 10, 20 (15 points)
	Out gain	–18 dB to 0 dB (0.1 dB step)
	Width	1 dB–90 dB (1 dB step)
	Attack	0 ms–120 ms (1 ms step)
	Release	5 ms–42.3 s (160 points) @ 48 kHz
		6 ms–46.0 s (160 points) @ 44.1 kHz
		3 ms–21.1 s (160 points) @ 96 kHz
		3 ms–23.0 s (160 points) @ 88.2 kHz

Controls

Analog Section

INPUT 1–16	+48 V switch	ON/OFF
	PAD switch	0/26 dB
	GAIN control	–16 to –60 dB
	INSERT switch	ON/OFF
INPUT 17–24	GAIN control	+10 to –34 dB
TALKBACK	TALKBACK LEVEL control	
STUDIO MONITOR OUT	STUDIO LEVEL control	
CONTROL ROOM MONITOR OUT	CONTROL ROOM LEVEL control	
PHONES	PHONES LEVEL control	

Digital Section

FADER MODE Section	**AUX SELECT**	DISPLAY button
		AUX 1, AUX 2, AUX 3, AUX 4, AUX 5, AUX 6, AUX 7, AUX 8 buttons (w/LED)
	FADER MODE	FADER, AUX button (w/LED)
	ENCODER MODE	DISPLAY button
		PAN, AUX, ASSIGN 1, ASSIGN 2 buttons (w/LED)
DISPLAY CONTROL Section	**DISPLAY ACCESS buttons**	AUTOMIX, DIO, SETUP, UTILITY, MIDI, REMOTE, METER, VIEW, PAIR, GROUP, INPUT PATCH, OUTPUT PATCH
	EFFECTS/PLUG-INS	DISPLAY access, ▲, ▼
		INTERNAL EFFECTS, PLUG-INS, CHANNEL INSERTS, 1, 2, 3, 4
		Parameter control: 1, 2, 3, 4
	Others	◄, F1, F2, F3, F4, ► buttons
		LCD contrast control

SELECTED CHANNEL Section	**ROUTING**	DISPLAY button
		1, 2, 3, 4, 5, 6, 7, 8, STEREO, DIRECT, FOLLOW PAN buttons (w/LED)
	DISPLAY ACCESS	PHASE/INSERT, DELAY buttons
	DYNAMICS	DISPLAY, GATE /COMP buttons
		GATE ON, COMP ON buttons (w/LED)
		Parameter control x 5
	PAN/SURROUND	DISPLAY button
		L, R, LINK, GRAB, EFFECT buttons (w/LED)
		Pan control
		Joystick (Sound image position control)
	EQUALIZER	DISPLAY button
		EQ ON button (w/LED)
		GAIN controls: LOW, LOW-MID, HIGH-MID, HIGH
		FREQUENCY/Q controls: LOW, LOW-MID, HIGH-MID, HIGH controls (w/SW)
MONITOR Section	**MONITOR**	DISPLAY button
	STUDIO	CONTROL ROOM, STEREO, AUX 7, AUX 8 buttons (w/LED)
	SOLO	CLEAR button
	CONTROL ROOM	2TR D1, 2TR D2, 2TR D3, 2TR A1, 2TR A2, STEREO, ASSIGN 1, ASSIGN 2 buttons (w/LED)
	SURROUND	BUS, SLOT buttons (w/LED)
		SURROUND MONITOR LEVEL control
	Others	TALKBACK, DIMMER buttons (w/LED)
		CONTROL ROOM LEVEL control
SCENE MEMORY and USER DEFINED KEYS section	**SCENE MEMORY**	DISPLAY button
		▲, ▼, STORE, RECALL buttons
	USER DEFINED KEYS	DISPLAY button
		1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 buttons (w/LED)
MACHINE CONTROL Section	**LOCATOR**	DISPLAY button
		LOCATE MEMORY: 1, 2, 3, 4, 5, 6, 7, 8, SET buttons (w/LED)
	TRANSPORT CONTROL	REW, FF, STOP, PLAY, REC, SHUTTLE, SCRUB (w/LED)
CHANNEL STRIP Section	**Encoders**	x 24 (1–24)
	Buttons	AUTO x 24 (1–24), SEL x 24 (1–24), SOLO x 24 (1–24), ON x 24 (1–24)
	Faders (w/ touch sense)	x 24 (1–24)
MASTER Section	**LAYER**	1–24, 25–48, MASTER, REMOTE buttons (w/LED)
	STEREO	AUTO, SEL, ON buttons (w/LED)
		Fader (w/touch sense) x 1
DATA ENTRY Section	**Buttons**	INC, DEC, ▲, ▼, ◄, ►, ENTER buttons
	Encoder	Parameter wheel

Indicators

Analog Section

PEAK LED	x24	INPUT 1–24
SIGNAL LED	x24	INPUT 1–24

Digital Section

DISPLAY CONTROL Section	**DISPLAY**	320 × 240 dot graphic LCD (w/contrast control potentiometer)
SELECTED CHANNEL Section	**DYNAMICS**	GATE, COMP LEDs x2
	PAN/SURROUND	Pan position LEDs x10
	EQUALIZER	FREQUENCY, Q LEDs 2 × 4
		dB, Hz, kHz 3 × 4
		3-digit numeric LEDs x4 (parameter value)
MONITOR Section	**SOLO**	LED x1
SCENE MEMORY section	**Scene memory number**	2-digit numeric LED x1

Libraries

Effect library (EFFECT 1–4)	Presets	52 (EFFECT 2–4: 44)
	User memories	76
Compressor library	Presets	36
	User memories	92
Gate library	Presets	4
	User memories	124
EQ library	Presets	40
	User memories	160
Channel library	Presets	2
	User memories	127
Surround Monitor library	Presets	1
	User memories	32
Input patch library	Presets	1
	User memories	32
Output patch library	Presets	1
	User memories	32
Bus to Stereo library	Presets	1
	User memories	32

Analog Input Spec

Input	PAD	GAIN	Actual Load Impedance	For Use With Nominal	Input level			Connector
					Sensitivity*1	Nominal	Max. before clip	
INPUT A/B 1–16	0	–60 dB	3k Ω	50–600 Ω Mics & 600 Ω Lines	–70 dB (0.245 mV)	–60 dB (0.775 mV)	–46 dB (3.88 mV)	A: XLR-3-31 type (Balanced) *2
		–16 dB			–26 dB (38.8 mV)	–16 dB (0.123 V)	–2 dB (616 mV)	B: Phone jack (TRS) (Balanced) *3
	26				0 dB (775 mV)	+10 dB (2.45 V)	+24 dB (12.28 V)	
INPUT 17–24	—	–34 dB	4K Ω	600 Ω Lines	–44 dB (4.89 mV)	–34 dB (15.5 mV)	–20 dB (77.5 mV)	Phone jack (TRS) (Balanced) *3
		+10 dB			0 dB (775 mV)	+10 dB (2.45 V)	+24 dB (12.28 V)	
INSERT IN 1–16	—		10K Ω	600 Ω Lines	–6 dB (388 mV)	+4 dB (1.23 V)	+18 dB (6.16 V)	Phone jack (TRS) *4
2TR IN ANALOG 1 [L, R]	—		10K Ω	600 Ω Lines	+4 dB (1.23 V)	+4 dB (1.23 V)	+18 dB (6.16 V)	Phone jack (TRS) (Balanced) *3
2TR IN ANALOG 2 [L, R]	—		10K Ω	600 Ω Lines	–10 dBV (0.316 V)	–10 dBV (0.316 V)	+4 dBV (1.58 V)	Phono (Unbalanced)

*1. Sensitivity is the lowest level that will produce an output of +4 dB (1.23 V) or the nominal output level when the unit is set to maximum gain. (All faders and level controls are maximum position.)
*2. XLR-3-31 type connectors are balanced (1=GND, 2=HOT, 3=COLD).
*3. Phone jacks are balanced (Tip=HOT, Ring=COLD, Sleeve=GND).
*4. Phone jacks are wired: Tip=OUT, Ring=IN, Sleeve=GND

In these specifications, when dB represents a specific voltage, 0 dB is referenced to 0.775 Vrms.
For 2TR IN ANALOG 2 levels, 0 dBV is referenced to 1.00 Vrms.
All input AD converters (except INSERT I/O 1–16) are 24-bit linear, 128-times oversampling.
+48 V DC (phantom power) is supplied to CH INPUT (1–16) XLR type connectors via individual switches.

Analog Output Spec

Output	Actual Source Impedance	For Use With Nominal	GAIN SW *1	Output level		Connector
				Nominal	Max. before clip	
STEREO OUT [L, R]	600 Ω	10k Ω Lines	—	–10 dBV (0.316 V)	+4 dBV (1.58 V)	Phono (Unbalanced)
	150 Ω	600 Ω Lines	—	+4 dB (1.23 V)	+18 dB (6.16 V)	XLR-3-32 type (Balanced) *2
STUDIO MONITOR OUT [L, R]	150 Ω	10k Ω Lines	—	+4 dB (1.23 V)	+18 dB (6.16 V)	Phone Jack (TRS) (Balanced) *3
C-R MONITOR OUT [L, R]	150 Ω	10k Ω Lines	—	+4 dB (1.23 V)	+18 dB (6.16 V)	Phone Jack (TRS) (Balanced) *3
OMNI OUT 1–8	150 Ω	10k Ω Lines	+18 dB (default)	+4 dB (1.23 V)	+18 dB (6.16 V)	Phone Jack (TRS) (Balanced) *3
			+4 dB	–10 dB (0.245 V)	+4 dB (1.23 V)	
INSERT OUT 1–16	600 Ω	10k Ω Lines	—	+4 dB (1.23 V)	+18 dB (6.16 V)	Phone Jack (TRS) *4
PHONES	100 Ω	8 Ω Phones	—	4 mW	25 mW	Stereo Phone Jack (TRS) (Unbalanced) *5
		40 Ω Phones	—	12 mW	75 mW	

*1. The maximum output level of each OMNI OUT can be set internally.
*2. XLR-3-32 type connectors are balanced (1=GND, 2=HOT, 3=COLD).
*3. Phone jacks are balanced (Tip=HOT, Ring=COLD, Sleeve=GND).
*4. Phone jacks are wired: Tip=OUT, Ring=IN, Sleeve=GND
*5. PHONES stereo phone jack is unbalanced (Tip=LEFT, Ring=RIGHT, Sleeve=GND).

STEREO OUT [L, R], 0 dBV is referenced to 1.00 Vrms.
In these specifications, when dB represents a specific voltage, 0 dB is referenced to 0.775 Vrms.
All output DA converters (except INSERT OUT 1–16) are 24-bit, 128-times oversampling.

Digital Input Spec

Input		Format	Data length	Level	Connector
2TR IN DIGITAL	1	AES/EBU	24-bit	RS422	XLR-3-31 type (Balanced) *1
	2	IEC-60958	24-bit	0.5 Vpp/75 Ω	Phono
	3	IEC-60958	24-bit	0.5 Vpp/75 Ω	Phono
CASCADE IN		—	—	RS422	D-SUB Half Pitch Connector 68P (Female)

*1. XLR-3-31 type connectors are balanced (1=GND, 2=HOT, 3=COLD).

Digital Output Spec

Output		Format	Data length	Level	Connector
2TR OUT DIGITAL	1	AES/EBU *1 Professional use	24-bit *2	RS422	XLR-3-32 type (Balanced) *3
	2	IEC-60958 *4 Consumer use	24-bit *2	0.5V pp/75 Ω	Phono
	3	IEC-60958 *4 Consumer use	24-bit *2	0.5V pp/75 Ω	Phono
CASCADE OUT		—	—	RS422	D-SUB Half Pitch Connector 68P (Female)

*1. Channel status of 2TR OUT DIGITAL 1
Type: 2 audio channels
Emphasis: NO
Sampling rate: depends on the internal configuration

*2. Dither: word length 16/20/24 bit

*3. XLR-3-32 type connectors are balanced (1=GND, 2=HOT, 3=COLD).

*4. Channel status of 2TR OUT DIGITAL 2, 3
Type: 2 audio channels
Category code: 2 channel PCM encoder/decoder
Copy prohibit: NO
Emphasis: NO
Clock accuracy: Level II (1000 ppm)
Sampling rate: depends on the internal configuration

I/O Slot Spec (1-4)

Each I/O SLOT accepts a digital interface card. Only SLOT #1 has a serial interface.

Card Name	Function	Accept	Input	Output	Number of available cards
MY8-AT	ADAT	YES	8 IN	8 OUT (depends on output patch)*1	4
MY8-TD	TASCAM	YES	8 IN	8 OUT (depends on output patch)*1	4
MY8-AE	AES/EBU	YES	8 IN	8 OUT (depends on output patch)*1	4
MY4-AD	ANALOG IN	YES	4 IN	—	4
MY8-AD	ANALOG IN	YES	8 IN	—	4
MY4-DA	ANALOG OUT	YES	—	4 OUT (depends on output patch)*1	4
MY8-AD24	ANALOG IN	YES	8 IN	—	4
MY8-AD96	ANALOG IN	YES	8 IN	—	4
MY8-DA96	ANALOG OUT	YES	—	8 OUT (depends on output patch)*1	4
MY8-AE96S	AES/EBU	YES	8 IN	8 OUT (depends on output patch)*1	2
MY8-AE96	AES/EBU	YES	8 IN	8 OUT (depends on output patch)*1	4

*1. See the Digital I/O chapter.
Details depend on each interface card.

Control I/O Spec

I/O Port		Format	Level	Connector in Console
TO HOST	**Serial**	—	RS422	Mini DIN Connector 8P
	USB	USB 1.1	0 V–3.3 V	B type USB connector
MIDI	**IN**	MIDI	—	DIN Connector 5P
	OUT	MIDI	—	DIN Connector 5P
	THRU	MIDI	—	DIN Connector 5P
TIME CODE IN	**MTC**	MIDI	—	DIN Connector 5P
	SMPTE	SMPTE	Nominal –10 dB/10k Ω	XLR-3-31 type (Balanced)*1
WORD CLOCK	**IN**	—	TTL/75 Ω (ON/OFF) *2	BNC Connector
	OUT	—	TTL/75 Ω	BNC Connector
CONTROL		—	—	D-SUB Connector 25P (Female)
METER		—	RS422	D-SUB Connector 15P (Female)

*1. XLR-3-31 type connectors are balanced (1=GND, 2=HOT, 3=COLD).
*2. This switch is on the rear panel.

Connector Pin Assignments

CASCADE IN

Pin	Signal	Pin	Signal
1	GND	35	GND
2	INPUT 1-2(+)	36	INPUT 1-2(–)
3	INPUT 3-4(+)	37	INPUT 3-4(–)
4	INPUT 5-6(+)	38	INPUT 5-6(–)
5	INPUT 7-8(+)	39	INPUT 7-8(–)
6	INPUT 9-10(+)	40	INPUT 9-10(–)
7	INPUT 11-12(+)	41	INPUT 11-12(–)
8	INPUT 13-14(+)	42	INPUT 13-14(–)
9	INPUT 15-16(+)	43	INPUT 15-16(–)
10	DTR IN(+)	44	DTR IN(–)
11	RTS OUT(+)	45	RTS OUT(–)
12	GND	46	GND
13	WORD CLOCK IN(+)	47	WORD CLOCK IN(–)
14	WORD CLOCK OUT(+)	48	WORD CLOCK OUT(–)
15	CONTROL IN(+)	49	CONTROL IN(–)
16	CONTROL OUT(+)	50	CONTROL OUT(–)
17	GND	51	ID6 IN
18	GND	52	ID6 OUT
19	INPUT 17-18(+)	53	INPUT 17-18(–)
20	INPUT 19-20(+)	54	INPUT 19-20(–)
21	INPUT 21-22(+)	55	INPUT 21-22(–)
22	INPUT 23-24(+)	56	INPUT 23-24(–)
23	RESERVED	57	RESERVED
24	RESERVED	58	RESERVED
25	RESERVED	59	RESERVED
26	RESERVED	60	RESERVED
27	ID0 IN	61	ID1 IN
28	ID2 IN	62	ID3 IN
29	ID4 IN	63	ID5 IN
30	ID0 OUT	64	ID1 OUT
31	ID2 OUT	65	ID3 OUT
32	ID4 OUT	66	ID5 OUT
33	MSB IN	67	2CH/LINE IN
34	FG	68	FG

CASCADE OUT

Pin	Signal	Pin	Signal
1	GND	35	GND
2	OUTPUT 1-2(+)	36	OUTPUT 1-2(–)
3	OUTPUT 3-4(+)	37	OUTPUT 3-4(–)
4	OUTPUT 5-6(+)	38	OUTPUT 5-6(–)
5	OUTPUT 7-8(+)	39	OUTPUT 7-8(–)
6	OUTPUT 9-10(+)	40	OUTPUT 9-10(–)
7	OUTPUT 11-12(+)	41	OUTPUT 11-12(–)
8	OUTPUT 13-14(+)	42	OUTPUT 13-14(–)
9	OUTPUT 15-16(+)	43	OUTPUT 15-16(–)
10	DTR OUT(+)	44	DTR OUT(–)
11	RTS IN(+)	45	RTS IN(–)
12	GND	46	GND
13	WORD CLOCK OUT(+)	47	WORD CLOCK OUT(–)
14	WORD CLOCK IN(+)	48	WORD CLOCK IN(–)
15	CONTROL OUT(+)	49	CONTROL OUT(–)
16	CONTROL IN(+)	50	CONTROL IN(–)
17	GND	51	ID6 OUT
18	GND	52	ID6 IN
19	OUTPUT 17-18(+)	53	OUTPUT 17-18(–)
20	OUTPUT 19-20(+)	54	OUTPUT 19-20(–)
21	OUTPUT 21-22(+)	55	OUTPUT 21-22(–)
22	OUTPUT 23-24(+)	56	OUTPUT 23-24(–)
23	RESERVED	57	RESERVED
24	RESERVED	58	RESERVED
25	RESERVED	59	RESERVED
26	RESERVED	60	RESERVED
27	ID0 OUT	61	ID1 OUT
28	ID2 OUT	62	ID3 OUT
29	ID4 OUT	63	ID5 OUT
30	ID0 IN	64	ID1 IN
31	ID2 IN	65	ID3 IN
32	ID4 IN	66	ID5 IN
33	MSB OUT	67	2CH/LINE OUT
34	FG	68	FG

CONTROL Port

Pin	Signal	Pin	Signal
1	GPO0	14	GPO1
2	GPO2	15	GPO3
3	GPO4	16	GPO5
4	GPO6	17	GPO7
5	GND	18	GND
6	GND	19	GND
7	GND	20	GND
8	GND	21	+5V
9	+5V	22	GPI0
10	GPI1	23	N.C.
11	N.C.	24	SOLO *1
12	SMODE *1	25	MAS/SLV *1
13	SPARE *1		

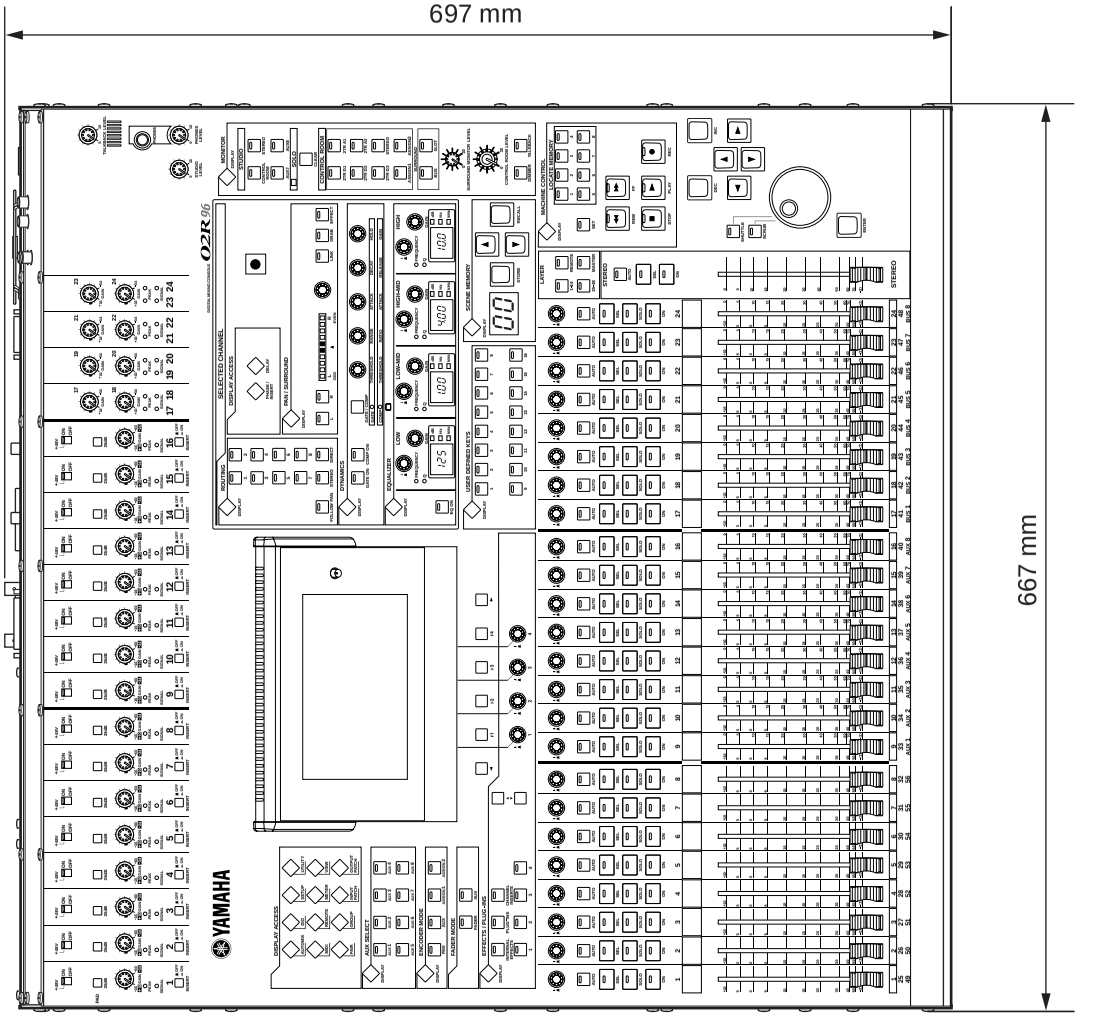
*1. For 02R SOLO control.

• MB02R96

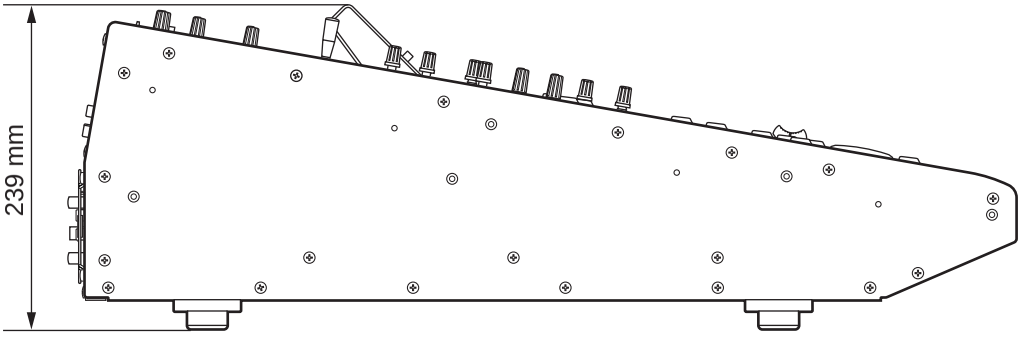
Dimensions (W X H X D): 667 X 124 X 95 mm
Weight: 2.8 kg

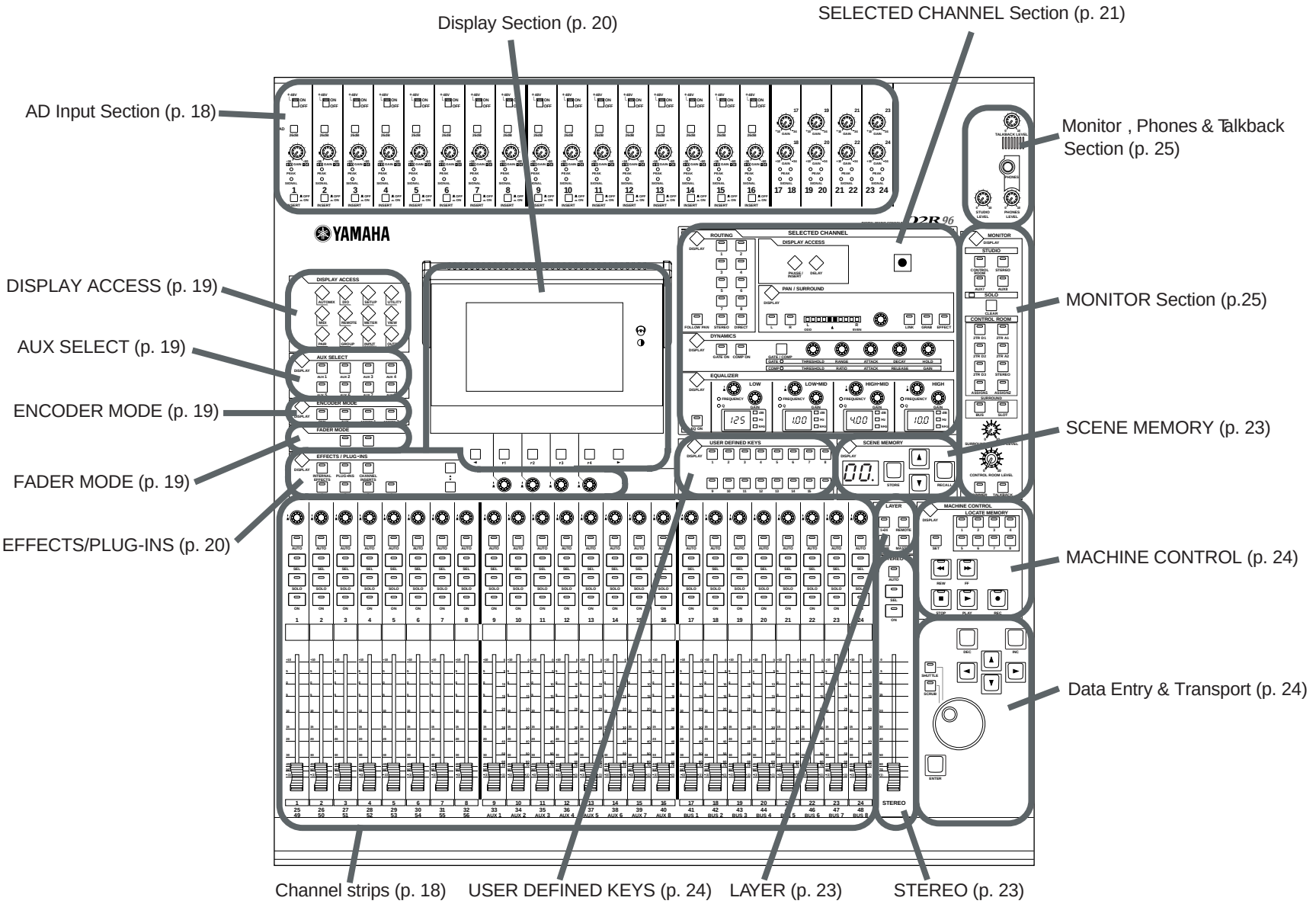
DIMENSIONS

- **Top view**

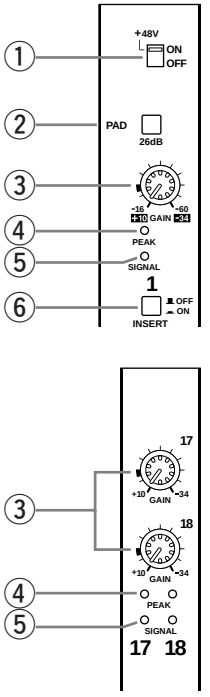


- **Side view**



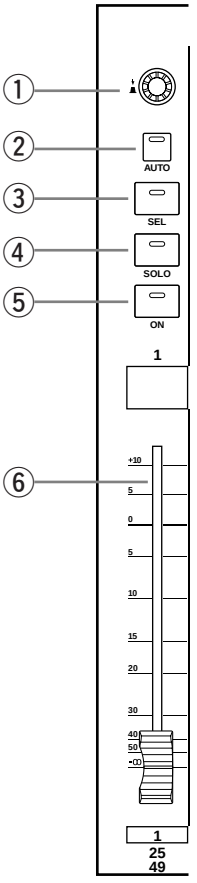

Display Section (p. 20)
SELECTED CHANNEL Section (p. 21)
AD Input Section (p. 18)
Monitor , Phones & Talkback Section (p. 25)
DISPLAY ACCESS (p. 19)
MONITOR Section (p.25)
AUX SELECT (p. 19)
ENCODER MODE (p. 19)
SCENE MEMORY (p. 23)
FADER MODE (p. 19)
EFFECTS/PLUG-INS (p. 20)
MACHINE CONTROL (p. 24)
Data Entry & Transport (p. 24)
Channel strips (p. 18)
USER DEFINED KEYS (p. 24)
LAYER (p. 23)
STEREO (p. 23)

AD Input Section



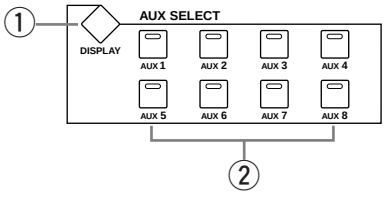
① [+48V ON/OFF] switches (AD 1–16)
② [PAD] switches (AD 1–16)
③ [GAIN] controls
④ [PEAK] indicators
⑤ [SIGNAL] indicators
⑥ [INSERT ON/OFF] switches (AD 1–16)

Channel strips



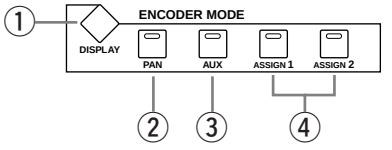
① Encoders
② [AUTO] buttons
③ [SEL] buttons
④ [SOLO] buttons
⑤ [ON] buttons
⑥ Channel faders

AUX SELECT



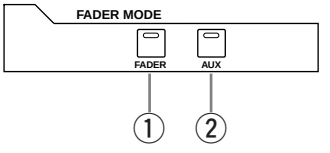
① **AUX SELECT [DISPLAY] button**
② **[AUX 1]–[AUX 8] buttons**

ENCODER MODE



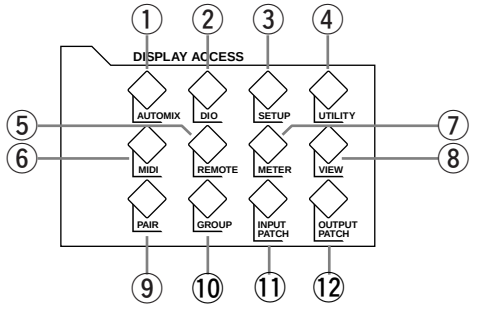
① **ENCODER MODE [DISPLAY] button**
② **[PAN] button**
③ **[AUX] button**
④ **[ASSIGN 1] & [ASSIGN 2] buttons**

FADER MODE



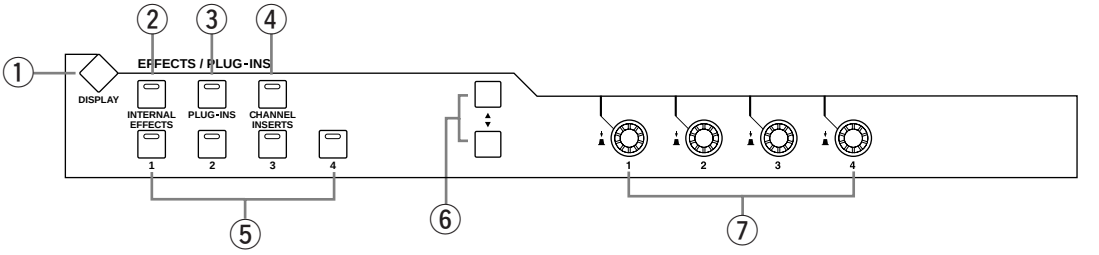
① **[FADER] button**
② **[AUX] button**

DISPLAY ACCESS



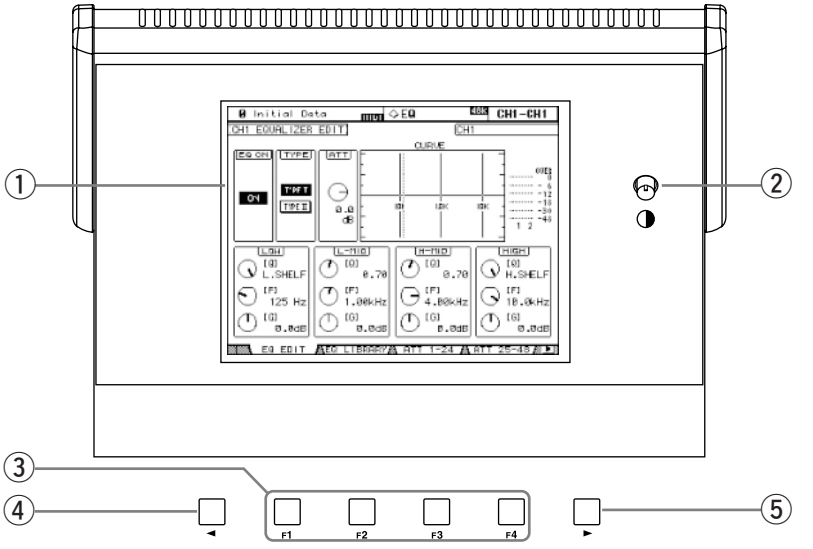
① **[AUTOMIX] button**
② **[DIO] button**
③ **[SETUP] button**
④ **[UTILITY] button**
⑤ **[REMOTE] button**
⑥ **[MIDI] button**
⑦ **[METER] button**
⑧ **[VIEW] button**
⑨ **[PAIR] button**
⑩ **[GROUP] button**
⑪ **[INPUT PATCH] button**
⑫ **[OUTPUT PATCH] button**

EFFECTS/PLUG-INS



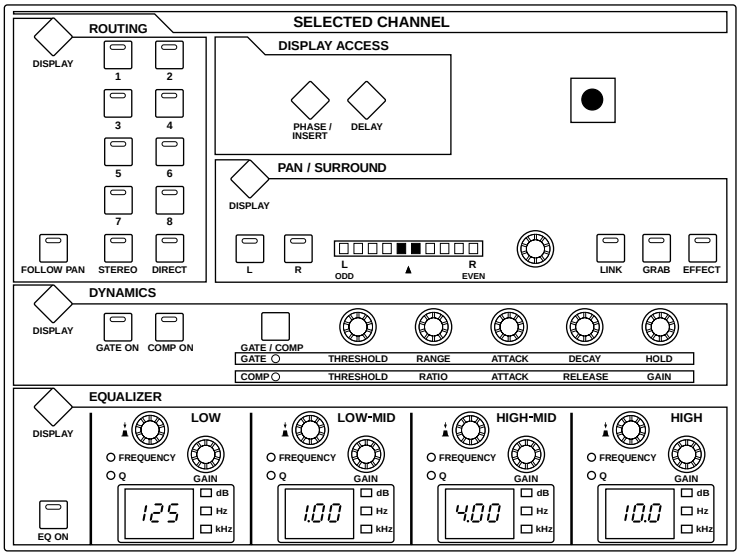
① **EFFECTS/PLUG-INS [DISPLAY] button**
② **[INTERNAL EFFECTS] button**
③ **[PLUG-INS] button**
④ **[CHANNEL INSERTS] button**
⑤ **EFFECTS/PLUG-INS [1]–[4] buttons**
⑥ **Parameter Up/Down buttons**
⑦ **Parameter controls [1]–[4]**

Display Section

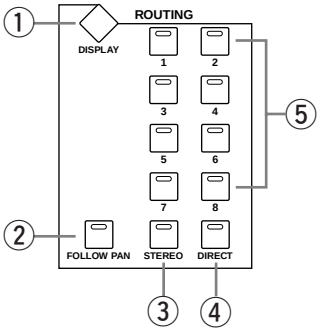


① **Display**
② **Contrast control**
③ **[F1]–[F4] buttons**
④ **Left Tab Scroll button**
⑤ **Right Tab Scroll button**

SELECTED CHANNEL Section

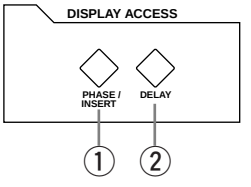


ROUTING



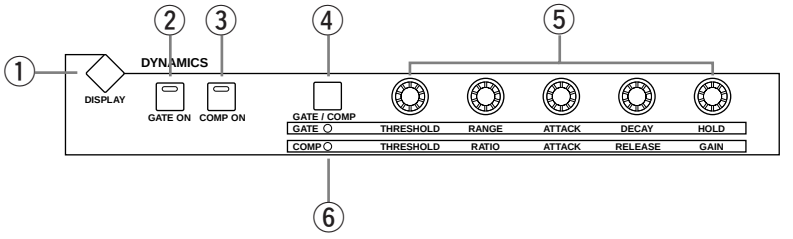
① **ROUTING [DISPLAY] button**
② **[FOLLOW PAN] button**
③ **[STEREO] button**
④ **[DIRECT] button**
⑤ **ROUTING [1]–[8] buttons**

DISPLAY ACCESS



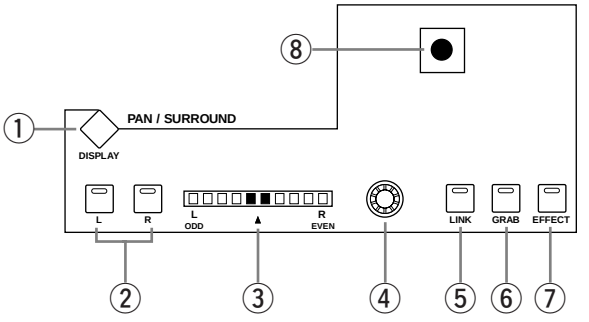
① **PHASE/INSERT button**
② **DELAY button**

DYNAMICS



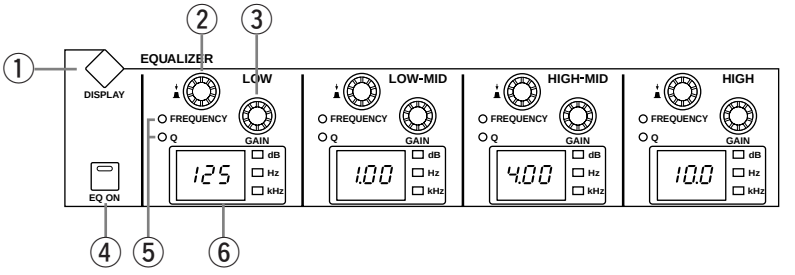
① **DYNAMICS [DISPLAY] button**
② **[GATE ON] button**
③ **[COMP ON] button**
④ **[GATE/COMP] button**
⑤ **[THRESHOLD], [RANGE], [ATTACK], [DECAY], [HOLD] ([THRESHOLD], [RATIO], [ATTACK], [RELEASE], [GAIN]) controls**
⑥ **[GATE/COMP] indicators**

PAN/SURROUND



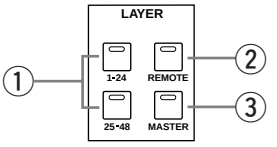
① **PAN/SURROUND [DISPLAY] button**
② **[L] & [R] buttons**
③ **PAN display**
④ **PAN control**
⑤ **[LINK] button**
⑥ **[GRAB] button**
⑦ **[EFFECT] button**
⑧ **Joystick**

EQUALIZER



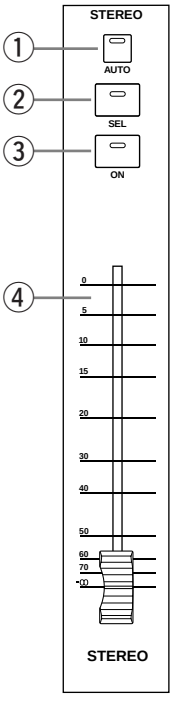
① **EQUALIZER [DISPLAY] button**
② **[FREQUENCY/Q] controls**
③ **EQ [GAIN] controls**
④ **[EQ ON] button**
⑤ **[FREQUENCY/Q] indicators**
⑥ **EQ displays**

LAYER



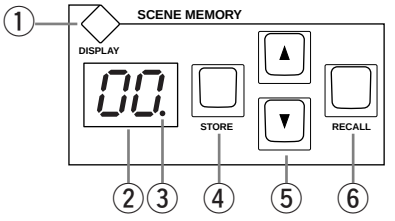
① **[1–24] & [25–48] buttons**
② **[REMOTE] button**
③ **[MASTER] button**

STEREO



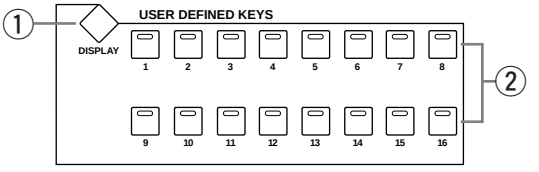
① **[AUTO] button**
② **[SEL] button**
③ **[ON] button**
④ **Fader**

SCENE MEMORY



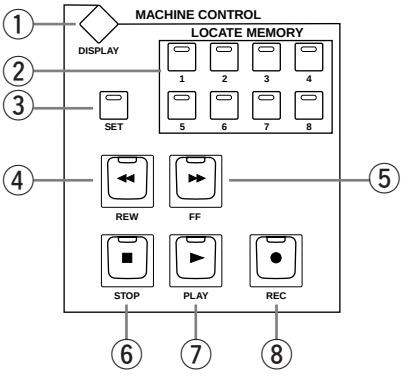
① **SCENE MEMORY [DISPLAY] button**
② **Scene memory display**
③ **Edit indicator**
④ **[STORE] button**
⑤ **Scene Up/Down buttons**
⑥ **[RECALL] button**

USER DEFINED KEYS



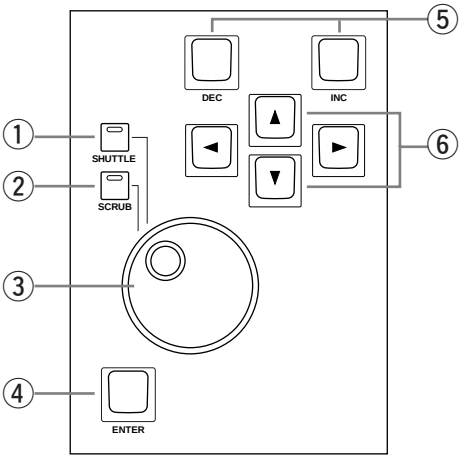
① **USER DEFINED KEYS [DISPLAY] button**
② **USER DEFINED KEYS [1]–[16] buttons**

MACHINE CONTROL



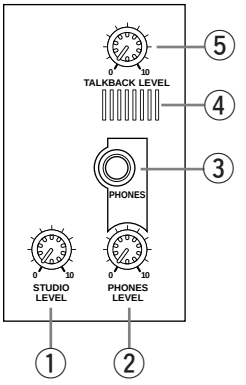
① **MACHINE CONTROL [DISPLAY] button**
② **LOCATE MEMORY [1]–[8] buttons**
③ **[SET] button**
④ **[REW] button**
⑤ **[FF] button**
⑥ **[STOP] button**
⑦ **[PLAY] button**
⑧ **[REC] button**

Data Entry & Transport



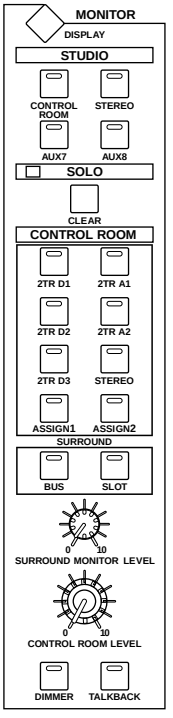
① **[SHUTTLE] button**
② **[SCRUB] button**
③ **Parameter wheel**
④ **[ENTER] button**
⑤ **[DEC] & [INC] buttons**
⑥ **Cursor buttons**

Monitor, Phones & Talkback Section

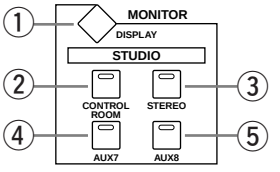


① [STUDIO LEVEL] control
② [PHONES LEVEL] control
③ [PHONES] jack
④ Talkback mic
⑤ [TALKBACK LEVEL] control

MONITOR Section

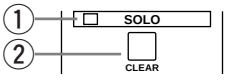


STUDIO



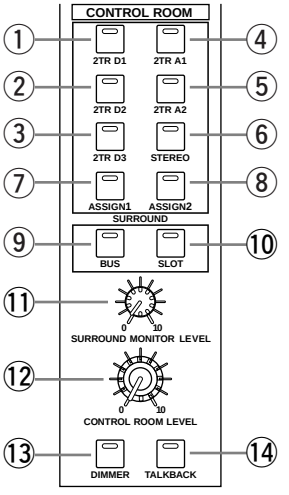
① MONITOR [DISPLAY] button
② [CONTROL ROOM] button
③ [STEREO] button
④ [AUX 7] button
⑤ [AUX 8] button

SOLO



① [SOLO] indicator
② [CLEAR] button

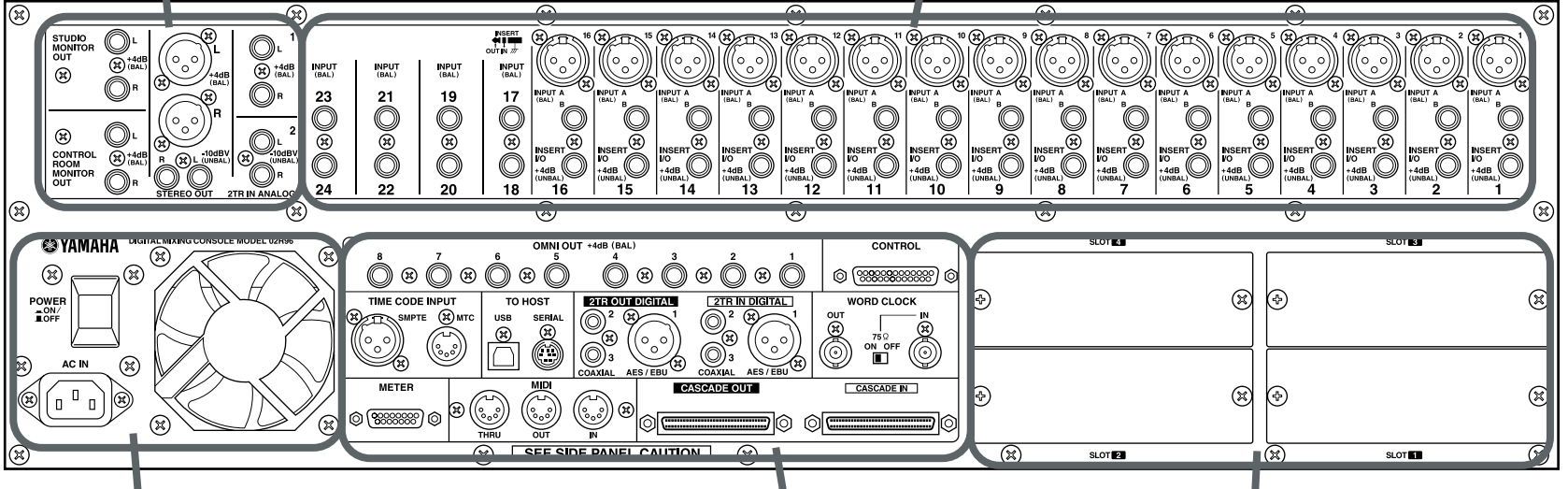
CONTROL ROOM



① STEREO [2TR D1] button
② STEREO [2TR D2] button
③ STEREO [2TR D3] button
④ STEREO [2TR A1] button
⑤ STEREO [2TR A2] button
⑥ [STEREO] button
⑦ STEREO [ASSIGN 1] button
⑧ STEREO [ASSIGN 2] button
⑨ SURROUND [BUS] button
⑩ SURROUND [SLOT] button
⑪ [SURROUND MONITOR LEVEL] control
⑫ [CONTROL ROOM LEVEL] control
⑬ [DIMMER] button
⑭ [TALKBACK] button

Analog Master I/O Section (p. 27)

AD Input Section (p. 27)

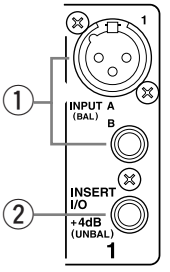


Power Section (p. 28)

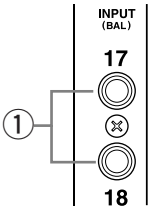
OMNI OUTs, Digital I/O & Control Section (p. 28)

SLOT Section (p. 28)

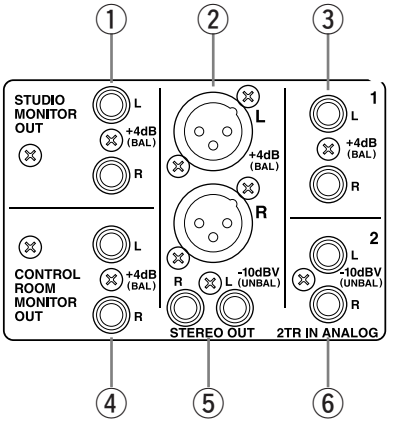
AD Input Section



① **[INPUT A & B (BAL)] connectors**
② **[INSERT I/O +4dB (UNBAL)] connectors (AD 1–16)**

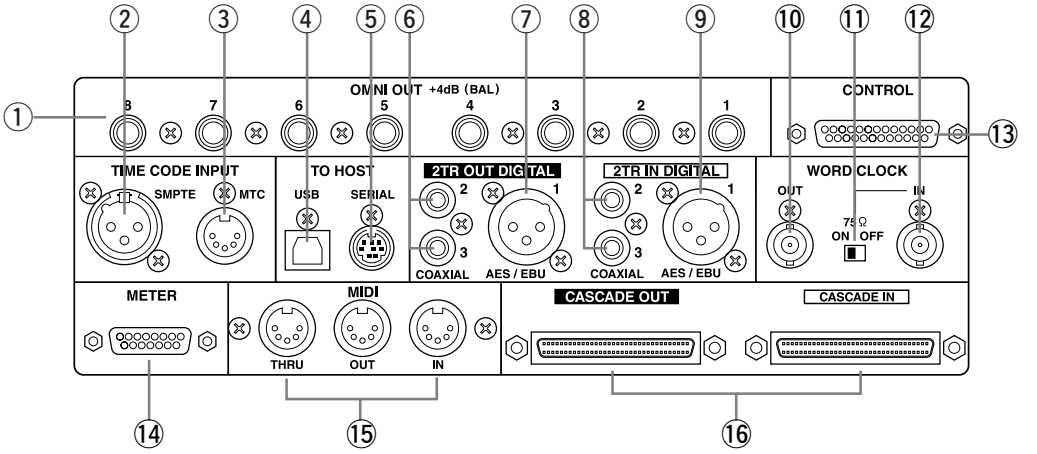


Analog Master I/O Section



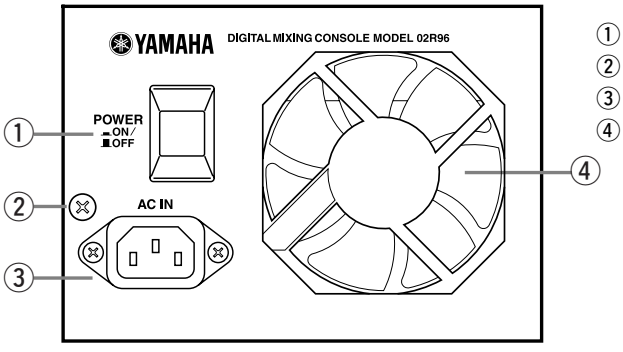
① **[STUDIO MONITOR OUT +4 dB (BAL)] connectors**
② **[STEREO OUT +4 dB (BAL)] connectors**
③ **[2TR IN ANALOG 1 +4 dB (BAL)] connectors**
④ **[CONTROL ROOM MONITOR OUT +4 dB (BAL)] connectors**
⑤ **[STEREO OUT –10 dBV (UNBAL)] connectors**
⑥ **[2TR IN ANALOG 2 –10 dBV (UNBAL)] connectors**

OMNI OUTs, Digital I/O & Control Section



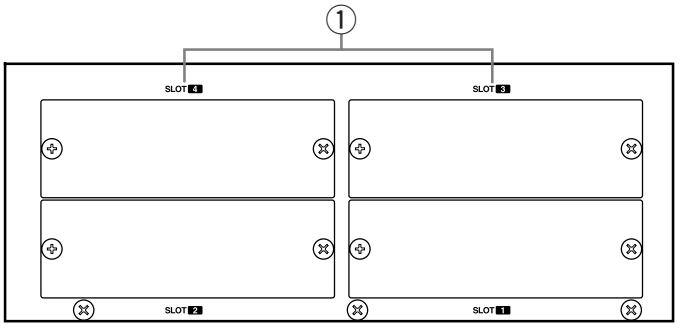
① **[OMNI OUT +4dB (BAL)] connectors**
② **[SMPTE TIME CODE INPUT] connector**
③ **[MTC TIME CODE INPUT] connector**
④ **[USB TO HOST] port**
⑤ **[SERIAL TO HOST] port**
⑥ **[2TR OUT DIGITAL COAXIAL 2 & 3] connectors**
⑦ **[2TR OUT DIGITAL AES/EBU 1] connector**
⑧ **[2TR IN DIGITAL COAXIAL 2 & 3] connectors**
⑨ **[2TR IN DIGITAL AES/EBU 1] connector**
⑩ **[WORD CLOCK OUT] connector**
⑪ **[WORD CLOCK 75Ω ON/OFF] termination switch**
⑫ **[WORD CLOCK IN] connector**
⑬ **[CONTROL] port**
⑭ **[METER] port**
⑮ **[MIDI IN, OUT & THRU] ports**
⑯ **[CASCADE IN & OUT] ports**

Power Section



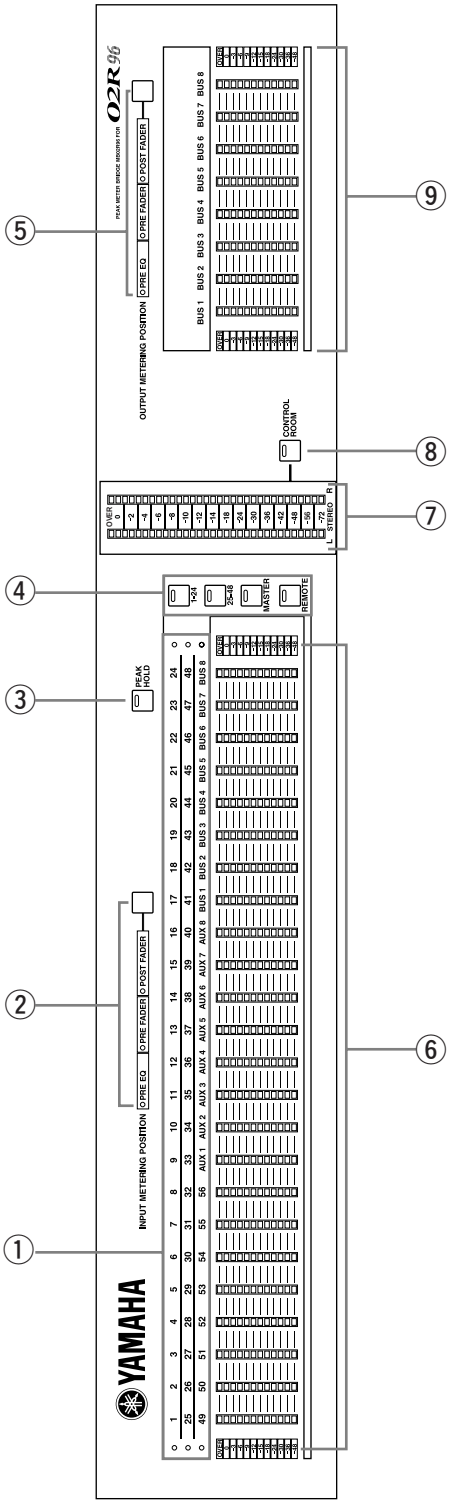
① **[POWER ON/OFF] switch**
② **Grounding screw**
③ **[AC IN] connector**
④ **Cooling fan**

SLOT Section



① **[SLOT 1]–[SLOT 4]**

- **MB02R96**
- **Controls**



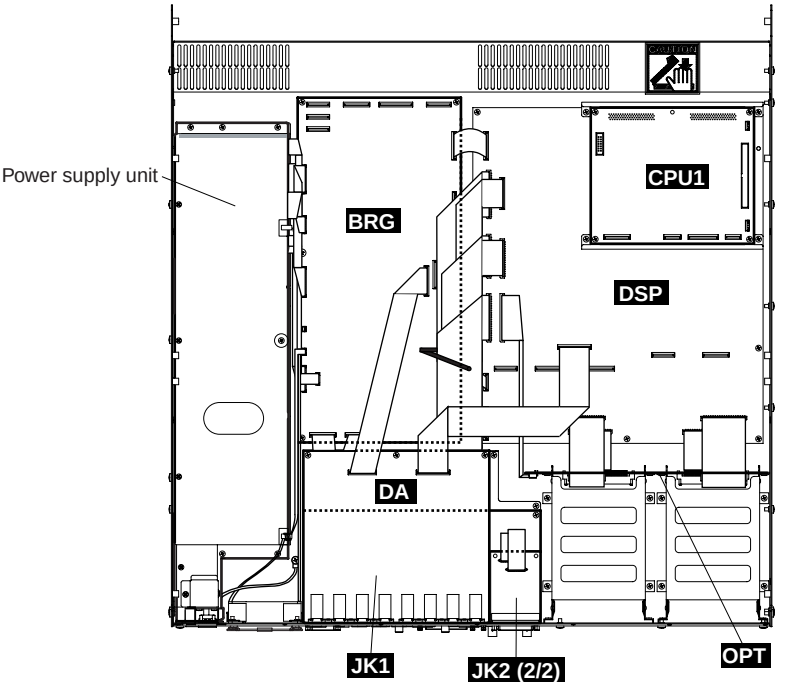
① **Channel indicators**
② **[INPUT METERING POSITION] button & indicators**
③ **[PEAK HOLD] button**
④ **[LAYER] buttons**
⑤ **[OUTPUT METERING POSITION] button & indicators**
⑥ **Meters**
⑦ **[STEREO] meters**
⑧ **[CONTROL ROOM] button**
⑨ **[BUS] meters**

■ CIRCUIT BOARD LAYOUT

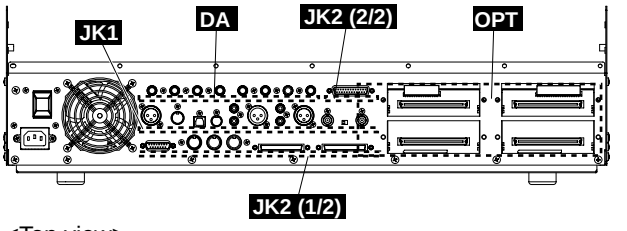
• 02R96

• Bottom Assembly

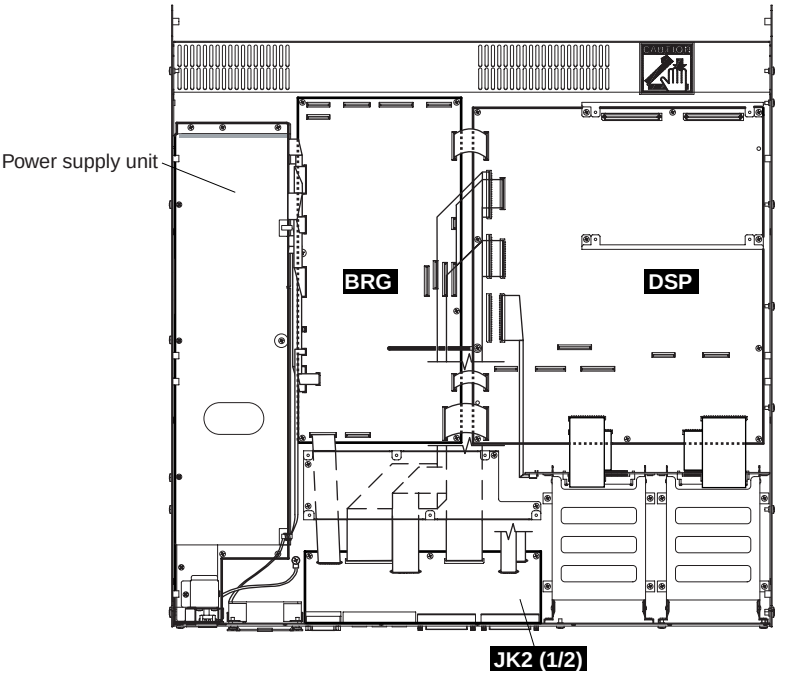
<Top view>



<Rear view>

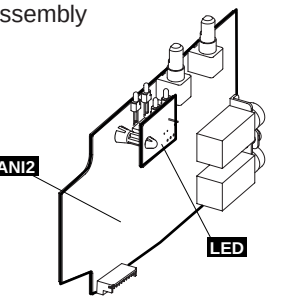


<Top view>

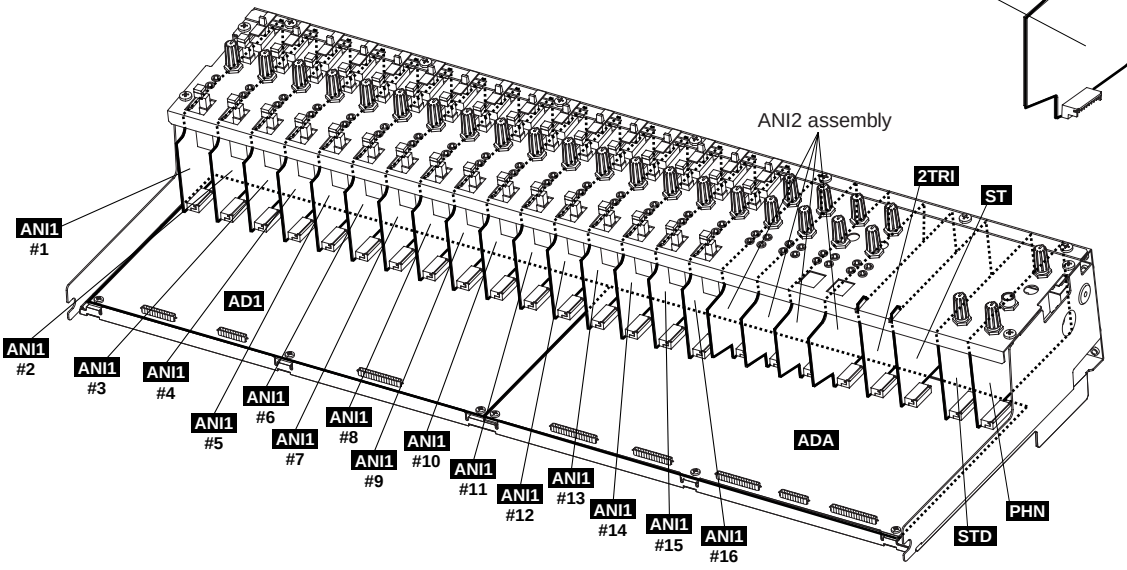


• Rear Assembly U

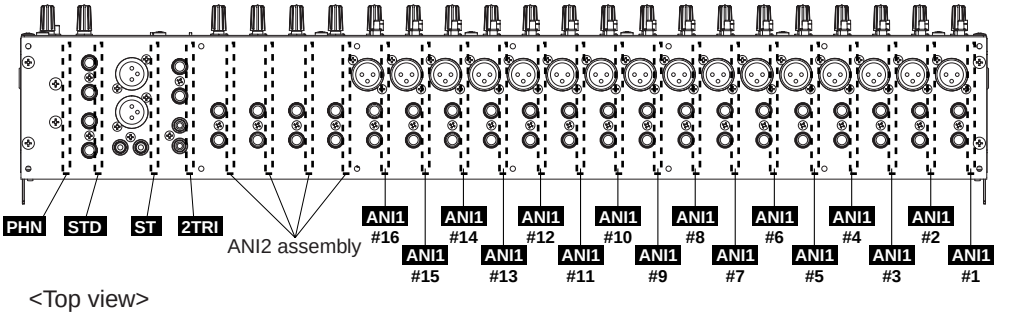
ANI2 assembly



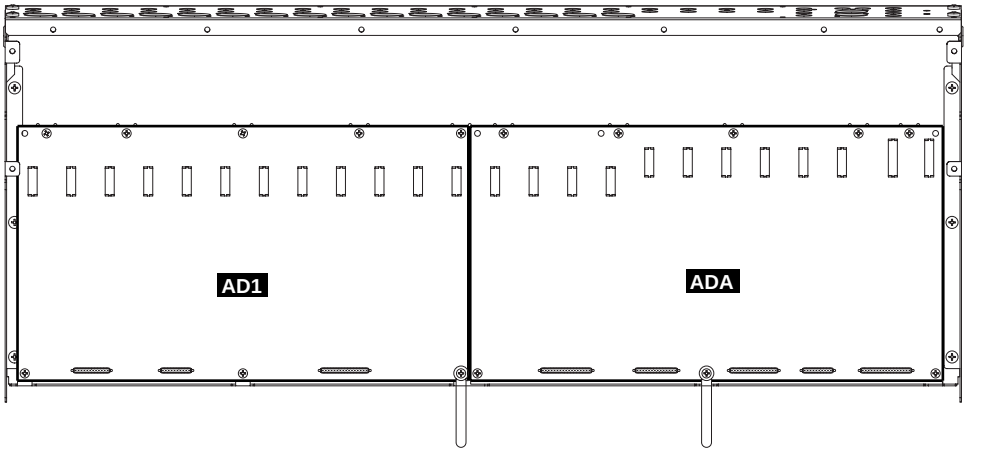
<Top view>



<Rear view>

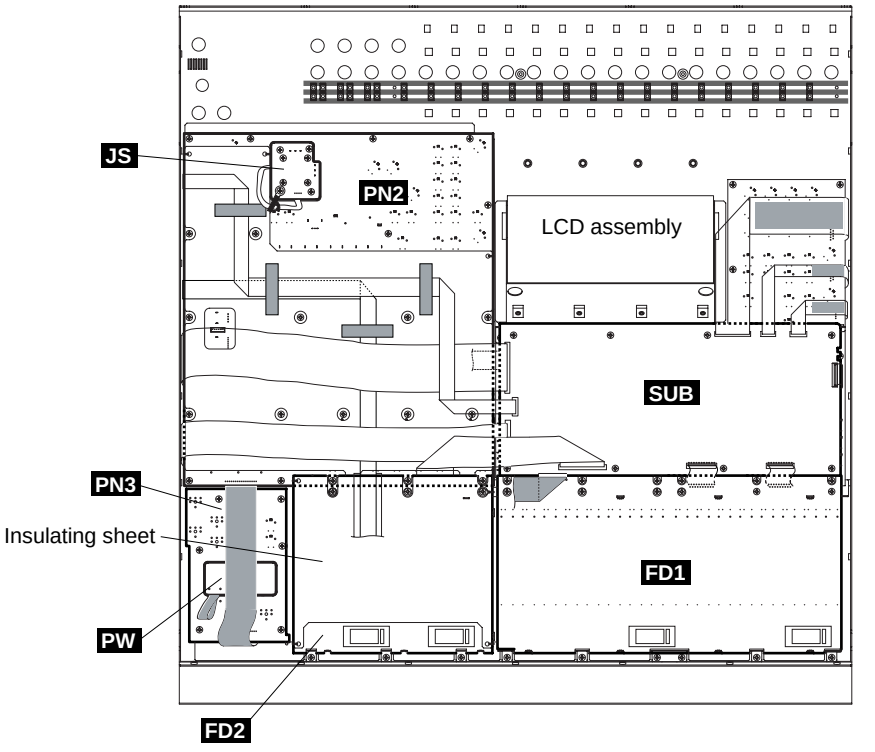


<Top view>

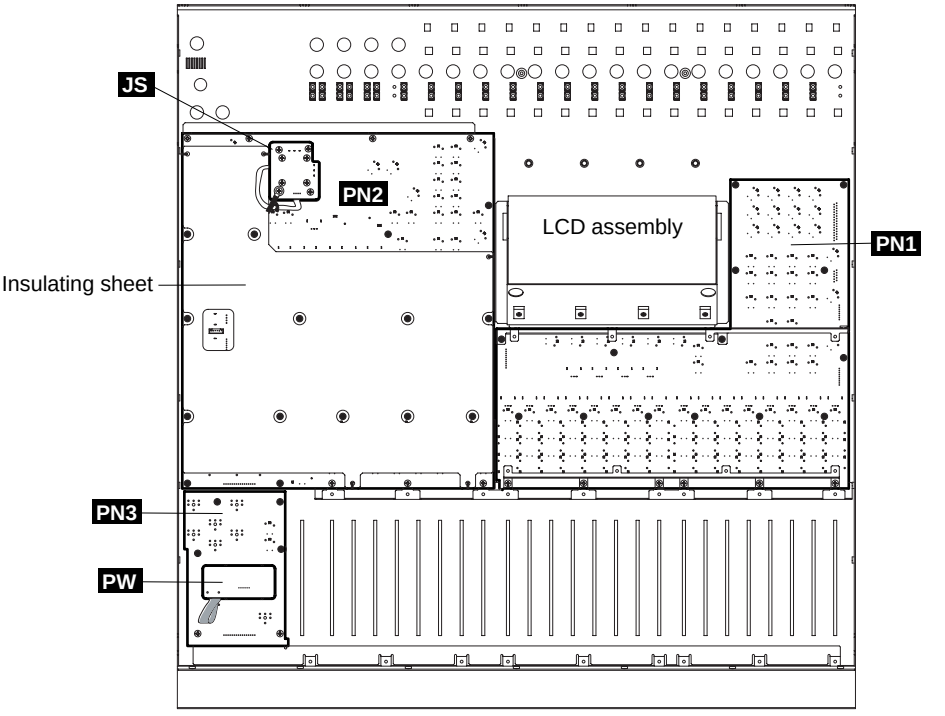


• Control Panel Assembly

<Bottom view>

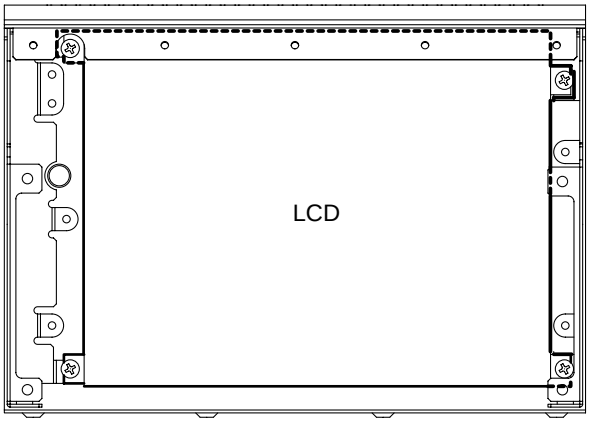


<Bottom view>

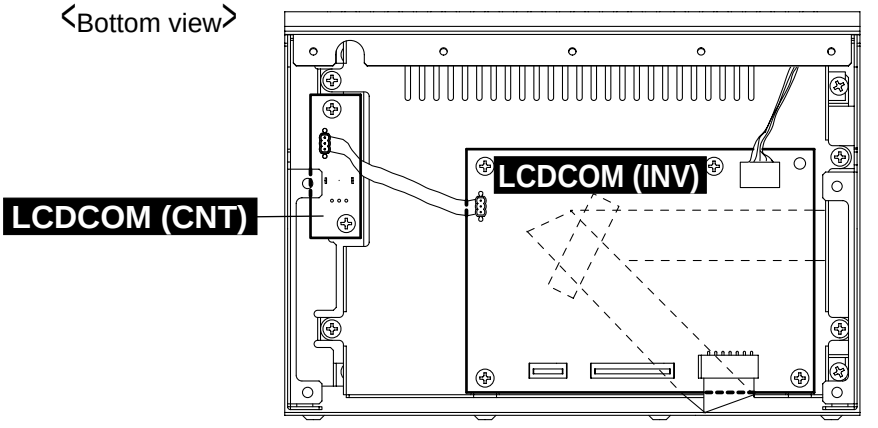


• LCD Assembly

<Bottom view>

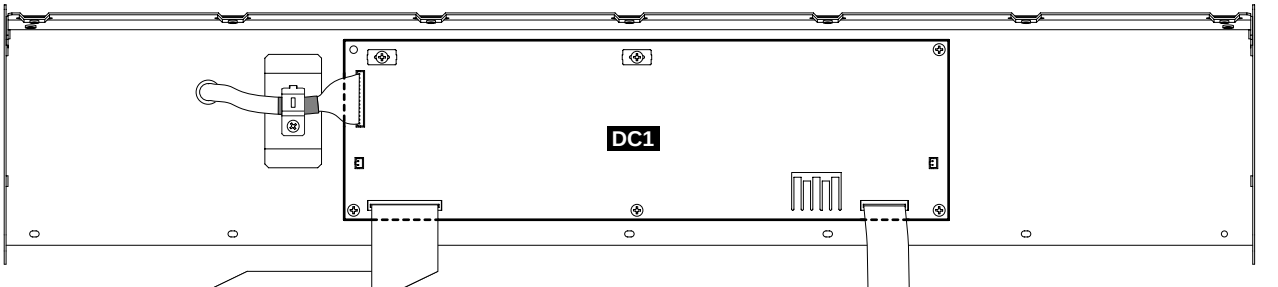


<Bottom view>

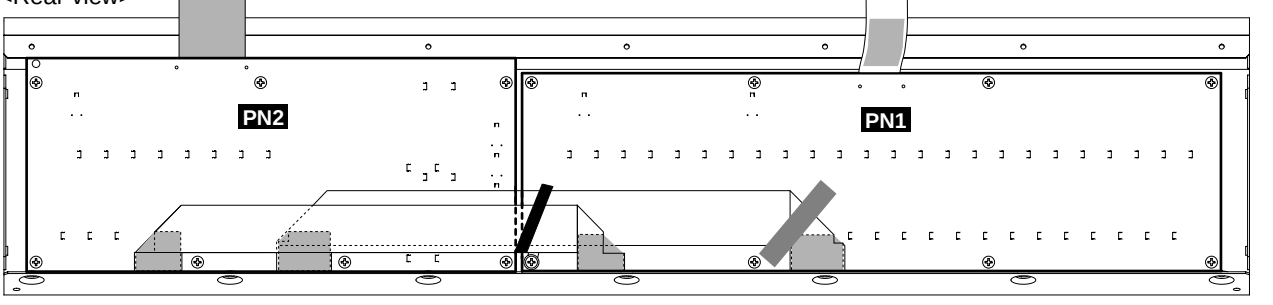


• MB02R96

<Front view>



<Rear view>



DISASSEMBLY PROCEDURE

Note: Take care not to trap your fingers.

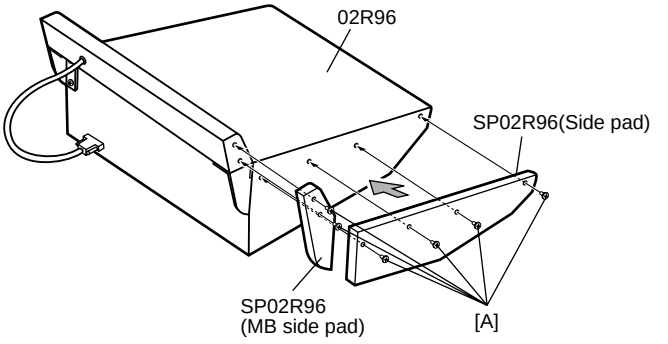
✻ After replacing the circuit board or fader of FD1 or FD2, please initialize them. (See page 134.)

Disassembling the 02R96

1. Removing the SP02R96

(Time required: About 5 minutes)

1-1. If the SP02R96 is attached to the 02R96, remove the twelve (12) screws marked [A], and then both sides must be removed. (Fig.1)



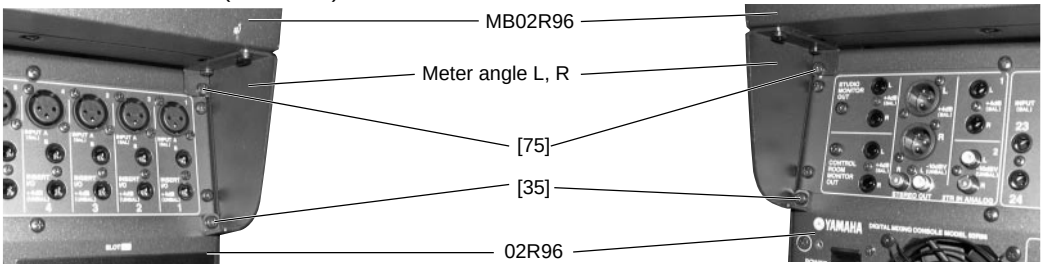
[A]: Bind Head Screw PW 4.0X20 MFZN2BL (VA314000)

Fig.1

2. Removing the MB02R96

(Time required: About 5 minutes)

2-1. Remove the two (2) screws marked [35] and the two (2) screws marked [75]. The MB02R96 can then be removed from the 02R96. (Photo.1,2)



[35]:Bind Head Screw A4.0X12 MFZN2BL (VP156900)
[75]:Bind Head Screw A4.0X12 MFZN2BL (VP156900)

Photo.1 Photo.2

3. Control Panel Assembly

(Time required: About 10 minutes)

3-1. Remove the SP02R96. (See procedure 1.)
3-2. Remove the MB02R96. (See procedure 2.)
3-3. Remove the fourteen (14) screws marked [70A], the seven (7) screws marked [70B] and the five (5) screws marked [70C]. (Fig.2)
3-4. Hold the LCD assembly part, and lift the control panel assembly. And then, fasten them by the two (2) front stays. (Photo.3)

✻ When assembling the control panel assembly with the side panel, put the screws of the round screw hole of the side panel in place first, then the screws of the elliptic screw hole.

4. Rear Assembly U

(Time required: About 15 minutes)

4-1. Remove the SP02R96. (See procedure 1.)
4-2. Remove the MB02R96. (See procedure 2.)
4-3. Fasten the control panel assembly. (See procedure 3.)
4-4. Remove the two (2) screws marked [30A] and the five (5) screws marked [30B]. (Fig.2)
4-5. Lift the rear assembly U from the rear side and fasten them by the two (2) rear stays. (There are two ways of using the rear stays shown in the photo 4 or 5.)

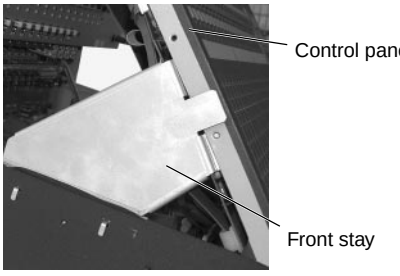


Photo.3

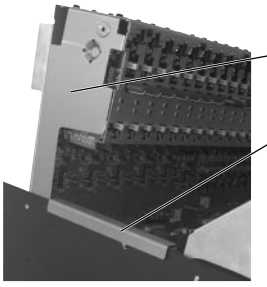


Photo.4

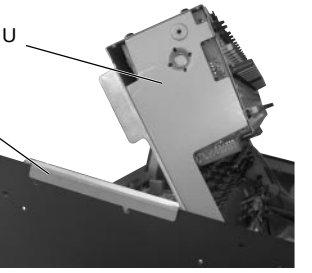
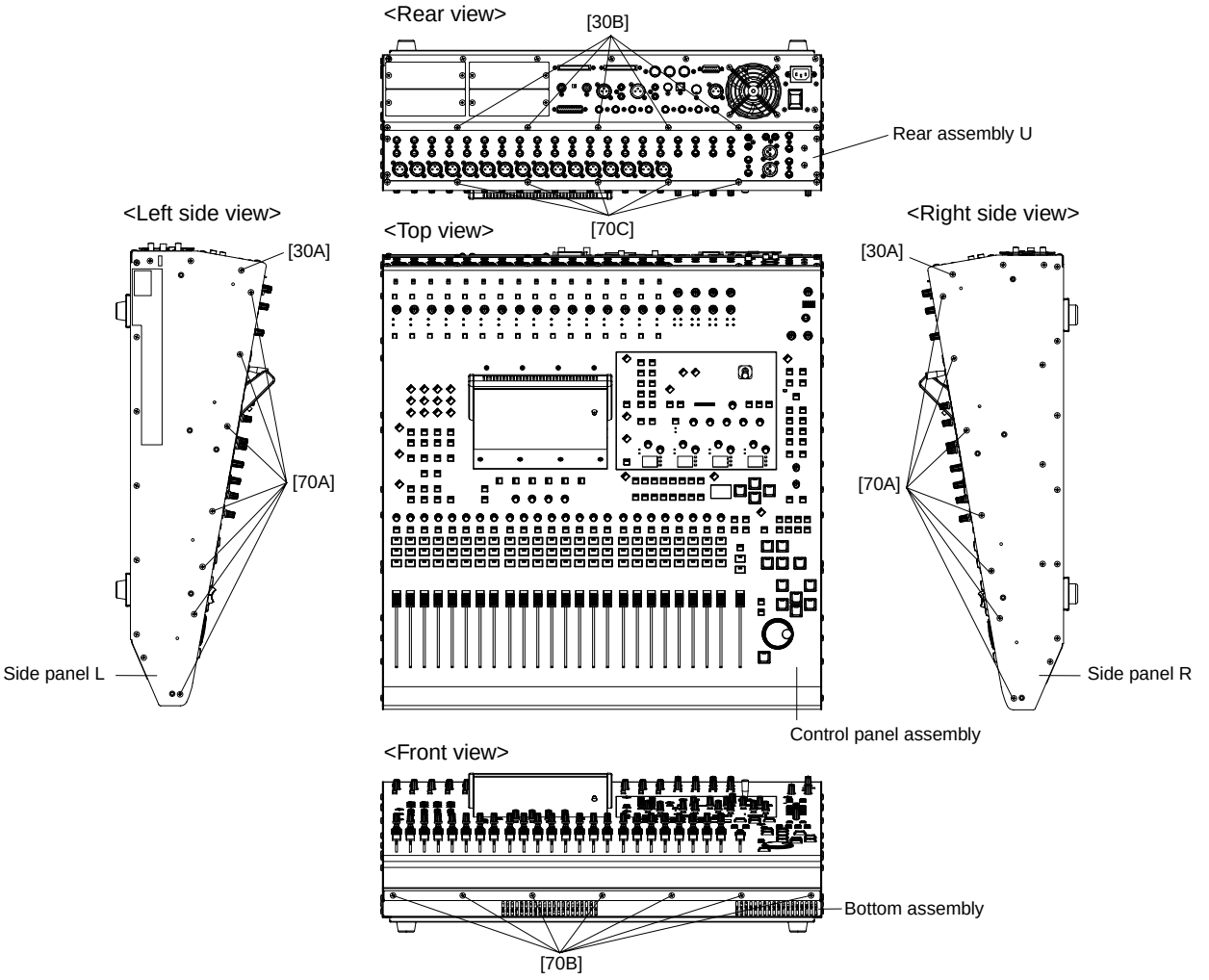


Photo.5



[30]: Bind Head Tapping Screw-B A4.0X8 MFZN2BL (VC688800)
[70]: Bind Head Tapping Screw-B A4.0X8 MFZN2BL (VC688800)

Fig.2

Bottom Assembly Section

5. CPU1 Circuit Board

(Time required: About 15 minutes)

5-1. Remove the SP02R96. (See procedure 1.)
5-2. Remove the MB02R96. (See procedure 2.)
5-3. Fasten the control panel assembly. (See procedure 3.)
5-4. Remove the four (4) screws marked [590]. The CPU1 circuit board can then be removed. (Fig.4)

6. Replacing the Lithium Battery

(Time required: About 15 minutes)

6-1. Remove the SP02R96. (See procedure 1.)
6-2. Remove the MB02R96. (See procedure 2.)
6-3. Fasten the control panel assembly. (See procedure 3.)
6-4. You can replace the lithium battery from the CPU1 circuit board. (Fig.4)

✻ The lithium battery is not part of the CPU1 circuit board. When you replace the CPU1 circuit board, you should remove the lithium battery from the board, and install in the holder on the new circuit board.

7. DSP Circuit Board

(Time required: About 25 minutes)

7-1. Remove the SP02R96. (See procedure 1.)
7-2. Remove the MB02R96. (See procedure 2.)
7-3. Fasten the control panel assembly. (See procedure 3.)
7-4. Fasten the rear assembly U. (See procedure 4.)
7-5. Remove the CPU1 circuit board. (See procedure 5.)
7-6. Remove the eight (8) screws marked [560], the four (4) screws marked [575] and the two (2) CPU holders. The DSP circuit board can then be removed. (Fig.5)

8. BRG Circuit Board

(Time required: About 20 minutes)

8-1. Remove the SP02R96. (See procedure 1.)
8-2. Remove the MB02R96. (See procedure 2.)
8-3. Fasten the control panel assembly. (See procedure 3.)
8-4. Fasten the rear assembly U. (See procedure 4.)
8-5. Remove the six (6) screws marked [410A]. The BRG circuit board can then be removed. (Fig.5)

9. Power Supply Unit

(Time required: About 20 minutes)

9-1. Remove the SP02R96. (See procedure 1.)
9-2. Remove the MB02R96. (See procedure 2.)
9-3. Fasten the control panel assembly. (See procedure 3.)
9-4. Fasten the rear assembly U. (See procedure 4.)
9-5. Remove the six (6) screws marked [330], the three (3) screws marked [340], the screw marked [350] and the four (4) screws marked [360]. The power supply unit can then be removed. (Fig.5)

✻ The power switch knob is not part of the power supply unit. When you replace the power supply unit, you should remove the power switch knob from the power supply unit, and install in the new power supply unit.

10. OPT Circuit Board

(Time required: About 20 minutes)

10-1. Remove the SP02R96. (See procedure 1.)
10-2. Remove the MB02R96. (See procedure 2.)
10-3. Fasten the control panel assembly. (See procedure 3.)
10-4. Fasten the rear assembly U. (See procedure 4.)
10-5. Remove the four (4) screws marked [390]. The OPT circuit board can then be removed. (Fig.5)

11. DA Circuit Board

(Time required: About 20 minutes)

11-1. Remove the SP02R96. (See procedure 1.)
11-2. Remove the MB02R96. (See procedure 2.)
11-3. Fasten the control panel assembly. (See procedure 3.)
11-4. Fasten the rear assembly U. (See procedure 4.)
11-5. Remove the three (3) screws marked [520] and the six (6) screws marked [530]. The DA circuit board can then be removed. (Fig.3)

12. JK1 Circuit Board

(Time required: About 25 minutes)

12-1. Remove the SP02R96. (See procedure 1.)
12-2. Remove the MB02R96. (See procedure 2.)
12-3. Fasten the control panel assembly. (See procedure 3.)
12-4. Fasten the rear assembly U. (See procedure 4.)
12-5. Remove the DA circuit board. (See procedure 11.)
12-6. Remove the three (3) screws marked [460A], the nine (9) screws marked [480A] and the four (4) screws marked [490]. The JK1 circuit board can then be removed. (Fig.4)

13. JK2 (1/2) Circuit Board

(Time required: About 30 minutes)

13-1. Remove the SP02R96. (See procedure 1.)
13-2. Remove the MB02R96. (See procedure 2.)
13-3. Fasten the control panel assembly. (See procedure 3.)
13-4. Fasten the rear assembly U. (See procedure 4.)
13-5. Remove the DA circuit board. (See procedure 11.)
13-6. Remove the JK1 circuit board. (See procedure 12.)
13-7. Remove the three (3) screws marked [460B], the two (2) screws marked [480B], the two (2) screws marked [B] and the four (4) screws marked [C]. The JK2 (1/2) circuit board can then be removed. (Fig. 5)

14. JK2 (2/2) Circuit Board

(Time required: About 20 minutes)

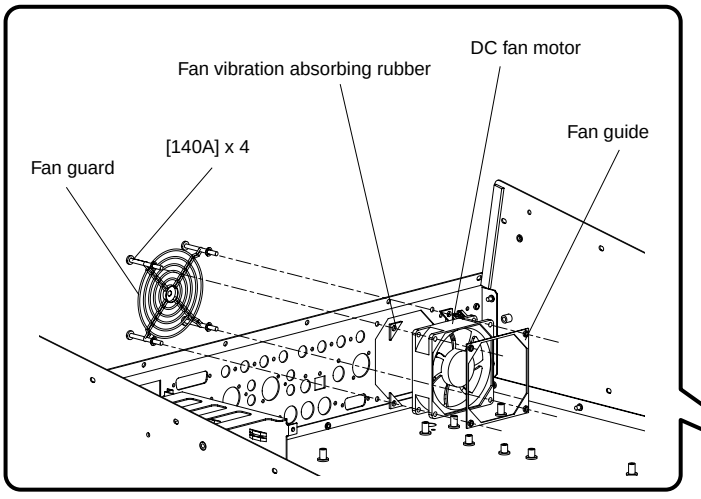
14-1. Remove the SP02R96. (See procedure 1.)
14-2. Remove the MB02R96. (See procedure 2.)
14-3. Fasten the control panel assembly. (See procedure 3.)
14-4. Fasten the rear assembly U. (See procedure 4.)
14-5. Remove the two (2) screws marked [500]. The JK2 (2/2) circuit board can then be removed. (Fig. 5)

15. DC Fan Motor

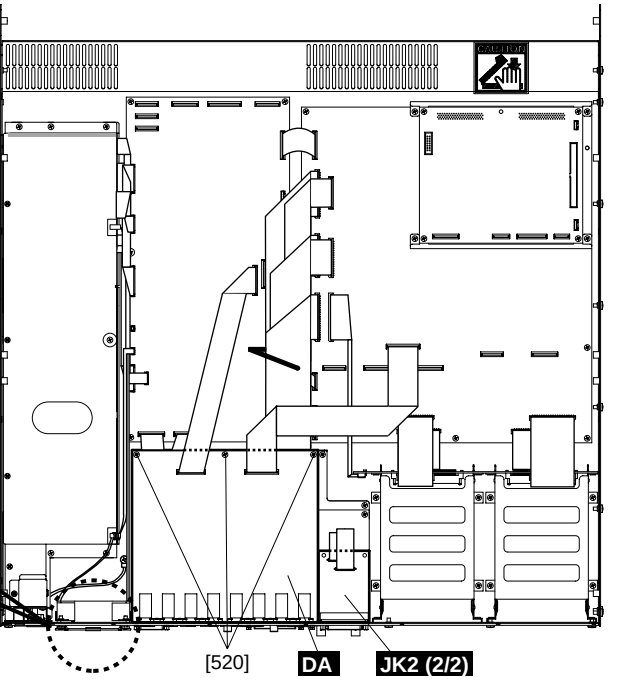
(Time required: About 20 minutes)

15-1. Remove the SP02R96. (See procedure 1.)
15-2. Remove the MB02R96. (See procedure 2.)
15-3. Fasten the control panel assembly. (See procedure 3.)
15-4. Fasten the rear assembly U. (See procedure 4.)
15-5. Remove the four (4) screws marked [140A]. The DC fan motor, the four (4) fan vibration absorbing rubbers, the fan guide, the fan guard and the four (4) toothed lock washers can then be removed. (Fig.3)

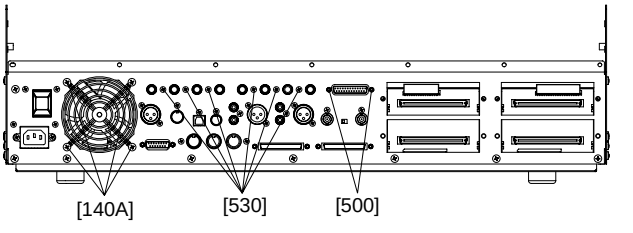
✻ When you install the DC fan motor, be sure to attach the screw lock.



<Top view>



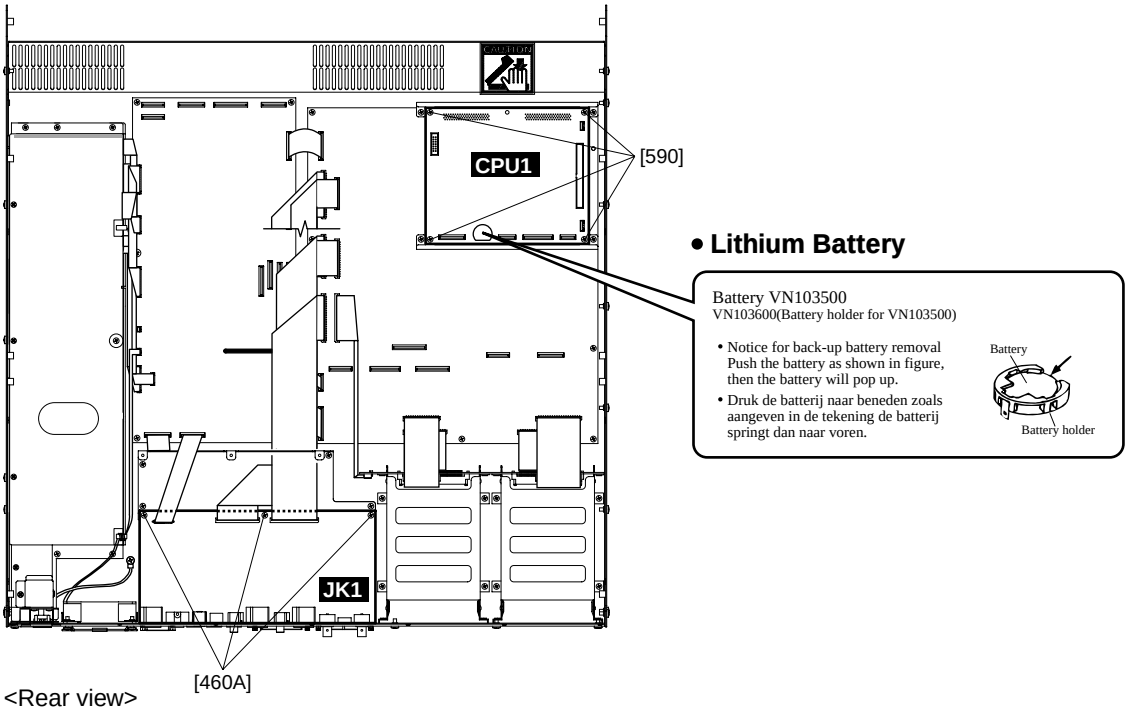
<Rear view>



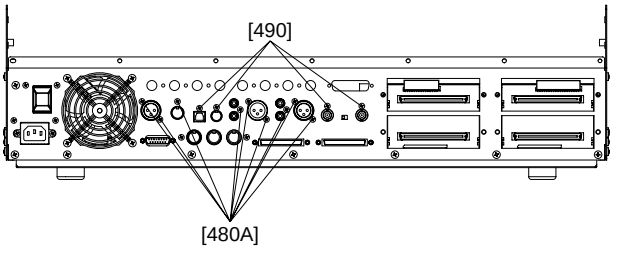
[140A]:	Bind Head Screw	4.0X40 MFZN2BL (VV413200)
[500]:	Hex. Locking Screw	JFS-2.6S-BIW (VS604900)
[520]:	Bind Head Tapping Screw-B	3.0X8 MFZN2BL (EP600190)
[530]:	Bonding Tapping Screw-B	3.0X8 MFZN2BL (VN413300)

Fig.3

<Top view>

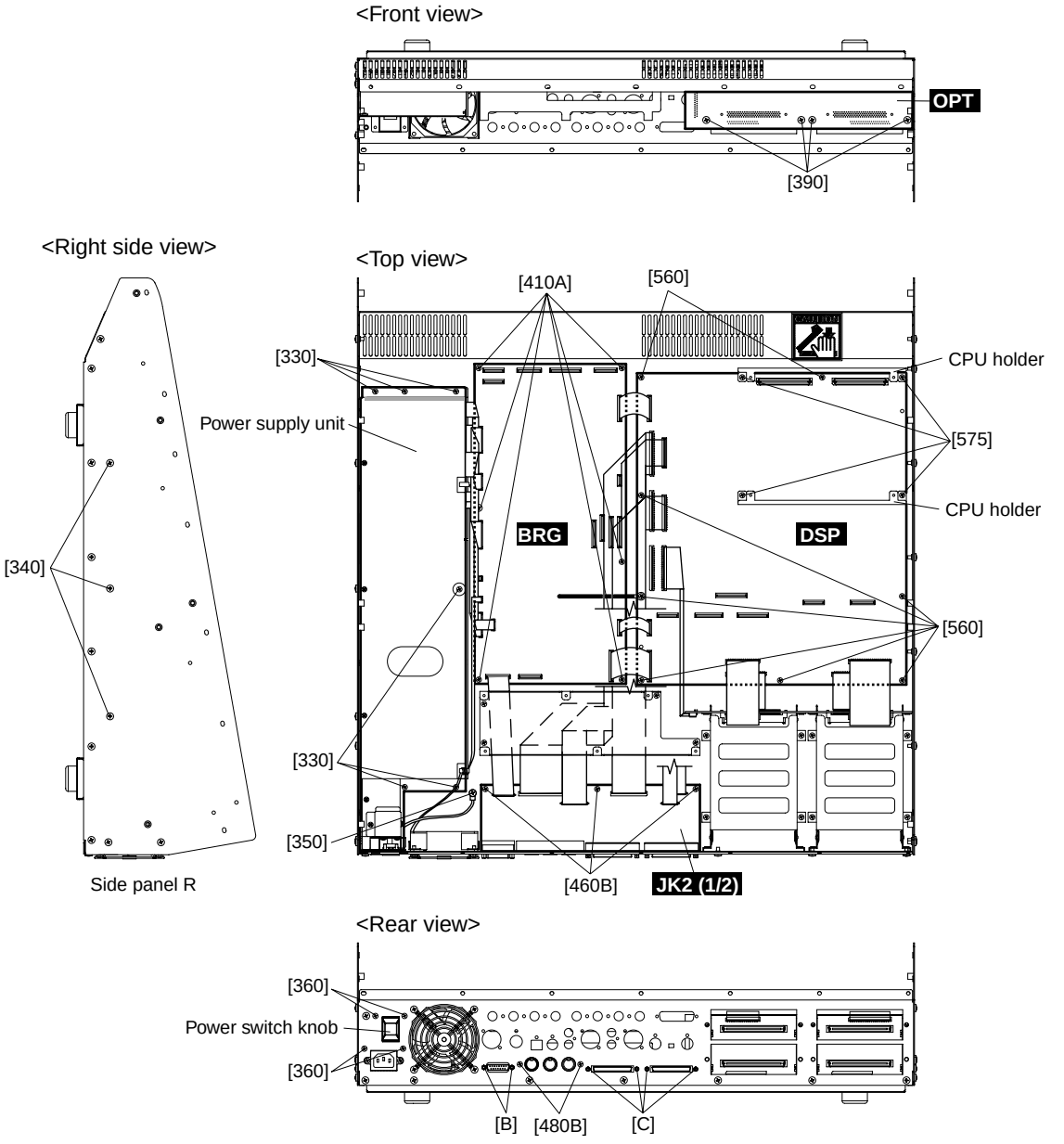


<Rear view>



[460A]:Bind Head Tapping Screw-B 3.0X8 MFZN2BL (EP600190)
[480A]:Bonding Tapping Screw-B 3.0X8 MFZN2BL (VN413300)
[490]: Bonding Screw 3.0X8 MFZN2BL (VP157800)
[590]: Bind Head Screw 3.0X8 MFZN2BL (VB659000)

Fig.4



[330]:	Bind Head Tapping Screw-B	3.0X8 MFZN2BL (EP600190)
[340]:	Bind Head Tapping Screw-B	A4.0X8 MFZN2BL (VC688800)
[350]:	Bind Head Tapping Screw-S	4.0X8 MFZN2BL (VI693100)
[360]:	Bonding Screw	3.0X8 MFZN2BL (VP157800)
[390]:	Bind Head Screw	SP 4.0X8 MFZN2Y (VZ538000)
[410A]:	Bind Head Tapping Screw-B	3.0X8 MFZN2BL (EP600190)
[460B]:	Bind Head Tapping Screw-B	3.0X8 MFZN2BL (EP600190)
[480B]:	Bonding Tapping Screw-B	3.0X8 MFZN2BL (VN413300)
[560]:	Bind Head Tapping Screw-B	3.0X8 MFZN2BL (EP600190)
[575]:	Bind Head Tapping Screw-B	3.0X8 MFZN2BL (EP600190)

Fig.5

Rear Assembly U Section

16. PC Support

(Time required: About 15 minutes)

16-1. Remove the SP02R96. (See procedure 1.)
16-2. Remove the MB02R96. (See procedure 2.)
16-3. Fasten the control panel assembly. (See procedure 3.)
16-4. Remove the eleven (11) screws marked [260A], the twenty-four (24) nuts marked [270], the four (4) nuts marked [280] and the twenty-seven (27) knobs marked [300]. The PC support can then be removed from the rear assembly U. (Fig.6)

17. ANI1 Circuit Board

(Time required: About 20 minutes)

17-1. Remove the SP02R96. (See procedure 1.)
17-2. Remove the MB02R96. (See procedure 2.)
17-3. Fasten the control panel assembly. (See procedure 3.)
17-4. Remove the PC support. (See procedure 16.)
17-5. Remove the three (3) screws marked [200A] and disconnect the connector from the AD1 circuit board or the ADA circuit board. The ANI circuit board can then be removed. (Fig.6)

✻ There is a total of sixteen (16) ANI1 circuit boards, and they can all be removed in this way.

18. ANI2 and LED Circuit Boards

(Time required: About 20 minutes)

18-1. Remove the SP02R96. (See procedure 1.)
18-2. Remove the MB02R96. (See procedure 2.)
18-3. Fasten the control panel assembly. (See procedure 3.)
18-4. Remove the PC support. (See procedure 16.)
18-5. Remove the screw marked [200A] and disconnect the connector from the ADA circuit board. The ANI2 assembly can then be removed. (Fig.6)

✻ There is a total of four (4) ANI2 assembly, and they can all be removed in this way.

18-6. Remove the LED circuit board from the connector and the locking card spacer on the ANI2 circuit board. The ANI2 circuit board and the LED circuit board can then be divided. (Fig.6)

19. 2TRI, ST, STD, PHN Circuit Boards

(Time required: About 20 minutes each)

19-1. Remove the SP02R96. (See procedure 1.)
19-2. Remove the MB02R96. (See procedure 2.)
19-3. Fasten the control panel assembly. (See procedure 3.)
19-4. Remove the PC support. (See procedure 16.)
19-5. **2TRI Circuit Board:**
Remove the two (2) screws marked [200C] and disconnect the connector from the ADA circuit board. The 2TRI circuit board can then be removed. (Fig.6)
19-6. **ST Circuit Board:**
Remove the five (5) screws marked [200D] and disconnect the connector from the ADA circuit board. The ST circuit board can then be removed. (Fig.6)
19-7. **STD Circuit Board:**
Remove the two (2) screws marked [200E] and disconnect the connector from the ADA circuit board. The STD circuit board can then be removed. (Fig.6)
19-8. **PHN Circuit Board:**
Remove the two (2) screws marked [210A] and disconnect the connector from the ADA circuit board. The PHN circuit board can then be removed. (Fig.6)

20. AD1 Circuit Board

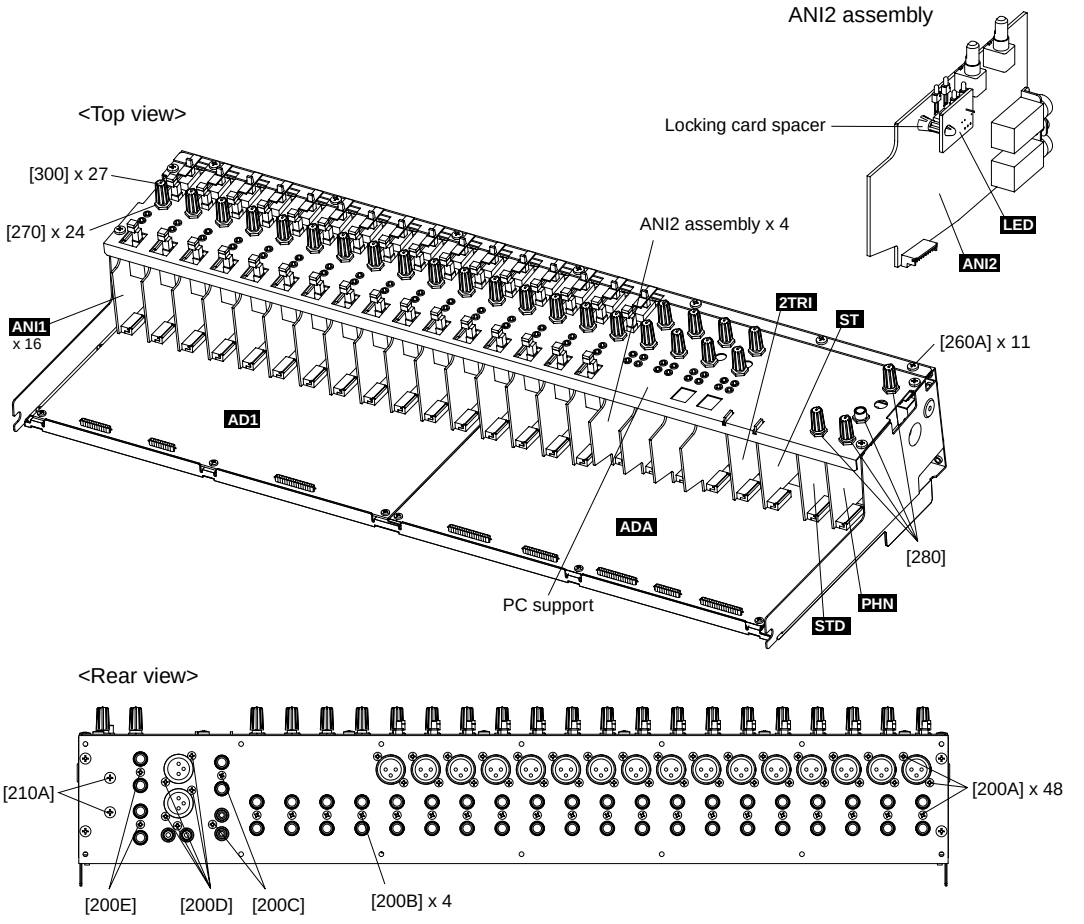
(Time required: About 25 minutes)

20-1. Remove the SP02R96. (See procedure 1.)
20-2. Remove the MB02R96. (See procedure 2.)
20-3. Fasten the control panel assembly. (See procedure 3.)
20-4. Remove the PC support. (See procedure 16.)
20-5. Remove the twelve (12) ANI1 circuit boards. (See procedure 17.)
20-6. Remove the eight (8) screws marked [120A]. The AD1 circuit board can then be removed. (Fig.7)

21. ADA Circuit Board

(Time required: About 25 minutes)

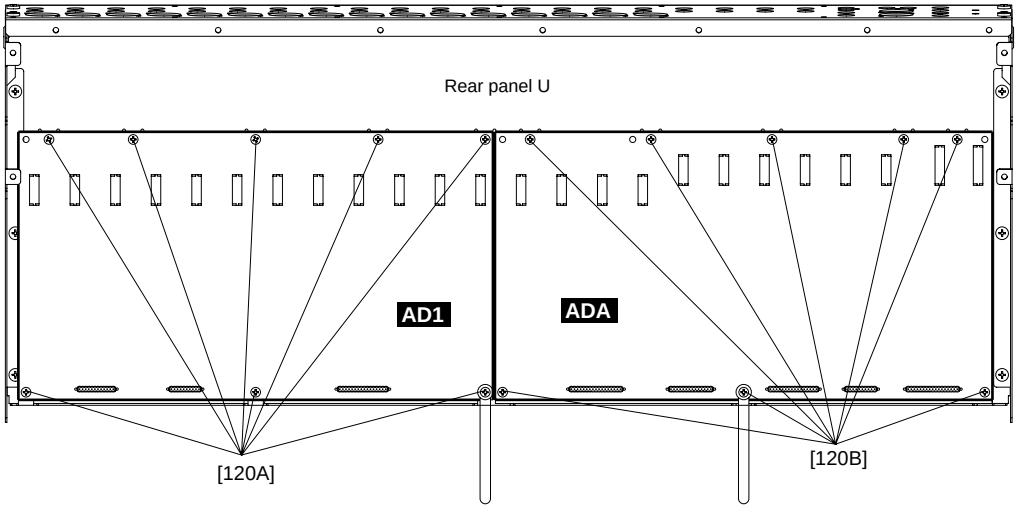
21-1. Remove the SP02R96. (See procedure 1.)
21-2. Remove the MB02R96. (See procedure 2.)
21-3. Fasten the control panel assembly. (See procedure 3.)
21-4. Remove the PC support. (See procedure 16.)
21-5. Remove the four (4) ANI1 circuit boards. (See procedure 17.)
21-6. Remove the four (4) ANI2 assemblies. (See procedure 18-5.)
21-7. Remove the 2TRI, ST, STD and PHN circuit boards. (See procedure 19.)
21-8. Remove the eight (8) screws marked [120B]. The ADA circuit board can then be removed. (Fig.7)



[200]: Bonding Tapping Screw-B 3.0X8 MFZN2BL (VN413300)
[210A]:Bind Head Screw A4.0X8 MFZN2BL (VP156800)
[260A]:Bind Head Tapping Screw-B A4.0X8 MFZN2BL (VC688800)
[270]: Hexagonal Nut 7.0X11X2 MFZN2BL (VR991600)
[280]: Hexagonal Nut 9.0X11X2 MFZN2BL (VJ388000)

Fig.6

<Top view>



[120]:Bind Head Tapping Screw-B 3.0X8 MFZN2BL (EP600190)

Fig.7

Control Panel Assembly Section

✻ When removing the circuit board, if it is hard to handle while the control panel assembly is fixed slantwise at the front stay, open it widely at 180° for the work.

22. SUB Circuit Board

(Time required: About 15 minutes)

22-1. Remove the SP02R96. (See procedure 1.)
22-2. Remove the MB02R96. (See procedure 2.)
22-3. Fasten the control panel assembly. (See procedure 3.)
22-4. Remove the eight (8) screws marked [180A]. The SUB circuit board can then be removed. (Fig.9)

23. PN1 Circuit Board

(Time required: About 20 minutes)

23-1. Remove the SP02R96. (See procedure 1.)
23-2. Remove the MB02R96. (See procedure 2.)
23-3. Remove the four (4) encoder knobs marked [410B] and the sixteen (16) encoder knobs marked [450A] from the control panel side. (Fig.8)
23-4. Fasten the control panel assembly. (See procedure 3.)
23-5. Remove the SUB circuit board. (See procedure 22.)
23-6. Remove the twenty (20) screws marked [160A]. The PN1 circuit board can then be removed with the SUB1 and SUB2 holders. (Fig.10)

24. JS Circuit Board

(Time required: About 15 minutes)

24-1. Remove the SP02R96. (See procedure 1.)
24-2. Remove the MB02R96. (See procedure 2.)
24-3. Fasten the control panel assembly. (See procedure 3.)
24-4. Remove the four (4) screws marked [160B]. The JS circuit board can then be removed. (Fig.10)

25. PN2 Circuit Board

(Time required: About 25 minutes)

25-1. Remove the SP02R96. (See procedure 1.)
25-2. Remove the MB02R96. (See procedure 2.)
25-3. Remove the encoder knob marked [410C], the five (5) encoder knobs marked [420], the eight (8) encoder knobs marked [440], the eight (8) encoder knobs marked [450B], the knob marked [460C] and the knob marked [470] from the control panel side. (Fig.8)
25-4. Fasten the control panel assembly. (See procedure 3.)
25-5. Remove the JS circuit board. (See procedure 24.)
25-6. Remove the twenty-two (22) screws marked [165]. The PN2 circuit board can then be removed with the insulating sheet. (Fig.10)
25-7. Remove the five (5) cord holders. The insulating sheet can then be removed from the PN2 circuit board. (Fig.10)

✻ The insulating sheet is fastened to the PN2 circuit board by the cord holders.
✻ When you replace the PN2 circuit board, be sure to attach the insulating sheet as before.

26. PN3+PW Circuit Boards

(Time required: About 20 minutes)

26-1. Remove the SP02R96. (See procedure 1.)
26-2. Remove the MB02R96. (See procedure 2.)
26-3. Remove the encoder knob and the hexagonal nut from the control panel side. (Fig.8, Photo.6)
26-4. Fasten the control panel assembly. (See procedure 3.)
26-5. Remove the six (6) screws marked [160C]. The PN3+PW circuit boards can then be removed. (Fig.10)

27. FD1 Circuit Board

(Time required: About 20 minutes)

27-1. Remove the SP02R96. (See procedure 1.)
27-2. Remove the MB02R96. (See procedure 2.)
27-3. Remove the sixteen (16) fader knobs marked [400A] from the control panel side. (Fig.8)
27-4. Fasten the control panel assembly. (See procedure 3.)
27-5. Remove the twelve (12) screws marked [210B]. The FD1 circuit board can then be removed. (Fig.9)

28. FD2 Circuit Board

(Time required: About 25 minutes)

28-1. Remove the SP02R96. (See procedure 1.)
28-2. Remove the MB02R96. (See procedure 2.)
28-3. Remove the nine (9) fader knobs marked [400B] from the control panel side. (Fig.8)
28-4. Fasten the control panel assembly. (See procedure 3.)
28-5. Remove the six (6) screws marked [210C]. The FD2 circuit board can then be removed with the insulating sheet. (Fig.9)
28-6. Remove the four (4) cord holders. The insulating sheet can then be removed from the FD2 circuit board. (Fig.9)

✻ The insulating sheet is fastened to the FD2 circuit board by the cord holders.
✻ When you replace the FD2 circuit board, be sure to attach the insulating sheet as before.

29. LCD Assembly

(Time required: About 5 minutes each)

29-1. Remove the eight (8) screws marked [260B] from the control panel side. The LCD assembly can then be removed. (Fig.8)

✻ Be careful no to scratch the control panel during installation.

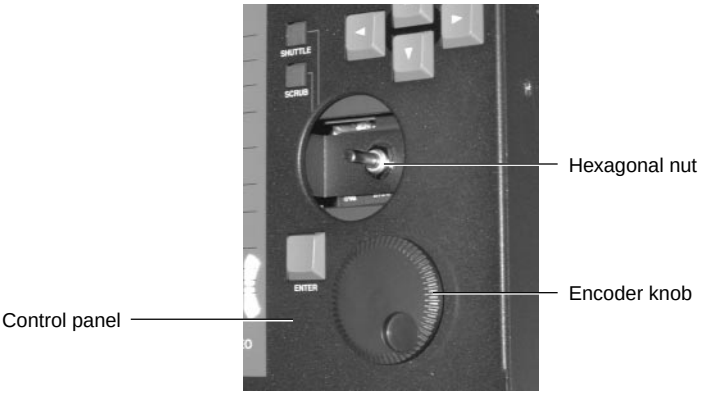
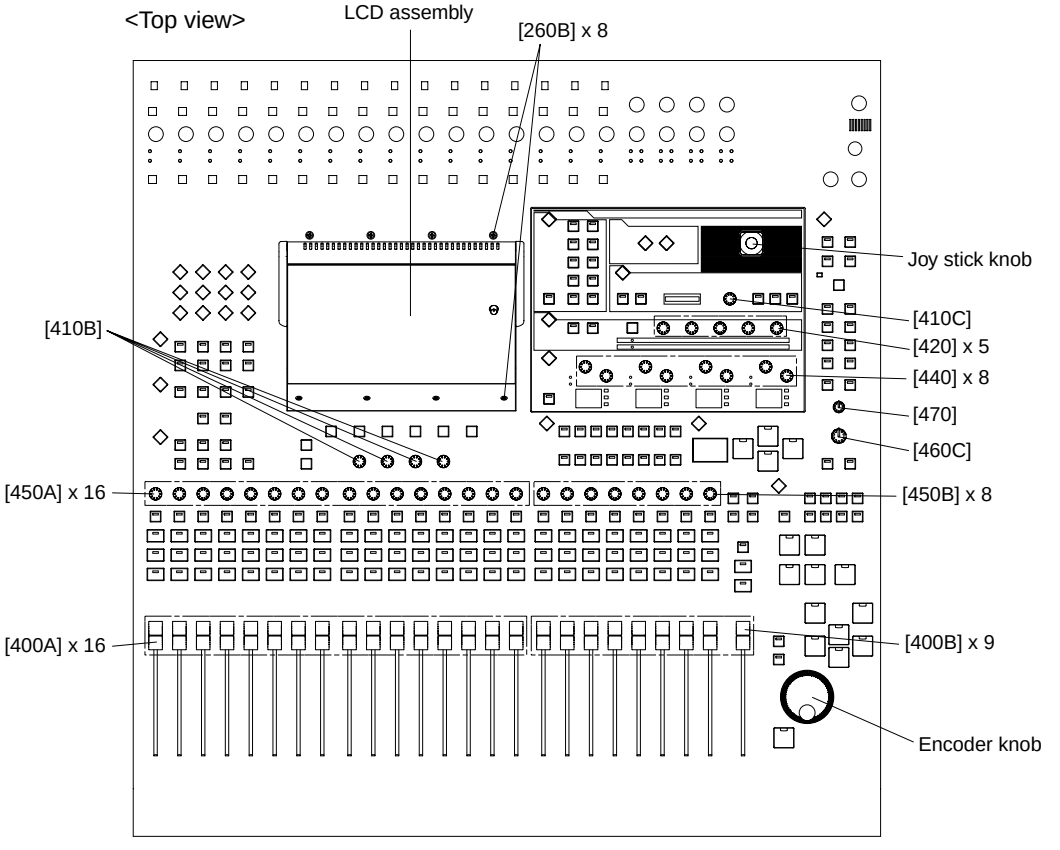


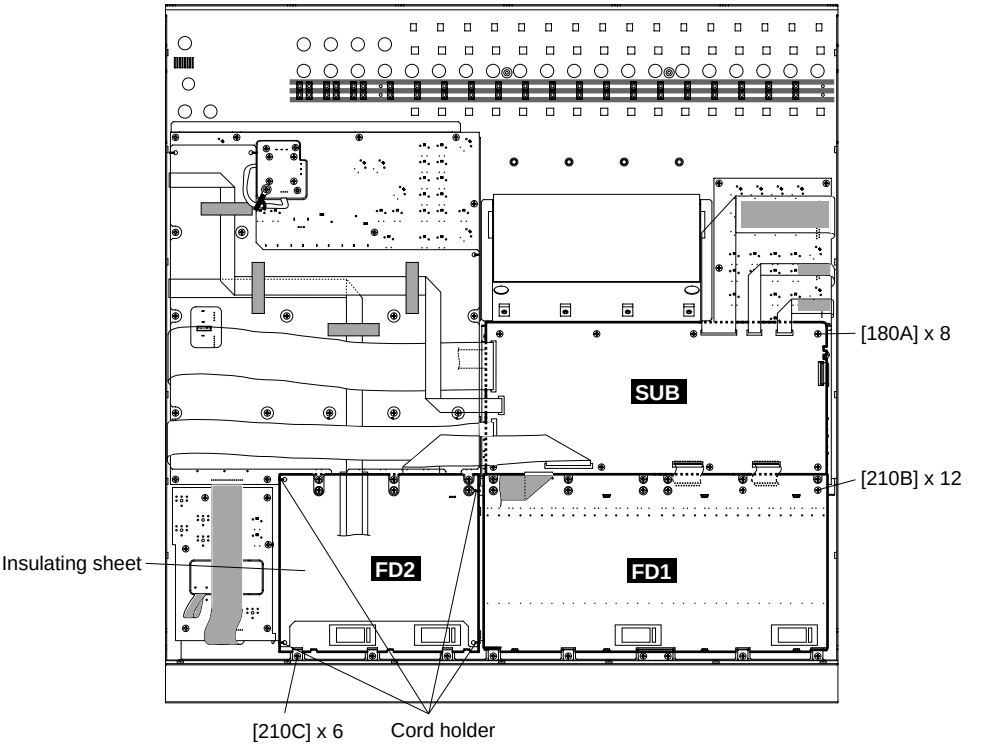
Photo.6



[260B]:Flat Head Tapping Screw-B 3.0X8 MFZN2BL (EP600790)

Fig.8

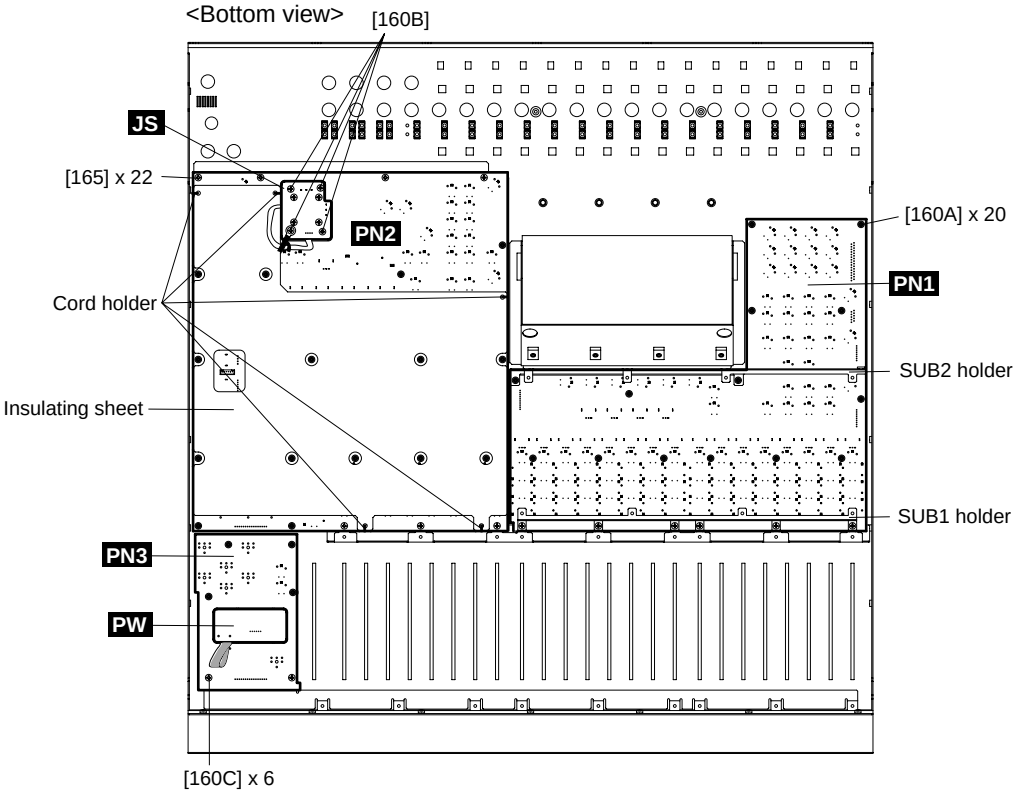
<Bottom view>



[180A]: Bind Head Tapping Screw-B 3.0X8 MFZN2BL (EP600190)
[210]: Bind Head Tapping Screw-B 3.0X8 MFZN2BL (EP600190)

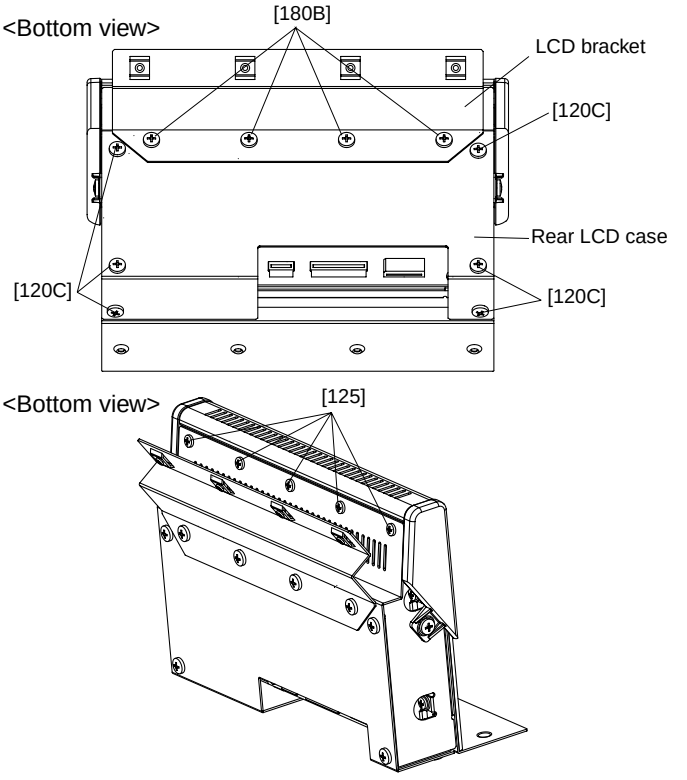
Fig.9

<Bottom view>



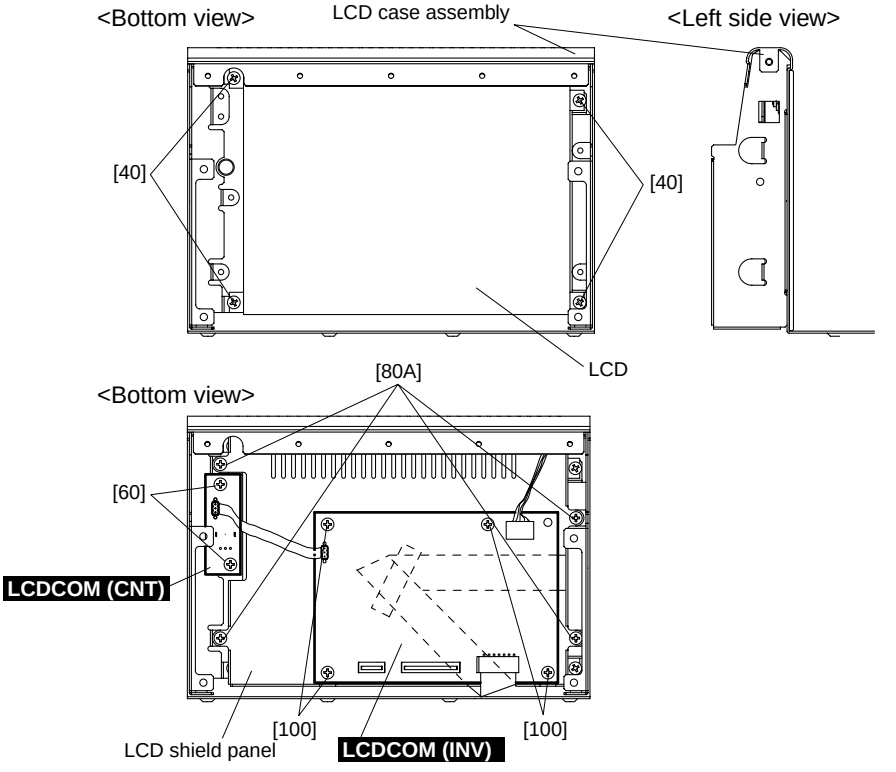
[160]: Bind Head Tapping Screw-B 3.0X8 MFZN2BL (EP600190)
[165]: Bind Head Tapping Screw-B 3.0X8 MFZN2BL (EP600190)

Fig.10



[120C]: Bind Head Tapping Screw-B A4.0X8 MFZN2BL (VC688800)
[125]: Bind Head Tapping Screw-B A3.0X6 MFZN2BL (VP157900)
[180B]: Bind Head Tapping Screw-B A4.0X8 MFZN2BL (VC688800)

Fig.11



[40]: Bind Head Tapping Screw-B 3.0X6 MFZN2BL (EP600230)
[60]: Bind Head Tapping Screw-B 3.0X6 MFZN2BL (EP600230)
[80A]: Bind Head Tapping Screw-B 3.0X6 MFZN2BL (EP600230)
[100]: Bind Head Tapping Screw-B 3.0X6 MFZN2BL (EP600230)

Fig.12

30. LCDCOM (CNT+INV) Circuit Board and LCD (Time required: About 15 minutes each)

30-1. Remove the LCD assembly. (See procedure 29.)

30-2. Remove the four (4) screws marked [180B]. The LCD bracket can then be removed. (Fig.11)

30-3. Remove the six (6) screws marked [120C] and the five (5) screws marked [125]. The rear LCD case can then be removed. (Fig.11)

30-4. Remove the two (2) screws marked [60] and the four (4) screws marked [80A]. The LCD shield panel can then be removed with the LCDCOM (CNT+INV) circuit board. (Fig.12)

30-5. **LCDCOM (CNT+INV) Circuit Board:**
Remove the four (4) screws marked [100]. The LCDCOM (CNT+INV) circuit board can then be removed from the LCD shield panel. (Fig.12)
✻ The CNT and INV circuit boards are joined by soldering.
Note: The INV circuit board must be handled carefully since it produces high voltages.

30-6. **LCD:**
Remove the four (4) screws marked [40]. The LCD can then be removed. (Fig.12)

Disassembling the MB02R96

31. Rear Panel

(Time required: About 10 minutes)

31-1. Remove the MB02R96. (See procedure 2.)

31-2. Remove the two (2) screws marked [D]. The meter angle L can then be removed from the MB02R96. (Photo.7)
The meter angle R can be removed in the same manner.

31-3. Remove the twenty-two (22) screws marked [140B]. The rear panel can then be removed from the front panel. (Fig.13)

32. DC Circuit Board

(Time required: About 15 minutes)

32-1. Remove the rear panel. (See procedure 31.)

32-2. Remove the six (6) screws marked [80B]. The DC circuit board can then be removed. (Fig.14)

33. PN1 and PN2 Circuit Boards

(Time required: About 15 minutes each)

33-1. Remove the rear panel. (See procedure 31.)

33-2. **PN1 Circuit Board:**
Remove the eight (8) screws marked [50A]. The PN1 circuit board can then be removed. (Fig.14)

33-3. **PN2 Circuit Board:**
Remove the seven (7) screws marked [50B]. The PN2 circuit board can then be removed. (Fig.14)

34. DSUB Cable

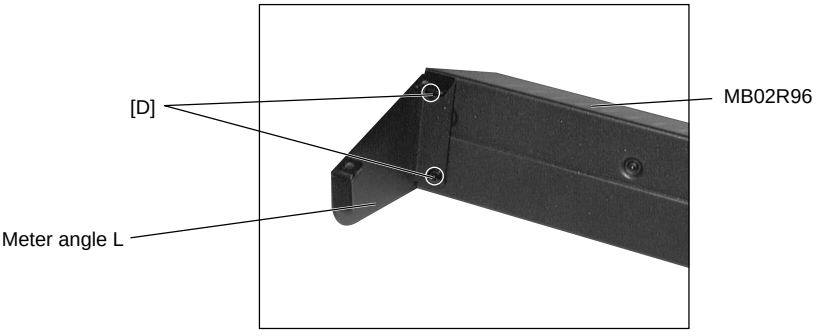
(Time required: About 15 minutes)

34-1. Remove the rear panel. (See procedure 31.)

34-2. Remove the screw marked [130]. The cable holder can then be removed. (Fig.14)

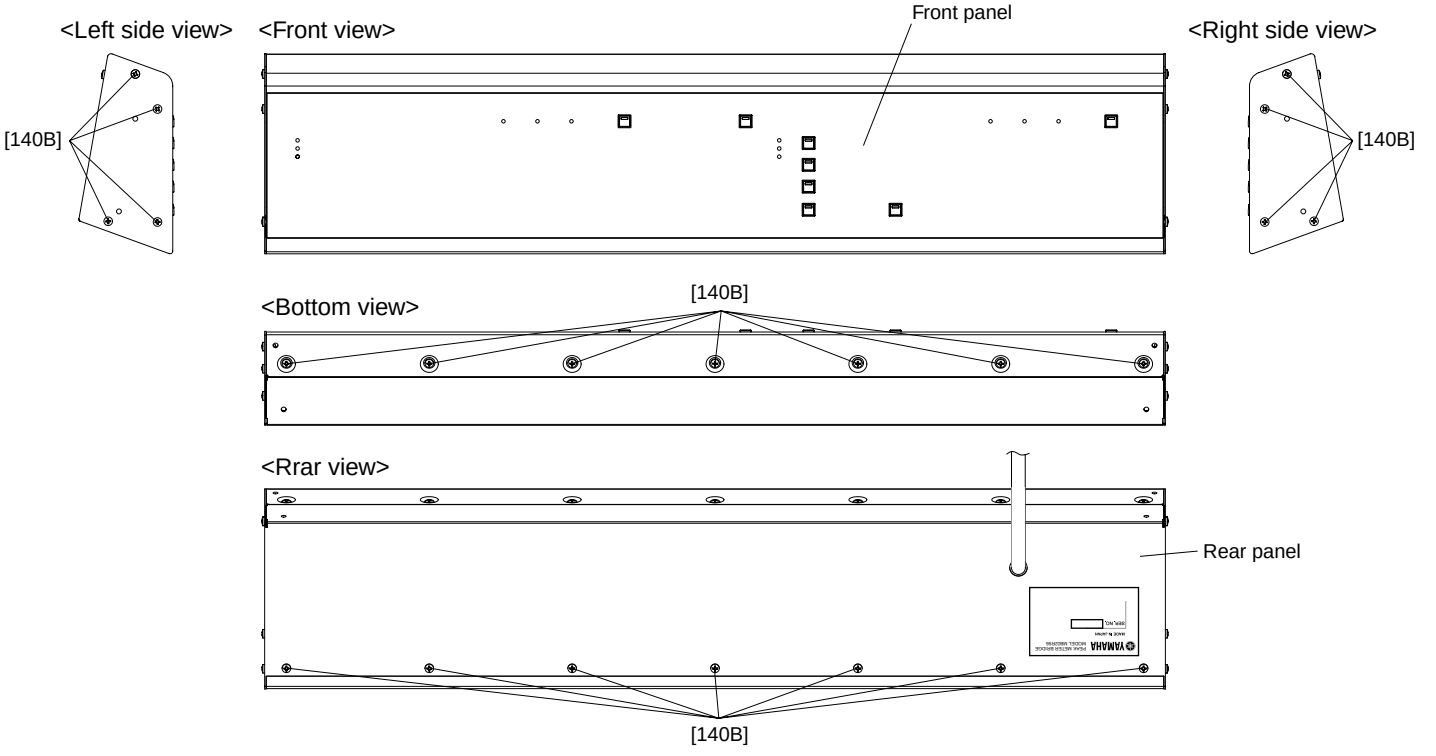
34-3. Remove the DSUB cable with the bushing. (Fig.14)

✻ The bushing is not part of the DSUB cable. When you replace the DSUB cable, you should remove the bushing from the cable, and attach in the new cable.



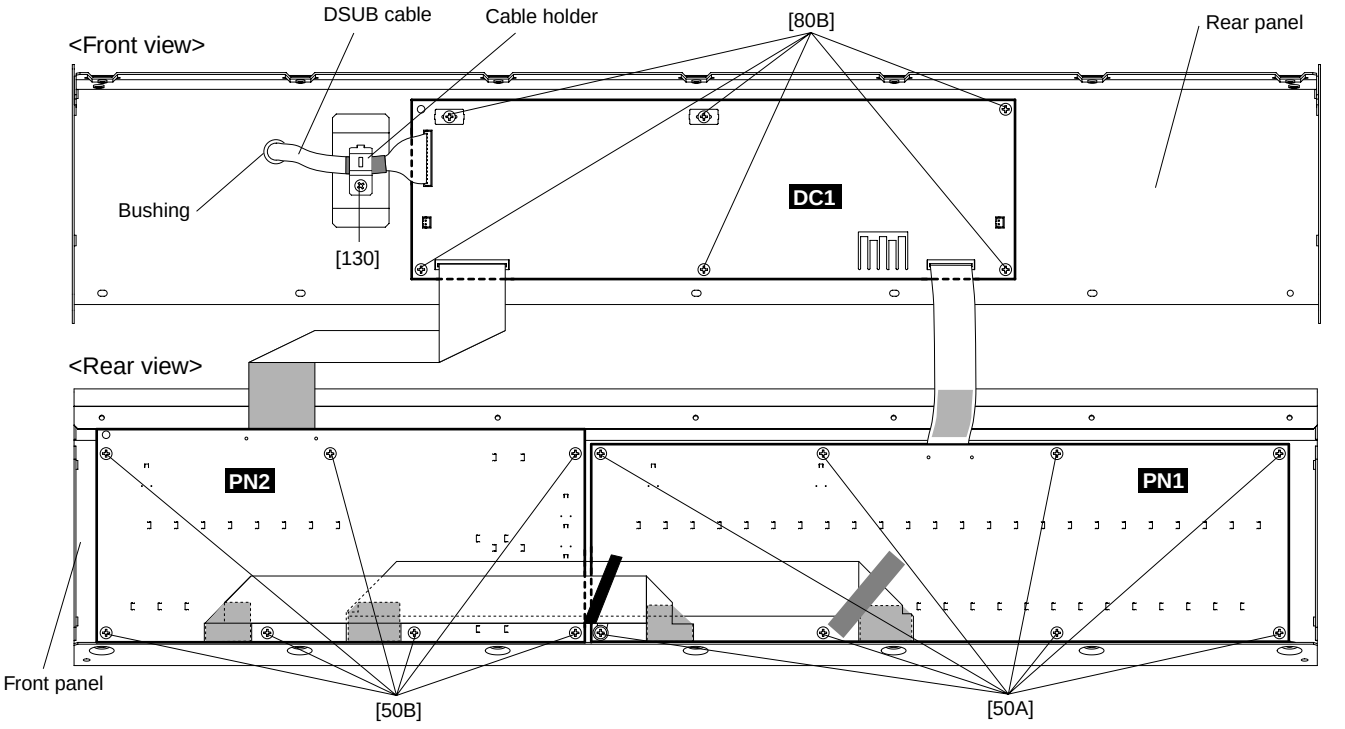
[D]: Bind Head Screw A4.0X8 MFZN2BL (VP156800)

Photo.7



[140B]: Bind Head Tapping Screw-B A3.0X8 MFZN2BL (VP157000)

Fig.13



[50]:	Bind Head Tapping Screw-B	3.0X8 MFZN2BL (EP600190)
[80B]:	Bind Head Tapping Screw-B	3.0X8 MFZN2BL (EP600190)
[130]:	Bind Head Tapping Screw-B	3.0X8 MFZN2BL (EP600190)

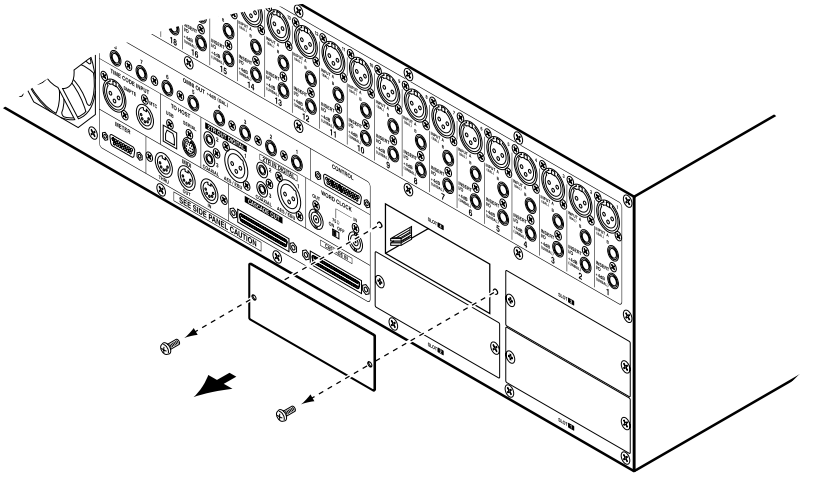
Fig.14

INSTALLING I/O CARDS

This section explains how to install I/O Cards.

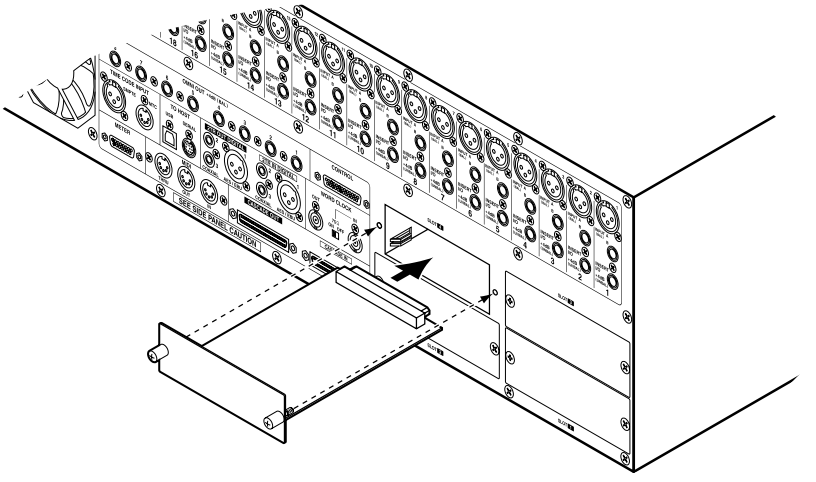
1 Turn off the 02R96.

2 Undo the two fixing screws and remove the slot cover, as shown below.



Keep the cover and fixing screws in a safe place for future use.

3 Insert the card between the guide rails and slide it all the way into the slot, as shown below. You may have to push firmly to plug the card into the internal connector.



4 Secure the card using the attached thumbscrews. Do not leave them loose, as the card will not be grounded correctly, which may cause the 02R96 to malfunction.

You can check which I/O Cards are installed on the Word Clock Select page.

■ LSI PIN DESCRIPTION

M37640M8-138FP (X0157100) CPU **53**
SH7709A FP-208C (XY065A00) CPU **54**
HD64F7044F28 (X3086A00) CPU **55**
HD64F7044F28 (X3197A00) CPU **55**
YSS910-S (XV988A00) DSP6 (Digital Signal Processor) **56**
YSS919-H (XZ693A00) DSP7 (Digital Signal Processor) **57**
SGH603064F-62F (XV973A00) Gate Array **58**
YM3436DK (XG948E00) DIR2 (Digital Format Interface Receiver) **58**
YM6604C-S (XU240A00) ACIA (Asynchronous Communication Interface Adapter) **59**
MBCG61594-128 (X2162A00) ATSC2 ..... **60**
ICS2008BV-T (X2832B00) T.C. Reader/Generator **61**
CS8405A-CS (XZ349A00) DIT (Digital Audio Interface Transmitter) **61**
CS8420 (XW559A00) SRC (Sample Rate Converter) **61**
XCS40-3PQ240C (XZ334A00) FPGA (Field Programmable Gate Arrays) **62**
S1D13305F00B100 (XQ595A00) LCDC (LCD Controller) **63**
AK4393-VF-E2 (XW029A00) DAC (Digital to Analog Converter) **63**
AK5383-VS (XW272A00) ADC (Analog to Digital Converter) **63**

● **M37640M8-138FP** (X0157100) **CPU**

JK1: IC201

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	$P6_1/DQ_1$	I/O	Port 6	41	$P1_7/AB_{15}$	I/O	
2	$P6_0/DQ_0$	I/O	Port 6	42	$P1_6/AB_{14}$	I/O	
3	$P5_7$//W(R//w)	I/O		43	$P1_5/AB_{13}$	I/O	
4	$P5_6$//R(E)	I/O		44	$P1_4/AB_{12}$	I/O	Port 1
5	$P5_5/A_0$	I/O	Port 5	45	$P1_3/AB_{11}$	I/O	
6	$P5_4/S_0$	I/O		46	$P1_2/AB_{10}$	I/O	
7	$P5_3$//IBF_0	I/O		47	$P1_1/AB_9$	I/O	
8	$P5_2/OBF_0$	I/O		48	$P1_0/AB_8$	I/O	
9	CNV_{SS}/V_{PP}	I	Chip Operation Mode	49	$P0_7/AB_7$	I/O	
10	/RESET	I	Reset Input	50	$P0_6/AB_6$	I/O	
11	$P5_1/T_{OUT}/X_{COUT}$	I/O	Port 5	51	$P0_5/AB_5$	I/O	
12	$P5_0/X_{CIN}$	I/O	Port 5	52	$P0_4/AB_4$	I/O	Port 0
13	V_{SS}	-	Ground	53	$P0_3/AB_3$	I/O	
14	X_{IN}	I	Quartz Crystal Input	54	$P0_2/AB_2$	I/O	
15	X_{OUT}	O	Quartz Crystal Output	55	$P0_1/AB_1$	I/O	
16	V_{CC}	-	Power Supply	56	$P0_0/AB_0$	I/O	
17	AV_{CC}	-	Analog Power Supply	57	$P2_7/DB_7$	I/O	
18	LPF	O	Loop Filter for Synthesizer	58	$P2_6/DB_6$	I/O	
19	AV_{SS}	-	Analog Ground	59	$P2_5/DB_5$	I/O	
20	$P4_4/CNTR_1$	I/O		60	$P2_4/DB_4$	I/O	Port 2
21	$P4_3/CNTR_0$	I/O		61	$P2_3/DB_3$	I/O	
22	$P4_2/INT_1$	I/O	Port 4	62	$P2_2/DB_2$	I/O	
23	$P4_1/INT_0$	I/O		63	$P2_1/DB_1$	I/O	
24	$P4_0$//EDMA	I/O		64	$P2_0/DB_0$	I/O	
25	$P8_7$//RTS_1	I/O		65	$P7_4/OBF_1$	I/O	
26	$P8_6$//CTS_1	I/O		66	$P7_3$//IBF_1//HLDA	I/O	
27	$P8_5/URXD_1$	I/O		67	$P7_2$//S_1	I/O	Port 7
28	$P8_4/UTXD_1$	I/O	Port 8	68	$P7_1$//HOLD	I/O	
29	$P8_3$//RTS_2/STXD	I/O		69	$P7_0$//SOF	I/O	
30	$P8_2$//CTS_2/SRXD	I/O		70	USB D+	I/O	USB +Voltage Line Interface
31	$P8_1/URXD_2$/SCLK	I/O		71	USB D-	I/O	USB -Voltage Line Interface
32	$P8_0/UTXD_2$//SRDY	I/O		72	Ext. Cap	O	Power supply (3.3V)
33	$P3_7$//RD	I/O		73	Vss	-	Ground
34	$P3_6$//WR	I/O		74	Vcc	-	Power Supply
35	$P3_5/SYNC_{OUT}$	I/O		75	$P6_7/DQ_7$	I/O	
36	$P3_4/\phi_{OUT}$	I/O	Port 3	76	$P6_6/DQ_6$	I/O	
37	$P3_3/DMA_{OUT}$	I/O		77	$P6_5/DQ_5$	I/O	Port 6
38	$P3_2$	I/O		78	$P6_4/DQ_4$	I/O	
39	$P3_1$	I/O		79	$P6_3/DQ_3$	I/O	
40	$P3_0$/RDY	I/O		80	$P6_2/DQ_2$	I/O	

● SH7709A FP-208C (XY065A00) CPU

CPU1: IC101

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	MD1	I	Clock mode	105	CKE/PTK[5]	I/O	CK enable/Port K
2	MD2	I	Clock mode	106	RAS3L/PTJ[0]	I/O	DRAM row address strobe/Port J
3	Vcc-RTC*1	-	Power supply for RTC (1.8 V)	107	RAS2L/PTJ[1]	I/O	DRAM row address strobe/Port J
4	XTAL2	O	Crystal oscillator for RTC	108	CASLL/CASL/PTJ[2]	I/O	Column address strobe (low)/Port J
5	EXTAL2	I	Crystal oscillator for RTC	109	VssO	-	Ground
6	Vss-RTC*1	-	Ground	110	CASLH/CASU/PTJ[3]	I/O	Column address strobe (high)/Port J
7	NMI	I	Non-maskable interrupt request	111	VccO	-	Power supply (3.3 V)
8	IRO0/IRL0/PTH[0]	I	Interrupt request/Input port H	112	CASHL/PTJ[4]	I/O	HL Column address strobe/Port J
9	IRO1/IRL1/PTH[1]	I	Interrupt request/Input port H	113	CASHH/PTJ[5]	I/O	HH Column address strobe/Port J
10	IRO2/IRL2/PTH[2]	I	Interrupt request/Input port H	114	DACK0/PTD[5]	I/O	DMA acknowledge transfer strobe 0/Port D
11	IRO3/IRL3/PTH[3]	I	Interrupt request/Input port H	115	DACK1/PTD[7]	I/O	DMA acknowledge transfer strobe 1/Port D
12	IRO4/PTH[4]	I	Interrupt request/Input port H	116	CAS2L/PTE[6]	I/O	Column address strobe (low)/Port E
13	D31/PTB[7]	I/O	Data bus/Port B	117	CAS2H/PTE[3]	I/O	Column address strobe (high)/Port E
14	D30/PTB[6]	I/O	Data bus/Port B	118	RAS3U/PTE[2]	I/O	DRAM address strobe/Port E
15	D29/PTB[5]	I/O	Data bus/Port B	119	RAS2U/PTE[1]	I/O	DRAM address strobe/Port E
16	D28/PTB[4]	I/O	Data bus/Port B	120	TDO/PTE[0]	I/O	Test data output/Port E
17	D27/PYB[3]	I/O	Data bus/Port B	121	BACK	O	Bus acknowledge
18	D26/PTB[2]	I/O	Data bus/Port B	122	BREO	I	Bus request
19	VssO	-	Ground	123	WAIT	I	Hardware wait request
20	D25/PTB[1]	I/O	Data bus/Port B	124	RESETM	I	Reset
21	VccO	-	Power supply (3.3 V)	125	ADTRG/PTH[5]	I	Analog trigger/Input port H
22	D24/PTB[0]	I/O	Data bus/Port B	126	IOISI6/PTG[7]	I	Write protect/Area 6 input/Input port G
23	D23/PTA[7]	I/O	Data bus/Port A	127	ASEMD0/PTG[6]	I	ASE mode/Input port G
24	D22/PTA[6]	I/O	Data bus/Port A	128	ASEBRKAK/PTG[5]	I/O	ASE break acknowledge/Input port G
25	D21/PTA[5]	I/O	Data bus/Port A	129	PTG[4]	I	Input port G
26	D20/PTA[4]	I/O	Data bus/Port A	130	AUDATA[3]/PTG[3]	I/O	AUD data/Input port G
27	Vss	-	Ground	131	AUDATA[2]/PTG[2]	I/O	AUD data/Input port G
28	D19/PTA[3]	I/O	Data bus/Port A	132	Vss	-	Ground
29	Vcc	-	Power supply (1.8 V)	133	AUDATA[1]/PTG[1]	I/O	AUD data/Input port G
30	D18/PTA[2]	I/O	Data bus/Port A	134	Vcc	-	Power supply (1.8 V)
31	D17/PTA[1]	I/O	Data bus/Port A	135	AUDATA[0]/PTG[0]	I/O	AUD data/Input port G
32	D16/PTA[0]	I/O	Data bus/Port A	136	TRST/PTF[7]/PINT[15]	I	Test reset/Input port F/Interrupt port
33	VssO	-	Ground	137	TMS/PTF[6]/PINT[14]	I	Test mode switch/Input port F/Interrupt port
34	D15	I/O	Data bus	138	TDI/PTF[5]/PINT[13]	I	Input test data/Input port F/Interrupt port
35	VccO	-	Power supply (3.3 V)	139	TCK/PTF[4]/PINT[12]	I	Test clock/Input port F/Interrupt port
36	D14	I/O	Data bus	140	IRLS[3]/PTF[3]/PINT[11]	I	Interrupt request/Input port F/Interrupt port
37	D13	I/O	Data bus	141	IRLS[2]/PTF[2]/PINT[10]	I	Interrupt request/Input port F/Interrupt port
38	D12	I/O	Data bus	142	IRLS[1]/PTF[1]/PINT[9]	I	Interrupt request/Input port F/Interrupt port
39	D11	I/O	Data bus	143	IRLS[0]/PTF[0]/PINT[8]	I	Interrupt request/Input port F/Interrupt port
40	D10	I/O	Data bus	144	MD0	I	Clock mode
41	D9	I/O	Data bus	145	Vcc-PLL1*2	-	PLL1 Power supply (1.8 V)
42	D8	I/O	Data bus	146	CAP1	-	PLL1 capacitor
43	D7	I/O	Data bus	147	Vss-PLL1*2	-	PLL1 Ground
44	D6	I/O	Data bus	148	Vss-PLL2*2	-	PLL2 Ground
45	VssO	-	Ground	149	CAP2	-	PLL2 capacitor
46	D5	I/O	Data bus	150	Vcc-PII2*2	-	PLL2 Power supply (1.8 V)
47	VccO	-	Power supply (3.3 V)	151	AUDCK/PTH[6]	I	AUD clock/Input port H
48	D4	I/O	Data bus	152	Vss	-	Ground
49	D3	I/O	Data bus	153	Vss	-	Ground
50	D2	I/O	Data bus	154	Vcc	-	Power supply (1.8 V)
51	D1	I/O	Data bus	155	XTAL	O	Clock oscillator
52	D0	I/O	Data bus	156	EXTAL	I	Clock/Crystal oscillator
53	A0	I	Address bus	157	STATUS0/PTJ[6]	I/O	cessor status/Port J
54	A1	I	Address bus	158	STATUS1/PTJ[7]	I/O	Pross./Port J
55	A2	I	Address bus	159	TCLK/PTH[7]	I/O	Clock/Port H
56	A3	I	Address bus	160	IROOUT	O	'Interrupt request
57	VssO	-	Ground	161	VssO	-	Ground
58	A4	I	Address bus	162	CKIO	I/O	System Clock
59	VccO	-	Power supply (3.3 V)	163	VccO	-	Power supply (3.3 V)
60	A5	I	Address bus	164	TxD0/SCPT[0]	O	Data transmission 0/Output port
61	A6	I	Address bus	165	SOK0/SCPT[1]	I/O	Serial clock/Port
62	A7	I	Address bus	166	TxD1/SCPT[2]	O	Data transmission 1/Output port
63	A8	I	Address bus	167	SCK1/SCPT[3]	I/O	Serial clock/Port
64	A9	I	Address bus	168	TxD2/SCPT[4]	O	Data transmission 2/Output port
65	A10	I	Address bus	169	SCK2/SCPT[5]	I/O	Serial clock/Port
66	A11	I	Address bus	170	RTS2/SCPT[6]	I/O	Request to send 2/Output port
67	A12	I	Address bus	171	RxD0/SCPT[0]	I	Data reception 0/Output port
68	A13	I	Address bus	172	RxD1/SCPT[2]	I	Data reception 1/Output port
69	VssO	-	Ground	173	Vss	-	Ground
70	A14	I	Address bus	174	RxD2/SCPT[4]	I	Data reception 2/Output port
71	VccO	-	Power supply (3.3 V)	175	Vcc	-	Power supply (1.8 V)
72	A15	I	Address bus	176	CTS2/IRO5/SCP[7]	I	Clear to send 2/Interrupt request/Input port
73	A16	I	Address bus	177	MCS[7]/PTC[7]/PINT[7]	I/O	Mask chip select/Port C/Interrupt port
74	A17	I	Address bus	178	MCS[6]/PTC[6]/PINT[6]	I/O	Mask chip select/Port C/Interrupt port
75	A18	I	Address bus	179	MCS[5]/PTC[5]/PINT[5]	I/O	Mask chip select/Port C/Interrupt port
76	A19	I	Address bus	180	MCS[4]/PTC[4]/PINT[4]	I/O	Mask chip select/Port C/Interrupt port
77	A20	I	Address bus	181	VssO	-	Ground
78	A21	I	Address bus	182	WAKEUP/PTD[3]	I/O	Standby mode/Port D
79	Vss	-	Ground	183	VccO	-	Power supply (3.3 V)
80	A22	I	Address bus	184	RESETOUT/PTD[2]	I/O	Reset output/Port D
81	Vcc	-	Power supply (1.8 V)	185	MCS[3]/PTC[3]/PINT[3]	I/O	Mask chip select/Port C/Interrupt port
82	A23	I	Address bus	186	MCS[2]/PTC[2]/PINT[2]	I/O	Mask chip select/Port C/Interrupt port
83	VssO	-	Ground	187	MCS[1]/PTC[1]/PINT[1]	I/O	Mask chip select/Port C/Interrupt port
84	A24	I	Address bus	188	MCS[0]/PTC[0]/PINT[0]	I/O	Mask chip select/Port C/Interrupt port
85	VccO	-	Power supply (3.3 V)	189	DRAK0/PTD[1]	I/O	DMA transfer request/IPort D
86	A25	I	Address bus	190	DRAK1/PTD[0]	I/O	DMA transfer request/IPort D
87	BS/PTK[4]	I/O	Bus cycle signal start/Port K	191	DREQ0/PTD[4]	I	DMA transfer request/Input port D
88	RD	O	Read strobe	192	DREQ1/PTD[6]	I	DMA transfer request/Input port D
89	WE0/DOMLL	O	D7-D0 select sugnal/DOM (SDRAM)	193	RESETP	I	Power on reset
90	WE1/DOMLU/WE	O	D15-D8 select signal/DOM (SDRAM)	194	CA	I	Chip active/Hardware stand by request
91	WE2/DOMULICIORD/PTK[6]	I/O	D23-D16 select signal/DOM (SDRAM)/PCMCIA I/O read/Port K	195	MD3	I	Area 0 bus allocation
92	WE3/DOMUICIOWR/PTK[7]	I/O	D31-D24 select signal/DOM (SDRAM)/PCMCIA I/O write/Port K	196	MD4	I	Area 0 bus allocation
93	RD/WR	O	Read/Write	197	MD5	I	Area 0 bus allocation
94	AUDSYNC/PTE[7]	I/O	AUD sync. signal/Port E	198	AVss	-	Ground
95	VssO	-	Ground	199	AN[0]/PTL[0]	I	AD converter input/Input port L
96	CS0/MCS[0]	O	Chip select/Mask ROM chip select	200	AN[1]/PTL[1]	I	AD converter input/Input port L
97	VccO	-	Power supply (3.3 V)	201	AN[2]/PTL[2]	I	AD converter input/Input port L
98	CS2/PTK[0]	I/O	Chip select2/Port K	202	AN[3]/PTL[3]	I	AD converter input/Input port L
99	CS3/PTK[1]	I/O	Chip select3/Port K	203	AN[4]/PTL[4]	I	AD converter input/Input port L
100	CS4/PTK[2]	I/O	Chip select4/Port K	204	AN[5]/PTL[5]	I	AD converter input/Input port L
101	CS5/CE1A/PTK[3]	I/O	Chip select5/CE1/Port K	205	AVcc (3.3 V)	-	Analog Power supply (3.3 V)
102	CS6/CE1B	I/O	Chip select6/CE1	206	AN[6]/DA[1]/PTL[6]	I	AD converter input/Input port L
103	CE2A/PTE[4]	I/O	Card enable/Port E	207	AN[7]/DA[0]/PTL[7]	I	AD converter input/Input port L
104	CE2B/PTE[5]	I/O	Card enable/Port E	208	AVss	-	Ground

- **HD64F7044F28** (X3086A00) **CPU**
- **HD64F7044F28** (X3197A00) **CPU**

02R96/SUB: IC600, 605
MB02R96/PN2: IC508

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	PE14	O	Port E	57	D11	I/O	Data bus
2	PE15	O	Port E	58	D10	I/O	
3	VSS	I	Ground	59	D9	I/O	
4	A0	O	Address bus	60	D8	I/O	
5	A1	O		61	VSS	I	Ground
6	A2	O		62	D7	I/O	Data bus
7	A3	O		63	D6	I/O	
8	A4	O		64	D5	I/O	
9	A5	O		65	VCC	I	Power supply
10	A6	O		66	D4	I/O	Data bus
11	A7	O		67	D3	I/O	
12	A8	O		68	D2	I/O	
13	A9	O		69	D1	I/O	
14	A10	O		70	D0	I/O	
15	A11	O		71	VSS	I	Ground
16	A12	O		72	XTAL	I	Crystal oscillator
17	A13	O		73	MD3	I	Mode control
18	A14	O		74	EXTAL	I	Crystal oscillator
19	A15	O		75	MD2	I	Mode control
20	A16	O		76	NMI	I	Non-maskable interrupt request
21	VCC	I	Power supply	77	VCC	I	Power supply
22	A17	O	Address bus	78	MD1	I	Mode control
23	VSS	I	Ground	79	MD0	I	Mode control
24	PB2//IRQ0	I	Port B / Interrupt request	80	PLLVCC	I	PLL Power supply
25	PB3//IRQ1	I	Port B / Interrupt request	81	PLLCAP	I	PLL capacitor
26	PB4//IRQ2	I	Port B / Interrupt request	82	PLLVSS	I	PLL Ground
27	VSS	O	Ground	83	PA15 / CK	O	Port A / Clock
28	PB5//IRQ3	I	Port B / Interrupt request	84	/RES	I	Reset
29	A18	O	Address bus	85	PE0	I	Port E
30	A19	O		86	PE1	I	
31	A20	O		87	PE2	I	
32	PB9 /A21	O	Port B / Address bus	88	PE3	I	
33	VSS	I	Ground	89	PE4	I	
34	/RD	O	Read	90	VSS	I	Ground
35	/WDTOVF	O	Watch dog timer overflow	91	AN0 / PF0	I	Analog input / Port F
36	/WRH	O	High write	92	AN1 / PF1	I	
37	VCC	I	Power supply	93	AN2 / PF2	I	
38	/WRL	O	Low write	94	AN3 / PF3	I	
39	VSS	I	Ground	95	AN4 / PF4	I	
40	/CS1	O	Chip select	96	AN5 / PF5	I	
41	/CS0	O	Chip select	97	AVSS	I	Analog ground
42	PA9//IRQ3	I	Port A / Interrupt request	98	AN6 / PF6	I	Analog input / Port F
43	PA8//IRQ2	I	Port A / Interrupt request	99	AN7 / PF7	I	Analog input / Port F
44	/CS3	O	Chip select	100	AVCC	I	Power supply
45	/CS2	O	Chip select	101	VSS	I	Ground
46	PA5//IRQ1	I	Port A / Interrupt request	102	PE5	O	Port E
47	TXD1	O	Data transmission	103	VCC	I	Power supply
48	RXD1	I	Data reception	104	PE6	O	Port E
49	/IRQ0	I	Interrupt request	105	PE7	O	
50	PA1 / TXD0	O	Port A / Data transmission	106	PE8	O	
51	PA0 / RXD0	I	Port A / Data reception	107	PE9	O	
52	D15	I/O	Data bus	108	PE10	O	
53	D14	I/O		109	VSS	I	Ground
54	D13	I/O		110	PE11	O	Port E
55	VSS	I	Ground	111	PE12	O	
56	D12	I/O	Data bus	112	PE13	O	

● **YSS910-S** (XV988A00) **DSP6** (Digital Signal Processor)

DSP: ICA01-04

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	Vdd		Power supply (3.3V)	89	Vss		Ground
2	Vss		Ground	90	DB13	I/O	Parallel data bus
3	XI	I	System master clock input (60MHz or 30MHz)	91	DB14	I/O	
4	XO	O	System master clock output (High or 30MHz)	92	DB15	I/O	
5	Vdd		Power supply (5V)	93	DB16	I/O	
6	/SYNCI	I	Sync. signal input	94	DB17	I/O	
7	/SYNCO	O	Sync. signal output	95	DB18	I/O	
8	Vdd		Power supply (5V)	96	DB19	I/O	
9	CKI	I	System clock input (30MHz)	97	DB20	I/O	
10	CKO	O	System clock output (30MHz)	98	DB21	I/O	
11	CKSEL	I	System master clock select (0: 60MHz, 1: 30MHz)	99	DB22	I/O	
12	Vss		Ground	100	Vss		Ground
13	MCKS	I	Serial I/O master clock input (128 x Fs)	101	Vdd		Power supply (3.3V)
14	/SSYNC	I	Serial I/O Sync. signal output	102	DB23	I/O	Parallel data bus
15	/IC	I	Initial clear	103	DB24	I/O	
16	/TEST	I	Test mode setting (0: Test, 1: Normal)	104	DB25	I/O	
17	BTYP	I	Data bus type select (0: 8bit, 1: 16bit)	105	DB26	I/O	
18	/IRQ	O	IRQ output	106	DB27	I/O	
19	TRIG	I/O	Trigger signal input/output	107	DB28	I/O	
20	Vdd		Power supply (5V)	108	DB29	I/O	
21	Vss		Ground	109	DB30	I/O	
22	/CS	I	chip select signal input	110	DB31	I/O	
23	/WR	I	Write signal input	111	TIMO/DBOB	I/O	Timing signal output/ Parallel data bus output/ input
24	/RD	I	Read signal input	112	Vss		Ground
25	CA7	I/O	Address bus of internal register	113	Vdd		Power supply (5V)
26	CA6	I/O		114	DA00	I/O	Memory data bus
27	CA5	I/O		115	DA01	I/O	
28	CA4	I/O		116	DA02	I/O	
29	CA3	I/O		117	DA03	I/O	
30	CA2	I/O		118	DA04	I/O	
31	CA1	I/O		119	DA05	I/O	
32	Vss		Ground	120	DA06	I/O	
33	Vdd		Power supply (3.3V)	121	DA07	I/O	
34	CD15	I/O	Data bus of internal register	122	Vss		Ground
35	CD14	I/O		123	DA08	I/O	Memory data bus
36	CD13	I/O		124	DA09	I/O	
37	CD12	I/O		125	DA10	I/O	
38	CD11	I/O		126	DA11	I/O	
39	CD10	I/O		127	DA12	I/O	
40	CD09	I/O		128	DA13	I/O	
41	CD08	I/O		129	DA14	I/O	
42	CD07	I/O		130	DA15	I/O	
43	CD06	I/O		131	Vss		Ground
44	Vss		Ground	132	Vdd		Power supply (3.3V)
45	Vdd		Power supply (3.3V)	133	(n.c)		Not used
46	Vdd		Power supply (5V)	134	Vdd		Power supply (5V)
47	CD05	I/O	Data bus of internal register	135	DA16	I/O	Memory data bus
48	CD04	I/O		136	DA17	I/O	
49	CD03	I/O		137	DA18	I/O	
50	CD02	I/O		138	DA19	I/O	
51	CD01	I/O		139	DA20	I/O	
52	CD00	I/O		140	DA21	I/O	
53	/WAIT	O	WAIT output	141	DA22	I/O	
54	Vss		Ground	142	DA23	I/O	
55	SI0	I	Serial data input	143	Vss		Ground
56	SI1	I		144	DA24	I/O	Memory data bus
57	SI2	I		145	DA25	I/O	
58	SI3	I		146	DA26	I/O	
59	SI4	I		147	DA27	I/O	
60	SI5	I		148	DA28	I/O	
61	SI6	I		149	DA29	I/O	
62	SI7	I		150	DA30	I/O	
63	Vss		Ground	151	DA31	I/O	
64	Vdd		Power supply (5V)	152	Vdd		Power supply (5V)
65	SO0	O	Serial data output	153	Vss		Ground
66	SO1	O		154	A00	O	Memory address (SRAM, PSRAM, DRAM)
67	SO2	O		155	A01	O	
68	SO3	O		156	A02	O	
69	SO4	O		157	A03	O	
70	SO5	O		158	A04	O	
71	SO6	O		159	A05	O	
72	SO7	O		160	A06	O	
73	Vss		Ground	161	A07	O	
74	DB00	I/O	Parallel data bus	162	A08	O	
75	DB01	I/O		163	A09	O	
76	DB02	I/O		164	Vss		Ground
77	DB03	I/O		165	Vdd		Power supply (3.3V)
78	DB04	I/O		166	A10	O	Memory address (SRAM, PSRAM, DRAM)
79	DB05	I/O		167	A11	O	
80	DB06	I/O		168	A12	O	Memory address (SRAM, PSRAM)
81	DB07	I/O		169	A13	O	
82	DB08	I/O		170	A14	O	
83	DB09	I/O		171	A15/RAS	O	Memory address (SRAM, PSRAM), /RAS (DRAM)
84	DB10	I/O		172	A16/CAS	O	Memory address (SRAM, PSRAM), /CAS (DRAM)
85	DB11	I/O		173	A17/CE	O	Memory address (SRAM), /CE (PSRAM)
86	DB12	I/O		174	/WE	O	Memory write enable signal
87	Vdd		Power supply (5V)	175	/OE	O	Memory output enable signal
88	Vdd		Power supply (3.3V)	176	Vdd		Power supply (5V)

● **YSS919-H** (XZ693A00) **DSP7** (Digital Signal Processor)

DSP: ICB01-09

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	PLLEN	I	PLL enable input (0: PLL unuse, 1: PLL use)	105	SIO32	I/O	Serial data bus
2	/TEST	I	Test mode setting (0: TEST, 1: Normal)	106	SIO33	I/O	
3	AVss		Analog ground	107	SIO34	I/O	
4	CPO		PLL filter	108	SIO35	I/O	
5	AVdd		Power supply (2.5 V)	109	SIO36	I/O	
6	Vss		Ground	110	SIO37	I/O	
7	Vdd		Power supply (3.3 V)	111	SIO38	I/O	
8	/IC	I	Initial clear	112	SIO39	I/O	
9	/MUTE	I	Mute control (0: SIO mute, 1: SIO normal in-out)	113	Vdd		Power supply (2.5 V)
10	/SSYNC	I	Serial I/O Sync. signal input	114	Vss		Ground
11	MCKS	I	Serial I/O master clock input (128 x Fs)	115	SIO40	I/O	Serial data bus
12	XI	I	System master clock input (60 MHz or 15 MHz)	116	SIO41	I/O	
13	BTYP	I	Data bus type select (0: 16 bits, 1: 32 bits)	117	SIO42	I/O	
14	/CS	I	Chip select	118	SIO43	I/O	
15	/WR	I	Write enable input	119	SIO44	I/O	
16	/RD	I	Read enable input	120	SIO45	I/O	
17	CA7	I	CPU address bus	121	SIO46	I/O	
18	CA6	I		122	SIO47	I/O	
19	CA5	I		123	Vss		Ground
20	CA4	I		124	Vdd		Power supply (3.3 V)
21	CA3	I		125	SIO48	I/O	Serial data bus
22	CA2	I		126	SIO49	I/O	
23	Vss		Ground	127	SIO50	I/O	
24	Vdd		Power supply (3.3 V)	128	SIO51	I/O	
25	CD31/CA1	I/O	CPU data bus / CPU address bus	129	SIO52	I/O	
26	CD30	I/O	CPU data bus	130	SIO53	I/O	
27	CD29	I/O		131	SIO54	I/O	
28	CD28	I/O		132	SIO55	I/O	
29	CD27	I/O		133	Vss		Ground
30	CD26	I/O		134	SIO56	I/O	Serial data bus
31	CD25	I/O		135	SIO57	I/O	
32	CD24	I/O		136	SIO58	I/O	
33	Vdd		Power supply (2.5 V)	137	SIO59	I/O	
34	Vss		Ground	138	SIO60	I/O	
35	CD23	I/O	CPU data bus	139	SIO61	I/O	
36	CD22	I/O		140	SIO62	I/O	
37	CD21	I/O		141	SIO63	I/O	
38	CD20	I/O		142	Vdd		Power supply (2.5 V)
39	CD19	I/O		143	Vss		Ground
40	CD18	I/O		144	Vdd		Power supply (3.3 V)
41	CD17	I/O		145	DA00	I/O	Memory data bus
42	CD16	I/O		146	DA01	I/O	
43	Vss		Ground	147	DA02	I/O	
44	Vdd		Power supply (3.3 V)	148	DA03	I/O	
45	CD15	I/O	CPU data bus	149	DA04	I/O	
46	CD14	I/O		150	DA05	I/O	
47	CD13	I/O		151	DA06	I/O	
48	CD12	I/O		152	DA07	I/O	
49	CD11	I/O		153	Vss		Ground
50	CD10	I/O		154	DA08	I/O	Memory data bus
51	CD09	I/O		155	DA09	I/O	
52	CD08	I/O		156	DA10	I/O	
53	Vss		Ground	157	DA11	I/O	
54	CD07	I/O	CPU data bus	158	DA12	I/O	
55	CD06	I/O		159	DA13	I/O	
56	CD05	I/O		160	DA14	I/O	
57	CD04	I/O		161	DA15	I/O	
58	CD03	I/O		162	Vss		Ground
59	CD02	I/O		163	Vdd		Power supply (3.3 V)
60	CD01	I/O		164	DA16	I/O	Memory data bus
61	CD00	I/O		165	DA17	I/O	
62	/WAIT	O	Wait output	166	DA18	I/O	
63	Vdd		Power supply (2.5 V)	167	DA19	I/O	
64	Vss		Ground	168	DA20	I/O	
65	Vdd		Power supply (3.3 V)	169	DA21	I/O	
66	SIO00	I/O	Serial data bus	170	DA22	I/O	
67	SIO01	I/O		171	DA23	I/O	
68	SIO02	I/O		172	Vdd		Power supply (2.5 V)
69	SIO03	I/O		173	Vss		Ground
70	SIO04	I/O		174	DA24	I/O	Memory data bus
71	SIO05	I/O		175	DA25	I/O	
72	SIO06	I/O		176	DA26	I/O	
73	SIO07	I/O		177	DA27	I/O	
74	Vss		Ground	178	DA28	I/O	
75	SIO08	I/O	Serial data bus	179	DA29	I/O	
76	SIO09	I/O		180	DA30	I/O	
77	SIO10	I/O		181	DA31	I/O	
78	SIO11	I/O		182	Vss		Ground
79	SIO12	I/O		183	Vdd		Power supply (3.3 V)
80	SIO13	I/O		184	/WE	O	Memory write enable signal
81	SIO14	I/O		185	/CAS	O	Column address strobe
82	SIO15	I/O		186	SDCK	O	Clock (SDRAM)
83	Vss		Ground	187	CKE	O	CKE (SDRAM)
84	Vdd		Power supply (3.3 V)	188	/RAS	O	Row address strobe
85	SIO16	I/O	Serial data bus	189	Vdd		Power supply (2.5 V)
86	SIO17	I/O		190	Vss		Ground
87	SIO18	I/O		191	BA1	O	Bank select (SDRAM)
88	SIO19	I/O		192	BA0	O	
89	SIO20	I/O		193	A12	O	Memory address (SDRAM, DRAM)
90	SIO21	I/O		194	A11	O	
91	SIO22	I/O		195	A10	O	
92	SIO23	I/O		196	A09	O	
93	Vdd		Power supply (2.5 V)	197	A08	O	
94	Vss		Ground	198	Vss		Ground
95	SIO24	I/O	Serial data bus	199	Vdd		Power supply (3.3 V)
96	SIO25	I/O		200	A07	O	Memory address (SDRAM, DRAM)
97	SIO26	I/O		201	A06	O	
98	SIO27	I/O		202	A05	O	
99	SIO28	I/O		203	A04	O	
100	SIO29	I/O		204	A03	O	
101	SIO30	I/O		205	A02	O	
102	SIO31	I/O		206	A01	O	
103	Vss		Ground	207	A00	O	
104	Vdd		Power supply (3.3 V)	208	Vss		Ground

● SGH603064F-62F (XV973A00) Gate Array

SUB: IC901-903

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	RA1	I	Encoder input	33	D0	O	Data bus
2	RB1	I		34	D1	O	
3	RA2	I		35	Vss		Ground
4	RB2	I		36	D2	O	Data bus
5	Vss		Ground	37	D3	O	
6	RA3	I	Encoder input	38	Vss		Ground
7	RB3	I		39	D4	O	Data bus
8	RA4	I		40	D5	O	
9	RB4	I		41	Vss		Ground
10	Vss		Ground	42	D6	O	Data bus
11	RA5	I	Encoder input	43	D7	O	
12	RB5	I		44	Vss		Ground
13	RA6	I		45	NC		Not used
14	RB6	I		46	NC		
15	Vss		Ground	47	RA9	I	Encoder input
16	RA7	I	Encoder input	48	RB9	I	
17	RB7	I		49	RA10	I	
18	RA8	I		50	RB10	I	
19	RB8	I		51	RA11	I	
20	A0	I	Address bus	52	RB11	I	
21	A1	I		53	RA12	I	
22	A2	I		54	RB12	I	
23	Vss		Ground	55	RA13	I	
24	RDN	I	Read	56	RB13	I	
25	CSN	I	Chip select	57	RA14	I	
26	VDD		Power supply +5V	58	VDD		Power supply +5V
27	ASN	I	Address strobe	59	RB14	I	Encoder input
28	A3N	I	Address bus	60	RA15	I	
29	SEL	I	Bus select	61	RB15	I	
30	NC		Not used	62	RA16	I	
31	NC			63	RB16	I	
32	NC			64	Vss		Ground

● YM3436DK (XG948E00) DIR2 (Digital Format Interface Receiver)

DSP: IC064

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	DAUX	I	Auxiliary input for audio data	23	RSTN	I	System reset input
2	HDLT	O	Asynchronous buffer operation flag	24	Vdda		VCO section power (+5V)
3	DOUT	O	Audio data output	25	CTLN	I	VCO control input N
4	VFL	O	Parity flag output	26	PCO	O	PLL phase comparison output
5	OPT	O	Fs x 1 Synchronous output signal for DAC	27	(NC)		
6	SYNC	O	Fs x 1 Synchronous output signal for DSP	28	CTLP	I	VCO control input P
7	MCC	O	Fs x 64 Bit clock output	29	Vssa		VCO section power (GND)
8	WC	O	Fs x 1 Word clock output	30	TSTN	I	Test terminal. Open for normal use
9	MCB	O	Fs x 128 Bit clock output	31	KM2	I	Clock mode switching input 2
10	MCA	O	Fs x 256 Bit clock output	32	KM0	I	Clock mode switching input 0
11	SKSY	I	Clock synchronization control input	33	FS1	O	Channel status sampling frequency display output 1
12	XI	I	Crystal oscillator connection or external clock input	34	FS0	O	Channel status sampling frequency display output 0
13	XO	O	Crystal oscillator connection	35	CSM	I	Channel status output method selection
14	P256	O	VCO oscillating clock connection	36	EXTW	I	External synchronous auxiliary input word clock
15	LOCK	O	PLL lock flag	37	DDIN	I	EIAJ (AES/EBU) data input
16	Vss		Logic section power (GND)	38	LR	O	PLL word clock output
17	TC	O	PLL time constant switching output	39	Vdd		Logic section power (+5 V)
18	DIM1	I	Data input mode selection	40	ERR	O	Data error flag output
19	DIM0	I	Data input mode selection	41	EMP	O	Channel status emphasis control code output
20	DOM1	I	Data output mode selection	42	CD0	O	3-wire type microcomputer interface data output
21	DOM0	I	Data output mode selection	43	CCK	I	3-wire type microcomputer interface clock input
22	KM1	I	Clock mode switching input 1	44	CLD	I	3-wire type microcomputer interface load input

● YM6604C-S (XU240A00) ACIA (Asynchronous Communication Interface Adapter)

DSP: IC703

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	RESETN	I	Reset	51	NC		Not used
2	NC		Not used	52	IRQ3N	I	Interrupt request
3	CSN	I	Chip select	53	IRQ4N	I	
4	ASN	I	Address strobe	54	NC		Not used
5	LDSN	I	Data strobe	55	IRQ5N	I	Interrupt request
6	A1P	I	Address bus	56	IRQ6N	I	
7	NC		Not used	57	IRQ7N	I	
8	A2P	I	Address bus	58	TXD1P	O	Transmit data (1ch)
9	A3P	I		59	RXD1P	I	Receive data (1ch)
10	NC		Not used	60	NC		Not used
11	A4P	I	Address bus	61	RTS1N	O	Request to send (1ch)
12	NC		Not used	62	NC		Not used
13	NC			63	CTS1N	I	Clear to send (1ch)
14	A5P	I	Address bus	64	NC		Not used
15	VSS		Ground	65	DCD1N	I	Data carrier detect (1ch)
16	NC		Not used	66	VSS		Ground
17	CLKP	I	System clock	67	NC		Not used
18	RW	I	Read / Write	68	TXD2P	O	Transmit data (2ch)
19	NC		Not used	69	RXD2P	I	Receive data (2ch)
20	DTACKN	O	Data acknowledge	70	NC		Not used
21	VSS		Ground	71	RTS2N	O	Request to send (2ch)
22	D0P	I/O	Data bus	72	CTS2N	I	Clear to send (2ch)
23	D1P	I/O		73	DCD2N	I	Data carrier detect (2ch)
24	D2P	I/O		74	NC		Not used
25	NC		Not used	75	TXD3P	O	Transmit data (3ch)
26	NC			76	NC		Not used
27	D3P	I/O	Data bus	77	NC		
28	VSS		Ground	78	RXD3P	I	Receive data (3ch)
29	D4P	I/O	Data bus	79	RTS3N	O	Request to send (3ch)
30	D5P	I/O		80	NC		Not used
31	D6P	I/O		81	CTS3N	I	Clear to send (3ch)
32	D7P	I/O		82	TXD4P	O	Transmit data (4ch)
33	VSS		Ground	83	NC		Not used
34	FC0P	I	Function code	84	RXD4P	I	Receive data (4ch)
35	FC1P	I		85	RTS4N	O	Request to send (4ch)
36	NC		Not used	86	NC		Not used
37	FC2P	I	Function code	87	CTS4N	I	Clear to send (4ch)
38	NC		Not used	88	VDD		Power supply +5V
39	IACKON	O	Interrupt acknowledge	89	NC		Not used
40	VDD		Power supply +5V	90	TXD5P	O	Transmit data (5ch)
41	NC		Not used	91	NC		Not used
42	MODEP	I	CPU select	92	RXD5P	I	Receive data (5ch)
43	NC		Not used	93	TXD6P	O	Transmit data (6ch)
44	IPL0N	O	Interrupt control	94	RXD6P	I	Receive data (6ch)
45	IPL1N	O		95	VSS		Ground
46	IPL2N	O		96	FSP	I	Counter clock
47	IRQ1N	I	Interrupt request	97	XCLK2P	I	Transmission clock
48	IRQ2N	I		98	XCLK1P	I	
49	NC		Not used	99	NC		Not used
50	NC			100	NC		

• MBCG61594-128 (X2162A00) ATSC2

DSP: IC601-604, 651-654

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	VDD		Power supply +3.3V	73	VDD		Power supply +3.3V
2	XTST	I	LSI test pin	74	PB_H_M4_SEL	I	Port B audio data input buffer active select
3	VSS		Ground	75	PB_O_MUTE	I	Port B mute
4	WT_X	I	CPU interface write input	76	VSS		Ground
5	RD_X	I	CPU interface read input	77	PB_SO0_ATO	O	
6	CS_X	I	CPU interface chip select input	78	PB_SO1	O	Port B audio data output
7	HS_SEL	I	Chip active select	79	PB_SO2	O	
8	RES_X	I	System reset input	80	PB_SO3	O	
9	VSS		Ground	81	VSS		Ground
10	ADD[0]	I		82	PB_O_H_MODE[0]	I	
11	ADD[1]	I		83	PB_O_H_MODE[1]	I	Port B audio data output mode select
12	ADD[2]	I		84	PB_O_H_MODE[2]	I	
13	ADD[3]	I		85	PC_I_H_MODE[0]	I	
14	ADD[4]	I	CPU interface address bus	86	PC_I_H_MODE[1]	I	Port C audio data input mode select
15	ADD[5]	I		87	PC_I_H_MODE[2]	I	
16	ADD[6]	I		88	PC_H_M4_SEL	I	Port C audio data input buffer active select
17	ADD[7]	I		89	PC_SI0_ATI	I	Port C audio data input
18	VDD		Power supply +3.3V	90	VDD		Power supply +3.3V
19	VSS		Ground	91	VSS		Ground
20	DAT[0]	I/O		92	PC_SI1	I	
21	DAT[1]	I/O	CPU interface data bus	93	PC_SI2	I	Port C audio data input
22	DAT[2]	I/O		94	PC_SI3	I	
23	DAT[3]	I/O		95	PC_I_SW_SEL	I	Port C audio data input sync/wc select
24	VDD		Power supply +3.3V	96	PC_SYNC_WC_SI	I	Port C audio data input sync/wc input
25	VSS		Ground	97	PC_FS256_SI	I	Port C audio data input bit clock input (256fs)
26	DAT[4]	I/O		98	VSS		Ground
27	DAT[5]	I/O	CPU interface data bus	99	PC_FS256_SO	I	Port C audio data output bit clock input (256fs)
28	DAT[6]	I/O		100	PC_SYNC_WC_SO	I	Port C audio data output sync/wc input
29	DAT[7]	I/O		101	PC_O_SW_SEL	I	Port C audio data output sync/wc select
30	VSS		Ground	102	VSS		Ground
31	VDD		Power supply +3.3V	103	PC_SO0	O	
32	PA_I_H_MODE[0]	I		104	PC_SO1	O	Port C audio data output
33	PA_I_H_MODE[1]	I	Port A audio data input mode select	105	PC_SO2	O	
34	PA_I_H_MODE[2]	I		106	PC_SO3	O	
35	PA_O_H_MODE[0]	I		107	VSS		Ground
36	PA_O_H_MODE[1]	I	Port A audio data output mode select	108	PC_O_MUTE	I	Port C mute
37	PA_O_H_MODE[2]	I		109	PC_O_H_MODE[0]	I	
38	PA_SI0_ATI	I		110	PC_O_H_MODE[1]	I	Port C audio data output mode select
39	PA_SI1	I	Port A audio data input	111	PC_O_H_MODE[2]	I	
40	PA_SI2	I		112	PC_CLK_ATI	I	Port C ADAT clock input
41	PA_SI3	I		113	VSS		Ground
42	PA_I_SW_SEL	I	Port A audio data input sync/wc select	114	PD_I_H_MODE[0]	I	
43	PA_SYNC_WC_SI	I	Port A audio data input sync/wc input	115	PD_I_H_MODE[1]	I	Port D audio data input mode select
44	PA_FS256_SI	I	Port A audio data input bit clock input (256fs)	116	PD_I_H_MODE[2]	I	
45	VSS		Ground	117	VSS		Ground
46	PA_FS256_SO	I	Port A audio data output bit clock input (256fs)	118	PD_H_M4_SEL	I	Port D audio data input buffer active select
47	PA_SYNC_WC_SO	I	Port A audio data output sync/wc input	119	PD_SI0	I	
48	PA_O_SW_SEL	I	Port A audio data output sync/wc select	120	PD_SI1	I	Port D audio data input
49	VSS		Ground	121	PD_SI2	I	
50	PA_SO0	O		122	PD_SI3	I	
51	PA_SO1	O	Port A audio data output	123	PD_I_SW_SEL	I	Port D audio data input sync/wc select
52	PA_SO2	O		124	PD_SYNC_WC_SI	I	Port D audio data input sync/wc input
53	PA_SO3	O		125	PD_FS256_SI	I	Port D audio data input bit clock input (256fs)
54	VDD		Power supply +3.3V	126	VDD		Power supply +3.3V
55	VSS		Ground	127	VSS		Ground
56	PA_CLK_ATI	I	Port A ADAT clock input	128	PD_FS256_SO	I	Port D audio data output bit clock input (256fs)
57	PA_H_M4_SEL	I	Port A audio data input buffer active select	129	PD_SYNC_WC_SO	I	Port D audio data output sync/wc input
58	PA_O_MUTE	I	Port A mute	130	PD_O_SW_SEL	I	Port D audio data output sync/wc select
59	PB_SI0	I		131	VSS		Ground
60	PB_SI1	I	Port B audio data input	132	PD_SO0_ATO	O	
61	PB_SI2	I		133	PD_SO1	O	Port D audio data output
62	PB_SI3	I		134	PD_SO2	O	
63	PB_I_SW_SEL	I	Port B audio data input sync/wc select	135	PD_SO3	O	
64	PB_SYNC_WC_SI	I	Port B audio data input sync/wc input	136	VSS		Ground
65	PB_FS256_SI	I	Port B audio data input bit clock input (256fs)	137	PD_O_MUTE	I	Port D mute
66	VSS		Ground	138	VSS		Ground
67	PB_FS256_SO	I	Port B audio data output bit clock input (256fs)	139	PD_O_H_MODE[0]	I	
68	PB_SYNC_WC_SO	I	Port B audio data output sync/wc input	140	PD_O_H_MODE[1]	I	Port D audio data output mode select
69	PB_O_SW_SEL	I	Port B audio data output sync/wc select	141	PD_O_H_MODE[2]	I	
70	PB_I_H_MODE[0]	I		142	XSM	I	LSI test pin
71	PB_I_H_MODE[1]	I	Port B audio data input mode select	143	PA_WC_ATI	O	Port A ADAT word clock output
72	PB_I_H_MODE[2]	I		144	PC_WC_ATI	O	Port C ADAT word clock output

● ICS2008BV-T (X2832B00) T.C. Reader/Generator

JK1: IC305

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	INTR	O	Interrupt request	23	CTS	I	Clear to send
2	RESET	I	Master reset	24	TXD	O	UART transmit data
3	FRAME	I	Color frame A / B input	25	RTS	O	Ready to send
4	CLICK	I	LTC SYNC input	26	LRCLK	O	SMPTE LTC receive clock
5	LTCIN-	I	SMPTE LTC input -	27	VITCGATE	O	VITE cord is for video overlay
6	LTCIN+	I	SMPTE LTC input +	28	VITCOUT	O	SMPTE VITE output
7	LTCOUT	O	SMPTE LTC output	29	A0	I	Address bus
8	LFC	I	External RC circuit	30	A1	I	Address bus
9	XTAL2	O	14.318 MHz crystal oscillator	31	/SMPTECS	I	SMPTE port chip select
10	XTAL1	I	14.318 MHz crystal oscillator	32	/UARTCS	I	UART chip select
11	AVDD	-	Analog power supply	33	/IOR	I	Read enable
12	AVSS	-	Analog ground	34	VSS	-	Digital ground
13	COUT	O	C(Chroma) output	35	VDD	-	Digital power supply
14	YOUT	O	Y(Luma) output	36	/LOW	I	Write enable
15	C2	I	C(Chroma) input	37	D0	I/O	Data bus
16	Y2	I	Y(Luma) input	38	D1	I/O	
17	C1	I	C(Chroma) input	39	D2	I/O	
18	Y1	I	Y(Luma) input	40	D3	I/O	
19	STHRESH	I	SYNC threshold bypass input	41	D4	I/O	
20	CTHRESH	I	Clamp threshold bypass input	42	D5	I/O	
21	DTHRESH	I	Data threshold bypass input	43	D6	I/O	
22	RXD	I	UART receive data	44	D7	I/O	

● CS8405A-CS (XZ349A00) DIT (Digital Audio Interface Transmitter)

JK1: IC101-103

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	SDA/CDOUT	I/O	Serial control data I/O (I^2C) / Data out (SPI)	15	TCBL	I/O	Transmit channel status block start
2	AD0//CS	I/O	Address bit 0 (I^2C) / Control port chip select (SPI)	16	NC3		Not used
3	AD2	I	Address bit 2 (I^2C)	17	NC4		
4	RXP	I	Auxiliary AES3 Receiver port	18	NC5		
5	DGND2		Digital ground	19	INT	O	Interrupt
6	VD2+		Positive digital power supply (+5V)	20	U	I/O	User data
7	DGND4		Digital ground	21	OMCK	I	Master clock
8	DGND3			22	DGND		Digital ground
9	/RST	I	Reset	23	VD+		Positive digital power supply (+5V)
10	NC1		Not used	24	H//S	I	Hardware/software control mode select
11	NC2			25	TXN	O	Differential line drivers
12	ILRCK	I/O	Serial audio input left/right clock	26	TXP	O	
13	ISCLK	I/O	Serial audio bit clock	27	AD1/CDIN	I	Address bit 1 (I^2C) / Serial control data in (SPI)
14	SDIN	I	Serial audio data port	28	SCL/CCLK	I	Control port clock

● CS8420 (XW559A00) SRC (Sample Rate Converter)

JK1: IC003-005

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	SDA/CDOUT	I/O	Serial control data I/O (I^2C) / data out (SPI)	15	TCBL	I/O	Transmit channel status block start
2	AD0//CS	I	Address bit 0 (I^2C) / Control port chip select (SPI)	16	OSCLK	I/O	Serial audio output port bit clock input or output
3	/EMPH	O	Pre-emphasis indicator output	17	OLRCK	I/O	Serial audio output port left/right clock input or output
4	RXP	I	Differential line receiver inputs	18	SDOUT	O	Serial audio output port data output
5	RXN	I		19	/INT	O	Interrupt output
6	VA+		Positive analog power supply (+5V)	20	U	I/O	User data
7	AGND		Analog ground	21	OMCK	I	Output section master clock input
8	FILT	I/O	PLL loop filter	22	DGND		Digital ground
9	/RST	I	Reset input	23	VD+		Positive digital power supply (+5V)
10	RMCK	O	Input section recovered master clock output	24	H//S	O	Hardware or software control mode select
11	RERR	O	Receiver error indicator	25	TXN	O	Differential line driver outputs
12	ILRCK	I/O	Serial audio input port left/right clock input or output	26	TXP	O	
13	ISCLK	I/O	Serial audio input port bit clock input or output	27	AD1/CDIN	I	Address bit 1 (I^2C) / Serial control data in (SPI)
14	SDIN	I	Serial audio input port data input	28	SCL/CCLK	I	Control port clock

● **XCS40-3PQ240C** (XZ334A00) **FPGA** (Field Programmable Gate Arrays)

DSP: IC056

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	GND		Ground	121	Vcc		Power supply +5V
2	CPUCLK	I/O	Primary global	122	/PROGRAM	I	Active low input
3	/CSIN2	I/O	Unrestricted user-programmable Input/Output pin	123	/CSATSC[3]	I/O	Unrestricted user-programmable Input/Output pin
4	/CSIN3	I/O		124	I/O/PGCK3	I/O	Primary global
5	/RD	I/O		125	/CSATSC[4]	I/O	Unrestricted user-programmable Input/Output pin
6	I/O/TDI	I/O	Test data in (JTAG port)	126	/CSATSC[5]	I/O	
7	I/O/TCK	I/O	Test clock (JTAG port)	127	/CSATSC[6]	I/O	
8	/WRH	I/O	Unrestricted user-programmable Input/Output pin	128	/CSATSC[7]	I/O	
9	/WRL	I/O		129	/CSATSC[8]	I/O	
10	/RES	I/O		130	/CSATSC[9]	I/O	
11	/JK1_WRL	I/O		131	/CSATSC[10]	I/O	
12	/JK1_RD	I/O		132	/CSATSC[11]	I/O	
13	SLOT6_16CH	I/O		133	/CSATSC[12]	I/O	
14	GND		Ground	134	/CSATSC[13]	I/O	
15	SLOT5_16CH	I/O	Unrestricted user-programmable Input/Output pin	135	GND		Ground
16	SLOT4_16CH	I/O		136	256_SLOT6	I/O	Unrestricted user-programmable Input/Output pin
17	I/O/TMS	I/O	Test mode select (JTAG port)	137	WC_SLOT6	I/O	
18	SLOT3_16CH	I/O	Unrestricted user-programmable Input/Output pin	138	256_SLOT3	I/O	
19	Vcc		Power supply +5V	139	WC_SLOT3	I/O	
20	SLOT2_16CH	I/O	Unrestricted user-programmable Input/Output pin	140	Vcc		Power supply +5V
21	SLOT1_16CH	I/O		141	256_SLOT5	I/O	Unrestricted user-programmable Input/Output pin
22	GND		Ground	142	WC_SLOT5	I/O	
23	/CSPER	I/O	Unrestricted user-programmable Input/Output pin	143	GND		Ground
24	/AT1_EN	I/O		144	256_SLOT2	I/O	Unrestricted user-programmable Input/Output pin
25	/AT2_EN	I/O		145	WC_SLOT2	I/O	
26	I/O	I/O		146	256_SLOT4	I/O	
27	I/O	I/O		147	WC_SLOT4	I/O	
28	/CSDSP3	I/O		148	256_SLOT1	I/O	
29	GND		Ground	149	WC_SLOT1	I/O	
30	Vcc		Power supply +5V	150	Vcc		Power supply +5V
31	/CSACIA1	I/O	Unrestricted user-programmable Input/Output pin	151	GND		Ground
32	/CSGPI_RW	I/O		152	/CSSLOT6	I/O	Unrestricted user-programmable Input/Output pin
33	I/O	I/O		153	EXTWC[7]	I/O	
34	ACLK1 (1MHz)	I/O		154	SLOT_48S	I/O	
35	ACLK2 (1.2288MHz)	I/O		155	SLOT_48K	I/O	
36	I/O	I/O		156	/CSSLOT3	I/O	
37	GND		Ground	157	EXTWC[4]	I/O	
38	I/O	I/O	Unrestricted user-programmable Input/Output pin	158	GND		Ground
39	/CSDSP2	I/O		159	/CSSLOT5	I/O	Unrestricted user-programmable Input/Output pin
40	Vcc		Power supply +5V	160	EXTWC[6]	I/O	
41	/CSDIT_RW	I/O	Unrestricted user-programmable Input/Output pin	161	Vcc		Power supply +5V
42	/CSJK1	I/O		162	SLOT_12M	I/O	Unrestricted user-programmable Input/Output pin
43	/CSJK	I/O		163	/CSSLOT2	I/O	
44	I/O	I/O		164	EXTWC[3]	I/O	
45	GND		Ground	165	/CSSLOT4	I/O	
46	ANA256FS	I/O	Unrestricted user-programmable Input/Output pin	166	GND		Ground
47	DOUBLE	I/O		167	EXTWC[5]	I/O	Unrestricted user-programmable Input/Output pin
48	K48K96	I/O		168	SLOT_6M	I/O	
49	/CSDSP1	I/O		169	SLOT_3M	I/O	
50	I/O	I/O		170	/CSSLOT1	I/O	
51	EXTWC[10]	I/O		171	EXTWC[2]	I/O	
52	EXTWC[11]	I/O		172	/CSSLOT	I/O	
53	EXTWC[12]	I/O		173	I/O	I/O	
54	TRRERR[1]	I/O		174	DIR2XI	I/O	
55	TRRERR[2]	I/O		175	I/O	I/O	
56	TRRERR[3]	I/O		176	I/O	I/O	
57	I/O/SGCK2	I/O	Secondary global	177	I/O (DIN)	I/O	Serial configuration data input
58	NC		Not used	178	I/O/SGCK4 (DOUT)	I/O	Secondary global / Serial configuration data output
59	GND		Ground	179	CCLK	I	Configuration clock
60	MODE	I	Master/Slave mode selection	180	Vcc		Power supply +5V
61	Vcc		Power supply +5V	181	O/TDO	O	Test data output
62	NC		Not used	182	GND		Ground
63	I/O/PGCK2	I/O	Primary global	183	CINPCPOUT	I/O	Unrestricted user-programmable Input/Output pin
64	I/O (HDC)	I/O	High during configuration	184	I/O/PGCK4	I/O	Primary global
65	NORMAL_WC	I/O	Unrestricted user-programmable Input/Output pin	185	DIRMCA	I/O	Unrestricted user-programmable Input/Output pin
66	I/O	I/O		186	DIRMCB	I/O	
67	I/O	I/O		187	DIRWC	I/O	
68	I/O (/LDC)	I/O	Low during configuration	188	DIRMCC	I/O	
69	/JK1WAIT	I/O	Unrestricted user-programmable Input/Output pin	189	DIRSYNC	I/O	
70	I/O	I/O		190	DIRWCSEL	I/O	
71	/MLOCKSEL	I/O		191	CIN256FS	I/O	
72	/LOCKRTN	I/O		192	CINPLLOUT	I/O	
73	/LOCK	I/O		193	CINWC	I/O	
74	/DIRLOCK	I/O		194	EXTWC[1]	I/O	
75	GND		Ground	195	NC		Not used
76	PLLOUT	I/O	Unrestricted user-programmable Input/Output pin	196	GND		Ground
77	EXTWCSEL	I/O		197	EXTWC[8]	I/O	Unrestricted user-programmable Input/Output pin
78	PCPOUT	I/O		198	EXTWC[9]	I/O	
79	MWC	I/O		199	CIN48K96K	I/O	
80	Vcc		Power supply +5V	200	CINPLLINH	I/O	
81	MSYNC	I/O	Unrestricted user-programmable Input/Output pin	201	Vcc		Power supply +5V
82	M64FS	I/O		202	DT[0]	I/O	Unrestricted user-programmable Input/Output pin
83	GND		Ground	203	DT[1]	I/O	
84	M128FS	I/O	Unrestricted user-programmable Input/Output pin	204	GND		Ground
85	M256FS	I/O		205	DT[2]	I/O	Unrestricted user-programmable Input/Output pin
86	MUTEIN	I/O		206	DT[3]	I/O	
87	MUTEOUT	I/O		207	DT[4]	I/O	
88	/CSDSP6[1]	I/O		208	DT[5]	I/O	
89	I/O (/INIT)	I/O	Bidirectional signal	209	DT[6]	I/O	
90	Vcc		Power supply +5V	210	DT[7]	I/O	
91	GND		Ground	211	GND		Ground
92	/CSDSP6[2]	I/O	Unrestricted user-programmable Input/Output pin	212	Vcc		Power supply +5V
93	/CSDSP6[3]	I/O		213	DT[8]	I/O	Unrestricted user-programmable Input/Output pin
94	/CSDSP6[4]	I/O		214	DT[9]	I/O	
95	/CSDSP6[5]	I/O		215	DT[10]	I/O	
96	/CSDSP6[6]	I/O		216	DT[11]	I/O	
97	/CSDSP6[7]	I/O		217	DT[12]	I/O	
98	GND		Ground	218	DT[13]	I/O	
99	/CSDSP6[8]	I/O	Unrestricted user-programmable Input/Output pin	219	GND		Ground
100	/CSDSP7[1]	I/O		220	DT[14]	I/O	Unrestricted user-programmable Input/Output pin
101	Vcc		Power supply +5V	221	DT[15]	I/O	
102	/CSDSP7[2]	I/O	Unrestricted user-programmable Input/Output pin	222	Vcc		Power supply +5V
103	/CSDSP7[3]	I/O		223	AD[16]	I/O	Unrestricted user-programmable Input/Output pin
104	/CSDSP7[4]	I/O		224	/JK1_WRH	I/O	
105	/CSDSP7[5]	I/O		225	AD[1]	I/O	
106	GND		Ground	226	AD[2]	I/O	
107	/CSDSP7[6]	I/O	Unrestricted user-programmable Input/Output pin	227	GND		Ground
108	/CSDSP7[7]	I/O		228	AD[3]	I/O	Unrestricted user-programmable Input/Output pin
109	/CSDSP7[8]	I/O		229	AD[4]	I/O	
110	/CSDSP7[9]	I/O		230	AD[5]	I/O	
111	/CSDSP7[10]	I/O		231	AD[6]	I/O	
112	/CSDSP7[11]	I/O		232	AD[7]	I/O	
113	/CSDSP7[12]	I/O		233	AD[8]	I/O	
114	/CSDSP7[13]	I/O		234	AD[11]	I/O	
115	/CSDSP7[14]	I/O		235	AD[12]	I/O	
116	/CSATSC[1]	I/O		236	AD[13]	I/O	
117	/CSATSC[2]	I/O		237	AD[14]	I/O	
118	I/O/SGCK3	I/O	Secondary global	238	AD[15]	I/O	
119	GND		Ground	239	I/O/SGCK1	I/O	Secondary global
120	DONE	O	Bidirectional signal	240	Vcc		Power supply +5V

● **S1D13305F00B100** (XQ595A00) **LCDC** (LCD Controller)

CPU1: IC129

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	VA5	O	VRAM address bus	31	XD2	O	Data bus output for 4 bit dot
2	VA4	O		32	XD1	O	
3	VA3	O		33	XD0	O	
4	VA2	O		34	XECL	O	S driver enable, chain clock
5	VA1	O		35	XSCL	O	Data bus shift clock
6	VA0	O		36	Vss	-	Ground
7	/VWR	O	VRAM read/write	37	LP	O	X driver latch pulse
8	/VCE	O	Memory control	38	WF	O	Frame signal for X/Y driver
9	/VRD	-	Not used	39	YDIS	O	Power down signal for displaying off mode
10	/RES	I	Initial clear	40	YD	O	Scan start signal
11	NC	-	Not used	41	YSCL	O	Scan shift clock
12	NC	-	Not used	42	VD7	I/O	VRAM data bus
13	/RD	I	Read strobe	43	VD6	I/O	
14	/WR	I	Write strobe	44	VD5	I/O	
15	SEL2	I	Bus select	45	VD4	I/O	
16	SEL1	I	Bus select	46	VD3	I/O	
17	OSC1	I	Clock	47	VD2	I/O	
18	OSC2	O	Clock	48	VD1	I/O	
19	/CS	I	Chip select	49	VD0	I/O	
20	A0	I	Data mode select	50	VA15	O	VRAM address bus
21	Vdd	-	Power supply	51	VA14	O	
22	D0	I/O	Data bus	52	VA13	O	
23	D1	I/O		53	VA12	O	
24	D2	I/O		54	VA11	O	
25	D3	I/O		55	VA10	O	
26	D4	I/O		56	VA9	O	
27	D5	I/O		57	VA8	O	
28	D6	I/O		58	VA7	O	
29	D7	I/O		59	VA6	O	
30	XD3	O	Data bus output for 4 bit dot	60	NC	-	Not used

● **AK4393-VF-E2** (XW029A00) **DAC** (Digital to Analog Converter)

ADA: IC151, 251, 351, 451
DA: IC903-906

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	DVSS	-	Digital ground	15	BVSS	-	Substrate ground
2	DVDD	-	Digital power supply	16	VREFL	I	Low level voltage reference
3	MCLK	I	Master clock	17	VREFH	I	High level voltage reference
4	/PD	I	Power down mode	18	AVDD	-	Analog power supply +5 V
5	BICK	I	Audio serial data clock	19	AVSS	-	Analog ground
6	SDATA	I	Audio serial data input	20	AOUTR-	O	Rch negative analog output
7	LRCK	I	L/R clock	21	AOUTR+	O	Rch positive analog output
8	SMUTE//CS	I	Soft mute	22	AOUTL-	O	Lch negative analog output
9	DFS	I	Double speed sampling mode	23	AOUTL+	O	Lch positive analog output
10	DEM0/CCLK	I	De-emphasis enable	24	VCOM	O	Common voltage output
11	DEM1/CDTI	I		25	P//S	I	Parallel/serial select
12	DIF0	I	Digital input format	26	CKS0	I	Master clock select
13	DIF1	I		27	CKS1	I	
14	DIF2	I		28	CKS2	I	

● **AK5383-VS** (XW272A00) **ADC** (Analog to Digital Converter)

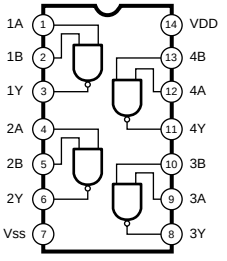
AD1: IC103, 203, 303, 403, 503, 603
ADA: IC103, 203, 303, 403, 503, 552, 603, 703, 803

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	VREFL	O	Lch voltage reference output	15	SDATA	O	Serial data output
2	GNDL		Lch ground	16	FSYNC	I/O	Frame synchronization clock
3	VCOML	O	Lch common voltage	17	MCLK	I	Master clock input
4	AINL+	I	Lch positive analog input	18	DFS	I	Double speed sampling mode select
5	AINL-	I	Lch negative analog input	19	HPFE	I	HPF enable
6	ZCAL	I	Zero calibration	20	TEST	I	Test
7	VD		Digital power supply +3.3V	21	BGND		Substrate ground
8	DGND		Digital ground	22	AGND		Analog ground
9	CAL	O	Calibration status	23	VA		Analog power supply +5V
10	/RST	I	Reset	24	AINR-	I	Rch negative analog input
11	SMODE2	I	Serial interface mode select	25	AINR+	I	Rch positive analog input
12	SMODE1	I		26	VCOMR	O	Rch common voltage
13	LRCK	I/O	L/R channel select clock	27	GNDR		Rch ground
14	SCLK	I/O	Serial data clock	28	VREFR	O	Rch voltage reference output

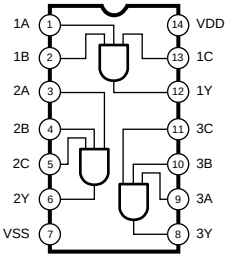
IC BLOCK DIAGRAM

02R96

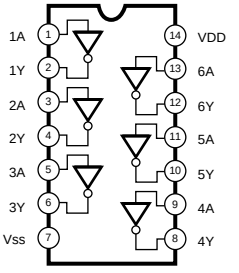
- **TC74VHC00F** (XT229A00)
  CPU1: IC133
  DSP: IC058 ,704
- **MM74HC00SJX** (XW105A00)
  FD1: IC138
  FD2: IC127
- **HD74LV00AFPEL** (IS000000)
  SUB: IC704
  Quad 2 Input NAND



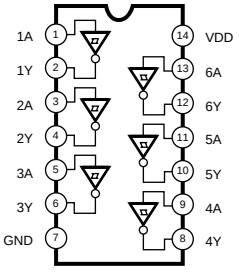
- **TC74VHC11F (EL)** (XT812A00)
  DSP: IC411-413
  Triple 3 Input AND



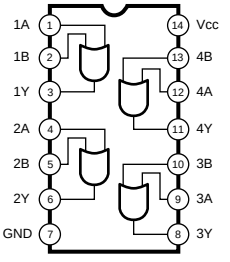
- **TC74VHC04F (EL)** (XM332A00)
  CPU1: IC132
  DSP: IC702
  JK1: IC407, 408
- **HD74LV04AFPEL** (IS000400)
  SUB: IC907
- **HD74LVU04AFPEL** (XY102A00)
  SUB: IC706
- **SN74HCU04NSR** (XW842A00)
  JK1: IC001
- **HD74LS06FPEL** (XH610A00)
  FD1: IC130-132
  FD2: IC120, 121
  Hex Inverter



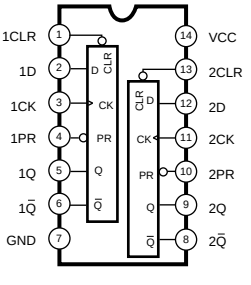
- **TC74VHC14F-EL** (XW876A00)
  DSP: IC057, 072
  JK1: IC456
  JK2 (1/2): IC701
  Hex Inverter



- **TC74VHC32F (EL)** (XY537A00)
  CPU1: IC136, 141
  DSP: IC032, 955
- **TC74HC32AF** (XN241A00)
  DSP: IC033
  Quad 2 Input OR

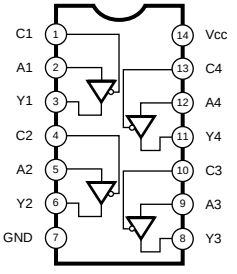


- **TC74VHC74F-EL** (XW875A00)
  DSP: IC105
  Dual D-Type Flip-Flop

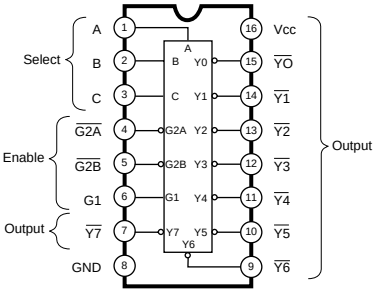


INPUTS				OUTPUTS	
PR	CLR	CLK	D	Q	Q
L	H	X	X	H	L
H	L	X	X	L	H
L	L	X	X	H	H
H	H	f	H	H	L
H	H	f	L	L	H
H	H	L	X	Q₀	Q₀

- **TC74VHC125F** (XW313A00)
  DSP: IC705
  JK1: IC301
- **HD74LV125AFPEL** (IS012500)
  SUB: IC703
  Quad 3-State Bus Buffer



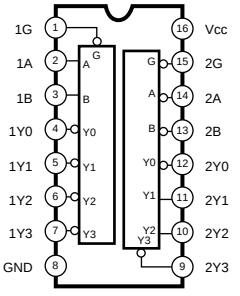
- **SN74LV138ANSR** (IS013810)
  SUB: IC900
- **TC74HC138AFEL** (XW762A00)
  SUB: IC906, 910
- **TC74VHC138F** (XT015A00)
  JK1: IC402
  JK2 (1/2): IC907
  3 to 8 Demultiplexer



- **TC74VHC139F (EL)** (XW324A00)

CPU1: IC125
JK1: IC401

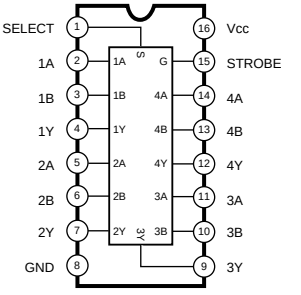
Dual 2 to 4 Demultiplexer



- **TC74VHC157F (EL)** (XT475A00)

DSP: IC608-611, 655-658

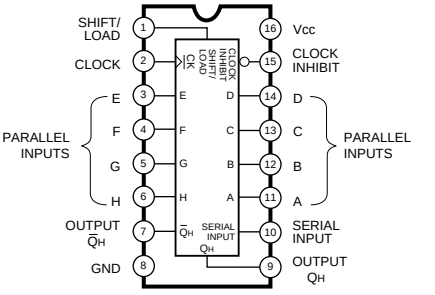
Quad 2 to 1 Multiplexer



- **HD74LV165AFPEL** (IS016500)

PN1: IC104, 105
PN2: IC102, 103, 503

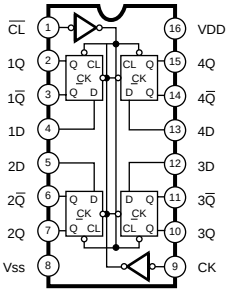
8-Bit Shift Register



- **HD74LV175AFPEL** (IS017500)

JK2 (1/2): IC802

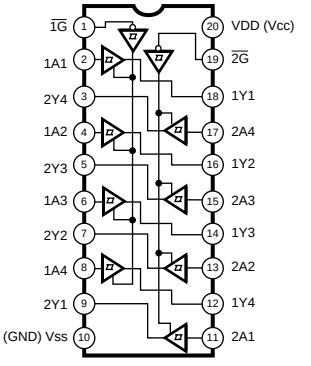
Quad D-Type Flip-Flop



- **TC74VHC244F** (XT800A00)

CPU1: IC118
DSP: IC904, 905
JK1: IC455, 459
JK2 (1/2): IC903, 904

Octal 3-State Bus Buffer



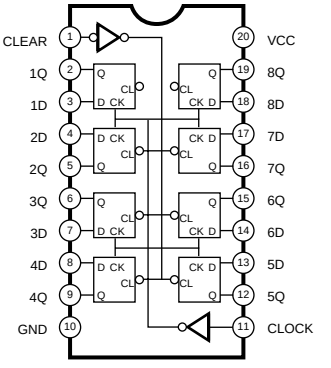
- **MM74HC273SJX** (XY198A00)

FD1: IC104-109
FD2: IC104-107

- **TC74VHC273F (EL)** (XY254A00)

JK1: IC404-406
JK2 (1/2): IC801, 909

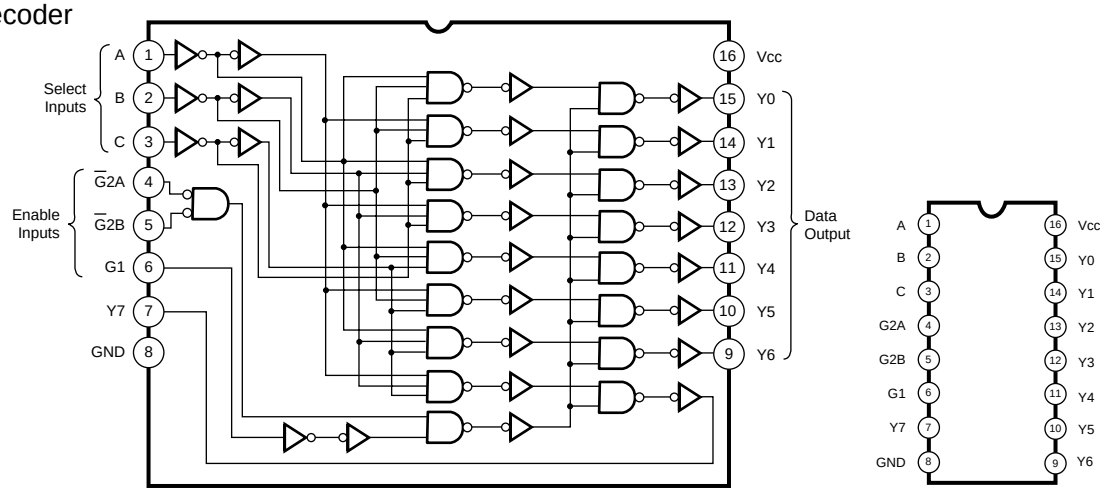
Octal D-Type Flip-Flop



- **TC74HC238AF** (XT163A00)

PN1: IC101
PN2: IC108, 109, 500

3 to 8 Line Decoder



- **HD74LV245AFPEL** (IS024500)

SUB: IC601, 602

- **TC74HC245AF** (XS720A00)

AD1: IC001, 002
ADA: IC001, 002, 004, 005
DA: IC901, 902
FD1: IC101-103
FD2: IC101-103
PN1: IC100
PN2: IC100, 101
SUB: IC701, 904, 905, 908, 909, 911-913

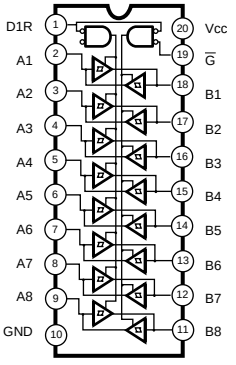
- **TC74VHC245F** (XT487A00)

CPU1: IC115-117, 119-121, 126, 134, 135
DSP: IC005-009, 013-020, 052-054, 067-069, 120, 409, 410, 605-607, 612-615, 802, 805, 851, 901
JK1: IC403, 451-454, 457, 458
JK2 (1/2): IC804, 901, 902, 905, 906, 908, 910-913

- **TC74VHCT245AF** (XV242A00)

CPU1: IC112, 131
DSP: IC002-004, 023-027, 055, 801, 804, 902, 906, 907, 953

Octal 3-State Bus Transceiver



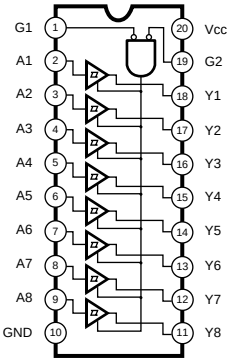
- **74VHC541SJX** (XY961A00)

DSP: IC070, 071, 106, 803, 806, 852, 903, 908, 909, 951, 952

- **HD74LV541AFPEL** (IS054100)

DSP: IC001

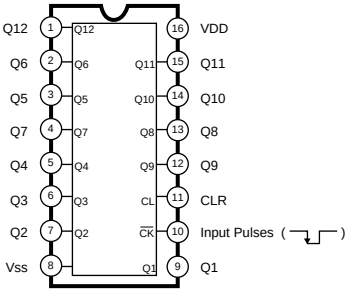
Octal 3-State Buffer



- **SN74LV4040ANSR** (IS404010)

DSP: IC701

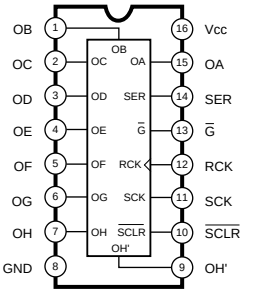
12-Stage Binary Ripple Counter



- **HD74LV595AFPEL** (IS059500)

PN1: IC102, 103
PN2: IC104-107, 501, 502

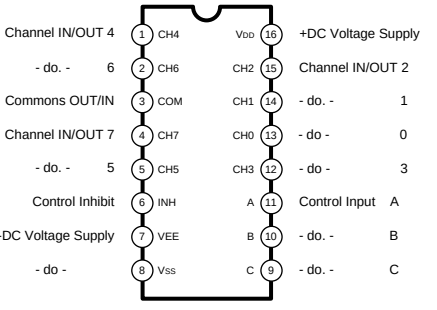
8-Bit Shift Register with Output Latches



- **HD74LV4051AFPEL** (IS405100)

FD1: IC139, 140
FD2: IC128, 129

Single 8-channel Multiplexer/Demultiplexer



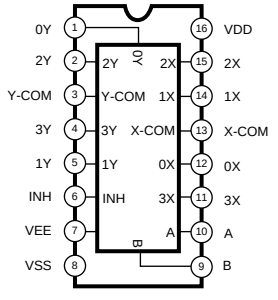
- **SN74LV4052ANSR** (IS405210)

SUB: IC914

- **TC74HC4052AF** (XS790A00)

FD1: IC110, 111
FD2: IC108

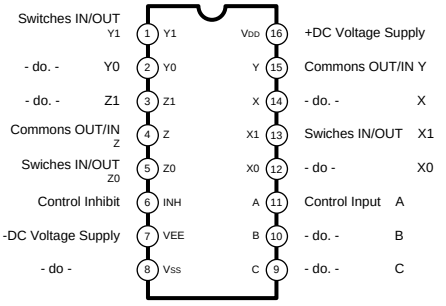
Differential 4-channel Multiplexer/Demultiplexer



- **HD74LV4053AFPEL** (IS405300)

DSP: IC060, 062

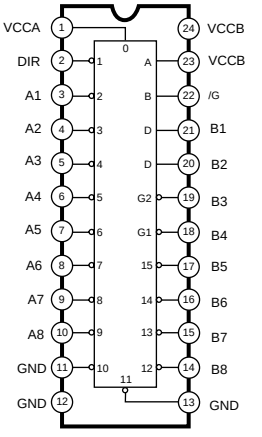
Triple 2-Channel Multiplexer/Demultiplexer



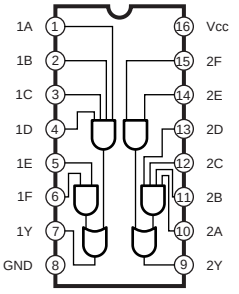
- **TC74LVX4245FS** (XU229A00)

CPU1: IC127
DSP: IC010, 011, 021, 022, 028-031

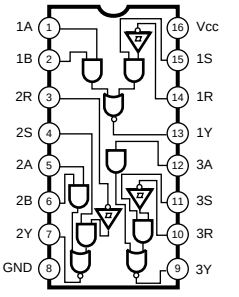
Dual Supply Octal Bus Transceiver



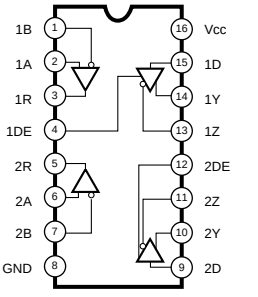
- **SN75121NSR** (XU816A00)
  JK1: IC104
  Dual Line Driver



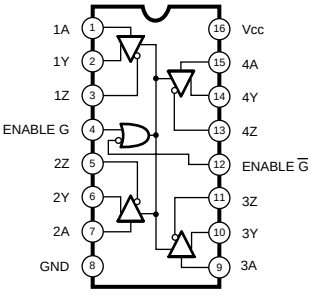
- **SN75124NSR** (XV930A00)
  JK1: IC002
  Triple Line Receiver



- **SN75C1168NSR** (XU073A00)
  JK2 (1/2): IC803
  Line Driver/Receiver



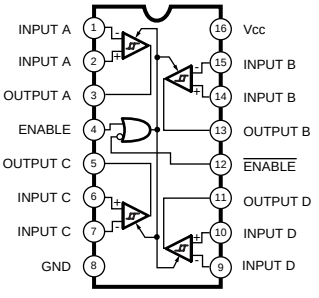
- **AM26LS31CNSR** (XU996A00)
  JK2 (1/2): IC501, 601-604
  Quad Line Driver



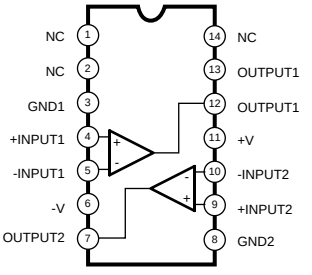
INPUT	ENABLES		OUTPUTS	
A	G	$\overline{G}$	Y	Z
H	H	X	H	L
L	H	X	L	H
H	X	L	H	L
L	X	L	L	H
X	L	H	Z	Z

H= high level
L= low level
X= irrelevant
Z= high impedance (off)

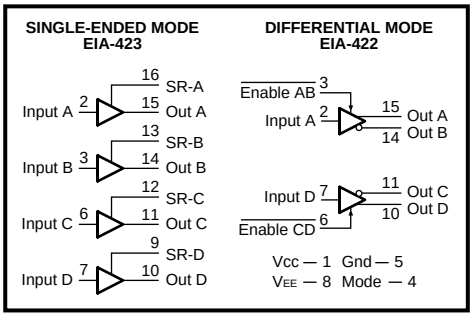
- **DS26C32ATMX** (XU815A00)
  JK1: IC203
  JK2 (1/2): IC502-505, 605
  Quad Differential Line Receiver

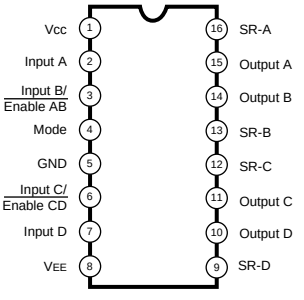


- **UPC319G2** (IG156700)
  JK1: IC304
  Voltage Comparator



- **MC26LS30DR2** (XL334A00)
  JK1: IC202
  Line Driver



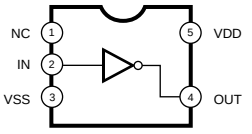


Operation	Vcc	VEE	Inputs Mode	A	B	C	D	Outputs A	B	C	D
Differential (EIA-422-A)	+5.0	GND	0	0	0	0	0	0	1	1	0
			0	1	0	0	1	1	0	0	1
			0	X	1	0	1	Z	Z	0	1
			0	1	0	0	0	1	0	1	0
			0	0	0	0	1	0	1	0	1
			0	1	0	1	X	1	0	Z	Z
Single-Ended (EIA-423-A)	+5.0	-5.0	1	0	0	0	0	0	0	0	0
			1	1	0	0	0	1	0	0	0
			1	0	1	0	0	0	1	0	0
			1	0	0	1	0	0	0	1	0
			1	0	0	0	1	0	0	0	1
X	0	X	X	X	X	X	X	Z	Z	Z	Z

X = Don't Care
Z = High Impedance (Off)

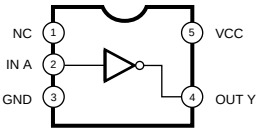
- **TC7S04F** (XM182A00)

  AD1: IC003
  ADA: IC003
  DA: IC900
  Inverter Gate



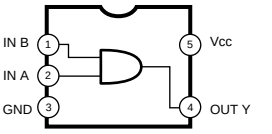
- **TC7SH04FU** (XS775A00)

  CPU1: IC122
  DSP: IC012, 066
  Inverter Gate



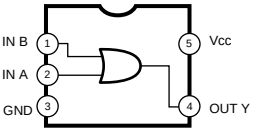
- **TC7SH08FU** (XR680A00)

  CPU1: IC123, 137
  2 Input AND Gate



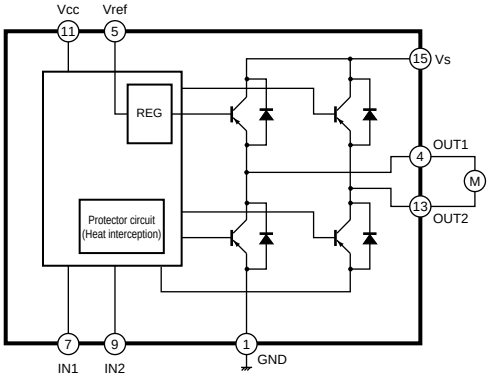
- **TC7SH32FU (TE85L)** (XW633A00)

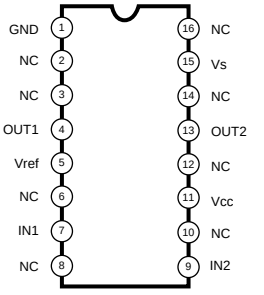
  DSP: IC051
  Input OR Gate



- **TA7291F** (XW618A00)

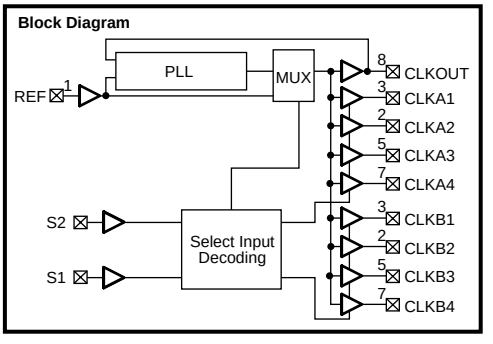
  FD1: IC114-129
  FD2: IC111-119
  Motor Driver

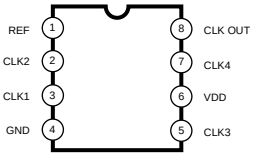




- **CY2305** (XY937A00)

  CPU1: IC114
  Clock Buffer





Pin No.	Signal	Function
1	REF	Input reference frequency, 5V-tolerant input
2	CLK2	Buffered clock output
3	CLK1	Buffered clock output
4	GND	Ground
5	CLK3	Buffered clock output
6	VDD	3.3V supply
7	CLK4	Buffered clock output
8	CLKOUT	Buffered clock output, internal feedback on this pin

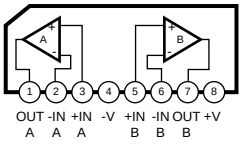
- **NJM2068L-D** (XM356A00)

  2TRI: IC101, 102
  PHN: IC202
  ANI1: IC100, 101
  ANI2: IC100, 101, 200, 201

- **NJM4556AL** (XP844A00)

  PHN: IC201
  ST: IC301, 401
  DA: IC102, 202, 302, 402, 502, 602, 702, 802

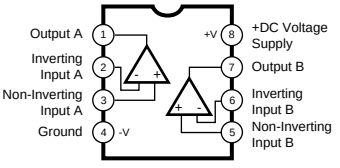
  Dual Operational Amplifier



- **NJM2904V (TE1)** (XR532A00)

  CPU1: IC139
  FD1: IC112, 113, 137
  FD2: IC109, 110, 126
  SUB: IC608

  Dual Operational Amplifier



- **NJM2068V (TE1)** (XT618A00)

  FD1: IC133-136
  FD2: IC122-125

- **NJM4560M (T1)** (XA862B00)

  JK1: IC302

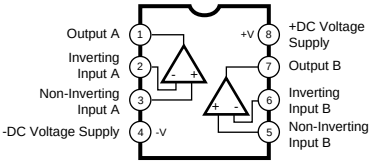
- **µPC4570G2** (XF291A00)

  AD1: IC101, 102, 201, 202, 301, 302, 401, 402, 501, 502, 601, 602
  ADA: IC101, 102, 153, 154, 201, 202, 253, 254, 301, 302, 353-355, 401, 402, 453, 454, 501, 502, 551, 601, 602, 701, 702, 801, 802
  DA: IC101, 201, 301, 401, 501, 601, 701, 801
  STD: IC102

- **NJM4580E-T1** (XQ178A00)

  STD: IC101, 201, 301, 401

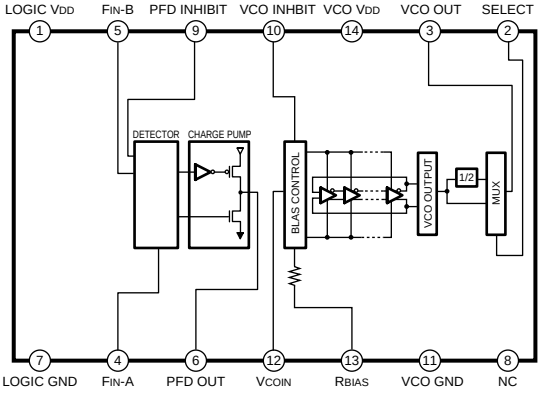
  Dual Operational Amplifier

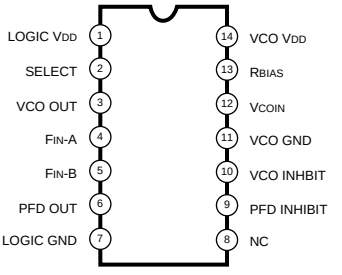


- **TLC2932IPWR** (XV064A00)

  DSP: IC061, 063

  PLL



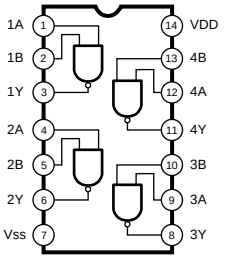


MB02R96

- **SN74HC00NSR** (XE165A00)

  PN2: IC500

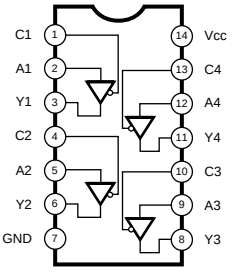
  Quad 2 Input NAND



- **SN74HC125NSR** (XH218A00)

  PN2: IC501

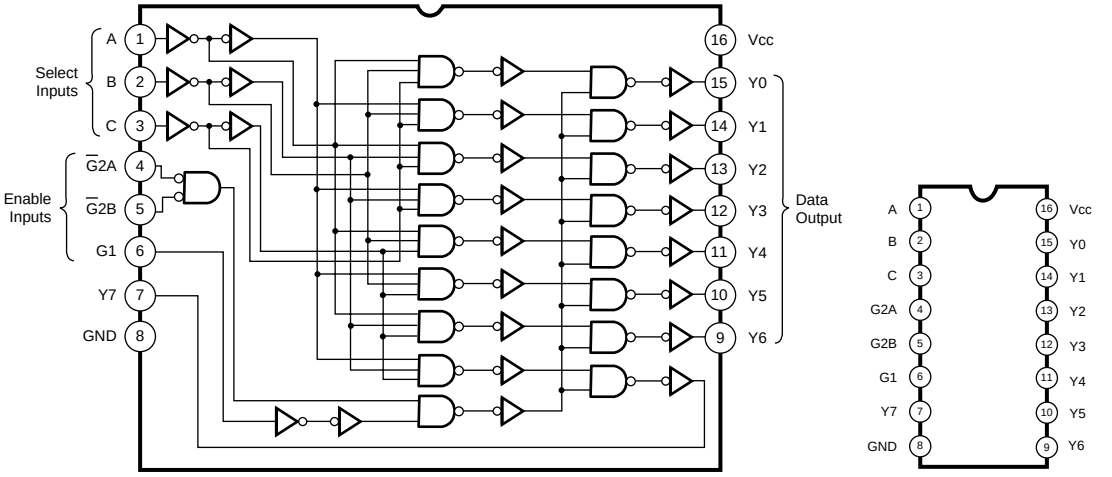
  Quad 3-State Bus Buffer



- **TC74HC238AF** (XT163A00)

  PN2: IC511

  3 to 8 Line Decoder



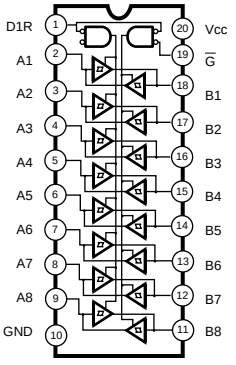
- **SN74HC245NSR** (XD838A00)

  PN2: IC510

- **TC74HC245AF** (XS720A00)

  PN1: IC100

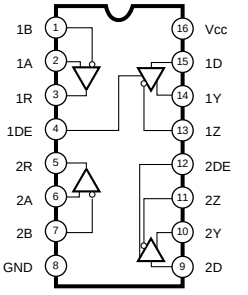
  Octal 3-State Bus Transceiver



- **SN75C1168N** (XU463A00)

  DC1: IC303

  Line Driver/Receiver

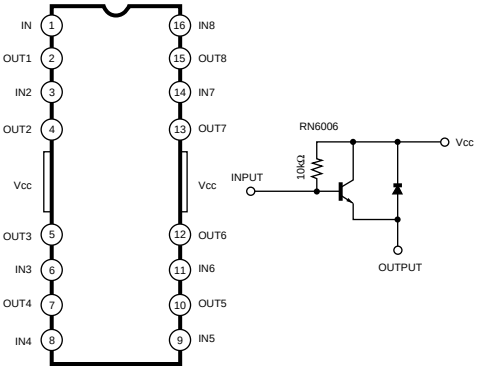


- **TD62M8600F** (XV014A00)

  PN1: IC101, 300

  PN2: IC600

  Source Driver

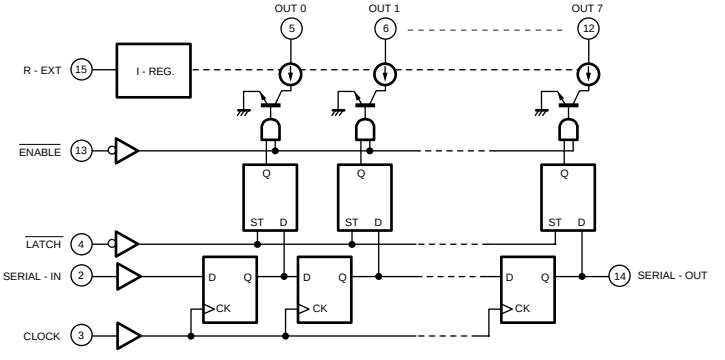


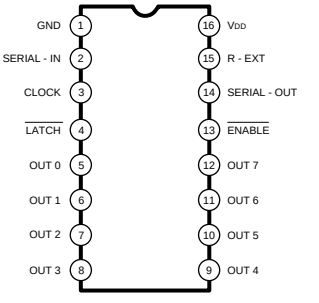
- **TB62705CF (EL)** (XV013A00)

  PN1: IC102-104, 301, 302

  PN2: IC601-603

  LED Driver





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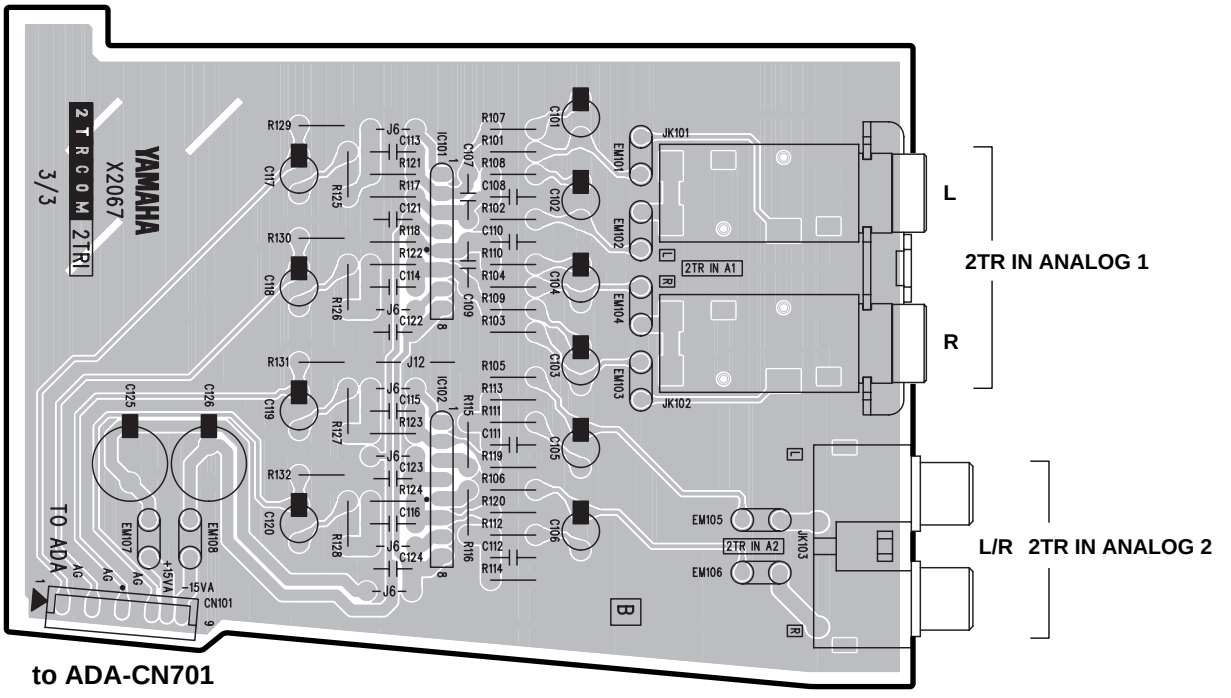
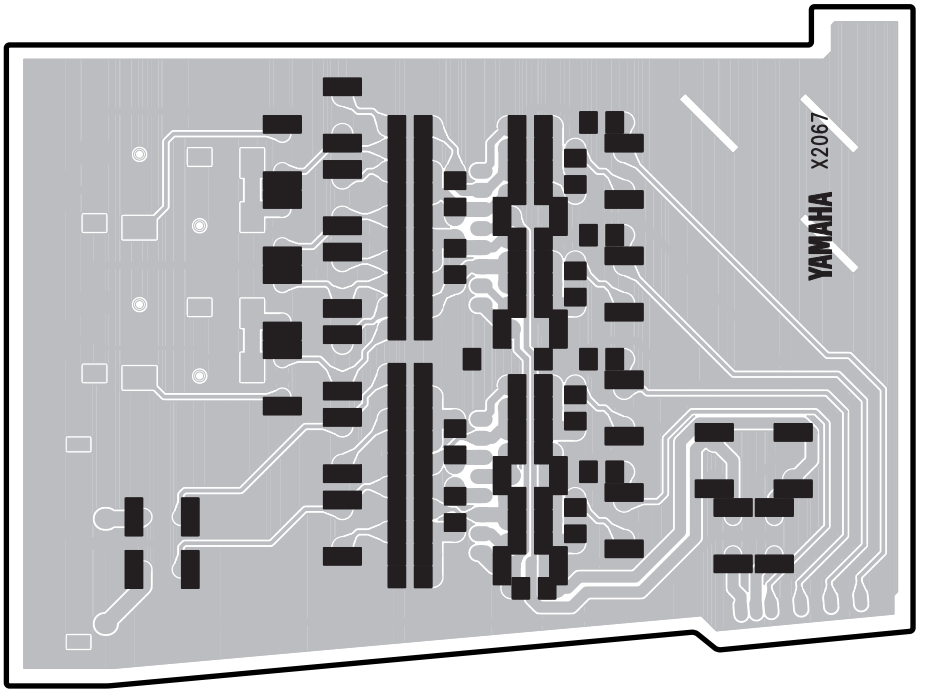
Note: See parts list for details of circuit board component parts.

• 2TRCOM (2TRI) Circuit Board



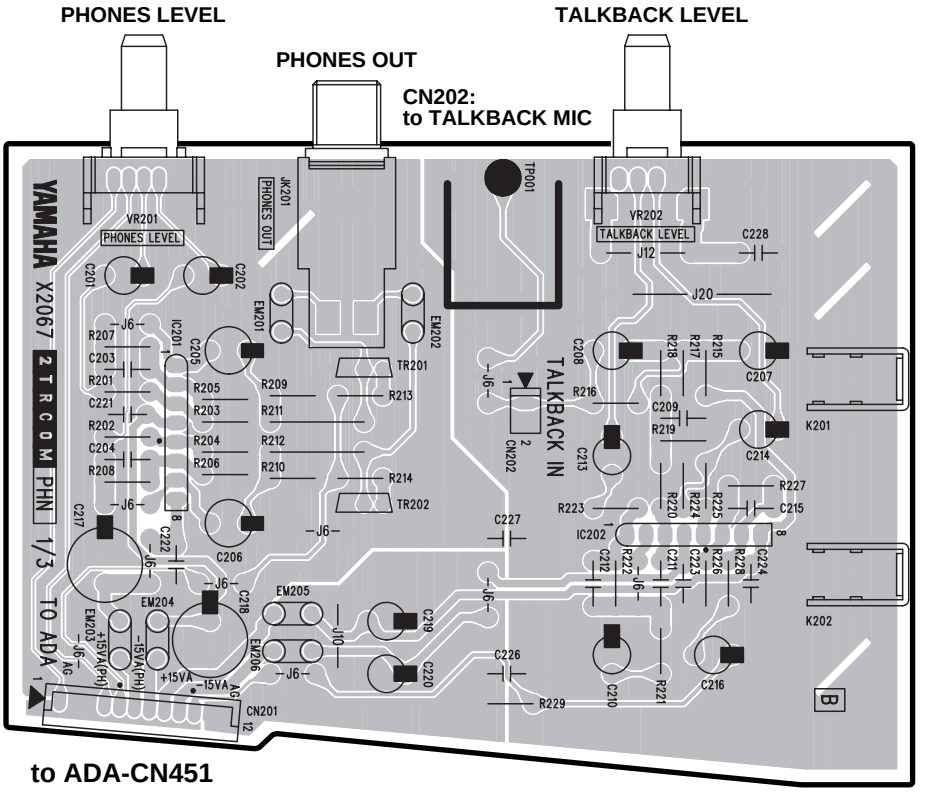
Component side



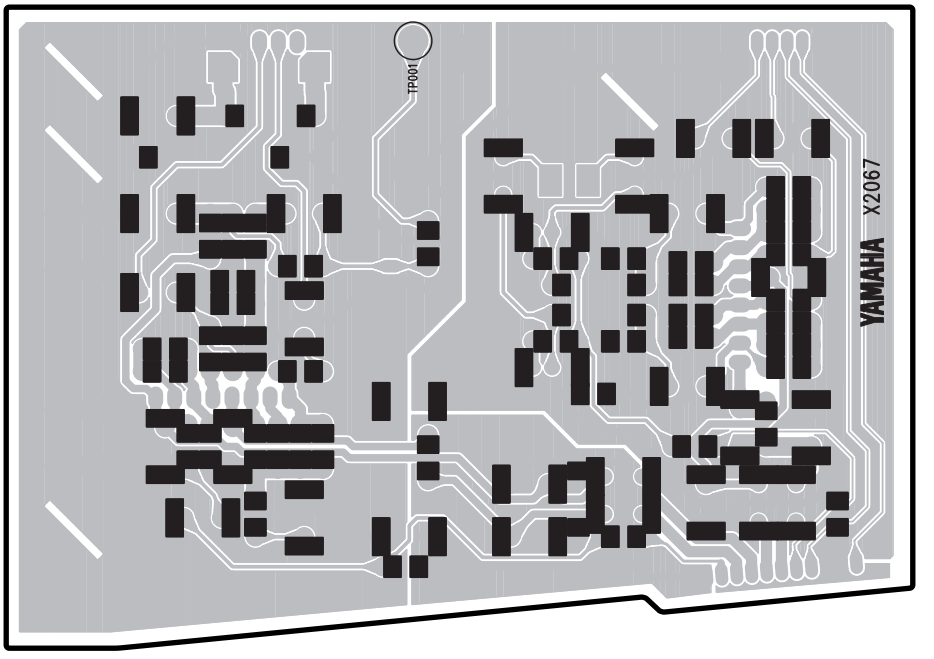
Pattern side

3NA-V863060-2

• 2TRCOM (PHN) Circuit Board



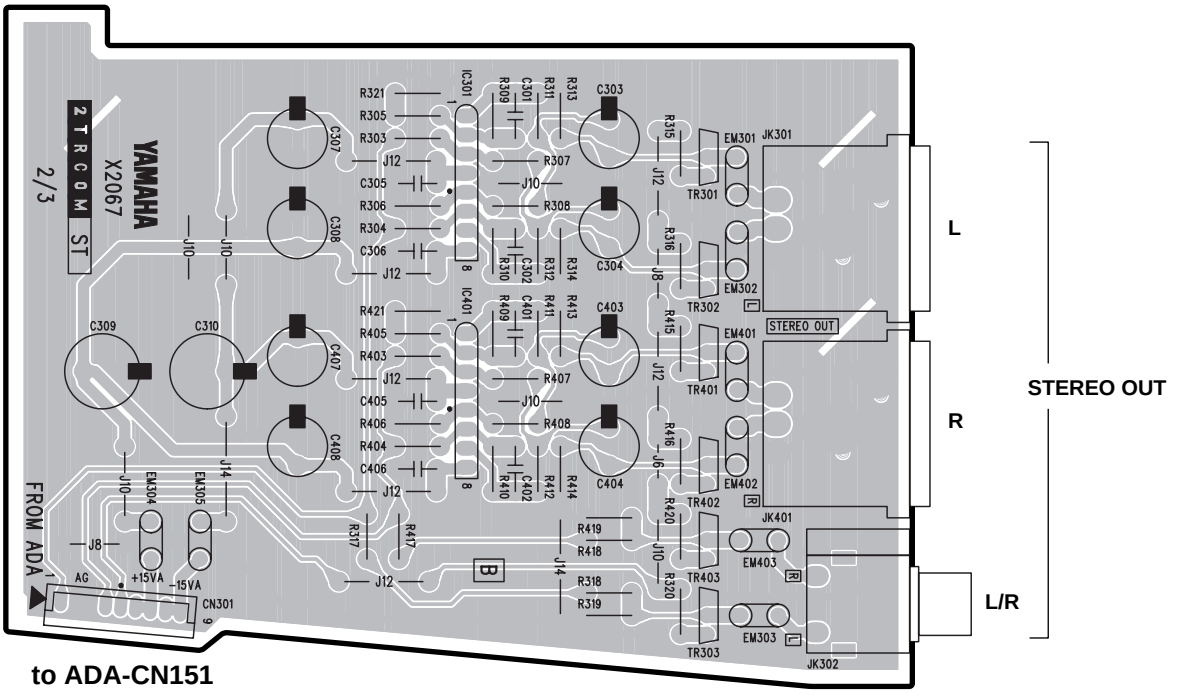
Component side



Pattern side

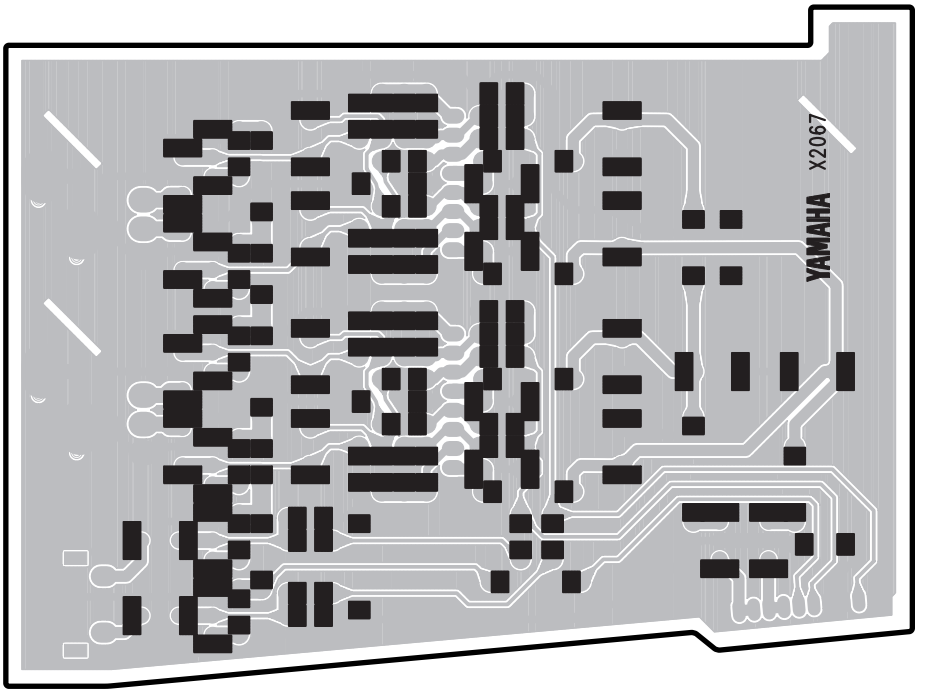
3NA-V863060-2

• 2TRCOM (ST) Circuit Board



to ADA-CN151

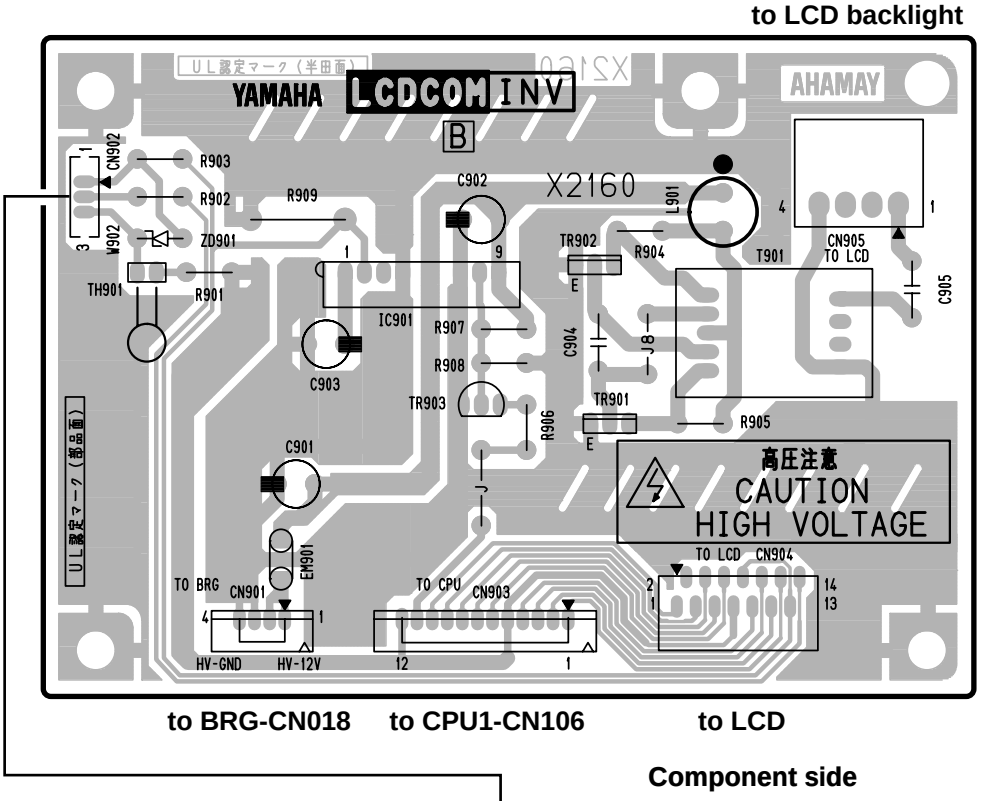
Component side



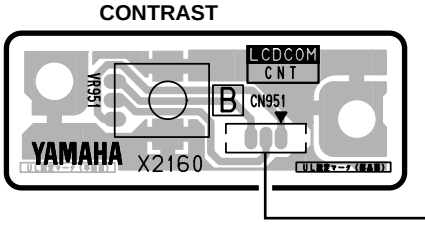
Pattern side

3NA-V863060-2

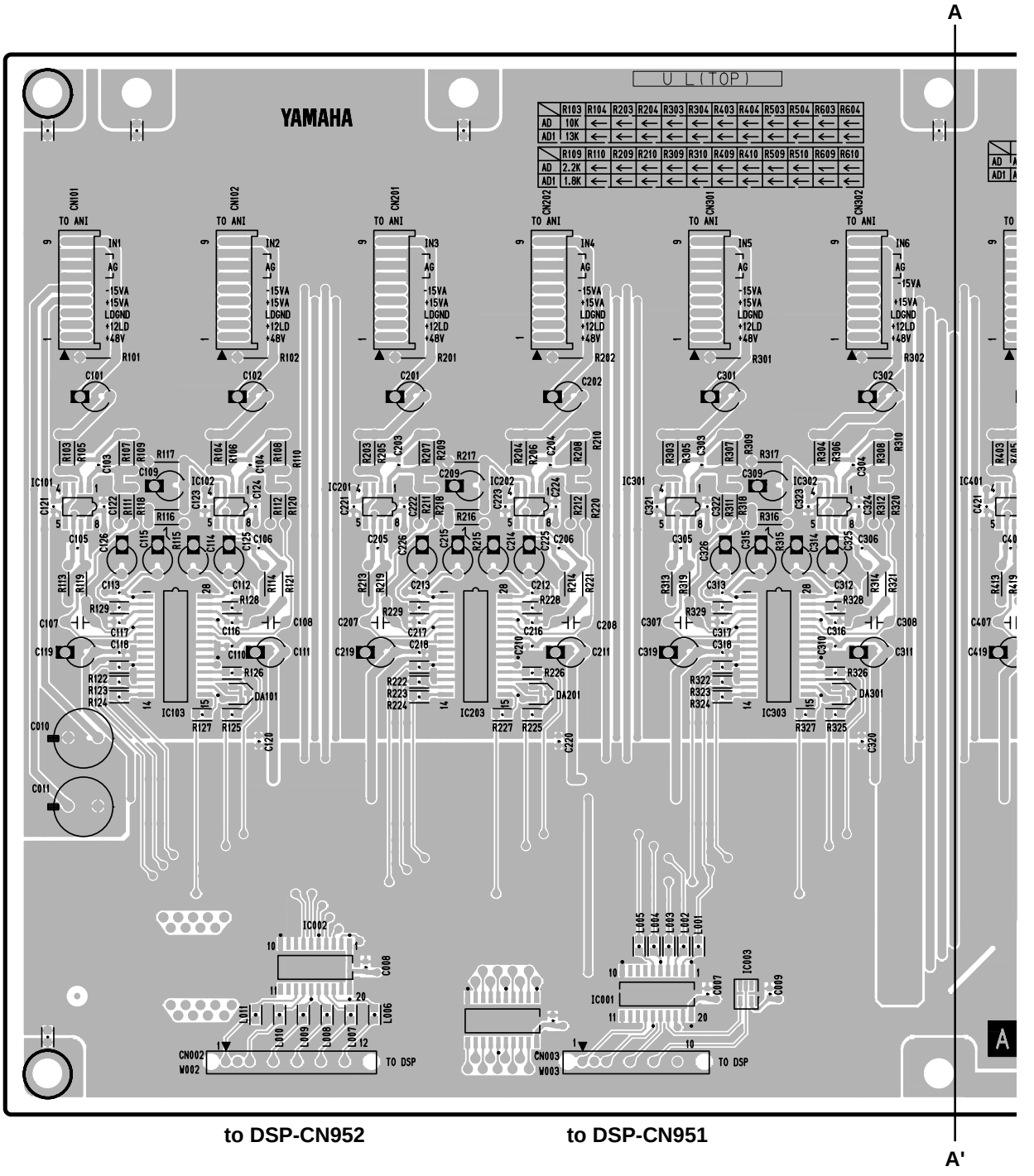
• LCDCOM (INV) Circuit Board

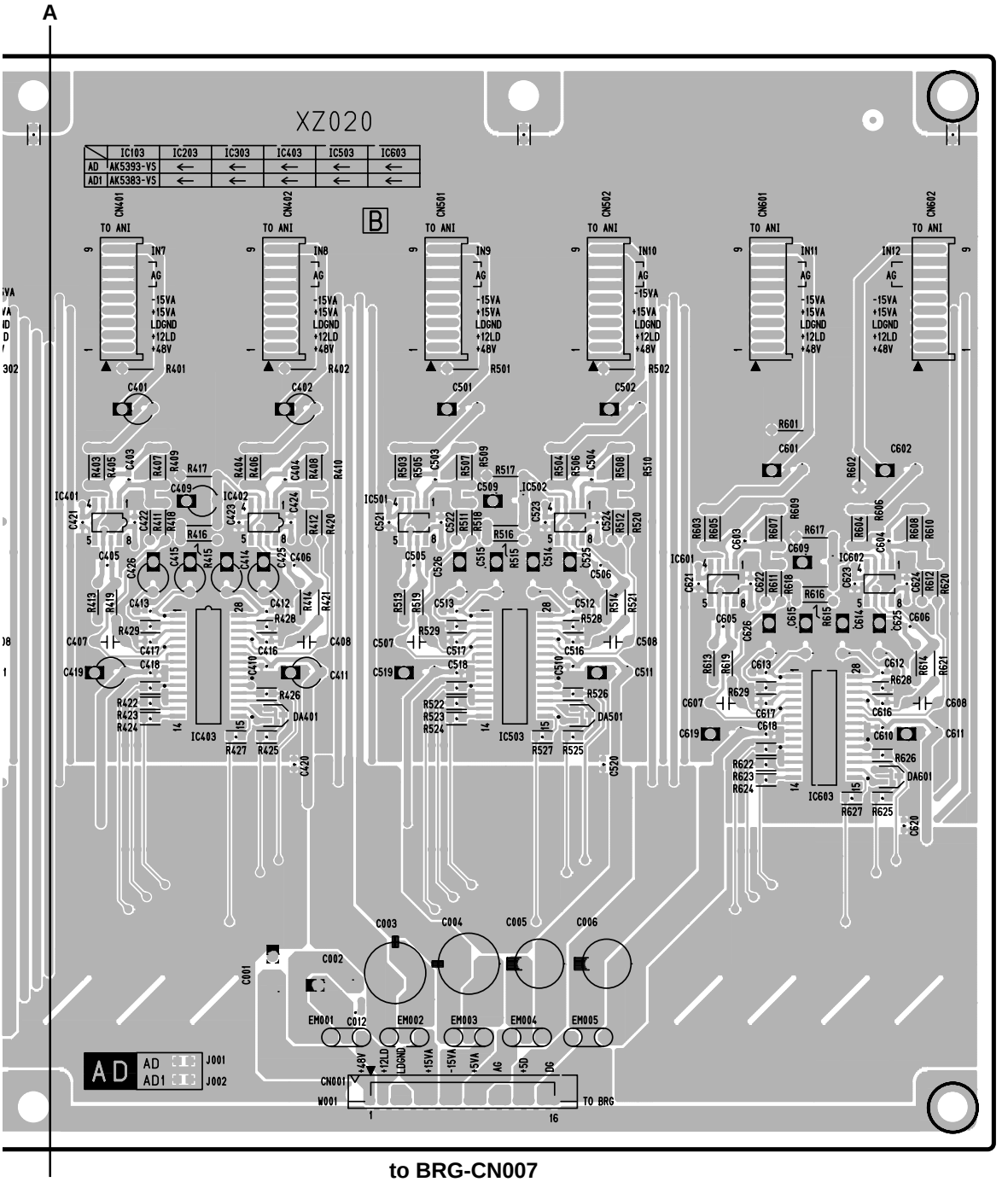


• LCDCOM (CNT) Circuit Board



• AD1 Circuit Board

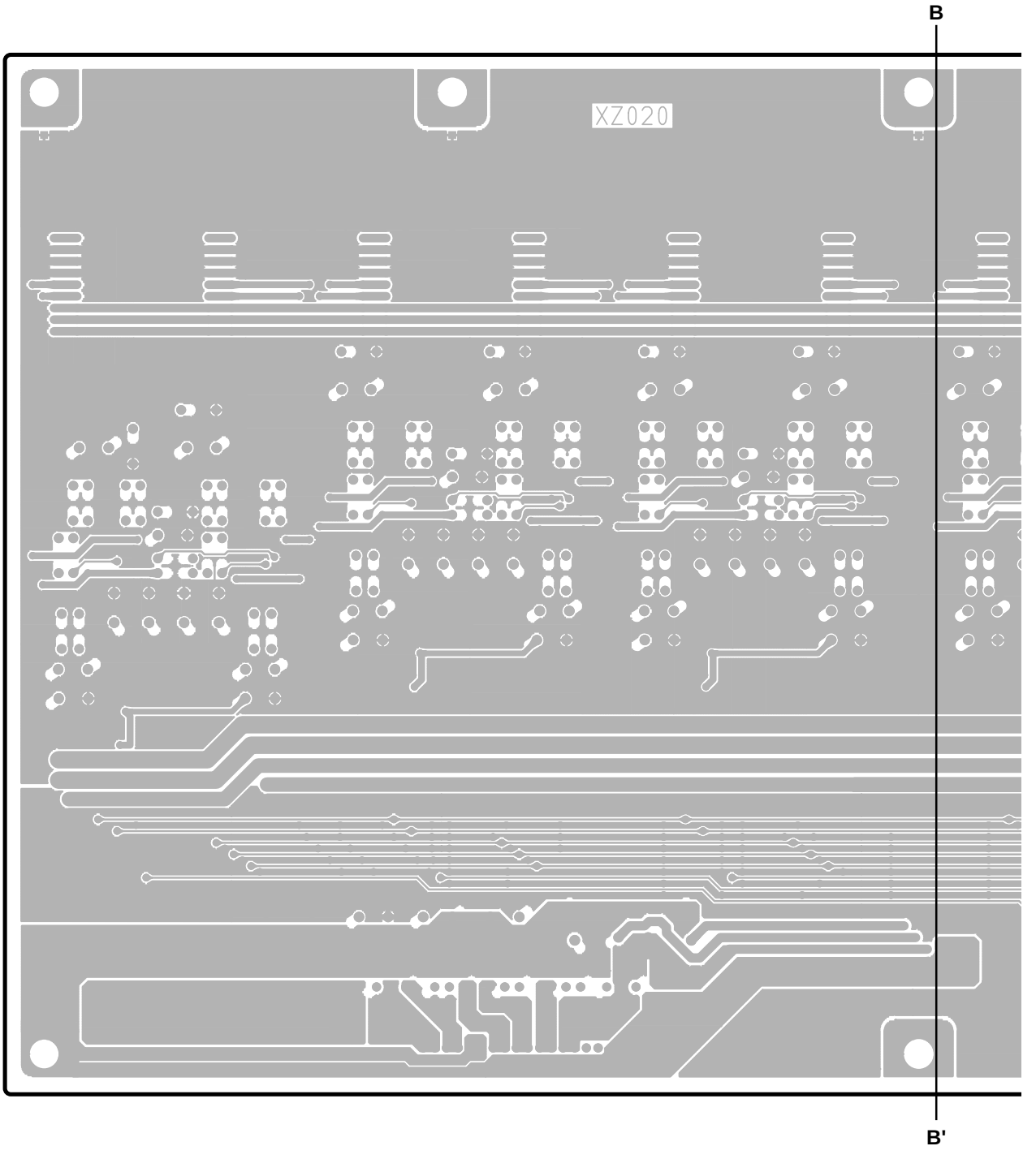




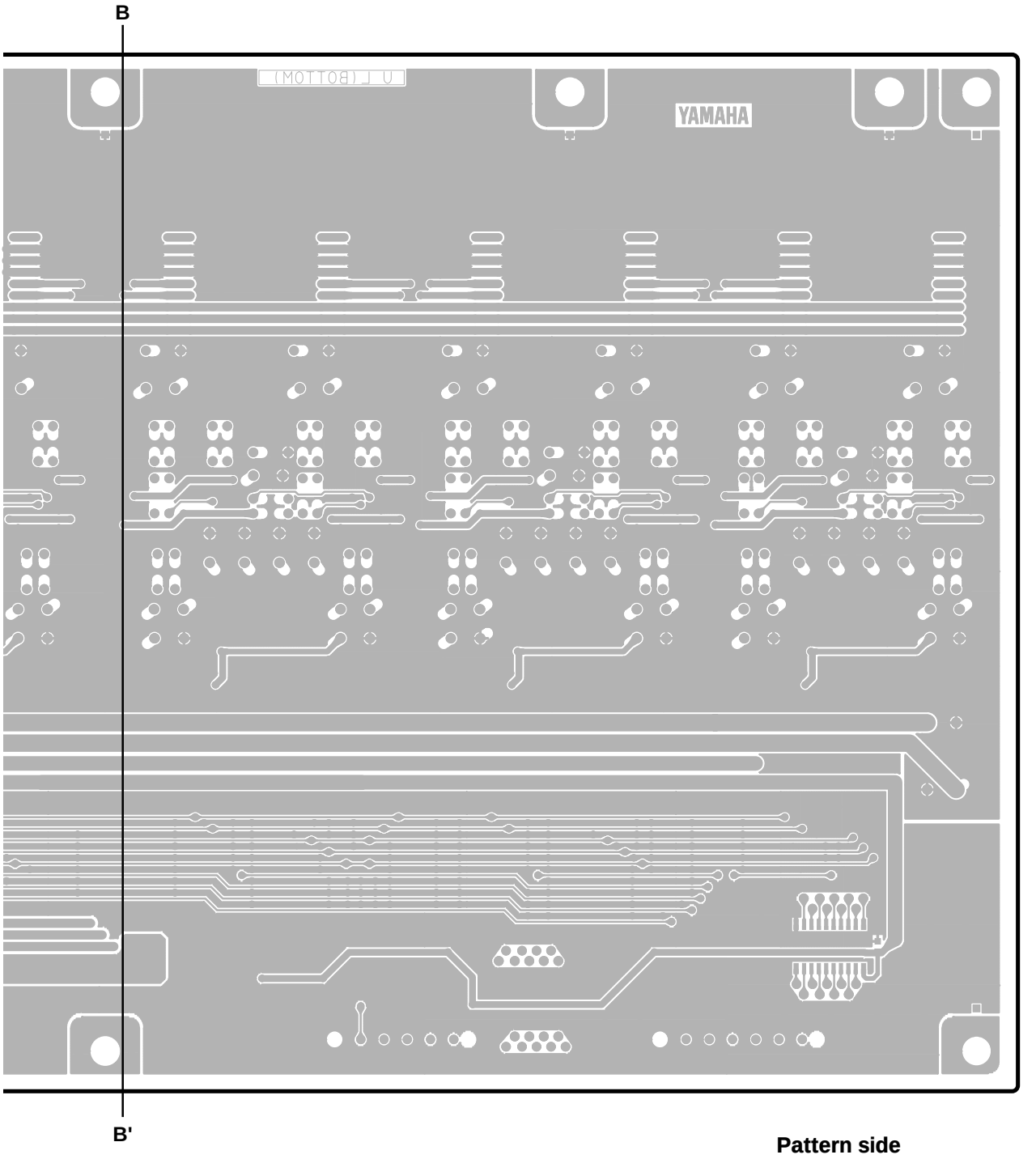
CN101: to ANI1#1-CN100
CN102: to ANI1#2-CN100
CN201: to ANI1#3-CN100
CN202: to ANI1#4-CN100
CN301: to ANI1#5-CN100
CN302: to ANI1#6-CN100
CN401: to ANI1#7-CN100
CN402: to ANI1#8-CN100
CN501: to ANI1#9-CN100
CN502: to ANI1#10-CN100
CN601: to ANI1#11-CN100
CN602: to ANI1#12-CN100

3NA-V863020-2

- **AD1 Circuit Board**



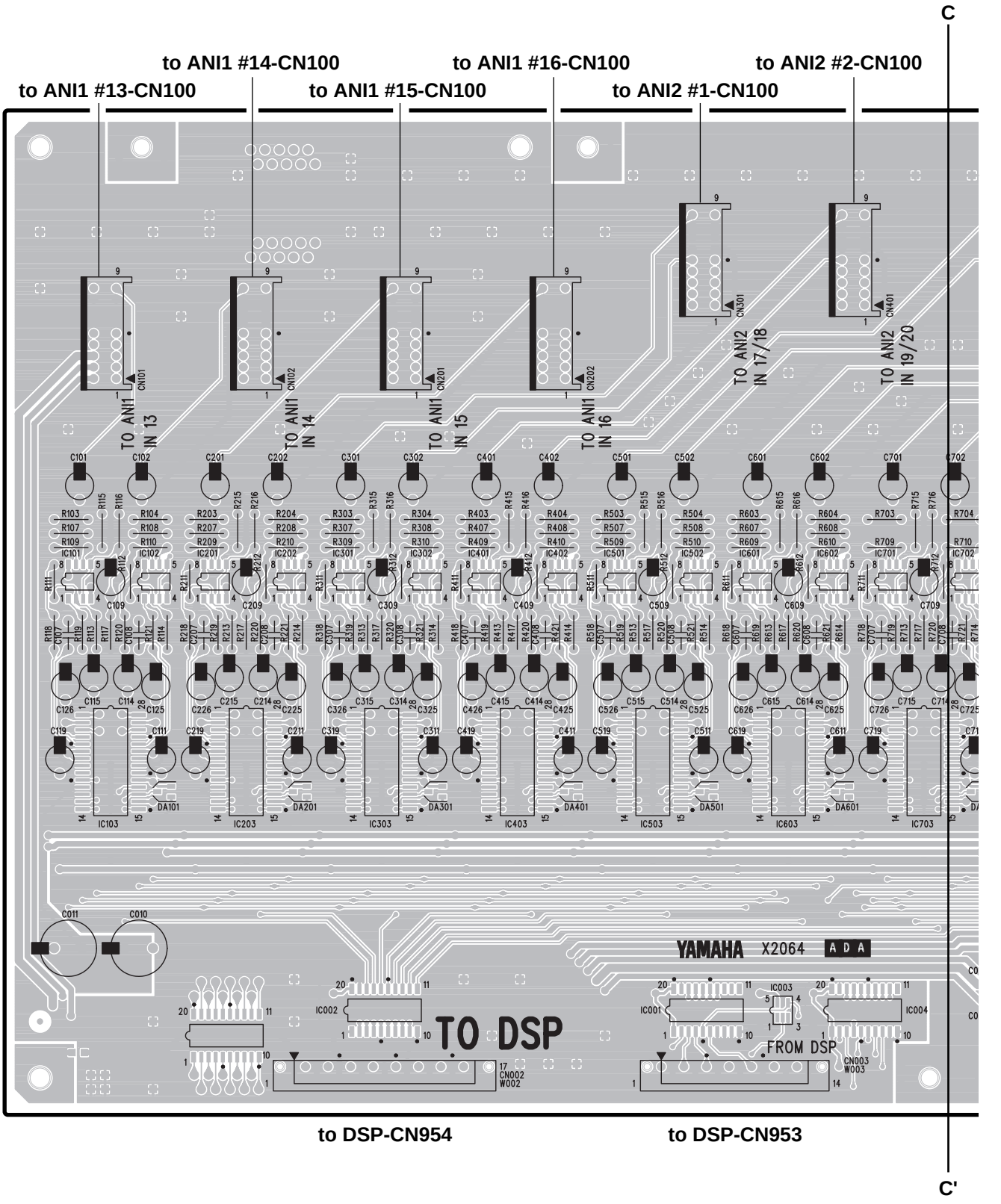
3NA-V863020-2



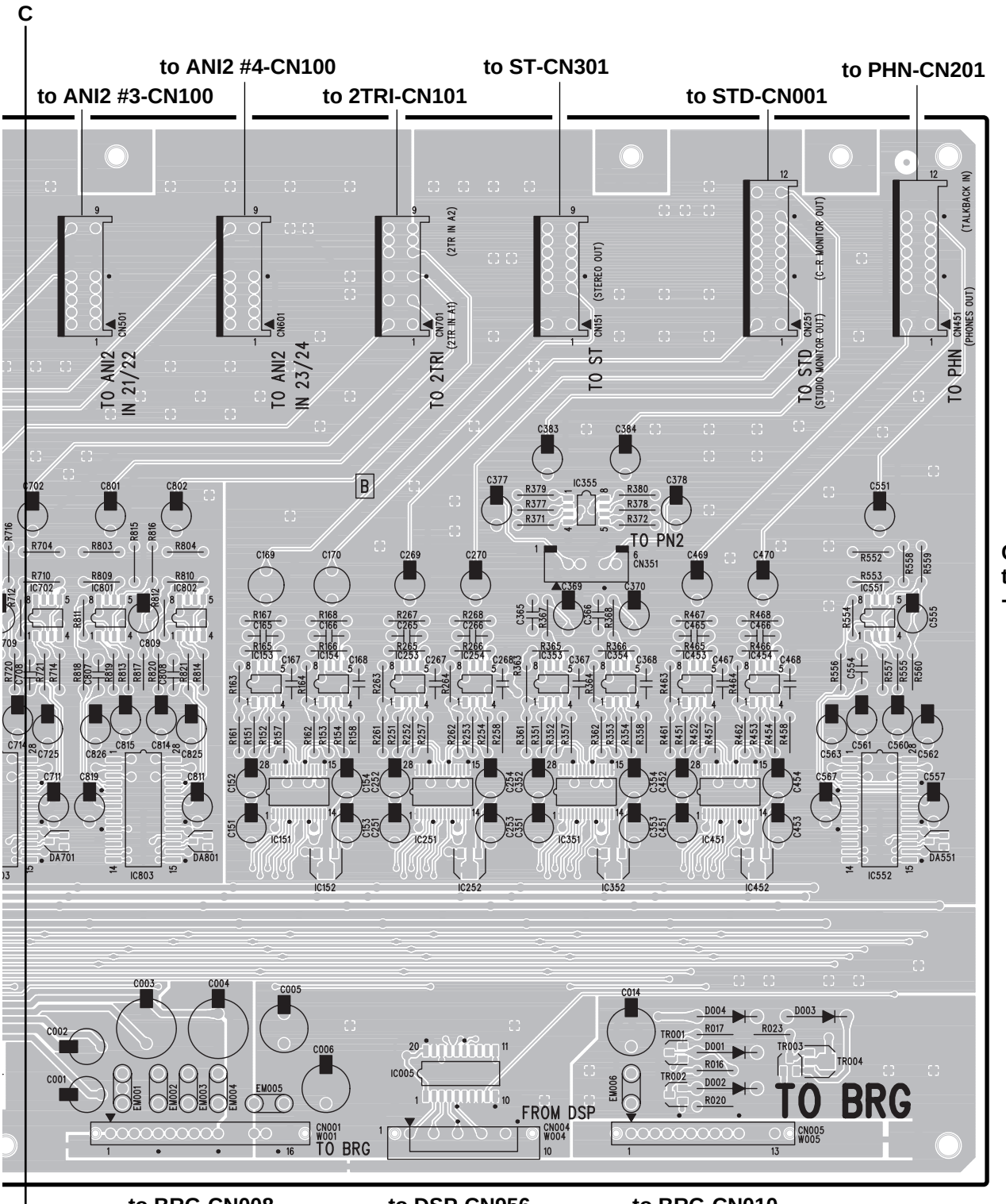
Pattern side

3NA-V863020-2

• ADA Circuit Board

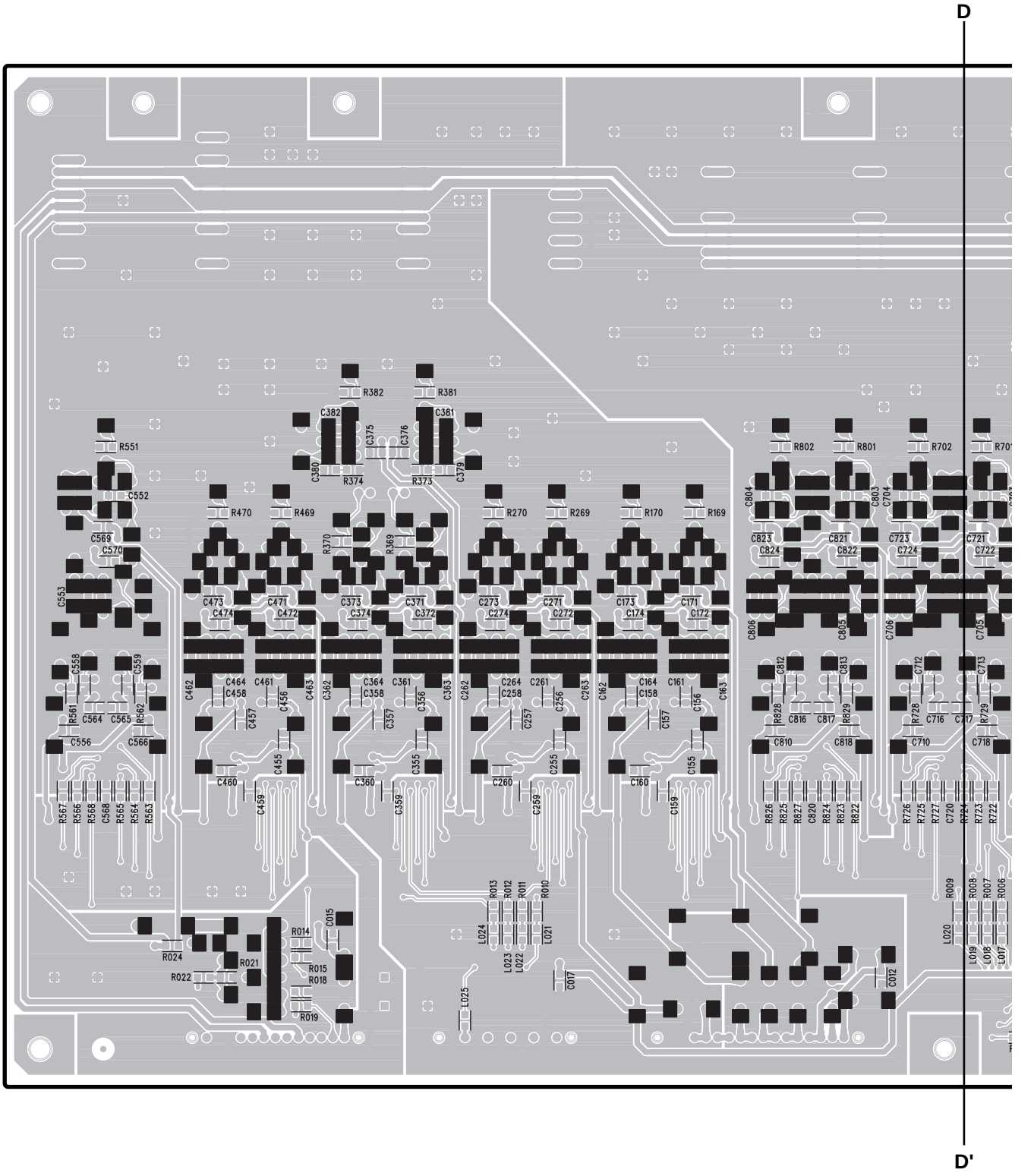


3NA-V863030-2 ⚠2

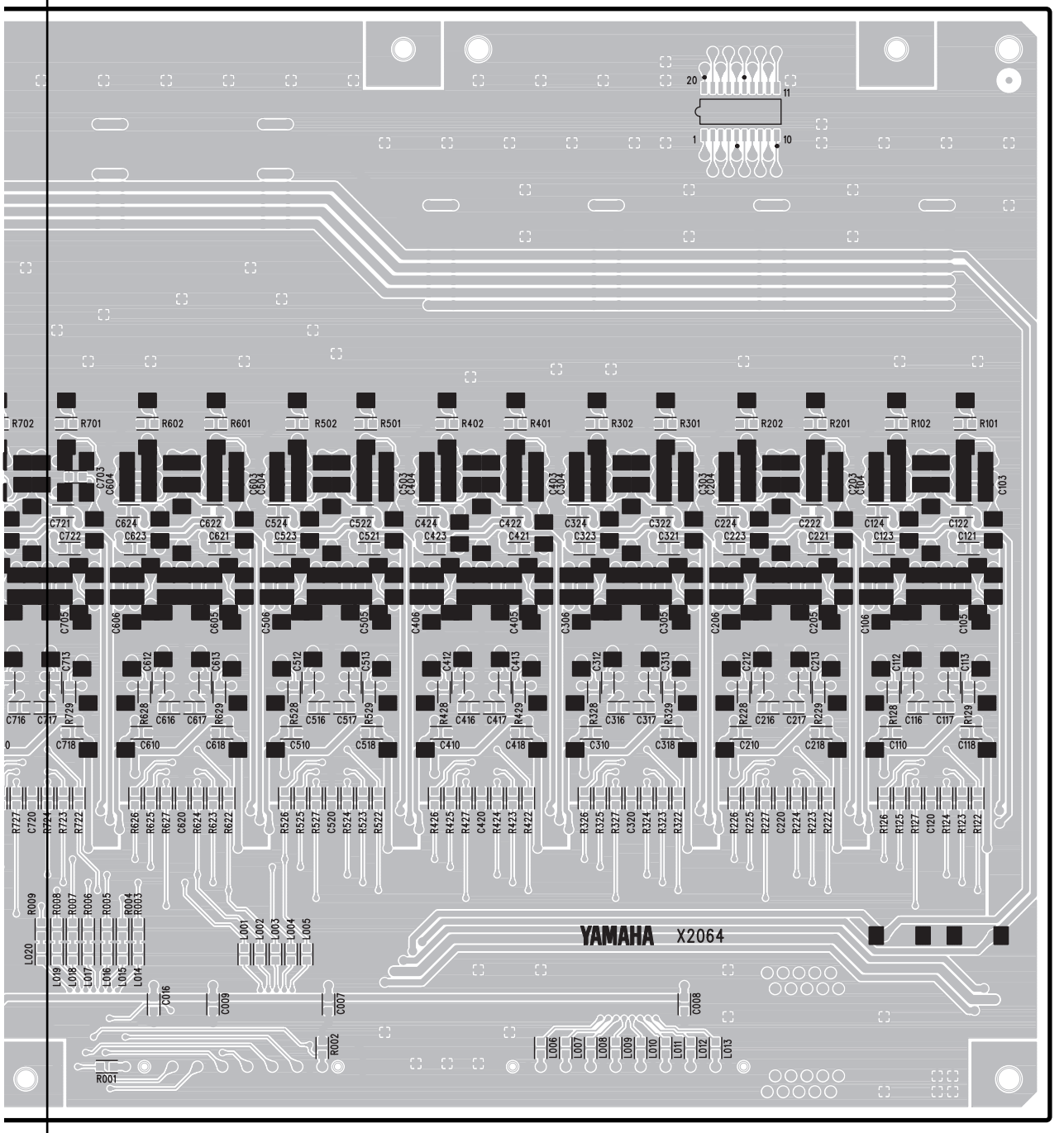


3NA-V863030-2 ⚠2

• ADA Circuit Board



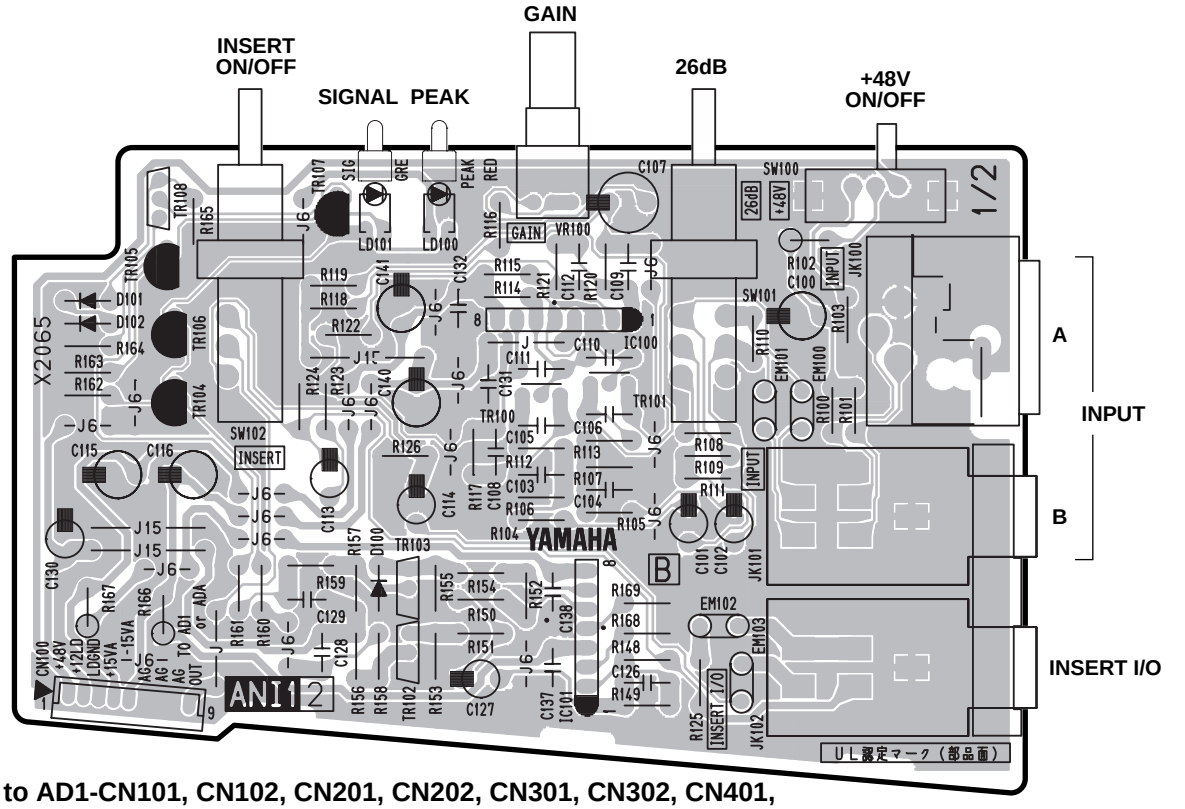
3NA-V863030-3 ⚠2



Pattern side

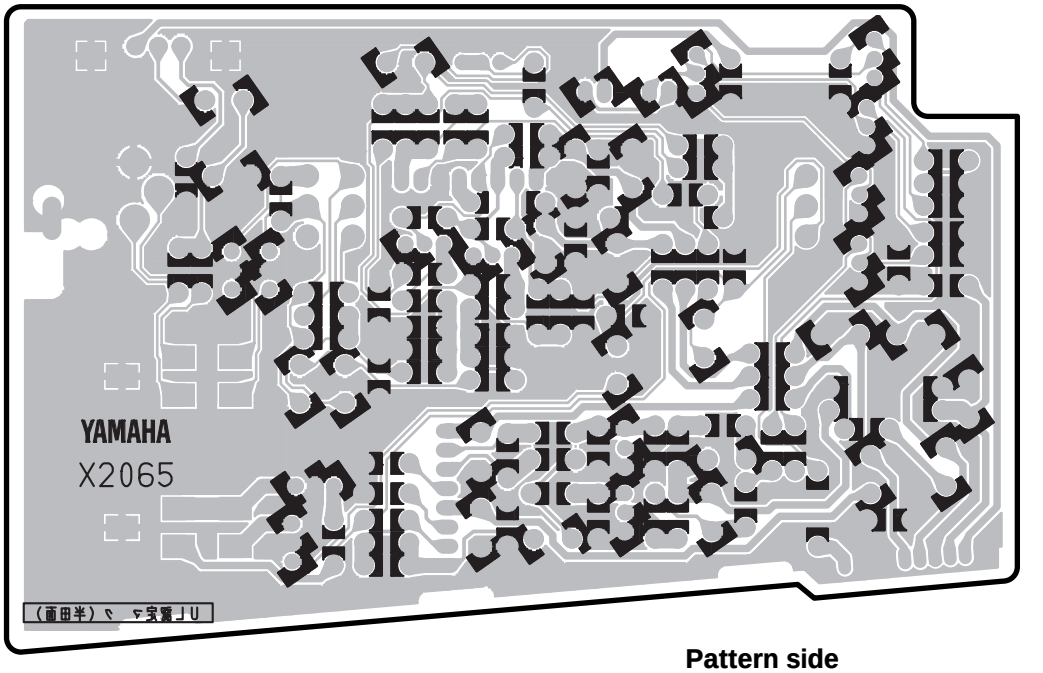
3NA-V863030-3 ⚠2

• ANI1 Circuit Board



to AD1-CN101, CN102, CN201, CN202, CN301, CN302, CN401, CN402, CN501, CN502, CN601, CN602
ADA-CN101, CN102, CN201, CN202

Component side

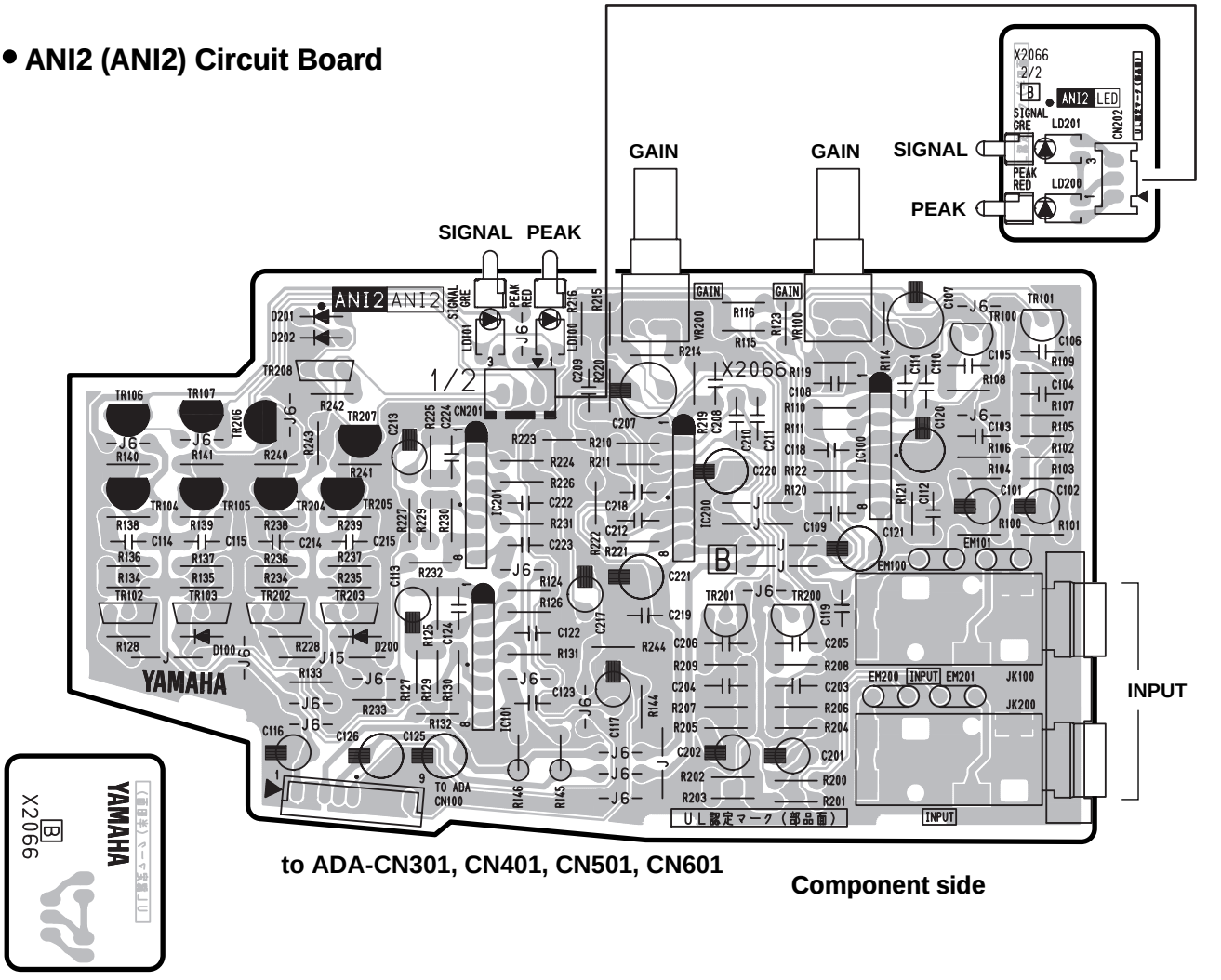


Pattern side

3NA-V863040-2 /2

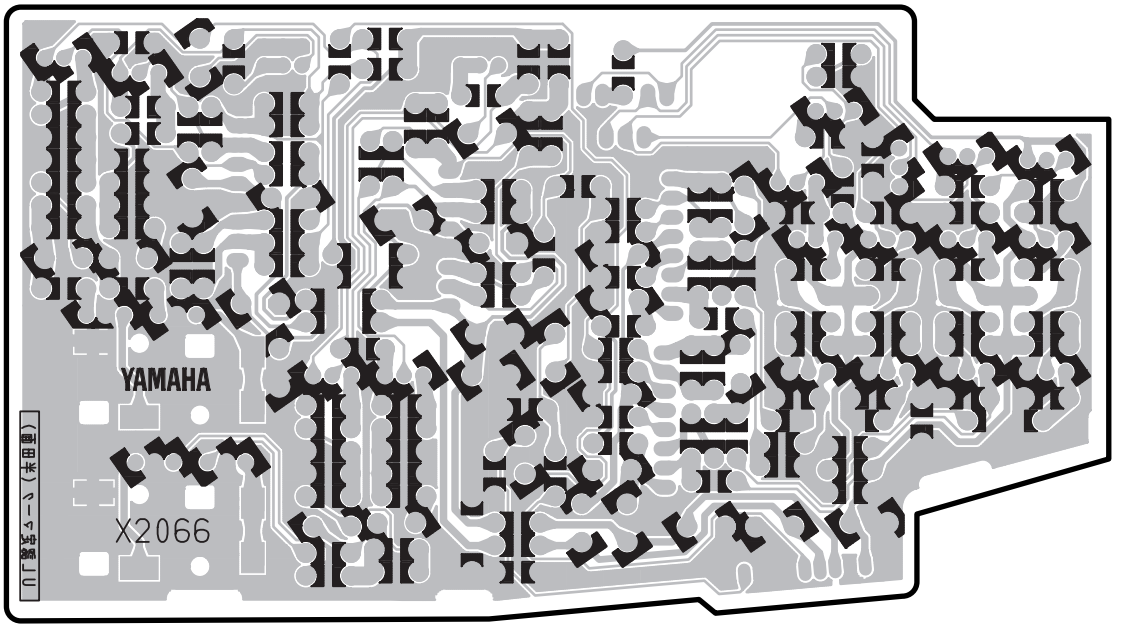
• ANI2 (LED) Circuit Board

• ANI2 (ANI2) Circuit Board



to ADA-CN301, CN401, CN501, CN601

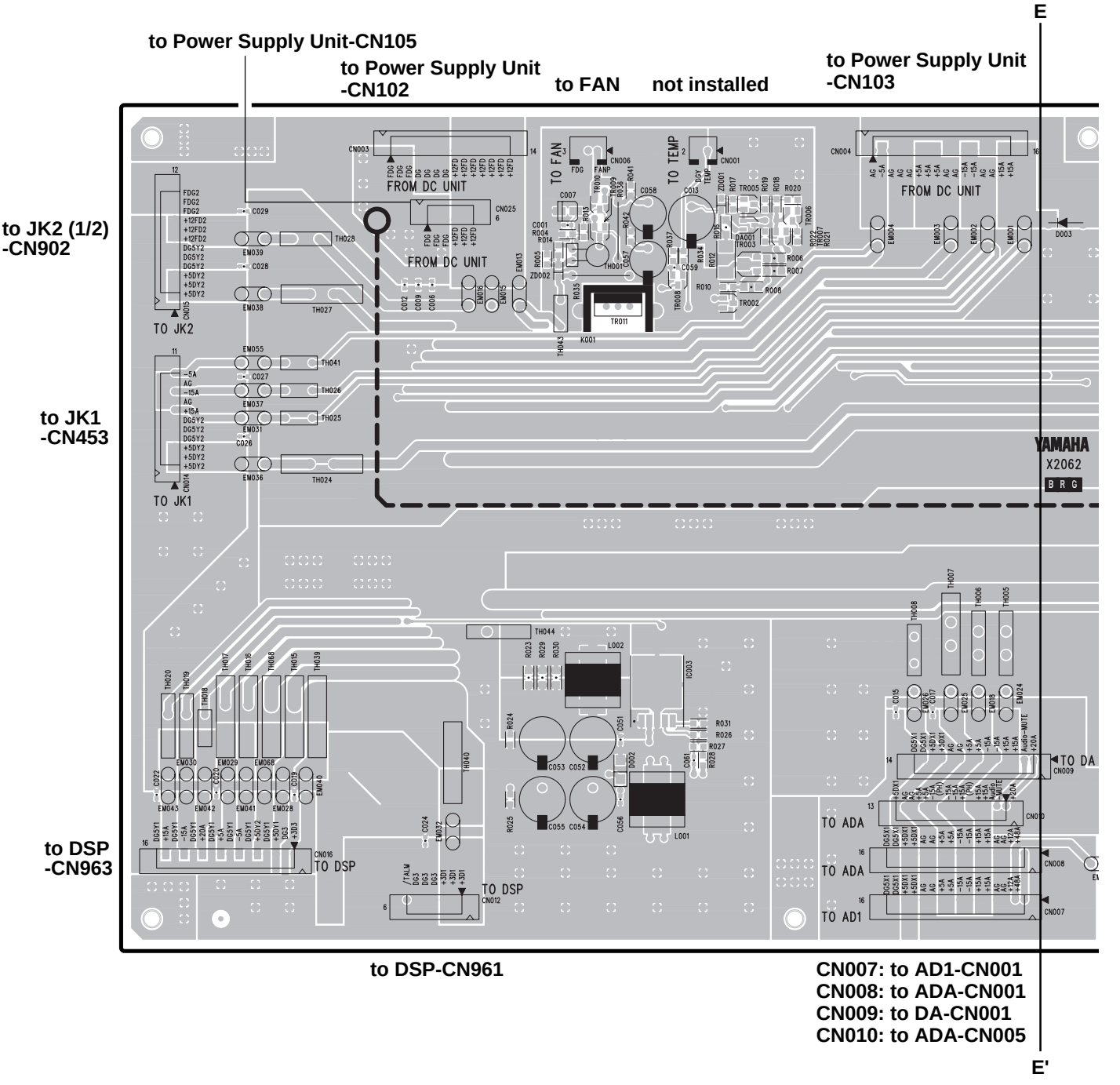
Component side



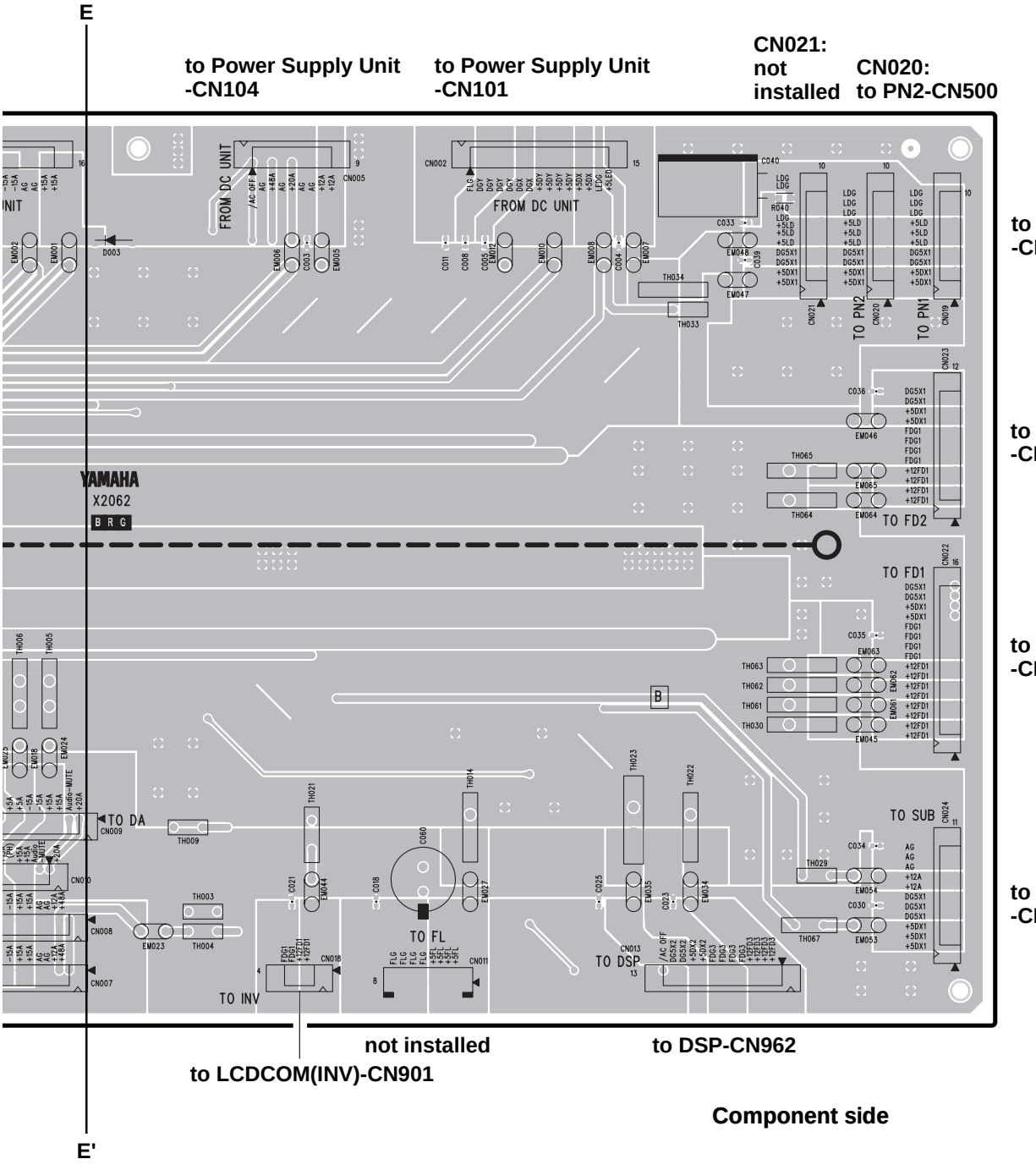
Pattern side

3NA-V863050-2 /1

• BRG Circuit Board

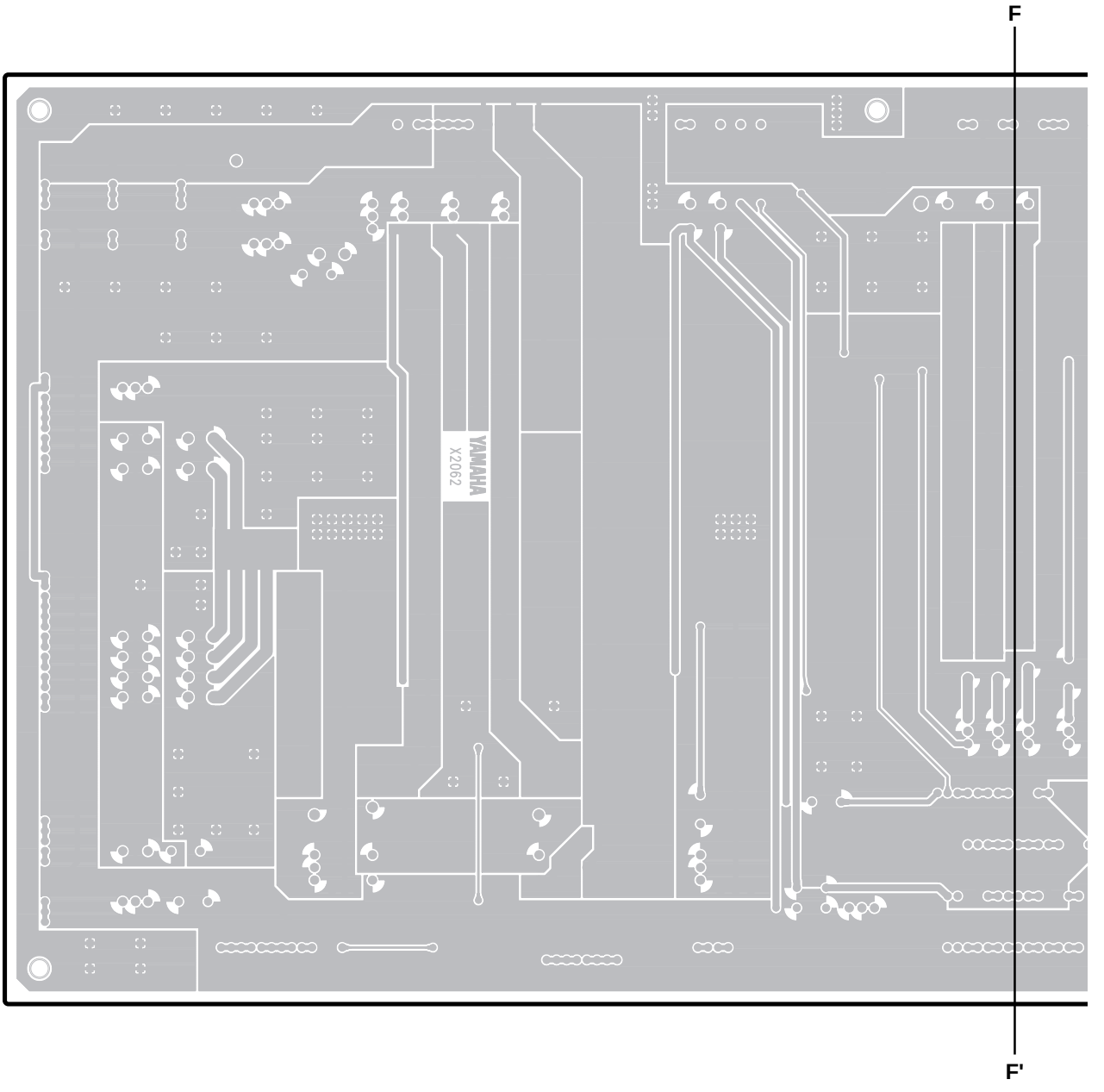


3NA-V922160-2 /2

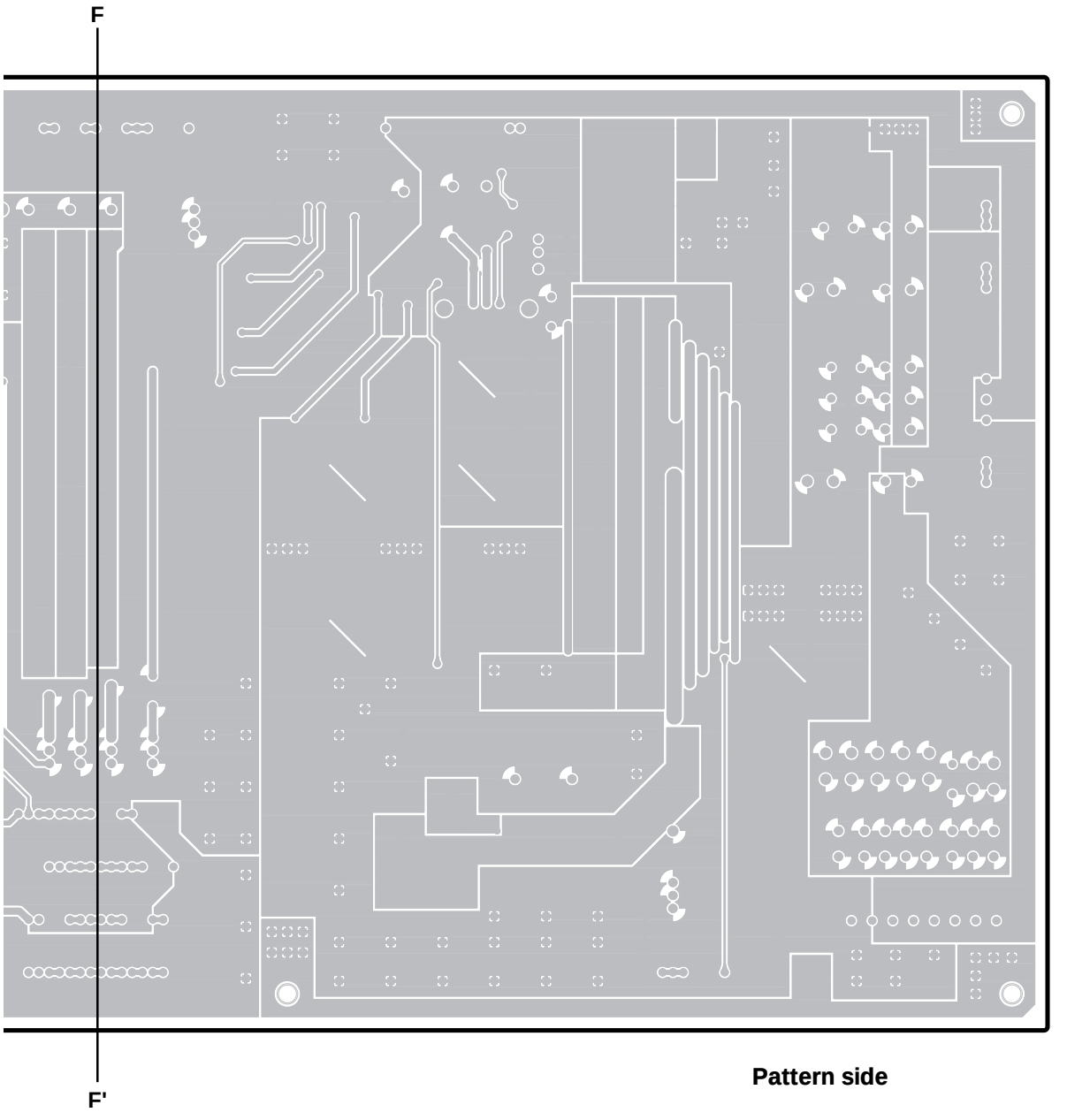


3NA-V922160-2 ⚠2

• BRG Circuit Board



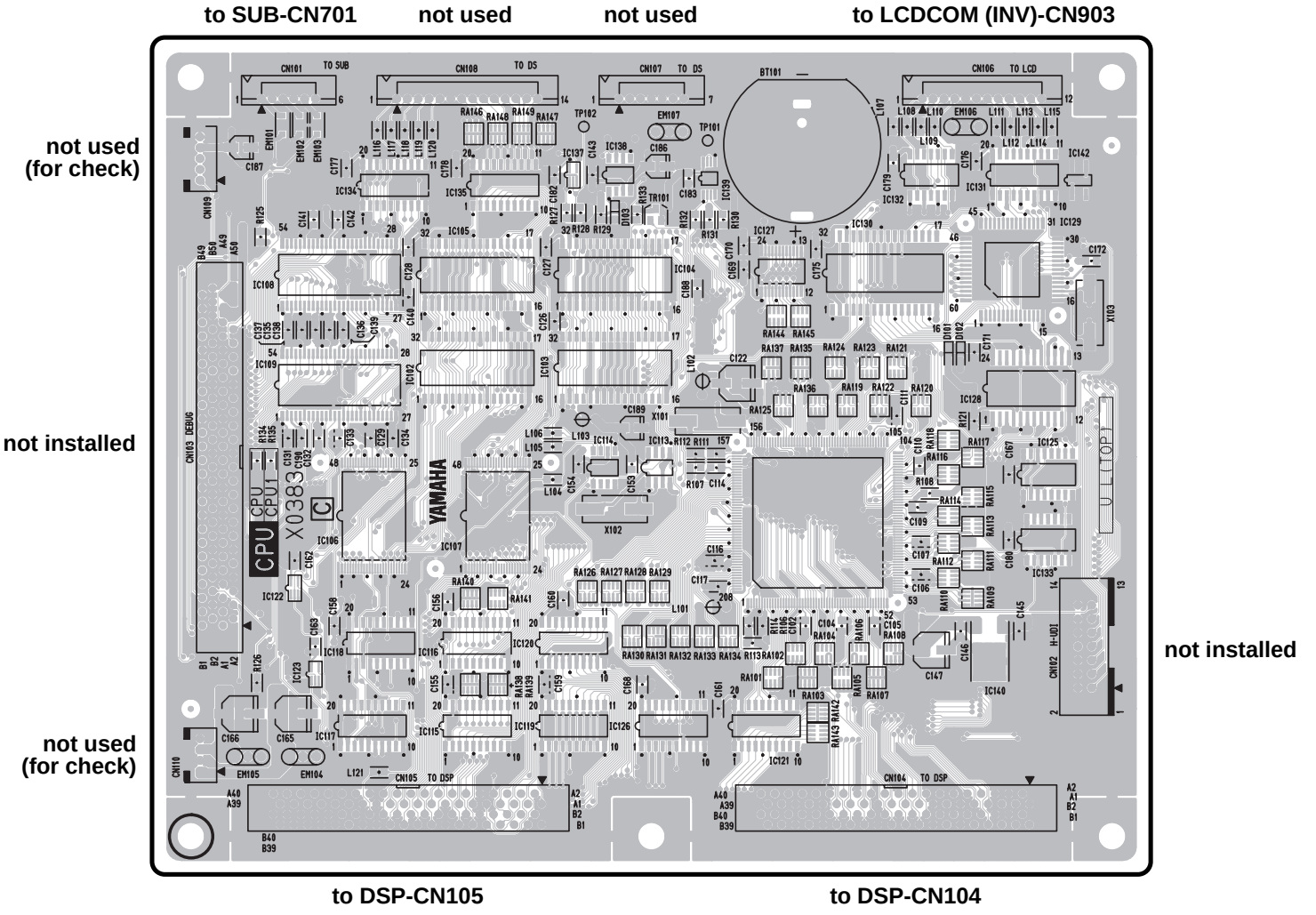
3NA-V922160-2 ⚠2



Pattern side

3NA-V922160-2 ⚠2

• CPU1 Circuit Board

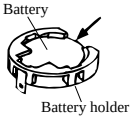


Component side

• Lithium Battery

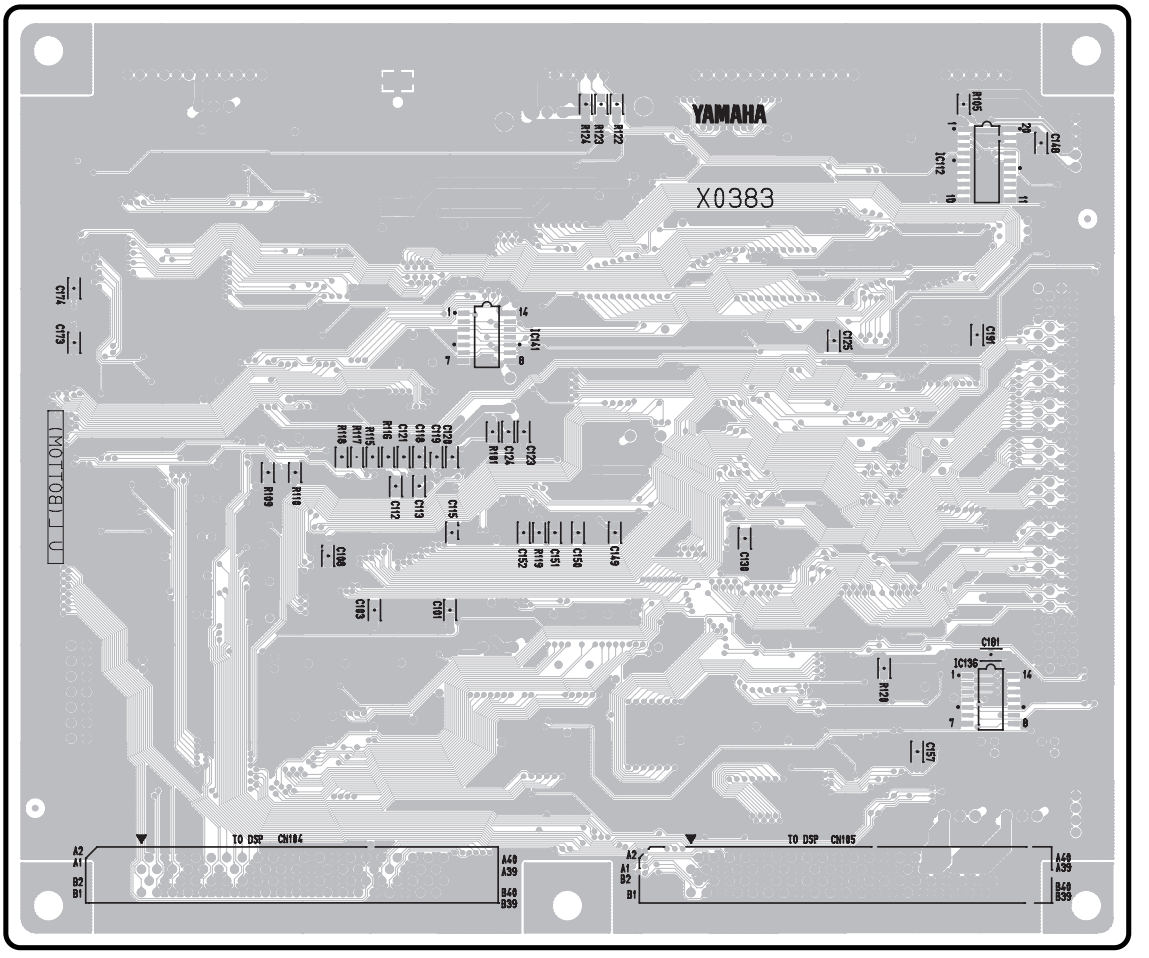
Battery VN103500
VN103600(Battery holder for VN103500)

- Notice for back-up battery removal
  Push the battery as shown in figure, then the battery will pop up.
- Druk de batterij naar beneden zoals aangeven in de tekening de batterij springt dan naar voren.



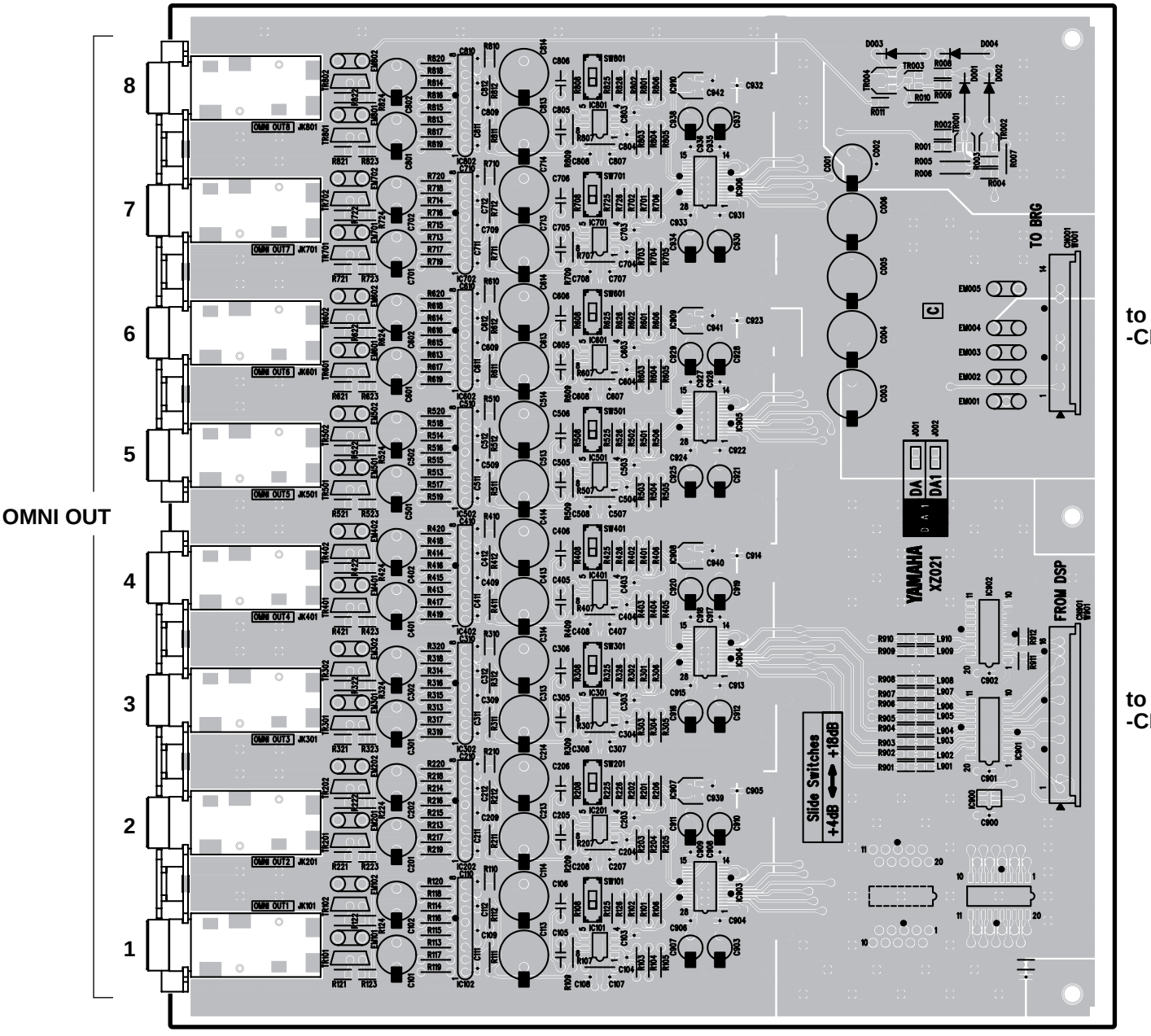
3NA-V846880-2

• CPU1 Circuit Board



Pattern side

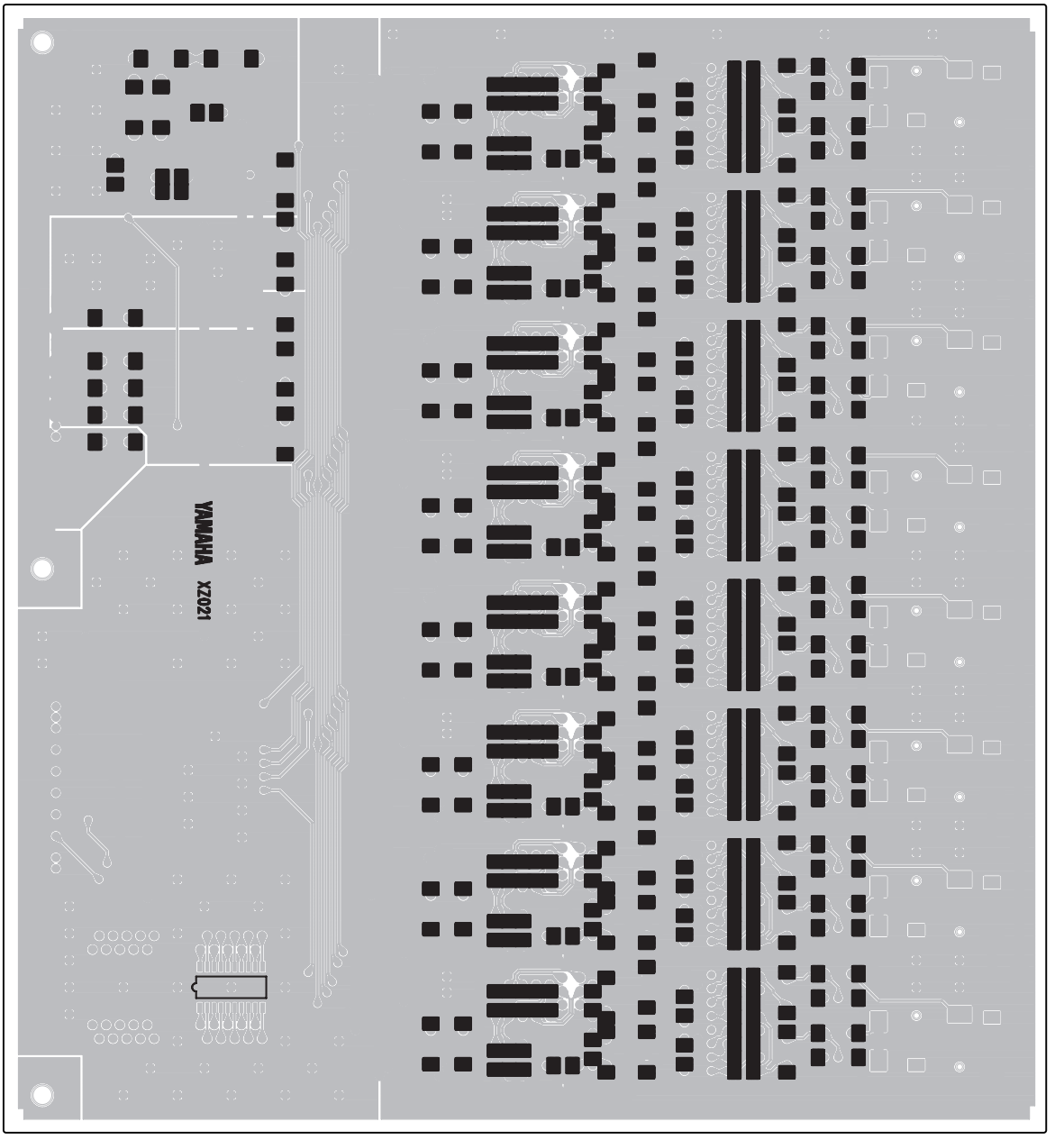
• DA Circuit Board



Component side

3NA-V910670-2 ⚠2

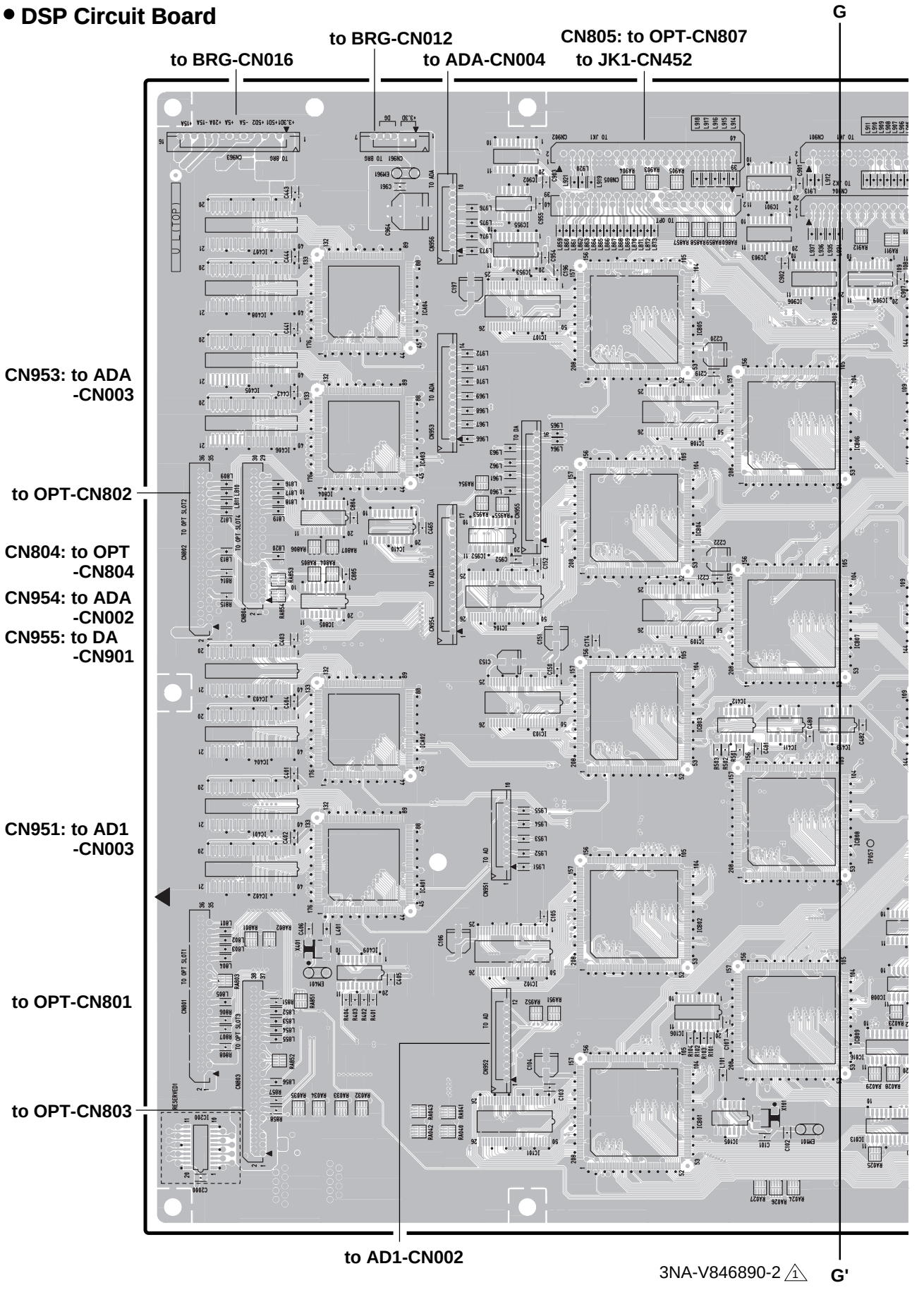
• DA Circuit Board



Pattern side

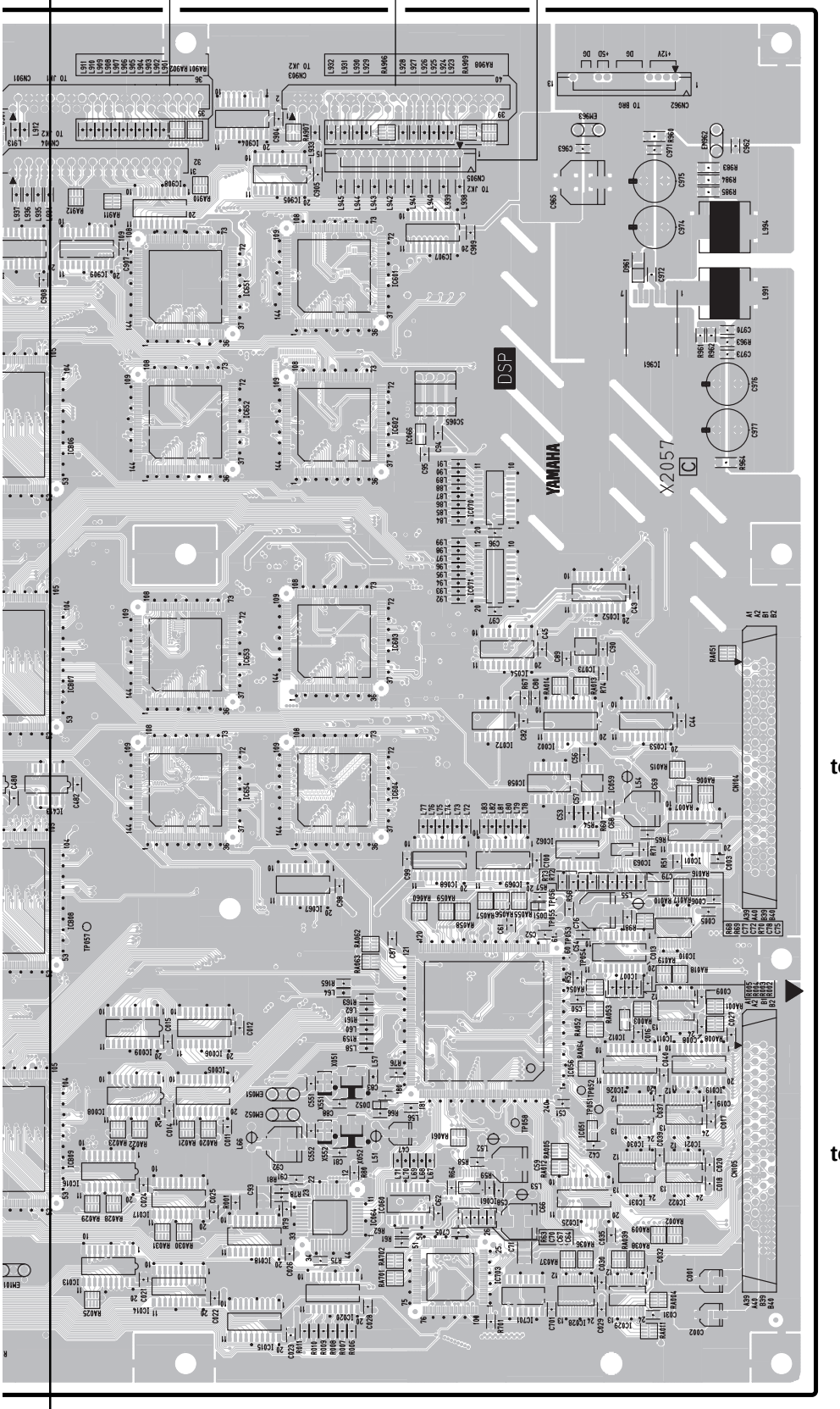
3NA-V910670-2 ⚠2

• DSP Circuit Board



G

CN904: to JK2 (1/2)-CN903
to JK1-CN451
to JK2 (1/2)-CN904
to JK2 (1/2)-CN901
to BRG-CN013



to CPU1-CN104

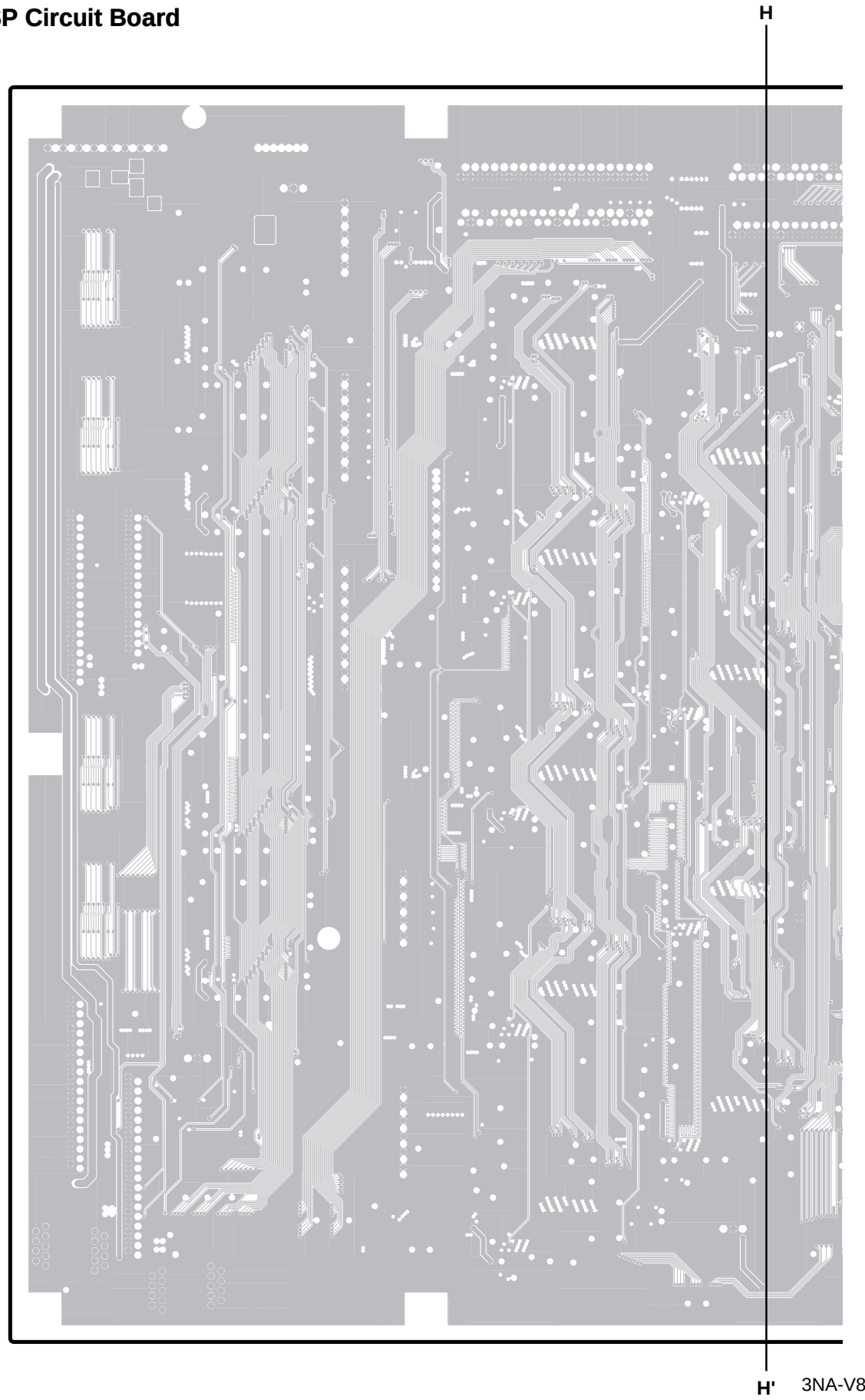
to CPU1-CN105

G'

3NA-V846890-2 ⚠1

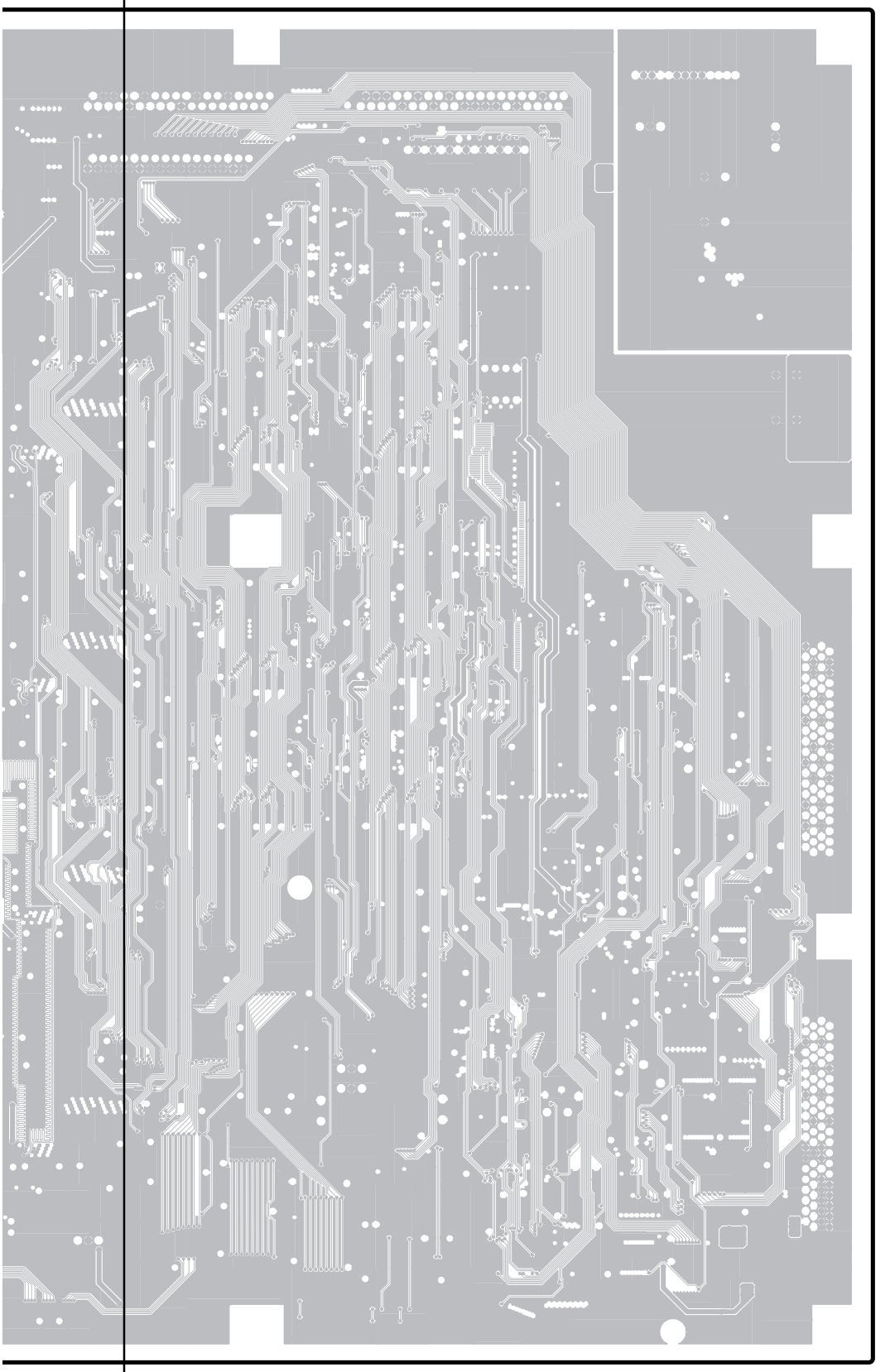
Component side

• DSP Circuit Board



3NA-V846890-2 ⚠1

H



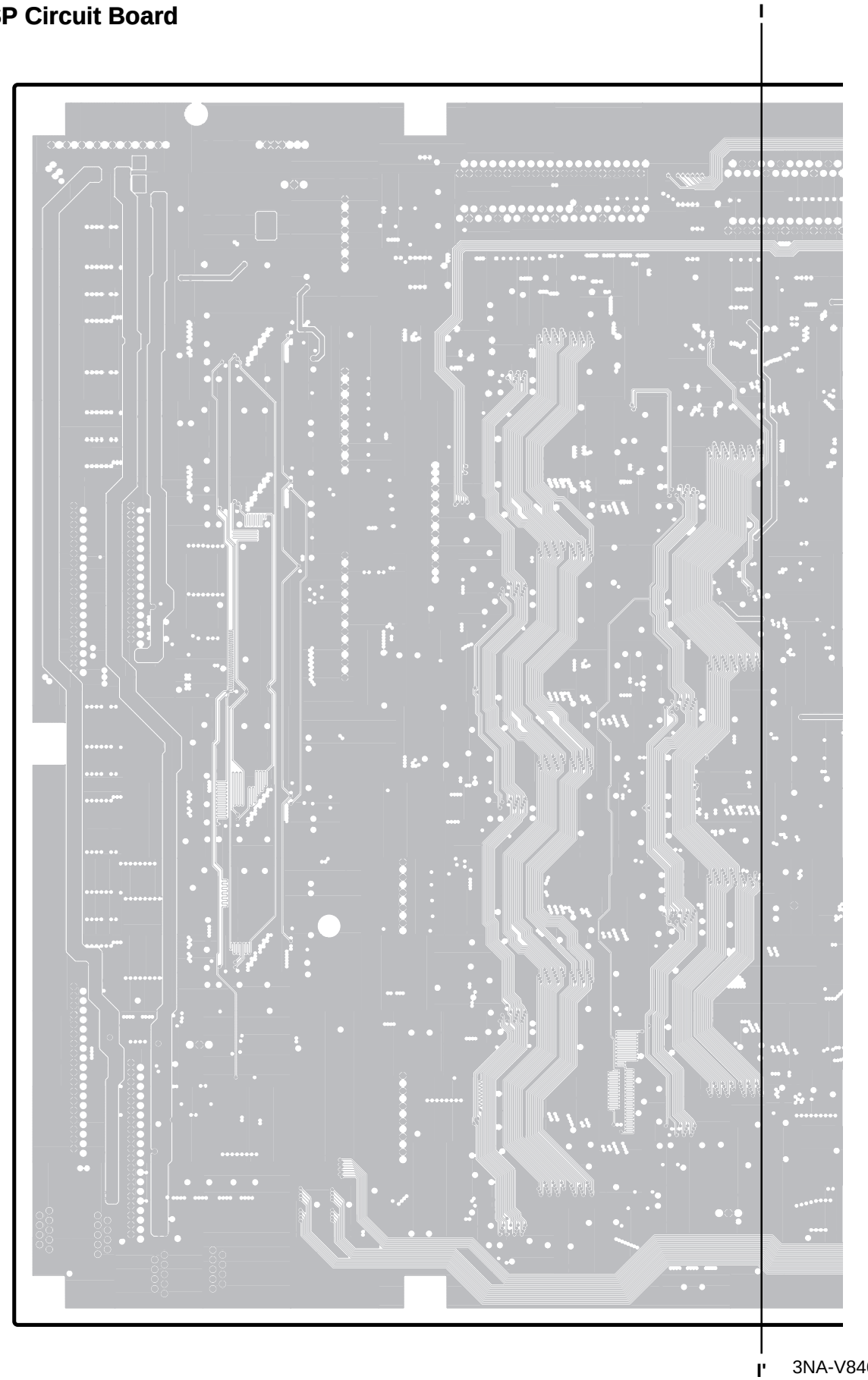
H'

3NA-V846890-2 ⚠1

Component side

2 layer

• DSP Circuit Board



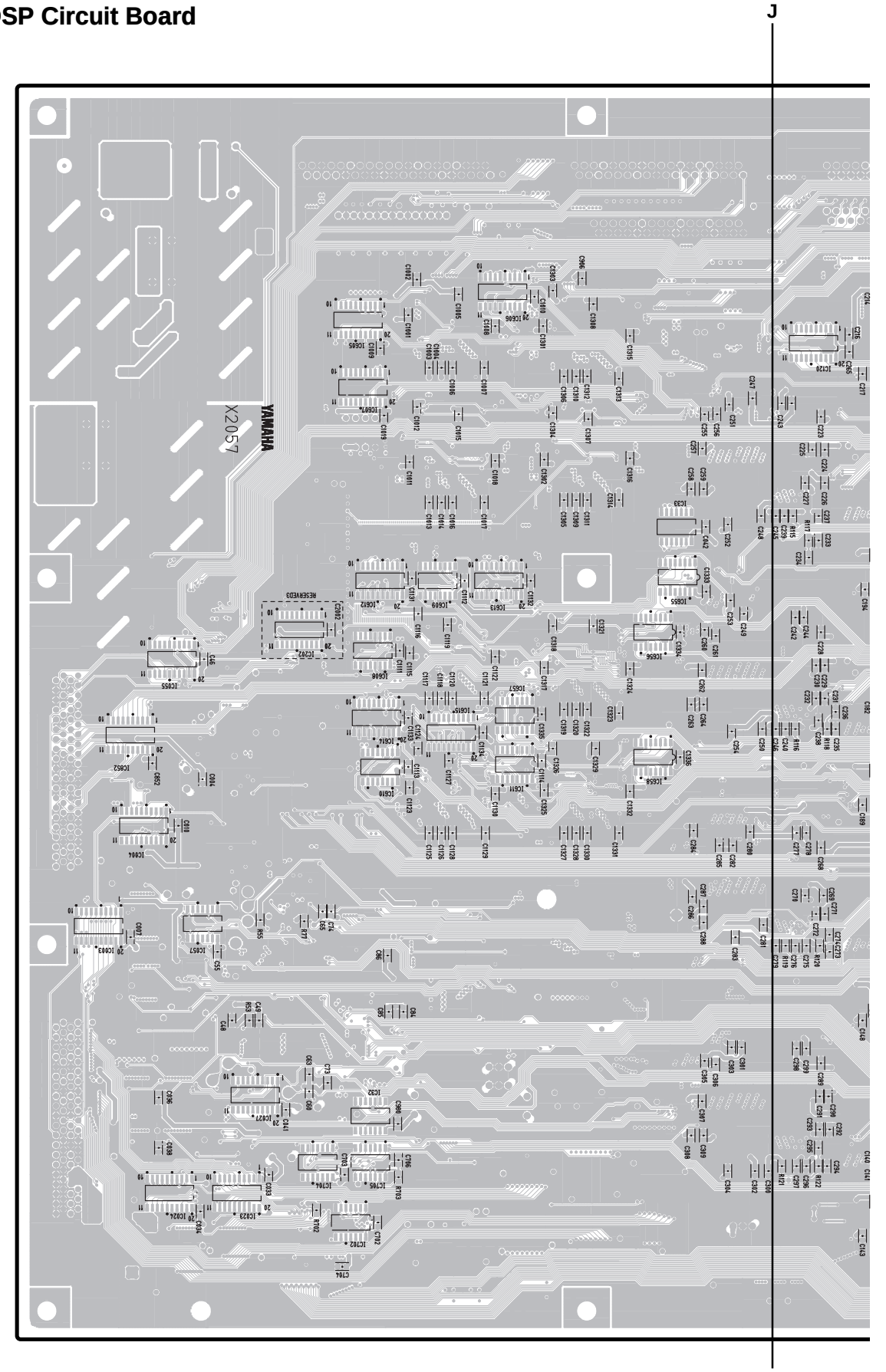
3NA-V846890-2 △1

3NA-V846890-2 ⚠1

Component side

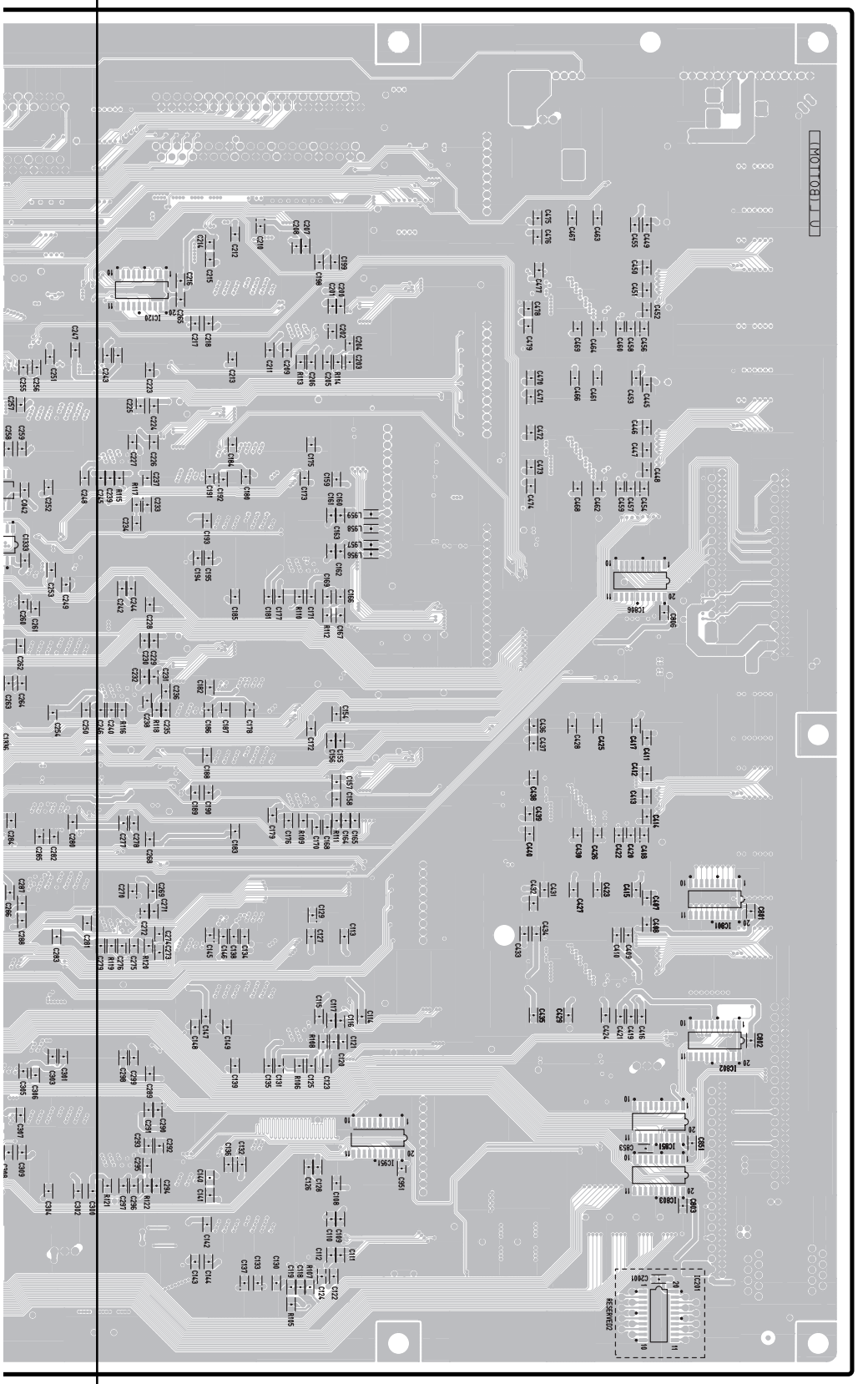
5 layer

• DSP Circuit Board



3NA-V846890-3 ⚠1

J

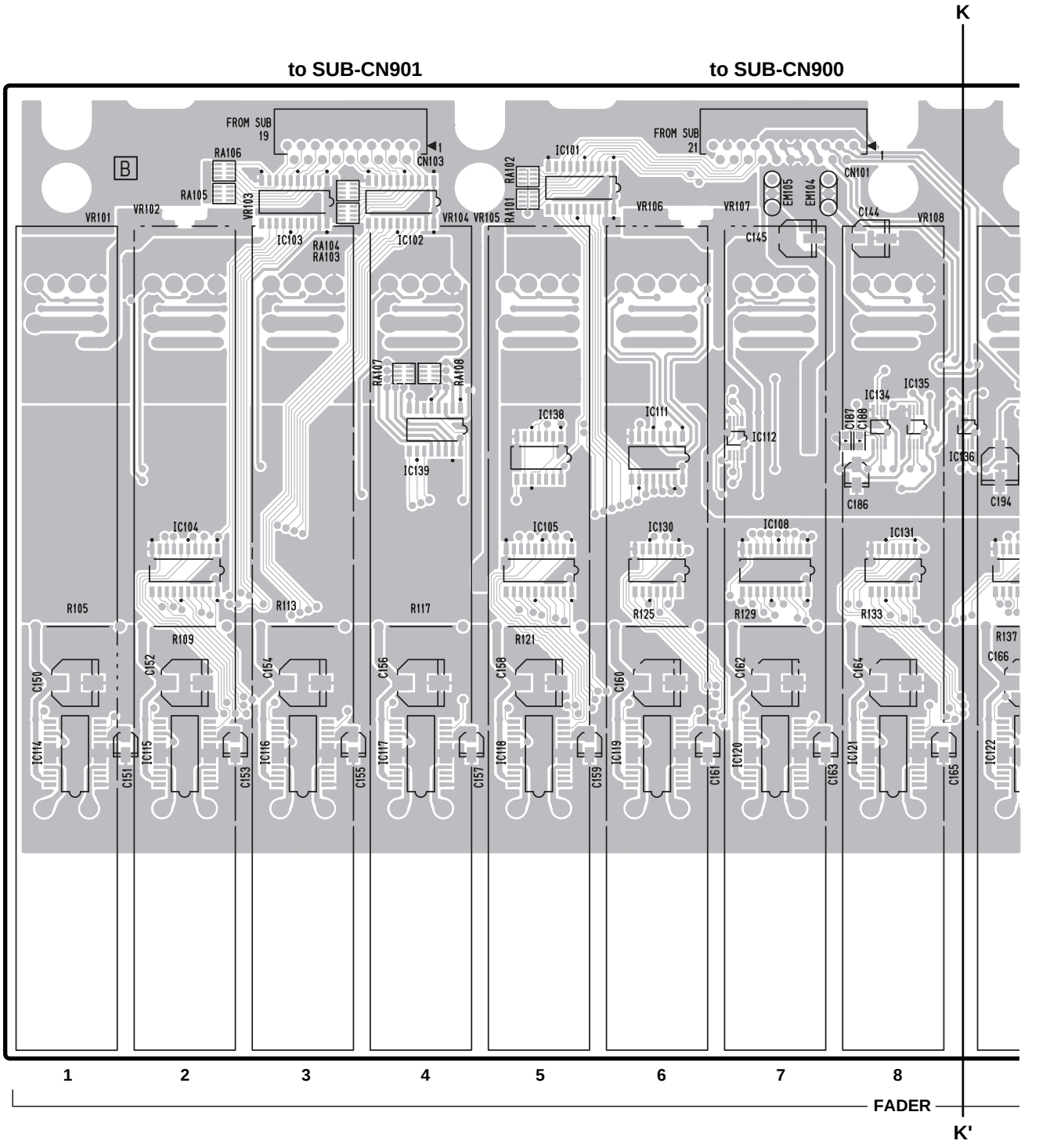


J'

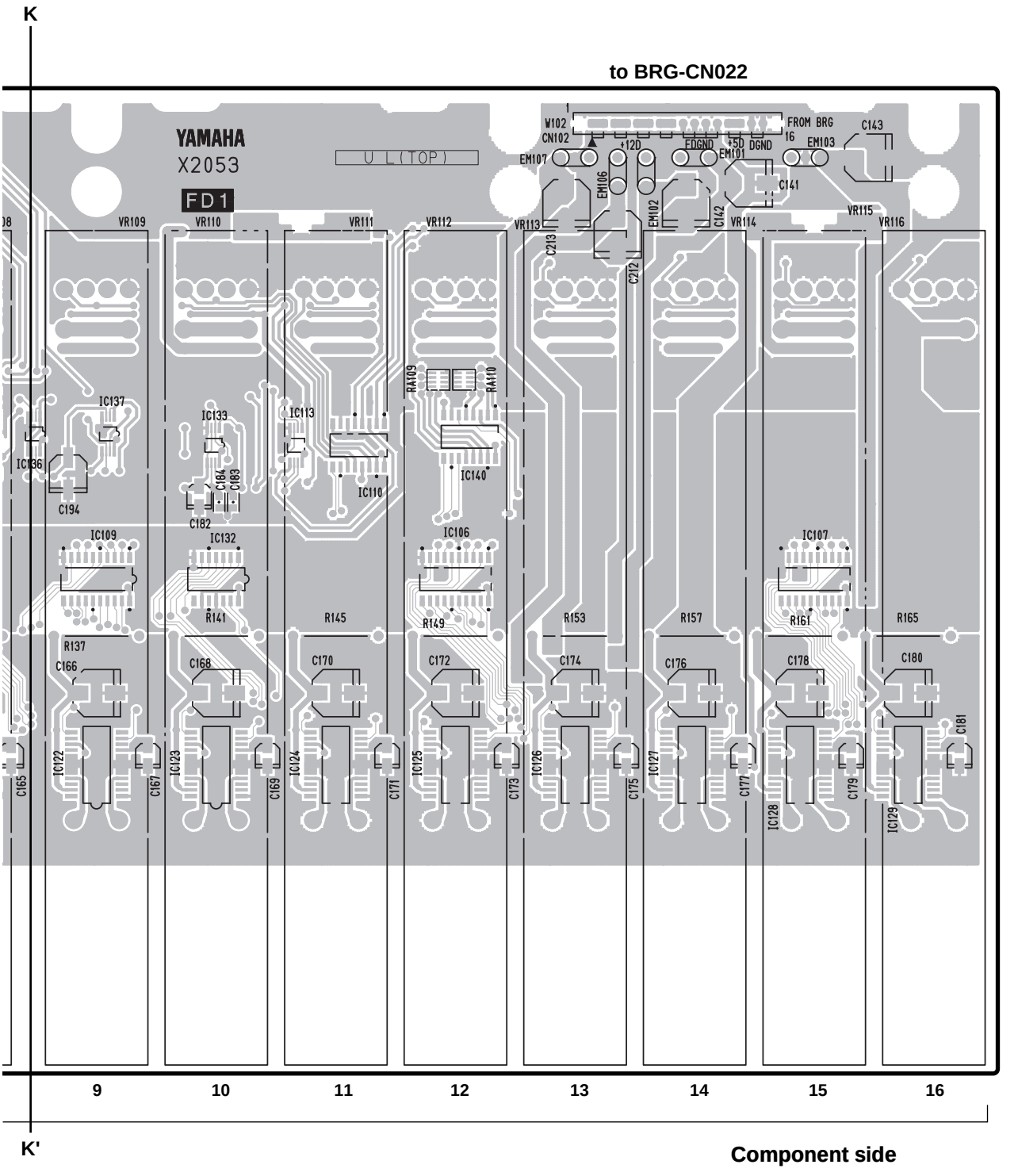
Pattern side

3NA-V846890-3 ⚠1

• FD1 Circuit Board

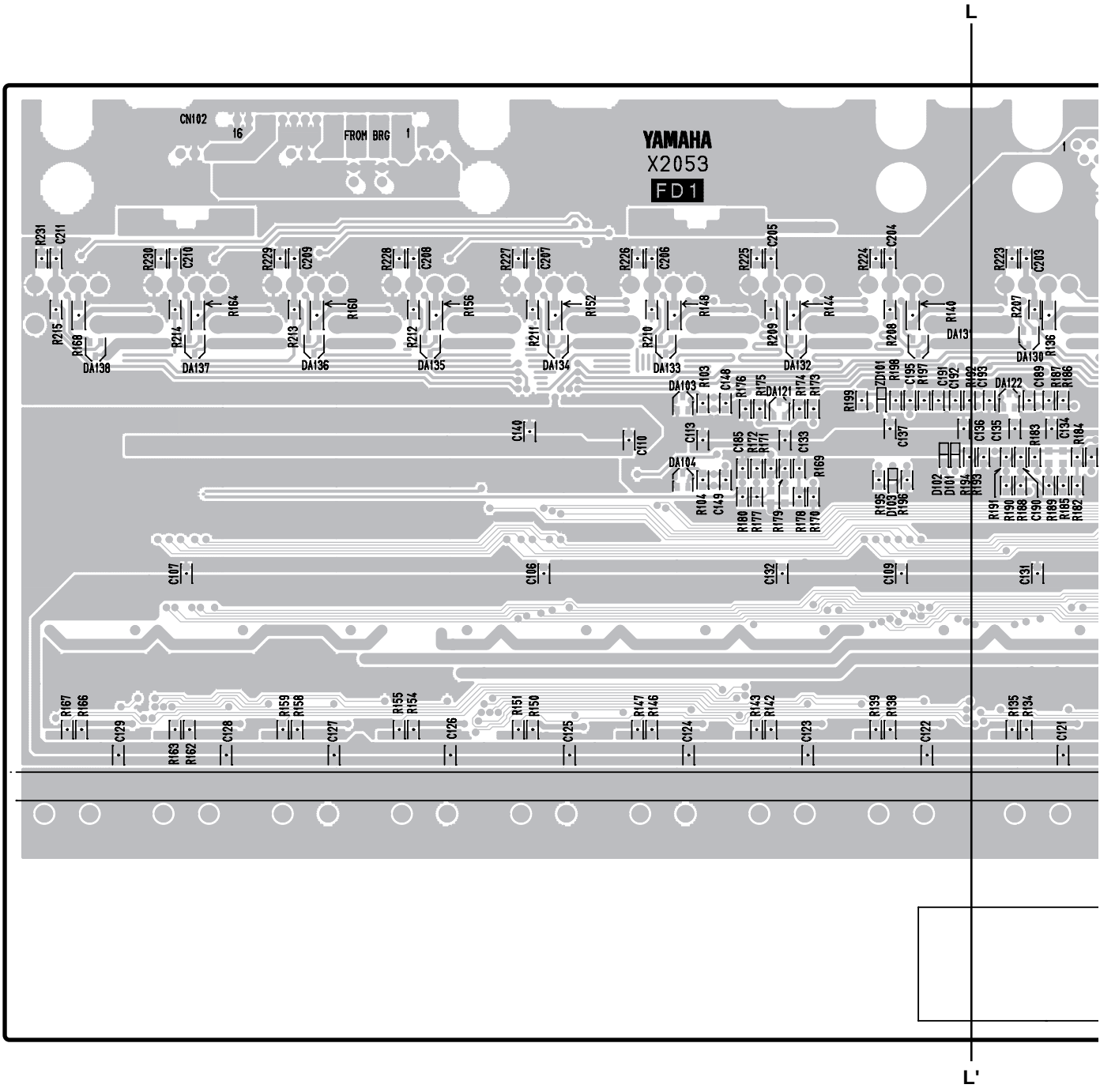


3NA-V862690-2 ⚠1

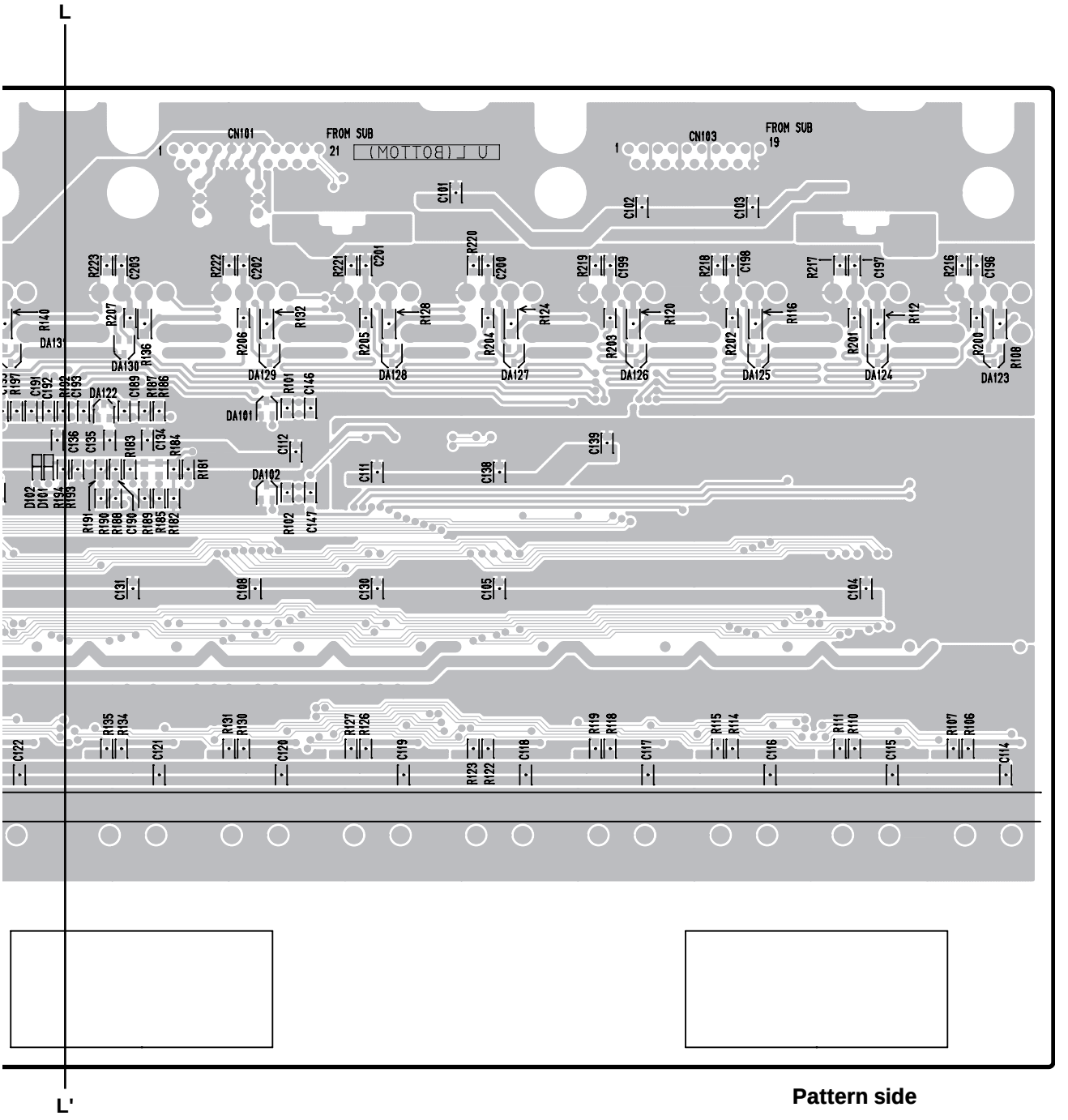


3NA-V862690-2 ⚠1

• FD1 Circuit Board

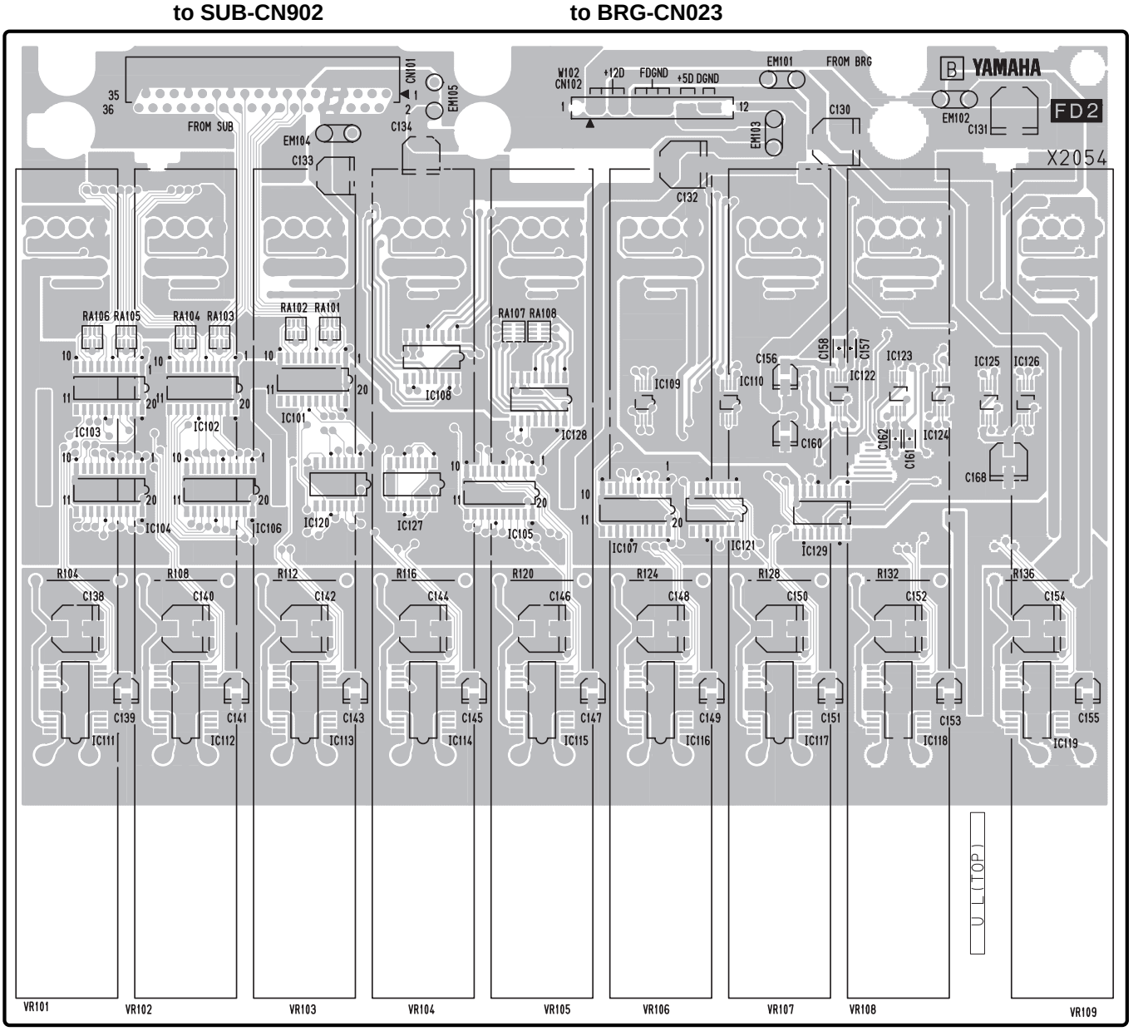


3NA-V862690-3 /1

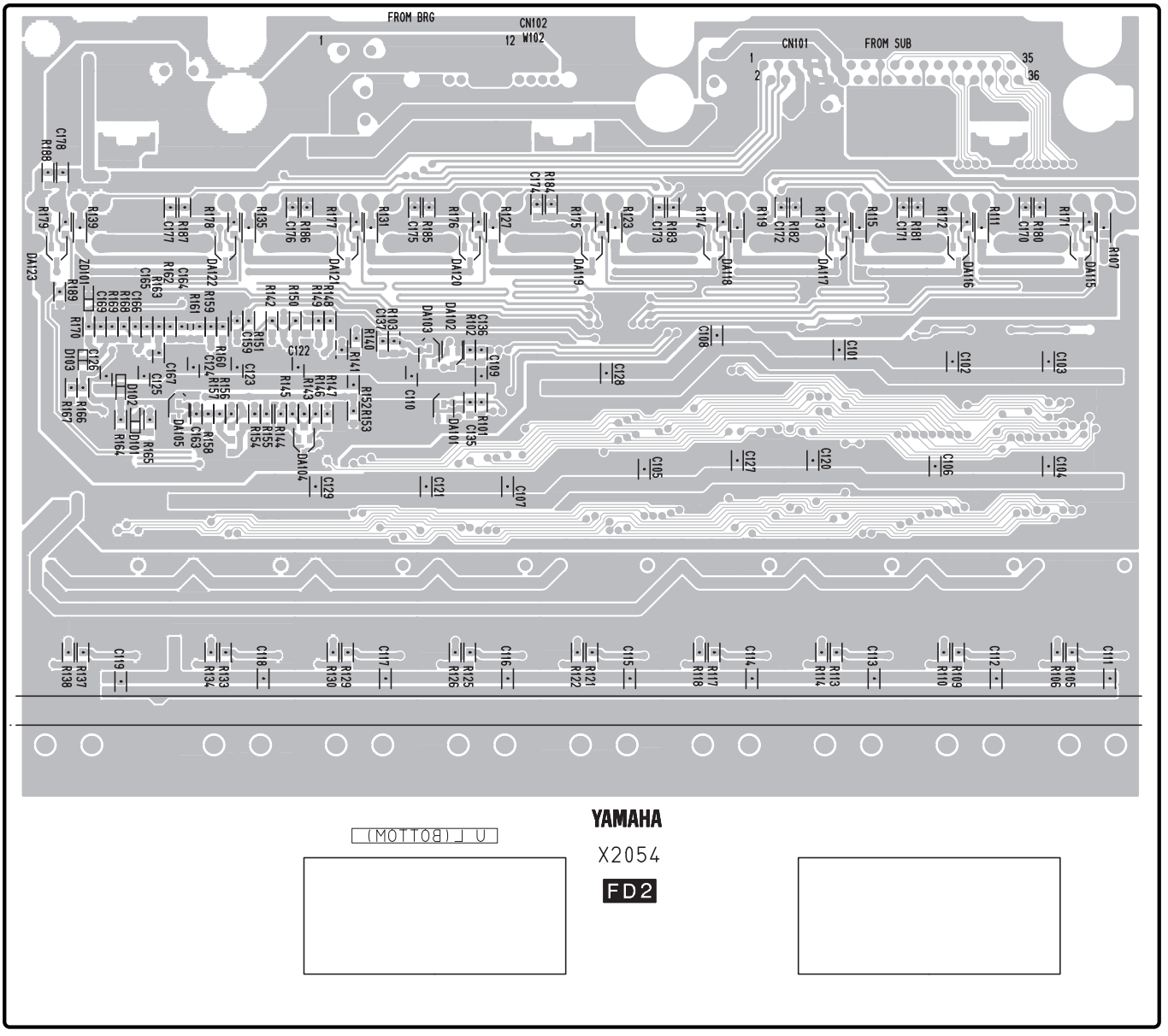


3NA-V862690-3 ⚠1

• FD2 Circuit Board



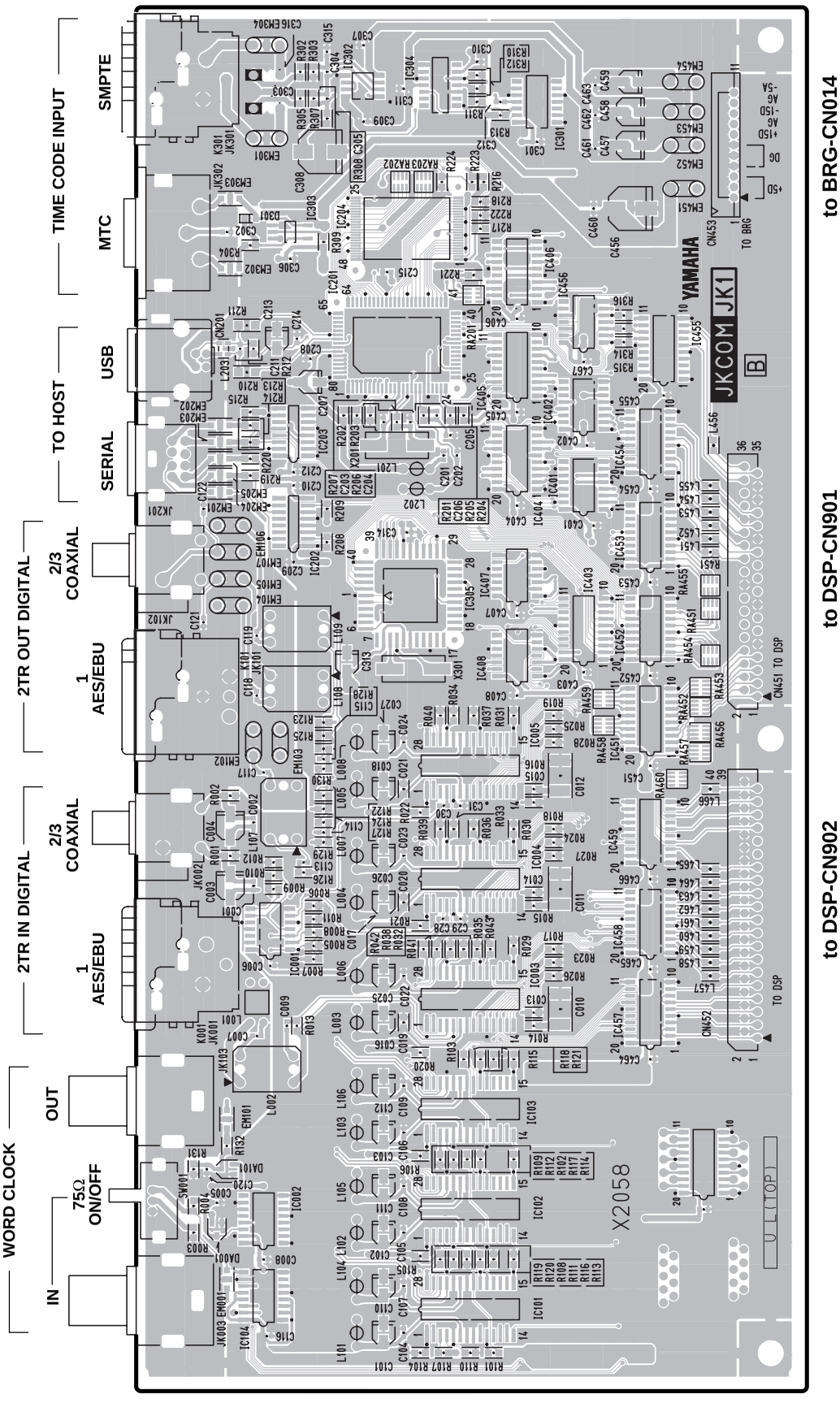
• FD2 Circuit Board



Pattern side

3NA-V862700-3 ⚠1

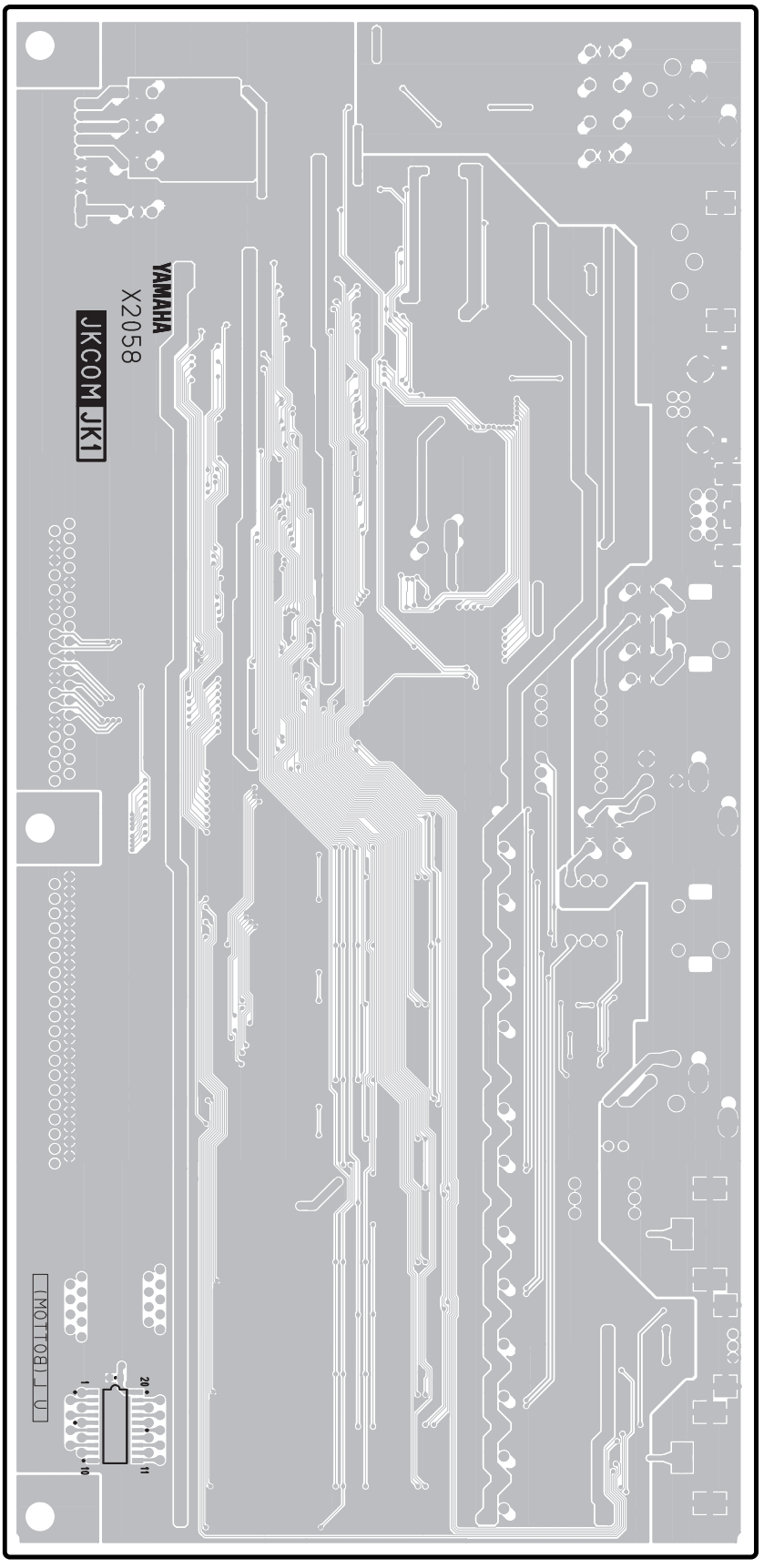
• JKCOM (JK1) Circuit Board



Component side

3NA-V846900-2 ⚠2

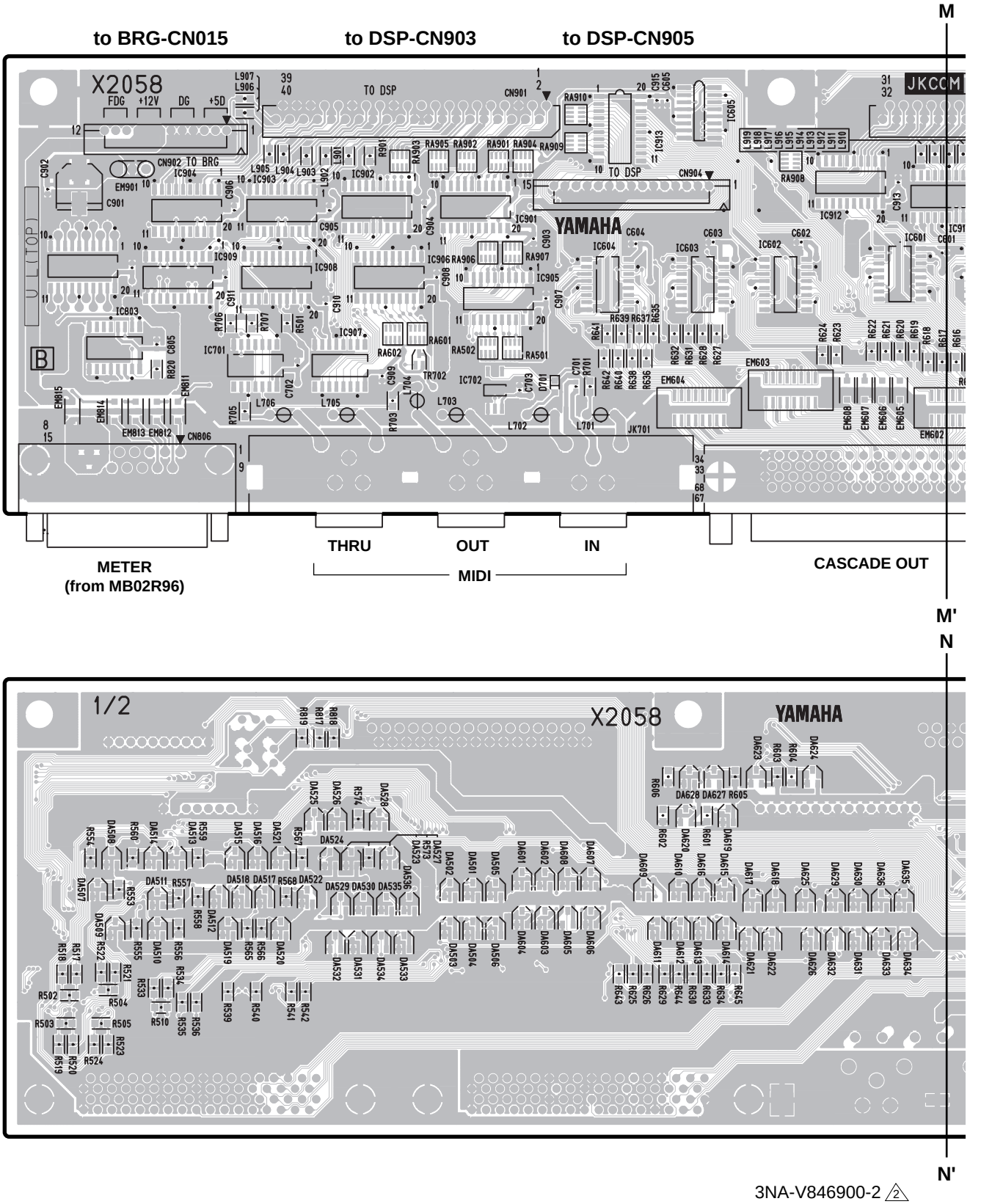
• JKCOM (JK1) Circuit Board



3NA-V846900-3

Pattern side

• JKCOM (JK2 (1/2)) Circuit Board



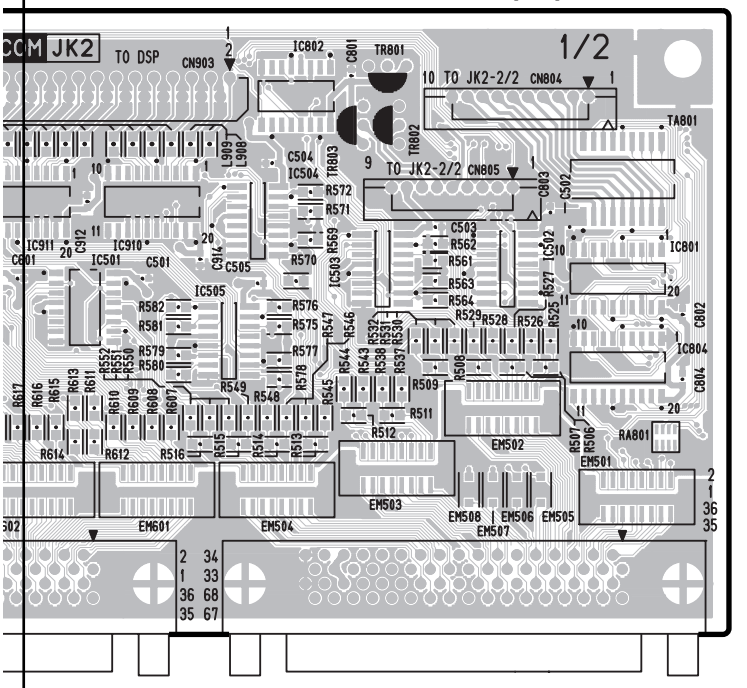
3NA-V846900-2 ⚠2
3NA-V846900-3

• JKCOM (JK2 (2/2)) Circuit Board

M

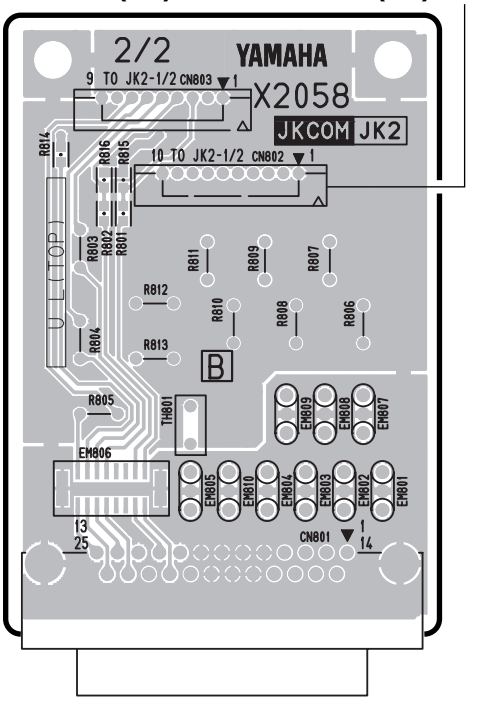
to DSP-CN904

CN804: to JK2 (2/2)-CN802
CN805: to JK2 (2/2)-CN803



Component side

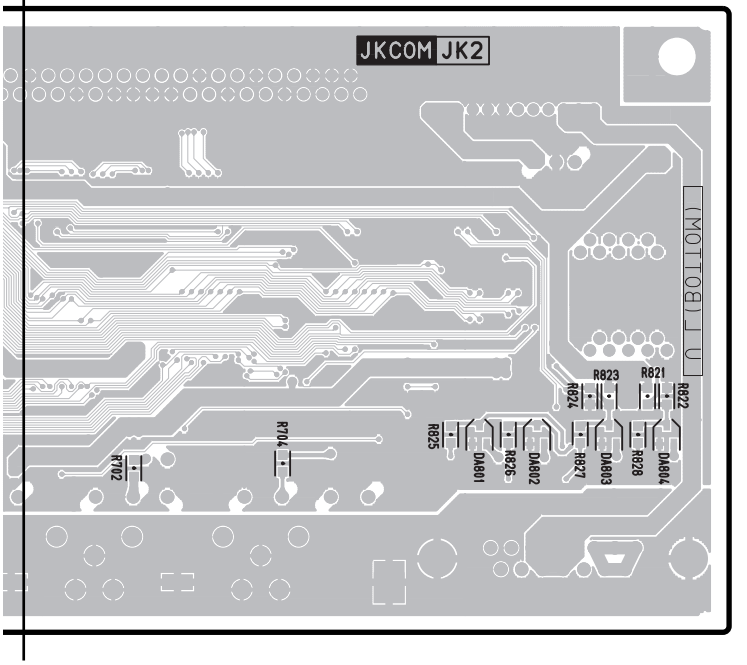
to JK2 (1/2)-CN805 to JK2 (1/2)-CN804



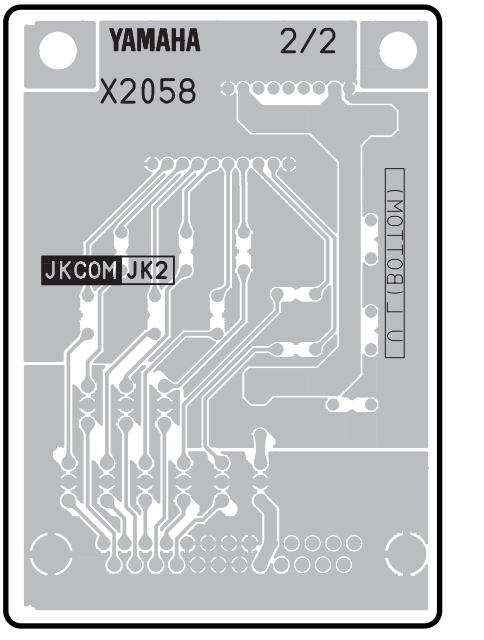
Component side

M'

N



Pattern side

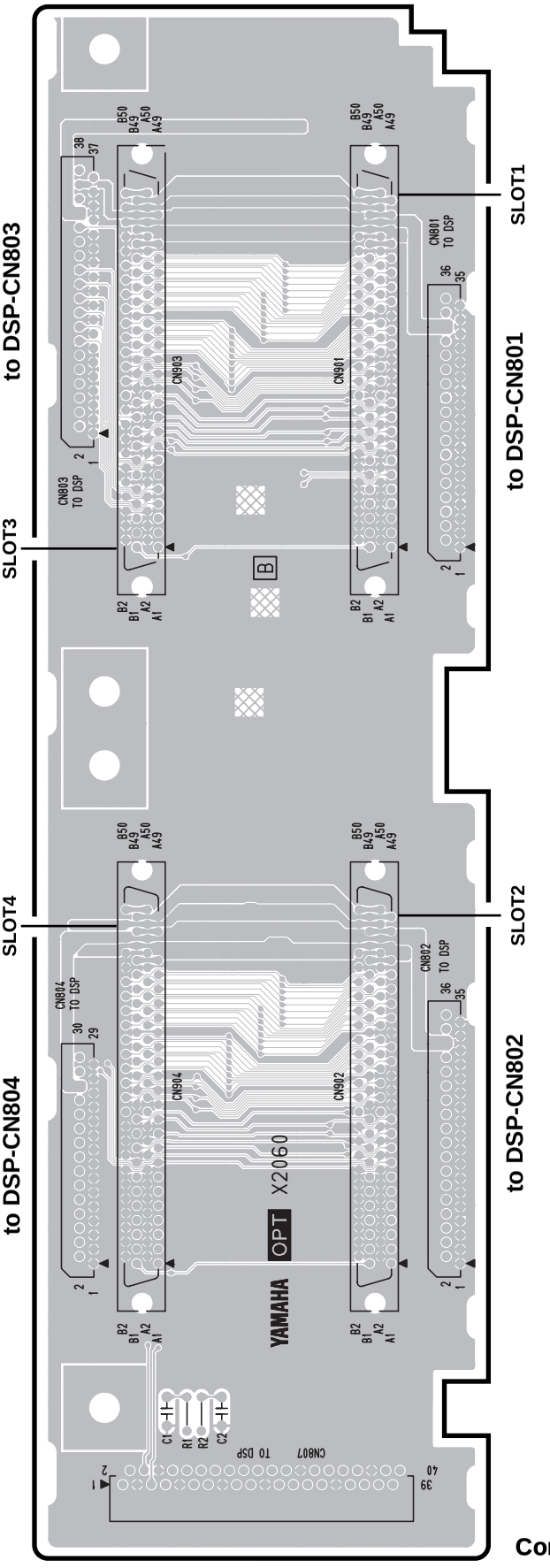


Pattern side

N'

3NA-V846900-2 ⚠2
3NA-V846900-3

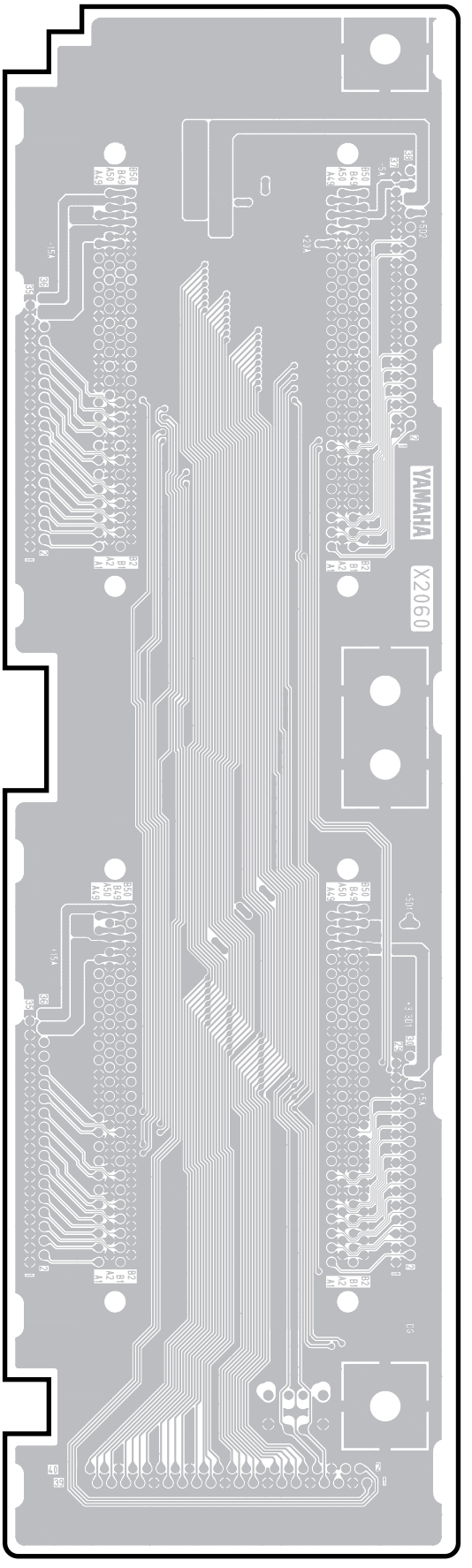
• OPT Circuit Board



Component side

3NA-V846910-2 ⚠1

• OPT Circuit Board



Pattern side

3NA-V846910-2 ⚠1

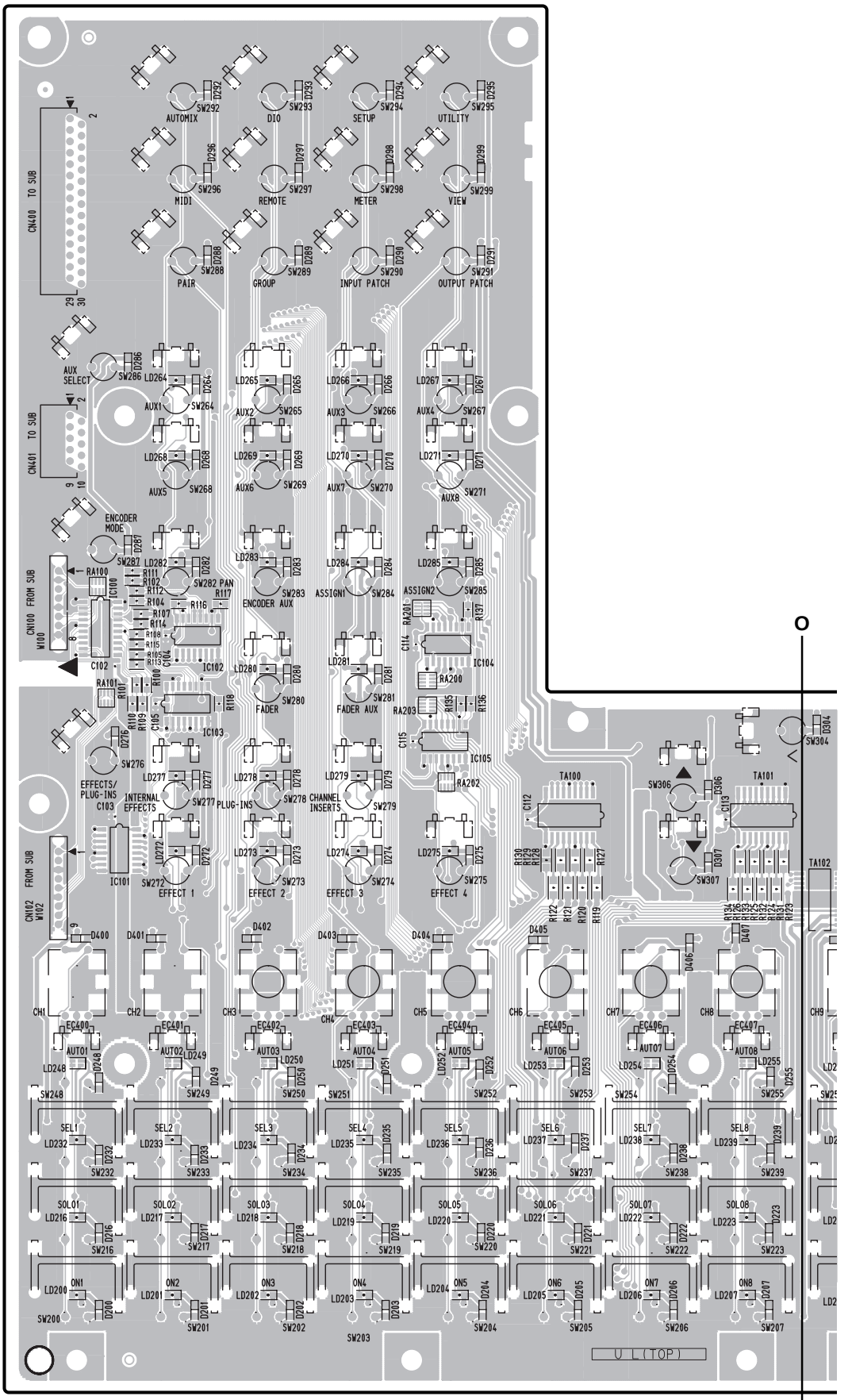
- **PN1COM (PN1) Circuit Board**

to SUB -CN906

to SUB -CN905

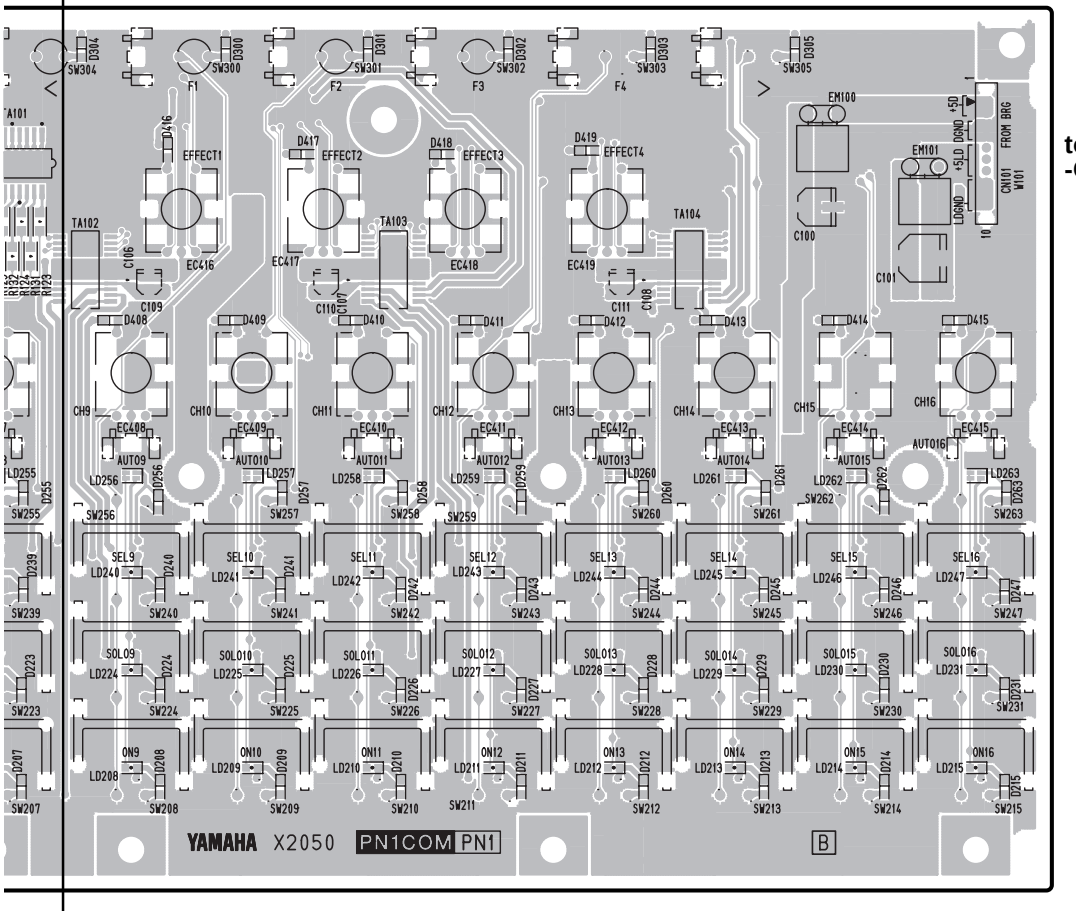
to SUB -CN903

to SUB -CN904



3NA-V924550-2 ⚠1

O



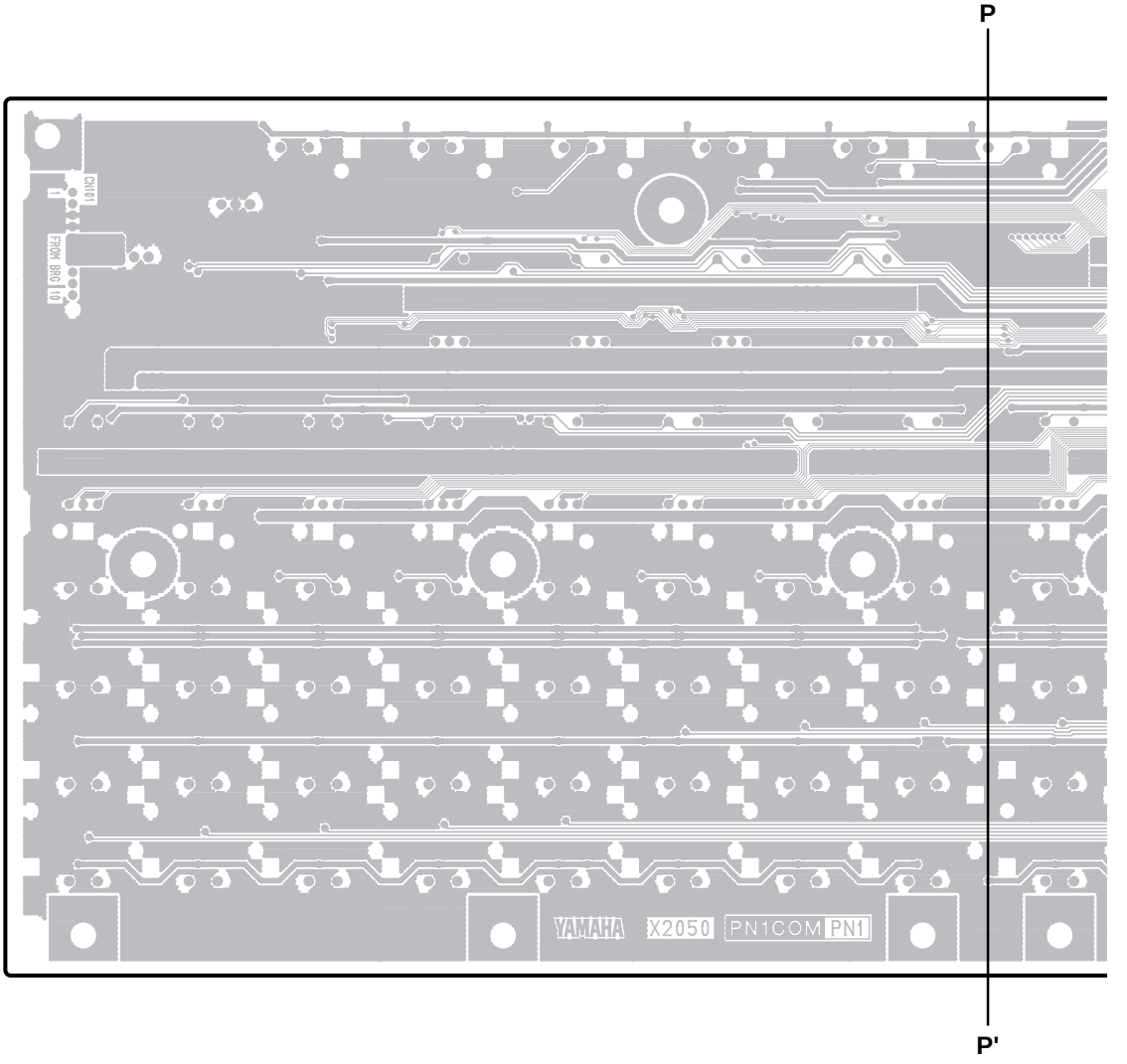
to BRG
-CN019

Component side

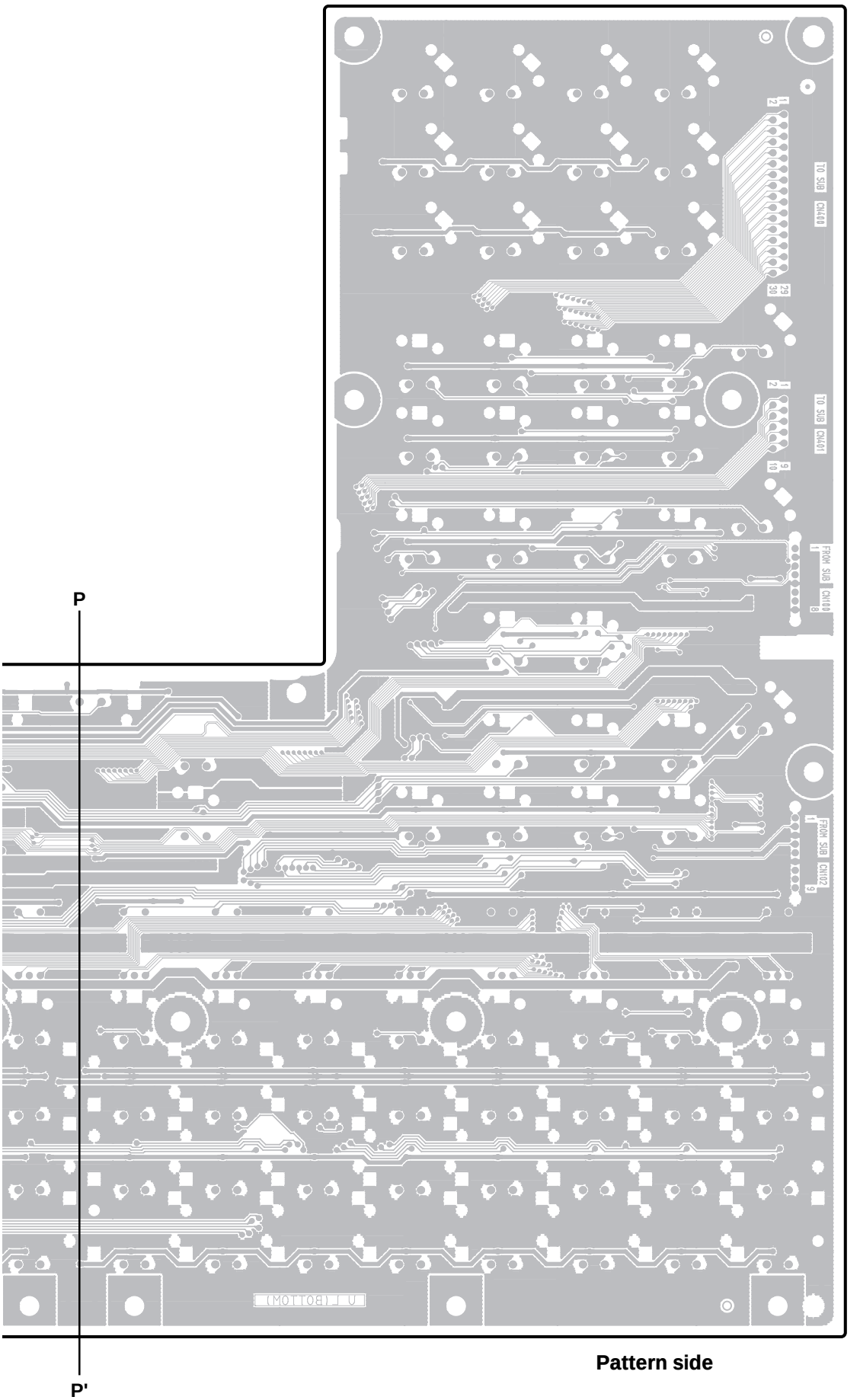
O'

3NA-V924550-2 ⚠1

• PN1COM (PN1) Circuit Board

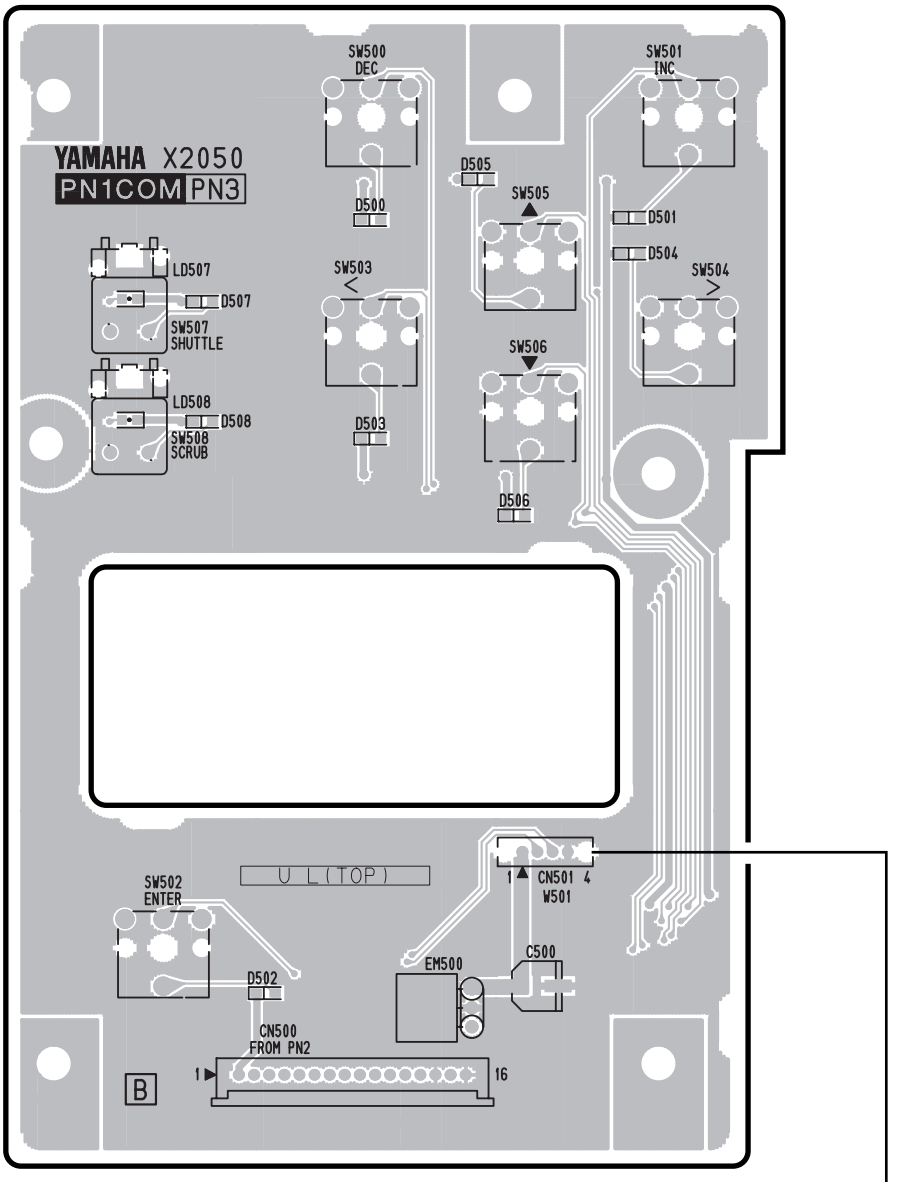


3NA-V924550-2 ⚠1



3NA-V924550-2 ⚠1

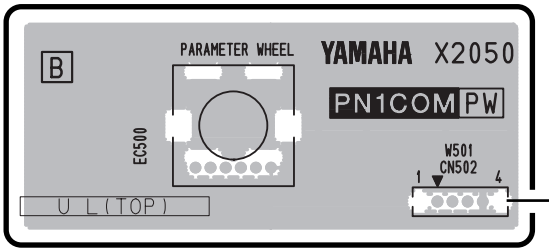
• PN1COM (PN3) Circuit Board



to PN2-CN501

Component side

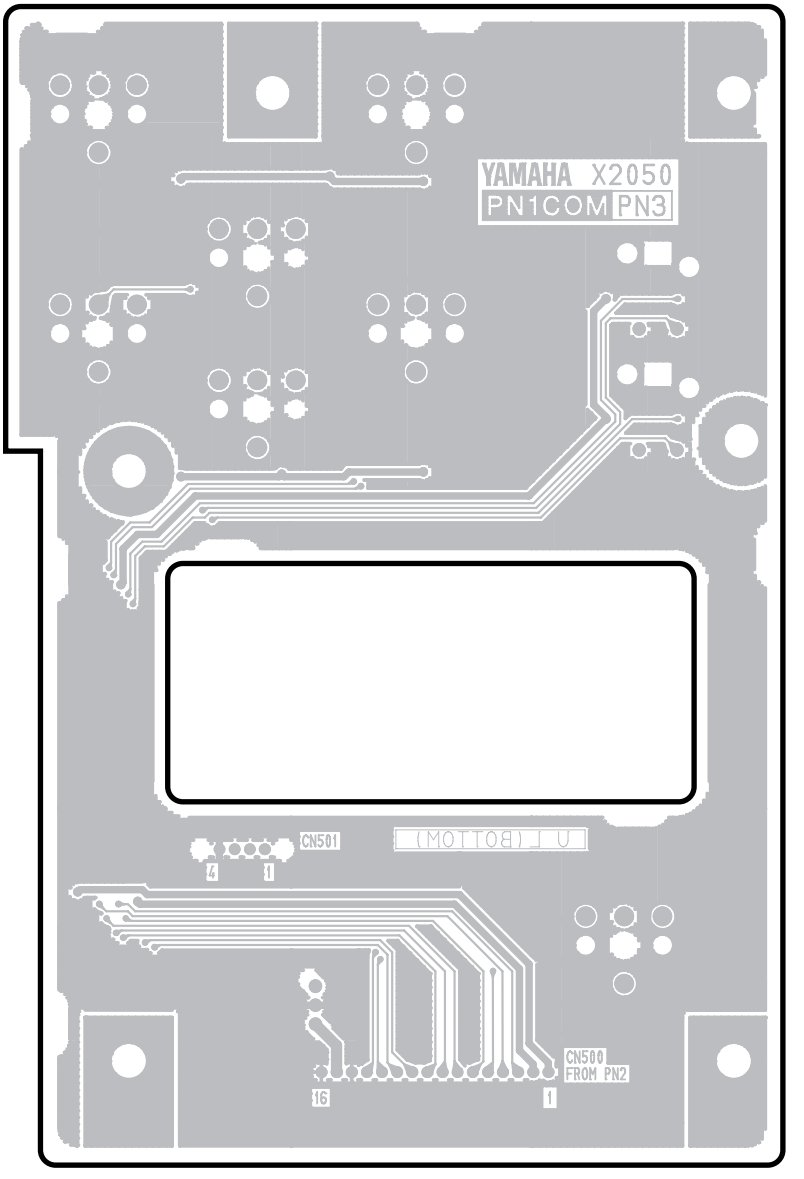
• PN1COM (PW) Circuit Board



Component side

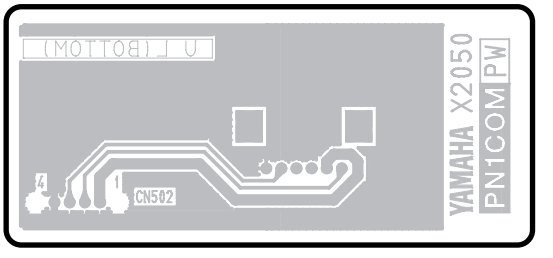
3NA-V924550-2 ⚠1

• PN1COM (PN3) Circuit Board



Pattern side

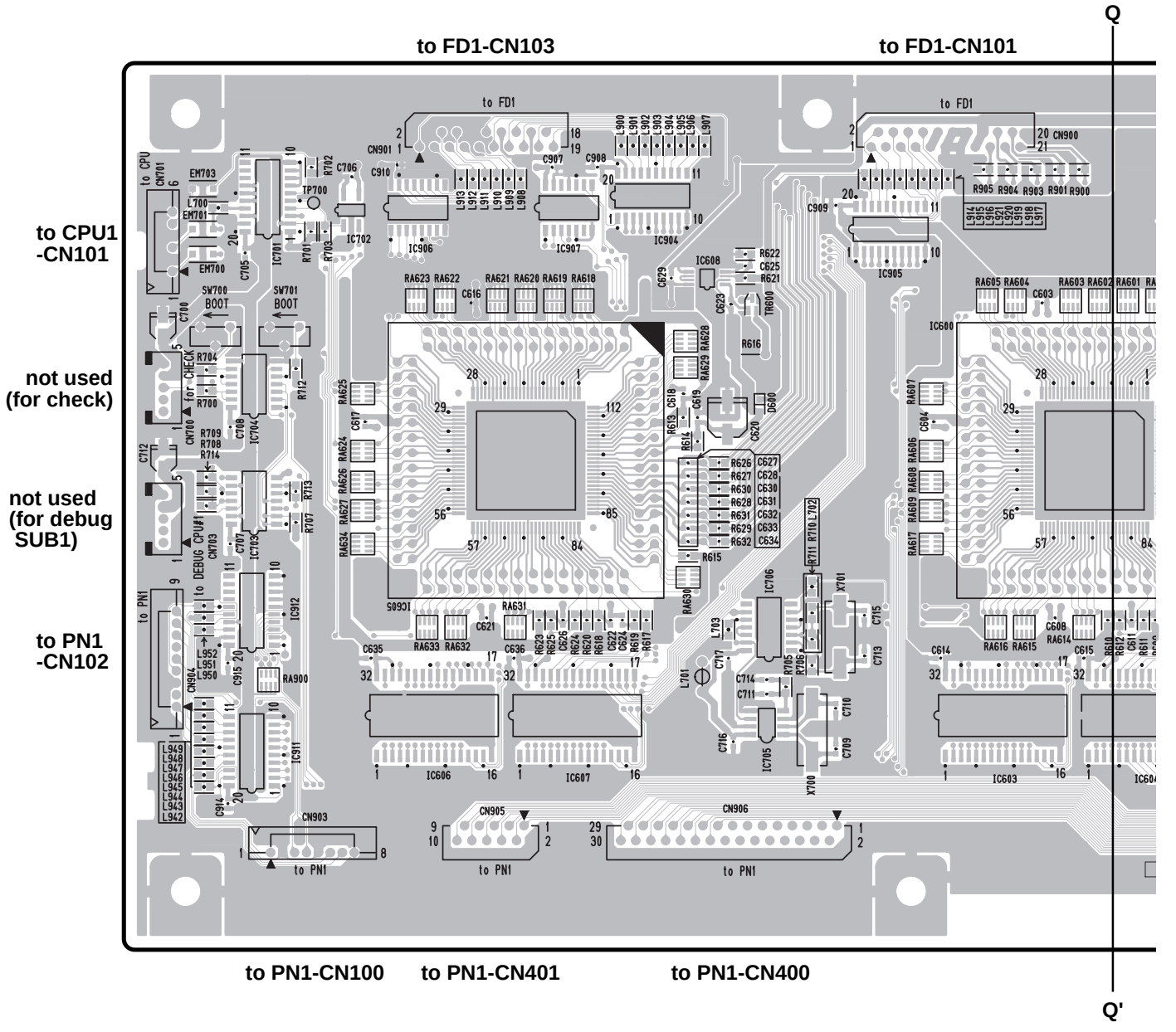
• PN1COM (PW) Circuit Board



Pattern side

3NA-V924550-2 ⚠1

• PN1COM (SUB) Circuit Board

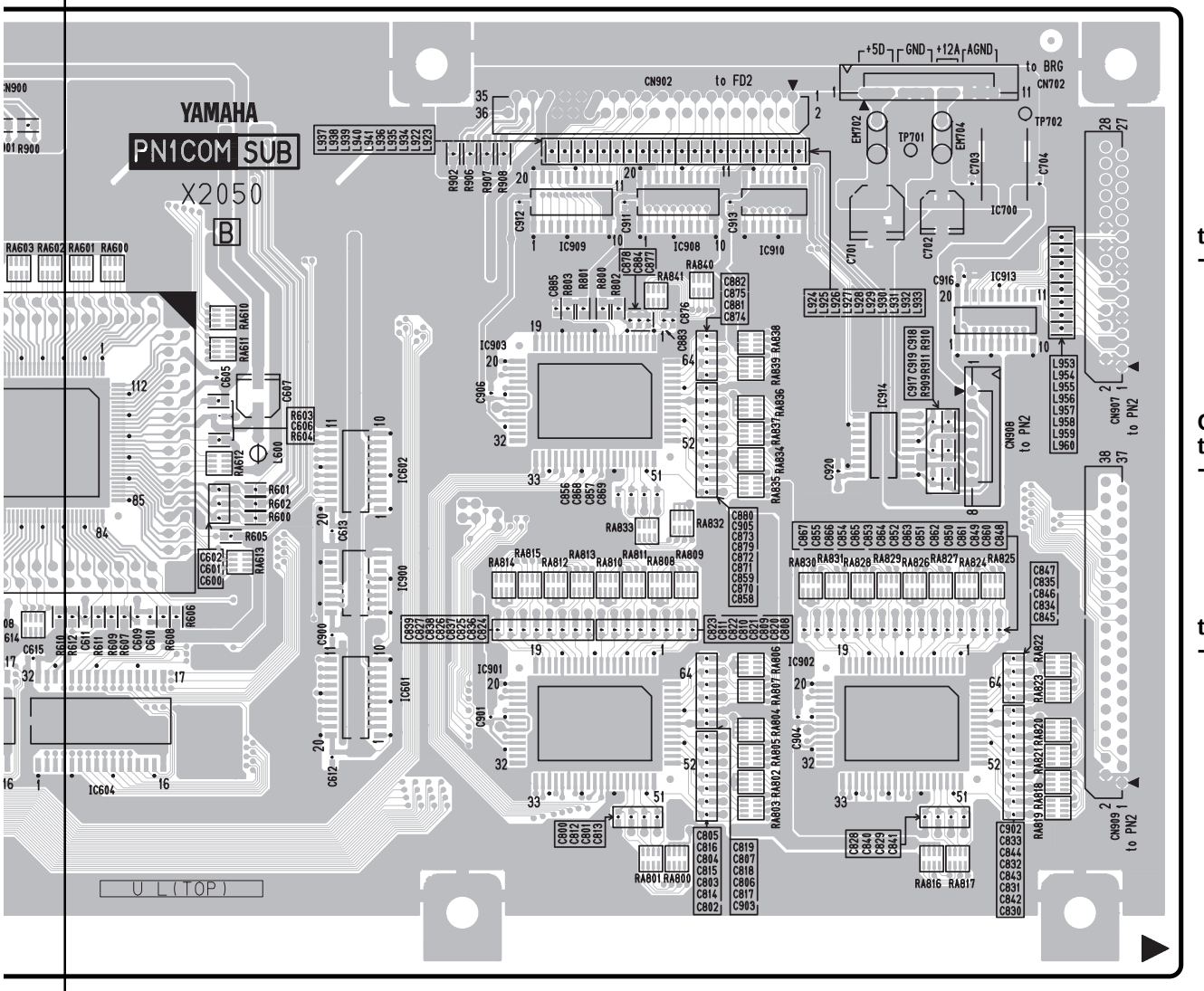


3NA-V924550-2 ⚠1

Q

to FD2-CN101

to BRG-CN024



to PN2 -CN100

CN908: to PN2 -CN702

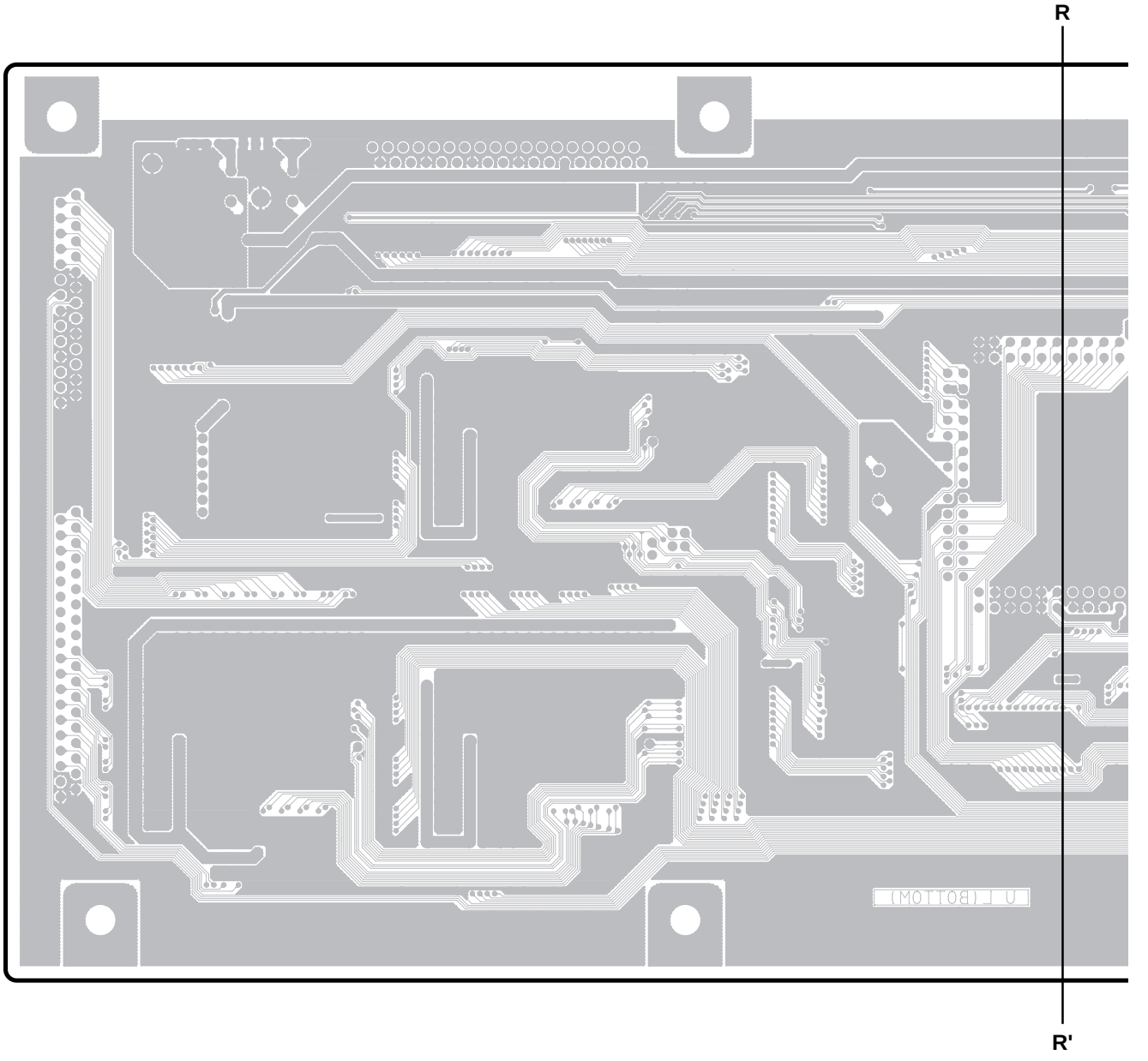
to PN2 -CN401

Component side

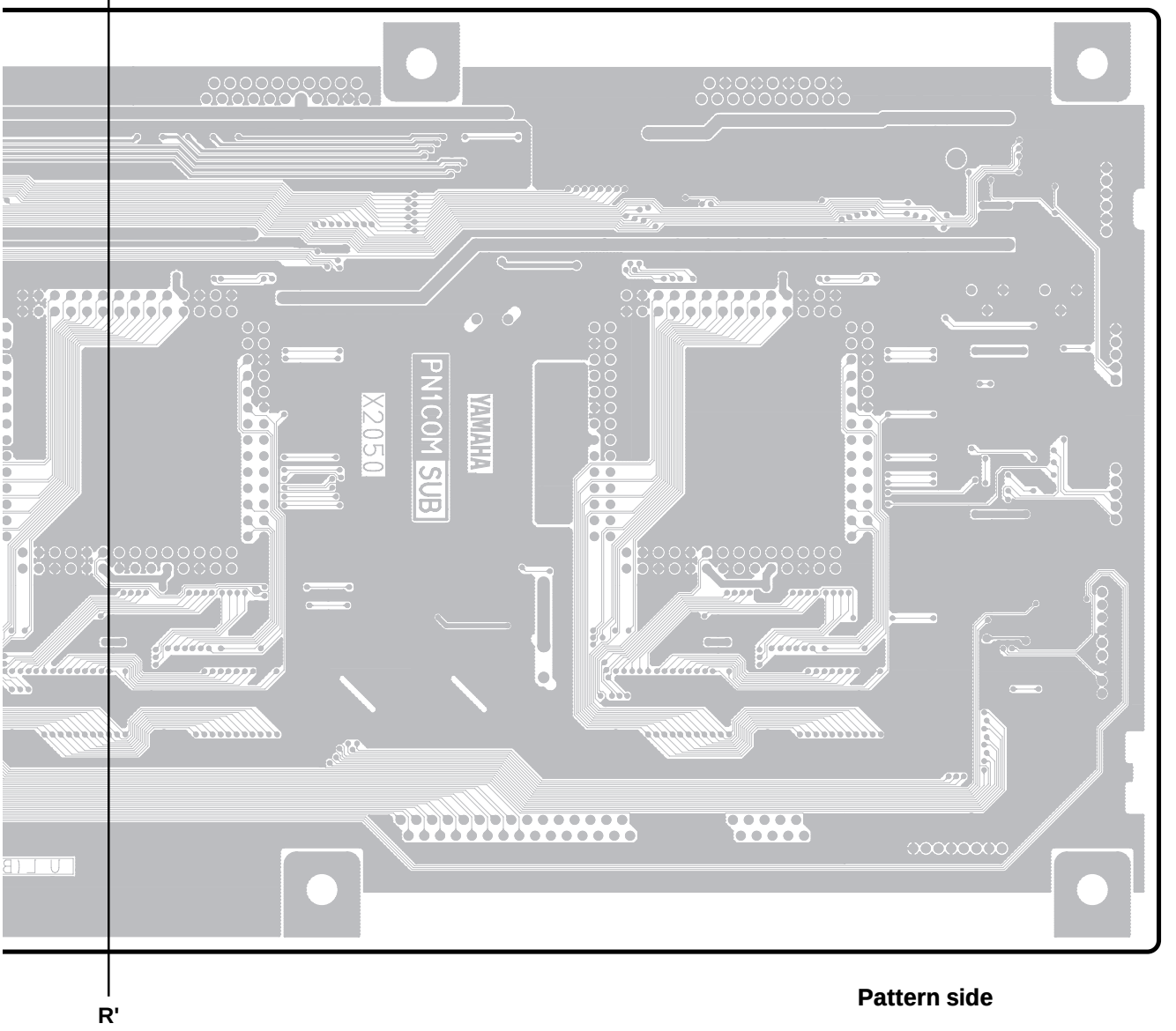
Q'

3NA-V924550-2 ⚠1

• PN1COM (SUB) Circuit Board



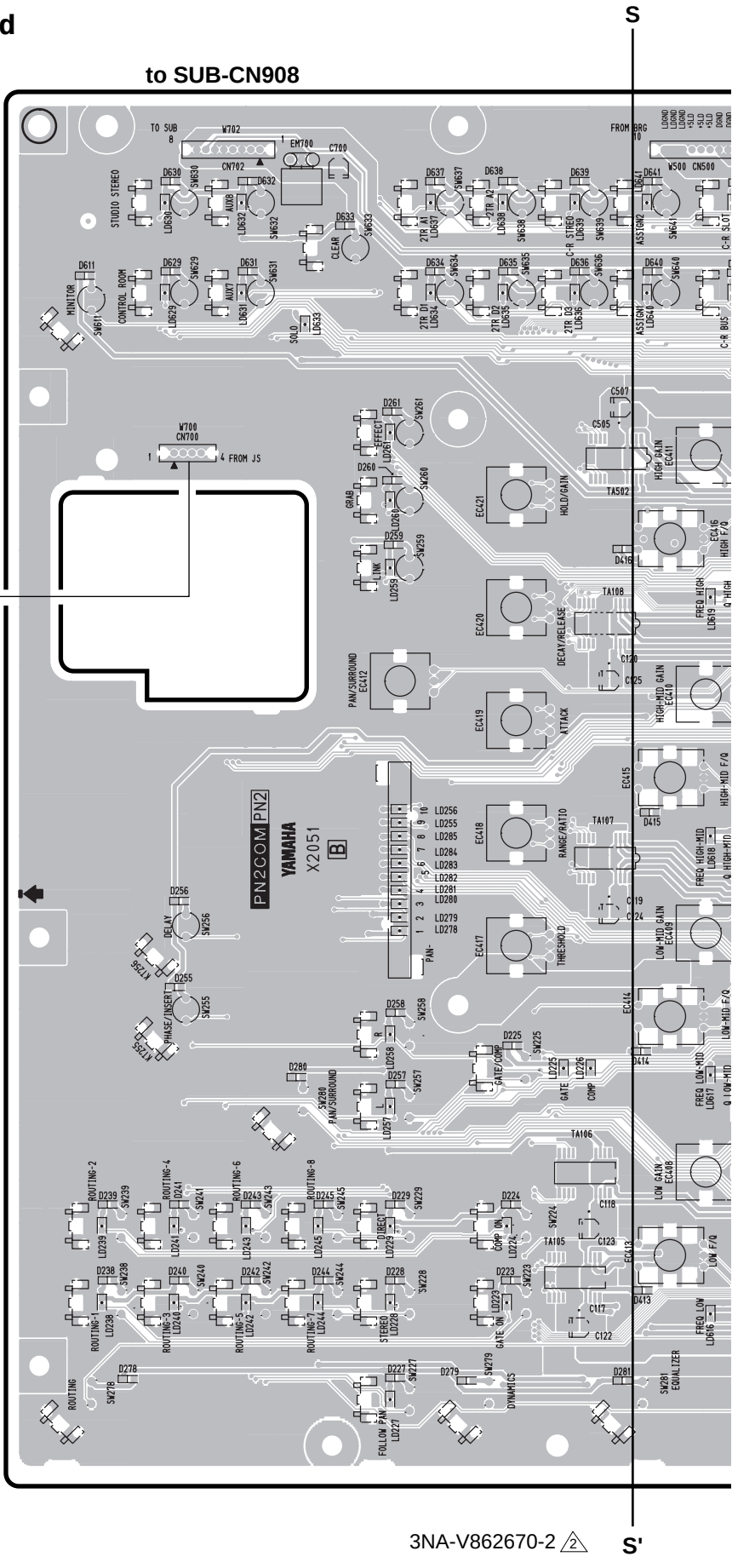
3NA-V924550-2 ⚠1



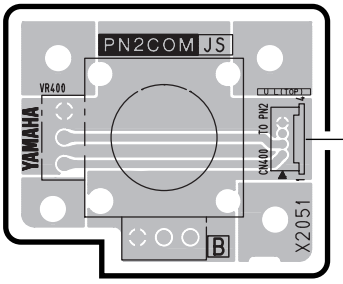
Pattern side

3NA-V924550-2 /1

• PN2COM (PN2) Circuit Board



• PN2COM (JS) Circuit Board



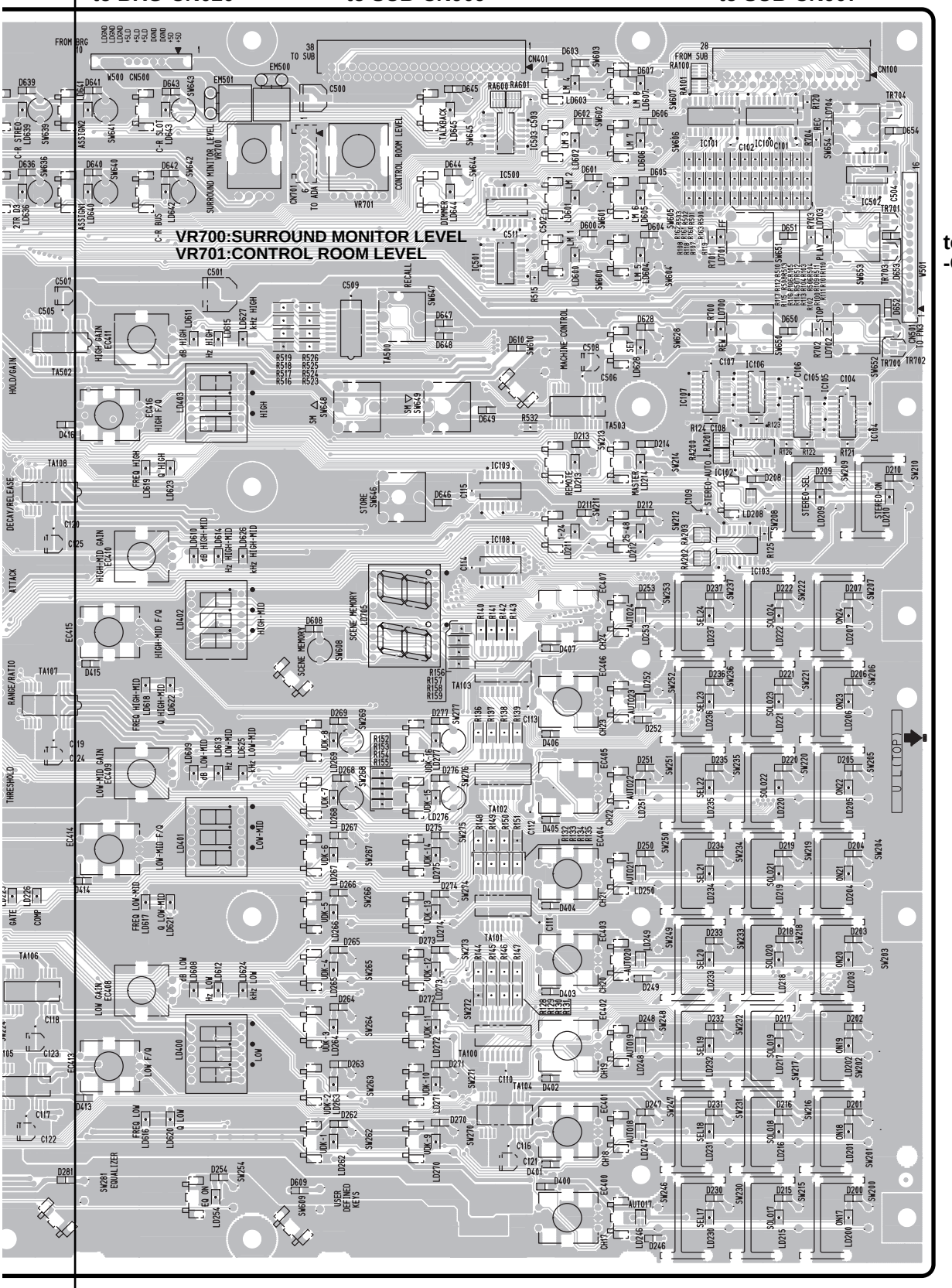
JOY STICK

Component side

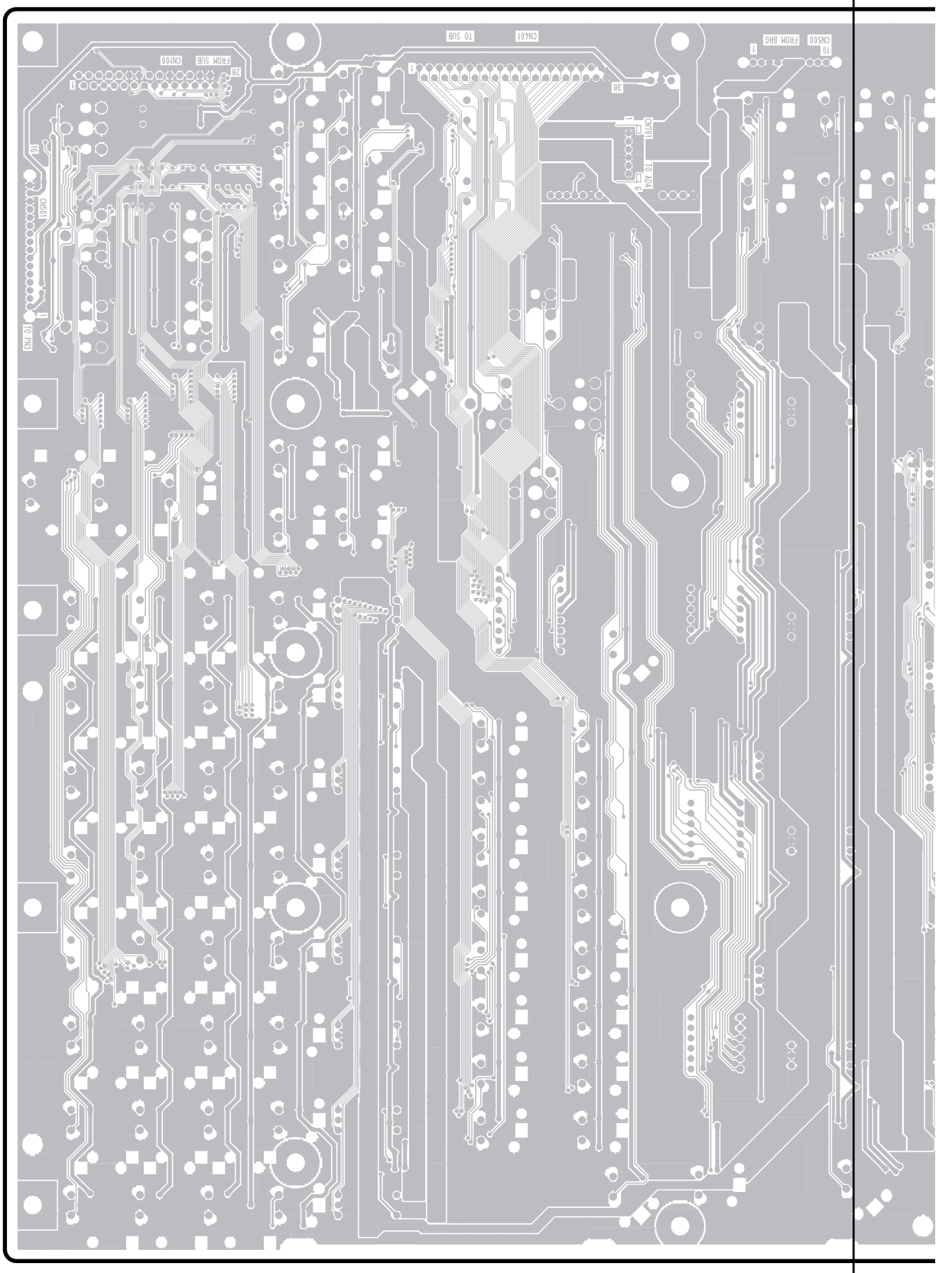
S

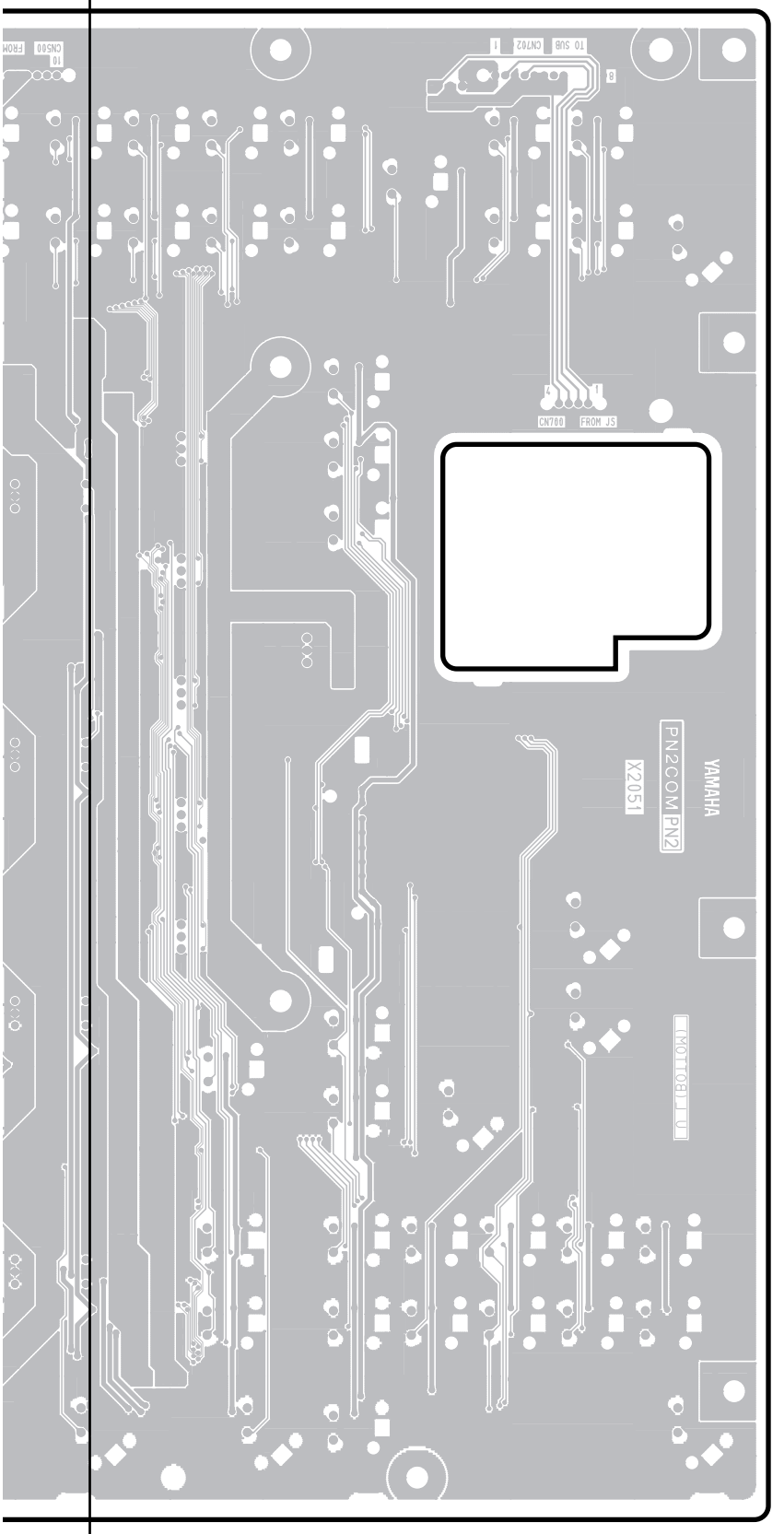
CN701: to ADA-CN351

to BRG-CN020 to SUB-CN909 to SUB-CN907



• PN2COM (PN2) Circuit Board

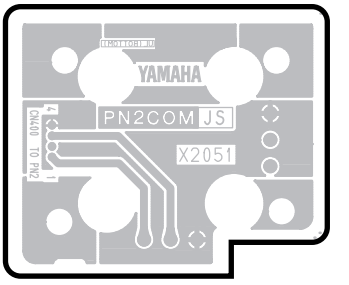




Pattern side

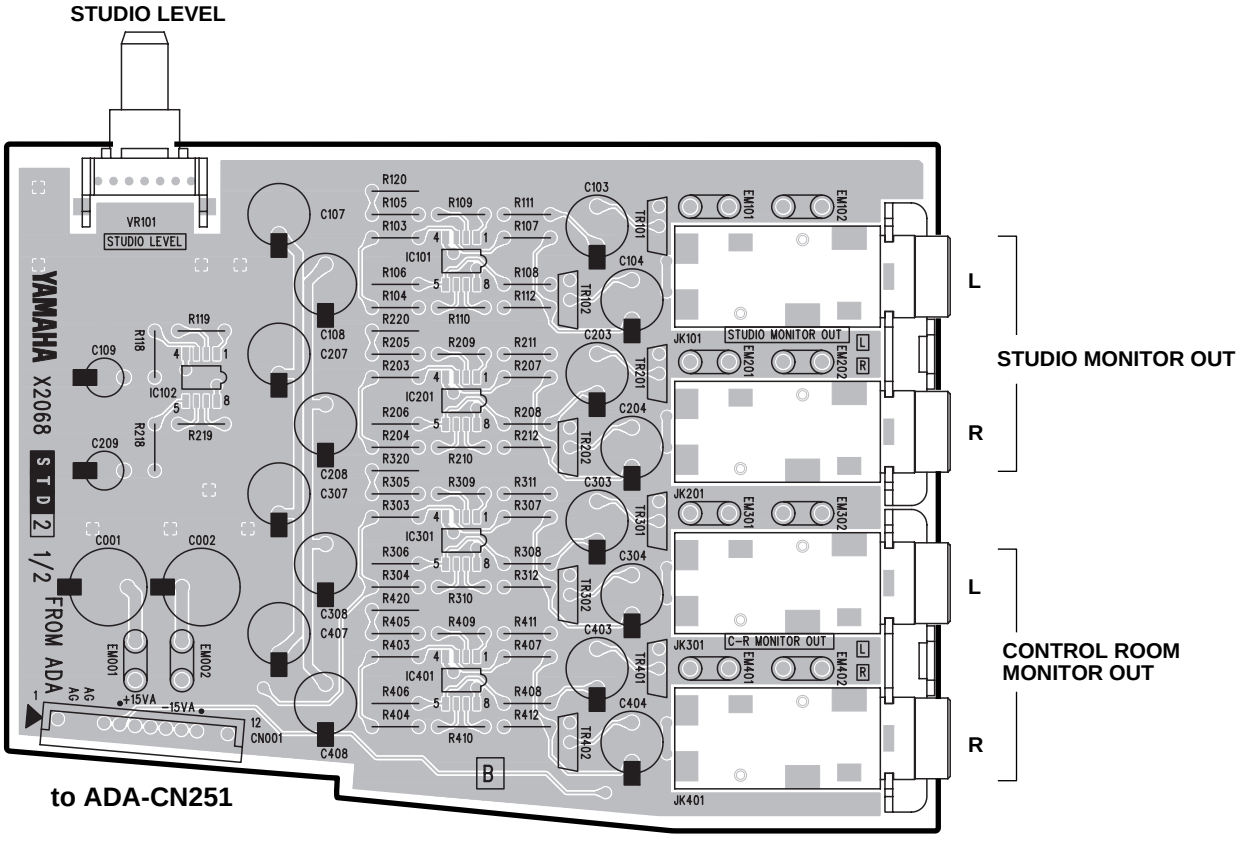
3NA-V862670-2 ⚠2

• PN2COM (JS) Circuit Board

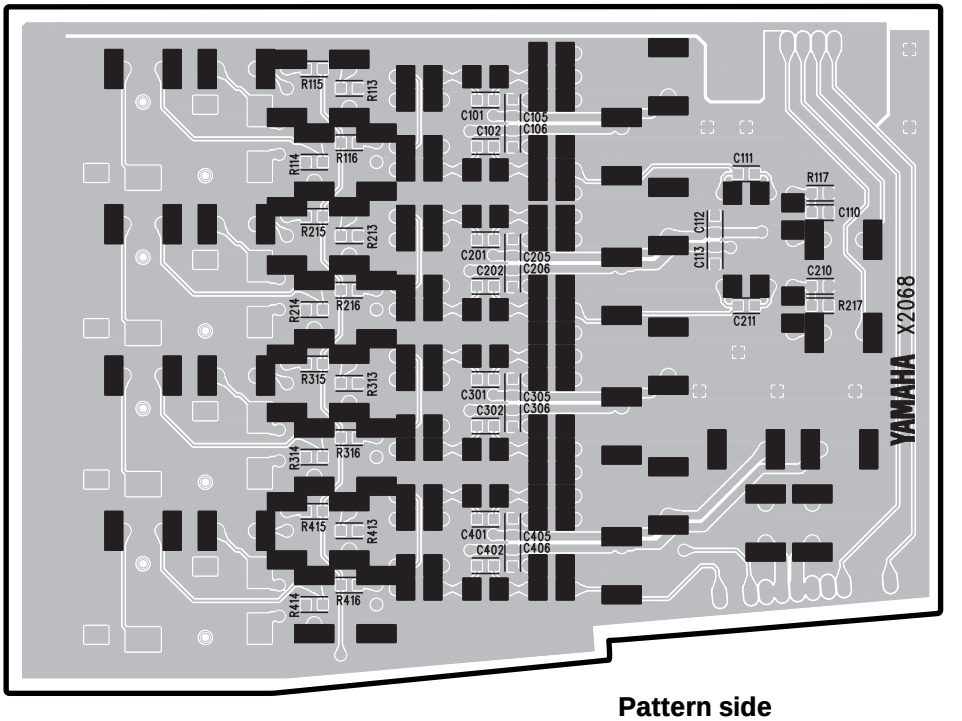


Pattern side

• STD Circuit Board



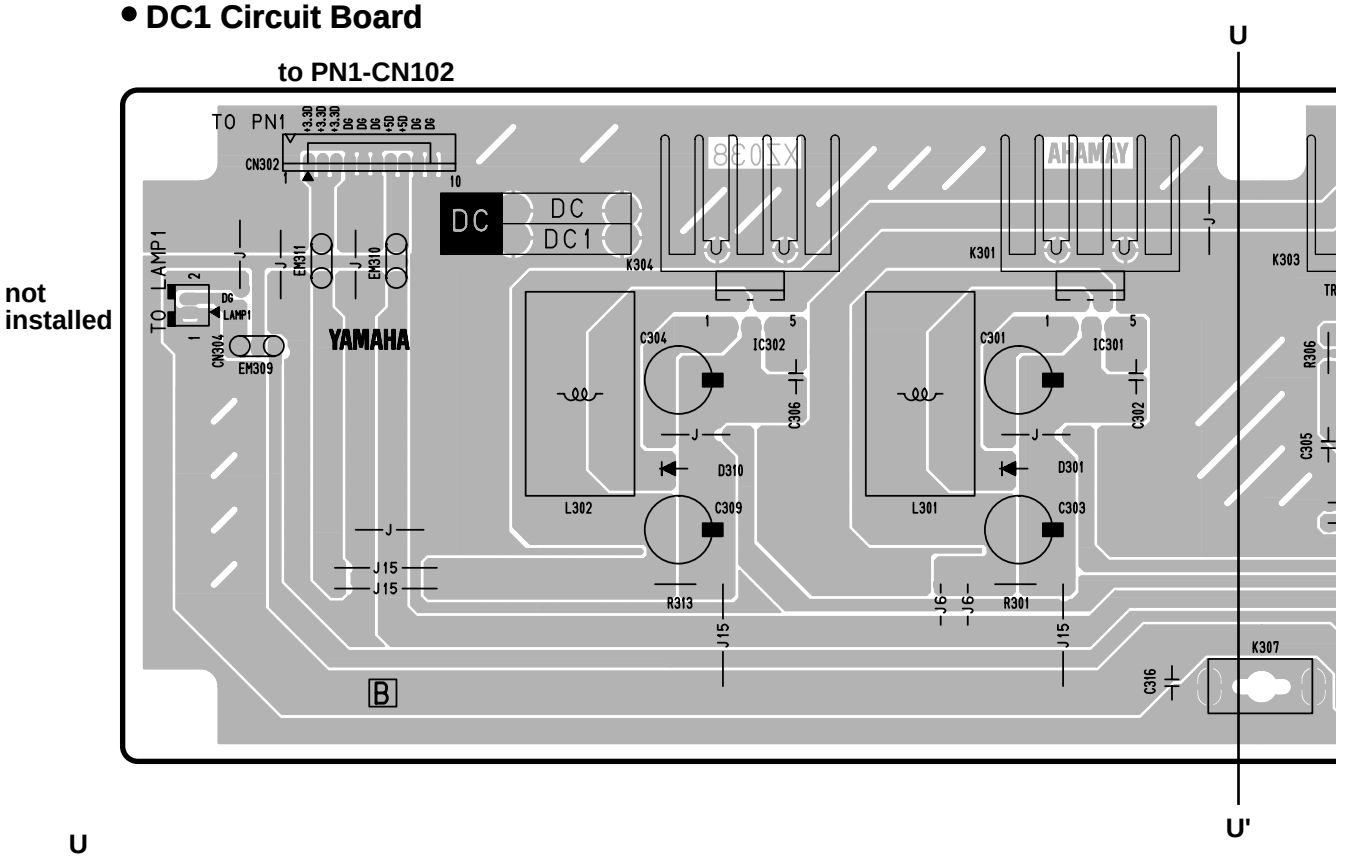
Component side

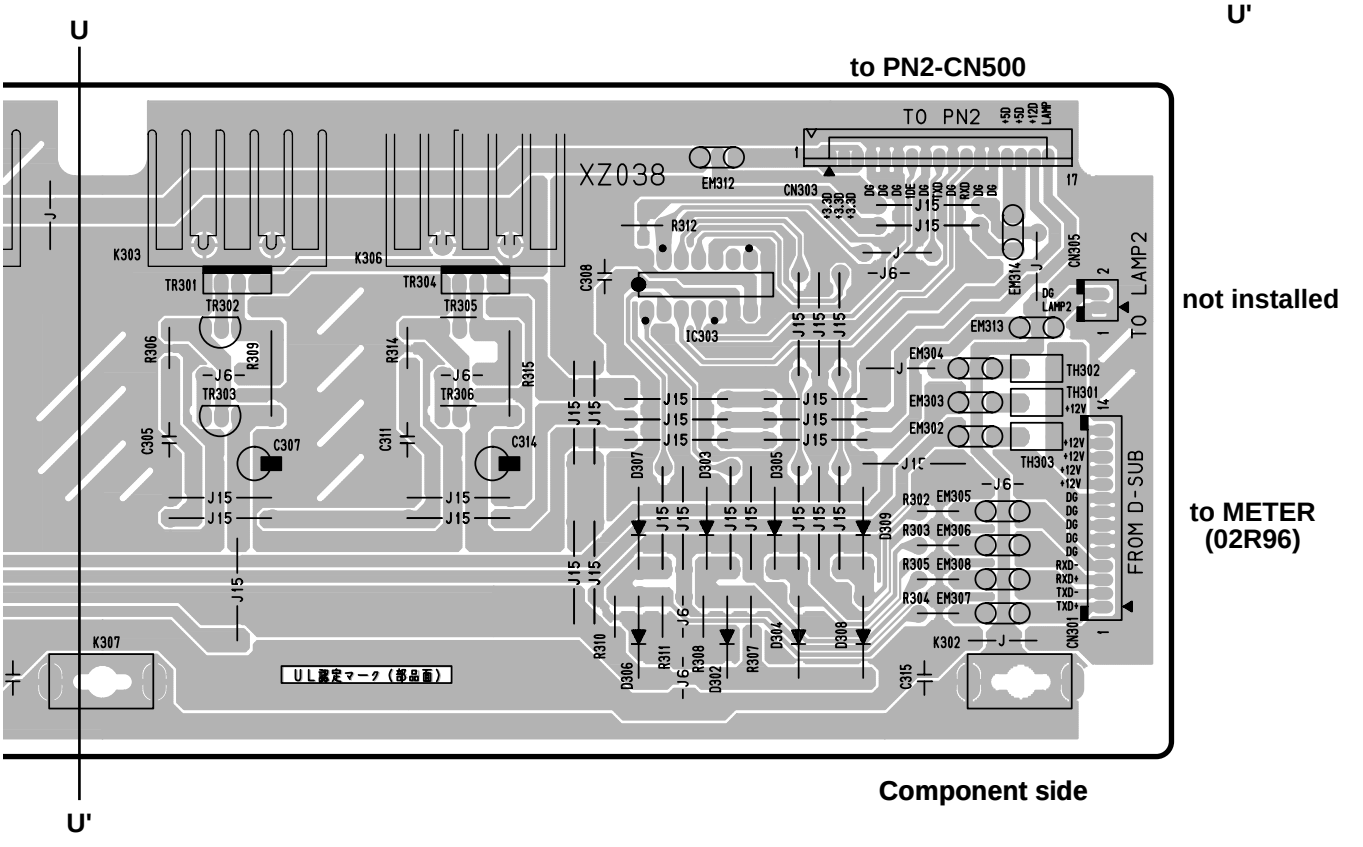


Pattern side

3NA-V863070-2 ⚠1
3NA-V863070-3 ⚠1

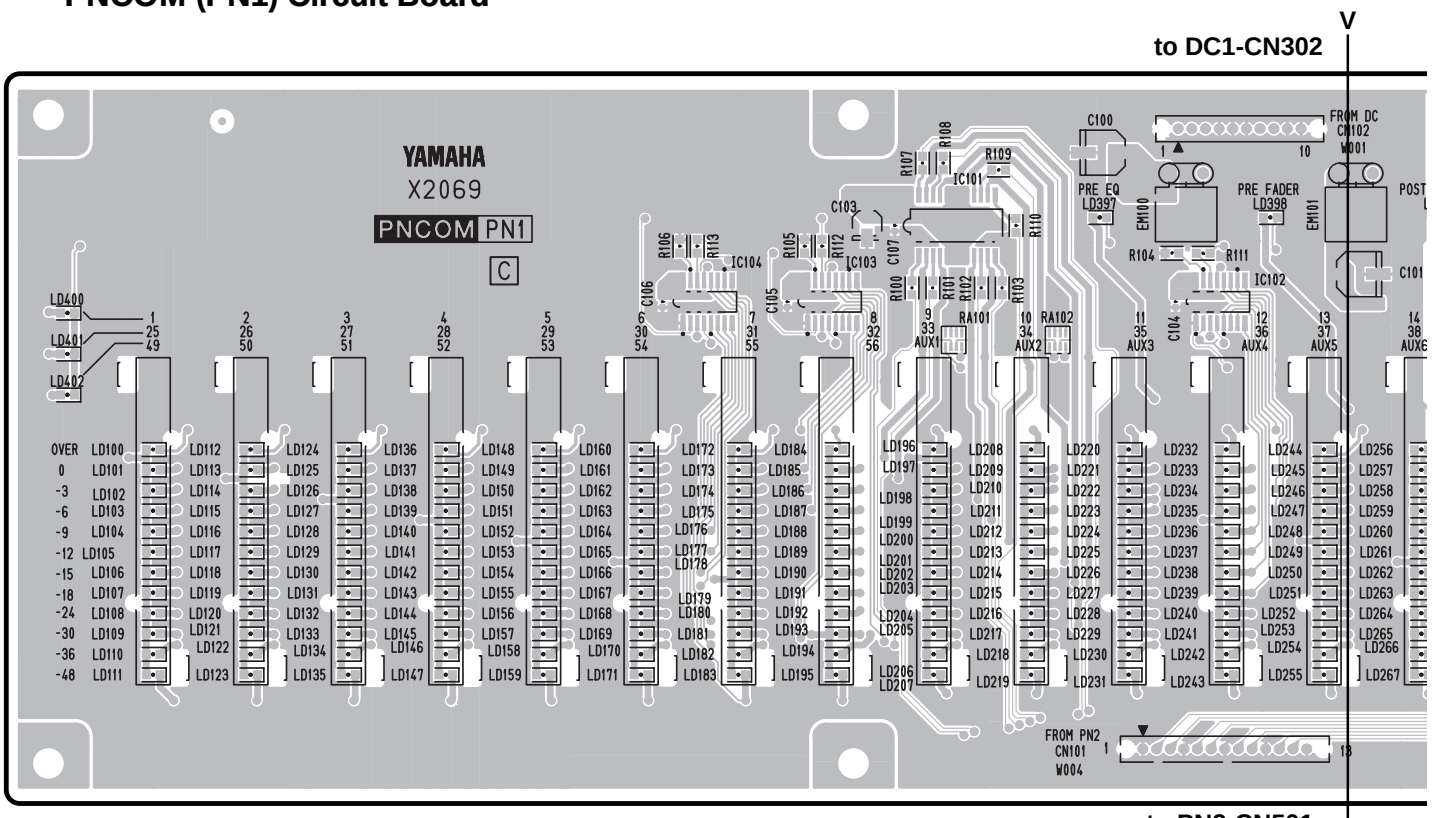
• DC1 Circuit Board

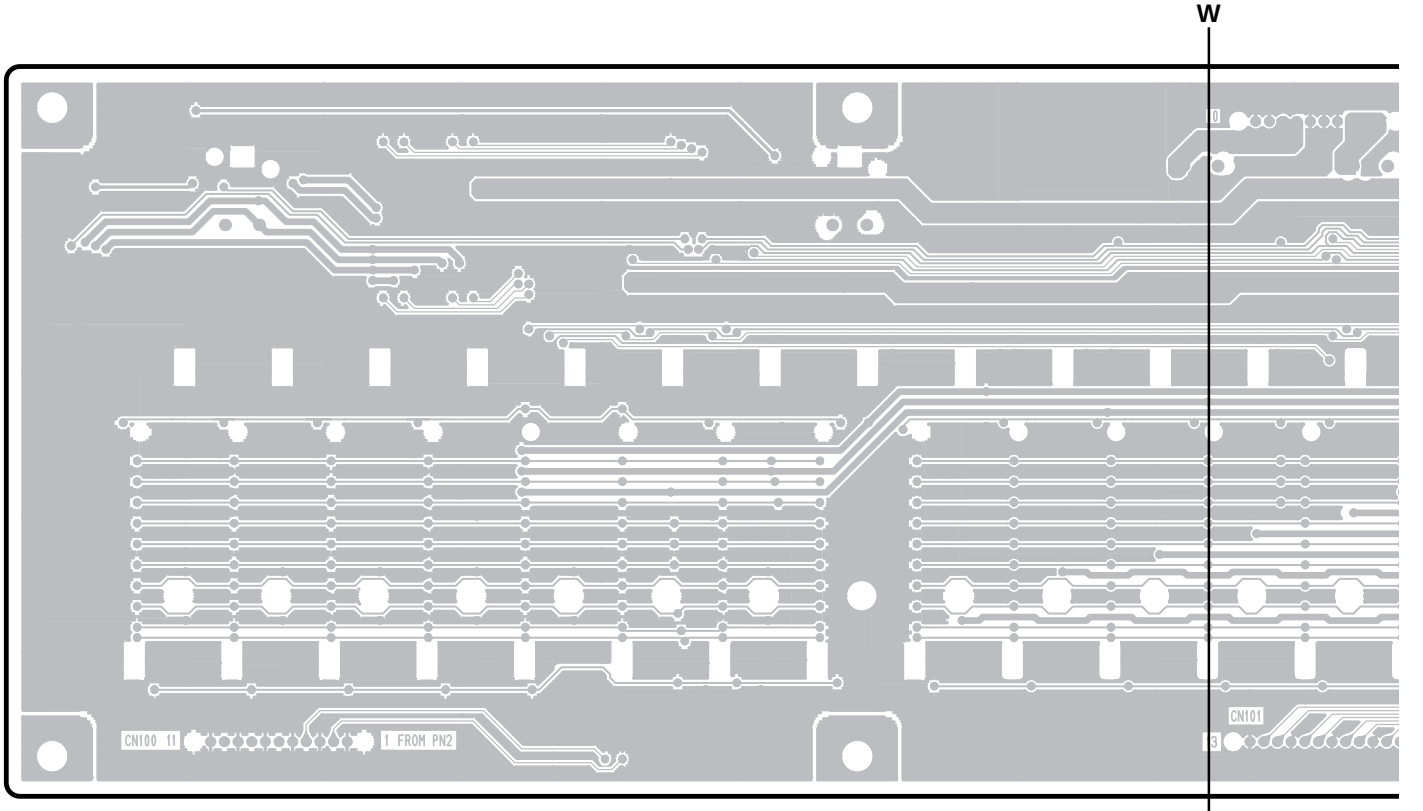




3NA-V863080-2 /1

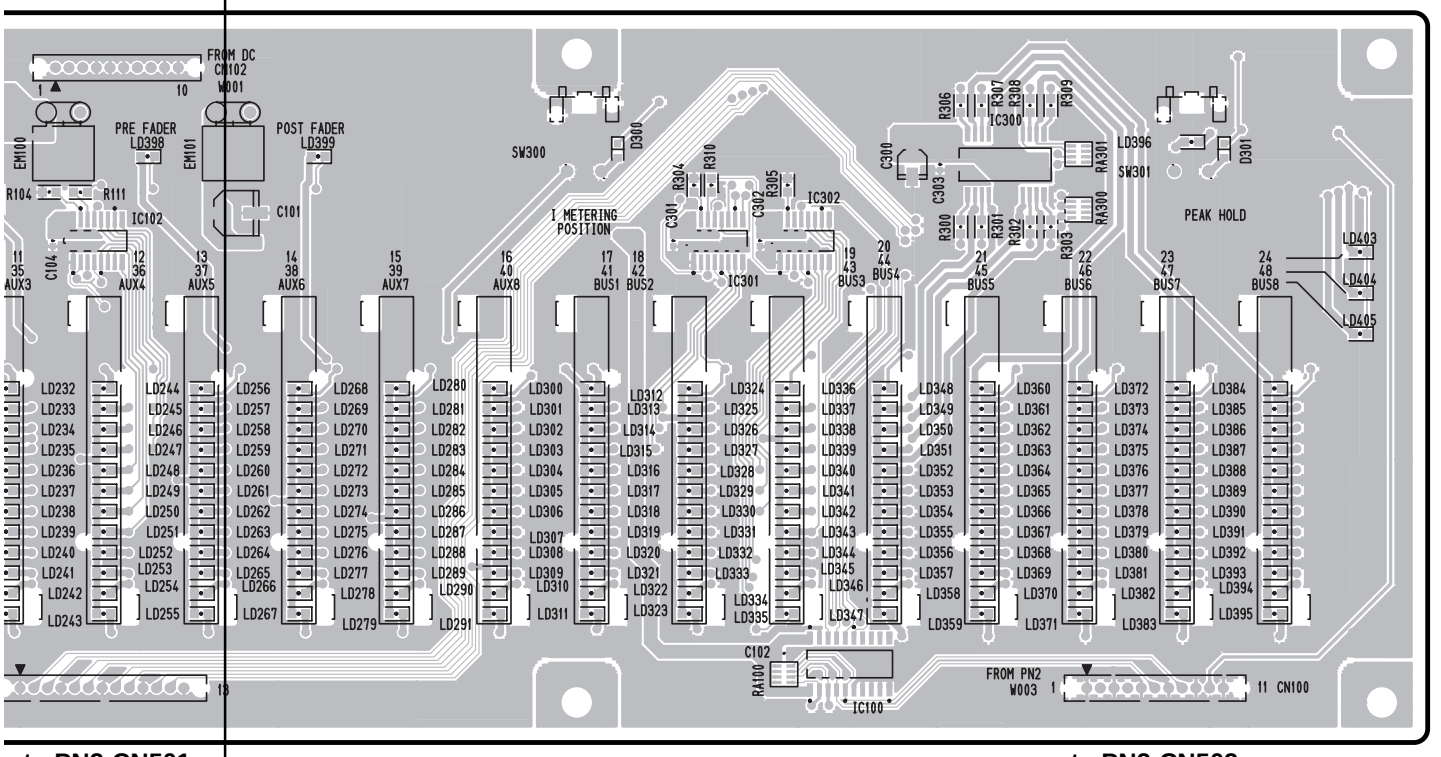
• PNCOM (PN1) Circuit Board





V

to DC1-CN302



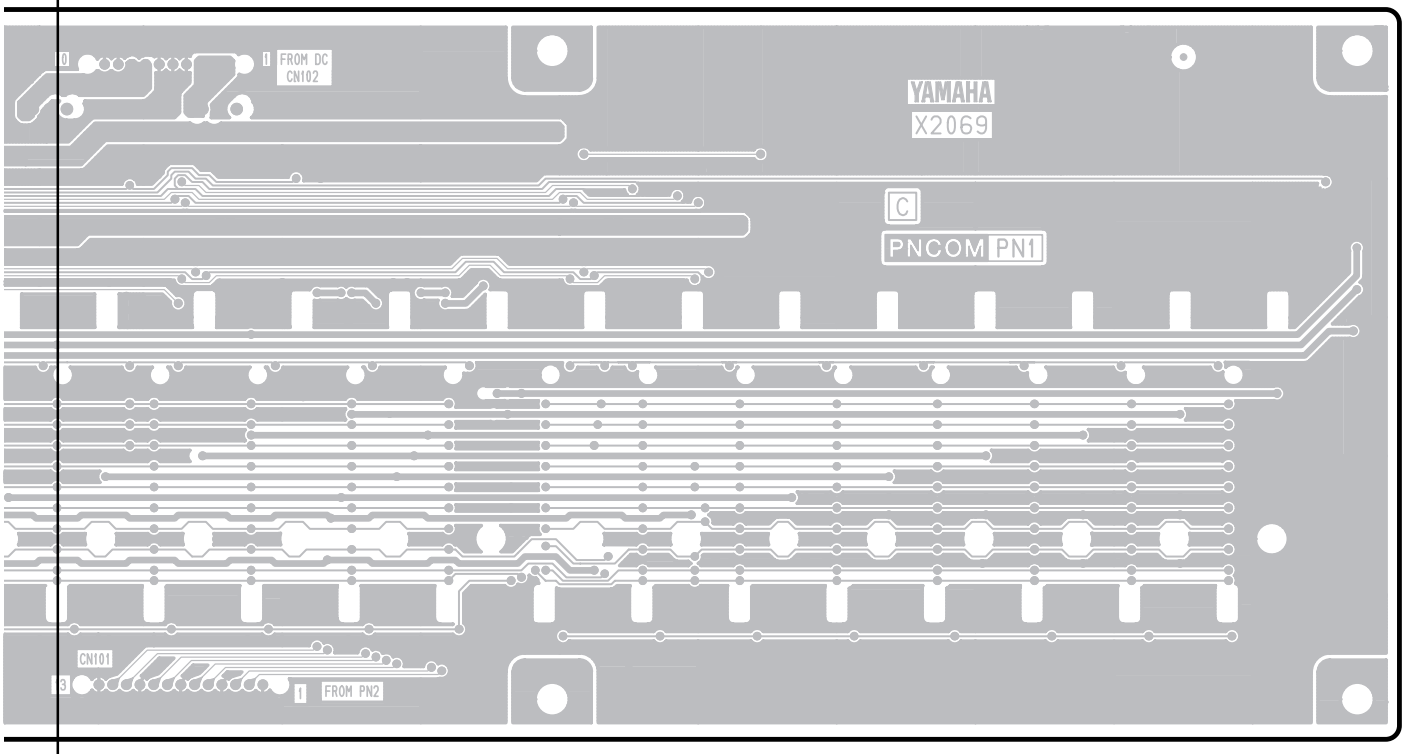
to PN2-CN501

to PN2-CN502

V'

Component side

W

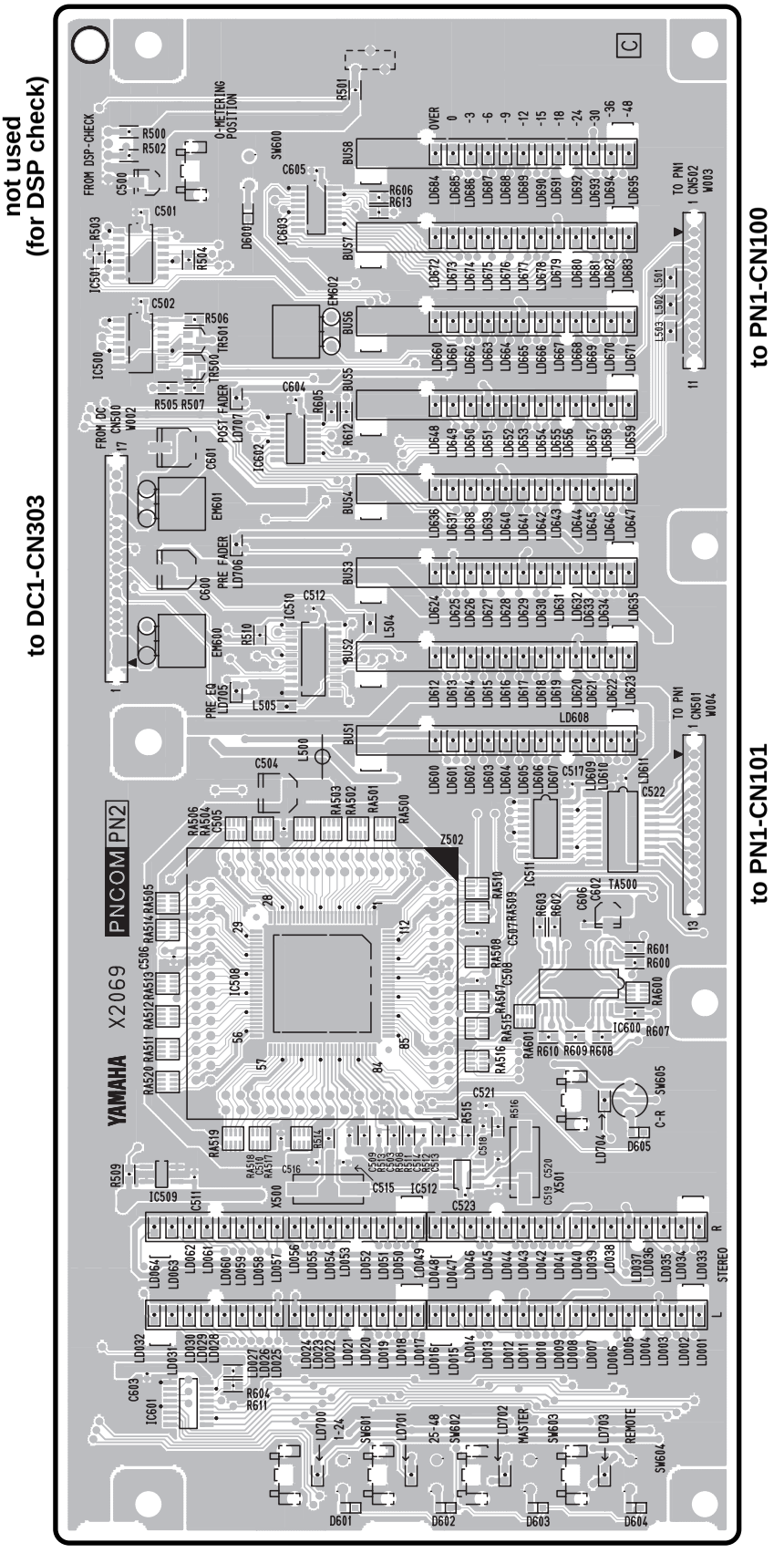


Pattern side

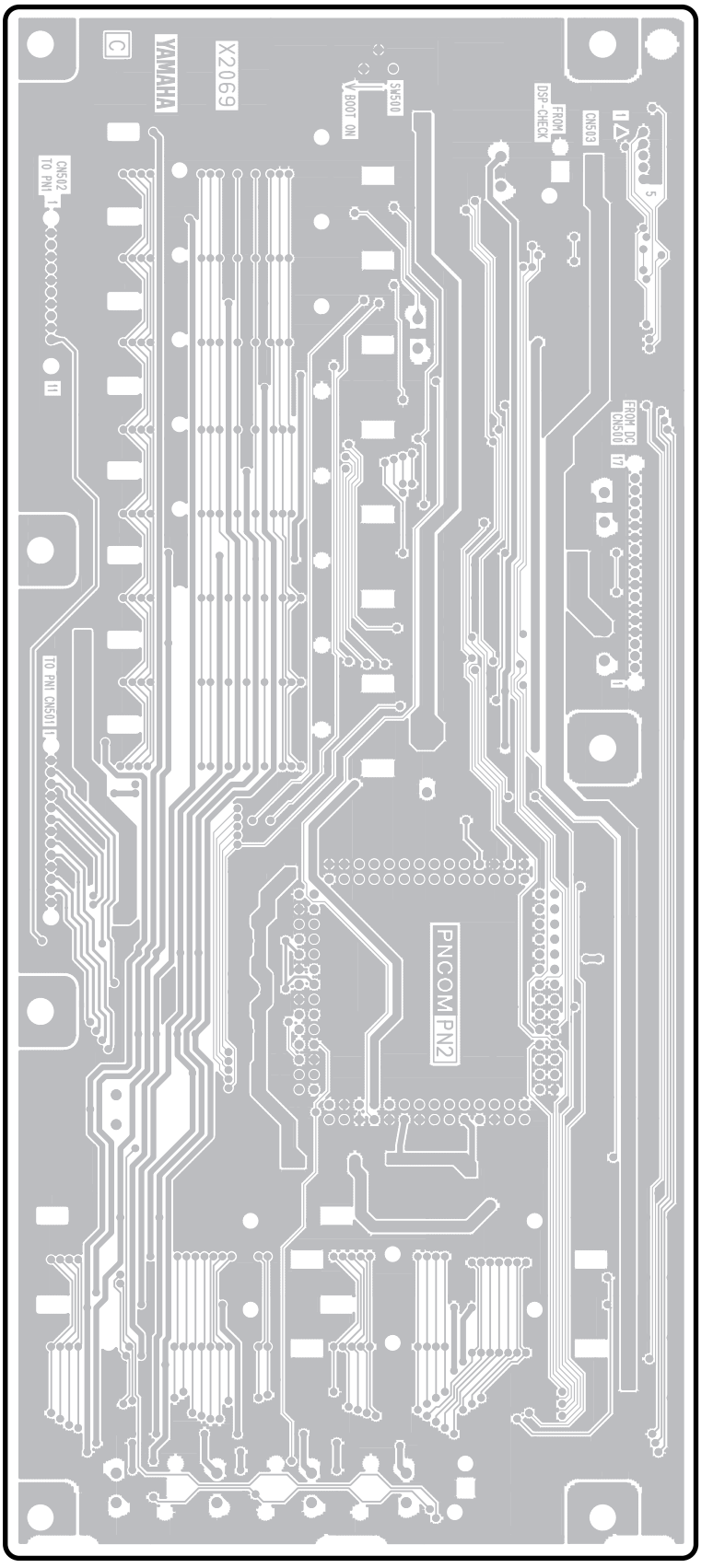
W'

3NA-V862150-2 △2
3NA-V862150-2a △3

• PNCOM (PN2) Circuit Board



• PNCOM (PN2) Circuit Board



Pattern side

3NA-V862150-2a ⚠3

■ INSPECTIONS

✻ Perform the Check of 02R96.

1. Preparation

1-1. Condition

◇ Conditioned as follows unless specified:

- WORD CLOCK to be INT 96kHz.
- Only CH to be checked shall be turned ON.
  PAN: Center
  GAIN: MIN
  PAD: ON
  INSERT: OFF
  FADER: NOMINAL (0dB)
- 0dBu = 0.775Vrms
- 0dBV = 1Vrms = 2.2dBu
- 0dBFS = 0 decibel full scale
- Output impedance of oscillator shall be 150Ω.
- Input impedance of oscilloscope, level gauge shall be over 100kΩ.
- Noize measuring shall be at 12.7kHz, and be corrected with LPF of –6dB/OCT.
  (Not average value but effective value should be measured.)
- Measurement should be performed at 80kHz and corrected with LPF of –6dB/OCT.

◇ When checking analogue output, the following conditions shall be added or changed:

- When measuring maximum output, unless specified, output 0dB from the built-in oscillator.
- The load of analogue output shall be as follows:

INSERTOUT:	10kΩ
STEREO OUT (XLR):	600Ω
STEREO OUT (PIN):	10kΩ
CONTROL ROOM MONITOR OUT:	10kΩ
STUDIO MONITOR OUT:	10kΩ
OMNI OUT:	10kΩ
PHONES:	8Ω

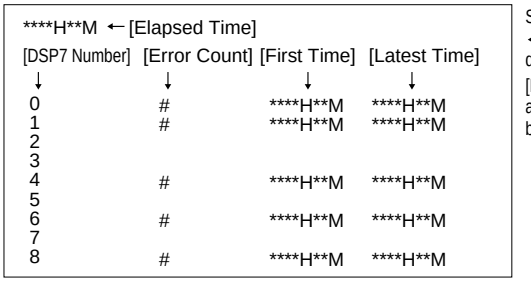
1-2. Selected DSP7 Inspections

The latest version of the selected DSP7 program must be installed beforehand.
(Refer to "1-4. Program writing ②Procedure of version up" for details on installation procedures.)

① Check to ascertain that it is possible to perform the initialization procedure in accordance with the instructions in "1-3. Initialization".

② Press channels 1, 9, 9 and 7 in that order with the channel [SEL] key, and then press the [ENTER] key.

③ The LCD screen will change as shown below, and the selected DSP7 program will start up.



Supplementary information)
←, ↓ and [ ] will not be displayed.
[Error Count], [First Time] and [Latest Time] will not be displayed if no errors exist.

④ The LCD screen will be determined in accordance with the following standards after the power has been left on for one hour.
a. No error → Proceed to page 1-3.
b. Error → Replace the DSP7 in which the error occurred, and then run the inspection again.

DSP sheet and location support is shown below.

DSP7 Number	0	1	2	3	4	5	6	7	8
Location	ICB1	ICB2	ICB3	ICB4	ICB5	ICB6	ICB7	ICB8	ICB9

1-3. Initialization

Press down simultaneously on the AUX SELECT [DISPLAY] key and the [AUX1] key and then switch on the power to start up the system. Check to ascertain that the DIO WORD CLOCK SELECT screen is displayed. Important data should be backed up by MIDI dump. (See page 176.)

1-4. Main program writing

If the program version is not latest, program of the latest version must be installed.

① How to check the program version.
Turning ON the power while pressing the [UTILITY] key will display the version number.

② Procedure of version up
a. Prepare the application to be used for writing data into the computer, and the data file that is to be loaded.
b. Connect the personal computer to the 02R96 with a USB cable, and disconnect all other cables.
c. Switch on the power to the 02R96 while pressing down on the [REC] button. (The communication standby screen will be displayed.)

d. Start up the application to be used for writing data into the computer.
e. Select the I/O port.
f. Open the data file to be loaded (02r96.bin) and execute the loading procedure.
g. 02R96 will automatically restart a few moments after loading has been completed.
h. End the application.
i. Press channels 5,9,6 and 3 in that order with the channel [SEL] key, and then press the [ENTER] key. Check to ascertain that the [MAIN] version number displayed on the LCD screen is the same as the installed program version.
j. Switch off the power to 02R96.
k. Press down simultaneously on the AUX SELECT [DISPLAY] key and the [AUX1] key and then switch on the power to start up the system. Check to ascertain that the DIO WORD CLOCK SELECT screen is displayed.

✻ For the latest main program, please download from the YSISS home page.

1-5. How to check the sub program version

If the sub program version is not the latest one, then it is necessary to upgrade to the most recent version.

Switch on the power to the main unit and check to ascertain that it has started up. Use the channel [SEL] key to press channels 5, 9, 6 and 3 in that order, and then press the [ENTER] key to display the required information. It is necessary for both SUB1 and SUB2 to be the latest versions.

1-6. Fader sensing inspections

① Preparations
a. Set the layer to “MASTER”, click on the “OUT FADER” tab on the group screen, and then perform grouping for the CH9 to 24 and STEREO faders with the use of the [SEL] key with all of the faders between CH9 and 24 and STEREO set at the maximum values.
b. Set the layer to “1 - 24”, click on the “FADER 1 - 48” tab on the group screen, and then perform grouping for the CH1 to 10 faders with the use of the [SEL] key with all of the faders between CH1 and 10 set at the maximum values.

② Special learning
a. Set the layer to “MASTER”, operate the CH9 fader to divide all 100mm strokes into equal units of 10, and then move then approximately 10mm. When they have been moved once, they will be stopped for 0.5 seconds or longer. (Learning is achieved throughout these positioning operations.)
b. Perform the operations outlined in ‘a’ above for all positions from MAX to MIN.
c. Then perform the operations outlined in ‘a’ above for all positions from MIN to MAX.
d. Set the layer to “1 - 24”, operate the CH10 fader to divide all 100mm strokes into equal units of 10, and then move then approximately 10mm. When they have been moved once, they will be stopped for 0.5 seconds or longer. (Learning is achieved throughout these positioning operations.)
e. Perform the operations outlined in ‘d’ above for all positions from MAX to MIN.
f. Then perform the operations outlined in ‘d’ above for all positions from MIN to MAX.

③ Group sensing inspections
a. Set the layer to “MASTER”, and then operate the CH9 fader for two slow return trips and two fast return trips.
b. Set the layer to “1 - 24”, and then operate the CH10 fader for two slow return trips and two fast return trips.
c. While performing the above procedures, check to confirm that there are no faders that vibrate or that are exceptionally slow.

④ Recall sensing inspections
a. Select “1 - 24” for the layer, and then recall No.0.
b. Set all faders to the MAX position, and store them in No.1.
c. After recalling No.0, recall No.1.
d. Repeat procedure ‘c’ twice.
e. While performing the above procedures, check to confirm that there are no faders that vibrate or that are exceptionally slow.

2. Check of ANALOGUE IN/OUT at WORD CLOCK INT 96 kHz

2-1. STEREO OUT L/R (XLR)

Condition: Input from the CH1 (XLR).

① Gain (L/R common)

Input Frequency	Input Level	Specified Output Level	Permissible range
1kHz	+10dBu	+4dBu	+4±2dBu

② f Characteristic (L/R common)

Condition: Permissible range of 1kHz to be standard.

Input Frequency	Input Level	Permissible range
20Hz	+10dBu	-1.5~ +0.5dB
40kHz	+10dBu	-1.5~ +0.5dB

③ Distortion factor (L/R common)

Input Frequency	Output Level	Permissible range
1kHz	+16dBu	0.01% or below

④ Residual noise (L/R common)

Condition: [STEREO OUT] key to be switched OFF.

Permissible range
-92dBu or below

⑤ Level gap between L/R

Level gap measured in ① to be decided as follows:

Permissible range
Within 1dB

⑥ Cross talk between L and R

Condition: PAN to fully lean to the L side.

Input Frequency	Output Level (L)	Permissible range (R)
1kHz	+16dBu	-64dBu or below

Confirm that the R side also satisfies the above conditions.

⑦ Maximum output (L/R common)

Input Frequency	Output Level	Permissible range	Permissible range (Distortion factor)
1kHz	+18dBu	+18±0.5dBu	0.01% or below

Condition: Connect hot, cold terminal to GND respectively.

Input Frequency	Output Level	Permissible range	Permissible range (Distortion factor)
1kHz	+18dBu	+18±1.0dBu	0.02% or below

2-2. STEREO OUT L/R (PIN)

Condition: Input from the CH1 (XLR).

① Gain (L/R common)

Input Frequency	Input Level	Specified output level	Permissible range
1kHz	+10dBu	-10dBV	-10±2dBV

② Characteristic (L/R common)

Condition: Permissible range of 1kHz to be standard.

Input Frequency	Input Level	Permissible range
20Hz	+10dBu	-1.5~ +0.5dB
40kHz	+10dBu	-1.5~ +0.5dB

③ Maximum output (L/R common)

Input Frequency	Output Level	Permissible range	Permissible range (Distortion factor)
1kHz	+4dBV	+4±0.5dBV	0.02% or below

④ Cross talk between L and R

Condition: PAN to fully lean to the L side.

Input Frequency	Output Level (L)	Permissible range (R)
1kHz	+2dBV	-78dBu or below

Confirm that the R side also satisfies the above conditions.

2-3. CONTROL ROOM MONITOR OUT L/R

Condition: Input from the CH1 (XLR).
Set the [CONTROL ROOM LEVEL] control to MAX.
Set the [STEREO] key of CONTROL ROOM to ON.

① Gain (L/R common)

Input Frequency	Input Level	Specified output level	Permissible range
1kHz	+10dBu	+4dBu	+4±2dBu

② f Characteristic (L/R common)

Condition: Permissible range of 1kHz to be standard.

Input Frequency	Input Level	Permissible range
20Hz	+10dBu	-1.5~ +0.5dB
40kHz	+10dBu	-1.5~ +0.5dB

③ Distortion factor (L/R common)

Input Frequency	Output Level	Permissible range
1kHz	+16dBu	0.02% or below

④ Residual noise (L/R common)

Condition: [STEREO OUT] key to be switched OFF.

CONTROL ROOM LEVEL	Permissible range
MAX	-92dBu or below
MIN	-100dBu or below

⑤ Level gap between L/R
Level gap measured in ① to be decided as follows:

Permissible range
Within 1dB

⑥ Cross talk between L and R
Condition: PAN to fully lean to the L side.

Input Frequency	Output Level (L)	Permissible range (R)
1kHz	+16dBu	-64dBu or below

Confirm that the R side also satisfies the above conditions.

⑦ Maximum output (L/R common)

Input Frequency	Output Level	Permissible range	Permissible range (Distortion factor)
1kHz	+18dBu	+18±0.5dBu	0.02% or below

Condition: Connect hot, cold terminal to GND respectively.

Input Frequency	Output Level	Permissible range	Permissible range (Distortion factor)
1kHz	+18dBu	+18±1.0dBu	0.02% or below

2-4. STUDIO MONITOR OUT L/R

Condition: Input from the CH1 (XLR).
The [STUDIO LEVEL] control to be set to MAX.
The [STEREO] key of STUDIO to be turned ON.

① Gain (L/R common)

Input Frequency	Input Level	Specified output level	Permissible range
1kHz	+10dBu	+4dBu	+4±2dBu

② f Characteristic (L/R common)
Condition: Permissible range of 1kHz to be standard.

Input Frequency	Input Level	Permissible range
20Hz	+10dBu	-1.5~ +0.5dB
40kHz	+10dBu	-1.5~ +0.5dB

③ Distortion factor (L/R common)

Input Frequency	Output Level	Permissible range
1kHz	+16dBu	0.02% or below

④ Residual noise (L/R common)
Condition: [STEREO OUT] key to be switched OFF.

STUDIO LEVEL	Permissible range
MAX	-92dBu or below
MIN	-100dBu or below

⑤ Level gap between L/R
Level gap measured in ① to be decided as follows:

Permissible range
Within 1dB

⑥ Cross talk between L and R
Condition: PAN to fully lean to the L side.

Input Frequency	Output Level (L)	Permissible range (R)
1kHz	+16dBu	-64dBu or below

Confirm that the R side also satisfies the above conditions.

⑦ Maximum output (L/R common)

Input Frequency	Output Level	Permissible range	Permissible range (Distortion factor)
1kHz	+18dBu	+18±0.5dBu	0.02% or below

Condition: Connect hot, cold terminal to GND respectively.

Input Frequency	Output Level	Permissible range	Permissible range (Distortion factor)
1kHz	+18dBu	+18±1.0dBu	0.02% or below

2-5. OMNI OUT 1~8

Condition: Input from the CH1 (XLR).
Turn ON BUS1~8 at ROUTING of CH1.
Assign BUS nCH to OMNI nCH with the [OUTPUT PATCH] key.
Turn ON MASTER FADER of BUS 1~8.
The slide switches SW101~801 (8 switches) in DA circuit board are to be +18dB.

① Gain (OMNI OUT 1~8)

Input Frequency	Input Level	Specified Output Level	Permissible range
1kHz	+10dBu	+4dBu	+4±2dBu

② f Characteristic (OMNI OUT 1~8)
Condition: Permissible range of 1kHz to be standard.

Input Frequency	Input Level	Permissible range
20Hz	+10dBu	-1.5~ +0.5dB
40kHz	+10dBu	-1.5~ +0.5dB

③ Distortion factor (OMNI OUT 1~8)

Input Frequency	Output Level	Permissible range
1kHz	+16dBu	0.02% or below

④ Residual noise (OMNI OUT 1~8)
Condition: [BUS OUT] key to be switched OFF.

Permissible range
-92dBu or below

⑤ Level gap among the terminals [OMNI OUT 1~8]
Level gap measured in ① and ② to be decided as follows:

Permissible range
Within 1dB

⑥ Cross talk between odd CH/even CH

Input Frequency	Output Level (odd CH)	Permissible range (even CH)
1kHz	+16dBu	-64dBu or below

Confirm that the even side also satisfies the above conditions.

⑦ Maximum output (OMNI OUT 1~8)

Input Frequency	Output Level	Permissible range	Permissible range (Distortion factor)
1kHz	+18dBu	+18±0.5dBu	0.02% or below

Condition: Connect hot, cold terminal to GND respectively.

Input Frequency	Output Level	Permissible range	Permissible range (Distortion factor)
1kHz	+18dBu	+18±1.0dBu	0.02% or below

2-6. PHONES OUT L/R

Condition: Input from the CH1 (XLR).
The [PHONES LEVEL] control to be set to MAX.

① Gain (L/R common)

Input Frequency	Input Level	Specified output level	Permissible range
1kHz	+10dBu	-12.8dBu	-12.8±2dBu

② f Characteristic (L/R common)
Condition: Permissible range of 1kHz to be standard.

Input Frequency	Input Level	Permissible range
20Hz	+10dBu	-3~0.5dB
40kHz	+10dBu	-3~0.5dB

③ Distortion factor (L/R common)

Input Frequency	Output Level	Permissible range
1kHz	-10dBu	0.04% or below

④ Residual noise (L/R common)
Condition: The [PHONES LEVEL] control to be set to MIN.

Permissible range
-100dBu or below

⑤ Level gap between L/R
Level gap measured in ① to be decided as follows:

Permissible range
Within 1dB

⑥ Maximum output (L/R common)
Condition: To output –6dB from the built-in oscillator.

Input Frequency	Output Level	Permissible range	Permissible range (Distortion factor)
1kHz	-4.8dBu	-4.8±0.5dBu	0.04% or below

⑦ Cross talk between L and R
Condition: PAN to fully lean to the L side.

Input Frequency	Output Level (L)	Permissible range (R)
1kHz	-10dBu	-75dBu or below

Confirm that the R side also satisfies the above conditions.

2-7. 2TR IN ANALOG 1 L/R

Condition: Check at the [STEREO OUT L] terminal (XLR).

① Gain (L/R common)

Input Frequency	Input Level	Specified output level	Permissible range
1kHz	+4dBu	+4dBu	+4±2dBu

② f Characteristic (L/R common)
Condition: Permissible range of 1kHz to be standard.

Input Frequency	Input Level	Permissible range
20Hz	+4dBu	-1.5~0.5dB
40kHz	+4dBu	-1.5~0.5dB

③ Distortion factor (L/R common)

Input Frequency	Output Level	Permissible range
1kHz	+16dBu	0.02% or below

④ Residual noise (L/R common)
Condition: [2TR IN ANALOG 1] terminal to be shorted at 150Ω.

Permissible range
-85dBu or below

⑤ Level gap between L/R
Level gap measured in ① to be decided as follows:

Permissible range
Within 1dB

⑥ Cross talk between L and R
Condition: Input the signal into the L side.
The R side to be shorted at 150Ω.

Input Frequency	Output Level (L)	Permissible range (R)
1kHz	+16dBu	-64dBu or below

Confirm that the R side also satisfies the above conditions.

2-8. 2TR IN ANALOG 2 L/R

Condition: Check at the [STEREO OUT L] terminal (XLR).

① Gain (L/R common)

Input Frequency	Input Level	Specified output level	Permissible range
1kHz	-10dBV	+4dBu	+4±2dBu

② f Characteristic (L/R common)

Condition: Permissible range of 1kHz to be standard.

Input Frequency	Input Level	Permissible range
20Hz	-10dBV	-1.5~0.5dB
40kHz	-10dBV	-1.5~0.5dB

③ Distortion factor (L/R common)

Input Frequency	Output Level	Permissible range
1kHz	+16dBu	0.02% or below

④ Residual noise (L/R common)

Condition: [2TR IN ANALOG 2] terminal to be shorted at 150Ω.

Permissible range
-85dBu or below

⑤ Level gap between L/R

Level gap measured in ① to be decided as follows:

Permissible range
Within 1dB

⑥ Cross talk between L and R

Condition: Input the signal into the L side.
The R side to be shorted at 150Ω.

Input Frequency	Output Level (L)	Permissible range (R)
1kHz	+16dBu	-64dBu or below

Confirm that the R side also satisfies the above conditions.

2-9. CH IN 1~16 (XLR)

Condition: Check at the [STEREO OUT L] terminal (XLR).

A. GAIN MAX, PAD OFF

① Gain (CH1~16)

Input Frequency	Input Level	Specified output level	Permissible range
1kHz	-60dBu	+4dBu	+4±2dBu

② f Characteristic (CH1~16)

Condition: Permissible range of 1kHz to be standard.

Input Frequency	Input Level	Permissible range
20Hz	-60dBu	-1.5~0.5dB
40kHz	-60dBu	-1.5~0.5dB

③ Distortion factor (CH1~16)

Input Frequency	Output Level	Permissible range
1kHz	+16dBu	0.02% or below

④ Noise level (CH1~16)

Condition: Measured CH IN to be shorted at 150Ω.

Permissible range
-64dBu or below

However, if not be within the above range EIN, confirm that the measured value is (Gain at 1kHz) ≦ -128.

⑤ Level gap (CH1~16)

Level gap measured in ① to be decided as follows:

Permissible range
Within 2dB

B. GAIN MIN, PAD ON

① Gain (CH1~16)

Input Frequency	Input Level	Specified output level	Permissible range
1kHz	+10dBu	+4dBu	+4±2dBu

② Distortion factor (CH1~16)

Input Frequency	Output Level	Permissible range
1kHz	+16dBu	0.01% or below

③ Noise level (CH1~16)

Condition: Measured CH IN to be shorted at 150Ω.

Permissible range
-85dBu or below

④ INSERT OUT gain (CH1~16)

Input Frequency	Input Level	Specified output level	Permissible range
1kHz	+10dBu	+4dBu	+4±1.5dBu

⑤ INSERT IN 1~16 gain

Condition: Turn ON the [INSERT] switch.
Input the signal into the measured [INSERT IN] terminal.

Input Frequency	Input Level	Specified output level	Permissible range
1kHz	+4dBu	+4dBu	+4±1.5dBu

C. Phantom (CH1~16)

Voltage with XLR Pin 2 and Pin 3 shorted, a load of 10kΩ between Pin 2 and 1, and the Phantom Switch ON is prescribed as follows:

Permissible range
DC 31~37V

Check if a discharge of electricity occurs quickly when the Phantom switch is turned OFF.

2-10. CH IN 17~24 (PHONE)

Condition: Check at the [STEREO OUT L] terminal (XLR).

A. GAIN MAX

① Gain (CH17~24)

Input Frequency	Input Level	Specified output level	Permissible range
1kHz	-34dBu	+4dBu	+4±2dBu

② f Characteristic (CH17~24)

Condition: Permissible range of 1kHz to be standard.

Input Frequency	Input Level	Permissible range
20Hz	-34dBu	-1.5~0.5dB
40kHz	-34dBu	-1.5~0.5dB

③ Distortion factor (CH17~24)

Input Frequency	Output Level	Permissible range
1kHz	+16dBu	0.02% or below

④ Level gap (CH17~24)

Level gap measured in ① to be decided as follows:

Permissible range
Within 2dB

⑤ Noise level (CH17~24)

Condition: Measured CH IN to be shorted at 150Ω.

Permissible range
-69dBu or below

However, if not be within the above range EIN, confirm that the measured value is (Gain at 1kHz) ≦ -107.

B. GAIN MIN

① Gain (CH17~24)

Input Frequency	Input Level	Specified output level	Permissible range
1kHz	+10dBu	+4dBu	+4±2dBu

② Distortion factor (CH17~24)

Input Frequency	Output Level	Permissible range
1kHz	+16dBu	0.01% or below

③ Noise level (CH17~24)

Condition: Measured CH IN to be shorted at 150Ω.

Permissible range
-85dBu or below

2-11. Checking the action of the CH IN 1~24 Level Meter

Condition: Input the specified levels into the CH (PHONE) to be measured.
Concurrent inputs into CH 1~24 are possible.
Confirm visually each LED ON/OFF of PEAK, NOMINAL, SIGNAL.

Light ON

LED level	Input frequency	Input level	Reference output level (INSERT OUT)
PEAK	1kHz	+23dBu	+17dBu
SIGNAL	1kHz	-8dBu	-14dBu

Light OFF

LED level	Input frequency	Input level	Reference output level (INSERT OUT)
PEAK	1kHz	+19dBu	+13dBu
SIGNAL	1kHz	-12dBu	-18dBu

2-12. TALKBACK

Condition: Check at the [STEREO OUT L/R] terminal (XLR).
Set the [TALKBACK LEVEL] control to MAX.
Turn ON the [SLATE] key of TALKBACK.
Confirm the signal through the microphone.

3. ANALOG IN/OUT check at 48kHz WORD CLOCK INT

3-1. STEREO OUT L/R (XLR)

Condition: Input from the CH1 (XLR).

① Distortion factor (L/R common)

Input Frequency	Output Level	Permissible range
1kHz	+16dBu	0.01% or below

② Residual noise (L/R common)

Condition: Turn OFF the [STEREO OUT] key.

Permissible range
-92dBu or below

3-2. CONTROL ROOM MONITOR OUT L/R

Condition: Input from the CH1 (XLR).
Set the [CONTROL ROOM LEVEL] control to MAX.
Turn ON the [STEREO] key of CONTROL ROOM.

① Distortion factor (L/R common)

Input Frequency	Output Level	Permissible range
1kHz	+16dBu	0.02% or below

② Residual noise (L/R common)

Condition: Set the [STEREO OUT] key to OFF.

CONTROL ROOM LEVEL	Permissible range
MAX	-92dBu or below

3-3. STUDIO MONITOR OUT L/R

Condition: Input from the CH1 (XLR).
Set the [STUDIO LEVEL] control to MAX.
Turn ON the [STEREO] key of STUDIO.

① Distortion factor (L/R common)

Input Frequency	Output Level	Permissible range
1kHz	+16dBu	0.02% or below

② Residual noise (L/R common)
Condition: Set the [STEREO OUT] key to OFF.

STUDIO LEVEL	Permissible range
MAX	-92dBu or below

3-4. OMNI OUT 1~8

Condition: Input from the CH1 (XLR).
Turn ON BUS1~8 at ROUTING of CH1.
Assign BUS nCH to OMNI nCH with the [OUTPUT PATCH] key.
Turn ON MASTER FADER of BUS 1~8.
The slide switches SW101~801 (8 switches) in DA circuit board are to be +18dB.

① Distortion factor (OMNI OUT 1~8)

Input Frequency	Output Level	Permissible range
1kHz	+16dBu	0.02% or below

② Residual noise (OMNI OUT 1~8)
Condition: [BUS OUT] key to be switched OFF.

Permissible range
-92dBu or below

3-5. PHONES OUT L/R

Condition: Input from the CH1 (XLR).
Set the [PHONES LEVEL] control to MAX.

① Distortion factor (L/R common)

Input Frequency	Output Level	Permissible range
1kHz	-10dBu	0.04% or below

② Residual noise (L/R common)
Condition: Set the [PHONES LEVEL] control to MIN.

Permissible range
-100dBu or below

3-6. 2TR IN ANALOG 1 L/R

Condition: Check at the [STEREO OUT L] terminal (XLR).

① Distortion factor (L/R common)

Input Frequency	Output Level	Permissible range
1kHz	+16dBu	0.02% or below

② Residual noise (L/R common)
Condition: [2TR IN ANALOG 1] terminal to be shorted at 150Ω.

Permissible range
-87dBu or below

3-7. 2TR IN ANALOG 2 L/R

Condition: Check at the [STEREO OUT L] terminal (XLR).

① Distortion factor (L/R common)

Input Frequency	Output Level	Permissible range
1kHz	+16dBu	0.02% or below

② Residual noise (L/R common)
Condition: [2TR IN ANALOG 2] terminal to be shorted at 150Ω.

Permissible range
-87dBu or below

3-8. CH IN 1~24 (PHONE)

Condition: Check at the [STEREO OUT L] terminal (XLR).
Set the [GAIN] control to MIN (CH1~24) and the [PAD] switch to ON (CH1~16).

① Distortion factor (CH1~24)

Input Frequency	Output Level	Permissible range
1kHz	+16dBu	0.01% or below

② Noise level (CH1~24)
Condition: Measured CH IN to be shorted at 150Ω.

Permissible range
-87dBu or below

4. Checking DIGITAL IN/OUT

4-1. 2TR DIGITAL OUT 1,2,3

Condition: Use System Two.
Input from the CH1 (XLR).

A. WORD CLOCK INT 48kHz.
Condition: Set WORD CLOCK INT to 48kHz.

① Distortion factor (2TR DIGITAL OUT 1)

Input Frequency	Output Level	Permissible range
1kHz	-2dBFS	0.02% or below

B. WORD CLOCK INT 96kHz.
Condition: Set WORD CLOCK INT to 96kHz.

① Gain (2TR DIGITAL OUT 1,2,3 common)

Input Frequency	Input Level	Specified output level	Permissible range
1kHz	+10dBu	-14dBFS	-14±2dBFS

② f Characteristic (2TR DIGITAL OUT 1)
Condition: Permissible range of 1kHz to be standard.

Input Frequency	Input Level	Permissible range
20Hz	+10dBu	-1.0~0.5dB
40kHz	+10dBu	-1.5~0.5dB

③ Distortion factor (2TR DIGITAL OUT 1)

Input Frequency	Output Level	Permissible range
1kHz	-2dBFS	0.02% or below

4-2. 2TR DIGITAL IN 1,2,3

Condition: Use System Two.
Check at the [STEREO OUT L/R] terminal (XLR).
Select as follows for WORD CLOCK.
When checking the [2TR DIGITAL IN 1] terminal: 2TR D1
When checking the [2TR DIGITAL IN 2] terminal: 2TR D2
When checking the [2TR DIGITAL IN 3] terminal: 2TR D3

A. 48kHz.
Condition: Set the frequency setting (Sample Rate) of System Two to 48kHz.
Turn OFF SRC of the [2TR DIGITAL IN] terminal.

① Distortion factor (2TR DIGITAL IN 1)

Input Frequency	Output Level	Permissible range
1kHz	+16dBu	0.02% or below

B. 96kHz.
Condition: Set the frequency setting (Sample Rate) of System Two to 96kHz.
Turn OFF SRC of the [2TR DIGITAL IN] terminal.

① Gain (2TR DIGITAL IN 1,2,3 common)

Input Frequency	Input Level	Specified output level	Permissible range
1kHz	-14dBFS	+4dBu	+4±2dBu

② f Characteristic (2TR DIGITAL IN 1)
Condition: Permissible range of 1kHz to be standard.

Input Frequency	Input Level	Permissible range
20Hz	-14dBFS	-1.0~0.5dB
40kHz	-14dBFS	-1.5~0.5dB

③ Distortion factor (2TR DIGITAL IN 1)

Input Frequency	Output Level	Permissible range
1kHz	+16dBu	0.02% or below

C. SRC action
Condition: Set WORD CLOCK INT to 96kHz.
Check at the [2TR DIGITAL OUT1] terminal.
Set the frequency setting of System Two (Sample Rate) to 44.1kHz.
Turn ON SRC of CH to be measured.

① FS (2TR DIGITAL IN 1,2,3 common)

Input Frequency	Input Level	Specified output level	Permissible range
1kHz	-14dBFS	96kHz	96kHz±100Hz

② Distortion factor (2TR DIGITAL IN 1,2,3 common)

Input Frequency	Output Level	Permissible range
1kHz	-14dBFS	0.005% or below

4-3. PLL action range of WORD CLOCK IN and 2TR DIGITAL IN 1,2,3

Condition: Use System Two.
Check at the [STEREO OUT L/R] terminal (XLR).
Select as follows for WORD CLOCK.
When checking the [WORD CLOCK IN] terminal: WC IN
When checking the [2TR DIGITAL IN 1] terminal: 2TR D1
When checking the [2TR DIGITAL IN 2] terminal: 2TR D2
When checking the [2TR DIGITAL IN 3] terminal: 2TR D3
Input from the CH1 (XLR).

A. 96kHz + 6% (101.76kHz)
Condition: When checking the [WORD CLOCK IN] terminal, set the frequency setting of the oscillator to 96kHz + 6%. When checking the [2TR DIGITAL IN 1,2,3] terminal, set the setting of System Two (Sample Rage) to 96kHz + 6%.

① Distortion factor (WORD CLOCK IN, 2TR DIGITAL IN 1,2,3 common)

Input Frequency	Output Level	Permissible range
1kHz	+16dBu	0.02% or below

B. 44.1kHz - 10% (39.69kHz)
Condition: When checking the [WORD CLOCK IN] terminal, set the frequency setting of the oscillator to 44.1kHz - 10%. When checking the [2TR DIGITAL IN 1,2,3] terminal, set the setting of System Two (Sample Rage) to 44.1kHz - 10%.

① Distortion factor (WORD CLOCK IN, 2TR DIGITAL IN 1,2,3 common)

Input Frequency	Output Level	Permissible range
1kHz	+16dBu	0.02% or below

5. Measuring jitter

Condition: Use System Two.
Select Sec, PK
BW: Select 700Hz~100kHz.
Check at the [2TR DIGITAL OUT1] terminal.

5-1. WORD CLOCK INT

Condition: For WORD CLOCK, select as follows:

① Jitter

WORD CLOCK	Permissible range
INT 44.1kHz	5nsec. or below
INT 48kHz	5nsec. or below
INT 88.2kHz	5nsec. or below
INT 96kHz	5nsec. or below

5-2. WORD CLOCK EXT

Condition: Select as follows for WORD CLOCK.
When checking the [WORD CLOCK IN] terminal: WC IN
When checking the [2TR DIGITAL IN 1] terminal: 2TR D1
When checking the [2TR DIGITAL IN 2] terminal: 2TR D2
When checking the [2TR DIGITAL IN 3] terminal: 2TR D3
When checking the [WORD CLOCK IN] terminal, select the values in the following table for the frequency setting of the oscillator.
When checking the [2TR DIGITAL IN 1,2,3] terminals, select the values in the following table for the frequency setting of the System Two (Sample Rate).

① Jitter (WORD CLOCK IN, 2TR DIGITAL IN 1,2,3 common)

WORD CLOCK	Permissible range
44.1kHz	10nsec. or below
48kHz	10nsec. or below
88.2kHz	10nsec. or below
96kHz	10nsec. or below

6. Sound check

Check the following items with the sense of hearing.

• ANALOG INPUT, ANALOG OUTPUT
Check at the [STEREO OUT L/R] terminal (XLR) of CH1 (XLR), CH12 (XLR), CH24 (PHONE).

• 2TR DIGITAL IN 1,2,3
Condition: Set WORD CLOCK INT to 96kHz.
Check at the [STEREO OUT L/R] terminal (XLR).
Set the frequency setting of System Two (Sample Rate) to 44.1kHz.
Turn ON SRC of CH to be measured.

• EEFFECT function (DSP6 operation verification)
Condition: • [Sound emission scene data]: [02_MDR_02] file for verifying the EFFECT function.
• WORD CLOCK: INT 96kHz
• Input the music signals from the [ANALOG INPUT] terminal's CH1, recall in order from scene 1 to scene 4, and then adjust the [GAIN] knob so that the stereo meter's [OVER] indicator does not become illuminated for any of the scenes.
Inspection: Recall scene 1 (REVERB) and verify the signals with the headphones for at least 15 seconds.
Decision standard #1: Check to ensure that the EFFECT sounds are emitted.
Decision standard #2: Check to ensure that there is no noise included.
Recall the following scenes from 2 to 16 in the same way for inspection purposes.
The EFFECT functions for scene 2 to scene 16 are as follows:
Scene 2: SYMPHONIC
Scene 3: HQ PITCH
Scene 4: DYNAMIC FILTER
Scene 5: REVERB
Scene 6: SYMPHONIC
Scene 7: HQ PITCH
Scene 8: DYNAMIC FILTER
Scene 9: REVERB
Scene 10: SYMPHONIC
Scene 11: HQ PITCH
Scene 12: DYNAMIC FILTER
Scene 13: REVERB
Scene 14: SYMPHONIC
Scene 15: HQ PITCH
Scene 16: DYNAMIC FILTER

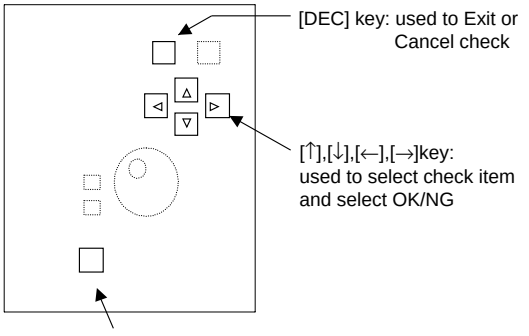
SERVICE CHECK PROGRAM

✻ Execute the service check programs for 02R96 and MB02R96.

0. Outline

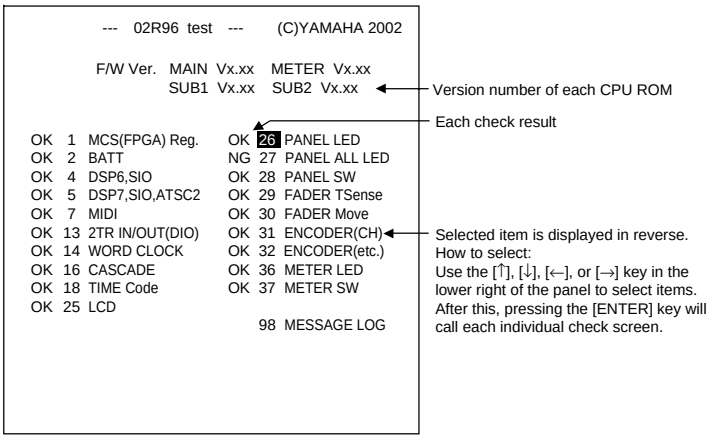
0-1 How to operate

Keys used for the service check on the panel



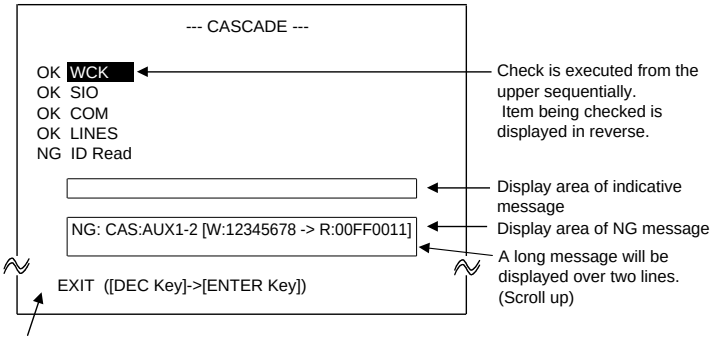
0-2. Explanation of screen

(Fig.1)
Example of screen for the entire check items



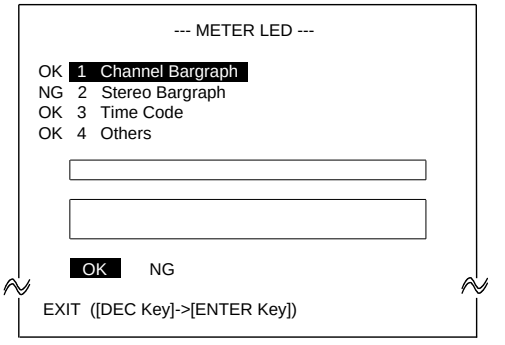
✻ 36 and 37 are the test programs of MB02R96.

(Fig.2)
Example A of individual check screen
(when forwarding check items by automatic judge)



1) Check is carried out automatically and turns to the [EXIT] mode when all items are completed. Pressing the [ENTER] key will display the screen of Fig.1.
2) If redo the check, return to Fig.1 to select items.

(Fig.3)
Example B of individual check screen (when checking each one of multiple items automatically (semi-automatically) or visually)



1) When starting the check, OK/NG selection items will be displayed. Judging by actions and results, select OK/NG. Use the [←] or [→] key for the selection and decide by using the [ENTER] key.
2) Choice of OK or NG displays the next check item automatically.
3) Pressing the [DBC] key while the entry of OK/NG decision is being waited will reverse the appearance of [EXIT] and this screen is terminated when the [ENTER] key is pressed. (Some check items can be processed the [EXIT] by pressing the [DEC] key even during the execution.)
If executed the [EXIT] before all the check items are completed, the judges of Fig.1 will be displayed as NG.
4) Check items with numbers at the head as such Fig.3 are selectable. Select an item using the [↑] or [↓] key and press the [ENTER] key to start a check. For the ones without numbers at the head the check will be automatically initiated.

0-3 List of check items

Item	Check name	Outline of check item	Judge
1-1	MCS(FPGA)	Check the FPGA register by Read/Write.	Auto
1-2	BATT	Check the voltage of the backup battery.	Auto
1-3			
1-4	DSP6,SIO	Check the SIO connection by Reading/Writing the register of each DSP6.	Auto
1-5	DSP7,SIO,ATSC2	Check the SIO and ATSC2 connection by Reading/Writing the register of each DSP7.	Auto
1-6			
1-7	MIDI	MIDI OUT-->Check the Send/Receive of IN.	Auto
1-8			
1-9			
1-10			
1-11			
1-12			
1-13	2TR IN/OUT(DIO)	Check by Loop Backing the 2TR IN/OUT DIGITAL.	Auto
1-14	WORD CLOCK	Count the Fs of WCLK OUT at WCLK IN to judge the LOCK of PLL.	Semi-Auto
1-15			
1-16	CASCADE	Check the Send/Receive of CASCADE OUT > IN.	Auto
1-17			
1-18	TIME Code	Check the MTC MIDI input.	Auto
1-19			
1-25	LCD	Display the entire screen in black and white to check contrast volume.	Visual check
1-26	PANEL LED	LEDs (including 7 Seg LEDs) will light sequentially as specified.	Visual check
1-27	PANEL ALL LED	Check all LEDs for gradual brightness and for each color.	Visual check
1-28	PANEL SW	Press the SW sequentially as specified for check.	Semi-Auto
1-29	FADER TSense	Check the touch sense sensitivity of the FADER.	Semi-Auto
1-30	FADER Move	Check the moving time and stop position of the FADER.	Semi-Auto
1-31	ENCODER(CH)	Rotate the Encoder (CH1-24) for check.	Semi-Auto
1-32	ENCODER(etc.)	Rotate the Encoder (etc.) for check.	Semi-Auto
1-33			
1-36	METER LED	MB02R96 LEDs will light sequentially as specified.	Visual check
1-37	METER SW	Pressing the SW of MB02R96 will turn ON/OFF corresponding LED.	Visual check

Checked items and item numbers correspond to those of the test program.

1. Service Check

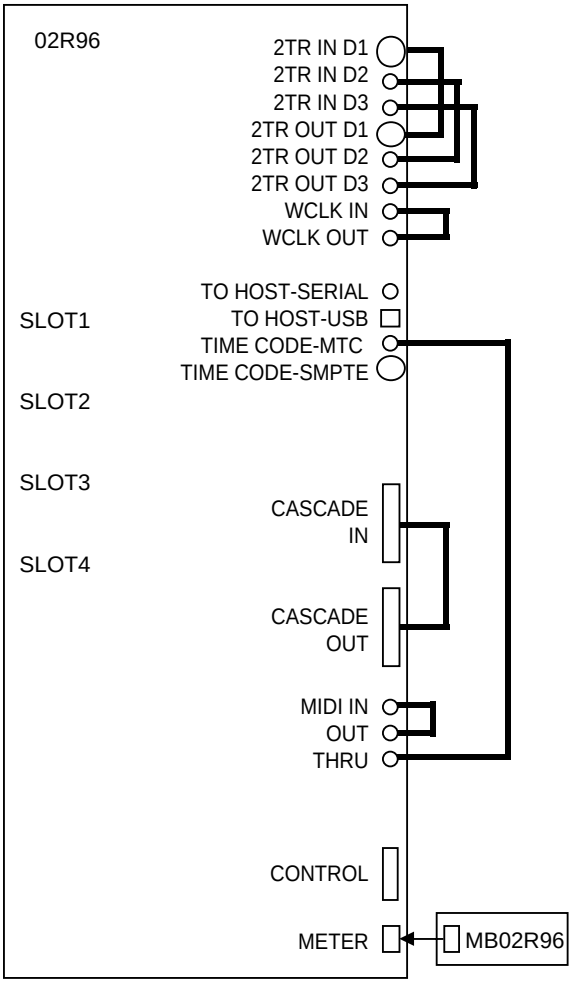
Common contents

1) The contents and example screens of execution for each check item are displayed.

Common preparation

1) Objectives to be checked: 02R96 + MB02R96
2) Cable: MIDI cable: 2
CANNON cable: 2
COAXIAL cable: 1
BNC cable: 1
D-SUB 68pin (CASCADE) cable: 1
3) How to Start 02R96: During normal operation, pressing the [SEL] key in the order CH [6, 7, 1, 1] and pressing the [ENTER] key will display the dialogue box for approval. After this, selecting YES and pressing the [ENTER] key will restart the 02R96 in the Service Check mode.
4) Ending method: Switch off the power to escape from the inspection mode.

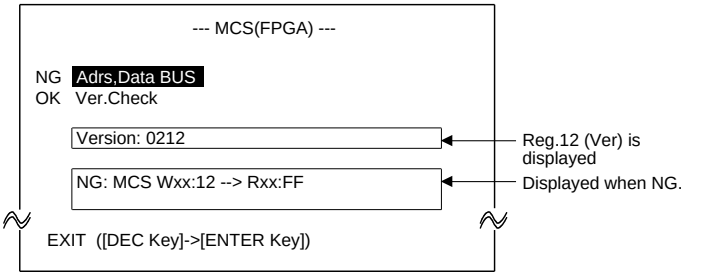
Connection diagram of Service Check



1-1 MCS(FPGA) Test

Contents: Read/Write the Reg. (00, 0f, 10, 11, 15, 16) of FPGA to compare and judge and then readout the Reg.12 (Ver) and display it.

Example of execution screen

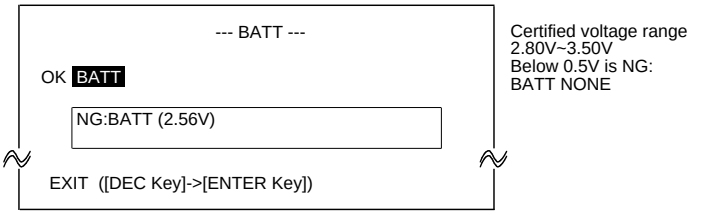


For the Ver.Check test, select OK when “Version: 0212” is displayed.

1-2 BATT Test

Contents: Measure the voltage of the backup battery in A/D for automatic judge.

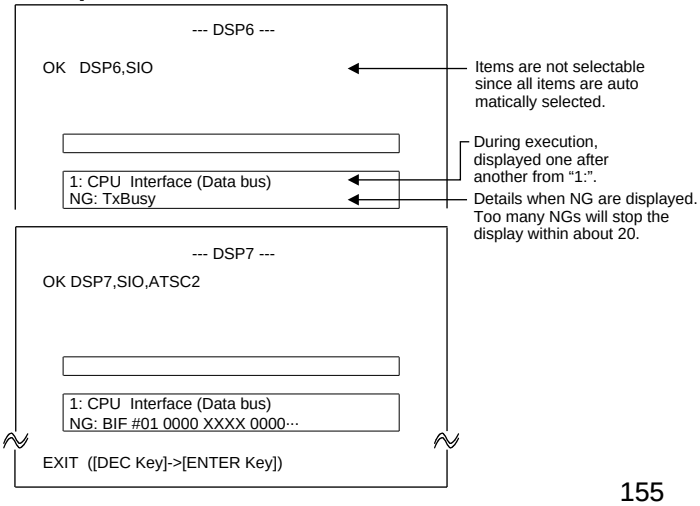
Example of execution screen



1-4 DSP6, S10 Test
1-5 DSP7, S10, ATSC2 test

Contents: Check DataBUS and AddressBUS for good or bad by Writing/Reading the Register of each DSP6 and DSP7.
Compare and check by Writing/Reading DRAM and SDRAM of each DSP6 and DSP7 through the Register.
Check the SIO connection between each DSP, and between ATSC by sending/ receiving signal.

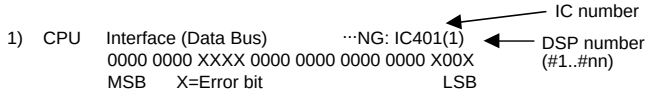
Example of execution screen



Test item for DSP6
1: CPU Interface (Data bus)
2: CPU Interface (Data bus)
3: CPU Interface (Chip Select, TXB)
4: CPU Interface (Address bus)
5: CPU Interface (BUS W/R Reg.)
6: DRAM Interface (Data Bus)
7: DRAM Interface (Address Bus)
8: DRAM Interface (Address Bus & MPR)
9: SIO Connection
(DSP6--->DSP6 SIO test)

Test item for DSP7
1: CPU Interface (Data Bus)
2: CPU Interface (Chip Select)
3: CPU Interface (Address Bus)
4: E-RAM Interface (Data Bus)
5: E-RAM Interface (Address Bus)
6: SIO Connection (DSP7 -> DSP6)
7: SIO Connection (DSP6 -> DSP7)
8: SIO Connection (DSP7 -> DSP7)
9: SIO Connection (ATSC -> DSP7)
A: SIO Connection (DSP7 -> ATSC)

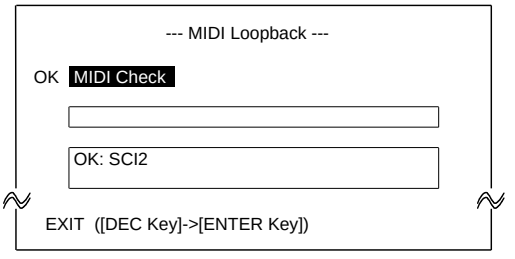
Explanation about expression when DSP6 and DSP7 are common, or when NG:



1-7 MIDI Test

Contents: Sending/Receiving the string "SCI2:TEST¥n"(¥n=0Ah) at 31.25Kbps from/into MIDI OUT→MIDI IN, verify if identical.
Preparation: Connect MIDI OUT and MIDI IN connector of the unit.

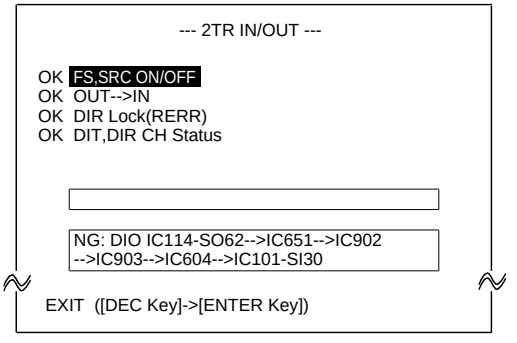
Example of execution screen



1-13 2TR IN/OUT (DIO) Test

Contents: Connect 2TR OUT DIGITAL 1,2,3 to 2TR IN DIGITAL 1,2,3 and verify by using DSP SIO.
Preparation: Connect each MIDI OUT DIGITAL 1,2,3 and each MIDI IN DIGITAL 1,2,3 connector of the unit respectively.

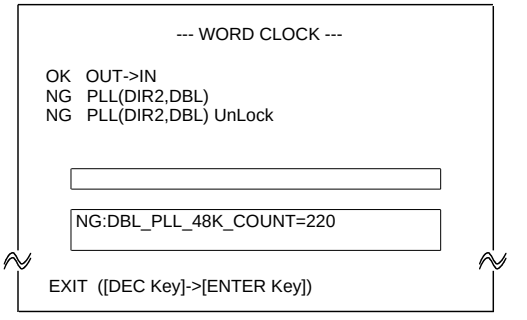
Example of execution screen



1-14 WORD CLOCK Test

Contents: Count FPGA over WORD CLOCK OUT→IN for automatic judge (Fs=44.1/48/88.2/96kHz). For the LOCK check of PLL, read the UNLOCK signal for judge after the clock becomes stable (after about 100ms).
The UnLock check of PLL inspect after disconnecting the cable connected to WORD CLOCK IN.
Preparation: Connect WORD CLOCK OUT→IN with the BNC cable.
Set the 75 Ω switch on the WORD CLOCK to ON.

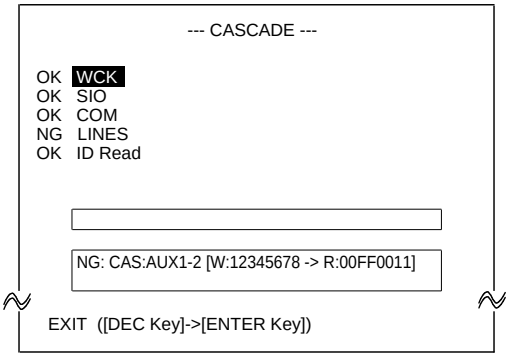
Example of execution screen



1-16 CASCADE Test

Contents: Send each signal from CASCADE OUT to CASCADE IN for automatic judge.
Preparation: Connect CASCADE OUT to CASCADE IN of the unit.

Example of execution screen

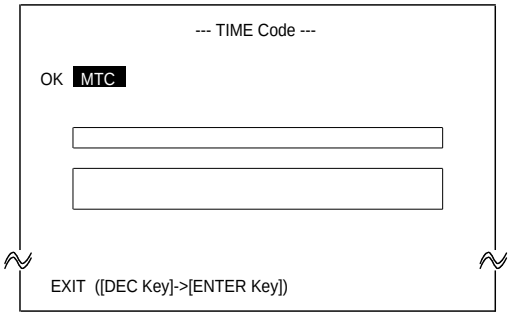


1-18 TIME Code Test

Contents: Receiving the MIDI OUT signal from the unit and compare with the Send/Receive signal "Test MTC¥n" for judge. (Only MTC can be checked. SMPTER check is unavailable.)

Preparation: Connect MIDI THRU of the unit to MTC.

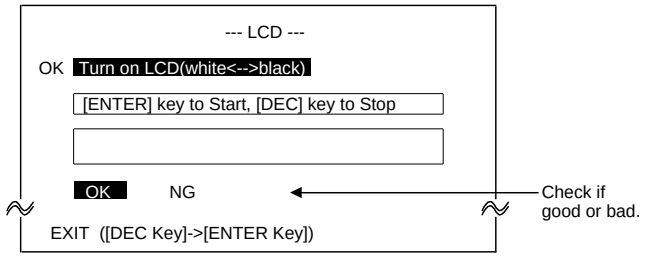
Example of execution screen



1-25 LCD Test

Contents: Display the entire LCD screen in black and white alternatively for visual check.

Example of execution screen



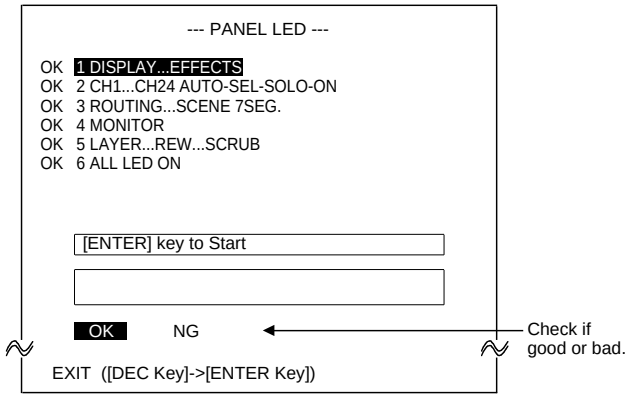
Check if the entire screen is displayed in black and white respectively.
Check for no dot less.
Check if the contrast of the screen changes when the contrast volume is changed.

If the above is confirmed, then press the [DEC] key and select OK/NG.

1-26 PANEL LED Test

Contents: Check visually if each LED on the panel and 7-SegLEDs lights in a specified order.

Example of execution screen

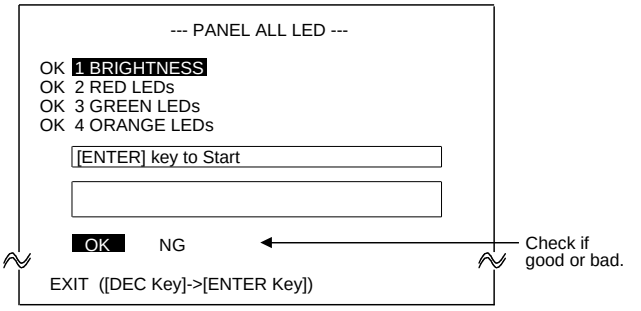


For the lighting order, see 2. Supplement "LED lighting order Fig. 1,2." For 7-SegLEDs, they light in the order 1..9,0-dot.

1-27 PANEL ALL LED Test

Contents: Check if all the LEDs on the panel light properly in the four grades (for two-color LED is in red).
Confirm that only red LEDs light (including two-color LED).
Confirm that only green LEDs light (including two-color LED).
Confirm that only orange LEDs light.

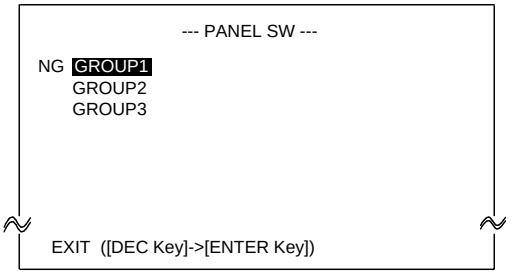
Example of execution screen



1-28 PANEL SW Test

Contents: Check if each switch on the panel corresponds correctly as specified when pressed. (Auto-judge)

Example of execution screen

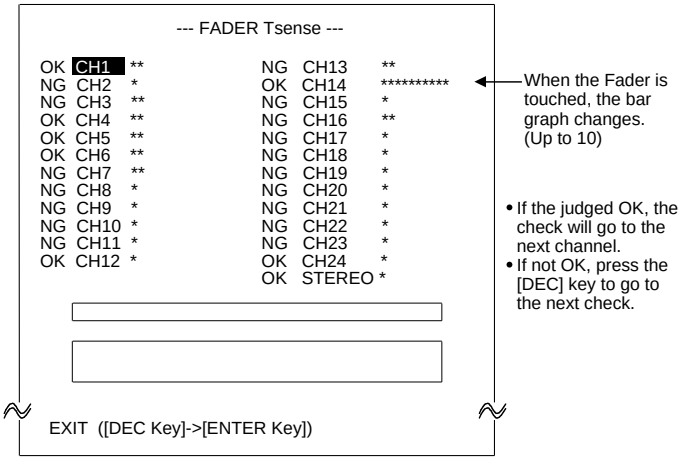


1) For the operation sequence, see 2. Supplement "SW operation Fig1, 2."
2) LCD display will change to that of 2. Supplement "LCD display Fig.1" and if the [DEC] key is pressed, it goes ahead forcibly to the next screen and thus the [DEC] key check is not required.

1-29 FADER TSense Test

Contents: Touch sense is automatically checked by the variation of input when the Fader is touched by hand.

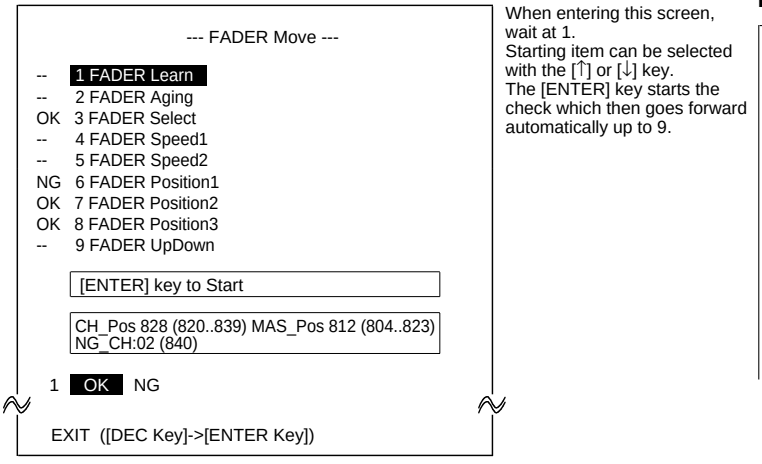
Example of execution screen



1-30 FADER Move Test

Contents: 1) Move all faders up and down over a short range to perform the learning procedure for fader drivability (FADER Learn).
2) Move all faders up and down (aging).
3) Drive the faders in a pre-determined pattern for a pre-determined period of time, and then measure the distance actually moved to automatically determine drivability.
4) Stop all faders at a specified position, and then detect the positions with the built-in A/D for automatic determination purposes (three locations).
Stop the faders at a position where they are within ± 2mm of the standard fader position 1, and then visually determine that there is no extreme misalignment with fader positions 2 and 3.

Example of execution screen



1) Specified position of FADER Position

	CH1-24	STEREO
FADER Position 1	0dB at the index of the Fade's left	-10dB
FADER Position 2	-10dB at the index of the Fade's left	-20dB
FADER Position 3	-30dB at the index of the Fade's left	-50dB

2) Explanation on the automatic determination display for fader positions 1 to 3

"CH_Pos 207=828 (820.. 839)"

207: Prescribed fader stop value (displayed in 256 resolution)

828: Prescribed fader stop value (displayed in 1024 resolution)

(820.. 839): Acceptable range when the fader's stop position is detected with the built-in A/D (displayed in 1024 resolution)

"NG 02 (840)"

NG 02: The CH2 fader is not acceptable (NG = No Good).

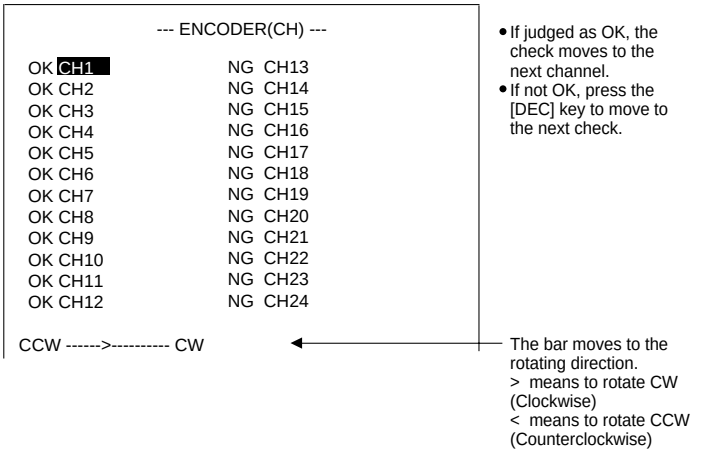
(840): Actual value when the fader's stop position is read with the built-in A/D (displayed in 1024 resolution)

✻The items displayed with "--" in the determination column represent inspection items for which OK or NG cannot be determined.

1-31 ENCODER (CH) Test

Contents: Check the rotation response of Encoder of CH1 through CH24.
Rotating the Encoder in clockwise moves the mark ">" located on the left end to the right direction. When the mark ">" reaches the right end, it turns into the mark "<." After this, rotating the Encoder counterclockwise moves the mark "<" to the left direction. If the mark "<" reaches the left end, it will be OK.

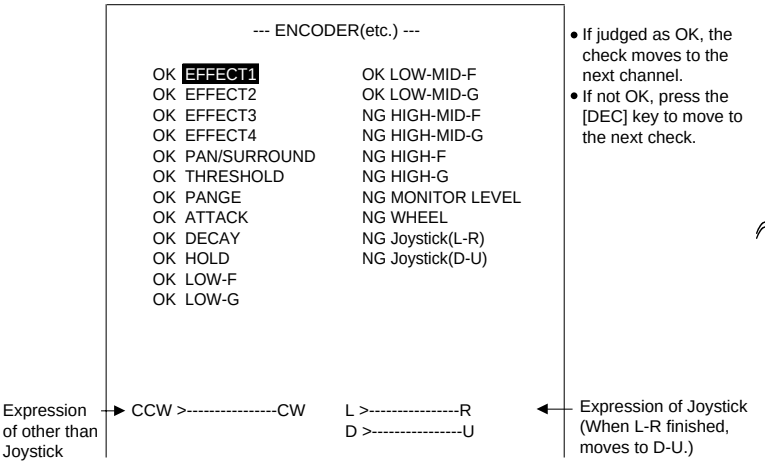
Example of execution screen



1-32 ENCODER (etc.) Test

Contents: From CH1, check the rotation response of Encoder of other than CH24.
The way of operation is the same as 1-31.

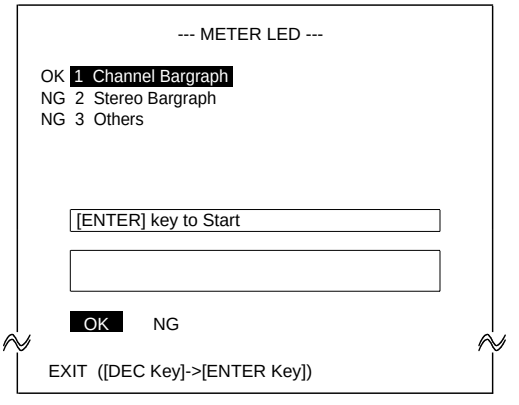
Example of execution screen



1-36 METER LED Test

Contents: Visually check if MB02R96's LEDs and 7-seg LEDs light correctly in the order specified.

Example of execution screen



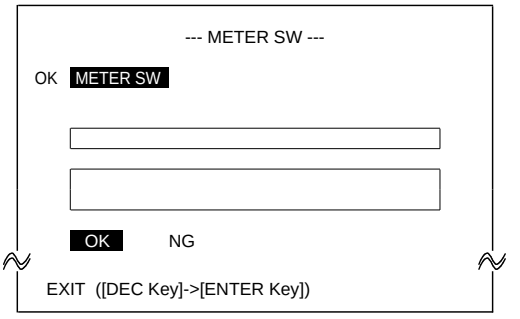
The orders of lighting are as follows:

1) Channel bar graph is turned on. (LED lighting order: CH1: Lower→Upper..CH24: Lower→Upper)
2) Stereo bar graph is turned on. (LED lighting order: Stereo L: Lower→Upper, Stereo R: Lower→Upper)
3) Other lighting
(CH1-24_L → CH25-48_L → CH49-56_L → INPUT PRE EQ → PRE FADER → POST FADER → PEAK HOLD SW → CH1-24_R → CH25-48_R → CH49-56_R → 1-24 SW → 25-48 SW → MASTER SW → REMOTE SW → CONTROL ROOM → OUTPUT PRE EQ → PRE FADER → POST FADER)

1-37 METER SW Test

Contents: Press the SWs of MB02R96 to check if the corresponding LED turns ON/OFF.

Example of execution screen



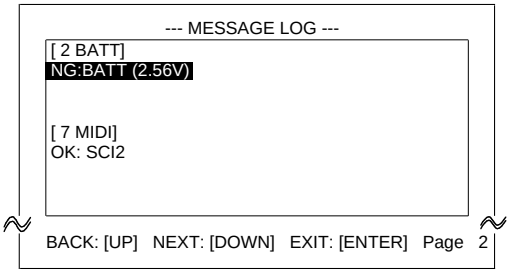
Correspondence between SWs and LEDs is as follow:

Switch	LED
INPUT METERING POSITION	POST FADER LED
OUTPUT METERING POSITION	POST FADER LED
PEAK HOLD	PEAK HOLD
1-24	1-24
25-48	25-48
MASTER	MASTER
REMOTE	REMOTE
CONTROL ROOM	CONTROL ROOM

1-98 MESSAGE LOG

Contents: Displays the inspection result log.

Example of execution screen



- The [↓] key displays the next page.
- The [↑] key displays the previous page.
- The [ENTER] key ends the screen.
- The SOLO [CLEAR] key clears the log.
- The "NG" lines will be highlighted.

Limitations:

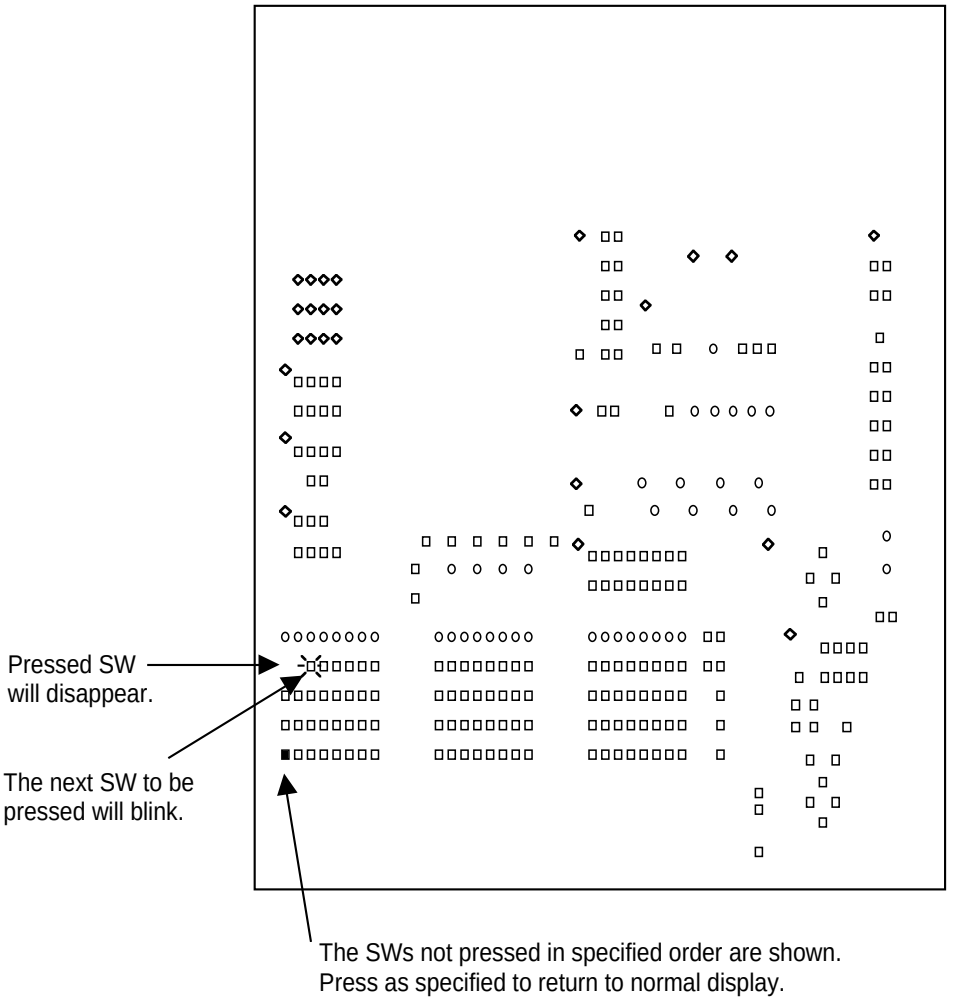
A maximum of 999 pages can be displayed. Logs after that cannot be loaded. Clear the log in this event.
The log will also be cleared when the service inspections are ended.

2. Supplement

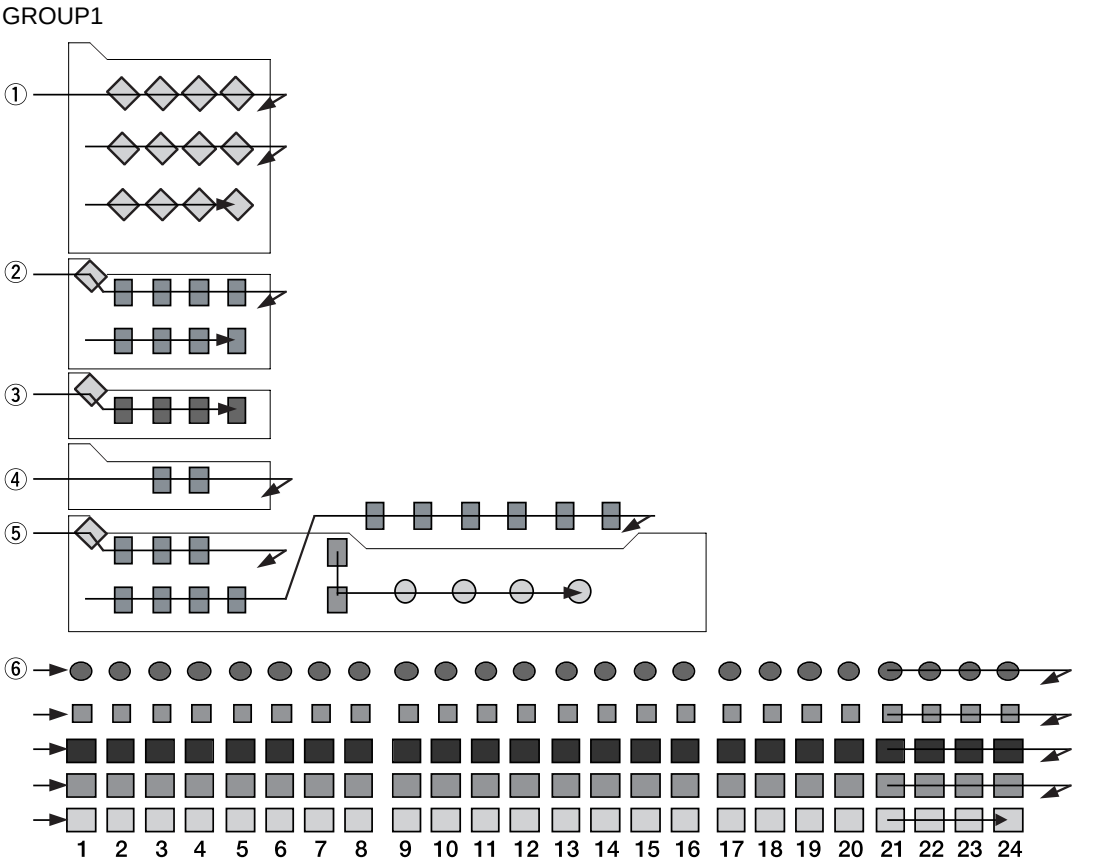
LCD Display Fig.1 PANEL SW operation sequence Screen

(For operation sequence, see “SW operation Fig.1and 2.)

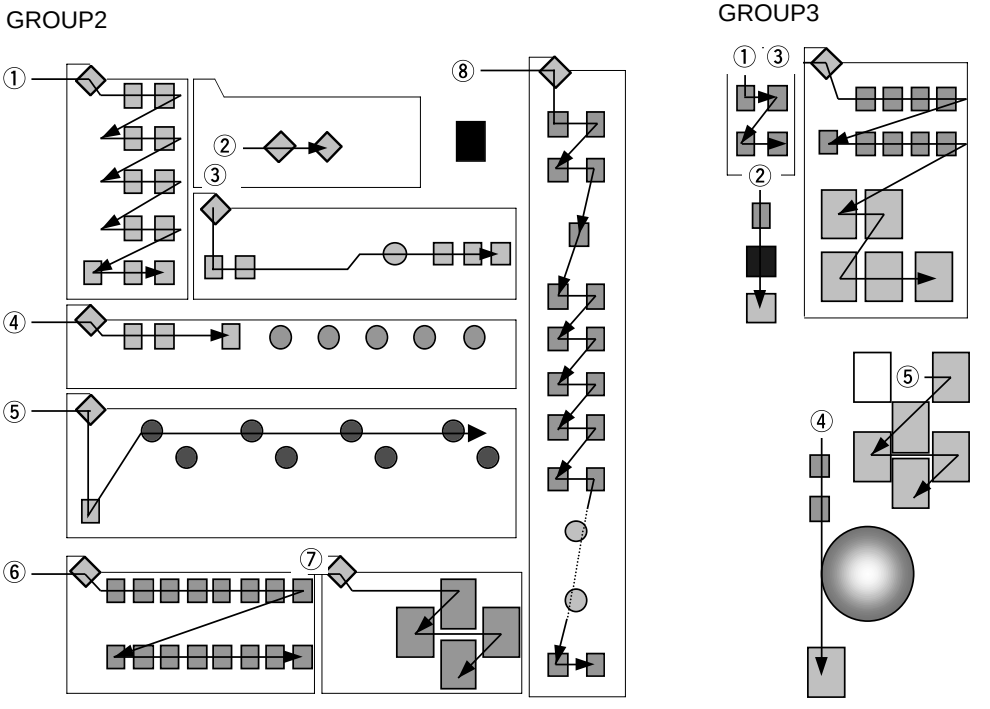
LCD display: 53 columns x 30 lines (320 x 240 dots with Font5x7)



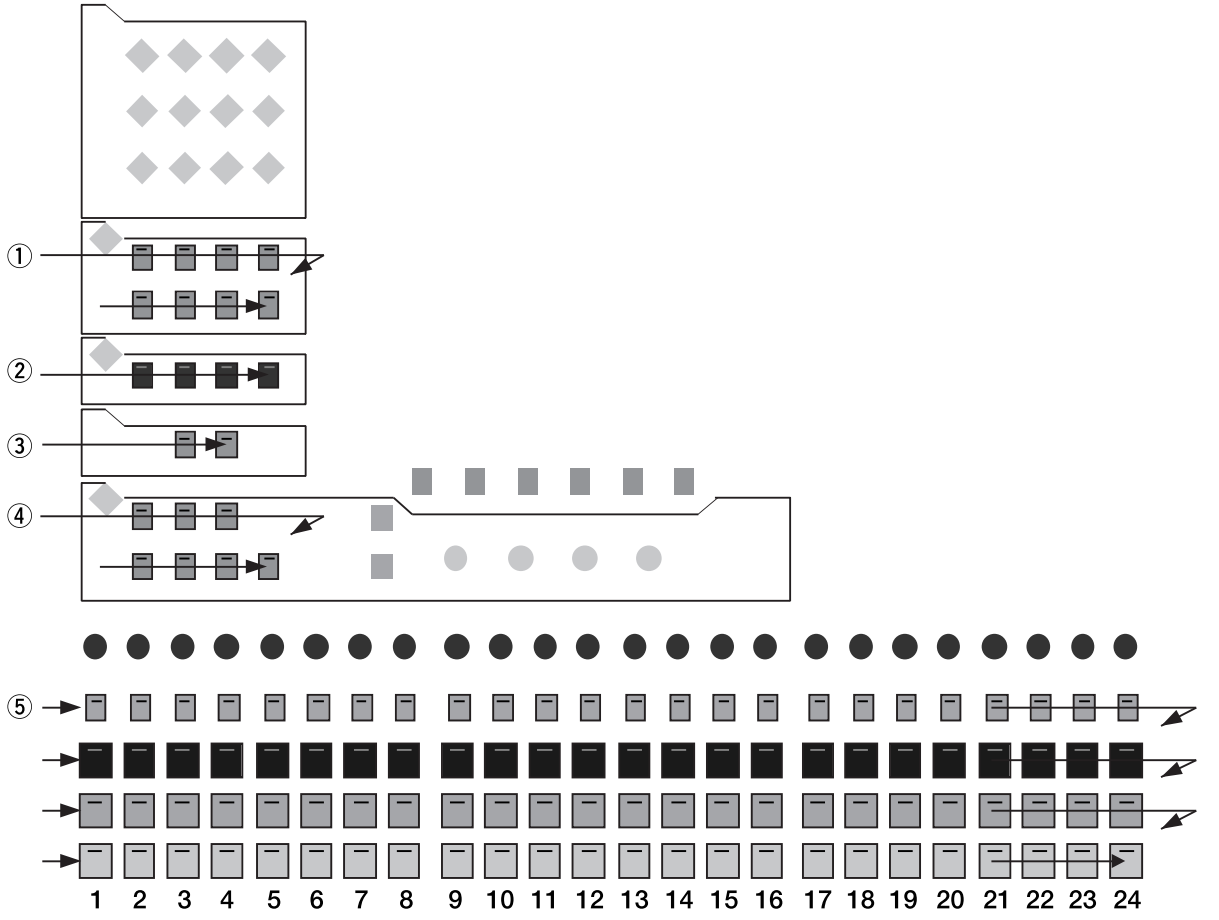
SW Operation Fig.1



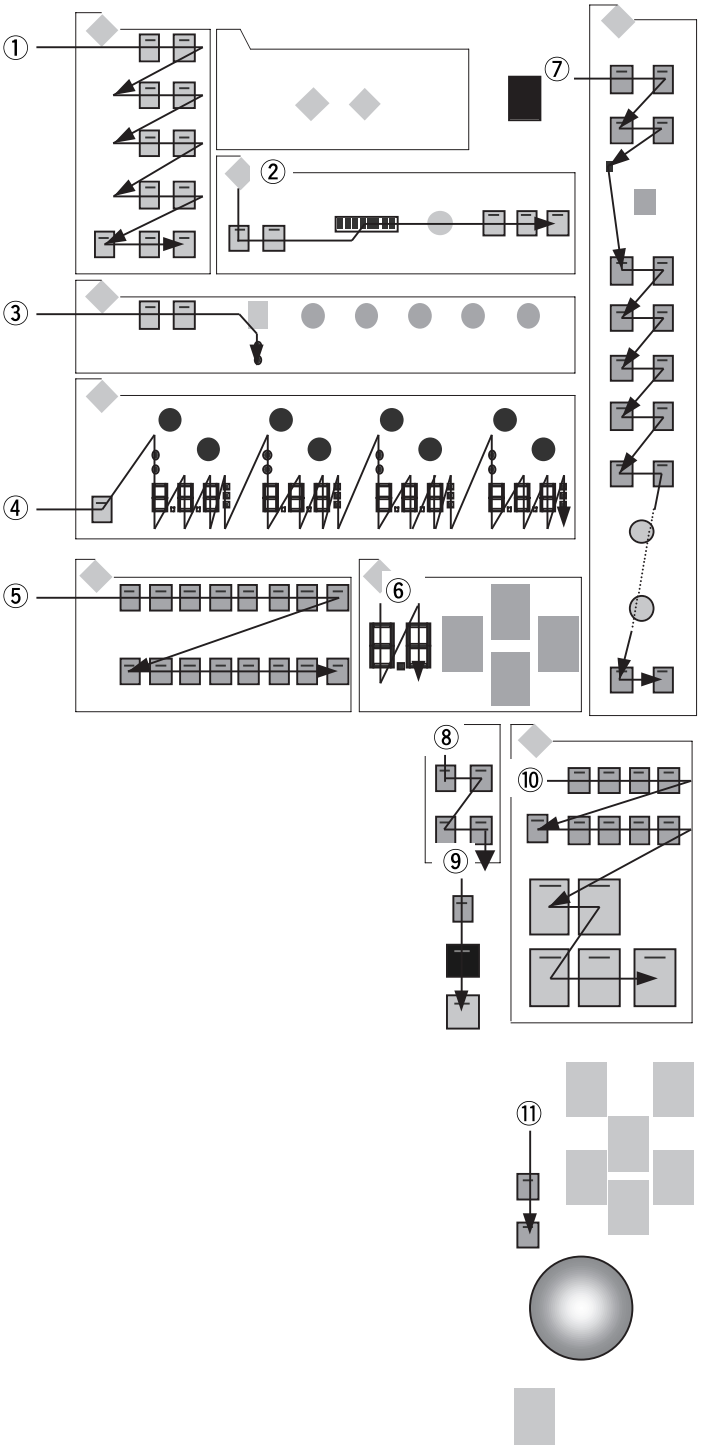
SW Operation Fig.2



LED Lighting Sequence Fig.1



LED Lighting Sequence Fig.2



TEST PROGRAM

✻ Execute the test program for MB02R96.

1. Preparation

1) Connect the D-sub 15pin cable to the [METER] terminal in the rear of 02R96.
2) If 02R96 is not provided, supply +12V between +12V and GND from an external power supply.
   Note) Loop Back test will result in ERROR if independent test is carried out with being connected to the body of 02R96.

2. Starting the test program

1) Turn on the power while pressing the [PEAK HOLD] switch and the [CONTROL ROOM] switch to go to the independent test mode and start the SW check.
2) Press the [PEAK HOLD] switch and the [CONTROL ROOM] switch again to start the LED check 1.
   (To restart the SW check, turn on the power once again.)
3) After this, the test item will be changed by pressing the [1-24] switch and the [25-48] switch.
4) Pressing [MASTER] switch and [REMOTE] switch will change LED light duration time.

3. Check items

3-1 SW check

Judge by LED light ON/OFF when each switch is pressed.

Switch	Action
INPUT METERING POSITION	POST FADER LED turned ON/OFF
OUTPUT METERING POSITION	POST FADER LED turned ON/OFF
PEAK HOLD	PEAK HOLD LED turned ON/OFF
1-24	1-24 LED turned ON/OFF
25-48	25-48 LED turned ON/OFF
MASTER	MASTER LED turned ON/OFF
REMOTE	REMOTE LED turned ON/OFF
CONTROL ROOM	CONTROL ROOM LED turned ON/OFF

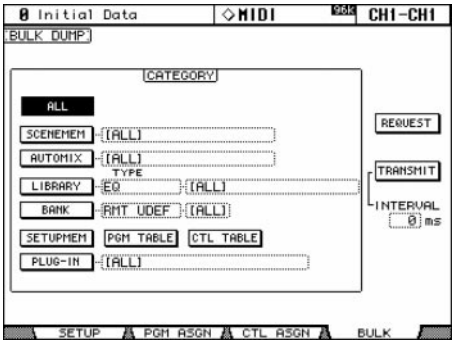
3-2 LED check

Check number	Check item
1	Communication Loop Back test Normal: BUS1 -48 (green) turned ON, Error: BUS1 OVER (red) turned ON
1-24 ↓↑ 25-48	
2	LED full bright
3	Green LED full bright
4	Orange LED full bright
5	Red LED full bright
6	Channel bar-graph turned ON (LED light sequence: CH1: lower → upper..CH24: lower → upper)
7	Stereo bar-graph turned ON (LED light sequence: STEREO L: lower → upper, STEREO R: lower → upper)
8	Other lights turned ON (CH1-24_L → CH25-48_L → CH49-56_L → INPUT PRE EQ → PRE FADER → POST FADER → PEAK HOLD SW → CH1-24_R → CH25-48_R → CH49-56_R → 1-24 SW → 25-48 SW → MASTER SW → REMOTE SW → CONTROL ROOM → OUTPUT PRE EQ → PRE FADER → POST FADER)

USING BULK DUMP

02R96 data can be stored to an external MIDI device, such as a MIDI data filer, by using MIDI Bulk Dump.

1 Use the DISPLAY ACCESS [MIDI] button to locate the Bulk Dump page.



2 To transmit data, use the CATEGORY parameters to select the type of data you want to transmit, select the TRANSMIT button, and then press [ENTER].

3 To receive data, use the CATEGORY parameters to select the type of data you want to receive, select the REQUEST button, and then press [ENTER].

The INTERVAL parameter sets the interval between data packets during transmission.

The CATEGORY parameters can be set as follows:

ALL: All data.

SCENE MEM: ALL Scenes, individual Scenes, or current (i.e., the Edit buffer).

AUTOMIX: ALL Automixes, individual Automixes, or the current Automix.

LIBRARY: The following libraries: EQ, Gate, Comp, Channel, Effects, Bus to Stereo, Input Patch, Output Patch, Surround Monitor. For each library you can specify ALL user memories, individual user memories, and for the Bus to Stereo, Input Patch, Output Patch, Surround Monitor libraries you can also specify the current settings.

BANK: User Defined Remote Layer banks, User Defined Plug-Ins banks, or the User Defined Keys banks. For each item you can specify ALL or individual banks.

SETUP MEM: 02R96 setup data (i.e., system settings).

PGM TABLE: Scene to MIDI Program Change table.

CTL TABLE: Parameter to MIDI Control Change table.

PLUG-IN: The settings of any installed Y56K cards. You can specify ALL Slots or Slot 3 or 4.

CHECKING THE BATTERY

The condition of the internal memory-backup battery can be checked as follows.

1 Use the DISPLAY ACCESS [UTILITY] button to locate the Battery Check page.

If the Status is “Okay,” the battery is okay. If the Status is “Getting Low,” failure to replace a low battery may result in data loss.

MIDI DATA FORMAT

Scene Memory to Program Change Table

Program Change #	Initial Scene #	User Scene #
1	01	
2	02	
3	03	
4	04	
5	05	
6	06	
7	07	
8	08	
9	09	
10	10	
11	11	
12	12	
13	13	
14	14	
15	15	
16	16	
17	17	
18	18	
19	19	
20	20	
21	21	
22	22	
23	23	
24	24	
25	25	
26	26	
27	27	
28	28	
29	29	
30	30	
31	31	
32	32	
33	33	
34	34	
35	35	
36	36	
37	37	
38	38	
39	39	
40	40	
41	41	
42	42	
43	43	

Program Change #	Initial Scene #	User Scene #
44	44	
45	45	
46	46	
47	47	
48	48	
49	49	
50	50	
51	51	
52	52	
53	53	
54	54	
55	55	
56	56	
57	57	
58	58	
59	59	
60	60	
61	61	
62	62	
63	63	
64	64	
65	65	
66	66	
67	67	
68	68	
69	69	
70	70	
71	71	
72	72	
73	73	
74	74	
75	75	
76	76	
77	77	
78	78	
79	79	
80	80	
81	81	
82	82	
83	83	
84	84	
85	85	
86	86	

Program Change#	Initial Scene #	User Scene #
87	87	
88	88	
89	89	
90	90	
91	91	
92	92	
93	93	
94	94	
95	95	
96	96	
97	97	
98	98	
99	99	
100	00	
101	—	
102	—	
103	—	
104	—	
105	—	
106	—	
107	—	
108	—	
109	—	
110	—	
111	—	
112	—	
113	—	
114	—	
115	—	
116	—	
117	—	
118	—	
119	—	
120	—	
121	—	
122	—	
123	—	
124	—	
125	—	
126	—	
127	—	
128	—	

Initial Parameter to Control Change Table

#	High	Mid	Low
0	NO ASSIGN		
1	FADER H	CHANNEL	INPUT1
2	FADER H	CHANNEL	INPUT2
3	FADER H	CHANNEL	INPUT3
4	FADER H	CHANNEL	INPUT4
5	FADER H	CHANNEL	INPUT5
6	FADER H	CHANNEL	INPUT6
7	FADER H	CHANNEL	INPUT7
8	FADER H	CHANNEL	INPUT8
9	FADER H	CHANNEL	INPUT9
10	FADER H	CHANNEL	INPUT10
11	FADER H	CHANNEL	INPUT11
12	FADER H	CHANNEL	INPUT12
13	FADER H	CHANNEL	INPUT13
14	FADER H	CHANNEL	INPUT14
15	FADER H	CHANNEL	INPUT15
16	FADER H	CHANNEL	INPUT16
17	FADER H	CHANNEL	INPUT17
18	FADER H	CHANNEL	INPUT18
19	FADER H	CHANNEL	INPUT19
20	FADER H	CHANNEL	INPUT20
21	FADER H	CHANNEL	INPUT21
22	FADER H	CHANNEL	INPUT22
23	FADER H	CHANNEL	INPUT23
24	FADER H	CHANNEL	INPUT24
25	FADER H	CHANNEL	INPUT25
26	FADER H	CHANNEL	INPUT26
27	FADER H	CHANNEL	INPUT27
28	FADER H	CHANNEL	INPUT28
29	FADER H	CHANNEL	INPUT29
30	FADER H	CHANNEL	INPUT30
31	FADER H	CHANNEL	INPUT31
32	NO ASSIGN		
33	FADER L	CHANNEL	INPUT1
34	FADER L	CHANNEL	INPUT2
35	FADER L	CHANNEL	INPUT3
36	FADER L	CHANNEL	INPUT4
37	FADER L	CHANNEL	INPUT5
38	FADER L	CHANNEL	INPUT6
39	FADER L	CHANNEL	INPUT7
40	FADER L	CHANNEL	INPUT8
41	FADER L	CHANNEL	INPUT9
42	FADER L	CHANNEL	INPUT10
43	FADER L	CHANNEL	INPUT11
44	FADER L	CHANNEL	INPUT12
45	FADER L	CHANNEL	INPUT13
46	FADER L	CHANNEL	INPUT14
47	FADER L	CHANNEL	INPUT15
48	FADER L	CHANNEL	INPUT16
49	FADER L	CHANNEL	INPUT17
50	FADER L	CHANNEL	INPUT18
51	FADER L	CHANNEL	INPUT19
52	FADER L	CHANNEL	INPUT20
53	FADER L	CHANNEL	INPUT21
54	FADER L	CHANNEL	INPUT22
55	FADER L	CHANNEL	INPUT23
56	FADER L	CHANNEL	INPUT24
57	FADER L	CHANNEL	INPUT25
58	FADER L	CHANNEL	INPUT26
59	FADER L	CHANNEL	INPUT27
60	FADER L	CHANNEL	INPUT28
61	FADER L	CHANNEL	INPUT29
62	FADER L	CHANNEL	INPUT30
63	FADER L	CHANNEL	INPUT31
64	ON	CHANNEL	INPUT1
65	ON	CHANNEL	INPUT2
66	ON	CHANNEL	INPUT3
67	ON	CHANNEL	INPUT4
68	ON	CHANNEL	INPUT5
69	ON	CHANNEL	INPUT6
70	ON	CHANNEL	INPUT7
71	ON	CHANNEL	INPUT8
72	ON	CHANNEL	INPUT9
73	ON	CHANNEL	INPUT10
74	ON	CHANNEL	INPUT11
75	ON	CHANNEL	INPUT12
76	ON	CHANNEL	INPUT13
77	ON	CHANNEL	INPUT14
78	ON	CHANNEL	INPUT15
79	ON	CHANNEL	INPUT16
80	ON	CHANNEL	INPUT17
81	ON	CHANNEL	INPUT18
82	ON	CHANNEL	INPUT19
83	ON	CHANNEL	INPUT20
84	ON	CHANNEL	INPUT21
85	ON	CHANNEL	INPUT22
86	ON	CHANNEL	INPUT23
87	ON	CHANNEL	INPUT24
88	ON	CHANNEL	INPUT25
89	PAN	CHANNEL	INPUT1
90	PAN	CHANNEL	INPUT2
91	PAN	CHANNEL	INPUT3
92	PAN	CHANNEL	INPUT4
93	PAN	CHANNEL	INPUT5
94	PAN	CHANNEL	INPUT6
95	PAN	CHANNEL	INPUT7
96	PAN	CHANNEL	INPUT8
97	PAN	CHANNEL	INPUT9
98	PAN	CHANNEL	INPUT10
99	PAN	CHANNEL	INPUT11
100	PAN	CHANNEL	INPUT12
101	PAN	CHANNEL	INPUT13
102	PAN	CHANNEL	INPUT14
103	PAN	CHANNEL	INPUT15
104	PAN	CHANNEL	INPUT16
105	PAN	CHANNEL	INPUT17
106	PAN	CHANNEL	INPUT18
107	PAN	CHANNEL	INPUT19
108	PAN	CHANNEL	INPUT20
109	PAN	CHANNEL	INPUT21
110	PAN	CHANNEL	INPUT22
111	PAN	CHANNEL	INPUT23
112	PAN	CHANNEL	INPUT24
113	PAN	CHANNEL	INPUT25
114	PAN	CHANNEL	INPUT1
115	PAN	CHANNEL	INPUT2
116	PAN	CHANNEL	INPUT3
117	PAN	CHANNEL	INPUT4
118	PAN	CHANNEL	INPUT5
119	PAN	CHANNEL	INPUT6

MIDI Data Format

1. CHANNEL MESSAGE

Command	rx/tx	function
8n NOTE OFF	rx	Control the internal effects
9n NOTE ON	rx	Control the internal effects
Bn CONTROL CHANGE	rx/tx	Control parameters
Cn PROGRAM CHANGE	rx/tx	Switch scene memories

2. SYSTEM COMMON MESSAGE

Command	rx/tx	function
F1 MIDI TIME CODE QUARTER FRAME	rx	Used when TIME REFERENCE is MIDI CLOCK.
F2 SONGPOSITIONPOINTER	rx	Used when TIME REFERENCE is MIDI CLOCK.

3. SYSTEM REALTIME MESSAGE

Command	rx/tx	function
F8 TIMING CLOCK	rx	MIDI clock
FA START	rx*	Start automix (from the beginning)
FB CONTINUE	rx*	Start automix (from the middle)
FC STOP	rx*	Stop automix
FE ACTIVE SENSING	rx	Check MIDI cable connections
FF RESET	rx	Clear running status

Received only when the Automix TIME REFERENCE setting is MIDI CLOCK.

4. EXCLUSIVE MESSAGE

4.1 Real Time System Exclusive

Command	rx/tx	function
F0 7F dd 06 MMC COMMAND	tx	MMC command (refer to MMC specification)
F0 7F dd 07 MMC RESPONSE	rx	MMC response(referto MMC specification)
F0 7F dd 01 MIDI TIME CODE	rx	Used when TIME REFERENCE is MTC.

4.2 System Exclusive Message

4.2.1 Bulk Dump

Command	rx/tx	function
F0 43 0n 7E BULK DUMP DATA	rx/tx	BULK DUMP DATA
F0 43 2n 7E BULK DUMP REQUEST	rx/tx	BULKDUMP REQUEST

The following data types of bulk dump are used on the 02R96.

Data name	tx/rx	function
'm'	tx/rx	Scene Memory & Request
'S'	tx/rx	Setup Memory & Request
'a'	tx/rx	Automix data & Request
'R'	tx/rx	Input patch library & Request
'O'	tx/rx	Output patch library & Request
'H'	tx/rx	Channel library & Request
'G'	tx/rx	Gate library & Request
'Y'	tx/rx	Compressor library & Request
'Q'	tx/rx	Equalizer library & Request
'E'	tx/rx	Effect library & Request
'J'	tx/rx	Bus to Stereo library & Request
'K'	tx/rx	Surround Monitor library & Request
'P'	tx/rx	Program change table & Request
'C'	tx/rx	Control change table & Request
'L'	tx/rx	User define layer & Request
'I'	tx/rx	Plug-in User define & Request
'V'	tx/rx	User define key & Request
'N'	tx/rx	Plug-in Effect Card Data & Request

4.2.2 PARAMETER CHANGE

Command	rx/tx	function
F0 43 1n 3E 0B PARAMETER CHANGE	rx/tx	02R96-specific parameter change
F0 43 3n 3E 0B PARAMETER REQUEST	rx/tx	02R96-specific parameter request
F0 43 1n 3E 7F PARAMETER CHANGE	rx/tx	General purpose digital mixer parameter change
F0 43 3n 3E 7F PARAMETER REQUEST	rx/tx	General purpose digital mixer parameter request

The following data types of parameter change are used by the 02R96.

Type	tx/rx	function
1	tx/rx	Edit buffer
2	tx/rx	Patch data
3	tx/rx	Setup data
4	tx/rx	Backup data
16	tx/rx	Function (recall, store, title)
17	rx	Function (pair)
18	rx	Function (event)
32	rx	Key remote
33	tx/rx	remote meter
34	tx/rx	remote counter

** tx means that the data can be transmitted from the 02R96. rx means that the data can be received by the 02R96.

Format Details

1. NOTE OFF (8n)

Reception

Received when the [Rx CH] matches.
Used to control effects.

STATUS	1000nnnn	8n	Note off message
DATA	0nnnnnnn	nn	Note number
	0vvvvvvv	vv	Velocity (ignored)

2. NOTE ON (9n)

Reception

Received when the [Rx CH] matches.
Used to control effects.

STATUS	1001nnnn	9n	Note on message
DATA	0nnnnnnn	nn	Note number
	0vvvvvvv	vv	Velocity (1-127:on, 0:off)

3. CONTROL CHANGE (Bn)

Reception

Received when [Control Change Rx] is ON and the [Rx CH] matches. However if [OMNI] is ON, this is received regardless of the channel. If [Control Change ECHO] is ON, these messages are echoed to MIDI OUT. If [TABLE] is selected, parameters will be controlled according to the settings of the [Control assign table]. The parameters that can be set are defined in the CONTROL CHANGE ASSIGN PARAMETER LIST. If [NRPN] is selected, four messages are used to control the defined parameter: NRPN control numbers (62h, 63h) and DATA ENTRY control numbers (06h, 26h). Parameter settings are defined in the CONTROL CHANGE ASSIGN PARAMETER LIST.

Transmission

If [TABLE] is selected, operating the parameters specified in the [Control assign table] will cause these messages to be transmitted on the [Tx CH] if [Control Change TX] is ON. The parameters that can be specified are defined in the CONTROL CHANGE ASSIGN PARAMETER LIST.
If [NRPN] is selected, operating the specified parameters will cause data to be transmitted on the [Tx CH] if [Control Change TX] is ON, using four messages: NRPN control numbers (62h, 63h) and DATA ENTRY control numbers (06h, 26h). Parameter settings are defined in the CONTROL CHANGE ASSIGN PARAMETER LIST.

If [TABLE] is selected

STATUS	1011nnnn	Bn	Control change
DATA	0ccccccc	cc	Control number (0-95, 102-119)
	0vvvvvvv	vv	Control value (0-127)

If [NRPN] is selected

STATUS	1011nnnn	Bn	Control change	
DATA	01100010	62	NRPN LSB	
	0vvvvvvv	vv	LSB of parameter number	
STATUS	1011nnnn	Bn	Control change	*1
DATA	01100011	63	NRPN MSB	
	0vvvvvvv	vv	MSB of parameter number	
STATUS	1011nnnn	Bn	Control change	*1
DATA	00100110	26	LSB of data entry	
	0vvvvvvv	vv	LSB of parameter data	
STATUS	1011nnnn	Bn	Control change	*1, *2
DATA	00000110	06	MSB of data entry	*2
	0vvvvvvv	vv	MSB of parameter data	*2

*1) There is no particular need to add the 2nd, 3rd, and 4th status for transmission. However if these are present during reception, they should be received.
*2) Does not need to be transmitted if the parameter data fits within 7 bits.

4. PROGRAM CHANGE (Cn)

Reception

This message is received if [Program Change RX] is ON and [Rx CH] matches. However if [OMNI] is ON, this is received regardless of the channel.
A scene memory will be recalled according to the settings of the [Program Change Table].
This message will be echoed if [Program Change ECHO] is ON.

Transmission

If [Program Change TX] is ON, this message is transmitted according to the settings of the [Program Change Table] on the [Tx CH] channel when a scene memory is recalled.
If the recalled scene has been assigned to more than one program number, the lowest-numbered program number will be transmitted. Transmission to Studio Manager using Program Change messages will not be performed since there is no guarantee that the contents of the tables will match. (Parameter Changes will always be used.)

STATUS	1100nnnn	Cn	Program change
DATA	0nnnnnnn	nn	Program number (0-127)

5. SONG POSITION POINTER (F2)

Reception

If this is received when the automix TIME REFERENCE setting is MIDI CLOCK, the automix will move to the song position that was received.

STATUS	11110010	F2	Song position pointer
DATA	0vvvvvvv	vv	Song position LSB
	0vvvvvvv	vv	Song position MSB

6. TIMING CLOCK (F8)

Reception

If the automix TIME REFERENCE setting is MIDI CLOCK, this message is used to synchronize automix. It is also used to control effects. This message is transmitted 24 times per quarter note.

STATUS	11111000	F8	Timing clock

7. START (FA)

Reception

This message is received if the automix TIME REFERENCE setting is MIDI CLOCK, and will start the automix. In actuality, automix will start when the next TIMING CLOCK is received after receiving the START message.

STATUS	11111010	FA	Start

8. CONTINUE (FB)

Reception

This message is received if the automix TIME REFERENCE setting is MIDI CLOCK, and will cause automix to start from the current song position. In actuality, automix will start when the next TIMING CLOCK is received after receiving the CONTINUE message.

STATUS	11111011	FB	Continue

9. STOP (FC)

Reception

This message is received if the automix TIME REFERENCE setting is MIDI CLOCK, and will cause automix to stop.

STATUS	11111100	FC	Stop

10. ACTIVE SENSING (FE)

Reception

Once this message has been received, the failure to receive any message for an interval of 400 ms or longer will cause MIDI transmission to be initialized, such as by clearing the Running Status.

STATUS	11111101	FE	Active sensing

11. SYSTEM RESET (FF)

Reception

When this message is received, MIDI communications will be cleared, e.g., by clearing the Running Status.

STATUS	11111111	FF	System reset

12. SYSTEM EXCLUSIVE MESSAGE (F0)

12.1 MIDI MACHINE CONTROL (MMC)

These messages are transmitted when the Machine Control section of the 02R96 is operated. For details, refer to the MMC specification.

12.2 BULK DUMP

This message sends or receives the contents of various memories stored within the 02R96.
The basic format is as follows.

For DUMP DATA

```
F0 43 0n 7E cc cc <Model ID> tt mm mm [Data ...]
cs F7
```

For DUMP REQUEST

```
F0 43 2n 7E <Model ID> tt mm mm F7
```

n	Device Number
cc cc	DATA COUNT (the number of bytes that follow this, ending before the checksum)
<Model ID>	Model ID (for the 02R96, this is 4C 4D 20 20 38 43 35 34)
tt	DATA TYPE
mm mm	DATA NUMBER
cs	CHECK SUM

A unique header (Model ID) is used to determine whether the device is a 02R96.
CHECK SUM is obtained by adding the bytes that follow BYTE COUNT (LOW) and end before CHECK SUM, taking the binary compliment of this sum, and then setting bit 7 to 0.

```
CHECK SUM = (-sum)&0x7F
```

Reception

This message is received if [Bulk RX] is ON and the [Rx CH] matches the device number included in the SUB STATUS.
When a bulk dump is received, it is immediately written into the specified memory.
When a bulk dump request is received, a bulk dump is immediately transmitted.

Transmission

This message is transmitted on the [Tx CH] by key operations in the [MIDI]-[BULK DUMP] screen.
A bulk dump is transmitted on the [Rx CH] in response to a bulk dump

request.
The data area is handled by converting seven words of 8-bit data into eight words of 7-bit data.

[Conversion from actual data into bulk data]

```
d[0~6]: actual data
b[0~7]: bulk data
b[0] = 0;
for( I=0; I<7; I++){
    if( d[I]&0x80){
        b[0] |= 1<<(6-I);
    }
    b[I+1] = d[I]&0x7F;
}
```

[Restoration from bulk data into actual data]

```
d[0~6]: actual data
b[0~7]: bulk data
for( I=0; I<7; I++){
    b[0] <<= 1;
    d[I] = b[I+1]+(0x80&b[0]);
}
```

12.2.1 Scene memory bulk dump format

The 02R96 can transmit and receive scene memories in compressed form.

STATUS	11110000	F0	System exclusive message
ID No.	01000011	43	Manufacture's ID number (YAMAHA)
SUB STATUS	0000nnnn	0n	n=0-15 (Device number=MIDI Channel)
FORMAT No.	01111110	7E	Universal bulk dump
COUNT HIGH	0ccccccc	ch	data count = ch * 128 + cl
COUNT LOW	0ccccccc	cl	
	01001100	4C	'L'
	01001101	4D	'M'
	00100000	20	' '
	00100000	20	' '
	00111000	38	'8'
	01000011	43	'C'
	00110101	35	'5'
	00110100	34	'4'
DATA NAME	01101101	6D	'm'
	0mmmmmmm	mh	m=0-99, 256(Scene0-99, EDIT BUFFER)
	0mmmmmmm	ml	Receive is effective 1-99, 256
BLOCK INFO.	0ttttttt	tt	total block number(minimum number is 0)
	0bbbbbbb	bb	current block number(0-total block number)
DATA	0ddddddd	ds	Scene data of block[mm]
	:	:	
	0ddddddd	de	
CHECK SUM	0eeeeeee	ee	ee=(Invert('L'+...+de)+1)&0x7F
EOX	11110111	F7	End of exclusive

12.2.2 Scene memory bulk dump request format

The second and third bytes of the DATA NAME indicate the scene number that is being requested. If this is 256, the data of the edit buffer will be bulk-dumped.

STATUS	11110000	F0	System exclusive message
ID No.	01000011	43	Manufacture's ID number (YAMAHA)
SUB STATUS	0010nnnn	2n	n=0-15 (Device number=MIDI Channel)
FORMAT No.	01111110	7E	Universal bulk dump
	01001100	4C	'L'
	01001101	4D	'M'
	00100000	20	' '
	00100000	20	' '
	00111000	38	'8'
	01000011	43	'C'
	00110101	35	'5'
	00110100	34	'4'
DATA NAME	01101101	6D	'm'
	0mmmmmmm	mh	m=0-99, 256(Scene0-99, EDIT BUFFER)
	0mmmmmmm	ml	
EOX	11110111	F7	End of exclusive

12.2.3 Setup memory bulk dump format

Of the setup memory of the 02R96, this bulk-dumps data other than the User define layer, User define plug-in, User define keys, Control change table, and Program change table.

STATUS	11110000	F0	System exclusive message
ID No.	01000011	43	Manufacture's ID number (YAMAHA)
SUB STATUS	0000nnnn	0n	n=0-15 (Device number=MIDI Channel)
FORMAT No.	01111110	7E	Universal bulk dump
COUNT HIGH	0ccccccc	ch	data count = ch * 128 + cl
COUNT LOW	0ccccccc	cl	
	01001100	4C	'L'
	01001101	4D	'M'
	00100000	20	' '
	00100000	20	' '
	00111000	38	'8'
	01000011	43	'C'
	00110101	35	'5'
	00110100	34	'4'
DATA NAME	01010011	53	'S'
	00000010	02	
	00000000	00	No.256 = Current
BLOCK INFO.	0ttttttt	tt	total block number(minimum number is 0)
	0bbbbbbb	bb	current block number(0-total block number)
DATA	0ddddddd	ds	Setup memory data
	:	:	
	0ddddddd	de	
CHECK SUM	0eeeeeee	ee	ee=(Invert('L'+...+de)+1)&0x7F
EOX	11110111	F7	End of exclusive

12.2.4 Setup memory bulk dump request format

STATUS	11110000	F0	System exclusive message
ID No.	01000011	43	Manufacture's ID number (YAMAHA)
SUB STATUS	0010nnnn	2n	n=0-15 (Device number=MIDI Channel)
FORMAT No.	01111110	7E	Universal bulk dump
	01001100	4C	'L'
	01001101	4D	'M'
	00100000	20	' '
	00100000	20	' '
	00111000	38	'8'
	01000011	43	'C'
	00110101	35	'5'
	00110100	34	'4'
DATA NAME	01010011	53	'S'
	00000010	02	
	00000000	00	No.256 = Current
EOX	11110111	F7	End of exclusive

12.2.5 User define layer bulk dump format

The second and third bytes of the DATA NAME indicate the bank number.
Be aware that the state of the transmission destination will (in some cases) change if the same bank is being used.

STATUS	11110000	F0	System exclusive message
ID No.	01000011	43	Manufacture's ID number (YAMAHA)
SUB STATUS	0000nnnn	0n	n=0-15 (Device number=MIDI Channel)
FORMAT No.	01111110	7E	Universal bulk dump
COUNT HIGH	0ccccccc	ch	data count = ch * 128 + cl
COUNT LOW	0ccccccc	cl	
	01001100	4C	'L'
	01001101	4D	'M'
	00100000	20	' '
	00100000	20	' '
	00111000	38	'8'
	01000011	43	'C'
	00110101	35	'5'
	00110100	34	'4'
DATA NAME	01001100	4C	'L'
	00000000	00	

	0bbbbbbb	bb	b=0-3(bank no.1-4)
BLOCK INFO.	0ttttttt	tt	total block number(minimum number is 0)
	0bbbbbbb	bb	current block number(0-total block number)
DATA	0ddddddd	ds	User define layer
	:	:	
	0ddddddd	de	
CHECK SUM	0eeeeeee	ee	ee=(Invert('L'+...+de)+1)&0x7F
EOX	11110111	F7	End of exclusive

12.2.6 User define layer bulk dump request format

The second and third bytes of the DATA NAME indicate the bank number.

STATUS	11110000	F0	System exclusive message
ID No.	01000011	43	Manufacture's ID number (YAMAHA)
SUB STATUS	0010nnnn	2n	n=0-15 (Device number=MIDI Channel)
FORMAT No.	01111110	7E	Universal bulk dump
	01001100	4C	'L'
	01001101	4D	'M'
	00100000	20	' '
	00100000	20	' '
	00111000	38	'8'
	01000011	43	'C'
	00110101	35	'5'
	00110100	34	'4'
DATA NAME	01001100	4C	'L'
	00000000	00	
	0bbbbbbb	bb	b=0-3(bank no.1-4)
EOX	11110111	F7	End of exclusive

12.2.7 User define plug-in bulk dump format

The second and third bytes of the DATA NAME indicate the bank number.
Be aware that the state of the transmission destination will (in some cases) change if the same bank is being used.

STATUS	11110000	F0	System exclusive message
ID No.	01000011	43	Manufacture's ID number (YAMAHA)
SUB STATUS	0000nnnn	0n	n=0-15 (Device number=MIDI Channel)
FORMAT No.	01111110	7E	Universal bulk dump
COUNT HIGH	0ccccccc	ch	data count = ch * 128 + cl
COUNT LOW	0ccccccc	cl	
	01001100	4C	'L'
	01001101	4D	'M'
	00100000	20	' '
	00100000	20	' '
	00111000	38	'8'
	01000011	43	'C'
	00110101	35	'5'
	00110100	34	'4'
DATA NAME	01001001	49	'I'
	00000000	00	
	0bbbbbbb	bb	b=0-7(bank no.1-8)
BLOCK INFO.	0ttttttt	tt	total block number(minimum number is 0)
	0bbbbbbb	bb	current block number(0-total block number)
DATA	0ddddddd	ds	User define plug-in data
	:	:	
	0ddddddd	de	
CHECK SUM	0eeeeeee	ee	ee=(Invert('L'+...+de)+1)&0x7F
EOX	11110111	F7	End of exclusive

12.2.8 User define plug-in bulk dump request format

The second and third bytes of the DATA NAME indicate the bank number.

STATUS	11110000	F0	System exclusive message
ID No.	01000011	43	Manufacture's ID number (YAMAHA)
SUB STATUS	0010nnnn	2n	n=0-15 (Device number=MIDI Channel)
FORMAT No.	01111110	7E	Universal bulk dump
	01001100	4C	'L'
	01001101	4D	'M'
	00100000	20	' '
	00100000	20	' '
	00111000	38	'8'
	01000011	43	'C'
	00110101	35	'5'
	00110100	34	'4'
DATA NAME	01001001	49	'I'
	00000000	00	
	0bbbbbbb	bb	b=0-7(bank no.1-8)
EOX	11110111	F7	End of exclusive

12.2.9 User Define Key bulk dump format

The second and third bytes of the DATA NAME indicate the bank number.
Be aware that the state of the transmission destination will (in some cases) change if the same bank is being used.

STATUS	11110000	F0	System exclusive message
ID No.	01000011	43	Manufacture's ID number (YAMAHA)
SUB STATUS	0000nnnn	0n	n=0-15 (Device number=MIDI Channel)
FORMAT No.	01111110	7E	Universal bulk dump
COUNT HIGH	0ccccccc	ch	data count = ch * 128 + cl
COUNT LOW	0ccccccc	cl	
	01001100	4C	'L'
	01001101	4D	'M'
	00100000	20	' '
	00100000	20	' '
	00111000	38	'8'
	01000011	43	'C'
	00110101	35	'5'
	00110100	34	'4'
DATA NAME	01010110	56	'V'
	00000000	00	
	0bbbbbbb	bb	b=0-3(bank no.A-D)
BLOCK INFO.	0ttttttt	tt	total block number(minimum number is 0)
	0bbbbbbb	bb	current block number(0-total block number)
DATA	0ddddddd	ds	User define key data
	:	:	
	0ddddddd	de	
CHECK SUM	0eeeeeee	ee	ee=(Invert('L'+...+de)+1)&0x7F
EOX	11110111	F7	End of exclusive

12.2.10 User Define Key bulk dump request format

The second and third bytes of the DATA NAME indicate the bank number.

STATUS	11110000	F0	System exclusive message
ID No.	01000011	43	Manufacture's ID number (YAMAHA)
SUB STATUS	0010nnnn	2n	n=0-15 (Device number=MIDI Channel)
FORMAT No.	01111110	7E	Universal bulk dump
	01001100	4C	'L'
	01001101	4D	'M'
	00100000	20	' '
	00100000	20	' '
	00111000	38	'8'
	01000011	43	'C'
	00110101	35	'5'
	00110100	34	'4'
DATA NAME	01010110	56	'V'
BANK No.	00000000	00	
	0bbbbbbb	bb	b=0-3(bank no.A-D)
EOX	11110111	F7	End of exclusive

12.2.11 Control change table bulk dump format

STATUS	11110000	F0	System exclusive message
ID No.	01000011	43	Manufacture's ID number (YAMAHA)
SUB STATUS	0000nnnn	0n	n=0-15 (Device number=MIDI Channel)
FORMAT No.	01111110	7E	Universal bulk dump
COUNT HIGH	00000011	ch	data count = ch * 128 + cl
COUNT LOW	00010010	cl	
	01001100	4C	'L'
	01001101	4D	'M'
	00100000	20	' '
	00100000	20	' '
	00111000	38	'8'
	01000011	43	'C'
	00110101	35	'5'
	00110100	34	'4'
DATA NAME	01000011	43	'C'
	00000000	02	
	00000000	00	No.256 = Current
BLOCK INFO.	0ttttttt	tt	total block number(minimum number is 0)
	0bbbbbbb	bb	current block number(0-total block number)
DATA	0ddddddd	ds	Control change table data
	:	:	(342/7)*8+(342%7)+1=391bytes → unfixed
	0ddddddd	de	
CHECK SUM	0eeeeeee	ee	ee=(Invert('L'+...+de)+1)&0x7F
EOX	11110111	F7	End of exclusive

12.2.12 Control change table bulk dump request format

STATUS	11110000	F0	System exclusive message
ID No.	01000011	43	Manufacture's ID number (YAMAHA)
SUB STATUS	0010nnnn	2n	n=0-15 (Device number=MIDI Channel)
FORMAT No.	01111110	7E	Universal bulk dump
	01001100	4C	'L'
	01001101	4D	'M'
	00100000	20	' '
	00100000	20	' '
	00111000	38	'8'
	01000011	43	'C'
	00110101	35	'5'
	00110100	34	'4'
DATA NAME	01000011	43	'C'
	00000000	02	
	00000000	00	No.256 = Current
EOX	11110111	F7	End of exclusive

12.2.13 Program change table bulk dump format

STATUS	11110000	F0	System exclusive message
ID No.	01000011	43	Manufacture's ID number (YAMAHA)
SUB STATUS	0000nnnn	0n	n=0-15 (Device number=MIDI Channel)
FORMAT No.	01111110	7E	Universal bulk dump
COUNT HIGH	0ccccccc	ch	data count = ch * 128 + cl
COUNT LOW	0ccccccc	cl	
	01001100	4C	'L'
	01001101	4D	'M'
	00100000	20	' '
	00100000	20	' '
	00111000	38	'8'
	01000011	43	'C'
	00110101	35	'5'
	00110100	34	'4'
DATA NAME	01010000	50	'P'
	00000000	02	
	00000000	00	No.256 = Current
BLOCK INFO.	0ttttttt	tt	total block number(minimum number is 0)
	0bbbbbbb	bb	current block number(0-total block number)
DATA	0ddddddd	ds	Program change table data
	:	:	
	0ddddddd	de	
CHECK SUM	0eeeeeee	ee	ee=(Invert('L'+...+de)+1)&0x7F
EOX	11110111	F7	End of exclusive

12.2.14 Program change table bulk dump request format

STATUS	11110000	F0	System exclusive message
ID No.	01000011	43	Manufacture's ID number (YAMAHA)
SUB STATUS	0010nnnn	2n	n=0-15 (Device number=MIDI Channel)
FORMAT No.	01111110	7E	Universal bulk dump
	01001100	4C	'L'
	01001101	4D	'M'
	00100000	20	' '
	00100000	20	' '
	00111000	38	'8'
	01000011	43	'C'
	00110101	35	'5'
	00110100	34	'4'
DATA NAME	01010000	50	'P'
	00000000	02	
	00000000	00	No.256 = Current
EOX	11110111	F7	End of exclusive

12.2.15 Equalizer library bulk dump format

The second and third bytes of the DATA NAME indicate the bank number.
0:Library no.1 - 199:Library no.200, 256:CH1 - 311:CH56, 384:BUS1 - 391:BUS8, 512:AUX1 - 519:AUX8, 768:STEREO L - 769:STEREO R
256 and following are data for the corresponding channel of the edit buffer.
For reception by the 02R96, only the user area is valid. (40-199, 256-)

STATUS	11110000	F0	System exclusive message
ID No.	01000011	43	Manufacture's ID number (YAMAHA)
SUB STATUS	0000nnnn	0n	n=0-15 (Device number=MIDI Channel)
FORMAT No.	01111110	7E	Universal bulk dump
COUNT HIGH	0ccccccc	ch	data count = ch * 128 + cl
COUNT LOW	0ccccccc	cl	
	01001100	4C	'L'
	01001101	4D	'M'
	00100000	20	' '
	00100000	20	' '
	00111000	38	'8'
	01000011	43	'C'
	00110101	35	'5'
	00110100	34	'4'
DATA NAME	01010001	51	'Q'
LIB. No. H	0bbbbbbb	bb	0-199(EQ Library no.1-200), 256-(channel current data)
LIB. No. L	0bbbbbbb	bb	
BLOCK INFO.	0ttttttt	tt	total block number(minimum number is 0)
	0bbbbbbb	bb	current block number(0-total block number)
DATA	0ddddddd	ds	EQ Library data
	:	:	
	0ddddddd	de	
CHECK SUM	0eeeeeee	ee	ee=(Invert('L'+...+de)+1)&0x7F
EOX	11110111	F7	End of exclusive

12.2.16 Equalizer library bulk dump request format

The second and third bytes of the DATA NAME indicate the bank number. (See above)

STATUS	11110000	F0	System exclusive message
ID No.	01000011	43	Manufacture's ID number (YAMAHA)
SUB STATUS	0010nnnn	2n	n=0-15 (Device number=MIDI Channel)
FORMAT No.	01111110	7E	Universal bulk dump
	01001100	4C	'L'
	01001101	4D	'M'
	00100000	20	' '
	00100000	20	' '

	00111000	38	'8'
	01000011	43	'C'
	00110101	35	'5'
	00110100	34	'4'
DATA NAME	01010001	51	'Q'
LIB. No. H	0bbbbbbb	bb	0-199(EQ Library no.1-200), 256-(channel current data)
LIB. No. L	0bbbbbbb	bb	
EOX	11110111	F7	End of exclusive

12.2.17 Compressor library bulk dump format

The second and third bytes of the DATA NAME indicate the library number.
0:Library no.1 - 199:Library no.200, 256:CH1 - 311:CH56, 384:BUS1 - 391:BUS8, 512:AUX1 - 519:AUX8, 768:STEREO L - 769:STEREO R
256 and following are data for the corresponding channel of the edit buffer.
For reception by the 02R96, only the user area is valid. (36-127, 256-)

STATUS	11110000	F0	System exclusive message
ID No.	01000011	43	Manufacture's ID number (YAMAHA)
SUB STATUS	0000nnnn	0n	n=0-15 (Device number=MIDI Channel)
FORMAT No.	01111110	7E	Universal bulk dump
COUNT HIGH	0ccccccc	ch	data count = ch * 128 + cl
COUNT LOW	0ccccccc	cl	
	01001100	4C	'L'
	01001101	4D	'M'
	00100000	20	' '
	00100000	20	' '
	00111000	38	'8'
	01000011	43	'C'
	00110101	35	'5'
	00110100	34	'4'
DATA NAME	01011001	59	'Y'
LIB. No. H	0bbbbbbb	bb	0-127(COMP Library no.1-128), 256-(channel current data)
LIB. No. L	0bbbbbbb	bb	
BLOCK INFO.	0ttttttt	tt	total block number(minimum number is 0)
	0bbbbbbb	bb	current block number(0-total block number)
DATA	0ddddddd	ds	COMP Library data
	:	:	
	0ddddddd	de	
CHECK SUM	0eeeeeee	ee	ee=(Invert('L'+...+de)+1)&0x7F
EOX	11110111	F7	End of exclusive

12.2.18 Compressor library bulk dump request format

The second and third bytes of the DATA NAME indicate the library number. (See above)

STATUS	11110000	F0	System exclusive message
ID No.	01000011	43	Manufacture's ID number (YAMAHA)
SUB STATUS	0010nnnn	2n	n=0-15 (Device number=MIDI Channel)
FORMAT No.	01111110	7E	Universal bulk dump
	01001100	4C	'L'
	01001101	4D	'M'
	00100000	20	' '
	00100000	20	' '
	00111000	38	'8'
	01000011	43	'C'
	00110101	35	'5'
	00110100	34	'4'
DATA NAME	01011001	59	'Y'
LIB. No. H	0bbbbbbb	bb	0-127(COMP Library no.1-128), 256-(channel current data)
LIB. No. L	0bbbbbbb	bb	
EOX	11110111	F7	End of exclusive

12.2.19 Gate library bulk dump format

The second and third bytes of the DATA NAME indicate the library number.
0:Library no.1 - 127:Library no.128, 256:CH1 - 311:CH56
256 and following are data for the corresponding channel of the edit buffer.
For reception by the 02R96, only the user area is valid. (4-127, 256-)

STATUS	11110000	F0	System exclusive message
ID No.	01000011	43	Manufacture's ID number (YAMAHA)
SUB STATUS	0000nnnn	0n	n=0-15 (Device number=MIDI Channel)
FORMAT No.	01111110	7E	Universal bulk dump
COUNT HIGH	0ccccccc	ch	data count = ch * 128 + cl
COUNT LOW	0ccccccc	cl	
	01001100	4C	'L'
	01001101	4D	'M'
	00100000	20	' '
	00100000	20	' '
	00111000	38	'8'
	01000011	43	'C'
	00110101	35	'5'
	00110100	34	'4'
DATA NAME	01000111	47	'G'
LIB. No. H	0bbbbbbb	bh	0-127(GATE Library no.1-128), 256-351(channel current data)
LIB. No. L	0bbbbbbb	bl	
BLOCK INFO.	0ttttttt	tt	total block number(minimum number is 0)
	0bbbbbbb	bb	current block number(0-total block number)
DATA	0ddddddd	ds	GATE Library data
	:	:	
	0ddddddd	de	
CHECK SUM	0eeeeeee	ee	ee=(Invert('L'+...+de)+1)&0x7F
EOX	11110111	F7	End of exclusive

12.2.20 Gate library bulk dump request format

The second and third bytes of the DATA NAME indicate the library number. (See above)

STATUS	11110000	F0	System exclusive message
ID No.	01000011	43	Manufacture's ID number (YAMAHA)
SUB STATUS	0010nnnn	2n	n=0-15 (Device number=MIDI Channel)
FORMAT No.	01111110	7E	Universal bulk dump
	01001100	4C	'L'
	01001101	4D	'M'
	00100000	20	' '
	00100000	20	' '
	00111000	38	'8'
	01000011	43	'C'
	00110101	35	'5'
	00110100	34	'4'
DATA NAME	01000111	47	'G'
LIB. No. H	0bbbbbbb	bh	0-127(GATE Library no.1-128), 256-351(channel current data)
LIB. No. L	0bbbbbbb	bl	
EOX	11110111	F7	End of exclusive

12.2.21 Effect library bulk dump format

The second and third bytes of the DATA NAME indicate the library number.
0:Library no.1 - 127:Library no.128, 256:EFFECT1 - 259:EFFECT8
256-259 are the data for the corresponding area of the edit buffer.
For reception by the 02R96, only the user area is valid. (52-127, 256-259)

STATUS	11110000	F0	System exclusive message
ID No.	01000011	43	Manufacture's ID number (YAMAHA)
SUB STATUS	0000nnnn	0n	n=0-15 (Device number=MIDI Channel)
FORMAT No.	01111110	7E	Universal bulk dump
COUNT HIGH	0ccccccc	ch	data count = ch * 128 + cl
COUNT LOW	0ccccccc	cl	
	01001100	4C	'L'
	01001101	4D	'M'
	00100000	20	' '
	00100000	20	' '
	00111000	38	'8'
	01000011	43	'C'
	00110101	35	'5'

	00110100	34	'4'
DATA NAME	01000100	45	'E'
LIB. No. H	0bbbbbbb	bh	0-127(Effect Library no.1-128), 256-259(Effect1-4 current)
LIB. No. L	0bbbbbbb	bl	
BLOCK INFO.	0ttttttt	tt	total block number(minimum number is 0)
	0bbbbbbb	bb	current block number(0-total block number)
DATA	0ddddddd	ds	Effect Library data
	:	:	
	0ddddddd	de	
CHECK SUM	0eeeeeee	ee	ee=(Invert('L'+...+de)+1)&0x7F
EOX	11110111	F7	End of exclusive

12.2.22 Effect library bulk dump request format

The second and third bytes of the DATA NAME indicate the library number. (See above)

STATUS	11110000	F0	System exclusive message
ID No.	01000011	43	Manufacture's ID number (YAMAHA)
SUB STATUS	0010nnnn	2n	n=0-15 (Device number=MIDI Channel)
FORMAT No.	01111110	7E	Universal bulk dump
	01001100	4C	'L'
	01001101	4D	'M'
	00100000	20	' '
	00100000	20	' '
	00111000	38	'8'
	01000011	43	'C'
	00110101	35	'5'
	00110100	34	'4'
DATA NAME	01000100	45	'E'
LIB. No. H	0bbbbbbb	bh	0-127(Effect Library no.1-128), 256-259(Effect1-4 current)
LIB. No. L	0bbbbbbb	bl	
EOX	11110111	F7	End of exclusive

12.2.25 Channel library bulk dump format

The second and third bytes of the DATA NAME indicate the library number.
0:Library no.0 - 128:Library no.128,
256:CH1 - 311:CH56, 384:BUS1 - 391:BUS8, 512:AUX1 - 519:AUX8, 768:STEREO L - 769:STEREO R
256 and following are the data for the corresponding channel of the edit buffer.
For reception by the 02R96, only the user area is valid. (2-128, 256-)

STATUS	11110000	F0	System exclusive message
ID No.	01000011	43	Manufacture's ID number (YAMAHA)
SUB STATUS	0000nnnn	0n	n=0-15 (Device number=MIDI Channel)
FORMAT No.	01111110	7E	Universal bulk dump
COUNT HIGH	0ccccccc	ch	data count = ch * 128 + cl
COUNT LOW	0ccccccc	cl	
	01001100	4C	'L'
	01001101	4D	'M'
	00100000	20	' '
	00100000	20	' '
	00111000	38	'8'
	01000011	43	'C'
	00110101	35	'5'
	00110100	34	'4'
DATA NAME	01001000	48	'H'
LIB. No. H	0bbbbbbb	bh	0-128(Channel Library no.0-128), 256-(current)
LIB. No. L	0bbbbbbb	bl	
BLOCK INFO.	0ttttttt	tt	total block number(minimum number is 0)
	0bbbbbbb	bb	current block number(0-total block number)
DATA	0ddddddd	ds	channel Library data
	:	:	
	0ddddddd	de	
CHECK SUM	0eeeeeee	ee	ee=(Invert('L'+...+de)+1)&0x7F
EOX	11110111	F7	End of exclusive

12.2.26 Channel library bulk dump request format

The second and third bytes of the DATA NAME indicate the library number. (See above)

STATUS	11110000	F0	System exclusive message
ID No.	01000011	43	Manufacture's ID number (YAMAHA)
SUB STATUS	0010nnnn	2n	n=0-15 (Device number=MIDI Channel)
FORMAT No.	01111110	7E	Universal bulk dump
	01001100	4C	'L'
	01001101	4D	'M'
	00100000	20	' '
	00100000	20	' '
	00111000	38	'8'
	01000011	43	'C'
	00110001	31	'1'
	00110010	32	'2'
DATA NAME	01001000	48	'H'
LIB. No. H	0bbbbbbb	bh	0-128(Channel Library no.0-128), 256-(current)
LIB. No. L	0bbbbbbb	bl	
EOX	11110111	F7	End of exclusive

12.2.27 Input patch library bulk dump format

The second and third bytes of the DATA NAME indicate the library number.
0:Library no.0 - 32:Library no.32, 256:current input patch data
For reception by the 02R96, only the user area is valid. (1-32, 256)

STATUS	11110000	F0	System exclusive message
ID No.	01000011	43	Manufacture's ID number (YAMAHA)
SUB STATUS	0000nnnn	0n	n=0-15 (Device number=MIDI Channel)
FORMAT No.	01111110	7E	Universal bulk dump
COUNT HIGH	0ccccccc	ch	data count = ch * 128 + cl
COUNT LOW	0ccccccc	cl	
	01001100	4C	'L'
	01001101	4D	'M'
	00100000	20	' '
	00100000	20	' '
	00111000	38	'8'
	01000011	43	'C'
	00110101	35	'5'
	00110100	34	'4'
DATA NAME	01010010	52	'R'
	0bbbbbbb	bh	0-32(Library no.0-32), 256(Current data)
	0bbbbbbb	bl	
BLOCK INFO.	0ttttttt	tt	total block number(minimum number is 0)
	0bbbbbbb	bb	current block number(0-total block number)
DATA	0ddddddd	ds	Input Patch Library data
	:	:	
	0ddddddd	de	
CHECK SUM	0eeeeeee	ee	ee=(Invert('L'+...+de)+1)&0x7F
EOX	11110111	F7	End of exclusive

12.2.28 Input patch library bulk dump request format

The second and third bytes of the DATA NAME indicate the library number.
0:Library no.0 - 32:Library no.32, 256:current input patch data

STATUS	11110000	F0	System exclusive message
ID No.	01000011	43	Manufacture's ID number (YAMAHA)
SUB STATUS	0010nnnn	2n	n=0-15 (Device number=MIDI Channel)
FORMAT No.	01111110	7E	Universal bulk dump
	01001100	4C	'L'
	01001101	4D	'M'
	00100000	20	' '
	00100000	20	' '
	00111000	38	'8'
	01000011	43	'C'
	00110101	35	'5'
	00110100	34	'4'
DATA NAME	01010010	52	'R'

	0bbbbbbb	bh	0-32(Library no.0-32), 256(Current data)
	0bbbbbbb	bl	
EOX	11110111	F7	End of exclusive

12.2.29 Output patch library bulk dump format

The second and third bytes of the DATA NAME indicate the library number.
0:Library no.0 - 32:Library no.32, 256:current output patch data
For reception by the 02R96, only the user area is valid. (1-32, 256)

STATUS	11110000	F0	System exclusive message
ID No.	01000011	43	Manufacture's ID number (YAMAHA)
SUB STATUS	0000nnnn	0n	n=0-15 (Device number=MIDI Channel)
FORMAT No.	01111110	7E	Universal bulk dump
COUNT HIGH	0ccccccc	ch	data count = ch * 128 + cl
COUNT LOW	0ccccccc	cl	
	01001100	4C	'L'
	01001101	4D	'M'
	00100000	20	' '
	00100000	20	' '
	00111000	38	'8'
	01000011	43	'C'
	00110101	35	'5'
	00110100	34	'4'
DATA NAME	01001111	4F	'O'
	0bbbbbbb	bh	0-32(Library no.0-32), 256(Current data)
	00100000	bl	
BLOCK INFO.	0ttttttt	tt	total block number(minimum number is 0)
	0bbbbbbb	bb	current block number(0-total block number)
DATA	0ddddddd	ds	Input Patch Library data
	:	:	
	0ddddddd	de	
CHECK SUM	0eeeeeee	ee	ee=(Invert('L'+...+de)+1)&0x7F
EOX	11110111	F7	End of exclusive

12.2.30 Output patch library bulk dump request format

The second and third bytes of the DATA NAME indicate the library number.
0:Library no.0 - 32:Library no.32, 256:current output patch data

STATUS	11110000	F0	System exclusive message
ID No.	01000011	43	Manufacture's ID number (YAMAHA)
SUB STATUS	0010nnnn	2n	n=0-15 (Device number=MIDI Channel)
FORMAT No.	01111110	7E	Universal bulk dump
	01001100	4C	'L'
	01001101	4D	'M'
	00100000	20	' '
	00100000	20	' '
	00111000	38	'8'
	01000011	43	'C'
	00110101	35	'5'
	00110100	34	'4'
DATA NAME	01001111	4F	'O'
	0bbbbbbb	bh	0-32(Library no.0-32), 256(Current data)
	0bbbbbbb	bl	
EOX	11110111	F7	End of exclusive

12.2.31 Bus to Stereo library bulk dump format

The second and third bytes of the DATA NAME indicate the library number.
0:Library no.0 - 32:Library no.32, 256:current data
For reception by the 02R96, only the user area is valid.

STATUS	11110000	F0	System exclusive message
ID No.	01000011	43	Manufacture's ID number (YAMAHA)
SUB STATUS	0000nnnn	0n	n=0-15 (Device number=MIDI Channel)
FORMAT No.	01111110	7E	Universal bulk dump
COUNT HIGH	0ccccccc	ch	data count = ch * 128 + cl
COUNT LOW	0ccccccc	cl	
	01001100	4C	'L'
	01001101	4D	'M'
	00100000	20	' '
	00100000	20	' '
	00111000	38	'8'
	01000011	43	'C'
	00110101	35	'5'
	00110100	34	'4'
DATA NAME	01001010	4A	'J'
	0bbbbbbb	bh	0-32(Library no.0-32), 256(Current data)
	0bbbbbbb	bl	
BLOCK INFO.	0ttttttt	tt	total block number(minimum number is 0)
	0bbbbbbb	bb	current block number(0-total block number)
DATA	0ddddddd	ds	Input Patch Library data
	:	:	
	0ddddddd	de	
CHECK SUM	0eeeeeee	ee	ee=(Invert('L'+...+de)+1)&0x7F
EOX	11110111	F7	End of exclusive

12.2.32 Bus to Stereo library bulk dump request format

The second and third bytes of the DATA NAME indicate the library number.
0:Library no.0 - 32:Library no.32, 256:current data

STATUS	11110000	F0	System exclusive message
ID No.	01000011	43	Manufacture's ID number (YAMAHA)
SUB STATUS	0010nnnn	2n	n=0-15 (Device number=MIDI Channel)
FORMAT No.	01111110	7E	Universal bulk dump
	01001100	4C	'L'
	01001101	4D	'M'
	00100000	20	' '
	00100000	20	' '
	00111000	38	'8'
	01000011	43	'C'
	00110101	35	'5'
	00110100	34	'4'
DATA NAME	01001010	4A	'J'
	0bbbbbbb	bh	0-32 (Library no.0-32), 256 (Current data)
	0bbbbbbb	bl	
EOX	11110111	F7	End of exclusive

12.2.33 Surround Monitor library bulk dump format

The second and third bytes of the DATA NAME indicate the library number.
0:Library no.0 - 32:Library no.32, 256:current data
For reception by the 02R96, only the user area is valid. (1-32, 256)

STATUS	11110000	F0	System exclusive message
ID No.	01000011	43	Manufacture's ID number (YAMAHA)
SUB STATUS	0000nnnn	0n	n=0-15 (Device number=MIDI Channel)
FORMAT No.	01111110	7E	Universal bulk dump
COUNT HIGH	0ccccccc	ch	data count = ch * 128 + cl
COUNT LOW	0ccccccc	cl	
	01001100	4C	'L'
	01001101	4D	'M'
	00100000	20	' '
	00100000	20	' '
	00111000	38	'8'
	01000011	43	'C'
	00110101	35	'5'
	00110100	34	'4'
DATA NAME	01001011	4B	'K'
	0bbbbbbb	bh	0-32(Library no.0-32), 256(Current data)
	0bbbbbbb	bl	
BLOCK INFO.	0ttttttt	tt	total block number(minimum number is 0)
	0bbbbbbb	bb	current block number(0-total block number)
DATA	0ddddddd	ds	Input Patch Library data
	:	:	

	0ddddddd de	
CHECK SUM	0eeeeeee ee	ee=(Invert('L'+...+de)+1)&0x7F
EOX	11110111 F7	End of exclusive

12.2.34 Surround Monitor library bulk dump request format

The second and third bytes of the DATA NAME indicate the library number.
0:Library no.0 - 32:Library no.32, 256:current data

STATUS	11110000 F0	System exclusive message
ID No.	01000011 43	Manufacture's ID number (YAMAHA)
SUB STATUS	0010nnnn 2n	n=0-15 (Device number=MIDI Channel)
FORMAT No.	01111110 7E	Universal bulk dump
	01001100 4C	'L'
	01001101 4D	'M'
	00100000 20	' '
	00100000 20	' '
	00111000 38	'8'
	01000011 43	'C'
	00110101 35	'5'
	00110100 34	'4'
DATA NAME	01001011 4B	'K'
	0bbbbbbb bh	0-32(Library no.0-32), 256(Current data)
	0bbbbbbb bl	
EOX	11110111 F7	End of exclusive

12.2.35 Plug-in effect card bulk dump format

The second byte of the DATA NAME indicates the slot number.
0:SLOT 1 - 3:SLOT 4
The data is not received if the Developer ID and Product ID are different than the card that is installed in the slot.
The data is not transmitted if a valid plug-in effect card is not installed.

STATUS	11110000 F0	System exclusive message
ID No.	01000011 43	Manufacture's ID number (YAMAHA)
SUB STATUS	0000nnnn 0n	n=0-15 (Device number=MIDI Channel)
FORMAT No.	01111110 7E	Universal bulk dump
COUNT HIGH	0ccccccc ch	data count = ch * 128 + cl
COUNT LOW	0ccccccc cl	
	01001100 4C	'L'
	01001101 4D	'M'
	00100000 20	' '
	00100000 20	' '
	00111000 38	'8'
	01000011 43	'C'
	00110101 35	'5'
	00110100 34	'4'
DATA NAME	01001110 4E	'N'
	0mmmmmmm mh	0-3 (SLOT1-4)
	0mmmmmmm ml	
DATA	0xxxxxxx xh	block count (High)
	0xxxxxxx xl	block count (Low)
	0yyyyyyy yh	total size (High)
	0yyyyyyy yl	total size (Low)
	0000iiii	Developer id (High)
	0000iiii	Developer id (Low)
	0000jjjj	Product id (High)
	0000jjjj	Product id (Low)
	0ddddddd ds	Plug-in Effect card memory data
	: :	(1024/7)*8+(1024%7)+1=1171bytes
	0ddddddd de	
CHECK SUM	0eeeeeee ee	ee=(Invert('L'+...+de)+1)&0x7F
EOX	11110111 F7	End of exclusive

12.2.36 Plug-in effect card bulk dump request format

The second byte of the DATA NAME indicates the library number.
0:SLOT 1 - 3:SLOT 4

STATUS	11110000 F0	System exclusive message
ID No.	01000011 43	Manufacture's ID number (YAMAHA)
SUB STATUS	0010nnnn 2n	n=0-15 (Device number=MIDI Channel)
FORMAT No.	01111110 7E	Universal bulk dump
	01001100 4C	'L'
	01001101 4D	'M'
	00100000 20	' '
	00100000 20	' '
	00111000 38	'8'
	01000011 43	'C'
	00110101 35	'5'
	00110100 34	'4'
DATA NAME	01000001 41	'A'
	0mmmmmmm mm	0-3 (SLOT1-4)
	0mmmmmmm ml	
EOX	11110111 F7	End of exclusive

12.3 PARAMETER CHANGE

12.3.1 Parameter change basic format

STATUS	11110000 F0	System exclusive message
ID No.	01000011 43	Manufacture's ID number (YAMAHA)
SUB STATUS	0001nnnn 1n	n=0-15 (Device number=MIDI Channel)
GROUP ID	00111110 3E	MODEL ID (digital mixer)
MODEL ID	00001011 0B	02R96
ADDRESS	0ttttttt tt	Data type
	0eeeeeee ee	Element No. (If 'ee' is 0, 'ee' is expanded to two bytes)
	0ppppppp pp	Parameter No.
	0ccccccc cc	Channel No.
DATA *)	0ddddddd dd	Data
	: :	
EOX	11110111 F7	End of exclusive

For parameters with a data size of 2 or more, data for that size will be transmitted.

12.3.2 Parameter Change basic format (Universal format)

STATUS	11110000 F0	System exclusive message
ID No.	01000011 43	Manufacture's ID number (YAMAHA)
SUB STATUS	0001nnnn 1n	n=0-15 (Device number=MIDI Channel)
GROUP ID	00111110 3E	MODEL ID (digital mixer)
MODEL ID	01111111 7F	Universal
ADDRESS	0ttttttt tt	Data type
	0eeeeeee ee	Element No. (If 'ee' is 0,'ee' is expanded to two bytes)
	0ppppppp pp	Parameter No.
	0ccccccc cc	Channel No.
DATA *)	0ddddddd dd	Data
	: :	
EOX	11110111 F7	End of exclusive

For parameters with a data size of 2 or more, data for that size will be transmitted.

12.3.3 Parameter request basic format

STATUS	11110000 F0	System exclusive message
ID No.	01000011 43	Manufacture's ID number (YAMAHA)
SUB STATUS	0011nnnn 3n	n=0-15 (Device number=MIDI Channel)
GROUP ID	00111110 3E	MODEL ID (digital mixer)
MODEL ID	00001011 0B	02R96
ADDRESS	0ttttttt tt	Data type
	0eeeeeee ee	Element No. (If 'ee' is 0, 'ee' is expanded to two bytes)
	0ppppppp pp	Parameter No.
	0ccccccc cc	Channel No.
EOX	11110111 F7	End of exclusive

12.3.4 Parameter request basic format (Universal format)

STATUS	11110000	F0	System exclusive message
ID No.	01000011	43	Manufacture's ID number (YAMAHA)
SUB STATUS	0011nnnn	3n	n=0-15 (Device number=MIDI Channel)
GROUP ID	00111110	3E	MODEL ID (digital mixer)
MODEL ID	01111111	7F	Universal
ADDRESS	0ttttttt	tt	Data type
	0eeeeeee	ee	Element No. (If 'ee' is 0, 'ee' is expanded to two bytes)
	0ppppppp	pp	Parameter No.
	0ccccccc	cc	Channel No.
EOX	11110111	F7	End of exclusive

12.3.5 Parameter Address

Consult your dealer for parameter address details.

12.3.6 Parameter change (Edit buffer)

Reception

This is received if [Parameter change RX] is ON and the [Rx CH] matches the device number included in the SUB STATUS.
This is echoed if [Parameter change ECHO] is ON.
When this is received, the specified parameter will be controlled.

Transmission

If [Parameter change TX] is ON and a parameter not specified in the [Control assign table] is modified, this message will be transmitted with the device number specified by the [Tx CH].

STATUS	11110000	F0	System exclusive message
ID No.	01000011	43	Manufacture's ID number (YAMAHA)
SUB STATUS	0001nnnn	1n	n=0-15 (Device number=MIDI Channel)
GROUP ID	00111110	3E	MODEL ID (digital mixer)
MODEL ID	01111111	7F	Universal
ADDRESS	00000001	01	Edit Buffer
	0eeeeeee	ee	Element No. (If 'ee' is 0, 'ee' is expanded to two bytes)
	0ppppppp	pp	Parameter No.
	0ccccccc	cc	Channel No.
DATA	0ddddddd	dd	Data
	:	:	
EOX	11110111	F7	End of exclusive

12.3.7 Parameter request (Edit buffer)

Reception

This is received if [Parameter change RX] is ON and the [Rx CH] matches the device number included in the SUB STATUS.
This is echoed if [Parameter change ECHO] is ON.
When this is received, the value of the specified parameter will be transmitted as a Parameter Change.

STATUS	11110000	F0	System exclusive message
ID No.	01000011	43	Manufacture's ID number (YAMAHA)
SUB STATUS	0011nnnn	3n	n=0-15 (Device number=MIDI Channel)
GROUP ID	00111110	3E	MODEL ID (digital mixer)
MODEL ID	01111111	7F	Universal
ADDRESS	00000001	01	Edit Buffer
	0eeeeeee	ee	Element No. (If 'ee' is 0, 'ee' is expanded to two bytes)
	0ppppppp	pp	Parameter No.
	0ccccccc	cc	Channel No.
EOX	11110111	F7	End of exclusive

12.3.8 Parameter change (Patch data)

Reception

This is received if [Parameter change RX] is ON and the [Rx CH] matches the device number included in the SUB STATUS.
This is echoed if [Parameter change ECHO] is ON.
When this is received, the specified parameter will be controlled.

STATUS	11110000	F0	System exclusive message
ID No.	01000011	43	Manufacture's ID number (YAMAHA)
SUB STATUS	0001nnnn	1n	n=0-15 (Device number=MIDI Channel)
GROUP ID	00111110	3E	MODEL ID (digital mixer)
MODEL ID	00001011	0B	02R96
ADDRESS	00000010	02	Patch data
	0eeeeeee	ee	Element No. (If 'ee' is 0, 'ee' is expanded to two bytes)
	0ppppppp	pp	Parameter No.
	0ccccccc	cc	Channel No.
DATA	0ddddddd	dd	Data
	:	:	
EOX	11110111	F7	End of exclusive

12.3.9 Parameter request (Patch data)

Reception

This is received if [Parameter change RX] is ON and the [Rx CH] matches the device number included in the SUB STATUS.
This is echoed if [Parameter change ECHO] is ON.
When this is received, the value of the specified parameter will be transmitted as a Parameter Change.

STATUS	11110000	F0	System exclusive message
ID No.	01000011	43	Manufacture's ID number (YAMAHA)
SUB STATUS	0011nnnn	3n	n=0-15 (Device number=MIDI Channel)
GROUP ID	00111110	3E	MODEL ID (digital mixer)
MODEL ID	00001011	0B	02R96
ADDRESS	00000010	02	Patch data
	0eeeeeee	ee	Element No. (If 'ee' is 0, 'ee' is expanded to two bytes)
	0ppppppp	pp	Parameter No.
	0ccccccc	cc	Channel No.
EOX	11110111	F7	End of exclusive

12.3.10 Parameter change (Setup memory)

Reception

This is received if [Parameter change RX] is ON and the [Rx CH] matches the device number included in the SUB STATUS.
This is echoed if [Parameter change ECHO] is ON.
When this is received, the value of the specified parameter will be controlled.

STATUS	11110000	F0	System exclusive message
ID No.	01000011	43	Manufacture's ID number (YAMAHA)
SUB STATUS	0001nnnn	1n	n=0-15 (Device number=MIDI Channel)
GROUP ID	00111110	3E	MODEL ID (digital mixer)
MODEL ID	00001011	0B	02R96
ADDRESS	00000011	03	Setup memory
	0eeeeeee	ee	Element No. (If 'ee' is 0, 'ee' is expanded to two bytes)
	0ppppppp	pp	Parameter No.
	0ccccccc	cc	Channel No.
DATA	0ddddddd	dd	Data
	:	:	
EOX	11110111	F7	End of exclusive

12.3.11 Parameter request (Setup memory)

Reception

This is received if [Parameter change RX] is ON and the [Rx CH] matches the device number included in the SUB STATUS.
This is echoed if [Parameter change ECHO] is ON.
When this is received, the value of the specified parameter will be transmitted as a Parameter Change.

STATUS	11110000	F0	System exclusive message
ID No.	01000011	43	Manufacture's ID number (YAMAHA)
SUB STATUS	0011nnnn	3n	n=0-15 (Device number=MIDI Channel)
GROUP ID	00111110	3E	MODEL ID (digital mixer)
MODEL ID	00001011	0B	02R96
ADDRESS	00000011	03	Setup memory
	0eeeeeee	ee	Element No. (If 'ee' is 0, 'ee' is expanded to two bytes)
	0ppppppp	pp	Parameter No.
	0ccccccc	cc	Channel No.
EOX	11110111	F7	End of exclusive

12.3.12 Parameter change (Backup memory)

Reception

This is received if [Parameter change RX] is ON and the [Rx CH] matches the device number included in the SUB STATUS.
This is echoed if [Parameter change ECHO] is ON.
When this is received, the value of the specified parameter will be controlled.

STATUS	11110000	F0	System exclusive message
ID No.	01000011	43	Manufacture's ID number (YAMAHA)
SUB STATUS	0001nnnn	1n	n=0-15 (Device number=MIDI Channel)
GROUP ID	00111110	3E	MODEL ID (digital mixer)
MODEL ID	00001011	0B	02R96
ADDRESS	00000100	04	Backup memory
	0aaaaaaa	ee	Element No.
	0aaaaaaa	pp	Parameter No.
	0ccccccc	cc	Channel No.
DATA	0ddddddd	dd	Data
	:	:	
EOX	11110111	F7	End of exclusive

12.3.13 Parameter request (Backup memory)

Reception

This is received if [Parameter change RX] is ON and the [Rx CH] matches the device number included in the SUB STATUS.
This is echoed if [Parameter change ECHO] is ON.
When this is received, the value of the specified parameter will be transmitted as a Parameter Change.

STATUS	11110000	F0	System exclusive message
ID No.	01000011	43	Manufacture's ID number (YAMAHA)
SUB STATUS	0011nnnn	3n	n=0-15 (Device number=MIDI Channel)
GROUP ID	00111110	3E	MODEL ID (digital mixer)
MODEL ID	00001011	0B	02R96
ADDRESS	00000100	04	Backup memory
	0aaaaaaa	ee	Element No.
	0aaaaaaa	pp	Parameter No.
	0ccccccc	cc	Channel No.
EOX	11110111	F7	End of exclusive

12.3.14 Parameter change (Function call Library: store/recall)

Reception

This is received if [Parameter change RX] is ON and the [Rx CH] matches the device number included in the SUB STATUS.
This is echoed if [Parameter change ECHO] is ON.
When this is received, the specified memory/library will be stored/recalled.

Transmission

If [Parameter change ECHO] is ON, this message will be retransmitted without change.

STATUS	11110000	F0	System exclusive message
ID No.	01000011	43	Manufacture's ID number (YAMAHA)
SUB STATUS	0001nnnn	1n	n=0-15 (Device number=MIDI Channel)
GROUP ID	00111110	3E	MODEL ID (digital mixer)
MODEL ID	00000110	7F	Universal
ADDRESS	00010000	10	Address UU
	00ffffff	ff	Address UL (function)
	0aaaaaaa	aa	Address LU (number H)
	0aaaaaaa	aa	Address LL (number L)
DATA	0ddddddd	dd	channel High
	0ddddddd	dd	channel Low
EOX	11110111	F7	End of exclusive

function		number	channel*1)	tx/rx
SCENE RECALL	0x00	0-99	256	tx*2)/rx
EQ LIB RECALL	0x01	1-200	0-513	tx/rx
GATE LIB RECALL	0x02	1-128	0-95	tx/rx
COMP LIB RECALL	0x03	1-128	0-513	tx/rx
EFF LIB RECALL	0x04	1-128	0-7	tx/rx
CHANNEL LIB RECALL	0x06	0-128	0-513	tx/rx
INPATCH LIB RECALL	0x07	0-32	256	tx/rx
OUTPATCH LIB RECALL	0x08	0-32	256	tx/rx
Bus to Stereo LIB RECALL	0x09	0-32	256	tx/rx
Surround Monitor LIB RECALL	0x0A	0-32	256	tx/rx
AUTOMIX LIB RECALL	0x0B	1-16	256	tx/rx
SCENE STORE	0x20	1-99	256, 16383	tx/rx
EQ LIB STORE	0x21	41-200	0-513, 16383	tx/rx
GATE LIB STORE	0x22	5-128	0-56, 16383	tx/rx
COMP LIB STORE	0x23	37-128	0-513, 16383	tx/rx
EFF LIB STORE	0x24	53-128	0-7, 16383	tx/rx
CHANNEL LIB STORE	0x26	3-128	0-513, 16383	tx/rx
INPATCH LIB STORE	0x27	1-32	256, 16383	tx/rx
OUTPATCH LIB STORE	0x28	1-32	256, 16383	tx/rx
Bus to Stereo LIB STORE	0x29	1-32	256, 16383	tx/rx
Surround Monitor LIB STORE	0x2A	1-32	256, 16383	tx/rx
AUTOMIX LIB STORE	0x2B	1-32	256, 16383	tx/rx

*1) 0:CH1 - 55:CH56, 128:BUS1 - 135:BUS8, 256:AUX1 - 263:AUX5, 512:STEREO L - 513:STEREO R
Use 256 if the recall destination or store source is a single data item.
Effect is 0:Effect 1–3:Effect 4
If the store destination is 16383 (0x3FFF), this indicates that the library data has been changed by a external cause (only transmitted by the 02R96)
*2) This is also transmitted when a program that has not been assigned to the [Program change table] is recalled. (Normally this would be transmitted as a program change message.)

12.3.15 Parameter change (Function call: title)

Reception

This is received if [Parameter change RX] is ON and the [Rx CH] matches the device number included in the SUB STATUS.
This is echoed if [Parameter change ECHO] is ON.
When this is received, the title of the specified memory/library will be changed

Transmission

In response to a request, a Parameter Change message will be transmitted on the [Rx CH].
If [Parameter change ECHO] is ON, this message will be retransmitted without change.

STATUS	11110000	F0	System exclusive message
ID No.	01000011	43	Manufacture's ID number (YAMAHA)
SUB STATUS	0001nnnn	1n	n=0-15 (Device number=MIDI Channel)
GROUP ID	00111110	3E	MODEL ID (digital mixer)
MODEL ID	00000110	7F	Universal
ADDRESS	00010000	10	Function call Library
	0100aaaa	4a	Address UL (function)
	0nnnnnnn	nn	Address LU (number H)
	0nnnnnnn	nn	Address LL (number L)
DATA	0ddddddd	dd	title 1
	:	:	
	0ddddddd	dd	title x(depend on the librar y)
EOX	11110111	F7	End of exclusive

function		number	size
SCENE LIB TITLE	0x40	0-99, 256(0:response only)	16
EQ LIB TITLE	0x41	1-200(1-40:response only)	16
GATE LIB TITLE	0x42	1-128(1-4:response only)	16
COMP LIB TITLE	0x43	1-128(1-36:response only)	16
EFF LIB TITLE	0x44	1-128(1-52:response only)	16
CHANNEL LIB TITLE	0x46	0-128(0-1:response only)	16
INPATCH LIB TITLE	0x47	0-32(0:response only)	16
OUTPATCH LIB TITLE	0x48	0-32(0:response only)	16
Bus to Stereo LIB TITLE	0x49	0-32(0:response only)	16
Surround Monitor LIB TITLE	0x4A	0-32(0:response only)	16
AUTOMIX LIB TITLE	0x4B	1-16	16

12.3.16 Parameter request (Function call: title)

Reception

This is received if [Parameter change RX] is ON and the [Rx CH] matches the device number included in the SUB STATUS.
This is echoed if [Parameter change ECHO] is ON.
When this is received, a Parameter Change message will be transmitted on the [Rx CH].

Refer to the above table for the Functions and Numbers.

STATUS	11110000	F0	System exclusive message
ID No.	01000011	43	Manufacture's ID number (YAMAHA)
SUB STATUS	0011nnnn	3n	n=0-15 (Device number=MIDI Channel)
GROUP ID	00111110	3E	MODEL ID (digital mixer)
MODEL ID	00000110	7F	Universal
ADDRESS	00010000	10	Function call Library
	0100aaaa	4a	Address UL (function)
	0nnnnnnn	nn	Address LU (number H)
	0nnnnnnn	nn	Address LL (number L)
EOX	11110111	F7	End of exclusive

12.3.17 Parameter change (Function call: Scene/Library Clear)

Reception

This is received if [Parameter change RX] is ON and the [Rx CH] matches the device number included in the SUB STATUS.
This is echoed if [Parameter change ECHO] is ON.
When this is received, the specified memory/library will be stored/recalled.

Transmission

If [Parameter change ECHO] is ON, this message will be retransmitted without change.

STATUS	11110000	F0	System exclusive message
ID No.	01000011	43	Manufacture's ID number (YAMAHA)
SUB STATUS	0001nnnn	1n	n=0-15 (Device number=MIDI Channel)
GROUP ID	00111110	3E	MODEL ID (digital mixer)
MODEL ID	00000110	7F	Universal
ADDRESS	00010000	10	Function call Library
	0110aaaa	6a	Address UL (function)
	0nnnnnnn	nn	Address LU (number H)
	0nnnnnnn	nn	Address LL (number L)
EOX	11110111	F7	End of exclusive

function		number
SCENE LIB CLEAR	0x60	1-99
EQ LIB CLEAR	0x61	41-200
GATE LIB CLEAR	0x62	5-128
COMP LIB CLEAR	0x63	37-128
EFF LIB CLEAR	0x64	1-128
CHANNEL LIB CLEAR	0x66	2-128
INPATCH LIB CLEAR	0x67	0-32
OUTPATCH LIB CLEAR	0x68	0-32
Bus to Stereo LIB CLEAR	0x69	0-32
Surround Monitor LIB CLEAR	0x6A	0-32
AUTOMIX LIB CLEAR	0x6B	1-16

12.3.18 Parameter change (Function call: pair, copy)

Reception

This is received if [Parameter change RX] is ON and the [Rx CH] matches the device number included in the SUB STATUS. This is echoed if [Parameter change ECHO] is ON.
When this is received, pairing will be enabled/disabled for the specified channel. (Items other than PAIR are reserved for future use.)

STATUS	11110000	F0	System exclusive message
ID No.	01000011	43	Manufacture's ID number (YAMAHA)
SUB STATUS	0001nnnn	1n	n=0-15 (Device number=MIDI Channel)
GROUP ID	00111110	3E	MODEL ID (digital mixer)
MODEL ID	00000110	7F	Universal
ADDRESS	00010001	11	Function call Pair
	0000aaaa	0a	Function
DATA	0ddddddd	dd	Source channel number H
	0ddddddd	dd	Source channel number L
	0ddddddd	dd	Destination channel number H
	0ddddddd	dd	Destination channel number L
EOX	11110111	F7	End of exclusive

function		Channel
PAIR ON with COPY	0x00	*1)
PAIR ON with RESET BOTH	0x01	*1)
PAIR OFF	0x02	*1)

*1)0:CH1 - 55:CH56, 128:BUS1 - 135:BUS8, 256:AUX1 - 263:AUX8, 512:STEREO L - 513:STEREO R
Effect is 0:Effect 1–3:Effect 4
In the case of PAIR, you must specify channels for which pairing is possible.
In the case of PAIR ON with COPY, you must specify Source Channel as the copy source, and Destination Channel as the copy destination.

12.3.19 Parameter change (Function call Event: Effect)

Reception

This is received if [Parameter change RX] is ON and the [Rx CH] matches the device number included in the SUB STATUS.
This is echoed if [Parameter change ECHO] is ON.
When this is received, the corresponding effect's function activates (depending on the effect type).

STATUS	11110000	F0	System exclusive message
ID No.	01000011	43	Manufacture's ID number (YAMAHA)
SUB STATUS	0001nnnn	1n	n=0-15 (Device number=MIDI Channel)
GROUP ID	00111110	3E	MODEL ID (digital mixer)
MODEL ID	00000110	7F	Universal
ADDRESS	00010010	12	Function call Event
	0000aaaa	0a	Function
DATA	00000000	00	-
	0ddddddd	dd	Release:0, Press:1
	00000000	00	-
	0ddddddd	dd	Destination Effect Number 0 - 7
EOX	11110111	F7	End of exclusive

function		Channel
Freeze Play button	0x00	0:Effect1-3:Effect4
Freeze Record button	0x01	0:Effect1-3:Effect4
Auto Pan 5.1 Trigger Button	0x02	0:Effect1
Auto Pan 5.1 Reset Button	0x03	0:Effect1

• This does not activate when the effect type is different.

12.3.20 Parameter change (Key remote)

Reception

This is received if [Parameter change RX] is ON and the [Rx CH] matches the device number included in the SUB STATUS.
This is echoed if [Parameter change ECHO] is ON.
When this is received, the same processing that is executed when the key specified by Address is pressed (released). (Refer to the PARAMETER CHANGE PARAMETER NUMBER LIST.)

Transmission

If [Parameter Change ECHO] is ON, this message is retransmitted without change.

STATUS	11110000	F0	System exclusive message
ID No.	01000011	43	Manufacture's ID number (YAMAHA)
SUB STATUS	0001nnnn	1n	n=0-15 (Device number=MIDI Channel)
GROUP ID	00111110	3E	MODEL ID (digital mixer)
MODEL ID	00001011	0B	02R96
ADDRESS	00100000	20	Address UU
	0aaaaaaa	aa	Address UL
	0aaaaaaa	aa	Address LU
	0aaaaaaa	aa	Address LL
DATA	0ddddddd	dd	0:press, 1:release
EOX	11110111	F7	End of exclusive

12.3.21 Parameter change (Remote Meter)

When transmission is enabled by receiving a Request of Remote meter, the specified meter information is transmitted every 50 msec for 10 seconds. When you want to transmit meter information continuously, a Request must be transmitted continuously within every 10 seconds.

Reception

This is echoed if [Parameter change ECHO] is ON.

Transmission

When transmission has been enabled by a Request, the parameter specified by Address (see PARAMETER CHANGE PARAMETER NUMBER LIST) will be transmitted on the [Rx CH] channel at 50 msec intervals for a duration of 10 seconds.
Transmission will be disabled if the power is turned off and on again, or if the PORT setting is changed.
If [Parameter Change ECHO] is ON, this message is retransmitted without

change.

STATUS	11110000	F0	System exclusive message
ID No.	01000011	43	Manufacture's ID number (YAMAHA)
SUB STATUS	0001nnnn	1n	n=0-15 (Device number=MIDI Channel)
GROUP ID	00111110	3E	MODEL ID (digital mixer)
MODEL ID	00001011	0B	02R96
ADDRESS	00100001	21	Address UU
	0aaaaaaa	aa	Address UL
	0aaaaaaa	aa	Address LU
	0aaaaaaa	aa	Address LL
DATA	0ddddddd	dd	Data1 H
	0ddddddd	dd	Data1 L
	:		
EOX	11110111	F7	End of exclusive

Meter data uses the unmodified DECAY value of the DSP. For the interpretation of the value, refer to the PARAMETER CHANGE PARAMETER NUMBER LIST.

12.3.22 Parameter request (Remote Meter)

Reception

This is received if [Parameter change RX] is ON and the [Rx CH] matches the device number included in the SUB STATUS.
This is echoed if [Parameter change ECHO] is ON.
When this is received, the parameter specified by Address (refer to PARAMETER CHANGE PARAMETER NUMBER LIST) will be transmitted on the [Rx CH] at 50 msec intervals for a duration of 10 seconds.
If Address UL= 0x7F is received, transmission of all meter data will be halted immediately. (disable)

Transmission

If [Parameter Change ECHO] is ON, this message is retransmitted without change.

STATUS	11110000	F0	System exclusive message
ID No.	01000011	43	Manufacture's ID number (YAMAHA)
SUB STATUS	0011nnnn	3n	n=0-15 (Device number=MIDI Channel)
GROUP ID	00111110	3E	MODEL ID (digital mixer)
MODEL ID	00001011	0B	02R96
ADDRESS	00100001	21	Address UU
	0aaaaaaa	aa	Address UL
	0aaaaaaa	aa	Address LU
	0aaaaaaa	aa	Address LL
DATA	0ccccccccc		Count H
	0ccccccccCc		Count L
EOX	11110111	F7	End of exclusive

12.3.23 Parameter change (Remote Time Counter)

When transmission is enabled by receiving a Request of Remote Time Counter, the Time Counter data is transmitted every 50 msec for 10 seconds. When you want to transmit Counter information continuously, a Request must be transmitted within every 10 seconds.

Reception

This is echoed if [Parameter change ECHO] is ON.

Transmission

When transmission is enabled by receiving a Request, the Time Counter information is transmitted on [RxCH] channel every 50 msec for 10 seconds.
Transmission will be disabled if the power is turned off and on again, or if the PORT setting is changed.
If [Parameter Change ECHO] is ON, this message is retransmitted without change.

STATUS	11110000	F0	System exclusive message
ID No.	01000011	43	Manufacture's ID number (YAMAHA)
SUB STATUS	0001nnnn	1n	n=0-15 (Device number=MIDI Channel)
GROUP ID	00111110	3E	MODEL ID (digital mixer)
MODEL ID	00001011	0B	02R96
ADDRESS	00100001	22	Remote Time Counter
	0000tttt	0t	0:Time Code, 1: Measure, Beat, Clock
DATA	0ddddddd	dd	Hour / Measure H
	0ddddddd	dd	Min / Measure L
	0ddddddd	dd	Sec / Beat
	0ddddddd	dd	Frame / Clock
EOX	11110111	F7	End of exclusive

12.3.24 Parameter request (Remote Time Counter)

Reception

This is received if [Parameter change RX] is ON and the [Rx CH] matches the device number included in the SUB STATUS.
This is echoed if [Parameter change ECHO] is ON.
When this is received, the Time Counter information is transmitted on the [Rx CH] channel every 50 msec for 10 seconds.
When the second byte of Address is received on 0x7F, data transmission will be halted immediately.

Transmission

If [Parameter Change ECHO] is ON, this message is retransmitted without change.

STATUS	11110000	F0	System exclusive message
ID No.	01000011	43	Manufacture's ID number (YAMAHA)
SUB STATUS	0011nnnn	3n	n=0-15 (Device number=MIDI Channel)
GROUP ID	00111110	3E	MODEL ID (digital mixer)
MODEL ID	00001011	0B	02R96
ADDRESS	00100001	22	Remote Time Counter
	0aaaaaaa	aa	0:Transmission request, 0x7F:Transmission stop request
EOX	11110111	F7	End of exclusive

12.3.25 Parameter change (Automix Status)

When transmission is enabled by receiving a Request of Automix status, the Automix Status data is transmitted every second for 10 seconds. When you want to transmit the Automix Status information continuously, the Request must be transmitted continuously minimum within 10 seconds interval. The data is transmitted continuously while the transmission is enabled, even when the Automix Status on the 02R96 has been changed.

Reception

This is echoed if [Parameter change ECHO] is ON.

Transmission

When the transmission is set to enable by receiving a Request. The Automix Status data is transmitted on the [Rx CH] channel every second for 10 seconds. The data is transmitted continuously while the transmission is enabled, even when the Automix Status on the 02R96 has been changed.
Transmission will be disabled if the power is turned off and on again, or if the PORT setting is changed.
If [Parameter Change ECHO] is ON, this message is retransmitted without change.

STATUS	11110000	F0	System exclusive message
ID No.	01000011	43	Manufacture's ID number (YAMAHA)
SUB STATUS	0001nnnn	1n	n=0-15 (Device number=MIDI Channel)
GROUP ID	00111110	3E	MODEL ID (digital mixer)
MODEL ID	00001011	0B	02R96
ADDRESS	00100011	23	Automix Status
	00000000	00	
DATA	0000dddd	0d	Automix Status H
	0000dddd	0d	Automix Status L
EOX	11110111	F7	End of exclusive

12.3.26 Parameter request (Automix Status)

Reception

This is received if [Parameter change RX] is ON and the [Rx CH] matches the device number included in the SUB STATUS.
This is echoed if [Parameter change ECHO] is ON.
When the data is received, the Automix Status data is transmitted on the [Rx CH] every second for 10 seconds.
When the second byte of Address is received on 0x7F, data transmission will be halted immediately (disable).

Transmission

If [Parameter Change ECHO] is ON, this message is retransmitted without change.

STATUS	11110000	F0	System exclusive message
ID No.	01000011	43	Manufacture's ID number (YAMAHA)
SUB STATUS	0011nnnn	3n	n=0-15 (Device number=MIDI Channel)
GROUP ID	00111110	3E	MODEL ID (digital mixer)
MODEL ID	00001011	0B	02R96
ADDRESS	00100011	23	Automix Status
	0aaaaaaa	aa	0:Transmission request, 0x7F:Transmission stop request
EOX	11110111	F7	End of exclusive

YAMAHA [Digital Mixing Console-Internal Parameters] Date: 20 Mar. 2002

Model: 02R96

MIDI Implementation Chart

Version: 1.0

Function...		Transmitted	Recognized	Remarks
Basic Channel	Default Changed	1–16 1–16	1–16 1–16	Memorized
Mode	Default Messages Altered	X X **********	OMNI off/OMNI on X X	Memorized
Note Number	True Voice	X **********	0–127 X	
Velocity	Note On Note Off	X X	O O	Effect Control
After	Key's Ch's	X X	X X	
Pitch Bend		X	X	
Control Change	0-95,102-119	O	O	Assignable
Prog Change	:True#	0–127 **********	0–127 0–99	Assignable
System Exclusive		O	O	*1
System Common	:Song Pos :Song Sel :Tune	X X X	O X X	Automix
System Real Time	:Clock :Commands	X X	O O	Automix, Effect Control
Aux Messages	:Local ON/OFF :All Notes OFF :Active Sense :Reset	X X X X	X X O O	
Notes		MTC quarter frame message is recognized (MTC IN & MIDI IN). *1: Bulk Dump/Request, Parameter Change/Request, and MMC. For MIDI Remote, ALL messages can be transmitted.		

Mode 1: OMNI ON, POLY Mode 2: OMNI ON, MONO O: Yes

Mode 3: OMNI OFF, POLY Mode 4: OMNI OFF, MONO X: No

DIGITAL MIXING CONSOLE

O2R96

PARTS LIST

CONTENTS

OVERALL ASSEMBLY 2
BOTTOM ASSEMBLY 5
REAR ASSEMBLY U 10
CONTROL PANEL ASSEMBLY 13
LCD ASSEMBLY 18
ELECTRICAL PARTS 21

Notes : DESTINATION ABBREVIATIONS

A : Australian model	M : South African model
B : British model	O : Chinese model
C : Canadian model	Q : South-east Asia model
D : German model	T : Taiwan model
E : European model	U : U.S.A. model
F : French model	V : General export model (110V)
H : North European model	W: General export model (220V)
I : Indonesian model	N,X: General export model
J : Japanese model	Y : Export model

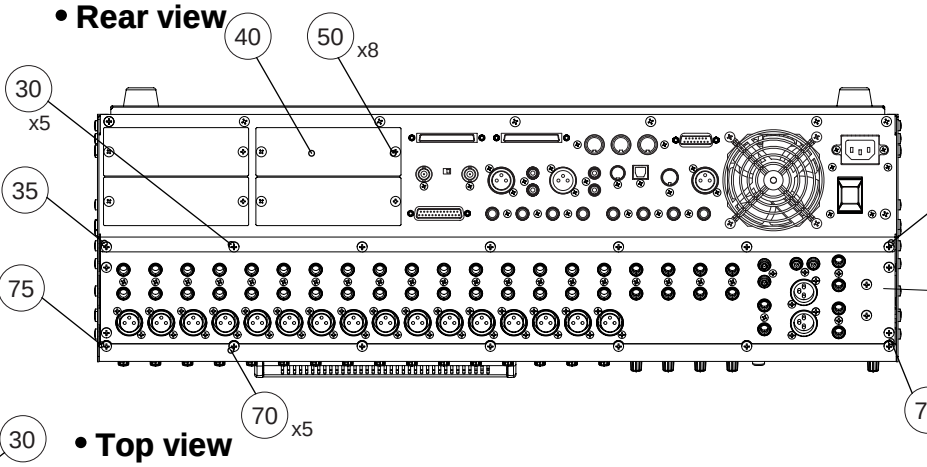
WARNING

Components having special characteristics are marked ⚠ and must be replaced with parts having specification equal to those originally installed.

- The numbers “QTY” show quantities for each unit.
- The parts with “--” in “PART NO.” are not available as spare parts.
- This mark “ } ” in the REMARKS column means these parts are interchangeable.
- The second letter of the shaded ( ) part number is O, not zero.
- The second letter of the shaded ( ) part number is I, not one.

■ OVERALL ASSEMBLY

• Rear view

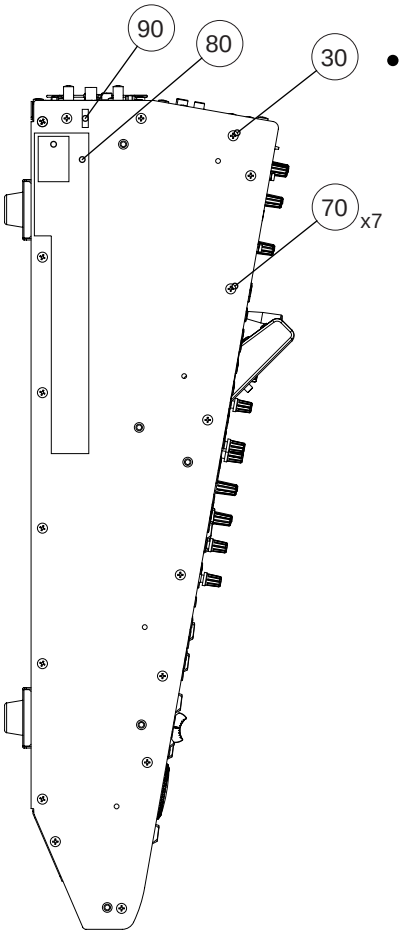


Rear assembly U:
See page 10.

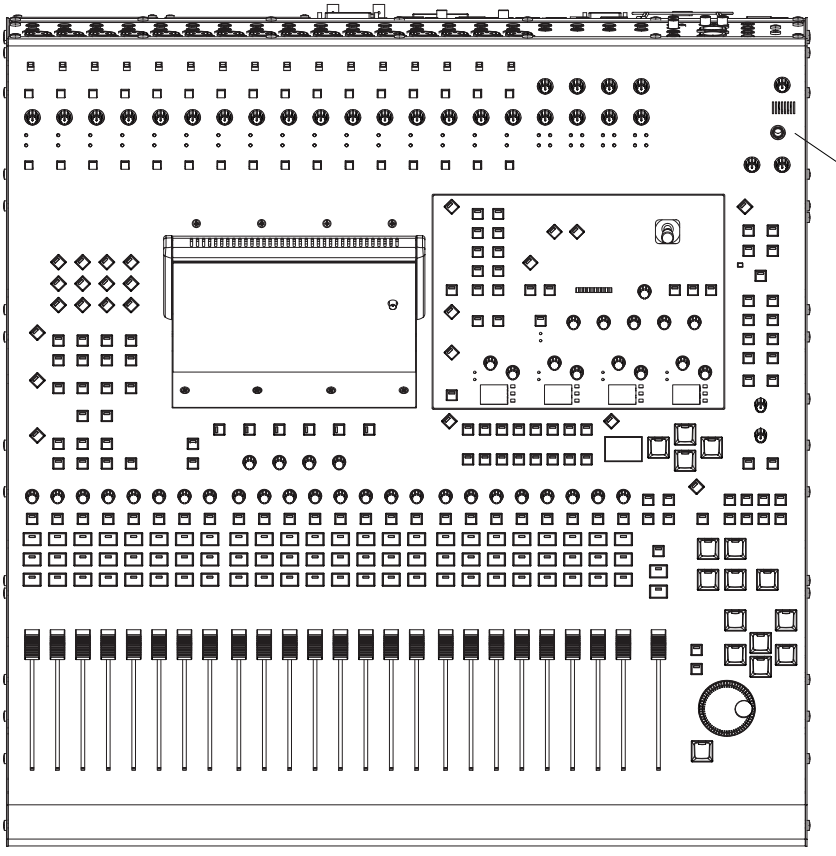
• Left side view

(30, 70: Right side is the same too.)

U.S.A. model only

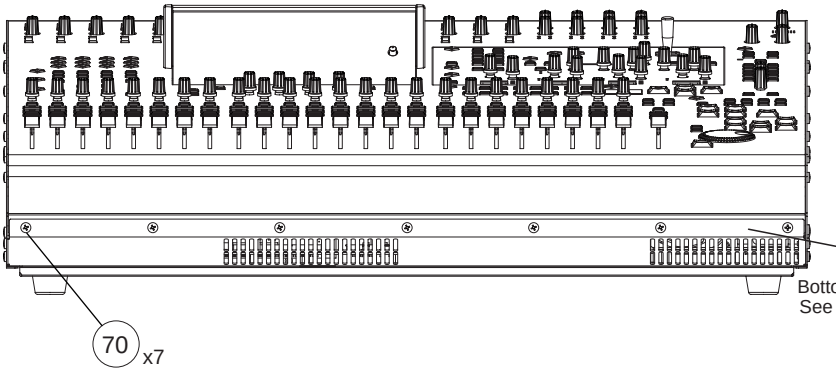


• Top view



Control panel assembly:
See page 13.

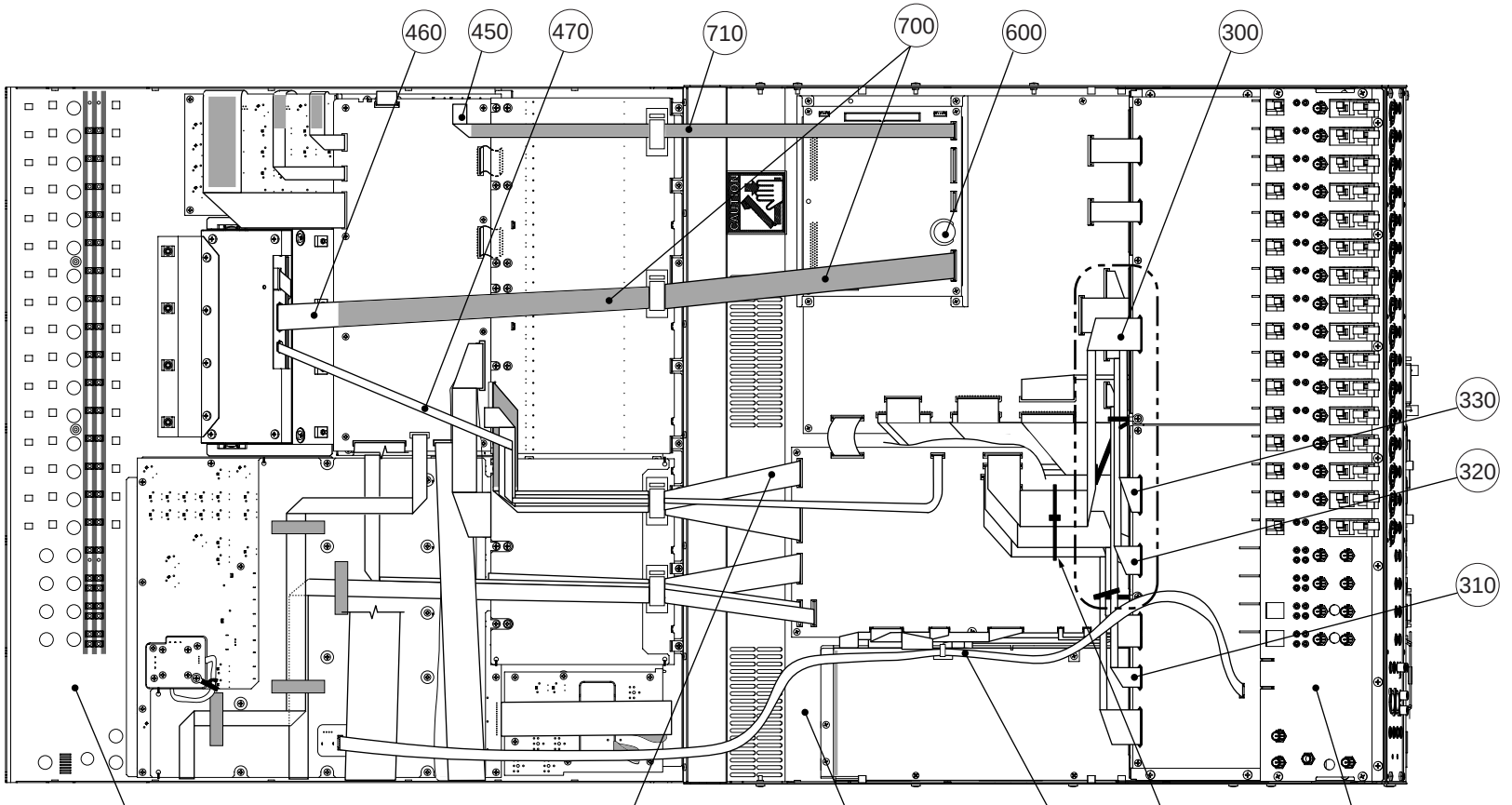
• Front view



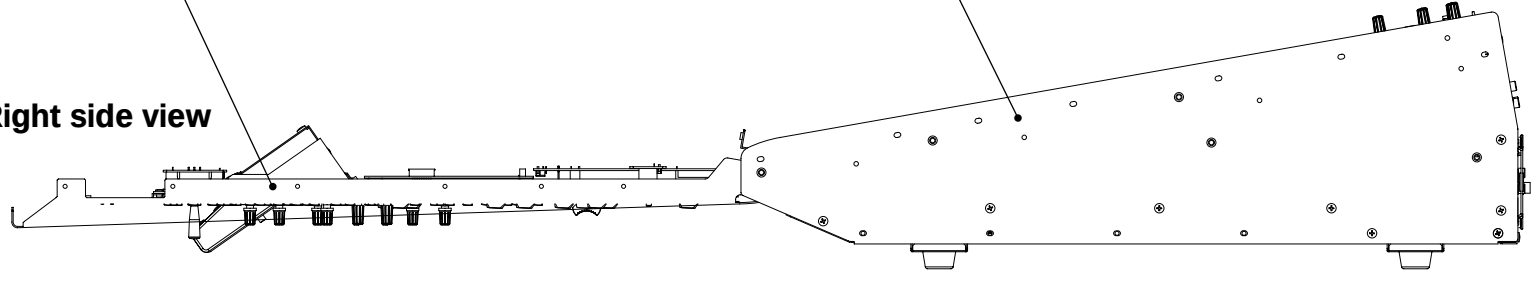
Bottom assembly:
See page 5.

• **Bottom view**

• **Top view**



• **Right side view**



	REF NO.	PART NO.	DESCRIPTION			REMARKS		QTY	RANK
			OVERALL ASSEMBLY			02R96			
		--	Overall Assembly			J	(V781630)		
		--	Overall Assembly			U,V	(V781640)		
		--	Overall Assembly			H,B,W	(V781650)		
		--	Overall Assembly			K	(V980380)		
	10	--	Bottom Assembly				(V781680)		
	20	--	Rear Assembly U	UPPER			(V781700)		
	30	**VC688800**	Bind Head Tapping Screw-B	A4.0X8 MFZN2BL				7	01
	35	**VP156900**	Bind Head Screw	A4.0X12 MFZN2BL				2	01
	40	**VZ678500**	IF Plate					4	05
	50	**VP156900**	Bind Head Screw	A4.0X12 MFZN2BL				8	01
	60	--	Control Panel Assembly				(V781690)		
	70	**VC688800**	Bind Head Tapping Screw-B	A4.0X8 MFZN2BL				26	01
	75	**VP156900**	Bind Head Screw	A4.0X12 MFZN2BL				2	01
	80	--	Label			J	(V868650)		
	80	--	Label			U,V	(V868660)		
	80	--	Label			H,B,W	(V868670)		
	80	--	Label			K	(V980410)		
	90	**VA039300**	Label			U,V			03
*	300	**V8973500**	Jumper Wire	FVP=2.0C26SB16-350					
*	310	**V8973600**	Jumper Wire	FVP=2.0C26SB10-400					
*	320	**V8973700**	Jumper Wire	FVP=2.0C26SB14-330					
*	330	**V8973800**	Jumper Wire	FVP=2.0C26SB17-330					
*	420	**VU073600**	Jumper Wire	FVP=2.0C26SB11-460					
*	450	**V8964500**	Jumper Wire	FVP=2.0C26SB6-550					
*	460	**V8948900**	Jumper Wire	FVP=2.0C26SB12-750					
*	470	**VU143300**	Jumper Wire	FVP=2.0C26SB4-750					
	500	**VT960800**	Connector Assembly	CR LEVEL PH-6P					07
⚠	600	**VN103500**	Lithium Battery	CR2032					03
*	700	**V9105400**	Rubber Sponge Spacer 1					2	
*	710	**V9660300**	Sponge SUB-CPU						
	790	**CB069250**	Cord Holder	BK-1					01
			ACCESSORIES						
		VQ240200	AC Cord Adaptor	KPR-24		J			06
*		**X2407A00**	CD-ROM	CD-R					
⚠		**V5800000**	AC Cord	J 3P 15A		J			09
⚠		**V5068000**	AC Cord	U/C 3P 13A		U,V			09
⚠		**V5067700**	AC Cord	CE 3P 10A		H,W,K			08
⚠		**V6190800**	AC Cord	BS		B			10
			TOOLS						
*		**AAX34450**	Interchange CPU-EXT C.B.			Service part			
		AAX33140	Front Stay Set						15
		AAX33150	Rear Stay Set						11

*: New Parts

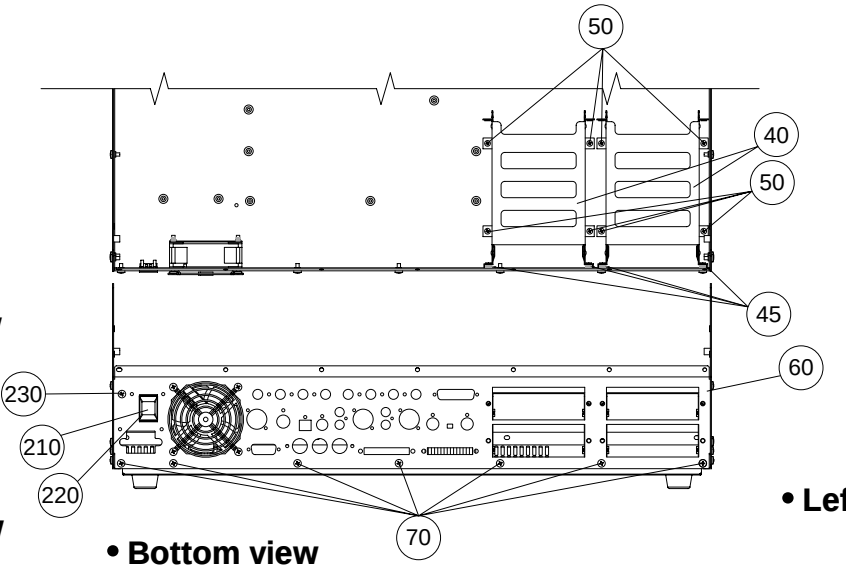
RANK: Japan only

• CPU-EXT Circuit Board

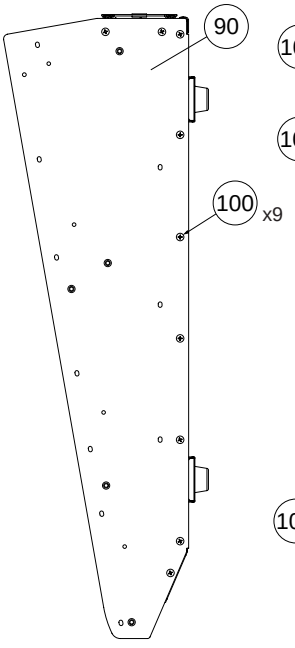
■ BOTTOM ASSEMBLY

• **Top view**

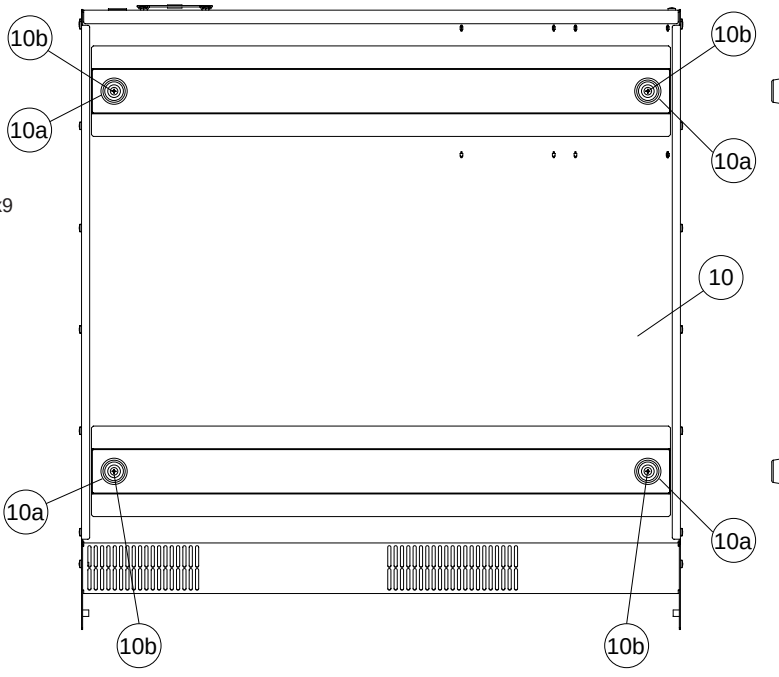
• **Rear view**



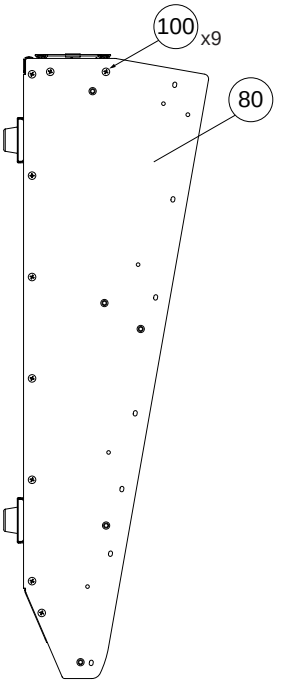
• **Right side view**



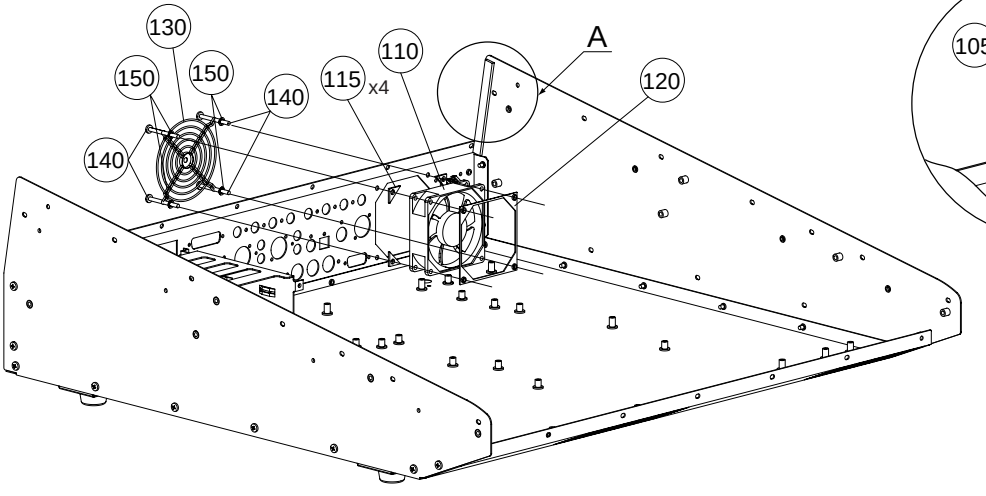
• **Bottom view**

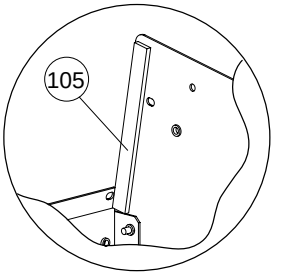


• **Left side view**

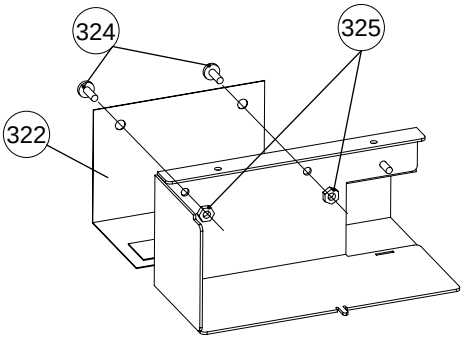


• **Front view**



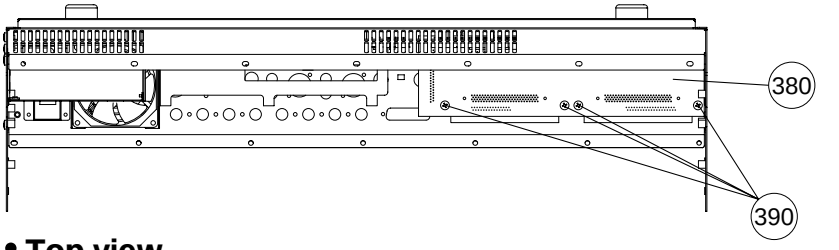


A view

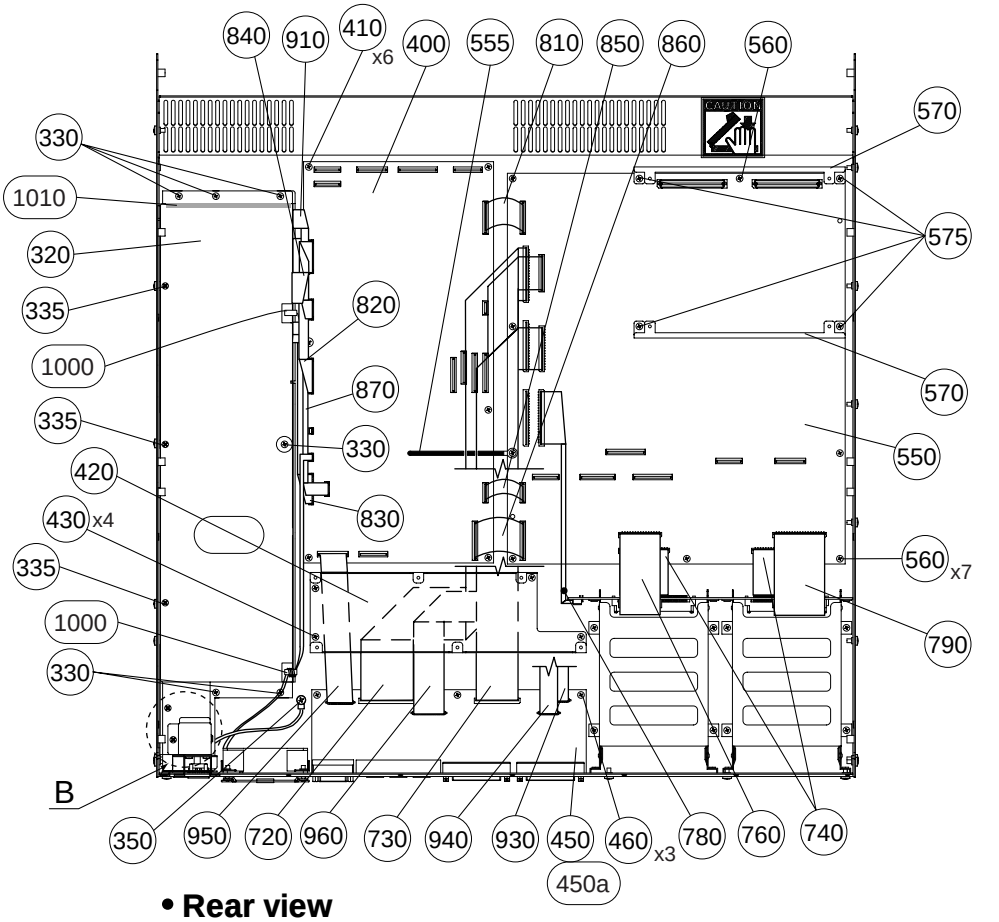


B view

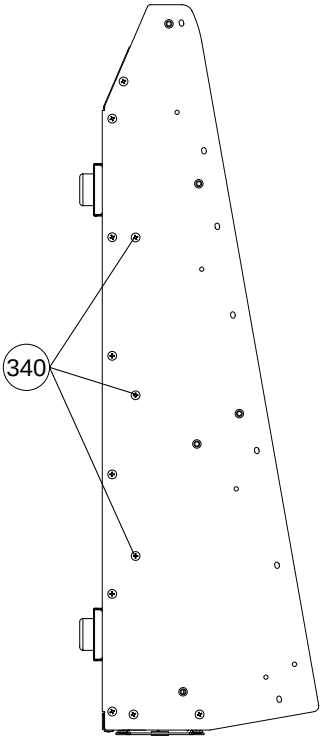
• **Front view**



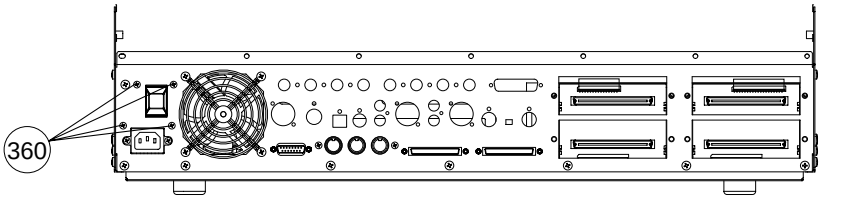
• **Top view**



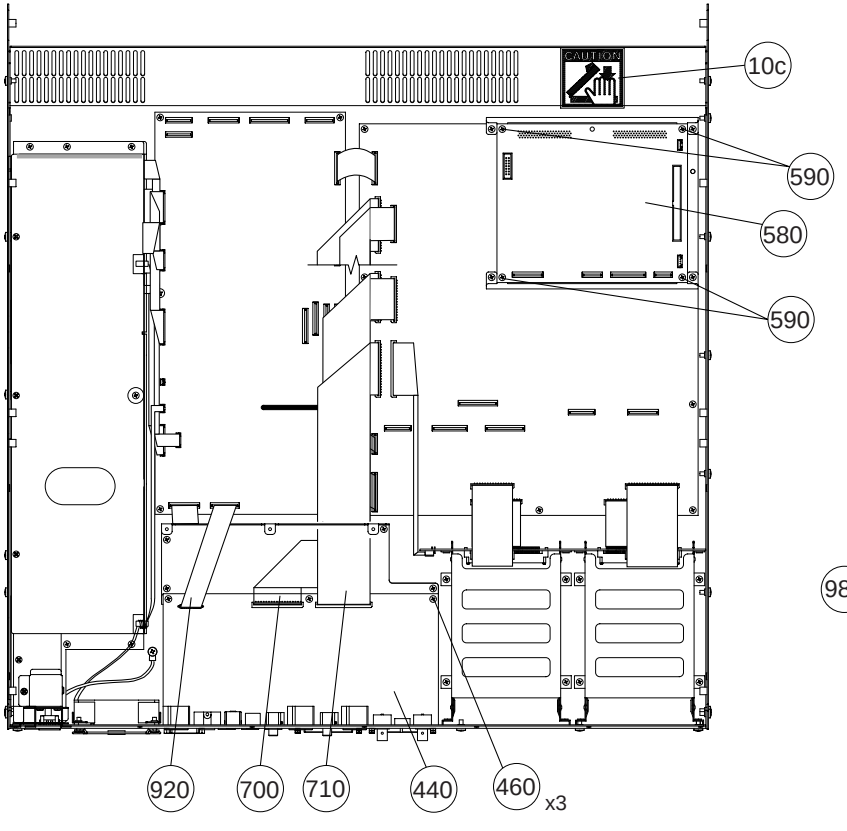
• **Right side view**



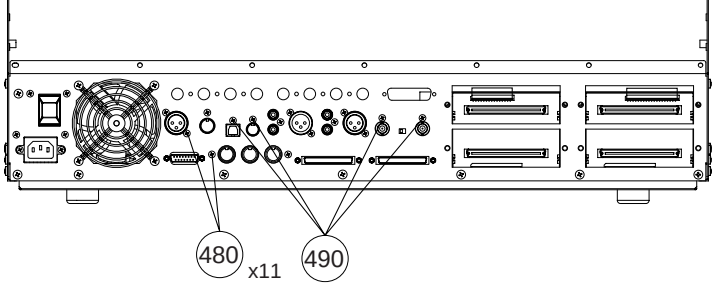
• **Rear view**



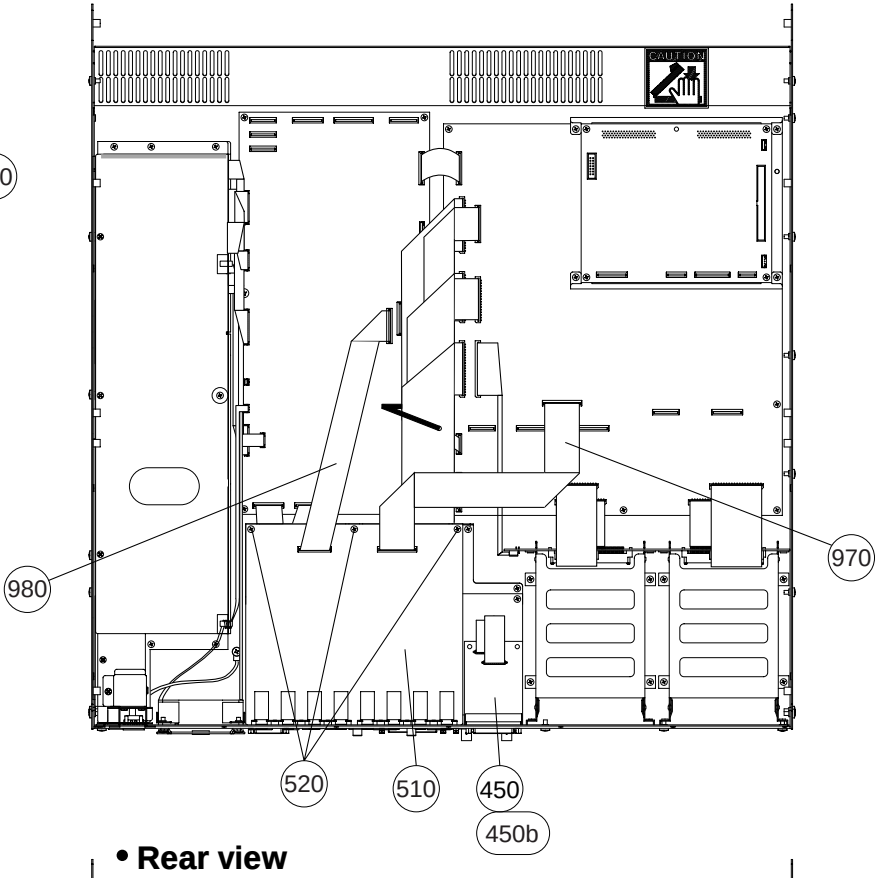
• **Top view**



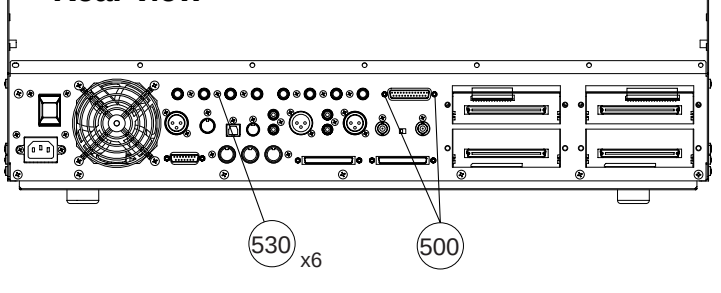
• **Rear view**



• **Top view**



• **Rear view**



	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
		--	BOTTOM ASSEMBLY			02R96 (V781680)		
*	10	**V8681800**	Bottom Chassis					
	10a	**V8991500**	Foot				4	03
	10b	**VR138400**	Bind Head Tapping Screw-B	4.0X12 MFZN2BL			4	01
	10c	--	Caution Label			(VV85650)		
	40	**V8806500**	OPT Angle				2	11
	45	--	Soft Gasket	UC-300282		(V913040)	4	
	50	**EP600190**	Bind Head Tapping Screw-B	3.0X8 MFZN2BL			8	01
*	60	**V8676200**	Rear Panel L	LOWER				
	70	**VC688800**	Bind Head Tapping Screw-B	A4.0X8 MFZN2BL			7	01
*	80	**V8676400**	Side Panel L	LEFT				
*	90	**V8676600**	Side Panel R	RIGHT				
	100	**VC688800**	Bind Head Tapping Screw-B	A4.0X8 MFZN2BL			18	01
*	105	**V9745300**	Rubber Sponge Side Panel	10X100 T=3			2	
	110	**V8628200**	Motor	DC KDE1208PTS3-6		Fan		09
*	115	**V9745200**	Vibration Absorbing Rubber				4	
	120	**V5107200**	Fan Guide					06
	130	**V8968200**	Fan Guard	FG-08UL-BK				07
	140	**VV413200**	Bind Head Screw	4.0X40 MFZN2BL			4	01
	150	**ET800070**	Toothed Lock Washer-A	4.0 MFZN2BL			4	01
	210	**VL812900**	Power Switch Knob			POWER ON/OFF		03
	220	**VL813000**	Escutcheon, Power Switch					03
	230	**VI693100**	Bind Head Tapping Screw-S	4.0X8 MFZN2BL				01
⚠ *	320	**V8629600**	Power Supply Unit	PS J,UL,CSA				
*	322	**V9695200**	Shield Plate for PW					
	324	**VB659000**	Bind Head Screw	3.0X8 MFZN2BL			2	01
	325	**ES200030**	Hexagonal Nut	#1 3.0 MFZ2BL			2	01
	330	**EP600190**	Bind Head Tapping Screw-B	3.0X8 MFZN2BL			6	01
	335	**VB659000**	Bind Head Screw	3.0X8 MFZN2BL			3	01
	340	**VC688800**	Bind Head Tapping Screw-B	A4.0X8 MFZN2BL			3	01
	350	**VI693100**	Bind Head Tapping Screw-S	4.0X8 MFZN2BL				01
	360	**VP157800**	Bonding Screw	3.0X8 MFZN2BL			4	01
*	380	**V8469100**	Circuit Board	OPT				
	390	**VZ538000**	Bind Head Screw	SP 4.0X8 MFZN2Y			4	
*	400	**V9221600**	Circuit Board	BRG				
	410	**EP600190**	Bind Head Tapping Screw-B	3.0X8 MFZN2BL			6	01
*	420	**V8676900**	Holder	DA-JK				
	430	**EP600190**	Bind Head Tapping Screw-B	3.0X8 MFZN2BL			4	01
*	440	**V8629100**	Circuit Board	JK1 (JKCOM)		(V846900)		
	450	--	Circuit Board	JK2 (JKCOM)		(V862920)		
*	450a	**AAX34460**	Circuit Board	JK2 1/2		(V862920)		
*	450b	**AAX34470**	Circuit Board	JK2 2/2		(V862920)		
	460	**EP600190**	Bind Head Tapping Screw-B	3.0X8 MFZN2BL			6	01
	480	**VN413300**	Bonding Tapping Screw-B	3.0X8 MFZN2BL			11	01
	490	**VP157800**	Bonding Screw	3.0X8 MFZN2BL			4	01
	500	**VS604900**	Hex. Locking Screw	JFS-2.6S-BIW			2	01
*	510	**V9106700**	Circuit Board	DA				
	520	**EP600190**	Bind Head Tapping Screw-B	3.0X8 MFZN2BL			3	01
	530	**VN413300**	Bonding Tapping Screw-B	3.0X8 MFZN2BL			6	01
*	550	**V8468900**	Circuit Board	DSP				
	555	**VJ770600**	Cord Binder	S-126				01
	560	**EP600190**	Bind Head Tapping Screw-B	3.0X8 MFZN2BL			8	01
*	570	**V9048100**	Holder	CPU			2	
	575	**EP600190**	Bind Head Tapping Screw-B	3.0X8 MFZN2BL			4	01
*	580	**V8468800**	Circuit Board	CPU1				
	590	**VB659000**	Bind Head Screw	3.0X8 MFZN2BL			4	01
	700	**MF136450**	Connector Assembly	36P 450mm P=1.25				04
*	710	**MF140300**	Connector Assembly	40P 300mm P=1.25				
	720	**MF140600**	Connector Assembly	40P 600mm P=1.25				05
*	730	**MF132450**	Connector Assembly	32P 450mm P=1.25				
	740	**MF136120**	Connector Assembly	36P 120mm P=1.25			2	02
*	760	**MF130160**	Connector Assembly	30P 160mm P=1.25				
*	780	**MF140300**	Connector Assembly	40P 300mm P=1.25				
*	790	**MF138160**	Connector Assembly	38P 160mm P=1.25				
	810	**VT645600**	Jumper Wire	FVP=2.0C26SB13-70				
*	820	**V2015700**	Jumper Wire	FVP=2.0C26SB16-200				
*	830	**V9468500**	Jumper Wire	FVP=2.0C26SB14-225				
*	840	**V9468300**	Jumper Wire	FVP=2.0C26SB15-190				
	850	**VT645200**	Jumper Wire	FVP=2.0C26SB7-60				
*	860	**V9468200**	Jumper Wire	FVP=2.0C26SB16-70				

*: New Parts

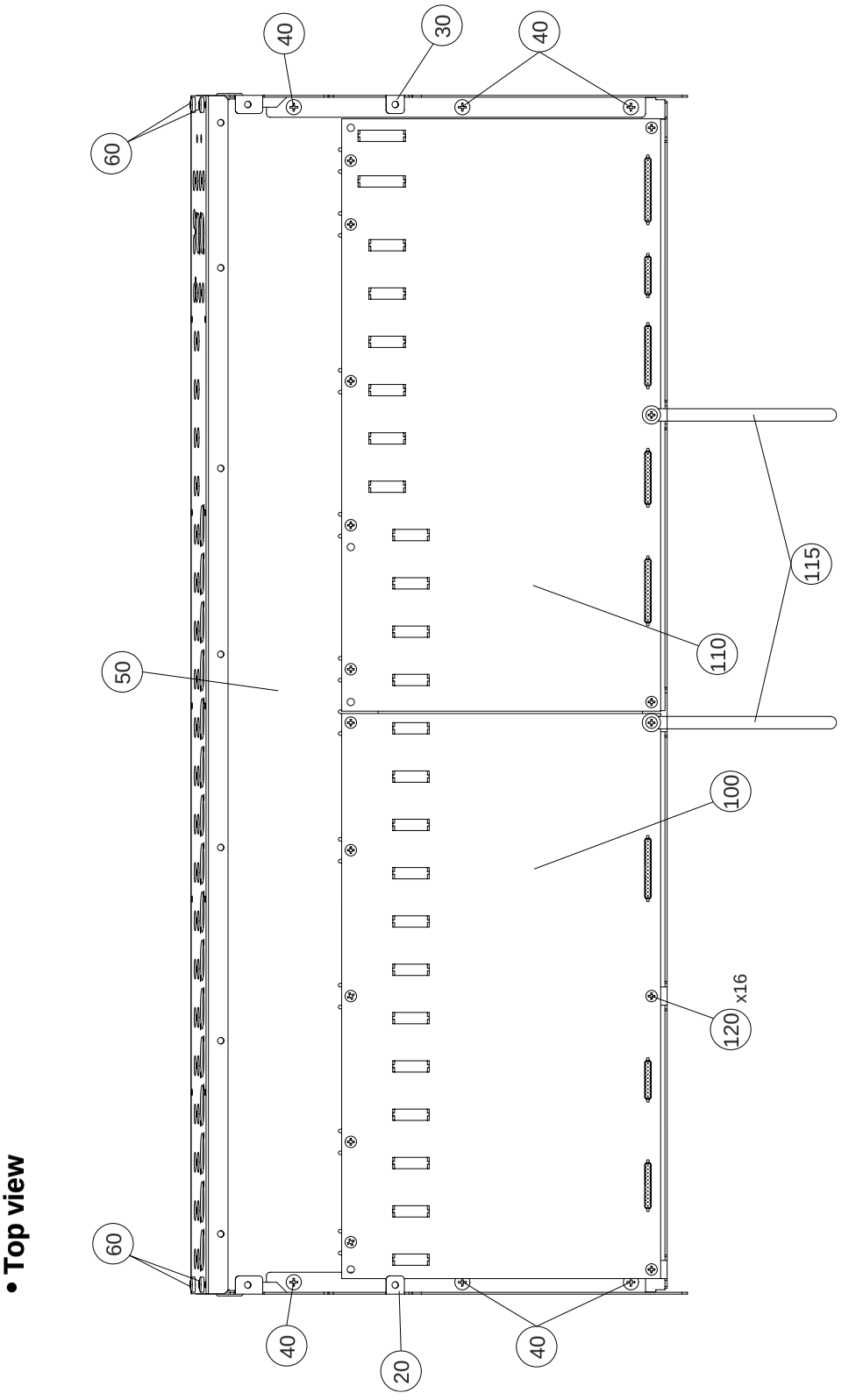
RANK: Japan only

	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
*	870	**VY689800**	Jumper Wire	FVP=2.0C26SB6-250				
*	910	**V9468400**	Jumper Wire	FVP=2.0C26SB9-150				
*	920	**VT644300**	Jumper Wire	FVP=2.0C26SB11-200				
*	930	**V8948700**	Jumper Wire	FVP=2.0C26SB10-200				
*	940	**V8948600**	Jumper Wire	FVP=2.0C26SB9-200				
*	950	**V8948800**	Jumper Wire	FVP=2.0C26SB12-220				
	960	**V2016000**	Jumper Wire	FVP=2.0C26SB15-550				03
*	970	**V8973500**	Jumper Wire	FVP=2.0C26SB16-350				
*	980	**V8973700**	Jumper Wire	FVP=2.0C26SB14-330				
	1000	**CB095100**	Cord Keeper	K-103G			2	01
	1010	**--**	Adhesive Tape	#570F W=19		(CB07714)		

✻: New Parts

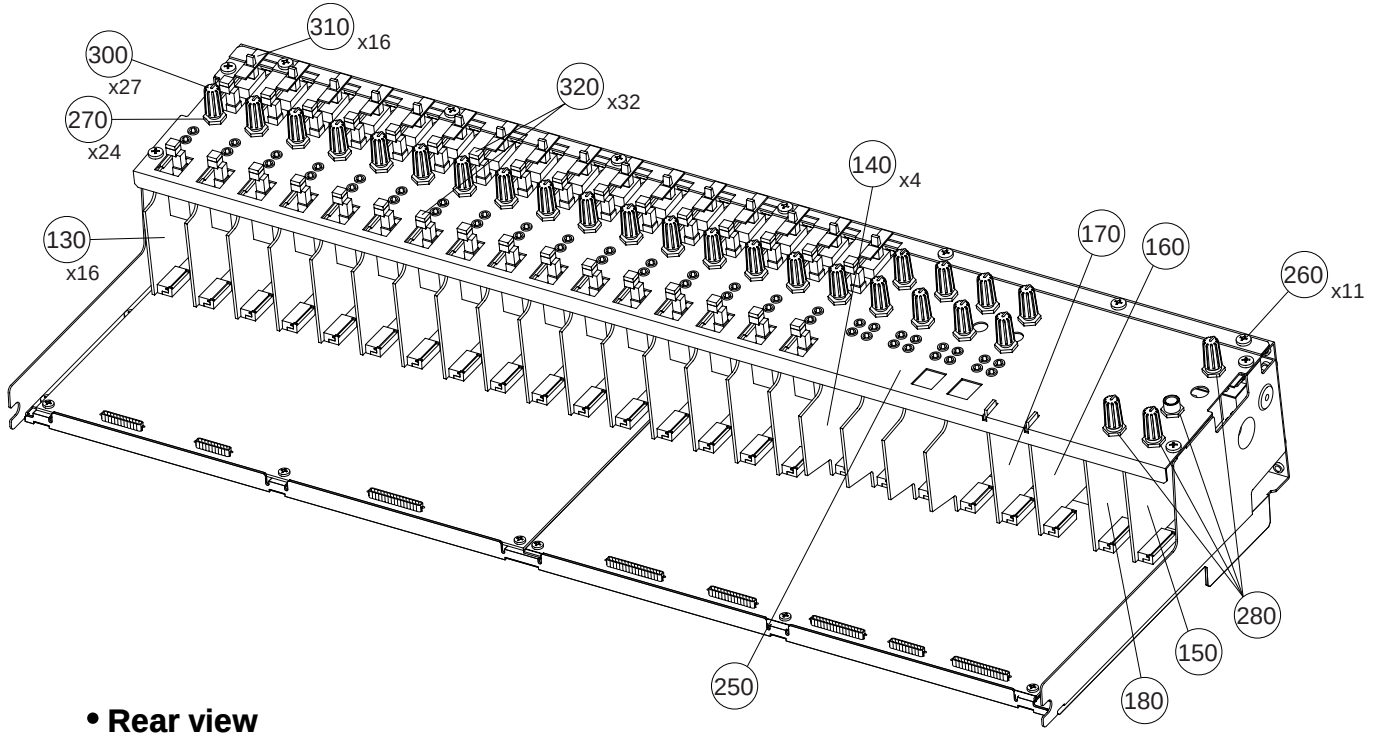
RANK: Japan only

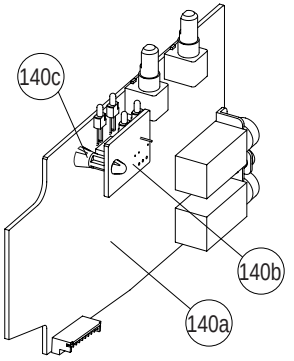
REAR ASSEMBLY U



• Top view

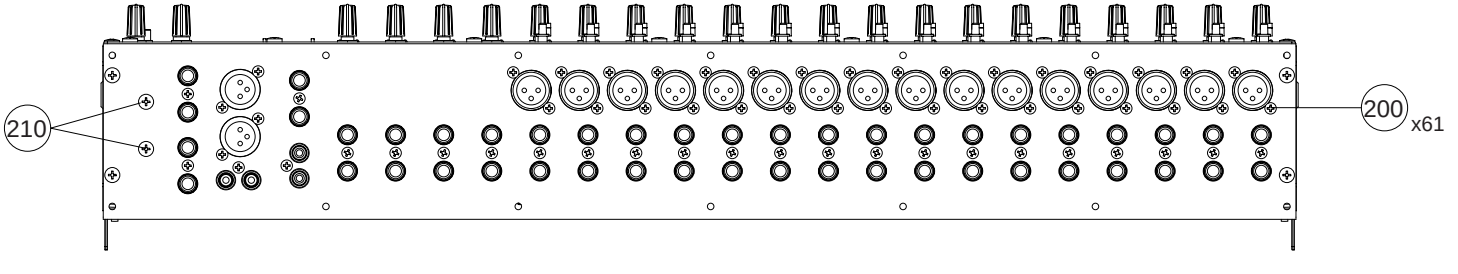
• **Top view**





140 ANI2 assembly

• **Rear view**



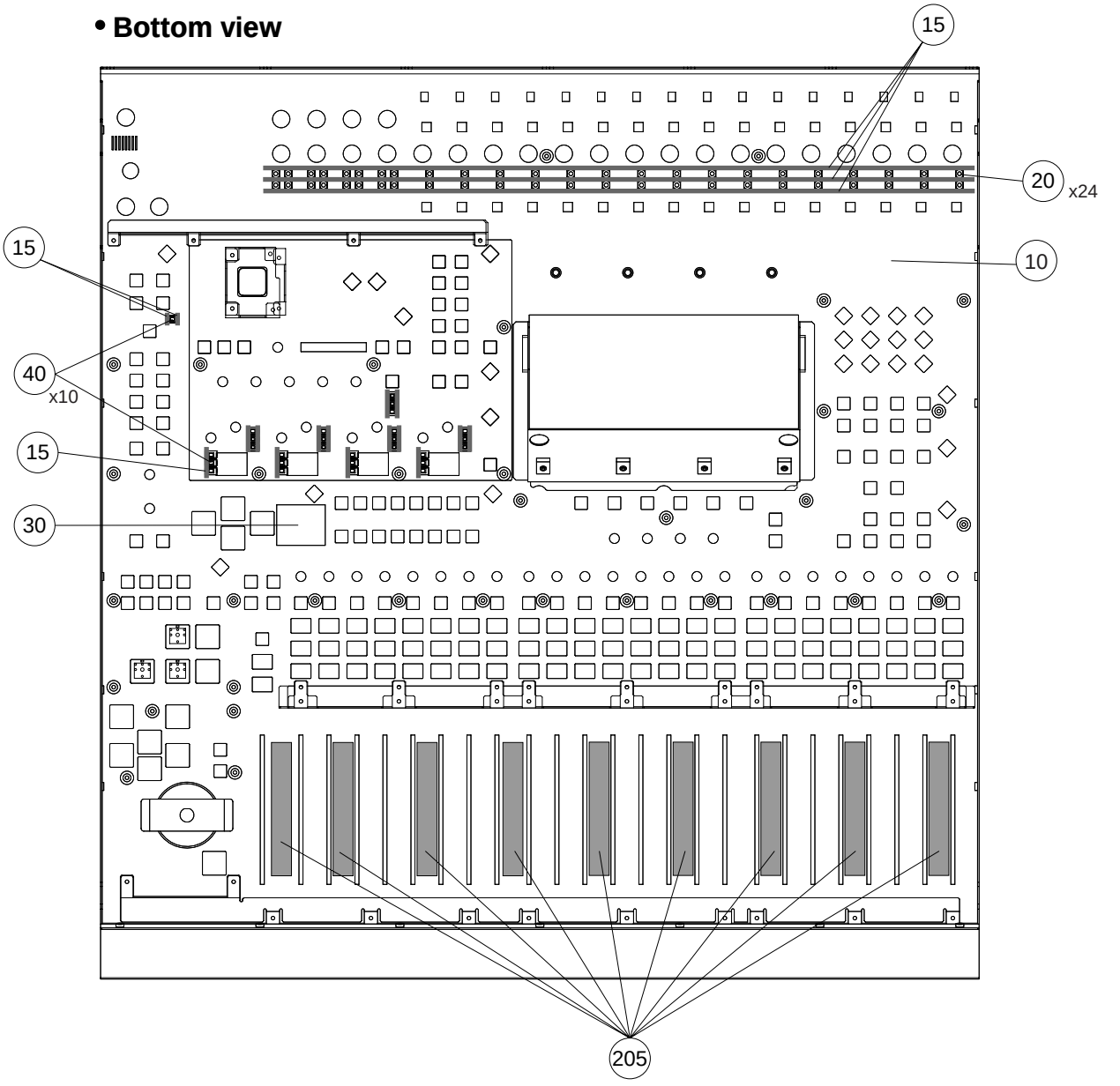
	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
		--	REAR ASSEMBLY U	UPPER		02R96 (V781700)		
*	20	**V7987700**	Shield Plate L	LEFT				
*	30	**V7987800**	Shield Plate R	RIGHT				
	40	**VC688800**	Bind Head Tapping Screw-B	A4.0X8 MFZN2BL			6	01
*	50	**V8678200**	Rear Panel U	UPPER				
	60	**VC688800**	Bind Head Tapping Screw-B	A4.0X8 MFZN2BL			4	01
*	100	**V8630200**	Circuit Board	AD1				
*	110	**V8630300**	Circuit Board	ADA				
	115	**VJ770600**	Cord Binder	S-126			2	01
	120	**EP600250**	Bind Head Tapping Screw-B	3.0X8 MFZN2Y			16	01
*	130	**V8632100**	Circuit Board	ANI1			16	
	140	--	ANI2 Assembly			(V963060)	4	
*	140a	**V8632300**	Circuit Board	ANI2 (ANI2)			4	
*	140b	**V9629200**	Circuit Board	LED (ANI2)			4	
	140c	**VF950800**	Locking Card Spacer	KGLS-12RT			4	01
*	150	**V8632400**	Circuit Board	PHN (2TRCOM)		(V863060)		
*	160	**V8632500**	Circuit Board	ST (2TRCOM)		(V863060)		
*	170	**V8632600**	Circuit Board	2TRI (2TRCOM)		(V863060)		
*	180	**V8911500**	Circuit Board	STD				
	200	**VN413300**	Bonding Tapping Screw-B	3.0X8 MFZN2BL			61	01
	210	**VP156800**	Bind Head Screw	A4.0X8 MFZN2BL			2	01
*	250	**V7987900**	PC Support					
	260	**VC688800**	Bind Head Tapping Screw-B	A4.0X8 MFZN2BL			11	01
	270	**VR991600**	Hexagonal Nut	7.0X11X2 MFZN2BL			24	01
	280	**VJ388000**	Hexagonal Nut	9.0X11X2 MFZN2BL			4	01
	300	**VS085700**	Knob Gray/Dark Gray	S		GAIN 1-24,TALKBACK LEVEL, STUDIO LEVEL,PHONES LEVEL	27	03
	310	**VJ859500**	Slide Knob Red			+48V ON/OFF 1-16	16	05
	320	**VT651400**	Push Button D.Gray/Gray	S		26dB,INSERT ON/OFF (1-16)	32	01

*: New Parts

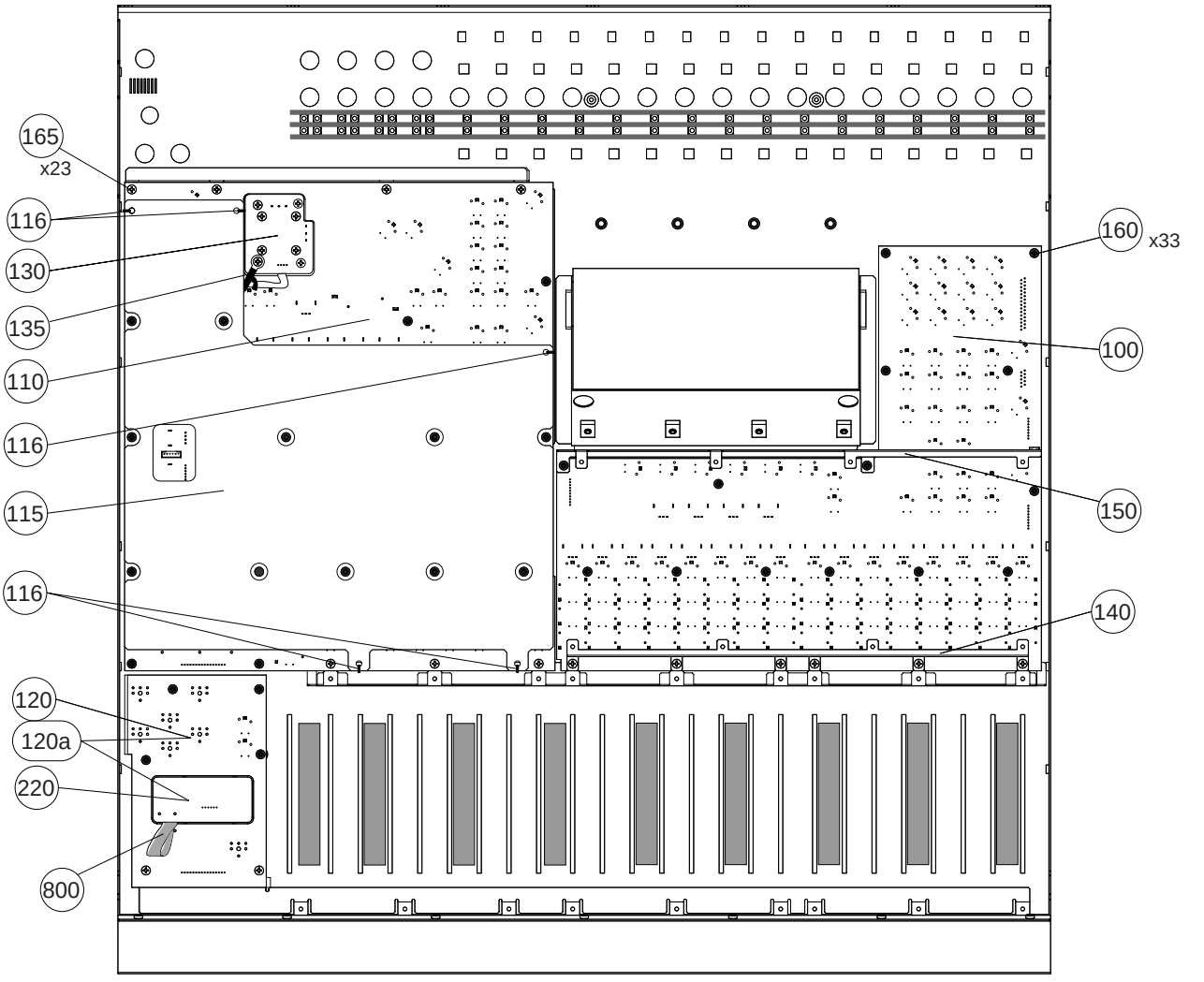
RANK: Japan only

■ CONTROL PANEL ASSEMBLY

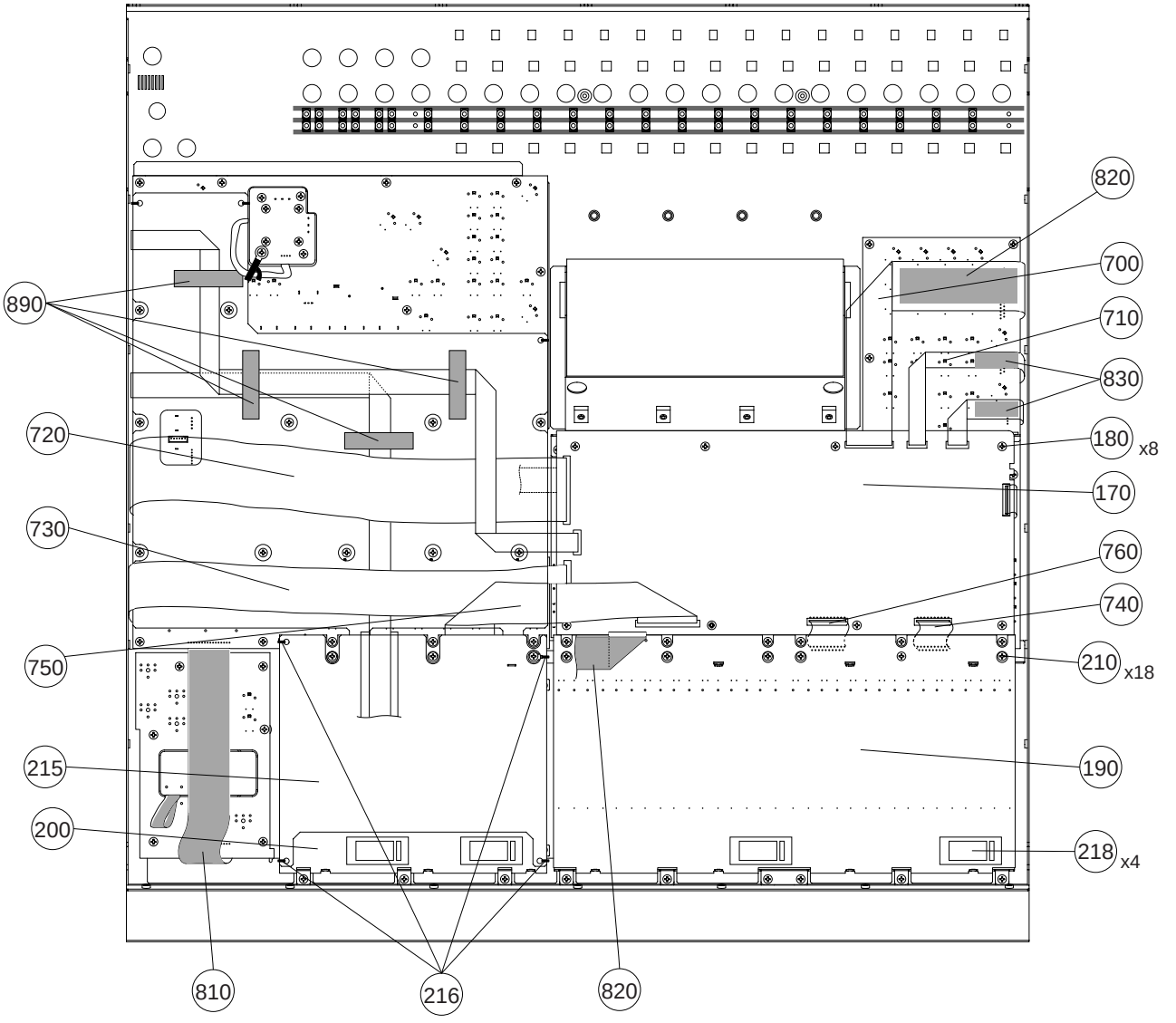
• **Bottom view**



• Bottom view

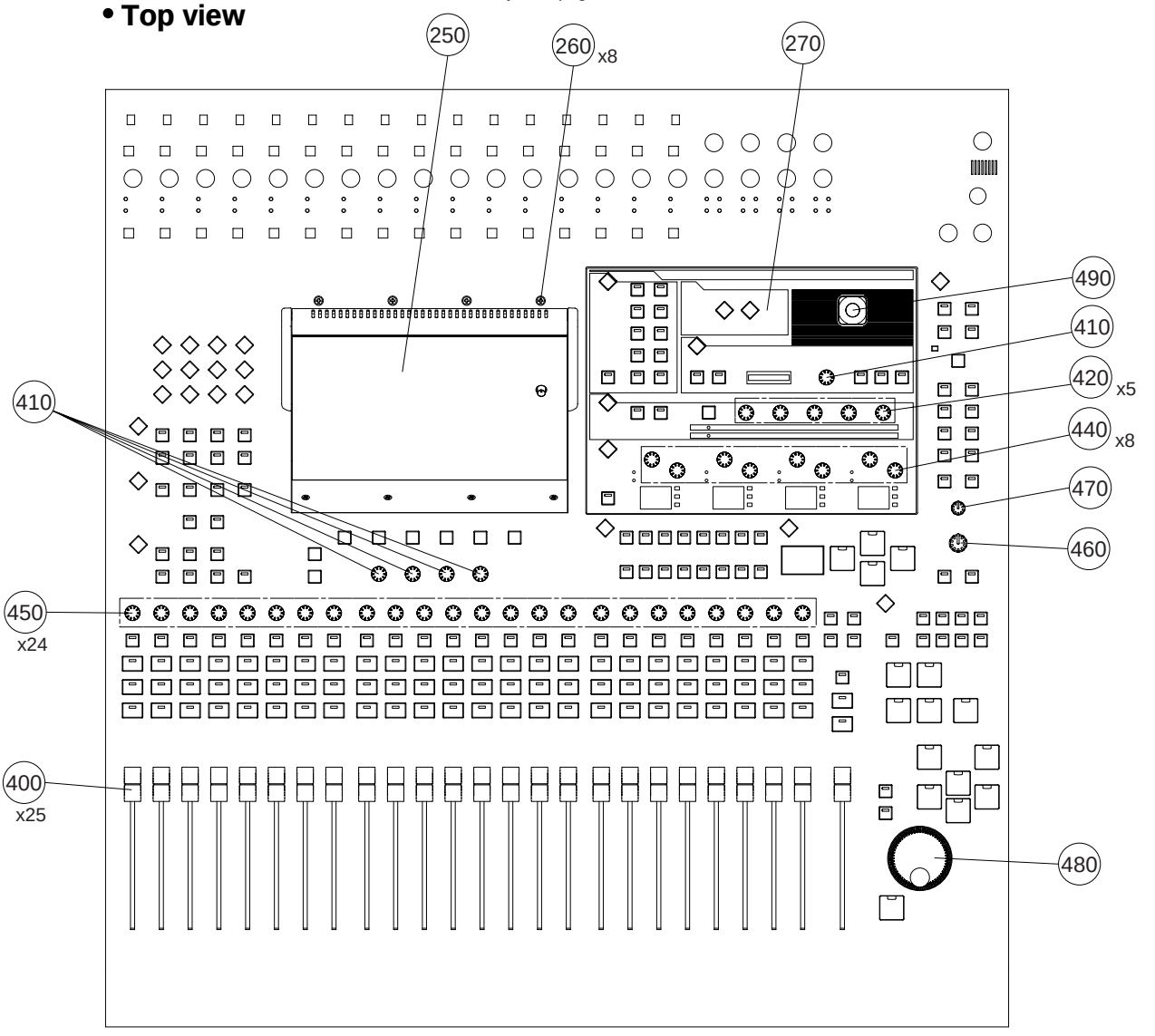

165
x23
116
130
135
110
116
115
116
120
120a
220
800
160
x33
100
150
140

• **Bottom view**


820
700
890
710
830
720
180 x8
170
730
760
740
750
210 x18
215
190
200
218 x4
810
216
820

LCD assembly: See page 18.

• Top view

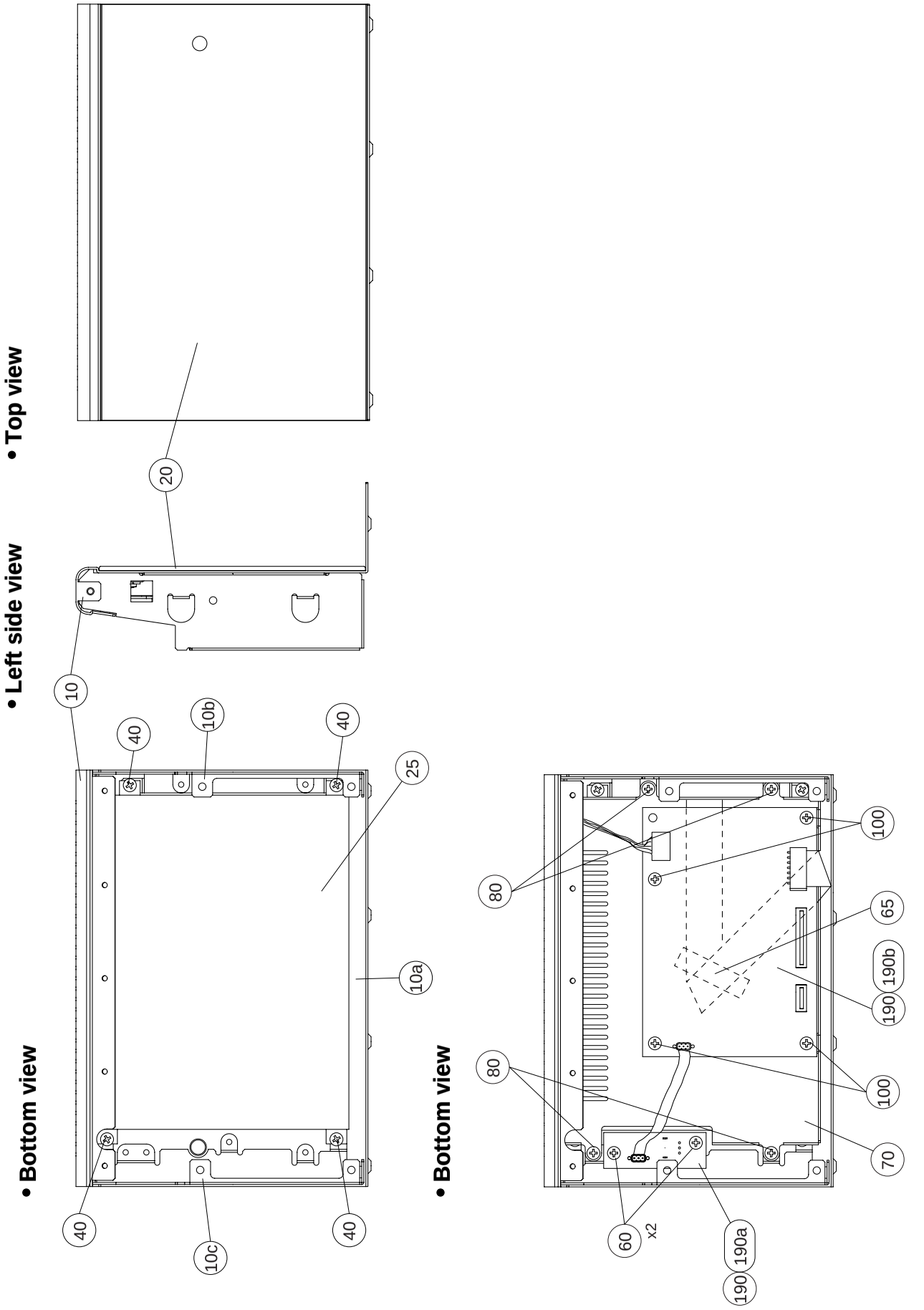


	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
		--	CONTROL PANEL ASSEMBLY			02R96 (V781690)		
*	10	V8677200	Control Panel					
	15	--	Adhesive Tape	W=3		(VE36240)		
	20	V8127000	LED Lens	x2		PEAK 1-24, SIGNAL 1-24	24	02
	30	V6435000	Cover, 7 Seg. LED			SCENE MEMORY		07
	40	V6180000	LED Lens	x3		SOLO,GATE,COMP, FREQUENCY,Q,dB,Hz,kHz	10	02
*	100	V8627500	Circuit Board	PN1 (PN1COM)		(V924550)		
*	110	V8627800	Circuit Board	PN2 (PN2COM)		(V862670)		
*	115	V9396900	Insulating Sheet 02R96			for PN2		
	116	CB069250	Cord Holder	BK-1			5	01
	120	--	Circuit Board	PN3 (PN1COM)		(V862760)		
*	120a	AAX34510	Circuit Board	PN3+PW		(V924550)		
*	130	V8627900	Circuit Board	JS (PN2COM)		(V862670)		
	135	CB040540	Cord Binder	S-72B				01
*	140	V8678000	Holder	SUB1				
*	150	V8678100	Holder	SUB2				
	160	EP600190	Bind Head Tapping Screw-B	3.0X8 MFZN2BL			33	01
	165	EP600190	Bind Head Tapping Screw-B	3.0X8 MFZN2BL			23	01
*	170	V9246300	Circuit Board	SUB (PN1COM)		(V924550)		
	180	EP600190	Bind Head Tapping Screw-B	3.0X8 MFZN2BL			8	01
*	190	V8626900	Circuit Board	FD1				
*	200	V8627000	Circuit Board	FD2				
*	205	V9116000	Rubber Sponge Spacer				9	
	210	EP600190	Bind Head Tapping Screw-B	3.0X8 MFZN2BL			18	01
*	215	V9396900	Insulating Sheet 02R96			for FD2		
	216	CB069250	Cord Holder	BK-1			4	01
	218	--	Cable Clamp	FCN-3010		(V908970)	4	
	220	--	Circuit Board	PW (PN1COM)		(V862770)		
	250	V6428800	LCD Assembly					
	260	EP600790	Flat Head Tapping Screw-B	3.0X8 MFZN2BL			8	01
*	270	V7988500	Sheet					
	400	V7421900	Fader Knob Silver			1-24,STEREO	25	05
	410	V8486000	Encoder Knob Light Gray			EFFECT 1-4,PAN/SURROUND	5	
	420	V8486200	Encoder Knob M_Gray			THRESHOLD,RANGE/RATIO, ATTACK,DECAY/RELEASE, HOLD/GAIN	5	
	440	V8486400	Encoder Knob Green/M_Gray			F/Q,GAIN (LOW,LOW-MID, HIGH-MID,HIGH)	8	
	450	V8486500	Encoder Knob Blue/M_Gray			CH 1-24	24	
	460	VN009700	Knob Black/Light Gray	L		CONTROL ROOM LEVEL		03
	470	VS085700	Knob Gray/Dark Gray	S		SURROUND MONITOR LEVEL		03
	480	VT651700	Encoder Knob			Parameter wheel		02
	490	V6429800	Joy Stick Knob					
*	700	MF130250	Connector Assembly	30P 250mm P=1.25				
	710	MF110160	Connector Assembly	10P 160mm P=1.25				02
*	720	MF138350	Connector Assembly	38P 350mm P=1.25				
*	730	MF128350	Connector Assembly	28P 350mm P=1.25				
*	740	MF119070	Connector Assembly	19P 70mm P=1.25				
*	750	MF136250	Connector Assembly	36P 250mm P=1.25				
*	760	MF121070	Connector Assembly	21P 70mm P=1.25				
*	800	V9660700	Rubber Sponge PN3-PW					
*	810	V9660500	Rubber Sponge PN2-PN3					
*	820	V9660600	Rubber Sponge FD1-BRG				2	
*	830	V9660400	Rubber Sponge PN1-SUB				2	
	890	VA126100	Adhesive Tape	12X50			4	03

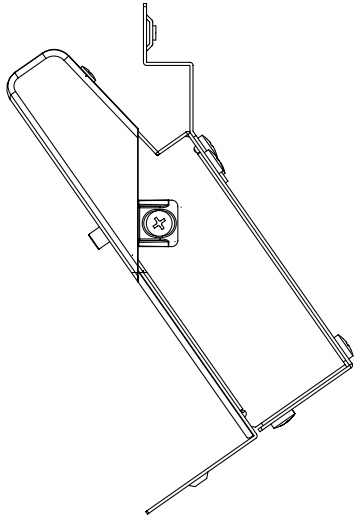
*: New Parts

RANK: Japan only

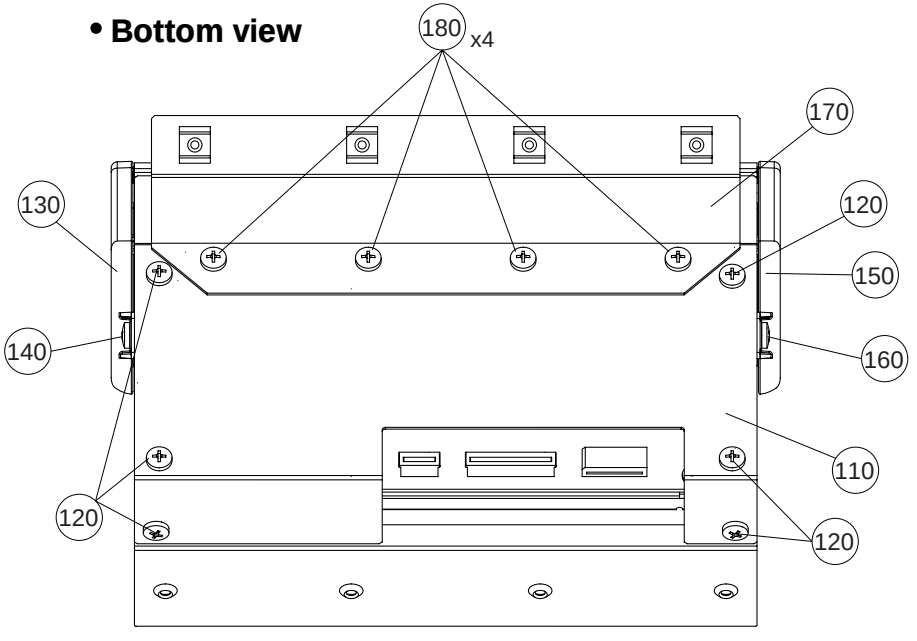
LCD ASSEMBLY



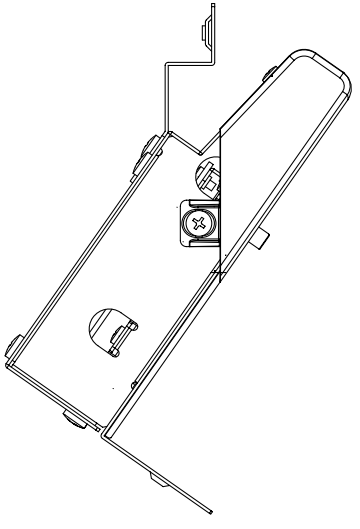
• **Right side view**



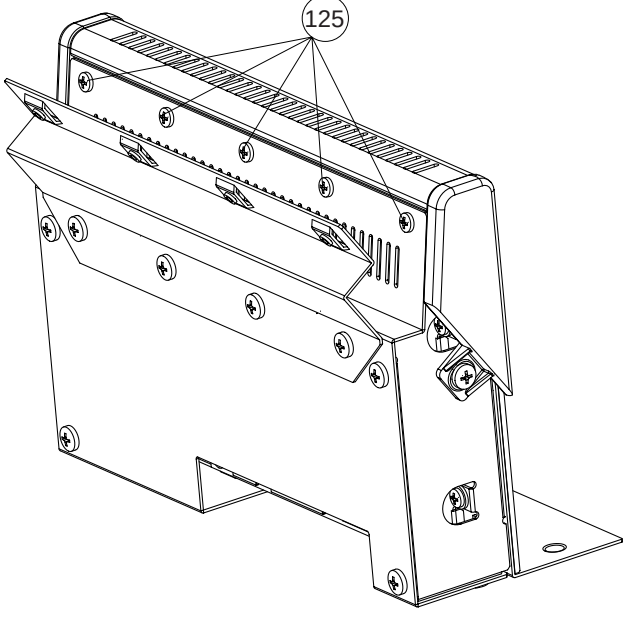
• **Bottom view**



• **Left side view**



• **Bottom view**



REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	V6428800	LCD ASSEMBLY			02R96		
10	**V6437400**	LCD Case Assembly					11
10a	**--**	LCD Case			(V636340)		
10b	**--**	LCD Side Panel L	LEFT		(V643630)		
10c	**--**	LCD Side Panel R	RIGHT		(V643650)		
20	**V6363500**	LCD Cover					13
25	**V5125700**	LCD	EDMMPU3BDF				24
40	**EP600230**	Bind Head Tapping Screw-B	3.0X6 MFZN2BL			4	01
60	**EP600230**	Bind Head Tapping Screw-B	3.0X6 MFZN2BL			2	01
65	**VA126100**	Adhesive Tape	12X50				03
70	**V6363600**	LCD Shield Panel					05
80	**EP600230**	Bind Head Tapping Screw-B	3.0X6 MFZN2BL			4	01
100	**EP600230**	Bind Head Tapping Screw-B	3.0X6 MFZN2BL			4	01
110	**V6363700**	Rear LCD Case					09
120	**VC688800**	Bind Head Tapping Screw-B	A4.0X8 MFZN2BL			6	01
125	**VP157900**	Bind Head Tapping Screw-B	A3.0X6 MFZN2BL			5	01
130	**V6363900**	LCD Pad R					05
140	**EG340190**	Bind Head Tapping Screw-B	4.0X8 MFZN2BL				01
150	**V6363800**	LCD Pad L					05
160	**EG340190**	Bind Head Tapping Screw-B	4.0X8 MFZN2BL				01
170	**V6364000**	LCD Bracket					03
180	**VC688800**	Bind Head Tapping Screw-B	A4.0X8 MFZN2BL			4	01
190	**V8249100**	Circuit Board	DM2 LCDCOM CNT+INV				
190a	**--**	Circuit Board	DM2K CNT (LCDCOM)		(V824910)(V646840)		
190b	**--**	Circuit Board	DM2K INV (LCDCOM)		(V824910)(V646830)		

✻: New Parts

RANK: Japan only

■ ELECTRICAL PARTS

	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
			ELECTRICAL PARTS			02R96		
*		**V8632600**	Circuit Board	2TRI (2TRCOM)		(V863060)(X2067B0)		
*		**V8632400**	Circuit Board	PHN (2TRCOM)		(V863060)(X2067B0)		
*		**V8632500**	Circuit Board	ST (2TRCOM)		(V863060)(X2067B0)		
*		**V8630200**	Circuit Board	AD1		(XZ020B0)		
*		**V8630300**	Circuit Board	ADA		(X2064B0)		
*		**V8632100**	Circuit Board	ANI1		(X2065B0)		
*		**V8632300**	Circuit Board	ANI2 (ANI2)		(V863050)(X2066B0)		
*		**V9629200**	Circuit Board	LED (ANI2)		(V863050)(X2066B0)		
*		**V9221600**	Circuit Board	BRG		(X2062B0)		
*		**V8468800**	Circuit Board	CPU1		(X0383C0)		
*		**V9106700**	Circuit Board	DA		(XZ021C0)		
*		**V8468900**	Circuit Board	DSP		(X2057C0)		
*		**V8626900**	Circuit Board	FD1		(X2053B0)		
*		**V8627000**	Circuit Board	FD2		(X2054B0)		
*		**V8629100**	Circuit Board	JK1 (JKCOM)		(V846900)(X2058B0)		
*		**AAX34460**	Circuit Board	JK2 1/2 (JKCOM)		(V862920)(X2058B0)		
*		**AAX34470**	Circuit Board	JK2 2/2 (JKCOM)		(V862920)(X2058B0)		
		V8249100	Circuit Board	DM2 LCDCOM CNT+INV		(X2160B0)		
		--	Circuit Board	DM2K CNT (LCDCOM)		(V646840)(X2160B0)		
		--	Circuit Board	DM2K INV (LCDCOM)		(V646830)(X2160B0)		
*		**V8469100**	Circuit Board	OPT		(X2060B0)		
*		**V8627500**	Circuit Board	PN1 (PN1COM)		(V924550)(X2050B0)		
*		**AAX34510**	Circuit Board	PN3+PW (PN1COM)		(V862760+V862770), (V924550)(X2050B0)		
*		**V9246300**	Circuit Board	SUB (PN1COM)		(V924550)(X2050B0)		
*		**V8627800**	Circuit Board	PN2 (PN2COM)		(V862670)(X2051B0)		
*		**V8627900**	Circuit Board	JS (PN2COM)		(V862670)(X2051B0)		
*		**V8911500**	Circuit Board	STD		(V863070)(X2068B0)		
*		**V8632600**	Circuit Board	2TRI (2TRCOM)		(V863060)(X2067B0)		
*		**V8632400**	Circuit Board	PHN (2TRCOM)		(V863060)(X2067B0)		
*		**V8632500**	Circuit Board	ST (2TRCOM)		(V863060)(X2067B0)		
		VI474400	Terminal Plate				2	01
		VT960700	Holder, Microphone					05
		V6435400	Holder, Phones	x2				02
		V7539800	Cannon Angle				2	02
		VT572400	Mic. Cushion					01
		VT572500	Mic. Cover					01
	226	**--**	Jumper Wire	0.55		(VA07890)		
	C101	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
	-104	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
	C105	**UU147470**	Electrolytic Cap.	47.00 25.0V				01
	C106	**UU147470**	Electrolytic Cap.	47.00 25.0V				01
	C107	**VF466800**	Ceramic Capacitor-B	100P 50V K				01
	-116	**VF466800**	Ceramic Capacitor-B	100P 50V K				01
	C117	**UU147470**	Electrolytic Cap.	47.00 25.0V				01
	-120	**UU147470**	Electrolytic Cap.	47.00 25.0V				01
	C121	**VT439600**	Monolithic Ceramic Cap.	0.100 50V Z				01
	-124	**VT439600**	Monolithic Ceramic Cap.	0.100 50V Z				01
	C125	**V5829200**	Electrolytic Cap. (chip)	100 20V 20SG100M+T				04
	C126	**V5829200**	Electrolytic Cap. (chip)	100 20V 20SG100M+T				04
	C201	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
	C202	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
	C203	**VF466800**	Ceramic Capacitor-B	100P 50V K				01
	C204	**VF466800**	Ceramic Capacitor-B	100P 50V K				01
	C205	**UU138220**	Electrolytic Cap.	220.00 16.0V				01
	C206	**UU138220**	Electrolytic Cap.	220.00 16.0V				01
	C207	**UR847470**	Electrolytic Cap.	47.00 25.0V				01
	C208	**VJ097400**	Electrolytic Cap.-KL	10.00 50.0V				01
	C209	**VG278400**	Ceramic Capacitor-B	220P 50V K				01
	C210	**UR847470**	Electrolytic Cap.	47.00 25.0V				01
	C211	**VG278400**	Ceramic Capacitor-B	220P 50V K				01
	C212	**VF466700**	Ceramic Capacitor-SL	47P 50V J				01
	C213	**UR847470**	Electrolytic Cap.	47.00 25.0V				01
	C214	**UR847470**	Electrolytic Cap.	47.00 25.0V				01
	C215	**VF466700**	Ceramic Capacitor-SL	47P 50V J				01
	C216	**UR847470**	Electrolytic Cap.	47.00 25.0V				01
	C217	**V5829200**	Electrolytic Cap. (chip)	100 20V 20SG100M+T				04
	C218	**V5829200**	Electrolytic Cap. (chip)	100 20V 20SG100M+T				04

✻: New Parts

RANK: Japan only

REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
C219	**UR847470**	Electrolytic Cap.	47.00 25.0V				01
C220	**UR847470**	Electrolytic Cap.	47.00 25.0V				01
C221	**VT439600**	Monolithic Ceramic Cap.	0.100 50V Z				01
-224	**VT439600**	Monolithic Ceramic Cap.	0.100 50V Z				01
C226	**VT439600**	Monolithic Ceramic Cap.	0.100 50V Z				01
-228	**VT439600**	Monolithic Ceramic Cap.	0.100 50V Z				01
C301	**VG277000**	Ceramic Capacitor-SL	33P 50V J				01
C302	**VG277000**	Ceramic Capacitor-SL	33P 50V J				01
C303	**UU168100**	Electrolytic Cap.	100.00 50.0V				01
C304	**UU168100**	Electrolytic Cap.	100.00 50.0V				01
C305	**VT439600**	Monolithic Ceramic Cap.	0.100 50V Z				01
C306	**VT439600**	Monolithic Ceramic Cap.	0.100 50V Z				01
C307	**UU168100**	Electrolytic Cap.	100.00 50.0V				01
C308	**UU168100**	Electrolytic Cap.	100.00 50.0V				01
C309	**V5829200**	Electrolytic Cap. (chip)	100 20V 20SG100M+T				04
C310	**V5829200**	Electrolytic Cap. (chip)	100 20V 20SG100M+T				04
C401	**VG277000**	Ceramic Capacitor-SL	33P 50V J				01
C402	**VG277000**	Ceramic Capacitor-SL	33P 50V J				01
C403	**UU168100**	Electrolytic Cap.	100.00 50.0V				01
C404	**UU168100**	Electrolytic Cap.	100.00 50.0V				01
C405	**VT439600**	Monolithic Ceramic Cap.	0.100 50V Z				01
C406	**VT439600**	Monolithic Ceramic Cap.	0.100 50V Z				01
C407	**UU168100**	Electrolytic Cap.	100.00 50.0V				01
C408	**UU168100**	Electrolytic Cap.	100.00 50.0V				01
CN101	**VB994900**	Base Post Connector	MQ 9P TE				01
CN201	**VA252400**	Base Post Connector	MQ 12P TE				03
CN202	**VU066300**	Connector Assembly	MIC&SAN 2P				04
	JE000270	Capacitor Microphone	WM-034C		with CN202		03
CN301	**VB994900**	Base Post Connector	MQ 9P TE				01
EM101	**FZ006920**	LC Filter	MTB271KBTBM				01
-106	**FZ006920**	LC Filter	MTB271KBTBM				01
EM107	**FZ006970**	LC Filter	MTY223NBTBM				02
EM108	**FZ006970**	LC Filter	MTY223NBTBM				02
EM201	**FZ007070**	LC Filter	MTX222MBTBM				01
-206	**FZ006970**	LC Filter	MTY223NBTBM				02
EM301	**FZ006920**	LC Filter	MTB271KBTBM				01
-303	**FZ006920**	LC Filter	MTB271KBTBM				01
EM304	**FZ006970**	LC Filter	MTY223NBTBM				02
EM305	**FZ006970**	LC Filter	MTY223NBTBM				02
EM401	**FZ006920**	LC Filter	MTB271KBTBM				01
-403	**FZ006920**	LC Filter	MTB271KBTBM				01
IC101	**XM356A00**	IC	NJM2068L-D		OP AMP		02
IC102	**XM356A00**	IC	NJM2068L-D		OP AMP		02
IC201	**XP844A00**	IC	NJM4556AL		OP AMP		02
IC202	**XM356A00**	IC	NJM2068L-D		OP AMP		02
IC301	**XP844A00**	IC	NJM4556AL		OP AMP		02
IC401	**XP844A00**	IC	NJM4556AL		OP AMP		02
JK101	**VS056300**	Phone Jack	HLJ7001-01		2TR IN ANALOG 1 L		01
JK102	**VS056300**	Phone Jack	HLJ7001-01		2TR IN ANALOG 1 R		01
JK103	**VM725600**	Pin Jack	2P E YKC21-3045		2TR IN ANALOG 2 L/R		02
JK201	**LB302070**	Phone Jack	HLJ0544 STREO		PHONES OUT		03
JK301	**VS133700**	Cannon Connector	NC3MAH		STEREO OUT L (BAL)		04
JK302	**VM725700**	Pin Jack	2P E YKC21-3081		STEREO OUT L/R (UNBAL)		01
JK401	**VS133700**	Cannon Connector	NC3MAH		STEREO OUT R (BAL)		04
K201	**VI474400**	Terminal Plate					01
K202	**VI474400**	Terminal Plate					01
R101	**HF458100**	Carbon Resistor	100.0K 1/4 J				01
-104	**HF458100**	Carbon Resistor	100.0K 1/4 J				01
R105	**HB027270**	Metal Film Resistor	27.0K 1/4 F				01
R106	**HB027270**	Metal Film Resistor	27.0K 1/4 F				01
R107	**HB027160**	Metal Film Resistor	16.0K 1/4 F				01
-110	**HB027160**	Metal Film Resistor	16.0K 1/4 F				01
R111	**HF455220**	Carbon Resistor	220.0 1/4 J				01
R112	**HF455220**	Carbon Resistor	220.0 1/4 J				01
R113	**HB027270**	Metal Film Resistor	27.0K 1/4 F				01
R114	**HB027270**	Metal Film Resistor	27.0K 1/4 F				01
R115	**HF455220**	Carbon Resistor	220.0 1/4 J				01
R116	**HF455220**	Carbon Resistor	220.0 1/4 J				01
R117	**HB027100**	Metal Film Resistor	10.0K 1/4 F				
R118	**HB027100**	Metal Film Resistor	10.0K 1/4 F				

✻: New Parts

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	R119	**HB026820**	Metal Film Resistor	8.2K 1/4 F				01
	R120	**HB026820**	Metal Film Resistor	8.2K 1/4 F				01
	R121	**HB027100**	Metal Film Resistor	10.0K 1/4 F				
	R122	**HB027100**	Metal Film Resistor	10.0K 1/4 F				
	R123	**HB027120**	Metal Film Resistor	12.0K 1/4 F				01
	R124	**HB027120**	Metal Film Resistor	12.0K 1/4 F				01
	R125	**HF454390**	Carbon Resistor	39.0 1/4 J				01
	-128	**HF454390**	Carbon Resistor	39.0 1/4 J				01
	R129	**HF458100**	Carbon Resistor	100.0K 1/4 J				01
	-132	**HF458100**	Carbon Resistor	100.0K 1/4 J				01
	R201	**HB026430**	Metal Film Resistor	4.3K 1/4 F				01
	R202	**HB026430**	Metal Film Resistor	4.3K 1/4 F				01
	R203	**HB026680**	Metal Film Resistor	6.8K 1/4 F				01
	R204	**HB026680**	Metal Film Resistor	6.8K 1/4 F				01
	R205	**HB026240**	Metal Film Resistor	2.4K 1/4 F				01
	R206	**HB026240**	Metal Film Resistor	2.4K 1/4 F				01
	R207	**HB027100**	Metal Film Resistor	10.0K 1/4 F				
	R208	**HB027100**	Metal Film Resistor	10.0K 1/4 F				
	R209	**HF458100**	Carbon Resistor	100.0K 1/4 J				01
	R210	**HF458100**	Carbon Resistor	100.0K 1/4 J				01
	R211	**VC745000**	Metal Oxide Film Resistor	100.0 1W J				01
	R212	**VC745000**	Metal Oxide Film Resistor	100.0 1W J				01
	R213	**HF457100**	Carbon Resistor	10.0K 1/4 J				01
	R214	**HF457100**	Carbon Resistor	10.0K 1/4 J				01
	R215	**HF457150**	Carbon Resistor	15.0K 1/4 J				01
	R216	**HF456220**	Carbon Resistor	2.2K 1/4 J				01
	R217	**HF456220**	Carbon Resistor	2.2K 1/4 J				01
	R218	**HF455220**	Carbon Resistor	220.0 1/4 J				01
	R219	**HF457470**	Carbon Resistor	47.0K 1/4 J				01
	R220	**HF455220**	Carbon Resistor	220.0 1/4 J				01
	R221	**HB025220**	Metal Film Resistor	220.0 1/4 F				01
	R222	**HB027220**	Metal Film Resistor	22.0K 1/4 F				01
	R223	**HF454390**	Carbon Resistor	39.0 1/4 J				01
	R224	**HF457220**	Carbon Resistor	22.0K 1/4 J				01
	R225	**HF455220**	Carbon Resistor	220.0 1/4 J				01
	R226	**HB026470**	Metal Film Resistor	4.7K 1/4 F				01
	R227	**HB027100**	Metal Film Resistor	10.0K 1/4 F				
	R228	**HF454390**	Carbon Resistor	39.0 1/4 J				01
	R229	**HF458100**	Carbon Resistor	100.0K 1/4 J				01
	R303	**HB027100**	Metal Film Resistor	10.0K 1/4 F				
	R304	**HB027100**	Metal Film Resistor	10.0K 1/4 F				
	R305	**HB027110**	Metal Film Resistor	11.0K 1/4 F				01
	R306	**HB027100**	Metal Film Resistor	10.0K 1/4 F				
	R307	**HB027200**	Metal Film Resistor	20.0K 1/4 F				
	R308	**HB027200**	Metal Film Resistor	20.0K 1/4 F				
	R309	**HB027180**	Metal Film Resistor	18.0K 1/4 F				01
	R310	**HB027180**	Metal Film Resistor	18.0K 1/4 F				01
	R311	**HF454750**	Carbon Resistor	75.0 1/4 J				01
	R312	**HF454750**	Carbon Resistor	75.0 1/4 J				01
	R313	**HF458100**	Carbon Resistor	100.0K 1/4 J				01
	R314	**HF458100**	Carbon Resistor	100.0K 1/4 J				01
	R315	**HF457100**	Carbon Resistor	10.0K 1/4 J				01
	R316	**HF457100**	Carbon Resistor	10.0K 1/4 J				01
	R317	**HF454100**	Carbon Resistor	10.0 1/4 J				01
	R318	**HB026150**	Metal Film Resistor	1.5K 1/4 F				01
	R319	**HB026120**	Metal Film Resistor	1.2K 1/4 F				01
	R320	**HF457100**	Carbon Resistor	10.0K 1/4 J				01
*	R321	**HB024820**	Metal Film Resistor	82.0 1/4 F				
	R403	**HB027100**	Metal Film Resistor	10.0K 1/4 F				
	R404	**HB027100**	Metal Film Resistor	10.0K 1/4 F				
	R405	**HB027110**	Metal Film Resistor	11.0K 1/4 F				01
	R406	**HB027100**	Metal Film Resistor	10.0K 1/4 F				
	R407	**HB027200**	Metal Film Resistor	20.0K 1/4 F				
	R408	**HB027200**	Metal Film Resistor	20.0K 1/4 F				
	R409	**HB027180**	Metal Film Resistor	18.0K 1/4 F				01
	R410	**HB027180**	Metal Film Resistor	18.0K 1/4 F				01
	R411	**HF454750**	Carbon Resistor	75.0 1/4 J				01
	R412	**HF454750**	Carbon Resistor	75.0 1/4 J				01
	R413	**HF458100**	Carbon Resistor	100.0K 1/4 J				01
	R414	**HF458100**	Carbon Resistor	100.0K 1/4 J				01

❇: New Parts

RANK: Japan only

	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	R415	**HF457100**	Carbon Resistor	10.0K 1/4 J				01
	R416	**HF457100**	Carbon Resistor	10.0K 1/4 J				01
	R417	**HF454100**	Carbon Resistor	10.0 1/4 J				01
	R418	**HB026150**	Metal Film Resistor	1.5K 1/4 F				01
	R419	**HB026120**	Metal Film Resistor	1.2K 1/4 F				01
	R420	**HF457100**	Carbon Resistor	10.0K 1/4 J				01
*	R421	**HB024820**	Metal Film Resistor	82.0 1/4 F				
	TR201	**VK432900**	Transistor	2SD1915(F) S,T				01
	TR202	**VK432900**	Transistor	2SD1915(F) S,T				01
	TR301	**VK432900**	Transistor	2SD1915(F) S,T				01
	-303	**VK432900**	Transistor	2SD1915(F) S,T				01
	TR401	**VK432900**	Transistor	2SD1915(F) S,T				01
	-403	**VK432900**	Transistor	2SD1915(F) S,T				01
	VR201	**VQ901400**	Rotary Variable Resistor	A20KX2 RK14K12B		PHONES LEVEL		03
	VR202	**V6226000**	Rotary Pot.	A 20K RK11K112		TALKBACK LEVEL		02
*		**V8630200**	Circuit Board	AD1		(XZ020B0)		
	C001	**UR877470**	Electrolytic Cap.	47.00 63.0V				
	C002	**UR848100**	Electrolytic Cap.	100.00 25.0V				01
	C003	**V5829200**	Electrolytic Cap. (chip)	100 20V 20SG100M+T				04
	C004	**V5829200**	Electrolytic Cap. (chip)	100 20V 20SG100M+T				04
	C005	**V5829300**	Electrolytic Cap. (chip)	100 16V 16SG100M+T				04
	C006	**V5829300**	Electrolytic Cap. (chip)	100 16V 16SG100M+T				04
	C007	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	-009	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C010	**V5829200**	Electrolytic Cap. (chip)	100 20V 20SG100M+T				04
	C011	**V5829200**	Electrolytic Cap. (chip)	100 20V 20SG100M+T				04
	C012	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C101	**UU147470**	Electrolytic Cap.	47.00 25.0V				01
	C102	**UU147470**	Electrolytic Cap.	47.00 25.0V				01
	C103	**US062220**	Ceramic Capacitor-SL(chip)	220P 50V J				01
	-106	**US062220**	Ceramic Capacitor-SL(chip)	220P 50V J				01
	C107	**UA353220**	Mylar Capacitor	2200P 50V J				01
	C108	**UA353220**	Mylar Capacitor	2200P 50V J				01
	C109	**UU147220**	Electrolytic Cap.	22.00 25.0V				01
	C110	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C111	**UU147220**	Electrolytic Cap.	22.00 25.0V				01
	C112	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C113	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C114	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
	C115	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
	C116	**US135220**	Ceramic Capacitor-F (chip)	0.2200 16V Z				01
	C117	**US135220**	Ceramic Capacitor-F (chip)	0.2200 16V Z				01
	C118	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C119	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
	C120	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C121	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	-124	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C201	**UU147470**	Electrolytic Cap.	47.00 25.0V				01
	C202	**UU147470**	Electrolytic Cap.	47.00 25.0V				01
	C203	**US062220**	Ceramic Capacitor-SL(chip)	220P 50V J				01
	-206	**US062220**	Ceramic Capacitor-SL(chip)	220P 50V J				01
	C207	**UA353220**	Mylar Capacitor	2200P 50V J				01
	C208	**UA353220**	Mylar Capacitor	2200P 50V J				01
	C209	**UU147220**	Electrolytic Cap.	22.00 25.0V				01
	C210	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C211	**UU147220**	Electrolytic Cap.	22.00 25.0V				01
	C212	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C213	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C214	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
	C215	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
	C216	**US135220**	Ceramic Capacitor-F (chip)	0.2200 16V Z				01
	C217	**US135220**	Ceramic Capacitor-F (chip)	0.2200 16V Z				01
	C218	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C219	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
	C220	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C221	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	-224	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C301	**UU147470**	Electrolytic Cap.	47.00 25.0V				01
	C302	**UU147470**	Electrolytic Cap.	47.00 25.0V				01

*: New Parts

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REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
C303	**US062220**	Ceramic Capacitor-SL(chip)	220P 50V J				01
-306	**US062220**	Ceramic Capacitor-SL(chip)	220P 50V J				01
C307	**UA353220**	Mylar Capacitor	2200P 50V J				01
C308	**UA353220**	Mylar Capacitor	2200P 50V J				01
C309	**UU147220**	Electrolytic Cap.	22.00 25.0V				01
C310	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C311	**UU147220**	Electrolytic Cap.	22.00 25.0V				01
C312	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C313	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C314	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
C315	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
C316	**US135220**	Ceramic Capacitor-F (chip)	0.2200 16V Z				01
C317	**US135220**	Ceramic Capacitor-F (chip)	0.2200 16V Z				01
C318	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C319	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
C320	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C321	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
-324	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C401	**UU147470**	Electrolytic Cap.	47.00 25.0V				01
C402	**UU147470**	Electrolytic Cap.	47.00 25.0V				01
C403	**US062220**	Ceramic Capacitor-SL(chip)	220P 50V J				01
-406	**US062220**	Ceramic Capacitor-SL(chip)	220P 50V J				01
C407	**UA353220**	Mylar Capacitor	2200P 50V J				01
C408	**UA353220**	Mylar Capacitor	2200P 50V J				01
C409	**UU147220**	Electrolytic Cap.	22.00 25.0V				01
C410	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C411	**UU147220**	Electrolytic Cap.	22.00 25.0V				01
C412	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C413	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C414	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
C415	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
C416	**US135220**	Ceramic Capacitor-F (chip)	0.2200 16V Z				01
C417	**US135220**	Ceramic Capacitor-F (chip)	0.2200 16V Z				01
C418	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C419	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
C420	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C421	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
-424	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C501	**UU147470**	Electrolytic Cap.	47.00 25.0V				01
C502	**UU147470**	Electrolytic Cap.	47.00 25.0V				01
C503	**US062220**	Ceramic Capacitor-SL(chip)	220P 50V J				01
-506	**US062220**	Ceramic Capacitor-SL(chip)	220P 50V J				01
C507	**UA353220**	Mylar Capacitor	2200P 50V J				01
C508	**UA353220**	Mylar Capacitor	2200P 50V J				01
C509	**UU147220**	Electrolytic Cap.	22.00 25.0V				01
C510	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C511	**UU147220**	Electrolytic Cap.	22.00 25.0V				01
C512	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C513	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C514	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
C515	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
C516	**US135220**	Ceramic Capacitor-F (chip)	0.2200 16V Z				01
C517	**US135220**	Ceramic Capacitor-F (chip)	0.2200 16V Z				01
C518	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C519	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
C520	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C521	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
-524	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C601	**UU147470**	Electrolytic Cap.	47.00 25.0V				01
C602	**UU147470**	Electrolytic Cap.	47.00 25.0V				01
C603	**US062220**	Ceramic Capacitor-SL(chip)	220P 50V J				01
-606	**US062220**	Ceramic Capacitor-SL(chip)	220P 50V J				01
C607	**UA353220**	Mylar Capacitor	2200P 50V J				01
C608	**UA353220**	Mylar Capacitor	2200P 50V J				01
C609	**UU147220**	Electrolytic Cap.	22.00 25.0V				01
C610	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C611	**UU147220**	Electrolytic Cap.	22.00 25.0V				01
C612	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C613	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C614	**UU167100**	Electrolytic Cap.	10.00 50.0V				01

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	C615	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
	C616	**US135220**	Ceramic Capacitor-F (chip)	0.2200 16V Z				01
	C617	**US135220**	Ceramic Capacitor-F (chip)	0.2200 16V Z				01
	C618	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C619	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
	C620	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C621	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	-624	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	CN001	**VJ861600**	Wire Trap	52147 16P TE				01
	CN002	**VI879000**	Cable Holder	51048 12P TE				01
	CN003	**VI878800**	Cable Holder	51048 10P TE				01
	CN101	**VI378700**	Connector Socket	MQ 9P SE				01
	CN102	**VI378700**	Connector Socket	MQ 9P SE				01
	CN201	**VI378700**	Connector Socket	MQ 9P SE				01
	CN202	**VI378700**	Connector Socket	MQ 9P SE				01
	CN301	**VI378700**	Connector Socket	MQ 9P SE				01
	CN302	**VI378700**	Connector Socket	MQ 9P SE				01
	CN401	**VI378700**	Connector Socket	MQ 9P SE				01
	CN402	**VI378700**	Connector Socket	MQ 9P SE				01
	CN501	**VI378700**	Connector Socket	MQ 9P SE				01
	CN502	**VI378700**	Connector Socket	MQ 9P SE				01
	CN601	**VI378700**	Connector Socket	MQ 9P SE				01
	CN602	**VI378700**	Connector Socket	MQ 9P SE				01
	EM001	**FZ006970**	LC Filter	MTY223NBTBM				02
	-005	**FZ006970**	LC Filter	MTY223NBTBM				02
	IC001	**XS720A00**	IC	TC74HC245AF		TRANSCEIVER		03
	IC002	**XS720A00**	IC	TC74HC245AF		TRANSCEIVER		03
	IC003	**XM182A00**	IC	TC7S04F		INVERTER		01
	IC101	**XF291A00**	IC	UPC4570G2		OP AMP		03
	IC102	**XF291A00**	IC	UPC4570G2		OP AMP		03
	IC103	**XW272A00**	IC	AK5383-VS		ADC		09
	IC201	**XF291A00**	IC	UPC4570G2		OP AMP		03
	IC202	**XF291A00**	IC	UPC4570G2		OP AMP		03
	IC203	**XW272A00**	IC	AK5383-VS		ADC		09
	IC301	**XF291A00**	IC	UPC4570G2		OP AMP		03
	IC302	**XF291A00**	IC	UPC4570G2		OP AMP		03
	IC303	**XW272A00**	IC	AK5383-VS		ADC		09
	IC401	**XF291A00**	IC	UPC4570G2		OP AMP		03
	IC402	**XF291A00**	IC	UPC4570G2		OP AMP		03
	IC403	**XW272A00**	IC	AK5383-VS		ADC		09
	IC501	**XF291A00**	IC	UPC4570G2		OP AMP		03
	IC502	**XF291A00**	IC	UPC4570G2		OP AMP		03
	IC503	**XW272A00**	IC	AK5383-VS		ADC		09
	IC601	**XF291A00**	IC	UPC4570G2		OP AMP		03
	IC602	**XF291A00**	IC	UPC4570G2		OP AMP		03
	IC603	**XW272A00**	IC	AK5383-VS		ADC		09
	J002	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
	L001	**VS740100**	Chip Inductance	BLM21B751S 2125				03
	-011	**VS740100**	Chip Inductance	BLM21B751S 2125				03
	R101	**HF458100**	Carbon Resistor	100.0K 1/4 J				01
	R102	**HF458100**	Carbon Resistor	100.0K 1/4 J				01
	R103	**HB027130**	Metal Film Resistor	13.0K 1/4 F				01
	R104	**HB027130**	Metal Film Resistor	13.0K 1/4 F				01
*	R109	**HB026180**	Metal Film Resistor	1.8K 1/4 F				
*	R110	**HB026180**	Metal Film Resistor	1.8K 1/4 F				
	R111	**HB026220**	Metal Film Resistor	2.2K 1/4 F				01
	-114	**HB026220**	Metal Film Resistor	2.2K 1/4 F				01
	R115	**HB026270**	Metal Film Resistor	2.7K 1/4 F				01
	R116	**HB027110**	Metal Film Resistor	11.0K 1/4 F				01
	R117	**HB026270**	Metal Film Resistor	2.7K 1/4 F				01
	R118	**HF454470**	Carbon Resistor	47.0 1/4 J				01
	-121	**HF454470**	Carbon Resistor	47.0 1/4 J				01
	R122	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
	-127	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
	R128	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
	R129	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
	R201	**HF458100**	Carbon Resistor	100.0K 1/4 J				01
	R202	**HF458100**	Carbon Resistor	100.0K 1/4 J				01
	R203	**HB027130**	Metal Film Resistor	13.0K 1/4 F				01
	R204	**HB027130**	Metal Film Resistor	13.0K 1/4 F				01

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
*	R209	**HB026180**	Metal Film Resistor	1.8K 1/4 F				
*	R210	**HB026180**	Metal Film Resistor	1.8K 1/4 F				
	R211	**HB026220**	Metal Film Resistor	2.2K 1/4 F				01
	-214	**HB026220**	Metal Film Resistor	2.2K 1/4 F				01
	R215	**HB026270**	Metal Film Resistor	2.7K 1/4 F				01
	R216	**HB027110**	Metal Film Resistor	11.0K 1/4 F				01
	R217	**HB026270**	Metal Film Resistor	2.7K 1/4 F				01
	R218	**HF454470**	Carbon Resistor	47.0 1/4 J				01
	-221	**HF454470**	Carbon Resistor	47.0 1/4 J				01
	R222	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
	-227	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
	R228	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
	R229	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
	R301	**HF458100**	Carbon Resistor	100.0K 1/4 J				01
	R302	**HF458100**	Carbon Resistor	100.0K 1/4 J				01
	R303	**HB027130**	Metal Film Resistor	13.0K 1/4 F				01
	R304	**HB027130**	Metal Film Resistor	13.0K 1/4 F				01
*	R309	**HB026180**	Metal Film Resistor	1.8K 1/4 F				
*	R310	**HB026180**	Metal Film Resistor	1.8K 1/4 F				
	R311	**HB026220**	Metal Film Resistor	2.2K 1/4 F				01
	-314	**HB026220**	Metal Film Resistor	2.2K 1/4 F				01
	R315	**HB026270**	Metal Film Resistor	2.7K 1/4 F				01
	R316	**HB027110**	Metal Film Resistor	11.0K 1/4 F				01
	R317	**HB026270**	Metal Film Resistor	2.7K 1/4 F				01
	R318	**HF454470**	Carbon Resistor	47.0 1/4 J				01
	-321	**HF454470**	Carbon Resistor	47.0 1/4 J				01
	R322	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
	-327	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
	R328	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
	R329	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
	R401	**HF458100**	Carbon Resistor	100.0K 1/4 J				01
	R402	**HF458100**	Carbon Resistor	100.0K 1/4 J				01
	R403	**HB027130**	Metal Film Resistor	13.0K 1/4 F				01
	R404	**HB027130**	Metal Film Resistor	13.0K 1/4 F				01
*	R409	**HB026180**	Metal Film Resistor	1.8K 1/4 F				
*	R410	**HB026180**	Metal Film Resistor	1.8K 1/4 F				
	R411	**HB026220**	Metal Film Resistor	2.2K 1/4 F				01
	-414	**HB026220**	Metal Film Resistor	2.2K 1/4 F				01
	R415	**HB026270**	Metal Film Resistor	2.7K 1/4 F				01
	R416	**HB027110**	Metal Film Resistor	11.0K 1/4 F				01
	R417	**HB026270**	Metal Film Resistor	2.7K 1/4 F				01
	R418	**HF454470**	Carbon Resistor	47.0 1/4 J				01
	-421	**HF454470**	Carbon Resistor	47.0 1/4 J				01
	R422	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
	-427	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
	R428	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
	R429	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
	R501	**HF458100**	Carbon Resistor	100.0K 1/4 J				01
	R502	**HF458100**	Carbon Resistor	100.0K 1/4 J				01
	R503	**HB027130**	Metal Film Resistor	13.0K 1/4 F				01
	R504	**HB027130**	Metal Film Resistor	13.0K 1/4 F				01
*	R509	**HB026180**	Metal Film Resistor	1.8K 1/4 F				
*	R510	**HB026180**	Metal Film Resistor	1.8K 1/4 F				
	R511	**HB026220**	Metal Film Resistor	2.2K 1/4 F				01
	-514	**HB026220**	Metal Film Resistor	2.2K 1/4 F				01
	R515	**HB026270**	Metal Film Resistor	2.7K 1/4 F				01
	R516	**HB027110**	Metal Film Resistor	11.0K 1/4 F				01
	R517	**HB026270**	Metal Film Resistor	2.7K 1/4 F				01
	R518	**HF454470**	Carbon Resistor	47.0 1/4 J				01
	-521	**HF454470**	Carbon Resistor	47.0 1/4 J				01
	R522	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
	-527	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
	R528	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
	R529	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
	R601	**HF458100**	Carbon Resistor	100.0K 1/4 J				01
	R602	**HF458100**	Carbon Resistor	100.0K 1/4 J				01
	R603	**HB027130**	Metal Film Resistor	13.0K 1/4 F				01
	R604	**HB027130**	Metal Film Resistor	13.0K 1/4 F				01
*	R609	**HB026180**	Metal Film Resistor	1.8K 1/4 F				
*	R610	**HB026180**	Metal Film Resistor	1.8K 1/4 F				

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	R611	**HB026220**	Metal Film Resistor	2.2K 1/4 F				01
	-614	**HB026220**	Metal Film Resistor	2.2K 1/4 F				01
	R615	**HB026270**	Metal Film Resistor	2.7K 1/4 F				01
	R616	**HB027110**	Metal Film Resistor	11.0K 1/4 F				01
	R617	**HB026270**	Metal Film Resistor	2.7K 1/4 F				01
	R618	**HF454470**	Carbon Resistor	47.0 1/4 J				01
	-621	**HF454470**	Carbon Resistor	47.0 1/4 J				01
	R622	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
	-627	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
	R628	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
	R629	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
	W002	**V8970400**	Jumper Wire	FVP=2.0C26SB12-120				01
	W003	**V8970300**	Jumper Wire	FVP=2.0C26SB10-120				01
*		**V8630300**	Circuit Board	ADA		(X2064B0)		
	C001	**UR877470**	Electrolytic Cap.	47.00 63.0V				
	C002	**UR848100**	Electrolytic Cap.	100.00 25.0V				01
	C003	**V5829200**	Electrolytic Cap. (chip)	100 20V 20SG100M+T				04
	C004	**V5829200**	Electrolytic Cap. (chip)	100 20V 20SG100M+T				04
	C005	**V5829300**	Electrolytic Cap. (chip)	100 16V 16SG100M+T				04
	C006	**V5829300**	Electrolytic Cap. (chip)	100 16V 16SG100M+T				04
	C007	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
	-009	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
	C010	**V5829200**	Electrolytic Cap. (chip)	100 20V 20SG100M+T				04
	C011	**V5829200**	Electrolytic Cap. (chip)	100 20V 20SG100M+T				04
	C012	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
	C014	**UR868100**	Electrolytic Cap.	100.00 50.0V				01
	C015	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
	-017	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
	C101	**UU147470**	Electrolytic Cap.	47.00 25.0V				01
	C102	**UU147470**	Electrolytic Cap.	47.00 25.0V				01
	C103	**UB052220**	Monolithic Ceramic Cap.	SL 220P 50V J				01
	-106	**UB052220**	Monolithic Ceramic Cap.	SL 220P 50V J				01
	C107	**UA353220**	Mylar Capacitor	2200P 50V J				01
	C108	**UA353220**	Mylar Capacitor	2200P 50V J				01
	C109	**UU147220**	Electrolytic Cap.	22.00 25.0V				01
	C110	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
	C111	**UU147220**	Electrolytic Cap.	22.00 25.0V				01
	C112	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
	C113	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
	C114	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
	C115	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
	C116	**UB245220**	Monolithic Ceramic Cap.	F 0.220 25V Z				01
	C117	**UB245220**	Monolithic Ceramic Cap.	F 0.220 25V Z				01
	C118	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
	C119	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
	C120	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
	C121	**UB044100**	Monolithic Ceramic Cap.	F 0.010 50V Z				01
	-124	**UB044100**	Monolithic Ceramic Cap.	F 0.010 50V Z				01
	C151	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
	-154	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
	C155	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
	-159	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
	C160	**UB245220**	Monolithic Ceramic Cap.	F 0.220 25V Z				01
	C161	**UB051330**	Monolithic Ceramic Cap.	SL 33P 50V J				01
	-164	**UB051330**	Monolithic Ceramic Cap.	SL 33P 50V J				01
	C165	**UA353470**	Mylar Capacitor	4700P 50V J				01
	C166	**UA353470**	Mylar Capacitor	4700P 50V J				01
	C167	**UA353160**	Mylar Capacitor	1600P 50V J				
	C168	**UA353160**	Mylar Capacitor	1600P 50V J				
	C169	**UN847470**	Electrolytic Cap.-BP	47.00 25.0V				01
	C170	**UN847470**	Electrolytic Cap.-BP	47.00 25.0V				01
	C171	**UB044100**	Monolithic Ceramic Cap.	F 0.010 50V Z				01
	-174	**UB044100**	Monolithic Ceramic Cap.	F 0.010 50V Z				01
	C201	**UU147470**	Electrolytic Cap.	47.00 25.0V				01
	C202	**UU147470**	Electrolytic Cap.	47.00 25.0V				01
	C203	**UB052220**	Monolithic Ceramic Cap.	SL 220P 50V J				01
	-206	**UB052220**	Monolithic Ceramic Cap.	SL 220P 50V J				01
	C207	**UA353220**	Mylar Capacitor	2200P 50V J				01
	C208	**UA353220**	Mylar Capacitor	2200P 50V J				01

✻: New Parts

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REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
C209	**UU147220**	Electrolytic Cap.	22.00 25.0V				01
C210	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
C211	**UU147220**	Electrolytic Cap.	22.00 25.0V				01
C212	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
C213	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
C214	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
C215	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
C216	**UB245220**	Monolithic Ceramic Cap.	F 0.220 25V Z				01
C217	**UB245220**	Monolithic Ceramic Cap.	F 0.220 25V Z				01
C218	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
C219	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
C220	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
C221	**UB044100**	Monolithic Ceramic Cap.	F 0.010 50V Z				01
-224	**UB044100**	Monolithic Ceramic Cap.	F 0.010 50V Z				01
C251	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
-254	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
C255	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
-259	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
C260	**UB245220**	Monolithic Ceramic Cap.	F 0.220 25V Z				01
C261	**UB051330**	Monolithic Ceramic Cap.	SL 33P 50V J				01
-264	**UB051330**	Monolithic Ceramic Cap.	SL 33P 50V J				01
C265	**UA353470**	Mylar Capacitor	4700P 50V J				01
C266	**UA353470**	Mylar Capacitor	4700P 50V J				01
C267	**UA353160**	Mylar Capacitor	1600P 50V J				
C268	**UA353160**	Mylar Capacitor	1600P 50V J				
C269	**UU147470**	Electrolytic Cap.	47.00 25.0V				01
C270	**UU147470**	Electrolytic Cap.	47.00 25.0V				01
C271	**UB044100**	Monolithic Ceramic Cap.	F 0.010 50V Z				01
-274	**UB044100**	Monolithic Ceramic Cap.	F 0.010 50V Z				01
C301	**UU147470**	Electrolytic Cap.	47.00 25.0V				01
C302	**UU147470**	Electrolytic Cap.	47.00 25.0V				01
C303	**UB052220**	Monolithic Ceramic Cap.	SL 220P 50V J				01
-306	**UB052220**	Monolithic Ceramic Cap.	SL 220P 50V J				01
C307	**UA353220**	Mylar Capacitor	2200P 50V J				01
C308	**UA353220**	Mylar Capacitor	2200P 50V J				01
C309	**UU147220**	Electrolytic Cap.	22.00 25.0V				01
C310	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
C311	**UU147220**	Electrolytic Cap.	22.00 25.0V				01
C312	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
C313	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
C314	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
C315	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
C316	**UB245220**	Monolithic Ceramic Cap.	F 0.220 25V Z				01
C317	**UB245220**	Monolithic Ceramic Cap.	F 0.220 25V Z				01
C318	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
C319	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
C320	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
C321	**UB044100**	Monolithic Ceramic Cap.	F 0.010 50V Z				01
-324	**UB044100**	Monolithic Ceramic Cap.	F 0.010 50V Z				01
C351	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
-354	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
C355	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
-359	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
C360	**UB245220**	Monolithic Ceramic Cap.	F 0.220 25V Z				01
C361	**UB051330**	Monolithic Ceramic Cap.	SL 33P 50V J				01
-364	**UB051330**	Monolithic Ceramic Cap.	SL 33P 50V J				01
C365	**UA353470**	Mylar Capacitor	4700P 50V J				01
C366	**UA353470**	Mylar Capacitor	4700P 50V J				01
C367	**UA353160**	Mylar Capacitor	1600P 50V J				
C368	**UA353160**	Mylar Capacitor	1600P 50V J				
C369	**UU147470**	Electrolytic Cap.	47.00 25.0V				01
C370	**UU147470**	Electrolytic Cap.	47.00 25.0V				01
C371	**UB044100**	Monolithic Ceramic Cap.	F 0.010 50V Z				01
-376	**UB044100**	Monolithic Ceramic Cap.	F 0.010 50V Z				01
C377	**UU147470**	Electrolytic Cap.	47.00 25.0V				01
C378	**UU147470**	Electrolytic Cap.	47.00 25.0V				01
C379	**UB052220**	Monolithic Ceramic Cap.	SL 220P 50V J				01
-382	**UB052220**	Monolithic Ceramic Cap.	SL 220P 50V J				01
C383	**UU147470**	Electrolytic Cap.	47.00 25.0V				01
C384	**UU147470**	Electrolytic Cap.	47.00 25.0V				01

✻: New Parts

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REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
C401	**UU147470**	Electrolytic Cap.	47.00 25.0V				01
C402	**UU147470**	Electrolytic Cap.	47.00 25.0V				01
C403	**UB052220**	Monolithic Ceramic Cap.	SL 220P 50V J				01
-406	**UB052220**	Monolithic Ceramic Cap.	SL 220P 50V J				01
C407	**UA353220**	Mylar Capacitor	2200P 50V J				01
C408	**UA353220**	Mylar Capacitor	2200P 50V J				01
C409	**UU147220**	Electrolytic Cap.	22.00 25.0V				01
C410	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
C411	**UU147220**	Electrolytic Cap.	22.00 25.0V				01
C412	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
C413	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
C414	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
C415	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
C416	**UB245220**	Monolithic Ceramic Cap.	F 0.220 25V Z				01
C417	**UB245220**	Monolithic Ceramic Cap.	F 0.220 25V Z				01
C418	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
C419	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
C420	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
C421	**UB044100**	Monolithic Ceramic Cap.	F 0.010 50V Z				01
-424	**UB044100**	Monolithic Ceramic Cap.	F 0.010 50V Z				01
C451	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
-454	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
C455	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
-459	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
C460	**UB245220**	Monolithic Ceramic Cap.	F 0.220 25V Z				01
C461	**UB051330**	Monolithic Ceramic Cap.	SL 33P 50V J				01
-464	**UB051330**	Monolithic Ceramic Cap.	SL 33P 50V J				01
C465	**UA353470**	Mylar Capacitor	4700P 50V J				01
C466	**UA353470**	Mylar Capacitor	4700P 50V J				01
C467	**UA353160**	Mylar Capacitor	1600P 50V J				
C468	**UA353160**	Mylar Capacitor	1600P 50V J				
C469	**UU147470**	Electrolytic Cap.	47.00 25.0V				01
C470	**UU147470**	Electrolytic Cap.	47.00 25.0V				01
C471	**UB044100**	Monolithic Ceramic Cap.	F 0.010 50V Z				01
-474	**UB044100**	Monolithic Ceramic Cap.	F 0.010 50V Z				01
C501	**UU147470**	Electrolytic Cap.	47.00 25.0V				01
C502	**UU147470**	Electrolytic Cap.	47.00 25.0V				01
C503	**UB052220**	Monolithic Ceramic Cap.	SL 220P 50V J				01
-506	**UB052220**	Monolithic Ceramic Cap.	SL 220P 50V J				01
C507	**UA353220**	Mylar Capacitor	2200P 50V J				01
C508	**UA353220**	Mylar Capacitor	2200P 50V J				01
C509	**UU147220**	Electrolytic Cap.	22.00 25.0V				01
C510	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
C511	**UU147220**	Electrolytic Cap.	22.00 25.0V				01
C512	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
C513	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
C514	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
C515	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
C516	**UB245220**	Monolithic Ceramic Cap.	F 0.220 25V Z				01
C517	**UB245220**	Monolithic Ceramic Cap.	F 0.220 25V Z				01
C518	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
C519	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
C520	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
-524	**UB044100**	Monolithic Ceramic Cap.	F 0.010 50V Z				01
C551	**UU147470**	Electrolytic Cap.	47.00 25.0V				01
C552	**UB052220**	Monolithic Ceramic Cap.	SL 220P 50V J				01
C553	**UB052220**	Monolithic Ceramic Cap.	SL 220P 50V J				01
C554	**UA353220**	Mylar Capacitor	2200P 50V J				01
C555	**UU147220**	Electrolytic Cap.	22.00 25.0V				01
C556	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
C557	**UU147220**	Electrolytic Cap.	22.00 25.0V				01
C558	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
C559	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
C560	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
C561	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
C564	**UB245220**	Monolithic Ceramic Cap.	F 0.220 25V Z				01
C565	**UB245220**	Monolithic Ceramic Cap.	F 0.220 25V Z				01
C566	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
C567	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
C568	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01

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REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
C569	**UB044100**	Monolithic Ceramic Cap.	F 0.010 50V Z				01
C570	**UB044100**	Monolithic Ceramic Cap.	F 0.010 50V Z				01
C601	**UU147470**	Electrolytic Cap.	47.00 25.0V				01
C602	**UU147470**	Electrolytic Cap.	47.00 25.0V				01
C603	**UB052220**	Monolithic Ceramic Cap.	SL 220P 50V J				01
-606	**UB052220**	Monolithic Ceramic Cap.	SL 220P 50V J				01
C607	**UA353220**	Mylar Capacitor	2200P 50V J				01
C608	**UA353220**	Mylar Capacitor	2200P 50V J				01
C609	**UU147220**	Electrolytic Cap.	22.00 25.0V				01
C610	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
C611	**UU147220**	Electrolytic Cap.	22.00 25.0V				01
C612	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
C613	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
C614	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
C615	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
C616	**UB245220**	Monolithic Ceramic Cap.	F 0.220 25V Z				01
C617	**UB245220**	Monolithic Ceramic Cap.	F 0.220 25V Z				01
C618	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
C619	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
C620	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
C621	**UB044100**	Monolithic Ceramic Cap.	F 0.010 50V Z				01
-624	**UB044100**	Monolithic Ceramic Cap.	F 0.010 50V Z				01
C701	**UU147470**	Electrolytic Cap.	47.00 25.0V				01
C702	**UU147470**	Electrolytic Cap.	47.00 25.0V				01
C703	**UB052220**	Monolithic Ceramic Cap.	SL 220P 50V J				01
-706	**UB052220**	Monolithic Ceramic Cap.	SL 220P 50V J				01
C707	**UA353220**	Mylar Capacitor	2200P 50V J				01
C708	**UA353220**	Mylar Capacitor	2200P 50V J				01
C709	**UU147220**	Electrolytic Cap.	22.00 25.0V				01
C710	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
C711	**UU147220**	Electrolytic Cap.	22.00 25.0V				01
C712	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
C713	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
C714	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
C715	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
C716	**UB245220**	Monolithic Ceramic Cap.	F 0.220 25V Z				01
C717	**UB245220**	Monolithic Ceramic Cap.	F 0.220 25V Z				01
C718	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
C719	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
C720	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
C721	**UB044100**	Monolithic Ceramic Cap.	F 0.010 50V Z				01
-724	**UB044100**	Monolithic Ceramic Cap.	F 0.010 50V Z				01
C801	**UU147470**	Electrolytic Cap.	47.00 25.0V				01
C802	**UU147470**	Electrolytic Cap.	47.00 25.0V				01
C803	**UB052220**	Monolithic Ceramic Cap.	SL 220P 50V J				01
-806	**UB052220**	Monolithic Ceramic Cap.	SL 220P 50V J				01
C807	**UA353220**	Mylar Capacitor	2200P 50V J				01
C808	**UA353220**	Mylar Capacitor	2200P 50V J				01
C809	**UU147220**	Electrolytic Cap.	22.00 25.0V				01
C810	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
C811	**UU147220**	Electrolytic Cap.	22.00 25.0V				01
C812	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
C813	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
C814	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
C815	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
C816	**UB245220**	Monolithic Ceramic Cap.	F 0.220 25V Z				01
C817	**UB245220**	Monolithic Ceramic Cap.	F 0.220 25V Z				01
C818	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
C819	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
C820	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
-824	**UB044100**	Monolithic Ceramic Cap.	F 0.010 50V Z				01
CN001	**VI879400**	Cable Holder	51048 16P TE				01
CN002	**VF667700**	Wire Trap	52147 17P TE				01
CN003	**VK025800**	Wire Trap	52147 14P TE				01
CN004	**VF728200**	Wire Trap	52147 10P TE				01
CN005	**VI879100**	Cable Holder	51048 13P TE				01
CN101	**VI378700**	Connector Socket	MQ 9P SE				01
CN102	**VI378700**	Connector Socket	MQ 9P SE				01
CN151	**VI378700**	Connector Socket	MQ 9P SE				01
CN201	**VI378700**	Connector Socket	MQ 9P SE				01

✻: New Parts

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REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
CN202	**VI378700**	Connector Socket	MQ 9P SE				01
CN251	**VI379200**	Connector Socket	MQ 12P SE				02
CN301	**VI378700**	Connector Socket	MQ 9P SE				01
CN351	**VB390200**	Connector Base Post	PH 6P TE				01
CN401	**VI378700**	Connector Socket	MQ 9P SE				01
CN451	**VI379200**	Connector Socket	MQ 12P SE				02
CN501	**VI378700**	Connector Socket	MQ 9P SE				01
CN601	**VI378700**	Connector Socket	MQ 9P SE				01
CN701	**VI378700**	Connector Socket	MQ 9P SE				01
D001	**VF195600**	Diode	11ES4 TA1				01
-004	**VF195600**	Diode	11ES4 TA1				01
EM001	**FZ006970**	LC Filter	MTY223NBTBM				02
-005	**FZ006970**	LC Filter	MTY223NBTBM				02
EM006	**FZ007070**	LC Filter	MTX222MBTBM				01
IC001	**XS720A00**	IC	TC74HC245AF		TRANSCEIVER		03
IC002	**XS720A00**	IC	TC74HC245AF		TRANSCEIVER		03
IC003	**XM182A00**	IC	TC7S04F		INVERTER		01
IC004	**XS720A00**	IC	TC74HC245AF		TRANSCEIVER		03
IC005	**XS720A00**	IC	TC74HC245AF		TRANSCEIVER		03
IC101	**XF291A00**	IC	UPC4570G2		OP AMP		03
IC102	**XF291A00**	IC	UPC4570G2		OP AMP		03
IC103	**XW272A00**	IC	AK5383-VS		ADC		09
IC151	**XW029A00**	IC	AK4393-VF-E2		DAC		07
IC152	**XJ598A00**	IC	NJM78L05UA		REGULATOR +5V		02
IC153	**XF291A00**	IC	UPC4570G2		OP AMP		03
IC154	**XF291A00**	IC	UPC4570G2		OP AMP		03
IC201	**XF291A00**	IC	UPC4570G2		OP AMP		03
IC202	**XF291A00**	IC	UPC4570G2		OP AMP		03
IC203	**XW272A00**	IC	AK5383-VS		ADC		09
IC251	**XW029A00**	IC	AK4393-VF-E2		DAC		07
IC252	**XJ598A00**	IC	NJM78L05UA		REGULATOR +5V		02
IC253	**XF291A00**	IC	UPC4570G2		OP AMP		03
IC254	**XF291A00**	IC	UPC4570G2		OP AMP		03
IC301	**XF291A00**	IC	UPC4570G2		OP AMP		03
IC302	**XF291A00**	IC	UPC4570G2		OP AMP		03
IC303	**XW272A00**	IC	AK5383-VS		ADC		09
IC351	**XW029A00**	IC	AK4393-VF-E2		DAC		07
IC352	**XJ598A00**	IC	NJM78L05UA		REGULATOR +5V		02
IC353	**XF291A00**	IC	UPC4570G2		OP AMP		03
-355	**XF291A00**	IC	UPC4570G2		OP AMP		03
IC401	**XF291A00**	IC	UPC4570G2		OP AMP		03
IC402	**XF291A00**	IC	UPC4570G2		OP AMP		03
IC403	**XW272A00**	IC	AK5383-VS		ADC		09
IC451	**XW029A00**	IC	AK4393-VF-E2		DAC		07
IC452	**XJ598A00**	IC	NJM78L05UA		REGULATOR +5V		02
IC453	**XF291A00**	IC	UPC4570G2		OP AMP		03
IC454	**XF291A00**	IC	UPC4570G2		OP AMP		03
IC501	**XF291A00**	IC	UPC4570G2		OP AMP		03
IC502	**XF291A00**	IC	UPC4570G2		OP AMP		03
IC503	**XW272A00**	IC	AK5383-VS		ADC		09
IC551	**XF291A00**	IC	UPC4570G2		OP AMP		03
IC552	**XW272A00**	IC	AK5383-VS		ADC		09
IC601	**XF291A00**	IC	UPC4570G2		OP AMP		03
IC602	**XF291A00**	IC	UPC4570G2		OP AMP		03
IC603	**XW272A00**	IC	AK5383-VS		ADC		09
IC701	**XF291A00**	IC	UPC4570G2		OP AMP		03
IC702	**XF291A00**	IC	UPC4570G2		OP AMP		03
IC703	**XW272A00**	IC	AK5383-VS		ADC		09
IC801	**XF291A00**	IC	UPC4570G2		OP AMP		03
IC802	**XF291A00**	IC	UPC4570G2		OP AMP		03
IC803	**XW272A00**	IC	AK5383-VS		ADC		09
L001	**VS740100**	Chip Inductance	BLM21B751S 2125				03
-025	**VS740100**	Chip Inductance	BLM21B751S 2125				03
R001	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R002	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
R003	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
-013	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
R014	**RD256100**	Carbon Resistor (chip)	1.0K 0.1 J				01
R015	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R016	**HF456220**	Carbon Resistor	2.2K 1/4 J				01

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RANK: Japan only

	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	R017	**HF456220**	Carbon Resistor	2.2K 1/4 J				01
	R018	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
	R019	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
	R020	**HF457100**	Carbon Resistor	10.0K 1/4 J				01
	R021	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
	R022	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
	R023	**HF456470**	Carbon Resistor	4.7K 1/4 J				01
	R024	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
	R101	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
	R102	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
	R103	**HB027130**	Metal Film Resistor	13.0K 1/4 F				01
	R104	**HB027130**	Metal Film Resistor	13.0K 1/4 F				01
*	R109	**HB026180**	Metal Film Resistor	1.8K 1/4 F				
*	R110	**HB026180**	Metal Film Resistor	1.8K 1/4 F				
	R111	**HB026220**	Metal Film Resistor	2.2K 1/4 F				01
	-114	**HB026220**	Metal Film Resistor	2.2K 1/4 F				01
	R115	**HB026270**	Metal Film Resistor	2.7K 1/4 F				01
	R116	**HB027110**	Metal Film Resistor	11.0K 1/4 F				01
	R117	**HB026270**	Metal Film Resistor	2.7K 1/4 F				01
	R118	**HF454470**	Carbon Resistor	47.0 1/4 J				01
	-121	**HF454470**	Carbon Resistor	47.0 1/4 J				01
	R122	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
	-127	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
	R128	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
	R129	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
	R151	**HB026330**	Metal Film Resistor	3.3K 1/4 F				
	-154	**HB026330**	Metal Film Resistor	3.3K 1/4 F				
	R157	**HB026750**	Metal Film Resistor	7.5K 1/4 F				01
	R158	**HB026750**	Metal Film Resistor	7.5K 1/4 F				01
	R161	**HB026750**	Metal Film Resistor	7.5K 1/4 F				01
	R162	**HB026750**	Metal Film Resistor	7.5K 1/4 F				01
	R163	**HB026100**	Metal Film Resistor	1.0K 1/4 F				01
	-166	**HB026100**	Metal Film Resistor	1.0K 1/4 F				01
	R167	**HF454390**	Carbon Resistor	39.0 1/4 J				01
	R168	**HF454390**	Carbon Resistor	39.0 1/4 J				01
	R169	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
	R170	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
	R201	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
	R202	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
	R203	**HB027130**	Metal Film Resistor	13.0K 1/4 F				01
	R204	**HB027130**	Metal Film Resistor	13.0K 1/4 F				01
*	R209	**HB026180**	Metal Film Resistor	1.8K 1/4 F				
*	R210	**HB026180**	Metal Film Resistor	1.8K 1/4 F				
	R211	**HB026220**	Metal Film Resistor	2.2K 1/4 F				01
	-214	**HB026220**	Metal Film Resistor	2.2K 1/4 F				01
	R215	**HB026270**	Metal Film Resistor	2.7K 1/4 F				01
	R216	**HB027110**	Metal Film Resistor	11.0K 1/4 F				01
	R217	**HB026270**	Metal Film Resistor	2.7K 1/4 F				01
	R218	**HF454470**	Carbon Resistor	47.0 1/4 J				01
	-221	**HF454470**	Carbon Resistor	47.0 1/4 J				01
	R222	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
	-227	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
	R228	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
	R229	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
	R251	**HB026330**	Metal Film Resistor	3.3K 1/4 F				
	-254	**HB026330**	Metal Film Resistor	3.3K 1/4 F				
	R257	**HB026750**	Metal Film Resistor	7.5K 1/4 F				01
	R258	**HB026750**	Metal Film Resistor	7.5K 1/4 F				01
	R261	**HB026750**	Metal Film Resistor	7.5K 1/4 F				01
	R262	**HB026750**	Metal Film Resistor	7.5K 1/4 F				01
	R263	**HB026100**	Metal Film Resistor	1.0K 1/4 F				01
	-266	**HB026100**	Metal Film Resistor	1.0K 1/4 F				01
	R267	**HF454390**	Carbon Resistor	39.0 1/4 J				01
	R268	**HF454390**	Carbon Resistor	39.0 1/4 J				01
	R269	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
	R270	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
	R301	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
	R302	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
	R303	**HB027130**	Metal Film Resistor	13.0K 1/4 F				01
	R304	**HB027130**	Metal Film Resistor	13.0K 1/4 F				01

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
*	R309	**HB026180**	Metal Film Resistor	1.8K 1/4 F				
*	R310	**HB026180**	Metal Film Resistor	1.8K 1/4 F				
	R311	**HB026220**	Metal Film Resistor	2.2K 1/4 F				01
	-314	**HB026220**	Metal Film Resistor	2.2K 1/4 F				01
	R315	**HB026270**	Metal Film Resistor	2.7K 1/4 F				01
	R316	**HB027110**	Metal Film Resistor	11.0K 1/4 F				01
	R317	**HB026270**	Metal Film Resistor	2.7K 1/4 F				01
	R318	**HF454470**	Carbon Resistor	47.0 1/4 J				01
	-321	**HF454470**	Carbon Resistor	47.0 1/4 J				01
	R322	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
	-327	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
	R328	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
	R329	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
	R351	**HB026330**	Metal Film Resistor	3.3K 1/4 F				
	-354	**HB026330**	Metal Film Resistor	3.3K 1/4 F				
	R357	**HB026750**	Metal Film Resistor	7.5K 1/4 F				01
	R358	**HB026750**	Metal Film Resistor	7.5K 1/4 F				01
	R361	**HB026750**	Metal Film Resistor	7.5K 1/4 F				01
	R362	**HB026750**	Metal Film Resistor	7.5K 1/4 F				01
	R363	**HB026100**	Metal Film Resistor	1.0K 1/4 F				01
	-366	**HB026100**	Metal Film Resistor	1.0K 1/4 F				01
	R367	**HF454390**	Carbon Resistor	39.0 1/4 J				01
	R368	**HF454390**	Carbon Resistor	39.0 1/4 J				01
	R369	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
	R370	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
	R371	**HB025470**	Metal Film Resistor	470.0 1/4 F				01
	R372	**HB025470**	Metal Film Resistor	470.0 1/4 F				01
	R373	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
	R374	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
	R377	**HB025470**	Metal Film Resistor	470.0 1/4 F				01
	R378	**HB025470**	Metal Film Resistor	470.0 1/4 F				01
	R379	**HF454390**	Carbon Resistor	39.0 1/4 J				01
	R380	**HF454390**	Carbon Resistor	39.0 1/4 J				01
	R381	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
	R382	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
	R401	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
	R402	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
	R403	**HB027130**	Metal Film Resistor	13.0K 1/4 F				01
	R404	**HB027130**	Metal Film Resistor	13.0K 1/4 F				01
*	R409	**HB026180**	Metal Film Resistor	1.8K 1/4 F				
*	R410	**HB026180**	Metal Film Resistor	1.8K 1/4 F				
	R411	**HB026220**	Metal Film Resistor	2.2K 1/4 F				01
	-414	**HB026220**	Metal Film Resistor	2.2K 1/4 F				01
	R415	**HB026270**	Metal Film Resistor	2.7K 1/4 F				01
	R416	**HB027110**	Metal Film Resistor	11.0K 1/4 F				01
	R417	**HB026270**	Metal Film Resistor	2.7K 1/4 F				01
	R418	**HF454470**	Carbon Resistor	47.0 1/4 J				01
	-421	**HF454470**	Carbon Resistor	47.0 1/4 J				01
	R422	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
	-427	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
	R428	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
	R429	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
	R451	**HB026330**	Metal Film Resistor	3.3K 1/4 F				
	-454	**HB026330**	Metal Film Resistor	3.3K 1/4 F				
	R457	**HB026750**	Metal Film Resistor	7.5K 1/4 F				01
	R458	**HB026750**	Metal Film Resistor	7.5K 1/4 F				01
	R461	**HB026750**	Metal Film Resistor	7.5K 1/4 F				01
	R462	**HB026750**	Metal Film Resistor	7.5K 1/4 F				01
	R463	**HB026100**	Metal Film Resistor	1.0K 1/4 F				01
	-466	**HB026100**	Metal Film Resistor	1.0K 1/4 F				01
	R467	**HF454390**	Carbon Resistor	39.0 1/4 J				01
	R468	**HF454390**	Carbon Resistor	39.0 1/4 J				01
	R469	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
	R470	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
	R501	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
	R502	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
	R503	**HB027130**	Metal Film Resistor	13.0K 1/4 F				01
	R504	**HB027130**	Metal Film Resistor	13.0K 1/4 F				01
*	R509	**HB026180**	Metal Film Resistor	1.8K 1/4 F				
*	R510	**HB026180**	Metal Film Resistor	1.8K 1/4 F				

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	R511	**HB026220**	Metal Film Resistor	2.2K 1/4 F				01
	-514	**HB026220**	Metal Film Resistor	2.2K 1/4 F				01
	R515	**HB026270**	Metal Film Resistor	2.7K 1/4 F				01
	R516	**HB027110**	Metal Film Resistor	11.0K 1/4 F				01
	R517	**HB026270**	Metal Film Resistor	2.7K 1/4 F				01
	R518	**HF454470**	Carbon Resistor	47.0 1/4 J				01
	-521	**HF454470**	Carbon Resistor	47.0 1/4 J				01
	R522	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
	-527	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
	R528	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
	R529	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
	R551	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
	R552	**HB027100**	Metal Film Resistor	10.0K 1/4 F				
	R553	**HB026220**	Metal Film Resistor	2.2K 1/4 F				01
	-555	**HB026220**	Metal Film Resistor	2.2K 1/4 F				01
	R556	**HF454470**	Carbon Resistor	47.0 1/4 J				01
	R557	**HF454470**	Carbon Resistor	47.0 1/4 J				01
	R558	**HB026270**	Metal Film Resistor	2.7K 1/4 F				01
	R559	**HB027110**	Metal Film Resistor	11.0K 1/4 F				01
	R560	**HB026270**	Metal Film Resistor	2.7K 1/4 F				01
	R561	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
	R562	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
	R563	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
	-568	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
	R601	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
	R602	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
	R603	**HB027130**	Metal Film Resistor	13.0K 1/4 F				01
	R604	**HB027130**	Metal Film Resistor	13.0K 1/4 F				01
*	R609	**HB026180**	Metal Film Resistor	1.8K 1/4 F				
*	R610	**HB026180**	Metal Film Resistor	1.8K 1/4 F				
	R611	**HB026220**	Metal Film Resistor	2.2K 1/4 F				01
	-614	**HB026220**	Metal Film Resistor	2.2K 1/4 F				01
	R615	**HB026270**	Metal Film Resistor	2.7K 1/4 F				01
	R616	**HB027110**	Metal Film Resistor	11.0K 1/4 F				01
	R617	**HB026270**	Metal Film Resistor	2.7K 1/4 F				01
	R618	**HF454470**	Carbon Resistor	47.0 1/4 J				01
	-621	**HF454470**	Carbon Resistor	47.0 1/4 J				01
	R622	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
	-627	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
	R628	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
	R629	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
	R701	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
	R702	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
	R703	**HB027100**	Metal Film Resistor	10.0K 1/4 F				
	R704	**HB027100**	Metal Film Resistor	10.0K 1/4 F				
	R709	**HB026220**	Metal Film Resistor	2.2K 1/4 F				01
	-714	**HB026220**	Metal Film Resistor	2.2K 1/4 F				01
	R715	**HB026270**	Metal Film Resistor	2.7K 1/4 F				01
	R716	**HB027110**	Metal Film Resistor	11.0K 1/4 F				01
	R717	**HB026270**	Metal Film Resistor	2.7K 1/4 F				01
	R718	**HF454470**	Carbon Resistor	47.0 1/4 J				01
	-721	**HF454470**	Carbon Resistor	47.0 1/4 J				01
	R722	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
	-727	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
	R728	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
	R729	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
	R801	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
	R802	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
	R803	**HB027100**	Metal Film Resistor	10.0K 1/4 F				
	R804	**HB027100**	Metal Film Resistor	10.0K 1/4 F				
	R809	**HB026220**	Metal Film Resistor	2.2K 1/4 F				01
	-814	**HB026220**	Metal Film Resistor	2.2K 1/4 F				01
	R815	**HB026270**	Metal Film Resistor	2.7K 1/4 F				01
	R816	**HB027110**	Metal Film Resistor	11.0K 1/4 F				01
	R817	**HB026270**	Metal Film Resistor	2.7K 1/4 F				01
	R818	**HF454470**	Carbon Resistor	47.0 1/4 J				01
	-821	**HF454470**	Carbon Resistor	47.0 1/4 J				01
	R822	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
	-827	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
	R828	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	R829	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
	TR001	**VJ927100**	Transistor	2SC2712 Y				01
	TR002	**VJ927100**	Transistor	2SC2712 Y				01
	TR003	**VQ395600**	Transistor	2SA1052 B,C				01
	TR004	**VG013300**	Transistor	2SB1132 82-390				01
*	W001	**V8973500**	Jumper Wire	FVP=2.0C26SB16-350				
*	W005	**V2015800**	Jumper Wire	FVP=2.0C26SB13-460				
*		**V8632100**	Circuit Board	ANI1		(X2065B0)		
		V6435400	Holder, Phones	x2				02
		V7539700	Cannon Angle					02
*		**V9610500**	Earth Film ANI1					
	109	**--**	Jumper Wire	0.55		(VA07890)		
	C100	**UR877470**	Electrolytic Cap.	47.00 63.0V				
	C101	**VJ097400**	Electrolytic Cap.-KL	10.00 50.0V				01
	C102	**VJ097400**	Electrolytic Cap.-KL	10.00 50.0V				01
	C103	**VG278400**	Ceramic Capacitor-B	220P 50V K				01
	C104	**VG278400**	Ceramic Capacitor-B	220P 50V K				01
	C105	**VF467000**	Ceramic Capacitor-B	1000P 50V K				01
	C106	**VF467000**	Ceramic Capacitor-B	1000P 50V K				01
	C107	**UR819100**	Electrolytic Cap.	1000 6.3V				01
	C108	**VF466600**	Ceramic Capacitor-SL	10P 50V J				01
	C109	**VF466600**	Ceramic Capacitor-SL	10P 50V J				01
	C110	**VG278400**	Ceramic Capacitor-B	220P 50V K				01
	C111	**VG276600**	Ceramic Capacitor-SL	22P 50V J				01
	C112	**VG276600**	Ceramic Capacitor-SL	22P 50V J				01
	C113	**UU147470**	Electrolytic Cap.	47.00 25.0V				01
	C114	**UU147470**	Electrolytic Cap.	47.00 25.0V				01
	C115	**UU148100**	Electrolytic Cap.	100.00 25.0V				01
	C116	**UU148100**	Electrolytic Cap.	100.00 25.0V				01
	C126	**VF466600**	Ceramic Capacitor-SL	10P 50V J				01
	C127	**UR867100**	Electrolytic Cap.	10.00 50.0V				01
	C128	**UA654470**	Mylar Capacitor	0.0470 50V J				01
	C129	**UA654470**	Mylar Capacitor	0.0470 50V J				01
	C130	**UR867100**	Electrolytic Cap.	10.00 50.0V				01
	C131	**VT439600**	Monolithic Ceramic Cap.	0.100 50V Z				01
	C132	**VT439600**	Monolithic Ceramic Cap.	0.100 50V Z				01
	C137	**VT439600**	Monolithic Ceramic Cap.	0.100 50V Z				01
	C138	**VT439600**	Monolithic Ceramic Cap.	0.100 50V Z				01
	C140	**UU148100**	Electrolytic Cap.	100.00 25.0V				01
	C141	**UU148100**	Electrolytic Cap.	100.00 25.0V				01
	CN100	**VB994900**	Base Post Connector	MQ 9P TE				01
	D100	**VD631600**	Diode	1SS133,176,HSS104				01
	D101	**VD631600**	Diode	1SS133,176,HSS104				01
	D102	**VD631600**	Diode	1SS133,176,HSS104				01
	EM100	**FZ006920**	LC Filter	MTB271KBTBM				01
	-103	**FZ006920**	LC Filter	MTB271KBTBM				01
	IC100	**XM356A00**	IC	NJM2068L-D		OP AMP		02
	IC101	**XM356A00**	IC	NJM2068L-D		OP AMP		02
	JK100	**VS763000**	Cannon Connector	NC3FAHR1-0		INPUT A (1-16)		03
	JK101	**LB301920**	Phone Jack	HLJ4306 STREO		INPUT B (1-16)		02
	JK102	**LB301920**	Phone Jack	HLJ4306 STREO		INSERT I/O (1-16)		02
	LD100	**VH325200**	LED	GL2PR6		PEAK (1-16)		01
	LD101	**VH325300**	LED	GL2EG6		SIGNAL (1-16)		01
	R100	**VP441000**	Metal Film Resistor	6.8K 1/4 F				01
	R101	**VP441000**	Metal Film Resistor	6.8K 1/4 F				01
	R102	**HV755390**	Flame Proof C. Resistor	390.0 1/4 J				01
	R103	**HF458100**	Carbon Resistor	100.0K 1/4 J				01
	R104	**HF454100**	Carbon Resistor	10.0 1/4 J				01
	R105	**HF454100**	Carbon Resistor	10.0 1/4 J				01
	R106	**VP443000**	Metal Film Resistor	47.0K 1/4 F				01
	R107	**VP443000**	Metal Film Resistor	47.0K 1/4 F				01
	R108	**VP437400**	Metal Film Resistor	220.0 1/4 F				01
	R109	**VP439700**	Metal Film Resistor	2.0K 1/4 F				01
	R110	**VP439700**	Metal Film Resistor	2.0K 1/4 F				01
	R111	**VP440600**	Metal Film Resistor	4.7K 1/4 F				01
	R112	**HF454100**	Carbon Resistor	10.0 1/4 J				01
	R113	**HF454100**	Carbon Resistor	10.0 1/4 J				01
	R114	**VP439800**	Metal Film Resistor	2.2K 1/4 F				01
	R115	**VP439800**	Metal Film Resistor	2.2K 1/4 F				01

*: New Parts

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	R116	**VP434800**	Metal Film Resistor	18.0 1/4 F				01
*	R117	**VP442700**	Metal Film Resistor	36.0K 1/4 F				
	R118	**VP440900**	Metal Film Resistor	6.2K 1/4 F				01
	R119	**VP440900**	Metal Film Resistor	6.2K 1/4 F				01
*	R120	**VP442700**	Metal Film Resistor	36.0K 1/4 F				
	R121	**VP441400**	Metal Film Resistor	10.0K 1/4 F				01
	R122	**VP441400**	Metal Film Resistor	10.0K 1/4 F				01
	R123	**HF454390**	Carbon Resistor	39.0 1/4 J				01
	R124	**HF458100**	Carbon Resistor	100.0K 1/4 J				01
	R125	**HF455560**	Carbon Resistor	560.0 1/4 J				01
	R126	**HF458100**	Carbon Resistor	100.0K 1/4 J				01
	R148	**HB028100**	Metal Film Resistor	100.0K 1/4 F				
*	R149	**HB027620**	Metal Film Resistor	62.0K 1/4 F				
	R150	**HB027100**	Metal Film Resistor	10.0K 1/4 F				
	R151	**HB027820**	Metal Film Resistor	82.0K 1/4 F				01
	R152	**HB028100**	Metal Film Resistor	100.0K 1/4 F				
	R153	**HB027130**	Metal Film Resistor	13.0K 1/4 F				01
	R154	**HB028100**	Metal Film Resistor	100.0K 1/4 F				
	R155	**HB028100**	Metal Film Resistor	100.0K 1/4 F				
	R156	**HF458100**	Carbon Resistor	100.0K 1/4 J				01
	R157	**HF458100**	Carbon Resistor	100.0K 1/4 J				01
	R158	**HF456470**	Carbon Resistor	4.7K 1/4 J				01
	R159	**HF456470**	Carbon Resistor	4.7K 1/4 J				01
	R160	**HF458100**	Carbon Resistor	100.0K 1/4 J				01
	-163	**HF458100**	Carbon Resistor	100.0K 1/4 J				01
	R164	**HF454750**	Carbon Resistor	75.0 1/4 J				01
	R165	**HF457120**	Carbon Resistor	12.0K 1/4 J				01
	R166	**HV755390**	Flame Proof C. Resistor	390.0 1/4 J				01
	R167	**HV755390**	Flame Proof C. Resistor	390.0 1/4 J				01
	R168	**HB027470**	Metal Film Resistor	47.0K 1/4 F				01
	R169	**HB027100**	Metal Film Resistor	10.0K 1/4 F				
	SW100	**VQ907900**	Slide Switch	SSSU112-S06N-1		+48V ON/OFF		01
	SW101	**VQ901900**	Push Switch	SPUN19-2N-W H6.5		26dB		03
	SW102	**VQ901900**	Push Switch	SPUN19-2N-W H6.5		INSERT ON/OFF		03
	TR100	**IC224030**	Transistor	2SC2240 GR,BL				01
	TR101	**IC224030**	Transistor	2SC2240 GR,BL				01
	TR102	**IC174020**	Transistor	2SC1740S R,S				01
	TR103	**IC174020**	Transistor	2SC1740S R,S				01
	TR104	**VV912400**	Transistor	2SA933ASTP R.S				01
	-107	**VV912400**	Transistor	2SA933ASTP R.S				01
	TR108	**IC174020**	Transistor	2SC1740S R,S				01
	VR100	**VT975100**	Rotary Variable Resistor	5K		GAIN (1-16)		04
*		**V8632300**	Circuit Board	ANI2		(V863050)(X2066B0)		
*		**V9629200**	Circuit Board	LED		(V863050)(X2066B0)		
		V6435400	Holder, Phones	x2				02
	177	**--**	Jumper Wire	0.55		(VA07890)		
	C101	**VJ097400**	Electrolytic Cap.-KL	10.00 50.0V				01
	C102	**VJ097400**	Electrolytic Cap.-KL	10.00 50.0V				01
	C103	**VG278400**	Ceramic Capacitor-B	220P 50V K				01
	C104	**VG278400**	Ceramic Capacitor-B	220P 50V K				01
	C105	**VF467000**	Ceramic Capacitor-B	1000P 50V K				01
	C106	**VF467000**	Ceramic Capacitor-B	1000P 50V K				01
	C107	**UR819100**	Electrolytic Cap.	1000 6.3V				01
	C108	**VF466600**	Ceramic Capacitor-SL	10P 50V J				01
	C109	**VF466600**	Ceramic Capacitor-SL	10P 50V J				01
	C110	**VG278400**	Ceramic Capacitor-B	220P 50V K				01
	C111	**VG276600**	Ceramic Capacitor-SL	22P 50V J				01
	C112	**VG276600**	Ceramic Capacitor-SL	22P 50V J				01
	C113	**UR867100**	Electrolytic Cap.	10.00 50.0V				01
	C114	**UA654470**	Mylar Capacitor	0.0470 50V J				01
	C115	**UA654470**	Mylar Capacitor	0.0470 50V J				01
	C116	**UR867100**	Electrolytic Cap.	10.00 50.0V				01
	C117	**UU147470**	Electrolytic Cap.	47.00 25.0V				01
	C118	**VT439600**	Monolithic Ceramic Cap.	0.100 50V Z				01
	C119	**VT439600**	Monolithic Ceramic Cap.	0.100 50V Z				01
	C120	**UU148100**	Electrolytic Cap.	100.00 25.0V				01
	C121	**UU148100**	Electrolytic Cap.	100.00 25.0V				01
	C122	**VT439600**	Monolithic Ceramic Cap.	0.100 50V Z				01
	C123	**VT439600**	Monolithic Ceramic Cap.	0.100 50V Z				01

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	C124	**VF466600**	Ceramic Capacitor-SL	10P 50V J				01
	C125	**UU148100**	Electrolytic Cap.	100.00 25.0V				01
	C126	**UU148100**	Electrolytic Cap.	100.00 25.0V				01
	C201	**VJ097400**	Electrolytic Cap.-KL	10.00 50.0V				01
	C202	**VJ097400**	Electrolytic Cap.-KL	10.00 50.0V				01
	C203	**VG278400**	Ceramic Capacitor-B	220P 50V K				01
	C204	**VG278400**	Ceramic Capacitor-B	220P 50V K				01
	C205	**VF467000**	Ceramic Capacitor-B	1000P 50V K				01
	C206	**VF467000**	Ceramic Capacitor-B	1000P 50V K				01
	C207	**UR819100**	Electrolytic Cap.	1000 6.3V				01
	C208	**VF466600**	Ceramic Capacitor-SL	10P 50V J				01
	C209	**VF466600**	Ceramic Capacitor-SL	10P 50V J				01
	C210	**VG278400**	Ceramic Capacitor-B	220P 50V K				01
	C211	**VG276600**	Ceramic Capacitor-SL	22P 50V J				01
	C212	**VG276600**	Ceramic Capacitor-SL	22P 50V J				01
	C213	**UR867100**	Electrolytic Cap.	10.00 50.0V				01
	C214	**UA654470**	Mylar Capacitor	0.0470 50V J				01
	C215	**UA654470**	Mylar Capacitor	0.0470 50V J				01
	C217	**UU147470**	Electrolytic Cap.	47.00 25.0V				01
	C218	**VT439600**	Monolithic Ceramic Cap.	0.100 50V Z				01
	C219	**VT439600**	Monolithic Ceramic Cap.	0.100 50V Z				01
	C220	**UU148100**	Electrolytic Cap.	100.00 25.0V				01
	C221	**UU148100**	Electrolytic Cap.	100.00 25.0V				01
	C222	**VT439600**	Monolithic Ceramic Cap.	0.100 50V Z				01
	C223	**VT439600**	Monolithic Ceramic Cap.	0.100 50V Z				01
	C224	**VF466600**	Ceramic Capacitor-SL	10P 50V J				01
	CN100	**VB994900**	Base Post Connector	MQ 9P TE				01
	CN201	**VL844700**	Base Post Connector	XH 3P TE				01
*	CN202	**VN555800**	Socket	JQ 3P TE				
	D100	**VD631600**	Diode	1SS133,176,HSS104				01
	D200	**VD631600**	Diode	1SS133,176,HSS104				01
	-202	**VD631600**	Diode	1SS133,176,HSS104				01
	EM100	**FZ006920**	LC Filter	MTB271KBTBM				01
	EM101	**FZ006920**	LC Filter	MTB271KBTBM				01
	EM200	**FZ006920**	LC Filter	MTB271KBTBM				01
	EM201	**FZ006920**	LC Filter	MTB271KBTBM				01
	IC100	**XM356A00**	IC	NJM2068L-D		OP AMP		02
	IC101	**XM356A00**	IC	NJM2068L-D		OP AMP		02
	IC200	**XM356A00**	IC	NJM2068L-D		OP AMP		02
	IC201	**XM356A00**	IC	NJM2068L-D		OP AMP		02
	JK100	**VS056300**	Phone Jack	HLJ7001-01		INPUT (17,19,21,23)		01
	JK200	**VS056300**	Phone Jack	HLJ7001-01		INPUT (18,20,22,24)		01
	LD100	**VH325200**	LED	GL2PR6		PEAK (17,19,21,23)		01
	LD101	**VH325300**	LED	GL2EG6		SIGNAL (17,19,21,23)		01
	LD200	**VH325200**	LED	GL2PR6		PEAK (18,20,22,24)		01
	LD201	**VH325300**	LED	GL2EG6		SIGNAL (18,20,22,24)		01
*	R100	**VP439600**	Metal Film Resistor	1.8K 1/4 F				
*	R101	**VP439600**	Metal Film Resistor	1.8K 1/4 F				
*	R103	**VP438600**	Metal Film Resistor	680.0 1/4 F				
	R104	**HF454100**	Carbon Resistor	10.0 1/4 J				01
	R105	**HF454100**	Carbon Resistor	10.0 1/4 J				01
	R106	**VP443000**	Metal Film Resistor	47.0K 1/4 F				01
	R107	**VP443000**	Metal Film Resistor	47.0K 1/4 F				01
	R108	**HF454100**	Carbon Resistor	10.0 1/4 J				01
	R109	**HF454100**	Carbon Resistor	10.0 1/4 J				01
	R110	**VP439800**	Metal Film Resistor	2.2K 1/4 F				01
	R111	**VP439800**	Metal Film Resistor	2.2K 1/4 F				01
*	R114	**VP434700**	Metal Film Resistor	16.0 1/4 F				
	R115	**VP441200**	Metal Film Resistor	8.2K 1/4 F				01
	R116	**VP441200**	Metal Film Resistor	8.2K 1/4 F				01
	R119	**VP441400**	Metal Film Resistor	10.0K 1/4 F				01
	-122	**VP441400**	Metal Film Resistor	10.0K 1/4 F				01
	R123	**HF454390**	Carbon Resistor	39.0 1/4 J				01
	R124	**HB028100**	Metal Film Resistor	100.0K 1/4 F				
*	R125	**HB027620**	Metal Film Resistor	62.0K 1/4 F				
	R126	**HB027470**	Metal Film Resistor	47.0K 1/4 F				01
	R127	**HB027820**	Metal Film Resistor	82.0K 1/4 F				01
	R128	**HB027130**	Metal Film Resistor	13.0K 1/4 F				01
	R129	**HB027100**	Metal Film Resistor	10.0K 1/4 F				
	R130	**HB028100**	Metal Film Resistor	100.0K 1/4 F				

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	R131	**HB027100**	Metal Film Resistor	10.0K 1/4 F				
	R132	**HB028100**	Metal Film Resistor	100.0K 1/4 F				
	R133	**HB028100**	Metal Film Resistor	100.0K 1/4 F				
	R134	**HF458100**	Carbon Resistor	100.0K 1/4 J				01
	R135	**HF458100**	Carbon Resistor	100.0K 1/4 J				01
	R136	**HF456470**	Carbon Resistor	4.7K 1/4 J				01
	R137	**HF456470**	Carbon Resistor	4.7K 1/4 J				01
	R138	**HF458100**	Carbon Resistor	100.0K 1/4 J				01
	-141	**HF458100**	Carbon Resistor	100.0K 1/4 J				01
	R144	**HF458100**	Carbon Resistor	100.0K 1/4 J				01
	R145	**HV755390**	Flame Proof C. Resistor	390.0 1/4 J				01
	R146	**HV755390**	Flame Proof C. Resistor	390.0 1/4 J				01
*	R200	**VP439600**	Metal Film Resistor	1.8K 1/4 F				
*	R201	**VP439600**	Metal Film Resistor	1.8K 1/4 F				
*	R203	**VP438600**	Metal Film Resistor	680.0 1/4 F				
	R204	**HF454100**	Carbon Resistor	10.0 1/4 J				01
	R205	**HF454100**	Carbon Resistor	10.0 1/4 J				01
	R206	**VP443000**	Metal Film Resistor	47.0K 1/4 F				01
	R207	**VP443000**	Metal Film Resistor	47.0K 1/4 F				01
	R208	**HF454100**	Carbon Resistor	10.0 1/4 J				01
	R209	**HF454100**	Carbon Resistor	10.0 1/4 J				01
	R210	**VP439800**	Metal Film Resistor	2.2K 1/4 F				01
	R211	**VP439800**	Metal Film Resistor	2.2K 1/4 F				01
*	R214	**VP434700**	Metal Film Resistor	16.0 1/4 F				
	R215	**VP441200**	Metal Film Resistor	8.2K 1/4 F				01
	R216	**VP441200**	Metal Film Resistor	8.2K 1/4 F				01
	R219	**VP441400**	Metal Film Resistor	10.0K 1/4 F				01
	-222	**VP441400**	Metal Film Resistor	10.0K 1/4 F				01
	R223	**HF454390**	Carbon Resistor	39.0 1/4 J				01
	R224	**HB028100**	Metal Film Resistor	100.0K 1/4 F				
*	R225	**HB027620**	Metal Film Resistor	62.0K 1/4 F				
	R226	**HB027470**	Metal Film Resistor	47.0K 1/4 F				01
	R227	**HB027820**	Metal Film Resistor	82.0K 1/4 F				01
	R228	**HB027130**	Metal Film Resistor	13.0K 1/4 F				01
	R229	**HB027100**	Metal Film Resistor	10.0K 1/4 F				
	R230	**HB028100**	Metal Film Resistor	100.0K 1/4 F				
	R231	**HB027100**	Metal Film Resistor	10.0K 1/4 F				
	R232	**HB028100**	Metal Film Resistor	100.0K 1/4 F				
	R233	**HB028100**	Metal Film Resistor	100.0K 1/4 F				
	R234	**HF458100**	Carbon Resistor	100.0K 1/4 J				01
	R235	**HF458100**	Carbon Resistor	100.0K 1/4 J				01
	R236	**HF456470**	Carbon Resistor	4.7K 1/4 J				01
	R237	**HF456470**	Carbon Resistor	4.7K 1/4 J				01
	R238	**HF458100**	Carbon Resistor	100.0K 1/4 J				01
	-241	**HF458100**	Carbon Resistor	100.0K 1/4 J				01
	R242	**HF454750**	Carbon Resistor	75.0 1/4 J				01
	R243	**HF457120**	Carbon Resistor	12.0K 1/4 J				01
	R244	**HF458100**	Carbon Resistor	100.0K 1/4 J				01
	TR100	**IC224030**	Transistor	2SC2240 GR,BL				01
	TR101	**IC224030**	Transistor	2SC2240 GR,BL				01
	TR102	**IC174020**	Transistor	2SC1740S R,S				01
	TR103	**IC174020**	Transistor	2SC1740S R,S				01
	TR104	**VV912400**	Transistor	2SA933ASTP R.S				01
	-107	**VV912400**	Transistor	2SA933ASTP R.S				01
	TR200	**IC224030**	Transistor	2SC2240 GR,BL				01
	TR201	**IC224030**	Transistor	2SC2240 GR,BL				01
	TR202	**IC174020**	Transistor	2SC1740S R,S				01
	TR203	**IC174020**	Transistor	2SC1740S R,S				01
	TR204	**VV912400**	Transistor	2SA933ASTP R.S				01
	-207	**VV912400**	Transistor	2SA933ASTP R.S				01
	TR208	**IC174020**	Transistor	2SC1740S R,S				01
	VR100	**VT975100**	Rotary Variable Resistor	5K		GAIN (17,19,21,23)		04
	VR200	**VT975100**	Rotary Variable Resistor	5K		GAIN (18,20,22,24)		04
*		**V9221600**	Circuit Board	BRG		(X2062B0)		
	10	**EP600230**	Bind Head Tapping Screw-B	3.0X6 MFZN2BL				01
	20	**IL000690**	Insulation Sheet	CSSX-G509				01
	C001	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C007	**UF066100**	Electrolytic Cap. (chip)	1 50V				01
	C013	**UR848470**	Electrolytic Cap.	470.00 25.0V				01

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REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
C040	**UR639220**	Electrolytic Cap.	2200 16.0V				
C051	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C052	**V8878500**	Electrolytic Cap. (chip)	150 16V				04
C054	**V8878900**	Electrolytic Cap. (chip)	330 6.3V				04
C056	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C057	**UR838470**	Electrolytic Cap.	470.00 16.0V				01
C058	**UR838470**	Electrolytic Cap.	470.00 16.0V				01
C061	**US061100**	Ceramic Capacitor-CH(chip)	10P 50V D				01
CN002	**VF667600**	Wire Trap	52147 15P TE				01
CN003	**VK025800**	Wire Trap	52147 14P TE				01
CN004	**VJ861600**	Wire Trap	52147 16P TE				01
CN005	**VK025300**	Wire Trap	52147 9P TE				01
CN006	**VB389900**	Connector Base Post	PH 3P TE				01
CN007	**VJ861600**	Wire Trap	52147 16P TE				01
CN008	**VJ861600**	Wire Trap	52147 16P TE				01
CN009	**VK025800**	Wire Trap	52147 14P TE				01
CN010	**VK025700**	Wire Trap	52147 13P TE				01
CN012	**VK025100**	Wire Trap	52147 7P TE				01
CN013	**VK025700**	Wire Trap	52147 13P TE				01
CN014	**VK025500**	Wire Trap	52147 11P TE				01
CN015	**VK025600**	Wire Trap	52147 12P TE				01
CN016	**VJ861600**	Wire Trap	52147 16P TE				01
CN018	**VK024800**	Wire Trap	52147 4P TE				01
CN019	**VF728200**	Wire Trap	52147 10P TE				01
CN020	**VF728200**	Wire Trap	52147 10P TE				01
CN022	**VJ861600**	Wire Trap	52147 16P TE				01
CN023	**VK025600**	Wire Trap	52147 12P TE				01
CN024	**VK025500**	Wire Trap	52147 11P TE				01
CN025	**VF728300**	Wire Trap	52147 6P TE				01
D002	**V6267600**	Diode	RB051L-40				01
D003	**VP974300**	Diode	D3S6M-4002				03
DA001	**VV556300**	Diode Array	DAN217 0.3A X2				01
EM001	**FZ007070**	LC Filter	MTX222MBTBM				01
EM002	**FZ007070**	LC Filter	MTX222MBTBM				01
EM003	**FZ006970**	LC Filter	MTY223NBTBM				02
-005	**FZ006970**	LC Filter	MTY223NBTBM				02
EM006	**FZ007070**	LC Filter	MTX222MBTBM				01
EM007	**FZ006970**	LC Filter	MTY223NBTBM				02
EM008	**FZ006970**	LC Filter	MTY223NBTBM				02
EM010	**FZ006970**	LC Filter	MTY223NBTBM				02
EM013	**FZ006970**	LC Filter	MTY223NBTBM				02
EM015	**FZ006970**	LC Filter	MTY223NBTBM				02
EM016	**FZ006970**	LC Filter	MTY223NBTBM				02
EM018	**FZ007070**	LC Filter	MTX222MBTBM				01
EM023	**FZ006970**	LC Filter	MTY223NBTBM				02
EM024	**FZ007070**	LC Filter	MTX222MBTBM				01
EM025	**FZ006970**	LC Filter	MTY223NBTBM				02
EM026	**FZ006970**	LC Filter	MTY223NBTBM				02
EM028	**FZ006970**	LC Filter	MTY223NBTBM				02
EM029	**FZ006970**	LC Filter	MTY223NBTBM				02
EM030	**FZ007070**	LC Filter	MTX222MBTBM				01
EM031	**FZ007070**	LC Filter	MTX222MBTBM				01
EM032	**FZ006970**	LC Filter	MTY223NBTBM				02
EM034	**FZ006970**	LC Filter	MTY223NBTBM				02
-036	**FZ006970**	LC Filter	MTY223NBTBM				02
EM037	**FZ007070**	LC Filter	MTX222MBTBM				01
EM038	**FZ006970**	LC Filter	MTY223NBTBM				02
EM039	**FZ006970**	LC Filter	MTY223NBTBM				02
-041	**FZ006970**	LC Filter	MTY223NBTBM				02
EM042	**FZ007070**	LC Filter	MTX222MBTBM				01
EM043	**FZ007070**	LC Filter	MTX222MBTBM				01
EM044	**FZ006970**	LC Filter	MTY223NBTBM				02
-048	**FZ006970**	LC Filter	MTY223NBTBM				02
EM053	**FZ006970**	LC Filter	MTY223NBTBM				02
-055	**FZ006970**	LC Filter	MTY223NBTBM				02
EM061	**FZ006970**	LC Filter	MTY223NBTBM				02
-065	**FZ006970**	LC Filter	MTY223NBTBM				02
EM068	**FZ006970**	LC Filter	MTY223NBTBM				02
* IC003	**X2790A00**	IC	LM2596SX-ADJ		DC-DC CONVERTER		
K001	**VG864300**	Heat Sink	DPS(15)-30				02

✻: New Parts

RANK: Japan only

	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
*	L001	V9224300	Coil	CDRH127-470MC 47uH				
*	L002	V9224300	Coil	CDRH127-470MC 47uH				
	R004	RD257100	Carbon Resistor (chip)	10.0K 0.1 J				01
	R005	RD256100	Carbon Resistor (chip)	1.0K 0.1 J				01
*	R006	RD156220	Carbon Resistor (chip)	2.2K 1/4 J				
*	R007	RD156220	Carbon Resistor (chip)	2.2K 1/4 J				
	R008	RD156470	Carbon Resistor (chip)	4.7K 1/4 J				
	R010	RD257100	Carbon Resistor (chip)	10.0K 0.1 J				01
	R012	VI825600	Carbon Resistor (chip)	56.0 1/0 J				01
	R013	RD257100	Carbon Resistor (chip)	10.0K 0.1 J				01
	R014	RD256270	Carbon Resistor (chip)	2.7K 0.1 J				01
*	R016	RD156220	Carbon Resistor (chip)	2.2K 1/4 J				
	R017	RD257100	Carbon Resistor (chip)	10.0K 0.1 J				01
	R018	RD256220	Carbon Resistor (chip)	2.2K 0.1 J				01
	R019	RD257220	Carbon Resistor (chip)	22.0K 0.1 J				01
	R020	RD257100	Carbon Resistor (chip)	10.0K 0.1 J				01
	R021	RD257100	Carbon Resistor (chip)	10.0K 0.1 J				01
	R026	VI194900	Metal Film Resistor (chip)	1.0K 1/10 D				01
	R027	VI193800	Metal Film Resistor (chip)	360.0 1/10 D				
	R028	VI195300	Metal Film Resistor (chip)	1.5K 1/10 D				01
	R031	RD257100	Carbon Resistor (chip)	10.0K 0.1 J				01
	R035	VC740900	Metal Oxide Film Resistor	2.2 1W J				01
	R036	VC740900	Metal Oxide Film Resistor	2.2 1W J				01
*	TH003	V7647500	Protector Switch	RXE040-AP 0.40A				
*	TH004	V7647500	Protector Switch	RXE040-AP 0.40A				
*	TH005	V9414500	Protector Switch	RXE135-AP 1.35A				
*	TH006	V9414500	Protector Switch	RXE135-AP 1.35A				
*	TH007	V9414600	Protector Switch	RXE160-AP 1.60A				
*	TH008	V9414300	Protector Switch	RXE090-AP 0.90A				
*	TH009	V9413700	Protector Switch	RXE020-AP 0.20A				
*	TH015	V9414600	Protector Switch	RXE160-AP 1.60A				
*	-017	V9414600	Protector Switch	RXE160-AP 1.60A				
*	TH018	V9413700	Protector Switch	RXE020-AP 0.20A				
*	TH019	V9414500	Protector Switch	RXE135-AP 1.35A				
*	TH020	V9414500	Protector Switch	RXE135-AP 1.35A				
*	TH021	V9414300	Protector Switch	RXE090-AP 0.90A				
*	TH022	V9414500	Protector Switch	RXE135-AP 1.35A				
*	TH023	V9414600	Protector Switch	RXE160-AP 1.60A				
*	TH024	V9414600	Protector Switch	RXE160-AP 1.60A				
*	TH025	V9413700	Protector Switch	RXE020-AP 0.20A				
*	TH026	V9413700	Protector Switch	RXE020-AP 0.20A				
*	TH027	V9414600	Protector Switch	RXE160-AP 1.60A				
*	TH028	V9414300	Protector Switch	RXE090-AP 0.90A				
*	TH029	V7647500	Protector Switch	RXE040-AP 0.40A				
*	TH030	V9414500	Protector Switch	RXE135-AP 1.35A				
*	TH033	V7647500	Protector Switch	RXE040-AP 0.40A				
*	TH034	V9414500	Protector Switch	RXE135-AP 1.35A				
*	TH039	V9414600	Protector Switch	RXE160-AP 1.60A				
*	TH040	V9414600	Protector Switch	RXE160-AP 1.60A				
*	TH041	V9413700	Protector Switch	RXE020-AP 0.20A				
*	TH043	V7647500	Protector Switch	RXE040-AP 0.40A				
*	TH044	V9414500	Protector Switch	RXE135-AP 1.35A				
*	TH061	V9414500	Protector Switch	RXE135-AP 1.35A				
*	-065	V9414500	Protector Switch	RXE135-AP 1.35A				
*	TH067	V9414300	Protector Switch	RXE090-AP 0.90A				
*	TH068	V9414600	Protector Switch	RXE160-AP 1.60A				
	TR002	VV655500	Digital Transistor	DTC124EKA TP				01
	TR003	VG013400	Transistor	2SD1664 82-390				01
	TR005	VV925400	Transistor	2SC2SC2712 GR				01
	TR006	VJ927200	Transistor	2SA1162 O,Y				01
	TR007	VJ927200	Transistor	2SA1162 O,Y				01
	TR009	VV925400	Transistor	2SC2SC2712 GR				01
	TR010	VV925400	Transistor	2SC2SC2712 GR				01
	TR011	IB059630	Transistor	2SB596 O,Y				04
*	ZD001	VU173400	Zener Diode	UDZ 22B TE-17 22V				
	ZD002	VU171800	Zener Diode	UDZ 4.7BTE-17 4.7V				01
*		V8468800	Circuit Board	CPU1		(X0383C0)		
	BT101	VN103600	Battery Holder	CR2032				03
	C101	UB245100	Monolithic Ceramic Cap.	F 0.100 25V Z				01

✻: New Parts

RANK: Japan only

	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	-117	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
	C118	**UB012470**	Monolithic Ceramic Cap.	B 470P 50V K				01
	C119	**UB446100**	Ceramic Capacitor-F (chip)	F 1.0 16V Z				01
	C120	**UB446100**	Ceramic Capacitor-F (chip)	F 1.0 16V Z				01
	C121	**UB012470**	Monolithic Ceramic Cap.	B 470P 50V K				01
	C122	**UF018100**	Electrolytic Cap. (chip)	100 6.3V				01
	C123	**UB051220**	Monolithic Ceramic Cap.	SL 22P 50V J				01
	C124	**UB051220**	Monolithic Ceramic Cap.	SL 22P 50V J				01
	C125	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
	-143	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
	C145	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
	C146	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
	C147	**UF018100**	Electrolytic Cap. (chip)	100 6.3V				01
	C148	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
	C154	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
	-163	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
	C165	**UF028100**	Electrolytic Cap. (chip)	100 10V				01
	C166	**UF018100**	Electrolytic Cap. (chip)	100 6.3V				01
	C167	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
	-170	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
	C172	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
	C173	**UB051180**	Monolithic Ceramic Cap.	SL 18P 50V J				01
	C174	**UB051150**	Monolithic Ceramic Cap.	SL 15P 50V J				01
	C175	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
	-183	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
	C186	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
	C187	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
	C188	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
	C189	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
	C190	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
	C191	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
	CN101	**VF728300**	Wire Trap	52147 6P TE				01
*	CN104	**V9152200**	Receptacle	PHEC 80R TE				
*	CN105	**V9152200**	Receptacle	PHEC 80R TE				
	CN106	**VK025600**	Wire Trap	52147 12P TE				01
	CN107	**VK025100**	Wire Trap	52147 7P TE				01
	CN108	**VK025800**	Wire Trap	52147 14P TE				01
	CN109	**VB390100**	Connector Base Post	PH 5P TE				01
	CN110	**VB390000**	Connector Base Post	PH 4P TE				01
	D103	**V2376600**	Diode	RB500V-40				01
	EM101	**VQ761400**	EMI Filter (chip)	NFM3DCC101U1H3L				01
	-103	**VQ761400**	EMI Filter (chip)	NFM3DCC101U1H3L				01
	EM104	**FZ006970**	LC Filter	MTY223NBTBM				02
	-107	**FZ006970**	LC Filter	MTY223NBTBM				02
	IC101	**XY065A00**	IC	SH7709A		CPU		14
	IC102	**X2086A00**	IC	HM62V8512CLTT-7		SRAM 4M		15
	-105	**X2086A00**	IC	HM62V8512CLTT-7				15
	IC102	**X2882A00**	IC	M5M5V408BTP-85H				
	-105	**X2882A00**	IC	M5M5V408BTP-85H				
	IC106	**X2661A00**	IC	MBM29LV160BE90TN		FLASH ROM 16M		13
	IC107	**X2662A00**	IC	MBM29LV160BE90TN		FLASH ROM 16M		13
	IC108	**XZ414B00**	IC	W986416DH-7		DRAM 64M		
	IC108	**X0303A00**	IC	HY57V641620HGT-HQ				15
	IC108	**X2760A00**	IC	K4S641632F-TC75				
	IC109	**XZ414B00**	IC	W986416DH-7		DRAM 64M		
	IC109	**X0303A00**	IC	HY57V641620HGT-HQ				15
	IC109	**X2760A00**	IC	K4S641632F-TC75				
	IC112	**XV242A00**	IC	TC74VHCT245AF		TRANSCEIVER		03
	IC114	**XY937A00**	IC	CY2305		CLOCK BUFFER		07
	IC115	**XT487A00**	IC	TC74VHC245F		TRANSCEIVER		03
	-117	**XT487A00**	IC	TC74VHC245F		TRANSCEIVER		03
	IC118	**XT800A00**	IC	TC74VHC244F		BUFFER		03
	IC119	**XT487A00**	IC	TC74VHC245F		TRANSCEIVER		03
	-121	**XT487A00**	IC	TC74VHC245F		TRANSCEIVER		03
	IC122	**XS775A00**	IC	TC7SH04FU		INVERTER		01
	IC123	**XR680A00**	IC	TC7SH08FU		AND		
	IC125	**XW324A00**	IC	TC74VHC139F(EL)		DECODER		01
	IC126	**XT487A00**	IC	TC74VHC245F		TRANSCEIVER		03
	IC127	**XU229A00**	IC	TC74LVX4245FS		TRANSCEIVER		04
	IC129	**XQ595A00**	IC	S1D13305F00B100		LCD CONTROLLER		08

*: New Parts

RANK: Japan only

	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	IC130	**XT138A00**	IC	UPD431000AGW-70LL		SRAM 1M		07
	IC131	**XV242A00**	IC	TC74VHCT245AF		TRANSCEIVER		03
	IC132	**XM332A00**	IC	TC74VHC04F EL		INVERTER		01
	IC133	**XT229A00**	IC	TC74VHC00F		NAND		01
	IC134	**XT487A00**	IC	TC74VHC245F		TRANSCEIVER		03
	IC135	**XT487A00**	IC	TC74VHC245F		TRANSCEIVER		03
	IC136	**XY537A00**	IC	TC74VHC32F(EL)		OR		01
	IC137	**XR680A00**	IC	TC7SH08FU		AND		
	IC138	**X2163A00**	IC	M62023FP		SYSTEM RESET		03
	IC139	**XR532A00**	IC	NJM2904V(TE1)		OP AMP		02
	IC140	**X2157A00**	IC	UPC2918T-E1		REGULATOR +1.8V		03
	IC141	**XY537A00**	IC	TC74VHC32F(EL)		OR		01
	IC142	**XP226A00**	IC	IC-PST591DMT		SYSTEM RESET		03
	L101	**GE300610**	Ferrite Bead	BL02RN1-R62T4				01
	-103	**GE300610**	Ferrite Bead	BL02RN1-R62T4				01
	L104	**V8143400**	Chip Inductance	BLM21R121SKPT				01
	-121	**V8143400**	Chip Inductance	BLM21R121SKPT				01
	R101	**RD255220**	Carbon Resistor (chip)	220.0 0.1 J				01
	R105	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
	-112	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
	R114	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
	R116	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
	R117	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
	R120	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
	R122	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
	-128	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
	R129	**RD256100**	Carbon Resistor (chip)	1.0K 0.1 J				01
	R130	**RD259470**	Carbon Resistor (chip)	4.7M 0.1 J				01
	R131	**RD256300**	Carbon Resistor (chip)	3.0K 0.1 J				01
	R132	**RD256200**	Carbon Resistor (chip)	2.0K 0.1 J				01
	R133	**RD259100**	Carbon Resistor (chip)	1.0M 0.1 J				01
	R135	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
	RA101	**RE047100**	Resistor Array	10KX4				01
	-145	**RE047100**	Resistor Array	10KX4				01
	RA146	**RE047220**	Resistor Array	22KX4				01
	RA147	**RE047220**	Resistor Array	22KX4				01
	RA148	**RE044680**	Resistor Array	68X4				01
	RA149	**RE044680**	Resistor Array	68X4				01
	TR101	**V3033500**	Digital Transistor	DTC143XKA TP				01
	X101	**VS486900**	Quartz Crystal Unit	8.0MHz SMD-49				03
	X103	**VR870700**	Quartz Crystal Unit	10MHz SMD-49				04
*		**V9106700**	Circuit Board	DA		(XZ021C0)		
		V5274300	Jack Holder				2	01
*		**V9074400**	Earth Film DA1					
	C001	**UI557470**	Electrolytic Cap.	47.00 35.0V				01
	C002	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C003	**V5829200**	Electrolytic Cap. (chip)	100 20V 20SG100M+T				04
	-006	**V5829200**	Electrolytic Cap. (chip)	100 20V 20SG100M+T				04
	C101	**UU168100**	Electrolytic Cap.	100.00 50.0V				01
	C102	**UU168100**	Electrolytic Cap.	100.00 50.0V				01
	C103	**US061330**	Ceramic Capacitor-CH(chip)	33P 50V J				01
	C104	**US061330**	Ceramic Capacitor-CH(chip)	33P 50V J				01
	C105	**UA353470**	Mylar Capacitor	4700P 50V J				01
	C106	**UA353160**	Mylar Capacitor	1600P 50V J				
	C107	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	-110	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C111	**US061330**	Ceramic Capacitor-CH(chip)	33P 50V J				01
	C112	**US061330**	Ceramic Capacitor-CH(chip)	33P 50V J				01
	C201	**UU168100**	Electrolytic Cap.	100.00 50.0V				01
	C202	**UU168100**	Electrolytic Cap.	100.00 50.0V				01
	C203	**US061330**	Ceramic Capacitor-CH(chip)	33P 50V J				01
	C204	**US061330**	Ceramic Capacitor-CH(chip)	33P 50V J				01
	C205	**UA353470**	Mylar Capacitor	4700P 50V J				01
	C206	**UA353160**	Mylar Capacitor	1600P 50V J				
	C207	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	-210	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C211	**US061330**	Ceramic Capacitor-CH(chip)	33P 50V J				01
	C212	**US061330**	Ceramic Capacitor-CH(chip)	33P 50V J				01
	C301	**UU168100**	Electrolytic Cap.	100.00 50.0V				01

✻: New Parts

RANK: Japan only

REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
C302	**UU168100**	Electrolytic Cap.	100.00 50.0V				01
C303	**US061330**	Ceramic Capacitor-CH(chip)	33P 50V J				01
C304	**US061330**	Ceramic Capacitor-CH(chip)	33P 50V J				01
C305	**UA353470**	Mylar Capacitor	4700P 50V J				01
C306	**UA353160**	Mylar Capacitor	1600P 50V J				
C307	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
-310	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C311	**US061330**	Ceramic Capacitor-CH(chip)	33P 50V J				01
C312	**US061330**	Ceramic Capacitor-CH(chip)	33P 50V J				01
C401	**UU168100**	Electrolytic Cap.	100.00 50.0V				01
C402	**UU168100**	Electrolytic Cap.	100.00 50.0V				01
C403	**US061330**	Ceramic Capacitor-CH(chip)	33P 50V J				01
C404	**US061330**	Ceramic Capacitor-CH(chip)	33P 50V J				01
C405	**UA353470**	Mylar Capacitor	4700P 50V J				01
C406	**UA353160**	Mylar Capacitor	1600P 50V J				
C407	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
-410	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C411	**US061330**	Ceramic Capacitor-CH(chip)	33P 50V J				01
C412	**US061330**	Ceramic Capacitor-CH(chip)	33P 50V J				01
C501	**UU168100**	Electrolytic Cap.	100.00 50.0V				01
C502	**UU168100**	Electrolytic Cap.	100.00 50.0V				01
C503	**US061330**	Ceramic Capacitor-CH(chip)	33P 50V J				01
C504	**US061330**	Ceramic Capacitor-CH(chip)	33P 50V J				01
C505	**UA353470**	Mylar Capacitor	4700P 50V J				01
C506	**UA353160**	Mylar Capacitor	1600P 50V J				
C507	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
-510	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C511	**US061330**	Ceramic Capacitor-CH(chip)	33P 50V J				01
C512	**US061330**	Ceramic Capacitor-CH(chip)	33P 50V J				01
C601	**UU168100**	Electrolytic Cap.	100.00 50.0V				01
C602	**UU168100**	Electrolytic Cap.	100.00 50.0V				01
C603	**US061330**	Ceramic Capacitor-CH(chip)	33P 50V J				01
C604	**US061330**	Ceramic Capacitor-CH(chip)	33P 50V J				01
C605	**UA353470**	Mylar Capacitor	4700P 50V J				01
C606	**UA353160**	Mylar Capacitor	1600P 50V J				
C607	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
-610	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C611	**US061330**	Ceramic Capacitor-CH(chip)	33P 50V J				01
C612	**US061330**	Ceramic Capacitor-CH(chip)	33P 50V J				01
C701	**UU168100**	Electrolytic Cap.	100.00 50.0V				01
C702	**UU168100**	Electrolytic Cap.	100.00 50.0V				01
C703	**US061330**	Ceramic Capacitor-CH(chip)	33P 50V J				01
C704	**US061330**	Ceramic Capacitor-CH(chip)	33P 50V J				01
C705	**UA353470**	Mylar Capacitor	4700P 50V J				01
C706	**UA353160**	Mylar Capacitor	1600P 50V J				
C707	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
-710	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C711	**US061330**	Ceramic Capacitor-CH(chip)	33P 50V J				01
C712	**US061330**	Ceramic Capacitor-CH(chip)	33P 50V J				01
C801	**UU168100**	Electrolytic Cap.	100.00 50.0V				01
C802	**UU168100**	Electrolytic Cap.	100.00 50.0V				01
C803	**US061330**	Ceramic Capacitor-CH(chip)	33P 50V J				01
C804	**US061330**	Ceramic Capacitor-CH(chip)	33P 50V J				01
C805	**UA353470**	Mylar Capacitor	4700P 50V J				01
C806	**UA353160**	Mylar Capacitor	1600P 50V J				
C807	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
-810	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C811	**US061330**	Ceramic Capacitor-CH(chip)	33P 50V J				01
C812	**US061330**	Ceramic Capacitor-CH(chip)	33P 50V J				01
C900	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
-902	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C903	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
C904	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
-906	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C907	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
C908	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C909	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C910	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
-912	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
C913	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01

✻: New Parts

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REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
-915	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C916	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
C917	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C918	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C919	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
-921	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
C922	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
-924	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C925	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
C926	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C927	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C928	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
-930	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
C931	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
-933	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C934	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
C935	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C936	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C937	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
C938	**UU167100**	Electrolytic Cap.	10.00 50.0V				01
C939	**US135220**	Ceramic Capacitor-F (chip)	0.2200 16V Z				01
-942	**US135220**	Ceramic Capacitor-F (chip)	0.2200 16V Z				01
CN001	**VK027300**	Wire Trap	52151 14P SE				01
CN901	**VU421600**	Wire Trap	52151 16P SE				01
D001	**VF195600**	Diode	11ES4 TA1				01
-004	**VF195600**	Diode	11ES4 TA1				01
EM001	**FZ007070**	LC Filter	MTX222MBTBM				01
EM002	**FZ006970**	LC Filter	MTY223NBTBM				02
-005	**FZ006970**	LC Filter	MTY223NBTBM				02
EM101	**FZ006920**	LC Filter	MTB271KBTBM				01
EM102	**FZ006920**	LC Filter	MTB271KBTBM				01
EM201	**FZ006920**	LC Filter	MTB271KBTBM				01
EM202	**FZ006920**	LC Filter	MTB271KBTBM				01
EM301	**FZ006920**	LC Filter	MTB271KBTBM				01
EM302	**FZ006920**	LC Filter	MTB271KBTBM				01
EM401	**FZ006920**	LC Filter	MTB271KBTBM				01
EM402	**FZ006920**	LC Filter	MTB271KBTBM				01
EM501	**FZ006920**	LC Filter	MTB271KBTBM				01
EM502	**FZ006920**	LC Filter	MTB271KBTBM				01
EM601	**FZ006920**	LC Filter	MTB271KBTBM				01
EM602	**FZ006920**	LC Filter	MTB271KBTBM				01
EM701	**FZ006920**	LC Filter	MTB271KBTBM				01
EM702	**FZ006920**	LC Filter	MTB271KBTBM				01
EM801	**FZ006920**	LC Filter	MTB271KBTBM				01
EM802	**FZ006920**	LC Filter	MTB271KBTBM				01
IC101	**XF291A00**	IC	UPC4570G2		OP AMP		03
IC102	**XP844A00**	IC	NJM4556AL		OP AMP		02
IC201	**XF291A00**	IC	UPC4570G2		OP AMP		03
IC202	**XP844A00**	IC	NJM4556AL		OP AMP		02
IC301	**XF291A00**	IC	UPC4570G2		OP AMP		03
IC302	**XP844A00**	IC	NJM4556AL		OP AMP		02
IC401	**XF291A00**	IC	UPC4570G2		OP AMP		03
IC402	**XP844A00**	IC	NJM4556AL		OP AMP		02
IC501	**XF291A00**	IC	UPC4570G2		OP AMP		03
IC502	**XP844A00**	IC	NJM4556AL		OP AMP		02
IC601	**XF291A00**	IC	UPC4570G2		OP AMP		03
IC602	**XP844A00**	IC	NJM4556AL		OP AMP		02
IC701	**XF291A00**	IC	UPC4570G2		OP AMP		03
IC702	**XP844A00**	IC	NJM4556AL		OP AMP		02
IC801	**XF291A00**	IC	UPC4570G2		OP AMP		03
IC802	**XP844A00**	IC	NJM4556AL		OP AMP		02
IC900	**XM182A00**	IC	TC7S04F		INVERTER		01
IC901	**XS720A00**	IC	TC74HC245AF		TRANSCEIVER		03
IC902	**XS720A00**	IC	TC74HC245AF		TRANSCEIVER		03
IC903	**XW029A00**	IC	AK4393-VF-E2		DAC		07
-906	**XW029A00**	IC	AK4393-VF-E2		DAC		07
IC907	**XJ598A00**	IC	NJM78L05UA		REGULATOR +5V		02
-910	**XJ598A00**	IC	NJM78L05UA		REGULATOR +5V		02
J001	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
JK101	**VS056300**	Phone Jack	HLJ7001-01		OMNI OUT 1		01

✻: New Parts

RANK: Japan only

REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
JK201	**VS056300**	Phone Jack	HLJ7001-01		OMNI OUT 2		01
JK301	**VS056300**	Phone Jack	HLJ7001-01		OMNI OUT 3		01
JK401	**VS056300**	Phone Jack	HLJ7001-01		OMNI OUT 4		01
JK501	**VS056300**	Phone Jack	HLJ7001-01		OMNI OUT 5		01
JK601	**VS056300**	Phone Jack	HLJ7001-01		OMNI OUT 6		01
JK701	**VS056300**	Phone Jack	HLJ7001-01		OMNI OUT 7		01
JK801	**VS056300**	Phone Jack	HLJ7001-01		OMNI OUT 8		01
L901	**VS740100**	Chip Inductance	BLM21B751S 2125				03
-910	**VS740100**	Chip Inductance	BLM21B751S 2125				03
R001	**RD256100**	Carbon Resistor (chip)	1.0K 0.1 J				01
R002	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R003	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R004	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
R005	**HF456220**	Carbon Resistor	2.2K 1/4 J				01
R006	**HF456220**	Carbon Resistor	2.2K 1/4 J				01
R007	**HF457100**	Carbon Resistor	10.0K 1/4 J				01
R008	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
R009	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R010	**HF456470**	Carbon Resistor	4.7K 1/4 J				01
R011	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
R101	**HB027150**	Metal Film Resistor	15.0K 1/4 F				01
R102	**HB027150**	Metal Film Resistor	15.0K 1/4 F				01
R104	**HB026680**	Metal Film Resistor	6.8K 1/4 F				01
R105	**HB026680**	Metal Film Resistor	6.8K 1/4 F				01
R107	**HB026100**	Metal Film Resistor	1.0K 1/4 F				01
R108	**HB026100**	Metal Film Resistor	1.0K 1/4 F				01
R109	**HF454390**	Carbon Resistor	39.0 1/4 J				01
R110	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
R111	**HB027100**	Metal Film Resistor	10.0K 1/4 F				
R112	**HB027100**	Metal Film Resistor	10.0K 1/4 F				
R113	**V9008100**	Metal Film Resistor	11.5K 1/4 D				
R114	**HB027100**	Metal Film Resistor	10.0K 1/4 F				
R115	**HB027180**	Metal Film Resistor	18.0K 1/4 F				01
R116	**HB027180**	Metal Film Resistor	18.0K 1/4 F				01
R117	**HB027160**	Metal Film Resistor	16.0K 1/4 F				01
R118	**HB027160**	Metal Film Resistor	16.0K 1/4 F				01
R119	**HF454750**	Carbon Resistor	75.0 1/4 J				01
R120	**HF454750**	Carbon Resistor	75.0 1/4 J				01
R121	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
R122	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
R123	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R124	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R125	**HB026390**	Metal Film Resistor	3.9K 1/4 F				
R126	**HB026390**	Metal Film Resistor	3.9K 1/4 F				
R201	**HB027150**	Metal Film Resistor	15.0K 1/4 F				01
R202	**HB027150**	Metal Film Resistor	15.0K 1/4 F				01
R204	**HB026680**	Metal Film Resistor	6.8K 1/4 F				01
R205	**HB026680**	Metal Film Resistor	6.8K 1/4 F				01
R207	**HB026100**	Metal Film Resistor	1.0K 1/4 F				01
R208	**HB026100**	Metal Film Resistor	1.0K 1/4 F				01
R209	**HF454390**	Carbon Resistor	39.0 1/4 J				01
R210	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
R211	**HB027100**	Metal Film Resistor	10.0K 1/4 F				
R212	**HB027100**	Metal Film Resistor	10.0K 1/4 F				
R213	**V9008100**	Metal Film Resistor	11.5K 1/4 D				
R214	**HB027100**	Metal Film Resistor	10.0K 1/4 F				
R215	**HB027180**	Metal Film Resistor	18.0K 1/4 F				01
R216	**HB027180**	Metal Film Resistor	18.0K 1/4 F				01
R217	**HB027160**	Metal Film Resistor	16.0K 1/4 F				01
R218	**HB027160**	Metal Film Resistor	16.0K 1/4 F				01
R219	**HF454750**	Carbon Resistor	75.0 1/4 J				01
R220	**HF454750**	Carbon Resistor	75.0 1/4 J				01
R221	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
R222	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
R223	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R224	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R225	**HB026390**	Metal Film Resistor	3.9K 1/4 F				
R226	**HB026390**	Metal Film Resistor	3.9K 1/4 F				
R301	**HB027150**	Metal Film Resistor	15.0K 1/4 F				01
R302	**HB027150**	Metal Film Resistor	15.0K 1/4 F				01

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REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
R304	**HB026680**	Metal Film Resistor	6.8K 1/4 F				01
R305	**HB026680**	Metal Film Resistor	6.8K 1/4 F				01
R307	**HB026100**	Metal Film Resistor	1.0K 1/4 F				01
R308	**HB026100**	Metal Film Resistor	1.0K 1/4 F				01
R309	**HF454390**	Carbon Resistor	39.0 1/4 J				01
R310	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
R311	**HB027100**	Metal Film Resistor	10.0K 1/4 F				
R312	**HB027100**	Metal Film Resistor	10.0K 1/4 F				
R313	**V9008100**	Metal Film Resistor	11.5K 1/4 D				
R314	**HB027100**	Metal Film Resistor	10.0K 1/4 F				
R315	**HB027180**	Metal Film Resistor	18.0K 1/4 F				01
R316	**HB027180**	Metal Film Resistor	18.0K 1/4 F				01
R317	**HB027160**	Metal Film Resistor	16.0K 1/4 F				01
R318	**HB027160**	Metal Film Resistor	16.0K 1/4 F				01
R319	**HF454750**	Carbon Resistor	75.0 1/4 J				01
R320	**HF454750**	Carbon Resistor	75.0 1/4 J				01
R321	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
R322	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
R323	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R324	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R325	**HB026390**	Metal Film Resistor	3.9K 1/4 F				
R326	**HB026390**	Metal Film Resistor	3.9K 1/4 F				
R401	**HB027150**	Metal Film Resistor	15.0K 1/4 F				01
R402	**HB027150**	Metal Film Resistor	15.0K 1/4 F				01
R404	**HB026680**	Metal Film Resistor	6.8K 1/4 F				01
R405	**HB026680**	Metal Film Resistor	6.8K 1/4 F				01
R407	**HB026100**	Metal Film Resistor	1.0K 1/4 F				01
R408	**HB026100**	Metal Film Resistor	1.0K 1/4 F				01
R409	**HF454390**	Carbon Resistor	39.0 1/4 J				01
R410	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
R411	**HB027100**	Metal Film Resistor	10.0K 1/4 F				
R412	**HB027100**	Metal Film Resistor	10.0K 1/4 F				
R413	**V9008100**	Metal Film Resistor	11.5K 1/4 D				
R414	**HB027100**	Metal Film Resistor	10.0K 1/4 F				
R415	**HB027180**	Metal Film Resistor	18.0K 1/4 F				01
R416	**HB027180**	Metal Film Resistor	18.0K 1/4 F				01
R417	**HB027160**	Metal Film Resistor	16.0K 1/4 F				01
R418	**HB027160**	Metal Film Resistor	16.0K 1/4 F				01
R419	**HF454750**	Carbon Resistor	75.0 1/4 J				01
R420	**HF454750**	Carbon Resistor	75.0 1/4 J				01
R421	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
R422	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
R423	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R424	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R425	**HB026390**	Metal Film Resistor	3.9K 1/4 F				
R426	**HB026390**	Metal Film Resistor	3.9K 1/4 F				
R501	**HB027150**	Metal Film Resistor	15.0K 1/4 F				01
R502	**HB027150**	Metal Film Resistor	15.0K 1/4 F				01
R504	**HB026680**	Metal Film Resistor	6.8K 1/4 F				01
R505	**HB026680**	Metal Film Resistor	6.8K 1/4 F				01
R507	**HB026100**	Metal Film Resistor	1.0K 1/4 F				01
R508	**HB026100**	Metal Film Resistor	1.0K 1/4 F				01
R509	**HF454390**	Carbon Resistor	39.0 1/4 J				01
R510	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
R511	**HB027100**	Metal Film Resistor	10.0K 1/4 F				
R512	**HB027100**	Metal Film Resistor	10.0K 1/4 F				
R513	**V9008100**	Metal Film Resistor	11.5K 1/4 D				
R514	**HB027100**	Metal Film Resistor	10.0K 1/4 F				
R515	**HB027180**	Metal Film Resistor	18.0K 1/4 F				01
R516	**HB027180**	Metal Film Resistor	18.0K 1/4 F				01
R517	**HB027160**	Metal Film Resistor	16.0K 1/4 F				01
R518	**HB027160**	Metal Film Resistor	16.0K 1/4 F				01
R519	**HF454750**	Carbon Resistor	75.0 1/4 J				01
R520	**HF454750**	Carbon Resistor	75.0 1/4 J				01
R521	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
R522	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
R523	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R524	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R525	**HB026390**	Metal Film Resistor	3.9K 1/4 F				
R526	**HB026390**	Metal Film Resistor	3.9K 1/4 F				

✻: New Parts

RANK: Japan only

REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
R601	**HB027150**	Metal Film Resistor	15.0K 1/4 F				01
R602	**HB027150**	Metal Film Resistor	15.0K 1/4 F				01
R604	**HB026680**	Metal Film Resistor	6.8K 1/4 F				01
R605	**HB026680**	Metal Film Resistor	6.8K 1/4 F				01
R607	**HB026100**	Metal Film Resistor	1.0K 1/4 F				01
R608	**HB026100**	Metal Film Resistor	1.0K 1/4 F				01
R609	**HF454390**	Carbon Resistor	39.0 1/4 J				01
R610	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
R611	**HB027100**	Metal Film Resistor	10.0K 1/4 F				
R612	**HB027100**	Metal Film Resistor	10.0K 1/4 F				
R613	**V9008100**	Metal Film Resistor	11.5K 1/4 D				
R614	**HB027100**	Metal Film Resistor	10.0K 1/4 F				
R615	**HB027180**	Metal Film Resistor	18.0K 1/4 F				01
R616	**HB027180**	Metal Film Resistor	18.0K 1/4 F				01
R617	**HB027160**	Metal Film Resistor	16.0K 1/4 F				01
R618	**HB027160**	Metal Film Resistor	16.0K 1/4 F				01
R619	**HF454750**	Carbon Resistor	75.0 1/4 J				01
R620	**HF454750**	Carbon Resistor	75.0 1/4 J				01
R621	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
R622	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
R623	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R624	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R625	**HB026390**	Metal Film Resistor	3.9K 1/4 F				
R626	**HB026390**	Metal Film Resistor	3.9K 1/4 F				
R701	**HB027150**	Metal Film Resistor	15.0K 1/4 F				01
R702	**HB027150**	Metal Film Resistor	15.0K 1/4 F				01
R704	**HB026680**	Metal Film Resistor	6.8K 1/4 F				01
R705	**HB026680**	Metal Film Resistor	6.8K 1/4 F				01
R707	**HB026100**	Metal Film Resistor	1.0K 1/4 F				01
R708	**HB026100**	Metal Film Resistor	1.0K 1/4 F				01
R709	**HF454390**	Carbon Resistor	39.0 1/4 J				01
R710	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
R711	**HB027100**	Metal Film Resistor	10.0K 1/4 F				
R712	**HB027100**	Metal Film Resistor	10.0K 1/4 F				
R713	**V9008100**	Metal Film Resistor	11.5K 1/4 D				
R714	**HB027100**	Metal Film Resistor	10.0K 1/4 F				
R715	**HB027180**	Metal Film Resistor	18.0K 1/4 F				01
R716	**HB027180**	Metal Film Resistor	18.0K 1/4 F				01
R717	**HB027160**	Metal Film Resistor	16.0K 1/4 F				01
R718	**HB027160**	Metal Film Resistor	16.0K 1/4 F				01
R719	**HF454750**	Carbon Resistor	75.0 1/4 J				01
R720	**HF454750**	Carbon Resistor	75.0 1/4 J				01
R721	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
R722	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
R723	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R724	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R725	**HB026390**	Metal Film Resistor	3.9K 1/4 F				
R726	**HB026390**	Metal Film Resistor	3.9K 1/4 F				
R801	**HB027150**	Metal Film Resistor	15.0K 1/4 F				01
R802	**HB027150**	Metal Film Resistor	15.0K 1/4 F				01
R804	**HB026680**	Metal Film Resistor	6.8K 1/4 F				01
R805	**HB026680**	Metal Film Resistor	6.8K 1/4 F				01
R807	**HB026100**	Metal Film Resistor	1.0K 1/4 F				01
R808	**HB026100**	Metal Film Resistor	1.0K 1/4 F				01
R809	**HF454390**	Carbon Resistor	39.0 1/4 J				01
R810	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
R811	**HB027100**	Metal Film Resistor	10.0K 1/4 F				
R812	**HB027100**	Metal Film Resistor	10.0K 1/4 F				
R813	**V9008100**	Metal Film Resistor	11.5K 1/4 D				
R814	**HB027100**	Metal Film Resistor	10.0K 1/4 F				
R815	**HB027180**	Metal Film Resistor	18.0K 1/4 F				01
R816	**HB027180**	Metal Film Resistor	18.0K 1/4 F				01
R817	**HB027160**	Metal Film Resistor	16.0K 1/4 F				01
R818	**HB027160**	Metal Film Resistor	16.0K 1/4 F				01
R819	**HF454750**	Carbon Resistor	75.0 1/4 J				01
R820	**HF454750**	Carbon Resistor	75.0 1/4 J				01
R821	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
R822	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
R823	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R824	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01

✻: New Parts

RANK: Japan only

REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
R825	**HB026390**	Metal Film Resistor	3.9K 1/4 F				
R826	**HB026390**	Metal Film Resistor	3.9K 1/4 F				
R901	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
-910	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
R911	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
R912	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
SW101	**VN316300**	Slide Switch	SSSS2-22-01		+4dB<->+18dB		02
SW201	**VN316300**	Slide Switch	SSSS2-22-01		+4dB<->+18dB		02
SW301	**VN316300**	Slide Switch	SSSS2-22-01		+4dB<->+18dB		02
SW401	**VN316300**	Slide Switch	SSSS2-22-01		+4dB<->+18dB		02
SW501	**VN316300**	Slide Switch	SSSS2-22-01		+4dB<->+18dB		02
SW601	**VN316300**	Slide Switch	SSSS2-22-01		+4dB<->+18dB		02
SW701	**VN316300**	Slide Switch	SSSS2-22-01		+4dB<->+18dB		02
SW801	**VN316300**	Slide Switch	SSSS2-22-01		+4dB<->+18dB		02
TR001	**VJ927100**	Transistor	2SC2712 Y				01
TR002	**VJ927100**	Transistor	2SC2712 Y				01
TR003	**VQ395600**	Transistor	2SA1052 B,C				01
TR004	**VG013300**	Transistor	2SB1132 82-390				01
TR101	**VK432900**	Transistor	2SD1915(F) S,T				01
TR102	**VK432900**	Transistor	2SD1915(F) S,T				01
TR201	**VK432900**	Transistor	2SD1915(F) S,T				01
TR202	**VK432900**	Transistor	2SD1915(F) S,T				01
TR301	**VK432900**	Transistor	2SD1915(F) S,T				01
TR302	**VK432900**	Transistor	2SD1915(F) S,T				01
TR401	**VK432900**	Transistor	2SD1915(F) S,T				01
TR402	**VK432900**	Transistor	2SD1915(F) S,T				01
TR501	**VK432900**	Transistor	2SD1915(F) S,T				01
TR502	**VK432900**	Transistor	2SD1915(F) S,T				01
TR601	**VK432900**	Transistor	2SD1915(F) S,T				01
TR602	**VK432900**	Transistor	2SD1915(F) S,T				01
TR701	**VK432900**	Transistor	2SD1915(F) S,T				01
TR702	**VK432900**	Transistor	2SD1915(F) S,T				01
TR801	**VK432900**	Transistor	2SD1915(F) S,T				01
TR802	**VK432900**	Transistor	2SD1915(F) S,T				01
*	**V8468900**	Circuit Board	DSP		(X2057C0)		
C01	**UF017470**	Electrolytic Cap. (chip)	47 6.3V				01
C02	**UF017470**	Electrolytic Cap. (chip)	47 6.3V				01
C03	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
-46	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
C47	**UF017470**	Electrolytic Cap. (chip)	47 6.3V				01
C48	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
-52	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
C53	**UB445330**	Monolithic Ceramic Cap.	F 0.330 16V Z				01
C54	**VJ903700**	Monolithic Ceramic Cap.	CH 560P 50V J				01
C55	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
C56	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
C57	**UB445330**	Monolithic Ceramic Cap.	F 0.330 16V Z				01
C58	**UB014220**	Monolithic Ceramic Cap.	B 0.022 50V K				01
C59	**UF128470**	Electrolytic Cap. (chip)	470 10V UUR1A4				02
C60	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
-63	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
C64	**UB014220**	Monolithic Ceramic Cap.	B 0.022 50V K				01
C65	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
C66	**UF128470**	Electrolytic Cap. (chip)	470 10V UUR1A4				02
C67	**UB014220**	Monolithic Ceramic Cap.	B 0.022 50V K				01
C68	**UB014220**	Monolithic Ceramic Cap.	B 0.022 50V K				01
C69	**UF128470**	Electrolytic Cap. (chip)	470 10V UUR1A4				02
C70	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
C71	**V6200900**	Capacitor	1.0000 16V M				01
C72	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
-74	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
C75	**UB014220**	Monolithic Ceramic Cap.	B 0.022 50V K				01
C76	**UF128470**	Electrolytic Cap. (chip)	470 10V UUR1A4				02
C77	**UB014220**	Monolithic Ceramic Cap.	B 0.022 50V K				01
C78	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
C79	**V6200900**	Capacitor	1.0000 16V M				01
C80	**VJ903700**	Monolithic Ceramic Cap.	CH 560P 50V J				01
C81	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
-88	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01

❇: New Parts

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REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
C89	**UB445330**	Monolithic Ceramic Cap.	F 0.330 16V Z				01
C90	**UB445330**	Monolithic Ceramic Cap.	F 0.330 16V Z				01
C91	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
C92	**UF118330**	Electrolytic Cap. (chip)	330 6.3V UUR0J3				01
C93	**VR327300**	Mylar Capacitor (chip)	0.0820 16V J				01
C94	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
-99	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
C100	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
-103	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
C104	**UF038100**	Electrolytic Cap. (chip)	100 16V				01
C105	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
C106	**UF038100**	Electrolytic Cap. (chip)	100 16V				01
C107	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
-117	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
C118	**VR328100**	Mylar Capacitor (chip)	.00022 50V J				01
C119	**VP864400**	Mylar Capacitor (chip)	0.0047 16V J				01
C120	**VR328100**	Mylar Capacitor (chip)	.00022 50V J				01
C121	**VP864400**	Mylar Capacitor (chip)	0.0047 16V J				01
C122	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
-150	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
C151	**UF038100**	Electrolytic Cap. (chip)	100 16V				01
C152	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
C153	**UF038100**	Electrolytic Cap. (chip)	100 16V				01
C154	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
-163	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
C164	**VR328100**	Mylar Capacitor (chip)	.00022 50V J				01
C165	**VP864400**	Mylar Capacitor (chip)	0.0047 16V J				01
C166	**VR328100**	Mylar Capacitor (chip)	.00022 50V J				01
C167	**VP864400**	Mylar Capacitor (chip)	0.0047 16V J				01
C168	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
-196	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
C197	**UF038100**	Electrolytic Cap. (chip)	100 16V				01
C198	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
-202	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
C203	**VR328100**	Mylar Capacitor (chip)	.00022 50V J				01
C204	**VP864400**	Mylar Capacitor (chip)	0.0047 16V J				01
C205	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
-219	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
C220	**UF038100**	Electrolytic Cap. (chip)	100 16V				01
C221	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
C222	**UF038100**	Electrolytic Cap. (chip)	100 16V				01
C223	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
-232	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
C233	**VR328100**	Mylar Capacitor (chip)	.00022 50V J				01
C234	**VP864400**	Mylar Capacitor (chip)	0.0047 16V J				01
C235	**VR328100**	Mylar Capacitor (chip)	.00022 50V J				01
C236	**VP864400**	Mylar Capacitor (chip)	0.0047 16V J				01
C237	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
-265	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
C268	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
-272	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
C273	**VR328100**	Mylar Capacitor (chip)	.00022 50V J				01
C274	**VP864400**	Mylar Capacitor (chip)	0.0047 16V J				01
C275	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
-293	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
C294	**VR328100**	Mylar Capacitor (chip)	.00022 50V J				01
C295	**VP864400**	Mylar Capacitor (chip)	0.0047 16V J				01
C296	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
-309	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
C401	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
-479	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
C481	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
C482	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
C701	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
-706	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
C801	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
-806	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
C851	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
C852	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
C853	**UB052100**	Monolithic Ceramic Cap.	SL 100P 50V J				01

✻: New Parts

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	C901	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
	-909	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
	C951	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
	C952	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
	C954	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
	C955	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
	C961	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
	-963	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
	C964	**UF119100**	Electrolytic Cap. (chip)	1000 6.3V UUR0J1				02
	C965	**UF119100**	Electrolytic Cap. (chip)	1000 6.3V UUR0J1				02
	C971	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
	C972	**UB044100**	Monolithic Ceramic Cap.	F 0.010 50V Z				01
	C973	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
	C974	**V8878500**	Electrolytic Cap. (chip)	150 16V				04
	C976	**V8878900**	Electrolytic Cap. (chip)	330 6.3V				04
	C980	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
	C1001	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
	-1019	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
	C1111	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
	-1134	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
	C1301	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
	-1336	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
*	CN104	**V9152000**	Plug	PHEC 80P TE				
*	CN105	**V9152000**	Plug	PHEC 80P TE				
	CN801	**VQ048500**	Connector, FFC	52045 36P TE				02
	CN802	**VQ048500**	Connector, FFC	52045 36P TE				02
*	CN803	**VQ151900**	Connector, FFC	52045 38P TE				
	CN804	**VP327200**	Connector, FFC	52045 30P TE				01
	CN805	**VO022100**	Connector, FFC	52045 40P TE				02
	CN901	**VQ048500**	Connector, FFC	52045 36P TE				02
	CN902	**VO022100**	Connector, FFC	52045 40P TE				02
	CN903	**VO022100**	Connector, FFC	52045 40P TE				02
	CN904	**VQ048100**	Connector, FFC	52045 32P TE				01
	CN905	**VF667600**	Wire Trap	52147 15P TE				01
	CN951	**VF728200**	Wire Trap	52147 10P TE				01
	CN952	**VK025600**	Wire Trap	52147 12P TE				01
	CN953	**VK025800**	Wire Trap	52147 14P TE				01
	CN954	**VF667700**	Wire Trap	52147 17P TE				01
	CN955	**VJ861600**	Wire Trap	52147 16P TE				01
	CN956	**VF728200**	Wire Trap	52147 10P TE				01
	CN961	**VK025100**	Wire Trap	52147 7P TE				01
	CN962	**VK025700**	Wire Trap	52147 13P TE				01
	CN963	**VJ861600**	Wire Trap	52147 16P TE				01
	D051	**VT332900**	Diode	1SS355 TE-17				01
	D052	**VT332900**	Diode	1SS355 TE-17				01
*	D961	**V9224500**	Diode	RB081L-20 TE25				
	EM051	**FZ006970**	LC Filter	MTY223NBTBM				02
	EM052	**FZ006970**	LC Filter	MTY223NBTBM				02
	EM101	**FZ006970**	LC Filter	MTY223NBTBM				02
	EM401	**FZ006970**	LC Filter	MTY223NBTBM				02
	EM961	**FZ006970**	LC Filter	MTY223NBTBM				02
	-963	**FZ006970**	LC Filter	MTY223NBTBM				02
	IC001	**IS054100**	IC	HD74LV541AFPEL		BUFFER		03
	IC002	**XV242A00**	IC	TC74VHCT245AF		TRANSCEIVER		03
	-004	**XV242A00**	IC	TC74VHCT245AF		TRANSCEIVER		03
	IC005	**XT487A00**	IC	TC74VHC245F		TRANSCEIVER		03
	-009	**XT487A00**	IC	TC74VHC245F		TRANSCEIVER		03
	IC010	**XU229A00**	IC	TC74LVX4245FS		TRANSCEIVER		04
	IC011	**XU229A00**	IC	TC74LVX4245FS		TRANSCEIVER		04
	IC012	**XS775A00**	IC	TC7SH04FU		INVERTER		01
	IC013	**XT487A00**	IC	TC74VHC245F		TRANSCEIVER		03
	-020	**XT487A00**	IC	TC74VHC245F		TRANSCEIVER		03
	IC021	**XU229A00**	IC	TC74LVX4245FS		TRANSCEIVER		04
	IC022	**XU229A00**	IC	TC74LVX4245FS		TRANSCEIVER		04
	IC023	**XV242A00**	IC	TC74VHCT245AF		TRANSCEIVER		03
	-027	**XV242A00**	IC	TC74VHCT245AF		TRANSCEIVER		03
	IC028	**XU229A00**	IC	TC74LVX4245FS		TRANSCEIVER		04
	-031	**XU229A00**	IC	TC74LVX4245FS		TRANSCEIVER		04
	IC032	**XY537A00**	IC	TC74VHC32F(EL)		OR		01
	IC033	**XN241A00**	IC	TC74HC32AF		OR		

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	IC051	**XW633A00**	IC	TC7SH32FU(TE85L)		OR		01
	IC052	**XT487A00**	IC	TC74VHC245F		TRANSCEIVER		03
	-054	**XT487A00**	IC	TC74VHC245F		TRANSCEIVER		03
	IC055	**XV242A00**	IC	TC74VHCT245AF		TRANSCEIVER		03
	IC056	**XZ334A00**	IC	XCS40-3PQ240C		FPGA		22
	IC057	**XW876A00**	IC	TC74VHC14F-EL		INVERTER		01
	IC058	**XT229A00**	IC	TC74VHC00F		NAND		01
	IC059	**XW422A00**	IC	M51953AFP		SYSTEM RESET		01
	IC060	**IS405300**	IC	HD74LV4053AFPEL		MULTIPLEXER		02
	IC061	**XV064A00**	IC	TLC2932IPWR		PLL		06
	IC062	**IS405300**	IC	HD74LV4053AFPEL		MULTIPLEXER		02
	IC063	**XV064A00**	IC	TLC2932IPWR		PLL		06
	IC064	**XG948E00**	IC	YM3436DK		DIR2		11
	IC065	**X2855A00**	IC	DSPV212		PROM		11
	IC066	**XS775A00**	IC	TC7SH04FU		INVERTER		01
	IC067	**XT487A00**	IC	TC74VHC245F		TRANSCEIVER		03
	-069	**XT487A00**	IC	TC74VHC245F		TRANSCEIVER		03
	IC070	**XY961A00**	IC	74VHC541SJX		BUFFER		03
	IC071	**XY961A00**	IC	74VHC541SJX		BUFFER		03
	IC072	**XW876A00**	IC	TC74VHC14F-EL		INVERTER		01
	IC073	**XW422A00**	IC	M51953AFP		SYSTEM RESET		01
	IC101	**XW874A00**	IC	HY57V161610DTC-8		SDRAM 16M		08
	-104	**XW874A00**	IC	HY57V161610DTC-8		SDRAM 16M		08
	IC101	**X2360A00**	IC	K4S161622D-TC80		SDRAM 16M		
	-104	**X2360A00**	IC	K4S161622D-TC80		SDRAM 16M		
*	IC101	**X3482A00**	IC	MSM56V16160F-8		SDRAM 16M		
*	-104	**X3482A00**	IC	MSM56V16160F-8		SDRAM 16M		
	IC105	**XW875A00**	IC	TC74VHC74F-EL		D-FF		01
	IC106	**XY961A00**	IC	74VHC541SJX		BUFFER		03
	IC107	**XW874A00**	IC	HY57V161610DTC-8		SDRAM 16M		08
	-109	**XW874A00**	IC	HY57V161610DTC-8		SDRAM 16M		08
	IC107	**X2360A00**	IC	K4S161622D-TC80		SDRAM 16M		
	-109	**X2360A00**	IC	K4S161622D-TC80		SDRAM 16M		
*	IC107	**X3482A00**	IC	MSM56V16160F-8		SDRAM 16M		
*	-109	**X3482A00**	IC	MSM56V16160F-8		SDRAM 16M		
	IC120	**XT487A00**	IC	TC74VHC245F		TRANSCEIVER		03
	IC401	**XV077B00**	IC	MSM514260E-60JS		DRAM 4M		
	-408	**XV077B00**	IC	MSM514260E-60JS		DRAM 4M		
	IC409	**XT487A00**	IC	TC74VHC245F		TRANSCEIVER		03
	IC410	**XT487A00**	IC	TC74VHC245F		TRANSCEIVER		03
	IC412	**XT812A00**	IC	TC74VHC11F(EL)		AND		01
	IC413	**XT812A00**	IC	TC74VHC11F(EL)		AND		01
	IC601	**X2162A00**	IC	MBCG61594-128		ATSC2		11
	-604	**X2162A00**	IC	MBCG61594-128		ATSC2		11
	IC605	**XT487A00**	IC	TC74VHC245F		TRANSCEIVER		03
	-607	**XT487A00**	IC	TC74VHC245F		TRANSCEIVER		03
	IC608	**XT475A00**	IC	TC74VHC157F(EL)		MULTIPLEXER		02
	-611	**XT475A00**	IC	TC74VHC157F(EL)		MULTIPLEXER		02
	IC612	**XT487A00**	IC	TC74VHC245F		TRANSCEIVER		03
	-615	**XT487A00**	IC	TC74VHC245F		TRANSCEIVER		03
	IC651	**X2162A00**	IC	MBCG61594-128		ATSC2		11
	-654	**X2162A00**	IC	MBCG61594-128		ATSC2		11
	IC655	**XT475A00**	IC	TC74VHC157F(EL)		MULTIPLEXER		02
	-658	**XT475A00**	IC	TC74VHC157F(EL)		MULTIPLEXER		02
	IC701	**IS404010**	IC	SN74LV4040ANSR		COUNTER		02
	IC702	**XM332A00**	IC	TC74VHC04F EL		INVERTER		01
	IC703	**XU240A00**	IC	YM6604C-S		ACIA		11
	IC704	**XT229A00**	IC	TC74VHC00F		NAND		01
	IC705	**XW313A00**	IC	TC74VHC125F		BUFFER		02
	IC801	**XV242A00**	IC	TC74VHCT245AF		TRANSCEIVER		03
	IC802	**XT487A00**	IC	TC74VHC245F		TRANSCEIVER		03
	IC803	**XY961A00**	IC	74VHC541SJX		BUFFER		03
	IC804	**XV242A00**	IC	TC74VHCT245AF		TRANSCEIVER		03
	IC805	**XT487A00**	IC	TC74VHC245F		TRANSCEIVER		03
	IC806	**XY961A00**	IC	74VHC541SJX		BUFFER		03
	IC851	**XT487A00**	IC	TC74VHC245F		TRANSCEIVER		03
	IC852	**XY961A00**	IC	74VHC541SJX		BUFFER		03
	IC901	**XT487A00**	IC	TC74VHC245F		TRANSCEIVER		03
	IC902	**XV242A00**	IC	TC74VHCT245AF		TRANSCEIVER		03
	IC903	**XY961A00**	IC	74VHC541SJX		BUFFER		03

*: New Parts

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	IC904	**XT800A00**	IC	TC74VHC244F		BUFFER		03
	IC905	**XT800A00**	IC	TC74VHC244F		BUFFER		03
	IC906	**XV242A00**	IC	TC74VHCT245AF		TRANSCEIVER		03
	IC907	**XV242A00**	IC	TC74VHCT245AF		TRANSCEIVER		03
	IC908	**XY961A00**	IC	74VHC541SJX		BUFFER		03
	IC909	**XY961A00**	IC	74VHC541SJX		BUFFER		03
	IC951	**XY961A00**	IC	74VHC541SJX		BUFFER		03
	IC952	**XY961A00**	IC	74VHC541SJX		BUFFER		03
	IC953	**XV242A00**	IC	TC74VHCT245AF		TRANSCEIVER		03
	IC955	**XY537A00**	IC	TC74VHC32F(EL)		OR		01
*	IC961	**X2789A00**	IC	LM2678SX-ADJ		DC-DC CONVERTER		
	ICA01	**XV988A00**	IC	YSS910-S		DSP6		10
	-04	**XV988A00**	IC	YSS910-S		DSP6		10
	ICB01	**XZ693A00**	IC	YSS919-H		DSP7		15
	-09	**XZ693A00**	IC	YSS919-H		DSP7		15
	L51	**GE300610**	Ferrite Bead	BL02RN1-R62T4				01
	-55	**GE300610**	Ferrite Bead	BL02RN1-R62T4				01
	L56	**V8143400**	Chip Inductance	BLM21R121SKPT				01
	-58	**V8143400**	Chip Inductance	BLM21R121SKPT				01
	L60	**V8143400**	Chip Inductance	BLM21R121SKPT				01
	L62	**V8143400**	Chip Inductance	BLM21R121SKPT				01
	L64	**V8143400**	Chip Inductance	BLM21R121SKPT				01
	L66	**GE300610**	Ferrite Bead	BL02RN1-R62T4				01
	L67	**V8143400**	Chip Inductance	BLM21R121SKPT				01
	-99	**V8143400**	Chip Inductance	BLM21R121SKPT				01
	L101	**V8143400**	Chip Inductance	BLM21R121SKPT				01
	L401	**V8143400**	Chip Inductance	BLM21R121SKPT				01
	L801	**V8143400**	Chip Inductance	BLM21R121SKPT				01
	-805	**V8143400**	Chip Inductance	BLM21R121SKPT				01
	L809	**V8143400**	Chip Inductance	BLM21R121SKPT				01
	-813	**V8143400**	Chip Inductance	BLM21R121SKPT				01
	L816	**V8143400**	Chip Inductance	BLM21R121SKPT				01
	-820	**V8143400**	Chip Inductance	BLM21R121SKPT				01
	L852	**V8143400**	Chip Inductance	BLM21R121SKPT				01
	-856	**V8143400**	Chip Inductance	BLM21R121SKPT				01
	L859	**V8143400**	Chip Inductance	BLM21R121SKPT				01
	-873	**V8143400**	Chip Inductance	BLM21R121SKPT				01
	L901	**V8143400**	Chip Inductance	BLM21R121SKPT				01
	-921	**V8143400**	Chip Inductance	BLM21R121SKPT				01
	L923	**V8143400**	Chip Inductance	BLM21R121SKPT				01
	-945	**V8143400**	Chip Inductance	BLM21R121SKPT				01
	L951	**V8143400**	Chip Inductance	BLM21R121SKPT				01
	-976	**V8143400**	Chip Inductance	BLM21R121SKPT				01
*	L991	**V9224400**	Coil	CDRH127-270MC 27uH				
*	L994	**V9224400**	Coil	CDRH127-270MC 27uH				
	R01	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
	R02	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
	-11	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
	R51	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
	-53	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
	R54	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
	R55	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
	R56	**RD255150**	Carbon Resistor (chip)	150.0 0.1 J				01
	R57	**RD256150**	Carbon Resistor (chip)	1.5K 0.1 J				01
	R58	**RD257470**	Carbon Resistor (chip)	47.0K 0.1 J				01
	-60	**RD257470**	Carbon Resistor (chip)	47.0K 0.1 J				01
	R61	**VI195300**	Metal Film Resistor (chip)	1.5K 1/10 D				01
	R62	**VI195500**	Metal Film Resistor (chip)	1.8K 1/10 D				01
	R63	**VI193700**	Metal Film Resistor (chip)	330.0 1/10 D				01
	R64	**VI194900**	Metal Film Resistor (chip)	1.0K 1/10 D				01
	R65	**RD257470**	Carbon Resistor (chip)	47.0K 0.1 J				01
	R66	**RD256150**	Carbon Resistor (chip)	1.5K 0.1 J				01
	R67	**RD255150**	Carbon Resistor (chip)	150.0 0.1 J				01
	R68	**VI195300**	Metal Film Resistor (chip)	1.5K 1/10 D				01
	R69	**VI195500**	Metal Film Resistor (chip)	1.8K 1/10 D				01
	R70	**VI193700**	Metal Film Resistor (chip)	330.0 1/10 D				01
	R71	**VI196000**	Metal Film Resistor (chip)	3.0K 1/10 D				01
	R72	**RD257470**	Carbon Resistor (chip)	47.0K 0.1 J				01
	R73	**RD257470**	Carbon Resistor (chip)	47.0K 0.1 J				01
	R74	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01

❇: New Parts

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REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
R75	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R76	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R77	**RD256470**	Carbon Resistor (chip)	4.7K 0.1 J				01
R78	**VI194600**	Metal Film Resistor (chip)	750.0 1/10 D				01
R79	**VI196100**	Metal Film Resistor (chip)	3.3K 1/10 D				01
R80	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R81	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R101	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
-104	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
R105	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R106	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R107	**VI195700**	Metal Film Resistor (chip)	2.2K 1/10 D				01
R108	**VI195700**	Metal Film Resistor (chip)	2.2K 1/10 D				01
R109	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R110	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R111	**VI195700**	Metal Film Resistor (chip)	2.2K 1/10 D				01
R112	**VI195700**	Metal Film Resistor (chip)	2.2K 1/10 D				01
R113	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R114	**VI195700**	Metal Film Resistor (chip)	2.2K 1/10 D				01
R115	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R116	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R117	**VI195700**	Metal Film Resistor (chip)	2.2K 1/10 D				01
R118	**VI195700**	Metal Film Resistor (chip)	2.2K 1/10 D				01
R119	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R120	**VI195700**	Metal Film Resistor (chip)	2.2K 1/10 D				01
R121	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R122	**VI195700**	Metal Film Resistor (chip)	2.2K 1/10 D				01
R159	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
R161	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
R163	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
R165	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
R401	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
-404	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
R501	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
-503	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
R701	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
-703	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R806	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
-808	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
R814	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
R815	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
R851	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
R857	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
R961	**VI194900**	Metal Film Resistor (chip)	1.0K 1/10 D				01
R962	**VI194500**	Metal Film Resistor (chip)	680.0 1/10 D				01
R963	**VI193900**	Metal Film Resistor (chip)	390.0 1/10 D				01
R981	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
RA001	**RE047100**	Resistor Array	10KX4				01
-043	**RE047100**	Resistor Array	10KX4				01
RA051	**RE047100**	Resistor Array	10KX4				01
-064	**RE047100**	Resistor Array	10KX4				01
RA701	**RE047100**	Resistor Array	10KX4				01
RA702	**RE047100**	Resistor Array	10KX4				01
RA801	**RE047100**	Resistor Array	10KX4				01
-807	**RE047100**	Resistor Array	10KX4				01
RA851	**RE047100**	Resistor Array	10KX4				01
-854	**RE047100**	Resistor Array	10KX4				01
RA857	**RE044680**	Resistor Array	68X4				01
-860	**RE044680**	Resistor Array	68X4				01
RA901	**RE044220**	Resistor Array	22X4				01
RA902	**RE044220**	Resistor Array	22X4				01
RA903	**RE047100**	Resistor Array	10KX4				01
-907	**RE047100**	Resistor Array	10KX4				01
RA908	**RE044220**	Resistor Array	22X4				01
RA909	**RE044220**	Resistor Array	22X4				01
RA910	**RE047100**	Resistor Array	10KX4				01
-912	**RE047100**	Resistor Array	10KX4				01
RA951	**RE047100**	Resistor Array	10KX4				01
-955	**RE047100**	Resistor Array	10KX4				01
SO065	**VV047100**	IC Socket	DICF-8CS-E				01

✻: New Parts

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	X051	**V4552100**	Quartz Crystal Unit	45.1584MHz DSO751S				05
	X052	**V4552200**	Quartz Crystal Unit	49.152MHz DSO751S				05
	X101	**VZ156100**	Quartz Crystal Unit	60MHz DSO751S				06
	X401	**VZ156100**	Quartz Crystal Unit	60MHz DSO751S				06
*		**V8626900**	Circuit Board	FD1		(X2053B0)		
		EC030030	Flat Head Screw	3.0X6 MFZN2BL			32	01
*		**V7987200**	Fader Angle	1			2	
	C101	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
	-140	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
	C141	**UF138220**	Electrolytic Cap. (chip)	220 16V UUR1C2				01
	C142	**UF138220**	Electrolytic Cap. (chip)	220 16V UUR1C2				01
	C143	**UF128220**	Electrolytic Cap. (chip)	220 10V UUR1A2				01
	C144	**UF027470**	Electrolytic Cap. (chip)	47 10V				01
	C145	**UF037470**	Electrolytic Cap. (chip)	47 16V				01
	C146	**UB052100**	Monolithic Ceramic Cap.	SL 100P 50V J				01
	-149	**UB052100**	Monolithic Ceramic Cap.	SL 100P 50V J				01
	C150	**UF138220**	Electrolytic Cap. (chip)	220 16V UUR1C2				01
	C151	**UF046470**	Electrolytic Cap. (chip)	4.7 25V				01
	C152	**UF138220**	Electrolytic Cap. (chip)	220 16V UUR1C2				01
	C153	**UF046470**	Electrolytic Cap. (chip)	4.7 25V				01
	C154	**UF138220**	Electrolytic Cap. (chip)	220 16V UUR1C2				01
	C155	**UF046470**	Electrolytic Cap. (chip)	4.7 25V				01
	C156	**UF138220**	Electrolytic Cap. (chip)	220 16V UUR1C2				01
	C157	**UF046470**	Electrolytic Cap. (chip)	4.7 25V				01
	C158	**UF138220**	Electrolytic Cap. (chip)	220 16V UUR1C2				01
	C159	**UF046470**	Electrolytic Cap. (chip)	4.7 25V				01
	C160	**UF138220**	Electrolytic Cap. (chip)	220 16V UUR1C2				01
	C161	**UF046470**	Electrolytic Cap. (chip)	4.7 25V				01
	C162	**UF138220**	Electrolytic Cap. (chip)	220 16V UUR1C2				01
	C163	**UF046470**	Electrolytic Cap. (chip)	4.7 25V				01
	C164	**UF138220**	Electrolytic Cap. (chip)	220 16V UUR1C2				01
	C165	**UF046470**	Electrolytic Cap. (chip)	4.7 25V				01
	C166	**UF138220**	Electrolytic Cap. (chip)	220 16V UUR1C2				01
	C167	**UF046470**	Electrolytic Cap. (chip)	4.7 25V				01
	C168	**UF138220**	Electrolytic Cap. (chip)	220 16V UUR1C2				01
	C169	**UF046470**	Electrolytic Cap. (chip)	4.7 25V				01
	C170	**UF138220**	Electrolytic Cap. (chip)	220 16V UUR1C2				01
	C171	**UF046470**	Electrolytic Cap. (chip)	4.7 25V				01
	C172	**UF138220**	Electrolytic Cap. (chip)	220 16V UUR1C2				01
	C173	**UF046470**	Electrolytic Cap. (chip)	4.7 25V				01
	C174	**UF138220**	Electrolytic Cap. (chip)	220 16V UUR1C2				01
	C175	**UF046470**	Electrolytic Cap. (chip)	4.7 25V				01
	C176	**UF138220**	Electrolytic Cap. (chip)	220 16V UUR1C2				01
	C177	**UF046470**	Electrolytic Cap. (chip)	4.7 25V				01
	C178	**UF138220**	Electrolytic Cap. (chip)	220 16V UUR1C2				01
	C179	**UF046470**	Electrolytic Cap. (chip)	4.7 25V				01
	C180	**UF138220**	Electrolytic Cap. (chip)	220 16V UUR1C2				01
	C181	**UF046470**	Electrolytic Cap. (chip)	4.7 25V				01
	C182	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
	C183	**VS029500**	Mylar Capacitor (chip)	.00047 50V G				01
	C184	**VS029500**	Mylar Capacitor (chip)	.00047 50V G				01
	C185	**UB051470**	Monolithic Ceramic Cap.	SL 47P 50V J				01
	C186	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
	C187	**VS029500**	Mylar Capacitor (chip)	.00047 50V G				01
	C188	**VS029500**	Mylar Capacitor (chip)	.00047 50V G				01
	C189	**UB051470**	Monolithic Ceramic Cap.	SL 47P 50V J				01
	C190	**UB051470**	Monolithic Ceramic Cap.	SL 47P 50V J				01
	C191	**UB013150**	Monolithic Ceramic Cap.	B 1500P 50V K				01
	-193	**UB013150**	Monolithic Ceramic Cap.	B 1500P 50V K				01
	C194	**UF037470**	Electrolytic Cap. (chip)	47 16V				01
	C195	**UB052470**	Monolithic Ceramic Cap.	SL 470P 50V J				01
	C212	**UF138220**	Electrolytic Cap. (chip)	220 16V UUR1C2				01
	C213	**UF138220**	Electrolytic Cap. (chip)	220 16V UUR1C2				01
	CN101	**VQ045100**	Connector, FFC	52044 21P SE				02
	CN102	**VI879400**	Cable Holder	51048 16P TE				01
	CN103	**VQ044900**	Connector, FFC	52044 19P SE				01
	D101	**VT332900**	Diode	1SS355 TE-17				01
	-103	**VT332900**	Diode	1SS355 TE-17				01
	DA101	**VV556300**	Diode Array	DAN217 0.3A X2				01

✻: New Parts

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REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
-104	**VV556300**	Diode Array	DAN217 0.3A X2				01
DA121	**VV556300**	Diode Array	DAN217 0.3A X2				01
DA122	**VV556300**	Diode Array	DAN217 0.3A X2				01
DA123	**V8974000**	Zener Diode	NNCD6.2MF 6.2V SMD				
-138	**V8974000**	Zener Diode	NNCD6.2MF 6.2V SMD				
EM101	**FZ006970**	LC Filter	MTY223NBTBM				02
-107	**FZ006970**	LC Filter	MTY223NBTBM				02
IC101	**XS720A00**	IC	TC74HC245AF		TRANSCEIVER		03
-103	**XS720A00**	IC	TC74HC245AF		TRANSCEIVER		03
IC104	**XY198A00**	IC	MM74HC273SJX		D-FF		03
-109	**XY198A00**	IC	MM74HC273SJX		D-FF		03
IC110	**XS790A00**	IC	TC74HC4052AF		MULTIPLEXER		02
IC111	**XS790A00**	IC	TC74HC4052AF		MULTIPLEXER		02
IC112	**XR532A00**	IC	NJM2904V(TE1)		OP AMP		02
IC113	**XR532A00**	IC	NJM2904V(TE1)		OP AMP		02
IC114	**XW618A00**	IC	TA7291F		MOTOR DRIVER		02
-129	**XW618A00**	IC	TA7291F		MOTOR DRIVER		02
IC130	**XH610A00**	IC	HD74LS06FPEL		INVERTER		02
-132	**XH610A00**	IC	HD74LS06FPEL		INVERTER		02
IC133	**XT618A00**	IC	NJM2068V(TE1)		OP AMP		01
-136	**XT618A00**	IC	NJM2068V(TE1)		OP AMP		01
IC137	**XR532A00**	IC	NJM2904V(TE1)		OP AMP		02
IC138	**XW105A00**	IC	MM74HC00SJX		NAND		01
IC139	**IS405100**	IC	HD74LV4051AFPEL		MULTIPLEXER		02
IC140	**IS405100**	IC	HD74LV4051AFPEL		MULTIPLEXER		02
R101	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
-104	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
R105	**VC756300**	Metal Oxide Film Resistor	10.0 2W J				01
R106	**RD256680**	Carbon Resistor (chip)	6.8K 0.1 J				01
R107	**RD255680**	Carbon Resistor (chip)	680.0 0.1 J				01
R108	**RD155100**	Carbon Resistor (chip)	100.0 1/4 J				01
R109	**VC756300**	Metal Oxide Film Resistor	10.0 2W J				01
R110	**RD256680**	Carbon Resistor (chip)	6.8K 0.1 J				01
R111	**RD255680**	Carbon Resistor (chip)	680.0 0.1 J				01
R112	**RD155100**	Carbon Resistor (chip)	100.0 1/4 J				01
R113	**VC756300**	Metal Oxide Film Resistor	10.0 2W J				01
R114	**RD256680**	Carbon Resistor (chip)	6.8K 0.1 J				01
R115	**RD255680**	Carbon Resistor (chip)	680.0 0.1 J				01
R116	**RD155100**	Carbon Resistor (chip)	100.0 1/4 J				01
R117	**VC756300**	Metal Oxide Film Resistor	10.0 2W J				01
R118	**RD256680**	Carbon Resistor (chip)	6.8K 0.1 J				01
R119	**RD255680**	Carbon Resistor (chip)	680.0 0.1 J				01
R120	**RD155100**	Carbon Resistor (chip)	100.0 1/4 J				01
R121	**VC756300**	Metal Oxide Film Resistor	10.0 2W J				01
R122	**RD256680**	Carbon Resistor (chip)	6.8K 0.1 J				01
R123	**RD255680**	Carbon Resistor (chip)	680.0 0.1 J				01
R124	**RD155100**	Carbon Resistor (chip)	100.0 1/4 J				01
R125	**VC756300**	Metal Oxide Film Resistor	10.0 2W J				01
R126	**RD256680**	Carbon Resistor (chip)	6.8K 0.1 J				01
R127	**RD255680**	Carbon Resistor (chip)	680.0 0.1 J				01
R128	**RD155100**	Carbon Resistor (chip)	100.0 1/4 J				01
R129	**VC756300**	Metal Oxide Film Resistor	10.0 2W J				01
R130	**RD256680**	Carbon Resistor (chip)	6.8K 0.1 J				01
R131	**RD255680**	Carbon Resistor (chip)	680.0 0.1 J				01
R132	**RD155100**	Carbon Resistor (chip)	100.0 1/4 J				01
R133	**VC756300**	Metal Oxide Film Resistor	10.0 2W J				01
R134	**RD256680**	Carbon Resistor (chip)	6.8K 0.1 J				01
R135	**RD255680**	Carbon Resistor (chip)	680.0 0.1 J				01
R136	**RD155100**	Carbon Resistor (chip)	100.0 1/4 J				01
R137	**VC756300**	Metal Oxide Film Resistor	10.0 2W J				01
R138	**RD256680**	Carbon Resistor (chip)	6.8K 0.1 J				01
R139	**RD255680**	Carbon Resistor (chip)	680.0 0.1 J				01
R140	**RD155100**	Carbon Resistor (chip)	100.0 1/4 J				01
R141	**VC756300**	Metal Oxide Film Resistor	10.0 2W J				01
R142	**RD256680**	Carbon Resistor (chip)	6.8K 0.1 J				01
R143	**RD255680**	Carbon Resistor (chip)	680.0 0.1 J				01
R144	**RD155100**	Carbon Resistor (chip)	100.0 1/4 J				01
R145	**VC756300**	Metal Oxide Film Resistor	10.0 2W J				01
R146	**RD256680**	Carbon Resistor (chip)	6.8K 0.1 J				01
R147	**RD255680**	Carbon Resistor (chip)	680.0 0.1 J				01

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REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
R148	**RD155100**	Carbon Resistor (chip)	100.0 1/4 J				01
R149	**VC756300**	Metal Oxide Film Resistor	10.0 2W J				01
R150	**RD256680**	Carbon Resistor (chip)	6.8K 0.1 J				01
R151	**RD255680**	Carbon Resistor (chip)	680.0 0.1 J				01
R152	**RD155100**	Carbon Resistor (chip)	100.0 1/4 J				01
R153	**VC756300**	Metal Oxide Film Resistor	10.0 2W J				01
R154	**RD256680**	Carbon Resistor (chip)	6.8K 0.1 J				01
R155	**RD255680**	Carbon Resistor (chip)	680.0 0.1 J				01
R156	**RD155100**	Carbon Resistor (chip)	100.0 1/4 J				01
R157	**VC756300**	Metal Oxide Film Resistor	10.0 2W J				01
R158	**RD256680**	Carbon Resistor (chip)	6.8K 0.1 J				01
R159	**RD255680**	Carbon Resistor (chip)	680.0 0.1 J				01
R160	**RD155100**	Carbon Resistor (chip)	100.0 1/4 J				01
R161	**VC756300**	Metal Oxide Film Resistor	10.0 2W J				01
R162	**RD256680**	Carbon Resistor (chip)	6.8K 0.1 J				01
R163	**RD255680**	Carbon Resistor (chip)	680.0 0.1 J				01
R164	**RD155100**	Carbon Resistor (chip)	100.0 1/4 J				01
R165	**VC756300**	Metal Oxide Film Resistor	10.0 2W J				01
R166	**RD256680**	Carbon Resistor (chip)	6.8K 0.1 J				01
R167	**RD255680**	Carbon Resistor (chip)	680.0 0.1 J				01
R168	**RD155100**	Carbon Resistor (chip)	100.0 1/4 J				01
R169	**RD256390**	Carbon Resistor (chip)	3.9K 0.1 J				01
R170	**RD256160**	Carbon Resistor (chip)	1.6K 0.1 J				01
R171	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R172	**RD257120**	Carbon Resistor (chip)	12.0K 0.1 J				01
R173	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R174	**RD256100**	Carbon Resistor (chip)	1.0K 0.1 J				01
R175	**RD256180**	Carbon Resistor (chip)	1.8K 0.1 J				01
R176	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R177	**RD257750**	Carbon Resistor (chip)	75.0K 0.1 J				01
R178	**RD256150**	Carbon Resistor (chip)	1.5K 0.1 J				01
R179	**RD258150**	Carbon Resistor (chip)	150.0K 0.1 J				01
R180	**RD257470**	Carbon Resistor (chip)	47.0K 0.1 J				01
R181	**RD256330**	Carbon Resistor (chip)	3.3K 0.1 J				01
R182	**RD256330**	Carbon Resistor (chip)	3.3K 0.1 J				01
R183	**RD257240**	Carbon Resistor (chip)	24.0K 0.1 J				01
R184	**RD256180**	Carbon Resistor (chip)	1.8K 0.1 J				01
R185	**RD258130**	Carbon Resistor (chip)	130.0K 0.1 J				
R186	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
-188	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R189	**RD257200**	Carbon Resistor (chip)	20.0K 0.1 J				01
R190	**RD257200**	Carbon Resistor (chip)	20.0K 0.1 J				01
R191	**RD257150**	Carbon Resistor (chip)	15.0K 0.1 J				01
R192	**RD257150**	Carbon Resistor (chip)	15.0K 0.1 J				01
R193	**RD258330**	Carbon Resistor (chip)	330.0K 0.1 J				01
R194	**RD256220**	Carbon Resistor (chip)	2.2K 0.1 J				01
R195	**RD256910**	Carbon Resistor (chip)	9.1K 0.1 J				01
R196	**RD257560**	Carbon Resistor (chip)	56.0K 0.1 J				01
R197	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R198	**RD257560**	Carbon Resistor (chip)	56.0K 0.1 J				01
R199	**RD255150**	Carbon Resistor (chip)	150.0 0.1 J				01
R200	**RD257240**	Carbon Resistor (chip)	24.0K 0.1 J				01
-215	**RD257240**	Carbon Resistor (chip)	24.0K 0.1 J				01
R216	**RD258150**	Carbon Resistor (chip)	150.0K 0.1 J				01
-231	**RD258150**	Carbon Resistor (chip)	150.0K 0.1 J				01
RA101	**RE047100**	Resistor Array	10KX4				01
-106	**RE047100**	Resistor Array	10KX4				01
VR101	**V6226100**	Slide Pot., Motor Drive	B10K		1 fader		09
VR102	**V6226100**	Slide Pot., Motor Drive	B10K		2 fader		09
VR103	**V6226100**	Slide Pot., Motor Drive	B10K		3 fader		09
VR104	**V6226100**	Slide Pot., Motor Drive	B10K		4 fader		09
VR105	**V6226100**	Slide Pot., Motor Drive	B10K		5 fader		09
VR106	**V6226100**	Slide Pot., Motor Drive	B10K		6 fader		09
VR107	**V6226100**	Slide Pot., Motor Drive	B10K		7 fader		09
VR108	**V6226100**	Slide Pot., Motor Drive	B10K		8 fader		09
VR109	**V6226100**	Slide Pot., Motor Drive	B10K		9 fader		09
VR110	**V6226100**	Slide Pot., Motor Drive	B10K		10 fader		09
VR111	**V6226100**	Slide Pot., Motor Drive	B10K		11 fader		09
VR112	**V6226100**	Slide Pot., Motor Drive	B10K		12 fader		09
VR113	**V6226100**	Slide Pot., Motor Drive	B10K		13 fader		09

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	VR114	**V6226100**	Slide Pot., Motor Drive	B10K		14 fader		09
	VR115	**V6226100**	Slide Pot., Motor Drive	B10K		15 fader		09
	VR116	**V6226100**	Slide Pot., Motor Drive	B10K		16 fader		09
*	W102	**V2016100**	Jumper Wire	FVP=2.0C26SB16-570				
	ZD101	**VU171800**	Zener Diode	UDZ 4.7BTE-17 4.7V				01
*		**V8627000**	Circuit Board	FD2		(X2054B0)		
		EC030030	Flat Head Screw	3.0X6 MFZN2BL			18	01
*		**V7987300**	Fader Angle	2			2	
	C101	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
	-129	**UB245100**	Monolithic Ceramic Cap.	F 0.100 25V Z				01
	C130	**UF138220**	Electrolytic Cap. (chip)	220 16V UUR1C2				01
	C131	**UF138220**	Electrolytic Cap. (chip)	220 16V UUR1C2				01
	C132	**UF128220**	Electrolytic Cap. (chip)	220 10V UUR1A2				01
	C133	**UF027470**	Electrolytic Cap. (chip)	47 10V				01
	C134	**UF037470**	Electrolytic Cap. (chip)	47 16V				01
	C135	**UB052100**	Monolithic Ceramic Cap.	SL 100P 50V J				01
	-137	**UB052100**	Monolithic Ceramic Cap.	SL 100P 50V J				01
	C138	**UF138220**	Electrolytic Cap. (chip)	220 16V UUR1C2				01
	C139	**UF046470**	Electrolytic Cap. (chip)	4.7 25V				01
	C140	**UF138220**	Electrolytic Cap. (chip)	220 16V UUR1C2				01
	C141	**UF046470**	Electrolytic Cap. (chip)	4.7 25V				01
	C142	**UF138220**	Electrolytic Cap. (chip)	220 16V UUR1C2				01
	C143	**UF046470**	Electrolytic Cap. (chip)	4.7 25V				01
	C144	**UF138220**	Electrolytic Cap. (chip)	220 16V UUR1C2				01
	C145	**UF046470**	Electrolytic Cap. (chip)	4.7 25V				01
	C146	**UF138220**	Electrolytic Cap. (chip)	220 16V UUR1C2				01
	C147	**UF046470**	Electrolytic Cap. (chip)	4.7 25V				01
	C148	**UF138220**	Electrolytic Cap. (chip)	220 16V UUR1C2				01
	C149	**UF046470**	Electrolytic Cap. (chip)	4.7 25V				01
	C150	**UF138220**	Electrolytic Cap. (chip)	220 16V UUR1C2				01
	C151	**UF046470**	Electrolytic Cap. (chip)	4.7 25V				01
	C152	**UF138220**	Electrolytic Cap. (chip)	220 16V UUR1C2				01
	C153	**UF046470**	Electrolytic Cap. (chip)	4.7 25V				01
	C154	**UF138220**	Electrolytic Cap. (chip)	220 16V UUR1C2				01
	C155	**UF046470**	Electrolytic Cap. (chip)	4.7 25V				01
	C156	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
	C157	**VS029500**	Mylar Capacitor (chip)	.00047 50V G				01
	C158	**VS029500**	Mylar Capacitor (chip)	.00047 50V G				01
	C159	**UB051470**	Monolithic Ceramic Cap.	SL 47P 50V J				01
	C160	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
	C161	**VS029500**	Mylar Capacitor (chip)	.00047 50V G				01
	C162	**VS029500**	Mylar Capacitor (chip)	.00047 50V G				01
	C163	**UB051470**	Monolithic Ceramic Cap.	SL 47P 50V J				01
	C164	**UB051470**	Monolithic Ceramic Cap.	SL 47P 50V J				01
	C165	**UB013150**	Monolithic Ceramic Cap.	B 1500P 50V K				01
	-167	**UB013150**	Monolithic Ceramic Cap.	B 1500P 50V K				01
	C168	**UF037470**	Electrolytic Cap. (chip)	47 16V				01
	C169	**UB052470**	Monolithic Ceramic Cap.	SL 470P 50V J				01
	CN101	**VQ046500**	Connector, FFC	52044 36P SE				01
	CN102	**VI879000**	Cable Holder	51048 12P TE				01
	D101	**VT332900**	Diode	1SS355 TE-17				01
	-103	**VT332900**	Diode	1SS355 TE-17				01
	DA101	**VV556300**	Diode Array	DAN217 0.3A X2				01
	-105	**VV556300**	Diode Array	DAN217 0.3A X2				01
	DA115	**V8974000**	Zener Diode	NNCD6.2MF 6.2V SMD				
	-123	**V8974000**	Zener Diode	NNCD6.2MF 6.2V SMD				
	EM101	**FZ006970**	LC Filter	MTY223NBTBM				02
	-105	**FZ006970**	LC Filter	MTY223NBTBM				02
	IC101	**XS720A00**	IC	TC74HC245AF		TRANSCEIVER		03
	-103	**XS720A00**	IC	TC74HC245AF		TRANSCEIVER		03
	IC104	**XY198A00**	IC	MM74HC273SJX		D-FF		03
	-107	**XY198A00**	IC	MM74HC273SJX		D-FF		03
	IC108	**XS790A00**	IC	TC74HC4052AF		MULTIPLEXER		02
	IC109	**XR532A00**	IC	NJM2904V(TE1)		OP AMP		02
	IC110	**XR532A00**	IC	NJM2904V(TE1)		OP AMP		02
	IC111	**XW618A00**	IC	TA7291F		MOTOR DRIVER		02
	-119	**XW618A00**	IC	TA7291F		MOTOR DRIVER		02
	IC120	**XH610A00**	IC	HD74LS06FPEL		INVERTER		02
	IC121	**XH610A00**	IC	HD74LS06FPEL		INVERTER		02

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REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
IC122	**XT618A00**	IC	NJM2068V(TE1)		OP AMP		01
-125	**XT618A00**	IC	NJM2068V(TE1)		OP AMP		01
IC126	**XR532A00**	IC	NJM2904V(TE1)		OP AMP		02
IC127	**XW105A00**	IC	MM74HC00SJX		NAND		01
IC128	**IS405100**	IC	HD74LV4051AFPEL		MULTIPLEXER		02
IC129	**IS405100**	IC	HD74LV4051AFPEL		MULTIPLEXER		02
R101	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
-103	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
R104	**VC756300**	Metal Oxide Film Resistor	10.0 2W J				01
R105	**RD256680**	Carbon Resistor (chip)	6.8K 0.1 J				01
R106	**RD255680**	Carbon Resistor (chip)	680.0 0.1 J				01
R107	**RD155100**	Carbon Resistor (chip)	100.0 1/4 J				01
R108	**VC756300**	Metal Oxide Film Resistor	10.0 2W J				01
R109	**RD256680**	Carbon Resistor (chip)	6.8K 0.1 J				01
R110	**RD255680**	Carbon Resistor (chip)	680.0 0.1 J				01
R111	**RD155100**	Carbon Resistor (chip)	100.0 1/4 J				01
R112	**VC756300**	Metal Oxide Film Resistor	10.0 2W J				01
R113	**RD256680**	Carbon Resistor (chip)	6.8K 0.1 J				01
R114	**RD255680**	Carbon Resistor (chip)	680.0 0.1 J				01
R115	**RD155100**	Carbon Resistor (chip)	100.0 1/4 J				01
R116	**VC756300**	Metal Oxide Film Resistor	10.0 2W J				01
R117	**RD256680**	Carbon Resistor (chip)	6.8K 0.1 J				01
R118	**RD255680**	Carbon Resistor (chip)	680.0 0.1 J				01
R119	**RD155100**	Carbon Resistor (chip)	100.0 1/4 J				01
R120	**VC756300**	Metal Oxide Film Resistor	10.0 2W J				01
R121	**RD256680**	Carbon Resistor (chip)	6.8K 0.1 J				01
R122	**RD255680**	Carbon Resistor (chip)	680.0 0.1 J				01
R123	**RD155100**	Carbon Resistor (chip)	100.0 1/4 J				01
R124	**VC756300**	Metal Oxide Film Resistor	10.0 2W J				01
R125	**RD256680**	Carbon Resistor (chip)	6.8K 0.1 J				01
R126	**RD255680**	Carbon Resistor (chip)	680.0 0.1 J				01
R127	**RD155100**	Carbon Resistor (chip)	100.0 1/4 J				01
R128	**VC756300**	Metal Oxide Film Resistor	10.0 2W J				01
R129	**RD256680**	Carbon Resistor (chip)	6.8K 0.1 J				01
R130	**RD255680**	Carbon Resistor (chip)	680.0 0.1 J				01
R131	**RD155100**	Carbon Resistor (chip)	100.0 1/4 J				01
R132	**VC756300**	Metal Oxide Film Resistor	10.0 2W J				01
R133	**RD256680**	Carbon Resistor (chip)	6.8K 0.1 J				01
R134	**RD255680**	Carbon Resistor (chip)	680.0 0.1 J				01
R135	**RD155100**	Carbon Resistor (chip)	100.0 1/4 J				01
R136	**VC756300**	Metal Oxide Film Resistor	10.0 2W J				01
R137	**RD256680**	Carbon Resistor (chip)	6.8K 0.1 J				01
R138	**RD255680**	Carbon Resistor (chip)	680.0 0.1 J				01
R139	**RD155100**	Carbon Resistor (chip)	100.0 1/4 J				01
R140	**RD256390**	Carbon Resistor (chip)	3.9K 0.1 J				01
R141	**RD256160**	Carbon Resistor (chip)	1.6K 0.1 J				01
R142	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R143	**RD257120**	Carbon Resistor (chip)	12.0K 0.1 J				01
R144	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R145	**RD256100**	Carbon Resistor (chip)	1.0K 0.1 J				01
R146	**RD256180**	Carbon Resistor (chip)	1.8K 0.1 J				01
R147	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R148	**RD257750**	Carbon Resistor (chip)	75.0K 0.1 J				01
R149	**RD256150**	Carbon Resistor (chip)	1.5K 0.1 J				01
R150	**RD258150**	Carbon Resistor (chip)	150.0K 0.1 J				01
R151	**RD257470**	Carbon Resistor (chip)	47.0K 0.1 J				01
R152	**RD256330**	Carbon Resistor (chip)	3.3K 0.1 J				01
R153	**RD256330**	Carbon Resistor (chip)	3.3K 0.1 J				01
R154	**RD257240**	Carbon Resistor (chip)	24.0K 0.1 J				01
R155	**RD256180**	Carbon Resistor (chip)	1.8K 0.1 J				01
R156	**RD258130**	Carbon Resistor (chip)	130.0K 0.1 J				
R157	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
-159	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R160	**RD257200**	Carbon Resistor (chip)	20.0K 0.1 J				01
R161	**RD257200**	Carbon Resistor (chip)	20.0K 0.1 J				01
R162	**RD257150**	Carbon Resistor (chip)	15.0K 0.1 J				01
R163	**RD257150**	Carbon Resistor (chip)	15.0K 0.1 J				01
R164	**RD258330**	Carbon Resistor (chip)	330.0K 0.1 J				01
R165	**RD256220**	Carbon Resistor (chip)	2.2K 0.1 J				01
R166	**RD256910**	Carbon Resistor (chip)	9.1K 0.1 J				01

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	R167	**RD257560**	Carbon Resistor (chip)	56.0K 0.1 J				01
	R168	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
	R169	**RD257560**	Carbon Resistor (chip)	56.0K 0.1 J				01
	R170	**RD255150**	Carbon Resistor (chip)	150.0 0.1 J				01
	R171	**RD257240**	Carbon Resistor (chip)	24.0K 0.1 J				01
	-179	**RD257240**	Carbon Resistor (chip)	24.0K 0.1 J				01
	R180	**RD258150**	Carbon Resistor (chip)	150.0K 0.1 J				01
	-188	**RD258150**	Carbon Resistor (chip)	150.0K 0.1 J				01
	RA101	**RE047100**	Resistor Array	10KX4				01
	-106	**RE047100**	Resistor Array	10KX4				01
	VR101	**V6226100**	Slide Pot., Motor Drive	B10K		17 fader		09
	VR102	**V6226100**	Slide Pot., Motor Drive	B10K		18 fader		09
	VR103	**V6226100**	Slide Pot., Motor Drive	B10K		19 fader		09
	VR104	**V6226100**	Slide Pot., Motor Drive	B10K		20 fader		09
	VR105	**V6226100**	Slide Pot., Motor Drive	B10K		21 fader		09
	VR106	**V6226100**	Slide Pot., Motor Drive	B10K		22 fader		09
	VR107	**V6226100**	Slide Pot., Motor Drive	B10K		23 fader		09
	VR108	**V6226100**	Slide Pot., Motor Drive	B10K		24 fader		09
	VR109	**V6226100**	Slide Pot., Motor Drive	B10K		STEREO fader		09
*	W102	**V8964400**	Jumper Wire	FVP=2.0C26SB12-440				
	ZD101	**VU171800**	Zener Diode	UDZ 4.7BTE-17 4.7V				01
*		**V8629100**	Circuit Board	JK1 (JKCOM)		(V846900)(X2058B0)		
*		**AAX34460**	Circuit Board	JK2 1/2 (JKCOM)		(V862920)(X2058B0)		
*		**AAX34470**	Circuit Board	JK2 2/2 (JKCOM)		(V862920)(X2058B0)		
*		**V9401200**	Earth Film JK1					
	C28	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	-31	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
	C001	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C002	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C003	**UF037220**	Electrolytic Cap. (chip)	22 16V				01
	C004	**UF037220**	Electrolytic Cap. (chip)	22 16V				01
	C005	**US061330**	Ceramic Capacitor-CH(chip)	33P 50V J				01
	C006	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	-009	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C010	**V9074200**	Mylar Capacitor (chip)	0.15 50V J				
	-012	**V9074200**	Mylar Capacitor (chip)	0.15 50V J				
	C013	**VS026900**	Mylar Capacitor (chip)	0.0039 16V G				01
	-015	**VS026900**	Mylar Capacitor (chip)	0.0039 16V G				01
	C016	**UF066100**	Electrolytic Cap. (chip)	1 50V				01
	-018	**UF066100**	Electrolytic Cap. (chip)	1 50V				01
	C019	**UB446100**	Ceramic Capacitor-F (chip)	F 1.0 16V Z				01
	-021	**UB446100**	Ceramic Capacitor-F (chip)	F 1.0 16V Z				01
	C022	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	-024	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C025	**UF066100**	Electrolytic Cap. (chip)	1 50V				01
	-027	**UF066100**	Electrolytic Cap. (chip)	1 50V				01
	C028	**V6490000**	Monolithic Ceramic Cap.	1.000 25V Z				01
	-030	**V6490000**	Monolithic Ceramic Cap.	1.000 25V Z				01
	C101	**UF066100**	Electrolytic Cap. (chip)	1 50V				01
	-103	**UF066100**	Electrolytic Cap. (chip)	1 50V				01
	C104	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	-109	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C110	**UF066100**	Electrolytic Cap. (chip)	1 50V				01
	-112	**UF066100**	Electrolytic Cap. (chip)	1 50V				01
	C113	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	-119	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C120	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J				01
	C121	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	-202	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C203	**US061100**	Ceramic Capacitor-CH(chip)	10P 50V D				01
	C204	**US061100**	Ceramic Capacitor-CH(chip)	10P 50V D				01
	C205	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C206	**US062680**	Ceramic Capacitor-SL(chip)	680P 50V J				01
	C207	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
	C208	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	-210	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C211	**US061330**	Ceramic Capacitor-CH(chip)	33P 50V J				01
	C212	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C213	**UF037100**	Electrolytic Cap. (chip)	10 16V				01

*: New Parts

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REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
C214	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C215	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C301	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C302	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C303	**UR896100**	Electrolytic Cap.	1.0 100.0V				01
C304	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J				01
C305	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J				01
C306	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C307	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C308	**UF167470**	Electrolytic Cap. (chip)	47 50V UUR1H4				01
C309	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
-312	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C313	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
C314	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C315	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J				01
C316	**UR896100**	Electrolytic Cap.	1.0 100.0V				01
C401	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
-408	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C451	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
-455	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C456	**UF118330**	Electrolytic Cap. (chip)	330 6.3V UUR0J3				01
C457	**UF047100**	Electrolytic Cap. (chip)	10 25V				01
C458	**UF047100**	Electrolytic Cap. (chip)	10 25V				01
C459	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
C460	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
-467	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C501	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
-505	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C601	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
-605	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C701	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
-703	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C801	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
-805	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C901	**UF118330**	Electrolytic Cap. (chip)	330 6.3V UUR0J3				01
C902	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
-915	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
CN201	**V3671200**	USB Jack	4P TE		TO HOST USB		03
CN451	**VQ048500**	Connector, FFC	52045 36P TE				02
CN452	**VO022100**	Connector, FFC	52045 40P TE				02
CN453	**VK025500**	Wire Trap	52147 11P TE				01
CN501	**V4158600**	Connector	230R(SCSI) 68P SE		CASCADE IN		06
CN601	**V4158600**	Connector	230R(SCSI) 68P SE		CASCADE OUT		06
CN801	**VR147400**	D-sub Connector	JBY 25P SE		CONTROL		05
CN802	**VF728200**	Wire Trap	52147 10P TE				01
CN803	**VK025300**	Wire Trap	52147 9P TE				01
CN804	**VF728200**	Wire Trap	52147 10P TE				01
CN805	**VK025300**	Wire Trap	52147 9P TE				01
CN806	**VR336300**	D-Sub Connector	17LE 15P SE		METER (from MB02R96)		04
CN901	**VO022100**	Connector, FFC	52045 40P TE				02
CN902	**VK025600**	Wire Trap	52147 12P TE				01
CN903	**VQ048100**	Connector, FFC	52045 32P TE				01
CN904	**VF667600**	Wire Trap	52147 15P TE				01
D301	**VT332900**	Diode	1SS355 TE-17				01
D701	**VT332900**	Diode	1SS355 TE-17				01
DA001	**VV556300**	Diode Array	DAN217 0.3A X2				01
DA101	**VV556300**	Diode Array	DAN217 0.3A X2				01
DA501	**VV556300**	Diode Array	DAN217 0.3A X2				01
-536	**VV556300**	Diode Array	DAN217 0.3A X2				01
DA601	**VV556300**	Diode Array	DAN217 0.3A X2				01
-636	**VV556300**	Diode Array	DAN217 0.3A X2				01
DA801	**VV556300**	Diode Array	DAN217 0.3A X2				01
-804	**VV556300**	Diode Array	DAN217 0.3A X2				01
EM001	**VQ761400**	EMI Filter (chip)	NFM3DCC101U1H3L				01
EM101	**VQ761400**	EMI Filter (chip)	NFM3DCC101U1H3L				01
EM102	**FZ006920**	LC Filter	MTB271KBTBM				01
-107	**FZ006920**	LC Filter	MTB271KBTBM				01
EM201	**VQ761400**	EMI Filter (chip)	NFM3DCC101U1H3L				01
-205	**VQ761400**	EMI Filter (chip)	NFM3DCC101U1H3L				01
EM301	**FZ006920**	LC Filter	MTB271KBTBM				01

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REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
EM302	**VQ761400**	EMI Filter (chip)	NFM3DCC101U1H3L				01
EM303	**VQ761400**	EMI Filter (chip)	NFM3DCC101U1H3L				01
EM304	**FZ006920**	LC Filter	MTB271KBTBM				01
EM451	**FZ006970**	LC Filter	MTY223NBTBM				02
EM452	**FZ007070**	LC Filter	MTX222MBTBM				01
EM453	**FZ007070**	LC Filter	MTX222MBTBM				01
EM454	**FZ006970**	LC Filter	MTY223NBTBM				02
EM501	**VL534100**	LC Filter	NFAC1CC101S1H8L				05
-504	**VL534100**	LC Filter	NFAC1CC101S1H8L				05
EM505	**VQ761400**	EMI Filter (chip)	NFM3DCC101U1H3L				01
-508	**VQ761400**	EMI Filter (chip)	NFM3DCC101U1H3L				01
EM601	**VL534100**	LC Filter	NFAC1CC101S1H8L				05
-604	**VL534100**	LC Filter	NFAC1CC101S1H8L				05
EM605	**VQ761400**	EMI Filter (chip)	NFM3DCC101U1H3L				01
-608	**VQ761400**	EMI Filter (chip)	NFM3DCC101U1H3L				01
EM801	**FZ006920**	LC Filter	MTB271KBTBM				01
-804	**FZ006920**	LC Filter	MTB271KBTBM				01
EM805	**FZ006970**	LC Filter	MTY223NBTBM				02
EM806	**VL534100**	LC Filter	NFAC1CC101S1H8L				05
EM807	**FZ006920**	LC Filter	MTB271KBTBM				01
-810	**FZ006920**	LC Filter	MTB271KBTBM				01
EM811	**VQ761400**	EMI Filter (chip)	NFM3DCC101U1H3L				01
-815	**VQ761400**	EMI Filter (chip)	NFM3DCC101U1H3L				01
EM901	**FZ006970**	LC Filter	MTY223NBTBM				02
IC001	**XW842A00**	IC	SN74HCU04NSR		INVERTER		01
IC002	**XV930A00**	IC	SN75124NSR		LINE RECEIVER		05
IC003	**XW559A00**	IC	CS8420		SRC		11
-005	**XW559A00**	IC	CS8420		SRC		11
IC101	**XZ349A00**	IC	CS8405A-CS		DIT		06
-103	**XZ349A00**	IC	CS8405A-CS		DIT		06
IC104	**XU816A00**	IC	SN75121NSR		LINE DRIVER		05
IC201	**X0157100**	IC	M37640M8-138FP		MASK CPU (USB)		09
IC202	**XL334A00**	IC	MC26LS30DR2		LINE DRIVER		08
IC203	**XU815A00**	IC	DS26C32ATMX		LINE RECEIVER		06
IC204	**XW914C00**	IC	539V110		FLASH ROM 4M		08
IC301	**XW313A00**	IC	TC74VHC125F		BUFFER		02
IC302	**XA862B00**	IC	NJM4560M(T1)		OP AMP		02
IC303	**VR903700**	Photo Coupler	HCPL-M600				04
IC304	**IG156700**	IC	UPC319G2		DUAL COMPARATOR		05
IC305	**X2832B00**	IC	ICS2008BV-T		T.C. READER/GENERATOR		
IC401	**XW324A00**	IC	TC74VHC139F(EL)		DECODER		01
IC402	**XT015A00**	IC	TC74VHC138F		DECODER		02
IC403	**XT487A00**	IC	TC74VHC245F		TRANSCEIVER		03
IC404	**XY254A00**	IC	TC74VHC273F(EL)		D-FF		03
-406	**XY254A00**	IC	TC74VHC273F(EL)		D-FF		03
IC407	**XM332A00**	IC	TC74VHC04F EL		INVERTER		01
IC408	**XM332A00**	IC	TC74VHC04F EL		INVERTER		01
IC451	**XT487A00**	IC	TC74VHC245F		TRANSCEIVER		03
-454	**XT487A00**	IC	TC74VHC245F		TRANSCEIVER		03
IC455	**XT800A00**	IC	TC74VHC244F		BUFFER		03
IC456	**XW876A00**	IC	TC74VHC14F-EL		INVERTER		01
IC457	**XT487A00**	IC	TC74VHC245F		TRANSCEIVER		03
IC458	**XT487A00**	IC	TC74VHC245F		TRANSCEIVER		03
IC459	**XT800A00**	IC	TC74VHC244F		BUFFER		03
IC501	**XU996A00**	IC	AM26LS31CNSR		LINE DRIVER		05
IC502	**XU815A00**	IC	DS26C32ATMX		LINE RECEIVER		06
-505	**XU815A00**	IC	DS26C32ATMX		LINE RECEIVER		06
IC601	**XU996A00**	IC	AM26LS31CNSR		LINE DRIVER		05
-604	**XU996A00**	IC	AM26LS31CNSR		LINE DIRVER		05
IC605	**XU815A00**	IC	DS26C32ATMX		LINE RECEIVER		06
IC701	**XW876A00**	IC	TC74VHC14F-EL		INVERTER		01
IC702	**VN686000**	Photo Coupler	PC410T				04
IC801	**XY254A00**	IC	TC74VHC273F(EL)		D-FF		03
IC802	**IS017500**	IC	HD74LV175AFPEL		D-FF		02
IC803	**XU073A00**	IC	SN75C1168NSR		LINE DRIVER/RECEIVER		05
IC804	**XT487A00**	IC	TC74VHC245F		TRANSCEIVER		03
IC901	**XT487A00**	IC	TC74VHC245F		TRANSCEIVER		03
IC902	**XT487A00**	IC	TC74VHC245F		TRANSCEIVER		03
IC903	**XT800A00**	IC	TC74VHC244F		BUFFER		03
IC904	**XT800A00**	IC	TC74VHC244F		BUFFER		03

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	IC905	**XT487A00**	IC	TC74VHC245F		TRANSCEIVER		03
	IC906	**XT487A00**	IC	TC74VHC245F		TRANSCEIVER		03
	IC907	**XT015A00**	IC	TC74VHC138F		DECODER		02
	IC908	**XT487A00**	IC	TC74VHC245F		TRANSCEIVER		03
	IC909	**XY254A00**	IC	TC74VHC273F(EL)		D-FF		03
	IC910	**XT487A00**	IC	TC74VHC245F		TRANSCEIVER		03
	-913	**XT487A00**	IC	TC74VHC245F		TRANSCEIVER		03
	JK001	**VS133800**	Cannon Connector	NC3FAH1-0		2TR OUT DIGITAL 1(AES/EBU)		04
*	JK002	**V8277500**	Pin Connector	x2 YKC21-4225		2TR OUT DIGITAL 2,3(COAX.)		
	JK003	**V6415900**	BNC Connector	1P YKS11-0067		WORD CLOCK OUT		05
	JK101	**VS133700**	Cannon Connector	NC3MAH		2TR IN DIGITAL 1(AES/EBU)		04
*	JK102	**V8277500**	Pin Connector	x2 YKC21-4225		2TR IN DIGITAL 2,3(COAX.)		
	JK103	**V6415900**	BNC Connector	1P YKS11-0067		WORD CLOCK IN		05
	JK201	**VN997100**	DIN Connector	8P TCS7927 MINI		TO HOST SERIAL		04
	JK301	**VS133800**	Cannon Connector	NC3FAH1-0		TIME CODE INPUT SMPTE		04
	JK302	**VK018800**	DIN Connector	5P3 YKF51-50		TIME CODE INPUT MTC		02
	JK701	**VI466400**	DIN Connector	x3 YKF51-5046		MIDI IN/OUT/THRU		04
	K001	**V7539800**	Cannon Angle					02
	K101	**V7539800**	Cannon Angle					02
	K201	**V6442200**	USB Angle					
	K301	**V7539800**	Cannon Angle					02
	L001	**VP246300**	Noise Filter	ZJY51R5-2P				04
	L002	**V7930100**	Pulse Transformer	TB06A015				05
	L003	**GE300610**	Ferrite Bead	BL02RN1-R62T4				01
	-008	**GE300610**	Ferrite Bead	BL02RN1-R62T4				01
	L101	**GE300610**	Ferrite Bead	BL02RN1-R62T4				01
	-106	**GE300610**	Ferrite Bead	BL02RN1-R62T4				01
	L107	**V7930100**	Pulse Transformer	TB06A015				05
	-109	**V7930100**	Pulse Transformer	TB06A015				05
	L201	**GE300610**	Ferrite Bead	BL02RN1-R62T4				01
	L202	**GE300610**	Ferrite Bead	BL02RN1-R62T4				01
	L203	**V5239100**	Common Mode Coil	PLP3216S121SL2T1				03
	L451	**V8143400**	Chip Inductance	BLM21R121SKPT				01
	-466	**V8143400**	Chip Inductance	BLM21R121SKPT				01
	L701	**GE300610**	Ferrite Bead	BL02RN1-R62T4				01
	-706	**GE300610**	Ferrite Bead	BL02RN1-R62T4				01
	L901	**V8143400**	Chip Inductance	BLM21R121SKPT				01
	-919	**V8143400**	Chip Inductance	BLM21R121SKPT				01
	R001	**RD254750**	Carbon Resistor (chip)	75.0 0.1 J				01
	-003	**RD254750**	Carbon Resistor (chip)	75.0 0.1 J				01
	R004	**RD254470**	Carbon Resistor (chip)	47.0 0.1 J				01
	R005	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
	R006	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
	R007	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
	R008	**RD256470**	Carbon Resistor (chip)	4.7K 0.1 J				01
	R009	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
	R010	**RD256470**	Carbon Resistor (chip)	4.7K 0.1 J				01
	R011	**RD256220**	Carbon Resistor (chip)	2.2K 0.1 J				01
	R012	**RD256220**	Carbon Resistor (chip)	2.2K 0.1 J				01
	R013	**RD255110**	Carbon Resistor (chip)	110.0 0.1 J				01
	R014	**VI196400**	Metal Film Resistor (chip)	3.9K 1/10 D				01
	-016	**VI196400**	Metal Film Resistor (chip)	3.9K 1/10 D				01
	R020	**RD257470**	Carbon Resistor (chip)	47.0K 0.1 J				01
	-022	**RD257470**	Carbon Resistor (chip)	47.0K 0.1 J				01
	R026	**RD257220**	Carbon Resistor (chip)	22.0K 0.1 J				01
	-031	**RD257220**	Carbon Resistor (chip)	22.0K 0.1 J				01
	R035	**RD257470**	Carbon Resistor (chip)	47.0K 0.1 J				01
	-037	**RD257470**	Carbon Resistor (chip)	47.0K 0.1 J				01
	R041	**RD257470**	Carbon Resistor (chip)	47.0K 0.1 J				01
	-043	**RD257470**	Carbon Resistor (chip)	47.0K 0.1 J				01
	R104	**RD257470**	Carbon Resistor (chip)	47.0K 0.1 J				01
	-106	**RD257470**	Carbon Resistor (chip)	47.0K 0.1 J				01
	R107	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
	-109	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
	R110	**RD257220**	Carbon Resistor (chip)	22.0K 0.1 J				01
	-115	**RD257220**	Carbon Resistor (chip)	22.0K 0.1 J				01
	R116	**RD257470**	Carbon Resistor (chip)	47.0K 0.1 J				01
	-121	**RD257470**	Carbon Resistor (chip)	47.0K 0.1 J				01
	R122	**RD255220**	Carbon Resistor (chip)	220.0 0.1 J				01
	R123	**RD255220**	Carbon Resistor (chip)	220.0 0.1 J				01

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REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
R124	**RD254430**	Carbon Resistor (chip)	43.0 0.1 J				01
R125	**RD254430**	Carbon Resistor (chip)	43.0 0.1 J				01
R126	**RD255110**	Carbon Resistor (chip)	110.0 0.1 J				01
R127	**RD254390**	Carbon Resistor (chip)	39.0 0.1 J				01
R128	**RD254390**	Carbon Resistor (chip)	39.0 0.1 J				01
R131	**RD256220**	Carbon Resistor (chip)	2.2K 0.1 J				01
R132	**RD253470**	Carbon Resistor (chip)	4.7 0.1 J				01
R201	**RD256100**	Carbon Resistor (chip)	1.0K 0.1 J				01
R202	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R205	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
R206	**RD255680**	Carbon Resistor (chip)	680.0 0.1 J				01
R207	**RD256100**	Carbon Resistor (chip)	1.0K 0.1 J				01
R208	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R209	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R210	**RD154330**	Carbon Resistor (chip)	33.0 1/4 J				01
R211	**RD154330**	Carbon Resistor (chip)	33.0 1/4 J				01
R212	**RD256150**	Carbon Resistor (chip)	1.5K 0.1 J				01
R213	**RD255470**	Carbon Resistor (chip)	470.0 0.1 J				01
R214	**RD255470**	Carbon Resistor (chip)	470.0 0.1 J				01
R215	**RD257220**	Carbon Resistor (chip)	22.0K 0.1 J				01
R216	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
R217	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
R218	**RD256470**	Carbon Resistor (chip)	4.7K 0.1 J				01
R219	**RD254100**	Carbon Resistor (chip)	10.0 0.1 J				01
R220	**RD254100**	Carbon Resistor (chip)	10.0 0.1 J				01
R221	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R222	**RD256470**	Carbon Resistor (chip)	4.7K 0.1 J				01
R224	**RD256470**	Carbon Resistor (chip)	4.7K 0.1 J				01
R302	**RD256220**	Carbon Resistor (chip)	2.2K 0.1 J				01
R303	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R304	**RD255220**	Carbon Resistor (chip)	220.0 0.1 J				01
R305	**RD256220**	Carbon Resistor (chip)	2.2K 0.1 J				01
R307	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R308	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R309	**RD256100**	Carbon Resistor (chip)	1.0K 0.1 J				01
R310	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
R311	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R312	**RD256360**	Carbon Resistor (chip)	3.6K 0.1 J				01
R313	**RD256100**	Carbon Resistor (chip)	1.0K 0.1 J				01
R314	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
-316	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
R451	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R501	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R502	**RD255150**	Carbon Resistor (chip)	150.0 0.1 J				01
-516	**RD255150**	Carbon Resistor (chip)	150.0 0.1 J				01
R517	**RD256100**	Carbon Resistor (chip)	1.0K 0.1 J				01
-534	**RD256100**	Carbon Resistor (chip)	1.0K 0.1 J				01
R535	**RD254100**	Carbon Resistor (chip)	10.0 0.1 J				01
R536	**RD254100**	Carbon Resistor (chip)	10.0 0.1 J				01
R537	**RD256100**	Carbon Resistor (chip)	1.0K 0.1 J				01
R538	**RD256100**	Carbon Resistor (chip)	1.0K 0.1 J				01
R539	**RD254100**	Carbon Resistor (chip)	10.0 0.1 J				01
-542	**RD254100**	Carbon Resistor (chip)	10.0 0.1 J				01
R543	**RD256100**	Carbon Resistor (chip)	1.0K 0.1 J				01
-552	**RD256100**	Carbon Resistor (chip)	1.0K 0.1 J				01
R553	**RD257220**	Carbon Resistor (chip)	22.0K 0.1 J				01
-582	**RD257220**	Carbon Resistor (chip)	22.0K 0.1 J				01
R601	**RD257220**	Carbon Resistor (chip)	22.0K 0.1 J				01
-606	**RD257220**	Carbon Resistor (chip)	22.0K 0.1 J				01
R607	**RD254100**	Carbon Resistor (chip)	10.0 0.1 J				01
-624	**RD254100**	Carbon Resistor (chip)	10.0 0.1 J				01
R625	**RD256100**	Carbon Resistor (chip)	1.0K 0.1 J				01
R626	**RD256100**	Carbon Resistor (chip)	1.0K 0.1 J				01
R627	**RD254100**	Carbon Resistor (chip)	10.0 0.1 J				01
R628	**RD254100**	Carbon Resistor (chip)	10.0 0.1 J				01
R629	**RD256100**	Carbon Resistor (chip)	1.0K 0.1 J				01
R630	**RD256100**	Carbon Resistor (chip)	1.0K 0.1 J				01
R631	**RD254100**	Carbon Resistor (chip)	10.0 0.1 J				01
R632	**RD254100**	Carbon Resistor (chip)	10.0 0.1 J				01
R633	**RD256100**	Carbon Resistor (chip)	1.0K 0.1 J				01

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REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
R634	**RD256100**	Carbon Resistor (chip)	1.0K 0.1 J				01
R635	**RD254100**	Carbon Resistor (chip)	10.0 0.1 J				01
-642	**RD254100**	Carbon Resistor (chip)	10.0 0.1 J				01
R643	**RD255150**	Carbon Resistor (chip)	150.0 0.1 J				01
-645	**RD255150**	Carbon Resistor (chip)	150.0 0.1 J				01
R701	**RD255220**	Carbon Resistor (chip)	220.0 0.1 J				01
-705	**RD255220**	Carbon Resistor (chip)	220.0 0.1 J				01
R706	**RD256100**	Carbon Resistor (chip)	1.0K 0.1 J				01
R707	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R801	**RD256100**	Carbon Resistor (chip)	1.0K 0.1 J				01
R802	**RD256100**	Carbon Resistor (chip)	1.0K 0.1 J				01
R803	**HV754100**	Flame Proof C. Resistor	10.0 1/4 J				01
-813	**HV754100**	Flame Proof C. Resistor	10.0 1/4 J				01
R814	**RD256100**	Carbon Resistor (chip)	1.0K 0.1 J				01
R815	**RD257470**	Carbon Resistor (chip)	47.0K 0.1 J				01
R816	**RD257470**	Carbon Resistor (chip)	47.0K 0.1 J				01
R817	**RD256470**	Carbon Resistor (chip)	4.7K 0.1 J				01
-819	**RD256470**	Carbon Resistor (chip)	4.7K 0.1 J				01
R820	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R821	**RD256270**	Carbon Resistor (chip)	2.7K 0.1 J				01
R822	**RD256220**	Carbon Resistor (chip)	2.2K 0.1 J				01
R823	**RD256220**	Carbon Resistor (chip)	2.2K 0.1 J				01
R824	**RD256270**	Carbon Resistor (chip)	2.7K 0.1 J				01
R825	**RD254470**	Carbon Resistor (chip)	47.0 0.1 J				01
-828	**RD254470**	Carbon Resistor (chip)	47.0 0.1 J				01
R901	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
RA201	**RE047220**	Resistor Array	22KX4				01
-203	**RE047220**	Resistor Array	22KX4				01
RA451	**RE047100**	Resistor Array	10KX4				01
RA452	**RE044220**	Resistor Array	22X4				01
RA453	**RE044220**	Resistor Array	22X4				01
RA454	**RE047100**	Resistor Array	10KX4				01
RA455	**RE047100**	Resistor Array	10KX4				01
RA456	**RE048100**	Resistor Array	100KX4				01
RA457	**RE048100**	Resistor Array	100KX4				01
-458	**RE047100**	Resistor Array	10KX4				01
RA460	**RE047100**	Resistor Array	10KX4				01
RA501	**RE047100**	Resistor Array	10KX4				01
RA502	**RE047100**	Resistor Array	10KX4				01
RA601	**RE047100**	Resistor Array	10KX4				01
RA602	**RE047100**	Resistor Array	10KX4				01
RA801	**RE047100**	Resistor Array	10KX4				01
RA901	**RE044220**	Resistor Array	22X4				01
RA902	**RE044220**	Resistor Array	22X4				01
RA903	**RE047100**	Resistor Array	10KX4				01
RA904	**RE048100**	Resistor Array	100KX4				01
RA905	**RE048100**	Resistor Array	100KX4				01
RA906	**RE047100**	Resistor Array	10KX4				01
-910	**RE047100**	Resistor Array	10KX4				01
SW001	**VR365100**	Slide Switch	SSSF112-S06N1		WORD CLOCK IN ON/OFF		02
TA801	**VQ248500**	Transistor Array	TD62381F				04
TH801	**VV216100**	Protector Switch	RXE050 0.50A 72V				03
TR702	**V7798800**	Digital Transistor	DTA143ZUA TP				01
TR801	**IA101590**	Transistor	2SA1015 O,Y				01
-803	**IA101590**	Transistor	2SA1015 O,Y				01
X201	**VP864900**	Quartz Crystal Unit	16MHz SMD-49				04
X301	**VZ751900**	Quartz Crystal Unit	14.31818MHz SMD-49				03
	V8249100	Circuit Board	DM2 LCDCOM CNT+INV		(X2160B0)		
	--	Circuit Board	DM2K CNT (LCDCOM)		(V646840)(X2160B0)		
	--	Circuit Board	DM2K INV (LCDCOM)		(V646830)(X2160B0)		
	--	Jumper Wire	0.55		(VA07890)		
C901	**UI538100**	Electrolytic Cap.	100.00 16.0V				01
C902	**UI538100**	Electrolytic Cap.	100.00 16.0V				01
C903	**UI557470**	Electrolytic Cap.	47.00 35.0V				01
C904	**V8564200**	Electrolytic Cap. (chip)	0.039 250V ECQE2				01
C905	**VS147400**	Ceramic Capacitor-SL	18P 3KV J				01
CN901	**VK024800**	Wire Trap	52147 4P TE				01
CN902	**VI878100**	Cable Holder	51048 3P TE				01
CN903	**VK025600**	Wire Trap	52147 12P TE				01

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	CN904	**VF982200**	Connector, FFC	52044 14P SE				02
	CN905	**VT389600**	Base Post Connector	53259 4P SE				01
	CN951	**VI878100**	Cable Holder	51048 3P TE				01
	EM901	**FZ006970**	LC Filter	MTY223NBTBM				02
	IC901	**X2216A00**	IC	CE-0703		DC-DC CONVERTER		07
	L901	**VS587900**	Coil	LH L 08TB221K 220u				01
	R901	**HF457110**	Carbon Resistor	11.0K 1/4 J				01
	R902	**HF457100**	Carbon Resistor	10.0K 1/4 J				01
	R903	**HF456120**	Carbon Resistor	1.2K 1/4 J				01
	R904	**HF456560**	Carbon Resistor	5.6K 1/4 J				01
	R905	**HF456560**	Carbon Resistor	5.6K 1/4 J				01
	R906	**HF456470**	Carbon Resistor	4.7K 1/4 J				01
	R907	**HF457470**	Carbon Resistor	47.0K 1/4 J				01
	R908	**HF457120**	Carbon Resistor	12.0K 1/4 J				01
	R909	**VC748400**	Metal Oxide Film Resistor	2.2K 1W J				01
	T901	**VS602500**	Inverter Transformer	CLF16A				07
	TH901	**VT816300**	Thermistor	ERT-D2FGL332S 3.3K				01
	TR901	**VS185600**	Transistor	2SD1863 TV2 82-390				01
	TR902	**VS185600**	Transistor	2SD1863 TV2 82-390				01
	TR903	**IC1815M0**	Transistor	2SC1815 Y,GR				01
	VR951	**V3820700**	Rotary Variable Resistor	B 10K RK09K1130A5R		LCD contrast		01
	W902	**V5183000**	Ribbon Cable	P=2.0 #26 3P 100L				01
	ZD901	**VG438300**	Zener Diode	MTZ J 6.8B 6.8V				01
*		**V8469100**	Circuit Board	OPT		(X2060B0)		
	CN801	**VQ048500**	Connector, FFC	52045 36P TE				02
	CN802	**VQ048500**	Connector, FFC	52045 36P TE				02
*	CN803	**VQ151900**	Connector, FFC	52045 38P TE				
	CN804	**VP327200**	Connector, FFC	52045 30P TE				01
	CN807	**VO022300**	Connector, FFC	52044 40P SE				02
	CN901	**VU328200**	Plug	PHEC 100P TE		SLOT1-4		05
	-904	**VU328200**	Plug	PHEC 100P TE				05
*		**V8627500**	Circuit Board	PN1 (PN1COM)		(V924550)(X2050B0)		
*		**AAX34510**	Circuit Board	PN3+PW (PN1COM)		(V862760+V862770), (V924550)(X2050B0)		
*		**V9246300**	Circuit Board	SUB (PN1COM)		(V924550)(X2050B0)		
	10	**V6197400**	Button Dark Gray	S LENS		AUX1-8 <AUX SELECT> FADER/AUX <FADER MODE> INTERNAL EFFECT,PLUG-INS, CHANNEL INSERTS,1-4<EFF.>	17	
	20	**V8486700**	Button M_Gray	L LENS		SOLO 1-16	16	
	30	**V8486800**	Button Light Gray	L LENS		ON 1-16	16	
	40	**V8486900**	Button Blue	L LENS		SEL 1-16	16	
	50	**V8487000**	Button Blue	S LENS		PAN,AUX,ASSIGN1,ASSIGN2 <ENCODER MODE>	4	
	60	**V8487100**	Button M_Gray	S LENS		AUTO 1-16,SHUTTLE,SCRUB	18	
	70	**V8487400**	Button Dark Gray	S		Cursor Left/Right,F1-4	6	
	80	**V8487500**	Button M_Gray	S		Cursor Up/Down	2	
	90	**V8487600**	Button Light Gray	S		DISPLAY<AUX,ENCODER,EFF.> AUTOMIX,DIO,SETUP,UTILITY MIDI,REMOTE,METER,VIEW, PAIR,GROUP,INPUT PATCH, OUTPUT PATCH <DISPLAY...>	15	
	100	**V8487900**	Button Light Gray	CURSOR		DEC,INC,ENTER	3	
	110	**V8489000**	Button Light Gray	CURSOR		Left		
	120	**V8489100**	Button Light Gray	CURSOR		Right		
	130	**V8489200**	Button Light Gray	CURSOR		Up		
	140	**V8489400**	Button Light Gray	CURSOR		Down		
	C100	**UF028100**	Electrolytic Cap. (chip)	100 10V				01
	C101	**UF128220**	Electrolytic Cap. (chip)	220 10V UUR1A2				01
	C102	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	-108	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C109	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
	-111	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
	C112	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	-115	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C500	**UF028100**	Electrolytic Cap. (chip)	100 10V				01
	C600	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K				01
	C601	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K				01

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REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
C602	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C603	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
-606	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C607	**UF027470**	Electrolytic Cap. (chip)	47 10V				01
C608	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C609	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C610	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C612	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
-619	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C620	**UF027470**	Electrolytic Cap. (chip)	47 10V				01
C621	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C622	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C623	**US062100**	Ceramic Capacitor-SL(chip)	100P 50V J				01
C624	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C625	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C627	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K				01
C628	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K				01
C629	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C630	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K				01
-634	**US063100**	Ceramic Capacitor-B (chip)	1000P 50V K				01
C635	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C636	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C700	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
C701	**UF128220**	Electrolytic Cap. (chip)	220 10V UUR1A2				01
C702	**UF037470**	Electrolytic Cap. (chip)	47 16V				01
C703	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
-708	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C712	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
C713	**US061220**	Ceramic Capacitor-CH(chip)	22P 50V J				01
C715	**US061220**	Ceramic Capacitor-CH(chip)	22P 50V J				01
C717	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C800	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
-877	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C878	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C879	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
-884	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C885	**US064100**	Ceramic Capacitor-B (chip)	0.0100 50V K				01
C900	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
-920	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
CN100	**VI878600**	Cable Holder	51048 8P TE				01
CN101	**VI878800**	Cable Holder	51048 10P TE				01
CN102	**VI878700**	Cable Holder	51048 9P TE				01
CN400	**VQ045900**	Connector, FFC	52044 30P SE				02
CN401	**VP113500**	Connector, FFC	52044 10P SE				01
CN500	**VU421600**	Wire Trap	52151 16P SE				01
CN501	**VI878200**	Cable Holder	51048 4P TE				01
CN502	**VI878200**	Cable Holder	51048 4P TE				01
CN700	**VB390100**	Connector Base Post	PH 5P TE				01
CN701	**VF728300**	Wire Trap	52147 6P TE				01
CN702	**VK025500**	Wire Trap	52147 11P TE				01
CN703	**VB390100**	Connector Base Post	PH 5P TE				01
CN900	**VQ047600**	Connector, FFC	52045 21P TE				02
CN901	**VQ047400**	Connector, FFC	52045 19P TE				01
CN902	**VQ048500**	Connector, FFC	52045 36P TE				02
CN903	**VK025200**	Wire Trap	52147 8P TE				01
CN904	**VK025300**	Wire Trap	52147 9P TE				01
CN905	**VM688900**	Connector, FFC	52045 10P TE				01
CN906	**VP327200**	Connector, FFC	52045 30P TE				01
CN907	**VN773600**	Connector, FFC	52045 28P TE				02
CN908	**VK025200**	Wire Trap	52147 8P TE				01
* CN909	**VQ151900**	Connector, FFC	52045 38P TE				
D200	**VT332900**	Diode	1SS355 TE-17				01
-307	**VT332900**	Diode	1SS355 TE-17				01
D400	**VT332900**	Diode	1SS355 TE-17				01
-419	**VT332900**	Diode	1SS355 TE-17				01
D500	**VT332900**	Diode	1SS355 TE-17				01
-508	**VT332900**	Diode	1SS355 TE-17				01
D600	**VT332900**	Diode	1SS355 TE-17				01
EC400	**V3750900**	Rotary Encoder	EC12E2444400		CH 1		03
EC401	**V3750900**	Rotary Encoder	EC12E2444400		CH 2		03

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REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
EC402	**V3750900**	Rotary Encoder	EC12E2444400		CH 3		03
EC403	**V3750900**	Rotary Encoder	EC12E2444400		CH 4		03
EC404	**V3750900**	Rotary Encoder	EC12E2444400		CH 5		03
EC405	**V3750900**	Rotary Encoder	EC12E2444400		CH 6		03
EC406	**V3750900**	Rotary Encoder	EC12E2444400		CH 7		03
EC407	**V3750900**	Rotary Encoder	EC12E2444400		CH 8		03
EC408	**V3750900**	Rotary Encoder	EC12E2444400		CH 9		03
EC409	**V3750900**	Rotary Encoder	EC12E2444400		CH 10		03
EC410	**V3750900**	Rotary Encoder	EC12E2444400		CH 11		03
EC411	**V3750900**	Rotary Encoder	EC12E2444400		CH 12		03
EC412	**V3750900**	Rotary Encoder	EC12E2444400		CH 13		03
EC413	**V3750900**	Rotary Encoder	EC12E2444400		CH 14		03
EC414	**V3750900**	Rotary Encoder	EC12E2444400		CH 15		03
EC415	**V3750900**	Rotary Encoder	EC12E2444400		CH 16		03
EC416	**V3750900**	Rotary Encoder	EC12E2444400		1 <EFFECTS/PLUG-INS>		03
EC417	**V3750900**	Rotary Encoder	EC12E2444400		2 <EFFECTS/PLUG-INS>		03
EC418	**V3750900**	Rotary Encoder	EC12E2444400		3 <EFFECTS/PLUG-INS>		03
EC419	**V3750900**	Rotary Encoder	EC12E2444400		4 <EFFECTS/PLUG-INS>		03
EC500	**V6225900**	Optical Rotary Encoder	REC16B25-201-K		Parameter wheel		
EM100	**FZ006970**	LC Filter	MTY223NBTBM				02
EM101	**FZ006970**	LC Filter	MTY223NBTBM				02
EM500	**FZ006970**	LC Filter	MTY223NBTBM				02
EM700	**VQ761400**	EMI Filter (chip)	NFM3DCC101U1H3L				01
EM701	**VQ761400**	EMI Filter (chip)	NFM3DCC101U1H3L				01
EM702	**FZ006970**	LC Filter	MTY223NBTBM				02
EM703	**VQ761400**	EMI Filter (chip)	NFM3DCC101U1H3L				01
EM704	**FZ006970**	LC Filter	MTY223NBTBM				02
IC100	**XS720A00**	IC	TC74HC245AF		TRANSCEIVER		03
IC101	**XT163A00**	IC	TC74HC238AF		TRANSCEIVER		03
IC102	**IS059500**	IC	HD74LV595AFPEL		REGISTER		02
IC103	**IS059500**	IC	HD74LV595AFPEL		REGISTER		02
IC104	**IS016500**	IC	HD74LV165AFPEL		REGISTER		02
IC105	**IS016500**	IC	HD74LV165AFPEL		REGISTER		02
* IC600	**X3086A00**	IC	HD64F7044F28		CPU		
IC601	**IS024500**	IC	HD74LV245AFPEL		TRANSCEIVER		02
IC602	**IS024500**	IC	HD74LV245AFPEL		TRANSCEIVER		02
IC603	**XT138A00**	IC	UPD431000AGW-70LL		SRAM 1M		07
IC604	**XT138A00**	IC	UPD431000AGW-70LL		SRAM 1M		07
* IC605	**X3086A00**	IC	HD64F7044F28		CPU		
IC606	**XT138A00**	IC	UPD431000AGW-70LL		SRAM 1M		07
IC607	**XT138A00**	IC	UPD431000AGW-70LL		SRAM 1M		07
IC608	**XR532A00**	IC	NJM2904V(TE1)		OP AMP		02
IC700	**XS534A00**	IC	NJM78M05DL1A(TE1)		REGULATOR +5V		02
IC701	**XS720A00**	IC	TC74HC245AF		TRANSCEIVER		03
IC702	**XP226A00**	IC	IC-PST591DMT		SYSTEM RESET		03
IC703	**IS012500**	IC	HD74LV125AFPEL		BUFFER		01
IC704	**IS000000**	IC	HD74LV00AFPEL		NAND		01
IC706	**XY102A00**	IC	HD74LVU04AFPEL		INVERTER		01
IC900	**IS013810**	IC	SN74LV138ANSR		DECODER		01
IC901	**XV973A00**	IC	SGH603064F-62F		GATE ARRAY		07
-903	**XV973A00**	IC	SGH603064F-62F		GATE ARRAY		07
IC904	**XS720A00**	IC	TC74HC245AF		TRANSCEIVER		03
IC905	**XS720A00**	IC	TC74HC245AF		TRANSCEIVER		03
IC906	**XW762A00**	IC	TC74HC138AFEL		DECODER		02
IC907	**IS000400**	IC	HD74LV04AFPEL		INVERTER		01
IC908	**XS720A00**	IC	TC74HC245AF		TRANSCEIVER		03
IC909	**XS720A00**	IC	TC74HC245AF		TRANSCEIVER		03
IC910	**XW762A00**	IC	TC74HC138AFEL		DECODER		02
IC911	**XS720A00**	IC	TC74HC245AF		TRANSCEIVER		03
-913	**XS720A00**	IC	TC74HC245AF		TRANSCEIVER		03
IC914	**IS405210**	IC	SN74LV4052ANSR		MULTIPLEXER		02
L600	**GE300610**	Ferrite Bead	BL02RN1-R62T4				01
L700	**V8143400**	Chip Inductance	BLM21R121SKPT				01
L701	**GE300610**	Ferrite Bead	BL02RN1-R62T4				01
L702	**V8143400**	Chip Inductance	BLM21R121SKPT				01
L703	**V8143400**	Chip Inductance	BLM21R121SKPT				01
L900	**V8143400**	Chip Inductance	BLM21R121SKPT				01
-960	**V8143400**	Chip Inductance	BLM21R121SKPT				01
LD200	**V3670200**	LED Yellow	LT1H40A		ON 1		01
LD201	**V3670200**	LED Yellow	LT1H40A		ON 2		01

*: New Parts

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REF NO.	PART NO.	DESCRIPTION			REMARKS		QTY	RANK
LD202	**V3670200**	LED Yellow	LT1H40A		ON 3			01
LD203	**V3670200**	LED Yellow	LT1H40A		ON 4			01
LD204	**V3670200**	LED Yellow	LT1H40A		ON 5			01
LD205	**V3670200**	LED Yellow	LT1H40A		ON 6			01
LD206	**V3670200**	LED Yellow	LT1H40A		ON 7			01
LD207	**V3670200**	LED Yellow	LT1H40A		ON 8			01
LD208	**V3670200**	LED Yellow	LT1H40A		ON 9			01
LD209	**V3670200**	LED Yellow	LT1H40A		ON 10			01
LD210	**V3670200**	LED Yellow	LT1H40A		ON 11			01
LD211	**V3670200**	LED Yellow	LT1H40A		ON 12			01
LD212	**V3670200**	LED Yellow	LT1H40A		ON 13			01
LD213	**V3670200**	LED Yellow	LT1H40A		ON 14			01
LD214	**V3670200**	LED Yellow	LT1H40A		ON 15			01
LD215	**V3670200**	LED Yellow	LT1H40A		ON 16			01
LD216	**V3670200**	LED Yellow	LT1H40A		SOLO 1			01
LD217	**V3670200**	LED Yellow	LT1H40A		SOLO 2			01
LD218	**V3670200**	LED Yellow	LT1H40A		SOLO 3			01
LD219	**V3670200**	LED Yellow	LT1H40A		SOLO 4			01
LD220	**V3670200**	LED Yellow	LT1H40A		SOLO 5			01
LD221	**V3670200**	LED Yellow	LT1H40A		SOLO 6			01
LD222	**V3670200**	LED Yellow	LT1H40A		SOLO 7			01
LD223	**V3670200**	LED Yellow	LT1H40A		SOLO 8			01
LD224	**V3670200**	LED Yellow	LT1H40A		SOLO 9			01
LD225	**V3670200**	LED Yellow	LT1H40A		SOLO 10			01
LD226	**V3670200**	LED Yellow	LT1H40A		SOLO 11			01
LD227	**V3670200**	LED Yellow	LT1H40A		SOLO 12			01
LD228	**V3670200**	LED Yellow	LT1H40A		SOLO 13			01
LD229	**V3670200**	LED Yellow	LT1H40A		SOLO 14			01
LD230	**V3670200**	LED Yellow	LT1H40A		SOLO 15			01
LD231	**V3670200**	LED Yellow	LT1H40A		SOLO 16			01
LD232	**V3670100**	LED Yellow/Green	LT1E40A		SEL 1			01
LD233	**V3670100**	LED Yellow/Green	LT1E40A		SEL 2			01
LD234	**V3670100**	LED Yellow/Green	LT1E40A		SEL 3			01
LD235	**V3670100**	LED Yellow/Green	LT1E40A		SEL 4			01
LD236	**V3670100**	LED Yellow/Green	LT1E40A		SEL 5			01
LD237	**V3670100**	LED Yellow/Green	LT1E40A		SEL 6			01
LD238	**V3670100**	LED Yellow/Green	LT1E40A		SEL 7			01
LD239	**V3670100**	LED Yellow/Green	LT1E40A		SEL 8			01
LD240	**V3670100**	LED Yellow/Green	LT1E40A		SEL 9			01
LD241	**V3670100**	LED Yellow/Green	LT1E40A		SEL 10			01
LD242	**V3670100**	LED Yellow/Green	LT1E40A		SEL 11			01
LD243	**V3670100**	LED Yellow/Green	LT1E40A		SEL 12			01
LD244	**V3670100**	LED Yellow/Green	LT1E40A		SEL 13			01
LD245	**V3670100**	LED Yellow/Green	LT1E40A		SEL 14			01
LD246	**V3670100**	LED Yellow/Green	LT1E40A		SEL 15			01
LD247	**V3670100**	LED Yellow/Green	LT1E40A		SEL 16			01
LD248	**V7647400**	LED Yellow-Green/Red	LT1ED67A		AUTO 1			01
LD249	**V7647400**	LED Yellow-Green/Red	LT1ED67A		AUTO 2			01
LD250	**V7647400**	LED Yellow-Green/Red	LT1ED67A		AUTO 3			01
LD251	**V7647400**	LED Yellow-Green/Red	LT1ED67A		AUTO 4			01
LD252	**V7647400**	LED Yellow-Green/Red	LT1ED67A		AUTO 5			01
LD253	**V7647400**	LED Yellow-Green/Red	LT1ED67A		AUTO 6			01
LD254	**V7647400**	LED Yellow-Green/Red	LT1ED67A		AUTO 7			01
LD255	**V7647400**	LED Yellow-Green/Red	LT1ED67A		AUTO 8			01
LD256	**V7647400**	LED Yellow-Green/Red	LT1ED67A		AUTO 9			01
LD257	**V7647400**	LED Yellow-Green/Red	LT1ED67A		AUTO 10			01
LD258	**V7647400**	LED Yellow-Green/Red	LT1ED67A		AUTO 11			01
LD259	**V7647400**	LED Yellow-Green/Red	LT1ED67A		AUTO 12			01
LD260	**V7647400**	LED Yellow-Green/Red	LT1ED67A		AUTO 13			01
LD261	**V7647400**	LED Yellow-Green/Red	LT1ED67A		AUTO 14			01
LD262	**V7647400**	LED Yellow-Green/Red	LT1ED67A		AUTO 15			01
LD263	**V7647400**	LED Yellow-Green/Red	LT1ED67A		AUTO 16			01
LD264	**V3670100**	LED Yellow/Green	LT1E40A		AUX1	<AUX SELECT>		01
LD265	**V3670100**	LED Yellow/Green	LT1E40A		AUX2	<AUX SELECT>		01
LD266	**V3670100**	LED Yellow/Green	LT1E40A		AUX3	<AUX SELECT>		01
LD267	**V3670100**	LED Yellow/Green	LT1E40A		AUX4	<AUX SELECT>		01
LD268	**V3670100**	LED Yellow/Green	LT1E40A		AUX5	<AUX SELECT>		01
LD269	**V3670100**	LED Yellow/Green	LT1E40A		AUX6	<AUX SELECT>		01
LD270	**V3670100**	LED Yellow/Green	LT1E40A		AUX7	<AUX SELECT>		01
LD271	**V3670100**	LED Yellow/Green	LT1E40A		AUX8	<AUX SELECT>		01

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REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
LD272	**V3670100**	LED Yellow/Green	LT1E40A		1 <EFFECTS/PLUG-INS>		01
LD273	**V3670100**	LED Yellow/Green	LT1E40A		2 <EFFECTS/PLUG-INS>		01
LD274	**V3670100**	LED Yellow/Green	LT1E40A		3 <EFFECTS/PLUG-INS>		01
LD275	**V3670100**	LED Yellow/Green	LT1E40A		4 <EFFECTS/PLUG-INS>		01
LD277	**V3670100**	LED Yellow/Green	LT1E40A		INTERNAL EFFECTS		01
LD278	**V3670100**	LED Yellow/Green	LT1E40A		PLUG-INS		01
LD279	**V3670100**	LED Yellow/Green	LT1E40A		CHANNEL INSERTS		01
LD280	**V3670100**	LED Yellow/Green	LT1E40A		FADER <FADER MODE>		01
LD281	**V3670100**	LED Yellow/Green	LT1E40A		AUX <FADER MODE>		01
LD282	**V3670100**	LED Yellow/Green	LT1E40A		PAN <ENCODER MODE>		01
LD283	**V3670100**	LED Yellow/Green	LT1E40A		AUX <ENCODER MODE>		01
LD284	**V3670100**	LED Yellow/Green	LT1E40A		ASSIGN1 <ENCODER MODE>		01
LD285	**V3670100**	LED Yellow/Green	LT1E40A		ASSIGN2 <ENCODER MODE>		01
LD507	**V3670200**	LED Yellow	LT1H40A		SHUTTLE		01
LD508	**V3670200**	LED Yellow	LT1H40A		SCRUB		01
R100	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
-102	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
R104	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
R105	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
R107	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
-115	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
R116	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R117	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
R118	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
R119	**RD154330**	Carbon Resistor (chip)	33.0 1/4 J				01
-134	**RD154330**	Carbon Resistor (chip)	33.0 1/4 J				01
R135	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R136	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
R137	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
R600	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
-602	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
R603	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
-606	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R607	**RD255220**	Carbon Resistor (chip)	220.0 0.1 J				01
R608	**RD256300**	Carbon Resistor (chip)	3.0K 0.1 J				01
R611	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
R612	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
R613	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
-615	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R616	**HV754470**	Flame Proof C. Resistor	47.0 1/4 J				01
R617	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R618	**RD255220**	Carbon Resistor (chip)	220.0 0.1 J				01
R619	**RD256300**	Carbon Resistor (chip)	3.0K 0.1 J				01
R621	**VI192200**	Metal Film Resistor (chip)	75.0 1/10 D				01
R622	**VI197400**	Metal Film Resistor (chip)	10.0K 1/10 D				01
R624	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
R625	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
R626	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
-632	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
R700	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
-704	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R706	**RD259100**	Carbon Resistor (chip)	1.0M 0.1 J				01
R707	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
-709	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R710	**RD255220**	Carbon Resistor (chip)	220.0 0.1 J				01
R711	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
R712	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R800	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
-803	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R900	**RD256100**	Carbon Resistor (chip)	1.0K 0.1 J				01
-908	**RD256100**	Carbon Resistor (chip)	1.0K 0.1 J				01
R909	**RD258470**	Carbon Resistor (chip)	470.0K 0.1 J				01
-911	**RD258470**	Carbon Resistor (chip)	470.0K 0.1 J				01
RA100	**RE047100**	Resistor Array	10KX4				01
RA101	**RE047100**	Resistor Array	10KX4				01
RA200	**RE047100**	Resistor Array	10KX4				01
-203	**RE047100**	Resistor Array	10KX4				01
RA600	**RE047100**	Resistor Array	10KX4				01
-634	**RE047100**	Resistor Array	10KX4				01
RA800	**RE047100**	Resistor Array	10KX4				01

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REF NO.	PART NO.	DESCRIPTION			REMARKS		QTY	RANK
-841	**RE047100**	Resistor Array	10KX4					01
RA900	**RE047100**	Resistor Array	10KX4					01
SW200	**VV056000**	Tact Switch	SKQNAED010		ON 1			01
SW201	**VV056000**	Tact Switch	SKQNAED010		ON 2			01
SW202	**VV056000**	Tact Switch	SKQNAED010		ON 3			01
SW203	**VV056000**	Tact Switch	SKQNAED010		ON 4			01
SW204	**VV056000**	Tact Switch	SKQNAED010		ON 5			01
SW205	**VV056000**	Tact Switch	SKQNAED010		ON 6			01
SW206	**VV056000**	Tact Switch	SKQNAED010		ON 7			01
SW207	**VV056000**	Tact Switch	SKQNAED010		ON 8			01
SW208	**VV056000**	Tact Switch	SKQNAED010		ON 9			01
SW209	**VV056000**	Tact Switch	SKQNAED010		ON 10			01
SW210	**VV056000**	Tact Switch	SKQNAED010		ON 11			01
SW211	**VV056000**	Tact Switch	SKQNAED010		ON 12			01
SW212	**VV056000**	Tact Switch	SKQNAED010		ON 13			01
SW213	**VV056000**	Tact Switch	SKQNAED010		ON 14			01
SW214	**VV056000**	Tact Switch	SKQNAED010		ON 15			01
SW215	**VV056000**	Tact Switch	SKQNAED010		ON 16			01
SW216	**VV056000**	Tact Switch	SKQNAED010		SOLO 1			01
SW217	**VV056000**	Tact Switch	SKQNAED010		SOLO 2			01
SW218	**VV056000**	Tact Switch	SKQNAED010		SOLO 3			01
SW219	**VV056000**	Tact Switch	SKQNAED010		SOLO 4			01
SW220	**VV056000**	Tact Switch	SKQNAED010		SOLO 5			01
SW221	**VV056000**	Tact Switch	SKQNAED010		SOLO 6			01
SW222	**VV056000**	Tact Switch	SKQNAED010		SOLO 7			01
SW223	**VV056000**	Tact Switch	SKQNAED010		SOLO 8			01
SW224	**VV056000**	Tact Switch	SKQNAED010		SOLO 9			01
SW225	**VV056000**	Tact Switch	SKQNAED010		SOLO 10			01
SW226	**VV056000**	Tact Switch	SKQNAED010		SOLO 11			01
SW227	**VV056000**	Tact Switch	SKQNAED010		SOLO 12			01
SW228	**VV056000**	Tact Switch	SKQNAED010		SOLO 13			01
SW229	**VV056000**	Tact Switch	SKQNAED010		SOLO 14			01
SW230	**VV056000**	Tact Switch	SKQNAED010		SOLO 15			01
SW231	**VV056000**	Tact Switch	SKQNAED010		SOLO 16			01
SW232	**VV056000**	Tact Switch	SKQNAED010		SEL 1			01
SW233	**VV056000**	Tact Switch	SKQNAED010		SEL 2			01
SW234	**VV056000**	Tact Switch	SKQNAED010		SEL 3			01
SW235	**VV056000**	Tact Switch	SKQNAED010		SEL 4			01
SW236	**VV056000**	Tact Switch	SKQNAED010		SEL 5			01
SW237	**VV056000**	Tact Switch	SKQNAED010		SEL 6			01
SW238	**VV056000**	Tact Switch	SKQNAED010		SEL 7			01
SW239	**VV056000**	Tact Switch	SKQNAED010		SEL 8			01
SW240	**VV056000**	Tact Switch	SKQNAED010		SEL 9			01
SW241	**VV056000**	Tact Switch	SKQNAED010		SEL 10			01
SW242	**VV056000**	Tact Switch	SKQNAED010		SEL 11			01
SW243	**VV056000**	Tact Switch	SKQNAED010		SEL 12			01
SW244	**VV056000**	Tact Switch	SKQNAED010		SEL 13			01
SW245	**VV056000**	Tact Switch	SKQNAED010		SEL 14			01
SW246	**VV056000**	Tact Switch	SKQNAED010		SEL 15			01
SW247	**VV056000**	Tact Switch	SKQNAED010		SEL 16			01
SW248	**VV056000**	Tact Switch	SKQNAED010		AUTO 1			01
SW249	**VV056000**	Tact Switch	SKQNAED010		AUTO 2			01
SW250	**VV056000**	Tact Switch	SKQNAED010		AUTO 3			01
SW251	**VV056000**	Tact Switch	SKQNAED010		AUTO 4			01
SW252	**VV056000**	Tact Switch	SKQNAED010		AUTO 5			01
SW253	**VV056000**	Tact Switch	SKQNAED010		AUTO 6			01
SW254	**VV056000**	Tact Switch	SKQNAED010		AUTO 7			01
SW255	**VV056000**	Tact Switch	SKQNAED010		AUTO 8			01
SW256	**VV056000**	Tact Switch	SKQNAED010		AUTO 9			01
SW257	**VV056000**	Tact Switch	SKQNAED010		AUTO 10			01
SW258	**VV056000**	Tact Switch	SKQNAED010		AUTO 11			01
SW259	**VV056000**	Tact Switch	SKQNAED010		AUTO 12			01
SW260	**VV056000**	Tact Switch	SKQNAED010		AUTO 13			01
SW261	**VV056000**	Tact Switch	SKQNAED010		AUTO 14			01
SW262	**VV056000**	Tact Switch	SKQNAED010		AUTO 15			01
SW263	**VV056000**	Tact Switch	SKQNAED010		AUTO 16			01
SW264	**VV056000**	Tact Switch	SKQNAED010		AUX1	<AUX SELECT>		01
SW265	**VV056000**	Tact Switch	SKQNAED010		AUX2	<AUX SELECT>		01
SW266	**VV056000**	Tact Switch	SKQNAED010		AUX3	<AUX SELECT>		01
SW267	**VV056000**	Tact Switch	SKQNAED010		AUX4	<AUX SELECT>		01

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	SW268	**VV056000**	Tact Switch	SKQNAED010		AUX5 <AUX SELECT>		01
	SW269	**VV056000**	Tact Switch	SKQNAED010		AUX6 <AUX SELECT>		01
	SW270	**VV056000**	Tact Switch	SKQNAED010		AUX7 <AUX SELECT>		01
	SW271	**VV056000**	Tact Switch	SKQNAED010		AUX8 <AUX SELECT>		01
	SW272	**VV056000**	Tact Switch	SKQNAED010		1 <EFFECTS/PLUG-INS>		01
	SW273	**VV056000**	Tact Switch	SKQNAED010		2 <EFFECTS/PLUG-INS>		01
	SW274	**VV056000**	Tact Switch	SKQNAED010		3 <EFFECTS/PLUG-INS>		01
	SW275	**VV056000**	Tact Switch	SKQNAED010		4 <EFFECTS/PLUG-INS>		01
	SW276	**VV056000**	Tact Switch	SKQNAED010		DISPLAY<EFFECTS/PLUG-INS>		01
	SW277	**VV056000**	Tact Switch	SKQNAED010		INTERNAL EFFECTS		01
	SW278	**VV056000**	Tact Switch	SKQNAED010		PLUG-INS		01
	SW279	**VV056000**	Tact Switch	SKQNAED010		CHANNEL INSERTS		01
	SW280	**VV056000**	Tact Switch	SKQNAED010		FADER <FADER MODE>		01
	SW281	**VV056000**	Tact Switch	SKQNAED010		AUX <FADER MODE>		01
	SW282	**VV056000**	Tact Switch	SKQNAED010		PAN <ENCODER MODE>		01
	SW283	**VV056000**	Tact Switch	SKQNAED010		AUX <ENCODER MODE>		01
	SW284	**VV056000**	Tact Switch	SKQNAED010		ASSIGN1 <ENCODER MODE>		01
	SW285	**VV056000**	Tact Switch	SKQNAED010		ASSIGN2 <ENCODER MODE>		01
	SW286	**VV056000**	Tact Switch	SKQNAED010		DISPLAY <AUX SELECT>		01
	SW287	**VV056000**	Tact Switch	SKQNAED010		DISPLAY <ENCODER MODE>		01
	SW288	**VV056000**	Tact Switch	SKQNAED010		PAIR <DISPLAY ACCESS>		01
	SW289	**VV056000**	Tact Switch	SKQNAED010		GROUP <DISPLAY ACCESS>		01
	SW290	**VV056000**	Tact Switch	SKQNAED010		INPUT PATCH<DISPLAY ACCE		01
	SW291	**VV056000**	Tact Switch	SKQNAED010		OUTPUT PATCH<DISPLAY ACC		01
	SW292	**VV056000**	Tact Switch	SKQNAED010		AUTOMIX <DISPLAY ACCESS>		01
	SW293	**VV056000**	Tact Switch	SKQNAED010		DIO <DISPLAY ACCESS>		01
	SW294	**VV056000**	Tact Switch	SKQNAED010		SETUP <DISPLAY ACCESS>		01
	SW295	**VV056000**	Tact Switch	SKQNAED010		UTILITY <DISPLAY ACCESS>		01
	SW296	**VV056000**	Tact Switch	SKQNAED010		MIDI <DISPLAY ACCESS>		01
	SW297	**VV056000**	Tact Switch	SKQNAED010		REMOTE <DISPLAY ACCESS>		01
	SW298	**VV056000**	Tact Switch	SKQNAED010		METER <DISPLAY ACCESS>		01
	SW299	**VV056000**	Tact Switch	SKQNAED010		VIEW <DISPLAY ACCESS>		01
	SW300	**VV056000**	Tact Switch	SKQNAED010		F1		01
	SW301	**VV056000**	Tact Switch	SKQNAED010		F2		01
	SW302	**VV056000**	Tact Switch	SKQNAED010		F3		01
	SW303	**VV056000**	Tact Switch	SKQNAED010		F4		01
	SW304	**VV056000**	Tact Switch	SKQNAED010		Cursor Left		01
	SW305	**VV056000**	Tact Switch	SKQNAED010		Cursor Right		01
	SW306	**VV056000**	Tact Switch	SKQNAED010		Cursor Up		01
	SW307	**VV056000**	Tact Switch	SKQNAED010		Cursor Down		01
	SW500	**VR531200**	Push Switch	ML1A-11JW		DEC		02
	SW501	**VR531200**	Push Switch	ML1A-11JW		INC		02
	SW502	**VR531200**	Push Switch	ML1A-11JW		ENTER		02
	SW503	**VR531200**	Push Switch	ML1A-11JW		Cursor Left		02
	SW504	**VR531200**	Push Switch	ML1A-11JW		Cursor Right		02
	SW505	**VR531200**	Push Switch	ML1A-11JW		Cursor Up		02
	SW506	**VR531200**	Push Switch	ML1A-11JW		Cursor Down		02
	SW507	**VV056000**	Tact Switch	SKQNAED010		SHUTTLE		01
	SW508	**VV056000**	Tact Switch	SKQNAED010		SCRUB		01
	SW700	**KA401270**	Slide Switch	SSS212		Boot		03
	SW701	**KA401270**	Slide Switch	SSS212		Boot		03
	TA100	**VQ248400**	Transistor Array	TD62783AF				04
	TA101	**VQ248400**	Transistor Array	TD62783AF				04
	TA102	**VY703900**	Transistor Array	TD62309F(EL)				04
	TA103	**VY703900**	Transistor Array	TD62309F(EL)				04
	TA104	**VY703900**	Transistor Array	TD62309F(EL)				04
	TR600	**VQ986700**	Transistor	2SC2SC4081 T106				01
*	W100	**VV153600**	Jumper Wire	FVP=2.0C26SB8-100				
	W101	**V8392000**	Jumper Wire	FVP=2.0C26SB10-700				03
*	W102	**V9468100**	Jumper Wire	FVP=2.0C26SB9-90				
*	W501	**V8964600**	Jumper Wire	FVP=2.0C26SB4-60				
	X701	**V3719200**	Quartz Crystal Unit	6.7584MHz SMD-49				03
*		**V8627800**	Circuit Board	PN2 (PN2COM)		(V862670)(X2051B0)		
*		**V8627900**	Circuit Board	JS (PN2COM)		(V862670)(X2051B0)		
	10	**V8486700**	Button M_Gray	L LENS		SOLO 17-24	8	
	20	**V8486800**	Button Light Gray	L LENS		ON 17-24/STEREO	9	
	30	**V8486900**	Button Blue	L LENS		SEL 17-24/STEREO	9	
	40	**V8487100**	Button M_Gray	S LENS		AUTO 17-24/STEREO LAYER(4 buttons)	73	

✻: New Parts

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REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
					SET,1-8 <MACHINE CONTROL>		
					1-16 <USER DEFINED KEYS>		
					STUDIO(4 buttons)		
					CONTROL ROOM(10 buttons)		
					DIMMER, TALKBACK <MONITOR		
					ROUTING(11 buttons)		
					PAN/SURROUND(5 buttons)		
					GATE ON,COMP ON<DYNAMICS>		
					EQ ON <EQUALIZER>		
60	**V8487500**	Button M_Gray	S		CLEAR <SOLO>	2	
					GATE/COMP <DYNAMICS>		
70	**V8487600**	Button Light Gray	S		DISPLAY ACCESS(2 buttons)	10	
					DISPLAY <MACHINE CTR.,		
					MONITOR,SCENE MEMORY,		
					USER DEFINED KEYS,		
					ROUTING,PAN/SURROUND,		
					DYNAMICS,EQUALIZER>		
80	**V8488000**	Button M_Gray	CURSOR		STORE,RECALL<SCENE MEMO.>	2	
90	**V8488200**	Button Light Gray	LENS CURSOR		REW <MACHINE CONTROL>		
100	**V8488400**	Button Light Gray	LENS CURSOR		FF <MACHINE CONTROL>		
110	**V8488500**	Button Light Gray	LENS CURSOR		STOP <MACHINE CONTROL>		
120	**V8488600**	Button Light Gray	LENS CURSOR		PLAY <MACHINE CONTROL>		
130	**V8488800**	Button Light Gray	LENS CURSOR		REC <MACHINE CONTROL>		
140	**V8489600**	Button M_Gray	CURSOR		Cursor Up <SCENE MEMORY>		
150	**V8489700**	Button M_Gray	CURSOR		Cursor Down <SCENE MEMORY>		
160	**V6179800**	LED Lens	x16P		L/ODD-R/EVEN <PAN/SURR.>		03
C101	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C102	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C104	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
-120	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C121	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
-125	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
C500	**UF028100**	Electrolytic Cap. (chip)	100 10V				01
C501	**UF128220**	Electrolytic Cap. (chip)	220 10V UUR1A2				01
C502	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
-506	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C507	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
C508	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
C509	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C511	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C700	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
CN100	**VQ045700**	Connector, FFC	52044 28P SE				02
CN400	**VK026300**	Wire Trap	52151 4P SE				01
* CN401	**VQ152000**	Connector, FFC	52044 38P SE				
CN500	**VI878800**	Cable Holder	51048 10P TE				01
CN501	**VI879400**	Cable Holder	51048 16P TE				01
CN700	**VI878200**	Cable Holder	51048 4P TE				01
CN701	**VB390200**	Connector Base Post	PH 6P TE				01
CN702	**VI878600**	Cable Holder	51048 8P TE				01
D200	**VT332900**	Diode	1SS355 TE-17				01
-225	**VT332900**	Diode	1SS355 TE-17				01
D227	**VT332900**	Diode	1SS355 TE-17				01
-281	**VT332900**	Diode	1SS355 TE-17				01
D400	**VT332900**	Diode	1SS355 TE-17				01
-407	**VT332900**	Diode	1SS355 TE-17				01
D413	**VT332900**	Diode	1SS355 TE-17				01
-416	**VT332900**	Diode	1SS355 TE-17				01
D600	**VT332900**	Diode	1SS355 TE-17				01
-611	**VT332900**	Diode	1SS355 TE-17				01
D628	**VT332900**	Diode	1SS355 TE-17				01
-654	**VT332900**	Diode	1SS355 TE-17				01
EC400	**V3750900**	Rotary Encoder	EC12E2444400		CH 17		03
EC401	**V3750900**	Rotary Encoder	EC12E2444400		CH 18		03
EC402	**V3750900**	Rotary Encoder	EC12E2444400		CH 19		03
EC403	**V3750900**	Rotary Encoder	EC12E2444400		CH 20		03
EC404	**V3750900**	Rotary Encoder	EC12E2444400		CH 21		03
EC405	**V3750900**	Rotary Encoder	EC12E2444400		CH 22		03
EC406	**V3750900**	Rotary Encoder	EC12E2444400		CH 23		03
EC407	**V3750900**	Rotary Encoder	EC12E2444400		CH 24		03
EC408	**V3750700**	Rotary Encoder	EC12E2410401		GAIN <EQUALIZER LOW>		01

*: New Parts

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REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
EC409	**V3750700**	Rotary Encoder	EC12E2410401		GAIN <EQUALIZER LOW-MID>		01
EC410	**V3750700**	Rotary Encoder	EC12E2410401		GAIN <EQUALIZER HIGH-MID>		01
EC411	**V3750700**	Rotary Encoder	EC12E2410401		GAIN <EQUALIZER HIGH>		01
EC412	**V3750700**	Rotary Encoder	EC12E2410401		PAN/SURROUND		01
EC413	**V3750900**	Rotary Encoder	EC12E2444400		F/Q <EQUALIZER LOW>		03
EC414	**V3750900**	Rotary Encoder	EC12E2444400		F/Q <EQUALIZER LOW-MID>		03
EC415	**V3750900**	Rotary Encoder	EC12E2444400		F/Q <EQUALIZER HIGH-MID>		03
EC416	**V3750900**	Rotary Encoder	EC12E2444400		F/Q <EQUALIZER HIGH>		03
EC417	**V3750700**	Rotary Encoder	EC12E2410401		THRESHOULD <DYNAMICS>		01
EC418	**V3750700**	Rotary Encoder	EC12E2410401		RANGE/RATIO <DYNAMICS>		01
EC419	**V3750700**	Rotary Encoder	EC12E2410401		ATTACK <DYNAMICS>		01
EC420	**V3750700**	Rotary Encoder	EC12E2410401		DECAY/RELEASE<DYNAMICS>		01
EC421	**V3750700**	Rotary Encoder	EC12E2410401		HOLD/GAIN <DYNAMICS>		01
EM500	**FZ006970**	LC Filter	MTY223NBTBM				02
* EM501	**V9883200**	Carbon Film Resistor	0.0 RD16MT				
EM700	**FZ006970**	LC Filter	MTY223NBTBM				02
IC100	**XS720A00**	IC	TC74HC245AF		TRANSCEIVER		03
IC101	**XS720A00**	IC	TC74HC245AF		TRANSCEIVER		03
IC102	**IS016500**	IC	HD74LV165AFPEL		REGISTER		02
IC103	**IS016500**	IC	HD74LV165AFPEL		REGISTER		02
IC104	**IS059500**	IC	HD74LV595AFPEL		REGISTER		02
-107	**IS059500**	IC	HD74LV595AFPEL		REGISTER		02
IC108	**XT163A00**	IC	TC74HC238AF		TRANSCEIVER		03
IC109	**XT163A00**	IC	TC74HC238AF		TRANSCEIVER		03
IC500	**XT163A00**	IC	TC74HC238AF		TRANSCEIVER		03
IC501	**IS059500**	IC	HD74LV595AFPEL		REGISTER		02
IC502	**IS059500**	IC	HD74LV595AFPEL		REGISTER		02
IC503	**IS016500**	IC	HD74LV165AFPEL		REGISTER		02
LD200	**V3670200**	LED Yellow	LT1H40A		ON 17		01
LD201	**V3670200**	LED Yellow	LT1H40A		ON 18		01
LD202	**V3670200**	LED Yellow	LT1H40A		ON 19		01
LD203	**V3670200**	LED Yellow	LT1H40A		ON 20		01
LD204	**V3670200**	LED Yellow	LT1H40A		ON 21		01
LD205	**V3670200**	LED Yellow	LT1H40A		ON 22		01
LD206	**V3670200**	LED Yellow	LT1H40A		ON 23		01
LD207	**V3670200**	LED Yellow	LT1H40A		ON 24		01
LD208	**V7647400**	LED Yellow-Green/Red	LT1ED67A		AUTO <STEREO>		01
LD209	**V3670100**	LED Yellow/Green	LT1E40A		SEL <STEREO>		01
LD210	**V3670200**	LED Yellow	LT1H40A		ON <STEREO>		01
LD211	**V3670100**	LED Yellow/Green	LT1E40A		1-24 <LAYER>		01
LD212	**V3670100**	LED Yellow/Green	LT1E40A		25-48 <LAYER>		01
LD213	**V3670100**	LED Yellow/Green	LT1E40A		REMOTE <LAYER>		01
LD214	**V3670100**	LED Yellow/Green	LT1E40A		MASTER <LAYER>		01
LD215	**V3670200**	LED Yellow	LT1H40A		SOLO 17		01
LD216	**V3670200**	LED Yellow	LT1H40A		SOLO 18		01
LD217	**V3670200**	LED Yellow	LT1H40A		SOLO 19		01
LD218	**V3670200**	LED Yellow	LT1H40A		SOLO 20		01
LD219	**V3670200**	LED Yellow	LT1H40A		SOLO 21		01
LD220	**V3670200**	LED Yellow	LT1H40A		SOLO 22		01
LD221	**V3670200**	LED Yellow	LT1H40A		SOLO 23		01
LD222	**V3670200**	LED Yellow	LT1H40A		SOLO 24		01
LD223	**V3670200**	LED Yellow	LT1H40A		GATE ON <DYNAMICS>		01
LD224	**V3670200**	LED Yellow	LT1H40A		COMP ON <DYNAMICS>		01
LD225	**V3670200**	LED Yellow	LT1H40A		GATE <DYNAMICS>		01
LD226	**V3670200**	LED Yellow	LT1H40A		COMP <DYNAMICS>		01
LD227	**V3670200**	LED Yellow	LT1H40A		FOLLOW PAN <ROUTING>		01
LD228	**V3670200**	LED Yellow	LT1H40A		STEREO <ROUTING>		01
LD229	**V3670200**	LED Yellow	LT1H40A		DIRECT <ROUTING>		01
LD230	**V3670100**	LED Yellow/Green	LT1E40A		SEL 17		01
LD231	**V3670100**	LED Yellow/Green	LT1E40A		SEL 18		01
LD232	**V3670100**	LED Yellow/Green	LT1E40A		SEL 19		01
LD233	**V3670100**	LED Yellow/Green	LT1E40A		SEL 20		01
LD234	**V3670100**	LED Yellow/Green	LT1E40A		SEL 21		01
LD235	**V3670100**	LED Yellow/Green	LT1E40A		SEL 22		01
LD236	**V3670100**	LED Yellow/Green	LT1E40A		SEL 23		01
LD237	**V3670100**	LED Yellow/Green	LT1E40A		SEL 24		01
LD238	**V3670200**	LED Yellow	LT1H40A		1 <ROUTING>		01
LD239	**V3670200**	LED Yellow	LT1H40A		2 <ROUTING>		01
LD240	**V3670200**	LED Yellow	LT1H40A		3 <ROUTING>		01
LD241	**V3670200**	LED Yellow	LT1H40A		4 <ROUTING>		01

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REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
LD242	**V3670200**	LED Yellow	LT1H40A		5 <ROUTING>		01
LD243	**V3670200**	LED Yellow	LT1H40A		6 <ROUTING>		01
LD244	**V3670200**	LED Yellow	LT1H40A		7 <ROUTING>		01
LD245	**V3670200**	LED Yellow	LT1H40A		8 <ROUTING>		01
LD246	**V7647400**	LED Yellow-Green/Red	LT1ED67A		AUTO 17		01
LD247	**V7647400**	LED Yellow-Green/Red	LT1ED67A		AUTO 18		01
LD248	**V7647400**	LED Yellow-Green/Red	LT1ED67A		AUTO 19		01
LD249	**V7647400**	LED Yellow-Green/Red	LT1ED67A		AUTO 20		01
LD250	**V7647400**	LED Yellow-Green/Red	LT1ED67A		AUTO 21		01
LD251	**V7647400**	LED Yellow-Green/Red	LT1ED67A		AUTO 22		01
LD252	**V7647400**	LED Yellow-Green/Red	LT1ED67A		AUTO 23		01
LD253	**V7647400**	LED Yellow-Green/Red	LT1ED67A		AUTO 24		01
LD254	**V3670200**	LED Yellow	LT1H40A		EQ ON <EQUALIZER>		01
LD255	**V3670200**	LED Yellow	LT1H40A		L/ODD-R/EVEN(9) <PAN/SUR.>		01
LD256	**V3670200**	LED Yellow	LT1H40A		L/ODD-R/EVEN(10)<PAN/SUR.		01
LD257	**V3670200**	LED Yellow	LT1H40A		L <PAN/SURROUND>		01
LD258	**V3670200**	LED Yellow	LT1H40A		R <PAN/SURROUND>		01
LD259	**V3670200**	LED Yellow	LT1H40A		LINK <PAN/SURROUND>		01
LD260	**V3670200**	LED Yellow	LT1H40A		GRAB <PAN/SURROUND>		01
LD261	**V3670200**	LED Yellow	LT1H40A		EFFECT <PAN/SURROUND>		01
LD262	**V3670200**	LED Yellow	LT1H40A		1 <USER DEFINED KEYS>		01
LD263	**V3670200**	LED Yellow	LT1H40A		2 <USER DEFINED KEYS>		01
LD264	**V3670200**	LED Yellow	LT1H40A		3 <USER DEFINED KEYS>		01
LD265	**V3670200**	LED Yellow	LT1H40A		4 <USER DEFINED KEYS>		01
LD266	**V3670200**	LED Yellow	LT1H40A		5 <USER DEFINED KEYS>		01
LD267	**V3670200**	LED Yellow	LT1H40A		6 <USER DEFINED KEYS>		01
LD268	**V3670200**	LED Yellow	LT1H40A		7 <USER DEFINED KEYS>		01
LD269	**V3670200**	LED Yellow	LT1H40A		8 <USER DEFINED KEYS>		01
LD270	**V3670200**	LED Yellow	LT1H40A		9 <USER DEFINED KEYS>		01
LD271	**V3670200**	LED Yellow	LT1H40A		10 <USER DEFINED KEYS>		01
LD272	**V3670200**	LED Yellow	LT1H40A		11 <USER DEFINED KEYS>		01
LD273	**V3670200**	LED Yellow	LT1H40A		12 <USER DEFINED KEYS>		01
LD274	**V3670200**	LED Yellow	LT1H40A		13 <USER DEFINED KEYS>		01
LD275	**V3670200**	LED Yellow	LT1H40A		14 <USER DEFINED KEYS>		01
LD276	**V3670200**	LED Yellow	LT1H40A		15 <USER DEFINED KEYS>		01
LD277	**V3670200**	LED Yellow	LT1H40A		16 <USER DEFINED KEYS>		01
LD278	**V3670200**	LED Yellow	LT1H40A		L/ODD-R/EVEN(1) <PAN/SUR.>		01
LD279	**V3670200**	LED Yellow	LT1H40A		L/ODD-R/EVEN(2) <PAN/SUR.>		01
LD280	**V3670200**	LED Yellow	LT1H40A		L/ODD-R/EVEN(3) <PAN/SUR.>		01
LD281	**V3670200**	LED Yellow	LT1H40A		L/ODD-R/EVEN(4) <PAN/SUR.>		01
LD282	**V3670200**	LED Yellow	LT1H40A		L/ODD-R/EVEN(5) <PAN/SUR.>		01
LD283	**V3670200**	LED Yellow	LT1H40A		L/ODD-R/EVEN(6) <PAN/SUR.>		01
LD284	**V3670200**	LED Yellow	LT1H40A		L/ODD-R/EVEN(7) <PAN/SUR.>		01
LD285	**V3670200**	LED Yellow	LT1H40A		L/ODD-R/EVEN(8) <PAN/SUR.>		01
LD400	**V3673800**	LED Display	7 SEG.		EQUALIZER LOW		07
LD401	**V3673800**	LED Display	7 SEG.		EQUALIZER LOW-MID		07
LD402	**V3673800**	LED Display	7 SEG.		EQUALIZER HIGH-MID		07
LD403	**V3673800**	LED Display	7 SEG.		EQUALIZER HIGH		07
LD600	**V3670200**	LED Yellow	LT1H40A		1 <LOCATE MEMORY>		01
LD601	**V3670200**	LED Yellow	LT1H40A		2 <LOCATE MEMORY>		01
LD602	**V3670200**	LED Yellow	LT1H40A		3 <LOCATE MEMORY>		01
LD603	**V3670200**	LED Yellow	LT1H40A		4 <LOCATE MEMORY>		01
LD604	**V3670200**	LED Yellow	LT1H40A		5 <LOCATE MEMORY>		01
LD605	**V3670200**	LED Yellow	LT1H40A		6 <LOCATE MEMORY>		01
LD606	**V3670200**	LED Yellow	LT1H40A		7 <LOCATE MEMORY>		01
LD607	**V3670200**	LED Yellow	LT1H40A		8 <LOCATE MEMORY>		01
LD608	**V3670200**	LED Yellow	LT1H40A		dB <EQUALIZER LOW>		01
LD609	**V3670200**	LED Yellow	LT1H40A		dB <EQUALIZER LOW-MID>		01
LD610	**V3670200**	LED Yellow	LT1H40A		dB <EQUALIZER HIGH-MID>		01
LD611	**V3670200**	LED Yellow	LT1H40A		dB <EQUALIZER HIGH>		01
LD612	**V3670200**	LED Yellow	LT1H40A		Hz <EQUALIZER LOW>		01
LD613	**V3670200**	LED Yellow	LT1H40A		Hz <EQUALIZER LOW-MID>		01
LD614	**V3670200**	LED Yellow	LT1H40A		Hz <EQUALIZER HIGH-MID>		01
LD615	**V3670200**	LED Yellow	LT1H40A		Hz <EQUALIZER HIGH>		01
LD616	**V3670200**	LED Yellow	LT1H40A		FREQ.<EQUALIZER LOW>		01
LD617	**V3670200**	LED Yellow	LT1H40A		FREQ.<EQUALIZER LOW-MID>		01
LD618	**V3670200**	LED Yellow	LT1H40A		FREQ.<EQUALIZER HIGH-MID>		01
LD619	**V3670200**	LED Yellow	LT1H40A		FREQ.<EQUALIZER HIGH>		01
LD620	**V3670200**	LED Yellow	LT1H40A		Q <EQUALIZER LOW>		01
LD621	**V3670200**	LED Yellow	LT1H40A		Q <EQUALIZER LOW-MID>		01

✻: New Parts

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REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
LD622	**V3670200**	LED Yellow	LT1H40A		Q <EQUALIZER HIGH-MID>		01
LD623	**V3670200**	LED Yellow	LT1H40A		Q <EQUALIZER HIGH>		01
LD624	**V3670200**	LED Yellow	LT1H40A		kHz <EQUALIZER LOW>		01
LD625	**V3670200**	LED Yellow	LT1H40A		kHz <EQUALIZER LOW-MID>		01
LD626	**V3670200**	LED Yellow	LT1H40A		kHz <EQUALIZER HIGH-MID>		01
LD627	**V3670200**	LED Yellow	LT1H40A		kHz <EQUALIZER HIGH>		01
LD628	**V3670200**	LED Yellow	LT1H40A		SET <MACHINE CONTROL>		01
LD629	**V3670200**	LED Yellow	LT1H40A		CTR.ROOM<MONITOR STUDIO>		01
LD630	**V3670200**	LED Yellow	LT1H40A		STEREO<MONITOR STUDIO>		01
LD631	**V3670200**	LED Yellow	LT1H40A		AUX7<MONITOR STUDIO>		01
LD632	**V3670200**	LED Yellow	LT1H40A		AUX8<MONITOR STUDIO>		01
LD633	**V3670000**	LED Red	LT1D40A		SOLO <MONITOR>		01
LD634	**V3670200**	LED Yellow	LT1H40A		2TR D1<MONITOR CTR.ROOM		01
LD635	**V3670200**	LED Yellow	LT1H40A		2TR D2<MONITOR CTR.ROOM		01
LD636	**V3670200**	LED Yellow	LT1H40A		2TR D3<MONITOR CTR.ROOM		01
LD637	**V3670200**	LED Yellow	LT1H40A		2TR A1 <MONITOR CTR.ROOM		01
LD638	**V3670200**	LED Yellow	LT1H40A		2TR A2 <MONITOR CTR.ROOM		01
LD639	**V3670200**	LED Yellow	LT1H40A		STEREO<MONITOR CTR.ROOM		01
LD640	**V3670200**	LED Yellow	LT1H40A		ASSIGN1<MONITOR CTR.ROOM		01
LD641	**V3670200**	LED Yellow	LT1H40A		ASSIGN2<MONITOR CTR.ROOM		01
LD642	**V3670200**	LED Yellow	LT1H40A		BUS <MONITOR SURROUND>		01
LD643	**V3670200**	LED Yellow	LT1H40A		SLOT <MONITOR SURROUND		01
LD644	**V3670200**	LED Yellow	LT1H40A		DIMMER <MONITOR>		01
LD645	**V3670200**	LED Yellow	LT1H40A		TALKBACK <MONITOR>		01
LD700	**V3670200**	LED Yellow	LT1H40A		REW <MACHINE CONTROL>		01
LD701	**V3670200**	LED Yellow	LT1H40A		FF <MACHINE CONTROL>		01
LD702	**V3670200**	LED Yellow	LT1H40A		STOP <MACHINE CONTROL>		01
LD703	**V3670100**	LED Yellow/Green	LT1E40A		PLAY <MACHINE CONTROL>		01
LD704	**V3670000**	LED Red	LT1D40A		REC <MACHINE CONTROL>		01
LD705	**V3674300**	LED Display	7		SCENE MEMORY		05
R100	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
-119	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
R120	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R121	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
-126	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
R128	**RD154330**	Carbon Resistor (chip)	33.0 1/4 J				01
-159	**RD154330**	Carbon Resistor (chip)	33.0 1/4 J				01
R160	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
-163	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
R500	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
-504	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
R506	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
-508	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
R510	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
-513	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
R515	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
R516	**RD154330**	Carbon Resistor (chip)	33.0 1/4 J				01
-519	**RD154330**	Carbon Resistor (chip)	33.0 1/4 J				01
R523	**RD154330**	Carbon Resistor (chip)	33.0 1/4 J				01
-526	**RD154330**	Carbon Resistor (chip)	33.0 1/4 J				01
R532	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
R700	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
-704	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
RA100	**RE047100**	Resistor Array	10KX4				01
RA101	**RE047100**	Resistor Array	10KX4				01
RA200	**RE047100**	Resistor Array	10KX4				01
-203	**RE047100**	Resistor Array	10KX4				01
RA600	**RE047100**	Resistor Array	10KX4				01
RA601	**RE047100**	Resistor Array	10KX4				01
SW200	**VV056000**	Tact Switch	SKQNAED010		ON 17		01
SW201	**VV056000**	Tact Switch	SKQNAED010		ON 18		01
SW202	**VV056000**	Tact Switch	SKQNAED010		ON 19		01
SW203	**VV056000**	Tact Switch	SKQNAED010		ON 20		01
SW204	**VV056000**	Tact Switch	SKQNAED010		ON 21		01
SW205	**VV056000**	Tact Switch	SKQNAED010		ON 22		01
SW206	**VV056000**	Tact Switch	SKQNAED010		ON 23		01
SW207	**VV056000**	Tact Switch	SKQNAED010		ON 24		01
SW208	**VV056000**	Tact Switch	SKQNAED010		AUTO <STEREO>		01
SW209	**VV056000**	Tact Switch	SKQNAED010		SEL <STEREO>		01
SW210	**VV056000**	Tact Switch	SKQNAED010		ON <STEREO>		01

✻: New Parts

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REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
SW211	**VV056000**	Tact Switch	SKQNAED010		1-24 <LAYER>		01
SW212	**VV056000**	Tact Switch	SKQNAED010		25-48 <LAYER>		01
SW213	**VV056000**	Tact Switch	SKQNAED010		REMOTE <LAYER>		01
SW214	**VV056000**	Tact Switch	SKQNAED010		MASTER <LAYER>		01
SW215	**VV056000**	Tact Switch	SKQNAED010		SOLO 17		01
SW216	**VV056000**	Tact Switch	SKQNAED010		SOLO 18		01
SW217	**VV056000**	Tact Switch	SKQNAED010		SOLO 19		01
SW218	**VV056000**	Tact Switch	SKQNAED010		SOLO 20		01
SW219	**VV056000**	Tact Switch	SKQNAED010		SOLO 21		01
SW220	**VV056000**	Tact Switch	SKQNAED010		SOLO 22		01
SW221	**VV056000**	Tact Switch	SKQNAED010		SOLO 23		01
SW222	**VV056000**	Tact Switch	SKQNAED010		SOLO 24		01
SW223	**VV056000**	Tact Switch	SKQNAED010		GATE <DYNAMICS>		01
SW224	**VV056000**	Tact Switch	SKQNAED010		COMP ON <DYNAMICS>		01
SW225	**VV056000**	Tact Switch	SKQNAED010		GATE/COMP <DYNAMICS>		01
SW227	**VV056000**	Tact Switch	SKQNAED010		FOLLOW PAN <ROUTING>		01
SW228	**VV056000**	Tact Switch	SKQNAED010		STEREO <ROUTING>		01
SW229	**VV056000**	Tact Switch	SKQNAED010		DIRECT <ROUTING>		01
SW230	**VV056000**	Tact Switch	SKQNAED010		SEL 17		01
SW231	**VV056000**	Tact Switch	SKQNAED010		SEL 18		01
SW232	**VV056000**	Tact Switch	SKQNAED010		SEL 19		01
SW233	**VV056000**	Tact Switch	SKQNAED010		SEL 20		01
SW234	**VV056000**	Tact Switch	SKQNAED010		SEL 21		01
SW235	**VV056000**	Tact Switch	SKQNAED010		SEL 22		01
SW236	**VV056000**	Tact Switch	SKQNAED010		SEL 23		01
SW237	**VV056000**	Tact Switch	SKQNAED010		SEL 24		01
SW238	**VV056000**	Tact Switch	SKQNAED010		1 <ROUTING>		01
SW239	**VV056000**	Tact Switch	SKQNAED010		2 <ROUTING>		01
SW240	**VV056000**	Tact Switch	SKQNAED010		3 <ROUTING>		01
SW241	**VV056000**	Tact Switch	SKQNAED010		4 <ROUTING>		01
SW242	**VV056000**	Tact Switch	SKQNAED010		5 <ROUTING>		01
SW243	**VV056000**	Tact Switch	SKQNAED010		6 <ROUTING>		01
SW244	**VV056000**	Tact Switch	SKQNAED010		7 <ROUTING>		01
SW245	**VV056000**	Tact Switch	SKQNAED010		8 <ROUTING>		01
SW246	**VV056000**	Tact Switch	SKQNAED010		AUTO 17		01
SW247	**VV056000**	Tact Switch	SKQNAED010		AUTO 18		01
SW248	**VV056000**	Tact Switch	SKQNAED010		AUTO 19		01
SW249	**VV056000**	Tact Switch	SKQNAED010		AUTO 20		01
SW250	**VV056000**	Tact Switch	SKQNAED010		AUTO 21		01
SW251	**VV056000**	Tact Switch	SKQNAED010		AUTO 22		01
SW252	**VV056000**	Tact Switch	SKQNAED010		AUTO 23		01
SW253	**VV056000**	Tact Switch	SKQNAED010		AUTO 24		01
SW254	**VV056000**	Tact Switch	SKQNAED010		EQ ON <EQUALIZER>		01
SW255	**VV056000**	Tact Switch	SKQNAED010		PHASE/INSERT<DISP.ACCESS>		01
SW256	**VV056000**	Tact Switch	SKQNAED010		DELAY <DISPLAY ACCESS>		01
SW257	**VV056000**	Tact Switch	SKQNAED010		L <PAN/SURROUND>		01
SW258	**VV056000**	Tact Switch	SKQNAED010		R <PAN/SURROUND>		01
SW259	**VV056000**	Tact Switch	SKQNAED010		LINK <PAN/SURROUND>		01
SW260	**VV056000**	Tact Switch	SKQNAED010		GRAB <PAN/SURROUND>		01
SW261	**VV056000**	Tact Switch	SKQNAED010		EFFECT <PAN/SURROUND>		01
SW262	**VV056000**	Tact Switch	SKQNAED010		1 <USER DEFINED KEYS>		01
SW263	**VV056000**	Tact Switch	SKQNAED010		2 <USER DEFINED KEYS>		01
SW264	**VV056000**	Tact Switch	SKQNAED010		3 <USER DEFINED KEYS>		01
SW265	**VV056000**	Tact Switch	SKQNAED010		4 <USER DEFINED KEYS>		01
SW266	**VV056000**	Tact Switch	SKQNAED010		5 <USER DEFINED KEYS>		01
SW267	**VV056000**	Tact Switch	SKQNAED010		6 <USER DEFINED KEYS>		01
SW268	**VV056000**	Tact Switch	SKQNAED010		7 <USER DEFINED KEYS>		01
SW269	**VV056000**	Tact Switch	SKQNAED010		8 <USER DEFINED KEYS>		01
SW270	**VV056000**	Tact Switch	SKQNAED010		9 <USER DEFINED KEYS>		01
SW271	**VV056000**	Tact Switch	SKQNAED010		10 <USER DEFINED KEYS>		01
SW272	**VV056000**	Tact Switch	SKQNAED010		11 <USER DEFINED KEYS>		01
SW273	**VV056000**	Tact Switch	SKQNAED010		12 <USER DEFINED KEYS>		01
SW274	**VV056000**	Tact Switch	SKQNAED010		13 <USER DEFINED KEYS>		01
SW275	**VV056000**	Tact Switch	SKQNAED010		14 <USER DEFINED KEYS>		01
SW276	**VV056000**	Tact Switch	SKQNAED010		15 <USER DEFINED KEYS>		01
SW277	**VV056000**	Tact Switch	SKQNAED010		16 <USER DEFINED KEYS>		01
SW278	**VV056000**	Tact Switch	SKQNAED010		DISPLAY <ROUTING>		01
SW279	**VV056000**	Tact Switch	SKQNAED010		DISPLAY <DYNAMICS>		01
SW280	**VV056000**	Tact Switch	SKQNAED010		DISPLAY <PAN/SURROUND>		01
SW281	**VV056000**	Tact Switch	SKQNAED010		DISPLAY <EQUALIZER>		01

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	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	SW600	**VV056000**	Tact Switch	SKQNAED010		1 <LOCATE MEMORY>		01
	SW601	**VV056000**	Tact Switch	SKQNAED010		2 <LOCATE MEMORY>		01
	SW602	**VV056000**	Tact Switch	SKQNAED010		3 <LOCATE MEMORY>		01
	SW603	**VV056000**	Tact Switch	SKQNAED010		4 <LOCATE MEMORY>		01
	SW604	**VV056000**	Tact Switch	SKQNAED010		5 <LOCATE MEMORY>		01
	SW605	**VV056000**	Tact Switch	SKQNAED010		6 <LOCATE MEMORY>		01
	SW606	**VV056000**	Tact Switch	SKQNAED010		7 <LOCATE MEMORY>		01
	SW607	**VV056000**	Tact Switch	SKQNAED010		8 <LOCATE MEMORY>		01
	SW608	**VV056000**	Tact Switch	SKQNAED010		DISPLAY <SCENE MEMORY>		01
	SW609	**VV056000**	Tact Switch	SKQNAED010		DISPLAY<USER DEFINED KEYS		01
	SW610	**VV056000**	Tact Switch	SKQNAED010		DISPLAY<MACHINE CONTROL>		01
	SW611	**VV056000**	Tact Switch	SKQNAED010		DISPLAY <MONITOR>		01
	SW628	**VV056000**	Tact Switch	SKQNAED010		SET <MACHINE CONTROL>		01
	SW629	**VV056000**	Tact Switch	SKQNAED010		CTR.ROOM<MONITOR STUDIO>		01
	SW630	**VV056000**	Tact Switch	SKQNAED010		STEREO <MONITOR STUDIO>		01
	SW631	**VV056000**	Tact Switch	SKQNAED010		AUX7 <MONITOR STUDIO>		01
	SW632	**VV056000**	Tact Switch	SKQNAED010		AUX8 <MONITOR STUDIO>		01
	SW633	**VV056000**	Tact Switch	SKQNAED010		SOLO <MONITOR>		01
	SW634	**VV056000**	Tact Switch	SKQNAED010		2TR D1<MONITOR CTR.ROOM		01
	SW635	**VV056000**	Tact Switch	SKQNAED010		2TR D2<MONITOR CTR.ROOM		01
	SW636	**VV056000**	Tact Switch	SKQNAED010		2TR D3<MONITOR CTR.ROOM		01
	SW637	**VV056000**	Tact Switch	SKQNAED010		2TR A1<MONITOR CTR.ROOM		01
	SW638	**VV056000**	Tact Switch	SKQNAED010		2TR A2<MONITOR CTR.ROOM		01
	SW639	**VV056000**	Tact Switch	SKQNAED010		STEREO<MONITOR CTR.ROOM		01
	SW640	**VV056000**	Tact Switch	SKQNAED010		ASSIGN1<MONITOR CTR.ROOM		01
	SW641	**VV056000**	Tact Switch	SKQNAED010		ASSIGN2<MONITOR CTR.ROOM		01
	SW642	**VV056000**	Tact Switch	SKQNAED010		BUS <MONITOR SURROUND>		01
	SW643	**VV056000**	Tact Switch	SKQNAED010		SLOT<MONITOR SURROUND>		01
	SW644	**VV056000**	Tact Switch	SKQNAED010		DIMMER <MONITOR>		01
	SW645	**VV056000**	Tact Switch	SKQNAED010		TALKBACK <MONITOR>		01
	SW646	**VR531200**	Push Switch	ML1A-11JW		STORE <SCENE MEMORY>		02
	SW647	**VR531200**	Push Switch	ML1A-11JW		RECALL <SCENE MEMORY>		02
	SW648	**VR531200**	Push Switch	ML1A-11JW		Cursor Up <SCENE MEMORY>		02
	SW649	**VR531200**	Push Switch	ML1A-11JW		Cursor Down<SCENE MEMORY>		02
	SW650	**VR531200**	Push Switch	ML1A-11JW		REW <MACHINE CONTROL>		02
	SW651	**VR531200**	Push Switch	ML1A-11JW		FF <MACHINE CONTROL>		02
	SW652	**VR531200**	Push Switch	ML1A-11JW		STOP <MACHINE CONTROL>		02
	SW653	**VR531200**	Push Switch	ML1A-11JW		PLAY <MACHINE CONTROL>		02
	SW654	**VR531200**	Push Switch	ML1A-11JW		REC <MACHINE CONTROL>		02
	TA100	**VQ248400**	Transistor Array	TD62783AF				04
	-103	**VQ248400**	Transistor Array	TD62783AF				04
	TA104	**VY703900**	Transistor Array	TD62309F(EL)				04
	-108	**VY703900**	Transistor Array	TD62309F(EL)				04
	TA500	**VQ248400**	Transistor Array	TD62783AF				04
	TA502	**VY703900**	Transistor Array	TD62309F(EL)				04
	TA503	**VY703900**	Transistor Array	TD62309F(EL)				04
	TR700	**VV655400**	Digital Transistor	DTC114EKA TP				01
	-704	**VV655400**	Digital Transistor	DTC114EKA TP				01
	VR400	**V3674400**	Stick Controller			Joy stick		08
	VR700	**VQ670500**	Rotary Pot.	B 10K RK11K1130		SURROUND MONITOR LEVEL		02
	VR701	**VZ583900**	Rotary Variable Resistor	A 20.0K RK14K12C0		CONTROL ROOM LEVEL		03
*	W500	**V8964200**	Jumper Wire	FVP=2.0C26SB10-750				
	W501	**V8392500**	Jumper Wire	FVP=2.0C26SB16-240				
*	W700	**V9468000**	Jumper Wire	FVP=2.0C26SB4-120				
*	W702	**V8963900**	Jumper Wire	FVP=2.0C26SB8-580				
*		**V8911500**	Circuit Board	STD		(V863070)(X2068B0)		
		V6435400	Holder, Phones	x2				02
	C001	**V5829200**	Electrolytic Cap. (chip)	100 20V 20SG100M+T				04
	C002	**V5829200**	Electrolytic Cap. (chip)	100 20V 20SG100M+T				04
	C101	**UB051330**	Monolithic Ceramic Cap.	SL 33P 50V J				01
	C102	**UB051330**	Monolithic Ceramic Cap.	SL 33P 50V J				01
	C103	**UU168100**	Electrolytic Cap.	100.00 50.0V				01
	C104	**UU168100**	Electrolytic Cap.	100.00 50.0V				01
	C105	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
	C106	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
	C107	**UU168100**	Electrolytic Cap.	100.00 50.0V				01
	C108	**UU168100**	Electrolytic Cap.	100.00 50.0V				01
	C109	**UU147470**	Electrolytic Cap.	47.00 25.0V				01
	C110	**UB052470**	Monolithic Ceramic Cap.	SL 470P 50V J				01

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REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
C111	**UB052470**	Monolithic Ceramic Cap.	SL 470P 50V J				01
C112	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
C113	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
C201	**UB051330**	Monolithic Ceramic Cap.	SL 33P 50V J				01
C202	**UB051330**	Monolithic Ceramic Cap.	SL 33P 50V J				01
C203	**UU168100**	Electrolytic Cap.	100.00 50.0V				01
C204	**UU168100**	Electrolytic Cap.	100.00 50.0V				01
C205	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
C206	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
C207	**UU168100**	Electrolytic Cap.	100.00 50.0V				01
C208	**UU168100**	Electrolytic Cap.	100.00 50.0V				01
C209	**UU147470**	Electrolytic Cap.	47.00 25.0V				01
C210	**UB052470**	Monolithic Ceramic Cap.	SL 470P 50V J				01
C211	**UB052470**	Monolithic Ceramic Cap.	SL 470P 50V J				01
C301	**UB051330**	Monolithic Ceramic Cap.	SL 33P 50V J				01
C302	**UB051330**	Monolithic Ceramic Cap.	SL 33P 50V J				01
C303	**UU168100**	Electrolytic Cap.	100.00 50.0V				01
C304	**UU168100**	Electrolytic Cap.	100.00 50.0V				01
C305	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
C306	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
C307	**UU168100**	Electrolytic Cap.	100.00 50.0V				01
C308	**UU168100**	Electrolytic Cap.	100.00 50.0V				01
C401	**UB051330**	Monolithic Ceramic Cap.	SL 33P 50V J				01
C402	**UB051330**	Monolithic Ceramic Cap.	SL 33P 50V J				01
C403	**UU168100**	Electrolytic Cap.	100.00 50.0V				01
C404	**UU168100**	Electrolytic Cap.	100.00 50.0V				01
C405	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
C406	**UB045100**	Monolithic Ceramic Cap.	F 0.100 50V Z				01
C407	**UU168100**	Electrolytic Cap.	100.00 50.0V				01
C408	**UU168100**	Electrolytic Cap.	100.00 50.0V				01
CN001	**VA252400**	Base Post Connector	MQ 12P TE				03
EM001	**FZ006970**	LC Filter	MTY223NBTBM				02
EM002	**FZ006970**	LC Filter	MTY223NBTBM				02
EM101	**FZ006920**	LC Filter	MTB271KBTBM				01
EM102	**FZ006920**	LC Filter	MTB271KBTBM				01
EM201	**FZ006920**	LC Filter	MTB271KBTBM				01
EM202	**FZ006920**	LC Filter	MTB271KBTBM				01
EM301	**FZ006920**	LC Filter	MTB271KBTBM				01
EM302	**FZ006920**	LC Filter	MTB271KBTBM				01
EM401	**FZ006920**	LC Filter	MTB271KBTBM				01
EM402	**FZ006920**	LC Filter	MTB271KBTBM				01
IC101	**XQ178A00**	IC	NJM4580E-T1		OP AMP		01
IC102	**XF291A00**	IC	UPC4570G2		OP AMP		03
IC201	**XQ178A00**	IC	NJM4580E-T1		OP AMP		01
IC301	**XQ178A00**	IC	NJM4580E-T1		OP AMP		01
IC401	**XQ178A00**	IC	NJM4580E-T1		OP AMP		01
JK101	**VS056300**	Phone Jack	HLJ7001-01		STUDIO MONITOR OUT L		01
JK201	**VS056300**	Phone Jack	HLJ7001-01		STUDIO MONITOR OUT R		01
JK301	**VS056300**	Phone Jack	HLJ7001-01		CTR.ROOM MONITOR OUT L		01
JK401	**VS056300**	Phone Jack	HLJ7001-01		CTR.ROOM MONITOR OUT R		01
R103	**HB027100**	Metal Film Resistor	10.0K 1/4 F				
R104	**HB027100**	Metal Film Resistor	10.0K 1/4 F				
R105	**HB027110**	Metal Film Resistor	11.0K 1/4 F				01
R106	**HB027100**	Metal Film Resistor	10.0K 1/4 F				
R107	**HB027180**	Metal Film Resistor	18.0K 1/4 F				01
R108	**HB027180**	Metal Film Resistor	18.0K 1/4 F				01
R109	**HB027160**	Metal Film Resistor	16.0K 1/4 F				01
R110	**HB027160**	Metal Film Resistor	16.0K 1/4 F				01
R111	**HF454750**	Carbon Resistor	75.0 1/4 J				01
R112	**HF454750**	Carbon Resistor	75.0 1/4 J				01
R113	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
R114	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
R115	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R116	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R117	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
R118	**VC325700**	Metal Film Resistor	470.0 1/4 F				01
R119	**HB025470**	Metal Film Resistor	470.0 1/4 F				01
* R120	**HB025510**	Metal Film Resistor	510.0 1/4 F				
R203	**HB027100**	Metal Film Resistor	10.0K 1/4 F				
R204	**HB027100**	Metal Film Resistor	10.0K 1/4 F				

❇: New Parts

RANK: Japan only

	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	R205	**HB027110**	Metal Film Resistor	11.0K 1/4 F				01
	R206	**HB027100**	Metal Film Resistor	10.0K 1/4 F				
	R207	**HB027180**	Metal Film Resistor	18.0K 1/4 F				01
	R208	**HB027180**	Metal Film Resistor	18.0K 1/4 F				01
	R209	**HB027160**	Metal Film Resistor	16.0K 1/4 F				01
	R210	**HB027160**	Metal Film Resistor	16.0K 1/4 F				01
	R211	**HF454750**	Carbon Resistor	75.0 1/4 J				01
	R212	**HF454750**	Carbon Resistor	75.0 1/4 J				01
	R213	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
	R214	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
	R215	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
	R216	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
	R217	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
	R218	**HB025470**	Metal Film Resistor	470.0 1/4 F				01
	R219	**HB025470**	Metal Film Resistor	470.0 1/4 F				01
*	R220	**HB025510**	Metal Film Resistor	510.0 1/4 F				
	R303	**HB027100**	Metal Film Resistor	10.0K 1/4 F				
	R304	**HB027100**	Metal Film Resistor	10.0K 1/4 F				
	R305	**HB027110**	Metal Film Resistor	11.0K 1/4 F				01
	R306	**HB027100**	Metal Film Resistor	10.0K 1/4 F				
	R307	**HB027180**	Metal Film Resistor	18.0K 1/4 F				01
	R308	**HB027180**	Metal Film Resistor	18.0K 1/4 F				01
	R309	**HB027160**	Metal Film Resistor	16.0K 1/4 F				01
	R310	**HB027160**	Metal Film Resistor	16.0K 1/4 F				01
	R311	**HF454750**	Carbon Resistor	75.0 1/4 J				01
	R312	**HF454750**	Carbon Resistor	75.0 1/4 J				01
	R313	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
	R314	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
	R315	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
	R316	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
*	R320	**HB025510**	Metal Film Resistor	510.0 1/4 F				
	R403	**HB027100**	Metal Film Resistor	10.0K 1/4 F				
	R404	**HB027100**	Metal Film Resistor	10.0K 1/4 F				
	R405	**HB027110**	Metal Film Resistor	11.0K 1/4 F				01
	R406	**HB027100**	Metal Film Resistor	10.0K 1/4 F				
	R407	**HB027180**	Metal Film Resistor	18.0K 1/4 F				01
	R408	**HB027180**	Metal Film Resistor	18.0K 1/4 F				01
	R409	**HB027160**	Metal Film Resistor	16.0K 1/4 F				01
	R410	**HB027160**	Metal Film Resistor	16.0K 1/4 F				01
	R411	**HF454750**	Carbon Resistor	75.0 1/4 J				01
	R412	**HF454750**	Carbon Resistor	75.0 1/4 J				01
	R413	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
	R414	**RD258100**	Carbon Resistor (chip)	100.0K 0.1 J				01
	R415	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
	R416	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
*	R420	**HB025510**	Metal Film Resistor	510.0 1/4 F				
	TR101	**VK432900**	Transistor	2SD1915(F) S,T				01
	TR102	**VK432900**	Transistor	2SD1915(F) S,T				01
	TR201	**VK432900**	Transistor	2SD1915(F) S,T				01
	TR202	**VK432900**	Transistor	2SD1915(F) S,T				01
	TR301	**VK432900**	Transistor	2SD1915(F) S,T				01
	TR302	**VK432900**	Transistor	2SD1915(F) S,T				01
	TR401	**VK432900**	Transistor	2SD1915(F) S,T				01
	TR402	**VK432900**	Transistor	2SD1915(F) S,T				01
	VR101	**VQ901400**	Rotary Variable Resistor	A20KX2 RK14K12B		STUDIO LEVEL		03
⚠ *		**V8629600**	Power Supply Unit	PS J,UL,CSA				
		NOTE: See parts list of the power supply unit service manual for details of circuit board component parts.						
		V8628200	Motor	DC KDE1208PTS3-6		Fan		09
		V5125700	LCD	EDMMPU3BDF				24
⚠		**VN103500**	Lithium Battery	CR2032				03
⚠		**V5800000**	AC Cord	J 3P 15A		J		09
⚠		**V5068000**	AC Cord	U/C 3P 13A		U,V		09
⚠		**V5067700**	AC Cord	CE 3P 10A		H,W,K		08
⚠		**V6190800**	AC Cord	BS		B		10

✻: New Parts

RANK: Japan only

PEAK METER BRIDGE

MB02R96

PARTS LIST

CONTENTS

OVERALL ASSEMBLY 2
ELECTRICAL PARTS 6

Notes : DESTINATION ABBREVIATIONS

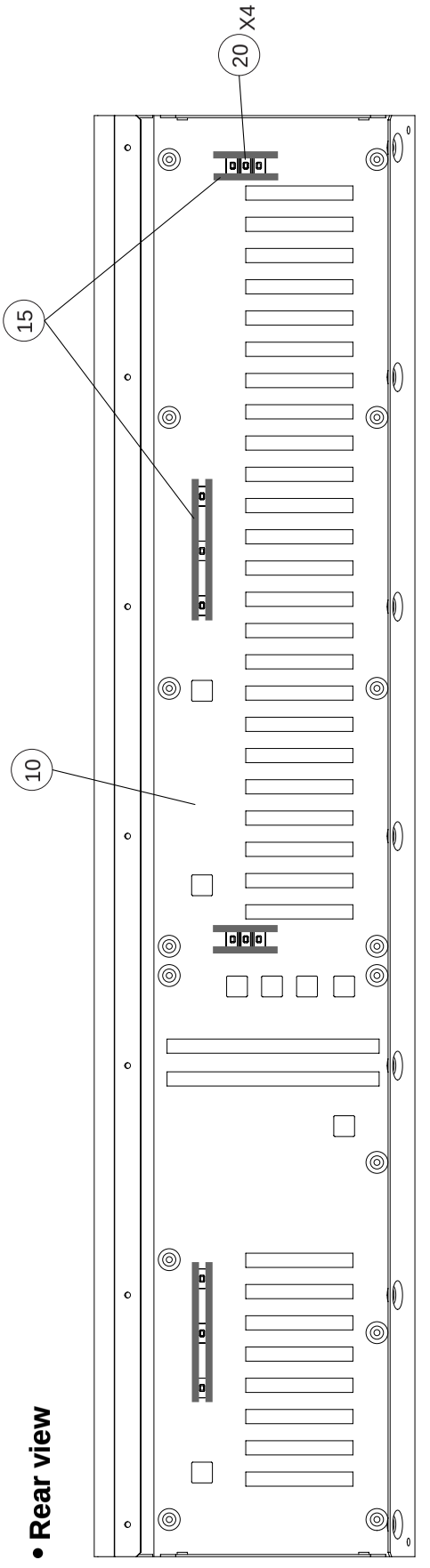
A : Australian model	M : South African model
B : British model	O : Chinese model
C : Canadian model	Q : South-east Asia model
D : German model	T : Taiwan model
E : European model	U : U.S.A. model
F : French model	V : General export model (110V)
H : North European model	W: General export model (220V)
I : Indonesian model	N,X: General export model
J : Japanese model	Y : Export model

WARNING

Components having special characteristics are marked ⚠ and must be replaced with parts having specification equal to those originally installed.

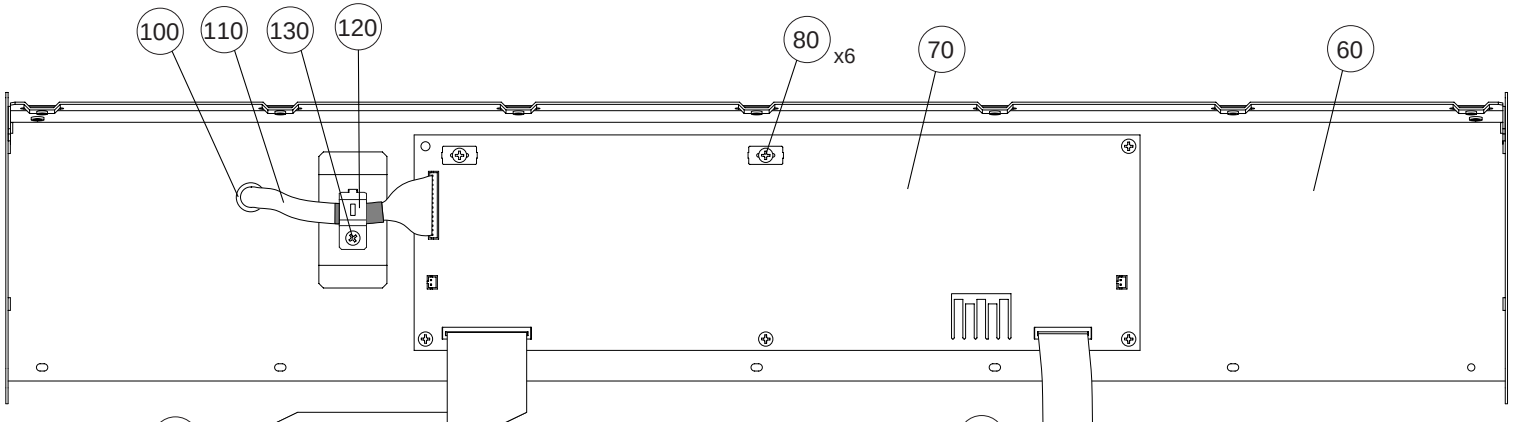
- The numbers “QTY” show quantities for each unit.
- The parts with “--” in “PART NO.” are not available as spare parts.
- This mark “ } ” in the REMARKS column means these parts are interchangeable.
- The second letter of the shaded ( ) part number is O, not zero.
- The second letter of the shaded ( ) part number is I, not one.

OVERALL ASSEMBLY

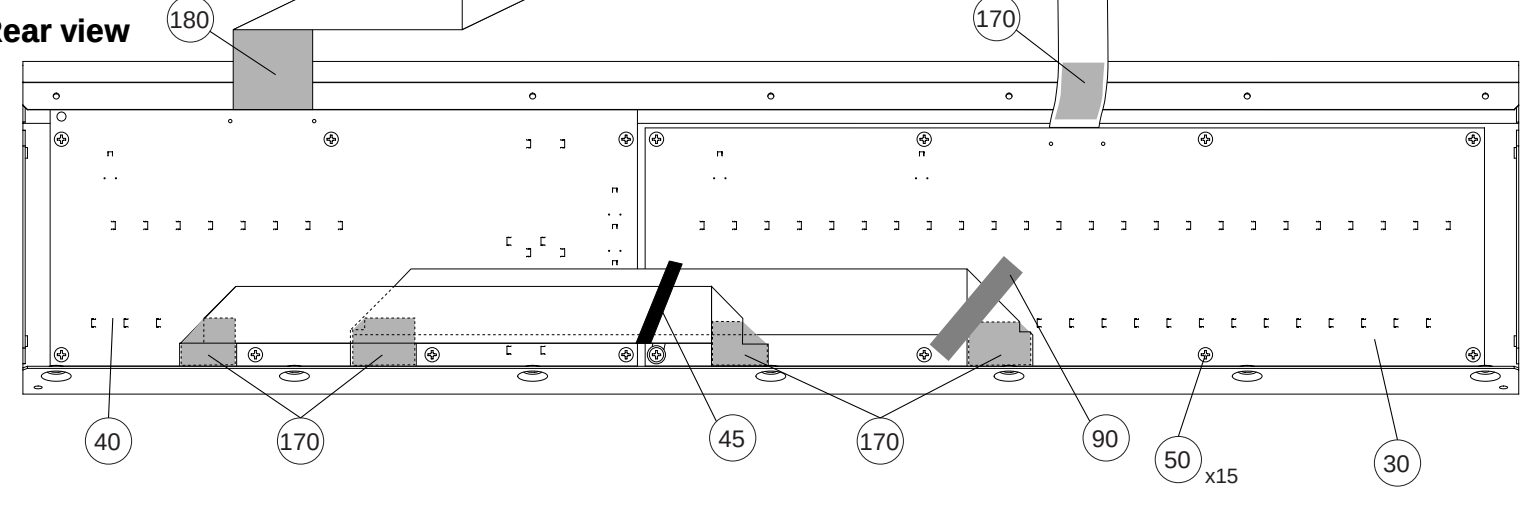


• Rear view

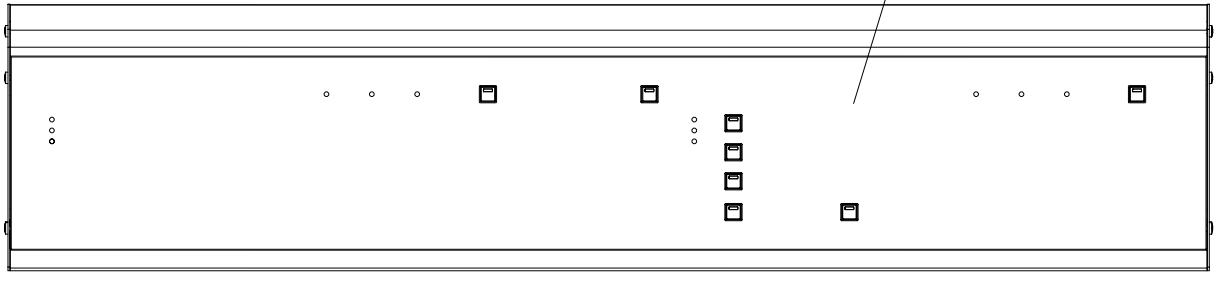
• **Front view**



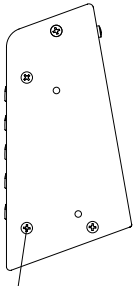
• **Rear view**



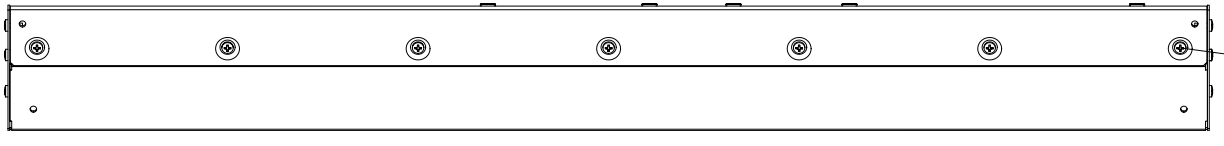
• **Front view**



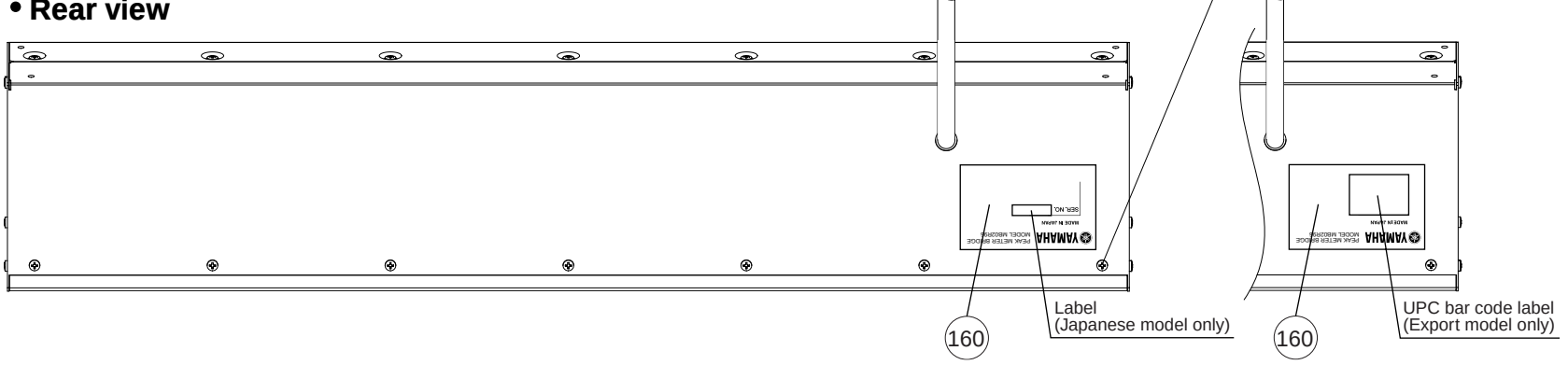
• **Right side view**



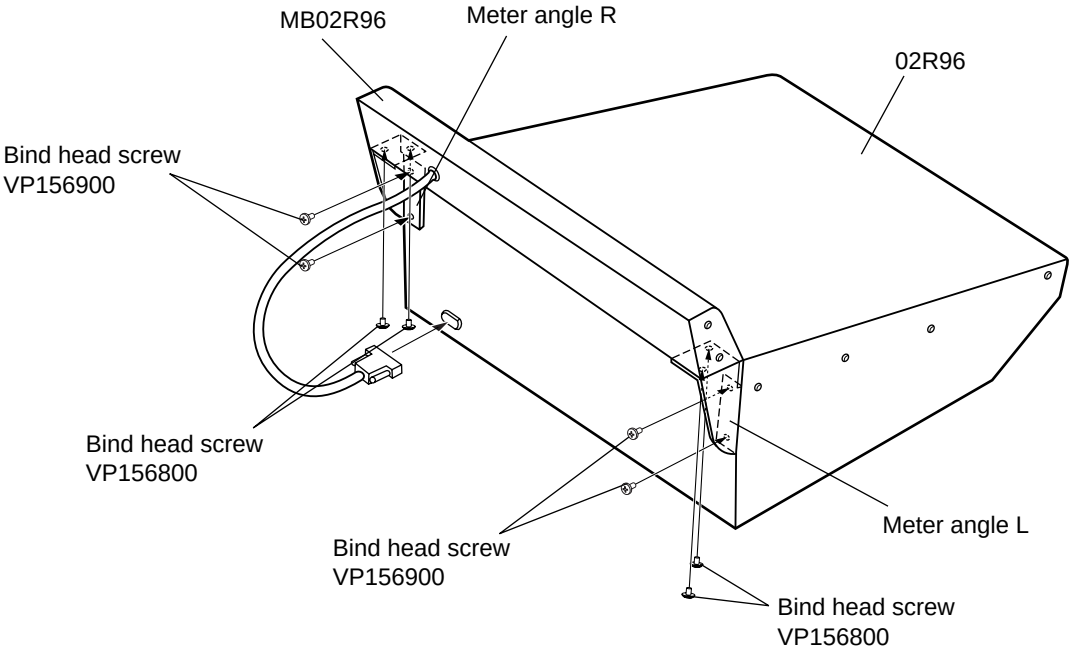
• **Bottom view**



• **Rear view**



• Accessories



	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
		--	OVERALL ASSEMBLY			MB02R96 (V810390)		
*	10	**V8680000**	Front Panel					
	15	--	Adhesive Tape	W=3		(VE36240)		
	20	**V6180000**	LED Lens	3P			4	02
*	30	**V8621600**	Circuit Board	PN1 (PNCOM)				
*	40	**V8621700**	Circuit Board	PN2 (PNCOM)				
	45	**VJ770600**	Cord Binder	S-126				01
	50	**EP600190**	Bind Head Tapping Screw-B	3.0X8 MFZN2BL			15	01
*	60	**V8680200**	Rear Panel					
*	70	**V8630800**	Circuit Board	DC1				
	80	**EP600190**	Bind Head Tapping Screw-B	3.0X8 MFZN2BL			6	01
	90	**VA126100**	Adhesive Tape	12X50				03
	100	**VU264700**	Bushing	TB-9513				01
	110	**V6552600**	DSUB Cable	DSUB15P 0.5m				07
	120	**VU264800**	Cable Holder					08
	130	**EP600190**	Bind Head Tapping Screw-B	3.0X8 MFZN2BL				01
	140	**VP157000**	Bind Head Tapping Screw-B	A3.0X8 MFZN2BL			22	01
*	150	**V8680800**	Meter Sheet					
	160	--	Label	J		(V868680)		
*	170	**V9660700**	Rubber Sponge PN3-PW				5	
*	180	**V9094500**	Rubber Sponge Spacer JW2					
			ACCESSORIES					
		VP156800	Bind Head Screw	A4.0X8 MFZN2BL			4	01
		VP156900	Bind Head Screw	A4.0X12 MFZN2BL			4	01
*		**V8678400**	Meter Angle L	LEFT				
*		**V8679400**	Meter Angle R	RIGHT				

*: New Parts

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ELECTRICAL PARTS

	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
			ELECTRICAL PARTS			MB02R96		
*		**V8630800**	Circuit Board	DC1		(XZ038A0)		
*		**V8621600**	Circuit Board	PN1 (PNCOM)		(V862150)(X2069C0)		
*		**V8621700**	Circuit Board	PN2 (PNCOM)		(V862150)(X2069C0)		
*		**V8630800**	Circuit Board	DC1		(XZ038A0)		
		VB659000	Bind Head Screw	3.0X8 MFZN2BL				01
		IL000690	Insulation Sheet	CSSX-G509				01
		--	Jumper Wire	0.55		(VA07890)	38	
	C301	**UR868470**	Electrolytic Cap.	470.00 50.0V				01
	C302	**FG644100**	Ceramic Capacitor-F	0.0100 50V Z				01
	C303	**UR848470**	Electrolytic Cap.	470.00 25.0V				01
	C304	**UR868470**	Electrolytic Cap.	470.00 50.0V				01
	C306	**FG644100**	Ceramic Capacitor-F	0.0100 50V Z				01
	C308	**VF611200**	Monolithic Ceramic Cap.	0.100 50V Z				02
	C309	**UR848470**	Electrolytic Cap.	470.00 25.0V				01
	C315	**VF611200**	Monolithic Ceramic Cap.	0.100 50V Z				02
	C316	**VF611200**	Monolithic Ceramic Cap.	0.100 50V Z				02
	CN301	**VE352600**	Connector Base Post	PH 14P TE				01
	CN302	**VF728200**	Wire Trap	52147 10P TE				01
	CN303	**VF667700**	Wire Trap	52147 17P TE				01
	D301	**VP974300**	Diode	D3S6M-4002				03
	D302	**VB481900**	Diode	11ES4				01
	-309	**VB481900**	Diode	11ES4				01
	D310	**VP974300**	Diode	D3S6M-4002				03
	EM302	**FZ006970**	LC Filter	MTY223NBTBM				02
	EM303	**FZ006970**	LC Filter	MTY223NBTBM				02
	EM305	**FZ006920**	LC Filter	MTB271KBTBM				01
	-308	**FZ006920**	LC Filter	MTB271KBTBM				01
	EM310	**FZ006970**	LC Filter	MTY223NBTBM				02
	-312	**FZ006970**	LC Filter	MTY223NBTBM				02
	EM314	**FZ006970**	LC Filter	MTY223NBTBM				02
	IC301	**XT442A00**	IC	SI-8050S		REGULATOR +5V		05
	IC302	**XZ274A00**	IC	SI-8033S(LF1101)		REGULATOR +3.3V		05
	IC303	**XU463A00**	IC	SN75C1168N		LINE TRANSCEIVER		05
	K302	**BB069510**	Land Terminal	#6951 A-8				01
	K304	**VJ802700**	Heat Sink	PUG26-25				02
	K307	**BB069510**	Land Terminal	#6951 A-8				01
	L301	**V2379700**	Coil	HP-033JY 150				06
	L302	**V2379700**	Coil	HP-033JY 150				06
	R301	**HF757100**	Carbon Resistor	10.0K 1/4 J				01
	R302	**HF454470**	Carbon Resistor	47.0 1/4 J				01
	-305	**HF454470**	Carbon Resistor	47.0 1/4 J				01
	R307	**HF456220**	Carbon Resistor	2.2K 1/4 J				01
	R308	**HF456270**	Carbon Resistor	2.7K 1/4 J				01
	R310	**HF456270**	Carbon Resistor	2.7K 1/4 J				01
	R311	**HF456220**	Carbon Resistor	2.2K 1/4 J				01
	R312	**HF757100**	Carbon Resistor	10.0K 1/4 J				01
	R313	**HF757100**	Carbon Resistor	10.0K 1/4 J				01
	TH301	**VV455700**	Protector Switch	RXE020 0.20A 72V				02
	TH303	**VV456500**	Protector Switch	RXE090 0.90A 72V				03
*		**V8621600**	Circuit Board	PN1 (PNCOM)		(V862150)(X2069C0)		
*		**V8621700**	Circuit Board	PN2 (PNCOM)		(V862150)(X2069C0)		
	10	**V8487200**	Button Light Gray	S LENS		1-24,25-48,MASTER,REMOTE,	6	
	20	**V8487600**	Button Light Gray	S		PEAK HOLD,CONTROL ROOM INPUT METERING POSITION, OUTPUT METERING POSITION	2	
	30	**V6179800**	LED Lens	x16P		Level Meters (STEREO L/R) (INPUT:1-56,AUX1-8,BUS1-8 (OUTPUT:BUS1-8)	36	03
	C100	**UF038100**	Electrolytic Cap. (chip)	100 16V				01
	C101	**UF038100**	Electrolytic Cap. (chip)	100 16V				01
	C102	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C103	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
	C104	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	-107	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	C300	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
	C301	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
	-303	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01

*: New Parts

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REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
C500	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
C501	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C502	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C504	**UF018100**	Electrolytic Cap. (chip)	100 6.3V				01
C505	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
-512	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C513	**US062470**	Ceramic Capacitor-SL(chip)	470P 50V J				01
C514	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C515	**US061220**	Ceramic Capacitor-CH(chip)	22P 50V J				01
C516	**US061220**	Ceramic Capacitor-CH(chip)	22P 50V J				01
C517	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C522	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
C600	**UF038100**	Electrolytic Cap. (chip)	100 16V				01
C601	**UF038100**	Electrolytic Cap. (chip)	100 16V				01
C602	**UF037100**	Electrolytic Cap. (chip)	10 16V				01
C603	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
-606	**US145100**	Ceramic Capacitor-F (chip)	0.1000 25V Z				01
CN100	**VI878900**	Cable Holder	51048 11P TE				01
CN101	**VI879100**	Cable Holder	51048 13P TE				01
CN102	**VI878800**	Cable Holder	51048 10P TE				01
CN500	**VI879500**	Cable Holder	51048 17P TE				01
CN501	**VI879100**	Cable Holder	51048 13P TE				01
CN502	**VI878900**	Cable Holder	51048 11P TE				01
CN503	**VB390100**	Connector Base Post	PH 5P TE				01
D300	**VT332900**	Diode	1SS355 TE-17				01
D301	**VT332900**	Diode	1SS355 TE-17				01
D600	**VT332900**	Diode	1SS355 TE-17				01
D601	**VT332900**	Diode	1SS355 TE-17				01
-605	**VT332900**	Diode	1SS355 TE-17				01
EM100	**FZ006970**	LC Filter	MTY223NBTBM				02
EM101	**FZ006970**	LC Filter	MTY223NBTBM				02
EM600	**FZ006970**	LC Filter	MTY223NBTBM				02
EM601	**FZ006970**	LC Filter	MTY223NBTBM				02
EM602	**FZ006920**	LC Filter	MTB271KBTBM				01
IC100	**XS720A00**	IC	TC74HC245AF		TRANSCEIVER		03
IC101	**XV014A00**	IC	TD62M8600F		SOURCE DRIVER		05
IC102	**XV013A00**	IC	TB62705CF(EL)		LED DRIVER		04
-104	**XV013A00**	IC	TB62705CF(EL)		LED DRIVER		04
IC300	**XV014A00**	IC	TD62M8600F		SOURCE DRIVER		05
IC301	**XV013A00**	IC	TB62705CF(EL)		LED DRIVER		04
IC302	**XV013A00**	IC	TB62705CF(EL)		LED DRIVER		04
IC500	**XE165A00**	IC	SN74HC00NSR		NAND		01
IC501	**XH218A00**	IC	SN74HC125NSR		BUFFER		02
* IC508	**X3197A00**	IC	HD64F7044F28		CPU		
IC509	**XP226A00**	IC	IC-PST591DMT		SYSTEM RESET		03
IC510	**XD838A00**	IC	SN74HC245NSR		TRANSCEIVER		04
IC511	**XT163A00**	IC	TC74HC238AF		DECODER		03
IC600	**XV014A00**	IC	TD62M8600F		SOURCE DRIVER		05
IC601	**XV013A00**	IC	TB62705CF(EL)		LED DRIVER		04
-603	**XV013A00**	IC	TB62705CF(EL)		LED DRIVER		04
L500	**GE300680**	Ferrite Bead	BL01RN1A1F1J				02
L501	**VS740100**	Chip Inductance	BLM21B751S 2125				03
-505	**VS740100**	Chip Inductance	BLM21B751S 2125				03
LD001	**V3670100**	LED Yellow/Green	LT1E40A		STEREO L -72		01
LD002	**V3670100**	LED Yellow/Green	LT1E40A		STEREO L		01
LD003	**V3670100**	LED Yellow/Green	LT1E40A		STEREO L -60		01
LD004	**V3670100**	LED Yellow/Green	LT1E40A		STEREO L		01
LD005	**V3670100**	LED Yellow/Green	LT1E40A		STEREO L -48		01
LD006	**V3670100**	LED Yellow/Green	LT1E40A		STEREO L		01
LD007	**V3670100**	LED Yellow/Green	LT1E40A		STEREO L -42		01
LD008	**V3670100**	LED Yellow/Green	LT1E40A		STEREO L		01
LD009	**V3670100**	LED Yellow/Green	LT1E40A		STEREO L -36		01
LD010	**V3670100**	LED Yellow/Green	LT1E40A		STEREO L		01
LD011	**V3670100**	LED Yellow/Green	LT1E40A		STEREO L -30		01
LD012	**V3670100**	LED Yellow/Green	LT1E40A		STEREO L		01
LD013	**V3670100**	LED Yellow/Green	LT1E40A		STEREO L -24		01
LD014	**V3670100**	LED Yellow/Green	LT1E40A		STEREO L		01
LD015	**V3670200**	LED Yellow	LT1H40A		STEREO L -18		01
LD016	**V3670200**	LED Yellow	LT1H40A		STEREO L		01
LD017	**V3670200**	LED Yellow	LT1H40A		STEREO L -14		01

❇: New Parts

RANK: Japan only

REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
LD018	**V3670200**	LED Yellow	LT1H40A		STEREO L		01
LD019	**V3670200**	LED Yellow	LT1H40A		STEREO L -12		01
LD020	**V3670200**	LED Yellow	LT1H40A		STEREO L		01
LD021	**V3670200**	LED Yellow	LT1H40A		STEREO L -10		01
LD022	**V3670200**	LED Yellow	LT1H40A		STEREO L		01
LD023	**V3670200**	LED Yellow	LT1H40A		STEREO L -8		01
LD024	**V3670200**	LED Yellow	LT1H40A		STEREO L		01
LD025	**V3670200**	LED Yellow	LT1H40A		STEREO L -6		01
LD026	**V3670200**	LED Yellow	LT1H40A		STEREO L		01
LD027	**V3670200**	LED Yellow	LT1H40A		STEREO L -4		01
LD028	**V3670200**	LED Yellow	LT1H40A		STEREO L		01
LD029	**V3670200**	LED Yellow	LT1H40A		STEREO L -2		01
LD030	**V3670200**	LED Yellow	LT1H40A		STEREO L		01
LD031	**V3670200**	LED Yellow	LT1H40A		STEREO L 0		01
LD032	**V3670000**	LED Red	LT1D40A		STEREO L		01
LD033	**V3670100**	LED Yellow/Green	LT1E40A		STEREO R -72		01
LD034	**V3670100**	LED Yellow/Green	LT1E40A		STEREO R		01
LD035	**V3670100**	LED Yellow/Green	LT1E40A		STEREO R -60		01
LD036	**V3670100**	LED Yellow/Green	LT1E40A		STEREO R		01
LD037	**V3670100**	LED Yellow/Green	LT1E40A		STEREO R -48		01
LD038	**V3670100**	LED Yellow/Green	LT1E40A		STEREO R		01
LD039	**V3670100**	LED Yellow/Green	LT1E40A		STEREO R -42		01
LD040	**V3670100**	LED Yellow/Green	LT1E40A		STEREO R		01
LD041	**V3670100**	LED Yellow/Green	LT1E40A		STEREO R -36		01
LD042	**V3670100**	LED Yellow/Green	LT1E40A		STEREO R		01
LD043	**V3670100**	LED Yellow/Green	LT1E40A		STEREO R -30		01
LD044	**V3670100**	LED Yellow/Green	LT1E40A		STEREO R		01
LD045	**V3670100**	LED Yellow/Green	LT1E40A		STEREO R -24		01
LD046	**V3670100**	LED Yellow/Green	LT1E40A		STEREO R		01
LD047	**V3670200**	LED Yellow	LT1H40A		STEREO R -18		01
LD048	**V3670200**	LED Yellow	LT1H40A		STEREO R		01
LD049	**V3670200**	LED Yellow	LT1H40A		STEREO R -14		01
LD050	**V3670200**	LED Yellow	LT1H40A		STEREO R		01
LD051	**V3670200**	LED Yellow	LT1H40A		STEREO R -12		01
LD052	**V3670200**	LED Yellow	LT1H40A		STEREO R		01
LD053	**V3670200**	LED Yellow	LT1H40A		STEREO R -10		01
LD054	**V3670200**	LED Yellow	LT1H40A		STEREO R		01
LD055	**V3670200**	LED Yellow	LT1H40A		STEREO R -8		01
LD056	**V3670200**	LED Yellow	LT1H40A		STEREO R		01
LD057	**V3670200**	LED Yellow	LT1H40A		STEREO R -6		01
LD058	**V3670200**	LED Yellow	LT1H40A		STEREO R		01
LD059	**V3670200**	LED Yellow	LT1H40A		STEREO R -4		01
LD060	**V3670200**	LED Yellow	LT1H40A		STEREO R		01
LD061	**V3670200**	LED Yellow	LT1H40A		STEREO R -2		01
LD062	**V3670200**	LED Yellow	LT1H40A		STEREO R		01
LD063	**V3670200**	LED Yellow	LT1H40A		STEREO R 0		01
LD064	**V3670000**	LED Red	LT1D40A		STEREO R		01
LD100	**V3670000**	LED Red	LT1D40A		1/25/49 OVER (INPUT)		01
LD101	**V3670200**	LED Yellow	LT1H40A		1/25/49 0 (INPUT)		01
LD102	**V3670200**	LED Yellow	LT1H40A		1/25/49 -3 (INPUT)		01
LD103	**V3670200**	LED Yellow	LT1H40A		1/25/49 -6 (INPUT)		01
LD104	**V3670200**	LED Yellow	LT1H40A		1/25/49 -9 (INPUT)		01
LD105	**V3670200**	LED Yellow	LT1H40A		1/25/49 -12 (INPUT)		01
LD106	**V3670200**	LED Yellow	LT1H40A		1/25/49 -15 (INPUT)		01
LD107	**V3670200**	LED Yellow	LT1H40A		1/25/49 -18 (INPUT)		01
LD108	**V3670100**	LED Yellow/Green	LT1E40A		1/25/49 -24 (INPUT)		01
LD109	**V3670100**	LED Yellow/Green	LT1E40A		1/25/49 -30 (INPUT)		01
LD110	**V3670100**	LED Yellow/Green	LT1E40A		1/25/49 -36 (INPUT)		01
LD111	**V3670100**	LED Yellow/Green	LT1E40A		1/25/49 -48 (INPUT)		01
LD112	**V3670000**	LED Red	LT1D40A		2/26/50 OVER (INPUT)		01
LD113	**V3670200**	LED Yellow	LT1H40A		2/26/50 0 (INPUT)		01
LD114	**V3670200**	LED Yellow	LT1H40A		2/26/50 -3 (INPUT)		01
LD115	**V3670200**	LED Yellow	LT1H40A		2/26/50 -6 (INPUT)		01
LD116	**V3670200**	LED Yellow	LT1H40A		2/26/50 -9 (INPUT)		01
LD117	**V3670200**	LED Yellow	LT1H40A		2/26/50 -12 (INPUT)		01
LD118	**V3670200**	LED Yellow	LT1H40A		2/26/50 -15 (INPUT)		01
LD119	**V3670200**	LED Yellow	LT1H40A		2/26/50 -18 (INPUT)		01
LD120	**V3670100**	LED Yellow/Green	LT1E40A		2/26/50 -24 (INPUT)		01
LD121	**V3670100**	LED Yellow/Green	LT1E40A		2/26/50 -30 (INPUT)		01
LD122	**V3670100**	LED Yellow/Green	LT1E40A		2/26/50 -36 (INPUT)		01

✻: New Parts

RANK: Japan only

REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
LD123	**V3670100**	LED Yellow/Green	LT1E40A		2/26/50 -48 (INPUT)		01
LD124	**V3670000**	LED Red	LT1D40A		3/27/51 OVER (INPUT)		01
LD125	**V3670200**	LED Yellow	LT1H40A		3/27/51 0 (INPUT)		01
LD126	**V3670200**	LED Yellow	LT1H40A		3/27/51 -3 (INPUT)		01
LD127	**V3670200**	LED Yellow	LT1H40A		3/27/51 -6 (INPUT)		01
LD128	**V3670200**	LED Yellow	LT1H40A		3/27/51 -9 (INPUT)		01
LD129	**V3670200**	LED Yellow	LT1H40A		3/27/51 -12 (INPUT)		01
LD130	**V3670200**	LED Yellow	LT1H40A		3/27/51 -15 (INPUT)		01
LD131	**V3670200**	LED Yellow	LT1H40A		3/27/51 -18 (INPUT)		01
LD132	**V3670100**	LED Yellow/Green	LT1E40A		3/27/51 -24 (INPUT)		01
LD133	**V3670100**	LED Yellow/Green	LT1E40A		3/27/51 -30 (INPUT)		01
LD134	**V3670100**	LED Yellow/Green	LT1E40A		3/27/51 -36 (INPUT)		01
LD135	**V3670100**	LED Yellow/Green	LT1E40A		3/27/51 -48 (INPUT)		01
LD136	**V3670000**	LED Red	LT1D40A		4/28/52 OVER (INPUT)		01
LD137	**V3670200**	LED Yellow	LT1H40A		4/28/52 0 (INPUT)		01
LD138	**V3670200**	LED Yellow	LT1H40A		4/28/52 -3 (INPUT)		01
LD139	**V3670200**	LED Yellow	LT1H40A		4/28/52 -6 (INPUT)		01
LD140	**V3670200**	LED Yellow	LT1H40A		4/28/52 -9 (INPUT)		01
LD141	**V3670200**	LED Yellow	LT1H40A		4/28/52 -12 (INPUT)		01
LD142	**V3670200**	LED Yellow	LT1H40A		4/28/52 -15 (INPUT)		01
LD143	**V3670200**	LED Yellow	LT1H40A		4/28/52 -18 (INPUT)		01
LD144	**V3670100**	LED Yellow/Green	LT1E40A		4/28/52 -24 (INPUT)		01
LD145	**V3670100**	LED Yellow/Green	LT1E40A		4/28/52 -30 (INPUT)		01
LD146	**V3670100**	LED Yellow/Green	LT1E40A		4/28/52 -36 (INPUT)		01
LD147	**V3670100**	LED Yellow/Green	LT1E40A		4/28/52 -48 (INPUT)		01
LD148	**V3670000**	LED Red	LT1D40A		5/29/53 OVER (INPUT)		01
LD149	**V3670200**	LED Yellow	LT1H40A		5/29/53 0 (INPUT)		01
LD150	**V3670200**	LED Yellow	LT1H40A		5/29/53 -3 (INPUT)		01
LD151	**V3670200**	LED Yellow	LT1H40A		5/29/53 -6 (INPUT)		01
LD152	**V3670200**	LED Yellow	LT1H40A		5/29/53 -9 (INPUT)		01
LD153	**V3670200**	LED Yellow	LT1H40A		5/29/53 -12 (INPUT)		01
LD154	**V3670200**	LED Yellow	LT1H40A		5/29/53 -15 (INPUT)		01
LD155	**V3670200**	LED Yellow	LT1H40A		5/29/53 -18 (INPUT)		01
LD156	**V3670100**	LED Yellow/Green	LT1E40A		5/29/53 -24 (INPUT)		01
LD157	**V3670100**	LED Yellow/Green	LT1E40A		5/29/53 -30 (INPUT)		01
LD158	**V3670100**	LED Yellow/Green	LT1E40A		5/29/53 -36 (INPUT)		01
LD159	**V3670100**	LED Yellow/Green	LT1E40A		5/29/53 -48 (INPUT)		01
LD160	**V3670000**	LED Red	LT1D40A		6/30/54 OVER (INPUT)		01
LD161	**V3670200**	LED Yellow	LT1H40A		6/30/54 0 (INPUT)		01
LD162	**V3670200**	LED Yellow	LT1H40A		6/30/54 -3 (INPUT)		01
LD163	**V3670200**	LED Yellow	LT1H40A		6/30/54 -6 (INPUT)		01
LD164	**V3670200**	LED Yellow	LT1H40A		6/30/54 -9 (INPUT)		01
LD165	**V3670200**	LED Yellow	LT1H40A		6/30/54 -12 (INPUT)		01
LD166	**V3670200**	LED Yellow	LT1H40A		6/30/54 -15 (INPUT)		01
LD167	**V3670200**	LED Yellow	LT1H40A		6/30/54 -18 (INPUT)		01
LD168	**V3670100**	LED Yellow/Green	LT1E40A		6/30/54 -24 (INPUT)		01
LD169	**V3670100**	LED Yellow/Green	LT1E40A		6/30/54 -30 (INPUT)		01
LD170	**V3670100**	LED Yellow/Green	LT1E40A		6/30/54 -36 (INPUT)		01
LD171	**V3670100**	LED Yellow/Green	LT1E40A		6/30/54 -48 (INPUT)		01
LD172	**V3670000**	LED Red	LT1D40A		7/31/55 OVER (INPUT)		01
LD173	**V3670200**	LED Yellow	LT1H40A		7/31/55 0 (INPUT)		01
LD174	**V3670200**	LED Yellow	LT1H40A		7/31/55 -3 (INPUT)		01
LD175	**V3670200**	LED Yellow	LT1H40A		7/31/55 -6 (INPUT)		01
LD176	**V3670200**	LED Yellow	LT1H40A		7/31/55 -9 (INPUT)		01
LD177	**V3670200**	LED Yellow	LT1H40A		7/31/55 -12 (INPUT)		01
LD178	**V3670200**	LED Yellow	LT1H40A		7/31/55 -15 (INPUT)		01
LD179	**V3670200**	LED Yellow	LT1H40A		7/31/55 -18 (INPUT)		01
LD180	**V3670100**	LED Yellow/Green	LT1E40A		7/31/55 -24 (INPUT)		01
LD181	**V3670100**	LED Yellow/Green	LT1E40A		7/31/55 -30 (INPUT)		01
LD182	**V3670100**	LED Yellow/Green	LT1E40A		7/31/55 -36 (INPUT)		01
LD183	**V3670100**	LED Yellow/Green	LT1E40A		7/31/55 -48 (INPUT)		01
LD184	**V3670000**	LED Red	LT1D40A		8/32/56 OVER (INPUT)		01
LD185	**V3670200**	LED Yellow	LT1H40A		8/32/56 0 (INPUT)		01
LD186	**V3670200**	LED Yellow	LT1H40A		8/32/56 -3 (INPUT)		01
LD187	**V3670200**	LED Yellow	LT1H40A		8/32/56 -6 (INPUT)		01
LD188	**V3670200**	LED Yellow	LT1H40A		8/32/56 -9 (INPUT)		01
LD189	**V3670200**	LED Yellow	LT1H40A		8/32/56 -12 (INPUT)		01
LD190	**V3670200**	LED Yellow	LT1H40A		8/32/56 -15 (INPUT)		01
LD191	**V3670200**	LED Yellow	LT1H40A		8/32/56 -18 (INPUT)		01
LD192	**V3670100**	LED Yellow/Green	LT1E40A		8/32/56 -24 (INPUT)		01

❇: New Parts

RANK: Japan only

REF NO.	PART NO.	DESCRIPTION			REMARKS		QTY	RANK
LD193	**V3670100**	LED Yellow/Green	LT1E40A		8/32/56 -30	(INPUT)		01
LD194	**V3670100**	LED Yellow/Green	LT1E40A		8/32/56 -36	(INPUT)		01
LD195	**V3670100**	LED Yellow/Green	LT1E40A		8/32/56 -48	(INPUT)		01
LD196	**V3670000**	LED Red	LT1D40A		9/33/AUX1 OVER	(INPUT)		01
LD197	**V3670200**	LED Yellow	LT1H40A		9/33/AUX1 0	(INPUT)		01
LD198	**V3670200**	LED Yellow	LT1H40A		9/33/AUX1 -3	(INPUT)		01
LD199	**V3670200**	LED Yellow	LT1H40A		9/33/AUX1 -6	(INPUT)		01
LD200	**V3670200**	LED Yellow	LT1H40A		9/33/AUX1 -9	(INPUT)		01
LD201	**V3670200**	LED Yellow	LT1H40A		9/33/AUX1 -12	(INPUT)		01
LD202	**V3670200**	LED Yellow	LT1H40A		9/33/AUX1 -15	(INPUT)		01
LD203	**V3670200**	LED Yellow	LT1H40A		9/33/AUX1 -18	(INPUT)		01
LD204	**V3670100**	LED Yellow/Green	LT1E40A		9/33/AUX1 -24	(INPUT)		01
LD205	**V3670100**	LED Yellow/Green	LT1E40A		9/33/AUX1 -30	(INPUT)		01
LD206	**V3670100**	LED Yellow/Green	LT1E40A		9/33/AUX1 -36	(INPUT)		01
LD207	**V3670100**	LED Yellow/Green	LT1E40A		9/33/AUX1 -48	(INPUT)		01
LD208	**V3670000**	LED Red	LT1D40A		10/34/AUX2 OVER	(INPUT)		01
LD209	**V3670200**	LED Yellow	LT1H40A		10/34/AUX2 0	(INPUT)		01
LD210	**V3670200**	LED Yellow	LT1H40A		10/34/AUX2 -3	(INPUT)		01
LD211	**V3670200**	LED Yellow	LT1H40A		10/34/AUX2 -6	(INPUT)		01
LD212	**V3670200**	LED Yellow	LT1H40A		10/34/AUX2 -9	(INPUT)		01
LD213	**V3670200**	LED Yellow	LT1H40A		10/34/AUX2 -12	(INPUT)		01
LD214	**V3670200**	LED Yellow	LT1H40A		10/34/AUX2 -15	(INPUT)		01
LD215	**V3670200**	LED Yellow	LT1H40A		10/34/AUX2 -18	(INPUT)		01
LD216	**V3670100**	LED Yellow/Green	LT1E40A		10/34/AUX2 -24	(INPUT)		01
LD217	**V3670100**	LED Yellow/Green	LT1E40A		10/34/AUX2 -30	(INPUT)		01
LD218	**V3670100**	LED Yellow/Green	LT1E40A		10/34/AUX2 -36	(INPUT)		01
LD219	**V3670100**	LED Yellow/Green	LT1E40A		10/34/AUX2 -48	(INPUT)		01
LD220	**V3670000**	LED Red	LT1D40A		11/35/AUX3 OVER	(INPUT)		01
LD221	**V3670200**	LED Yellow	LT1H40A		11/35/AUX3 0	(INPUT)		01
LD222	**V3670200**	LED Yellow	LT1H40A		11/35/AUX3 -3	(INPUT)		01
LD223	**V3670200**	LED Yellow	LT1H40A		11/35/AUX3 -6	(INPUT)		01
LD224	**V3670200**	LED Yellow	LT1H40A		11/35/AUX3 -9	(INPUT)		01
LD225	**V3670200**	LED Yellow	LT1H40A		11/35/AUX3 -12	(INPUT)		01
LD226	**V3670200**	LED Yellow	LT1H40A		11/35/AUX3 -15	(INPUT)		01
LD227	**V3670200**	LED Yellow	LT1H40A		11/35/AUX3 -18	(INPUT)		01
LD228	**V3670100**	LED Yellow/Green	LT1E40A		11/35/AUX3 -24	(INPUT)		01
LD229	**V3670100**	LED Yellow/Green	LT1E40A		11/35/AUX3 -30	(INPUT)		01
LD230	**V3670100**	LED Yellow/Green	LT1E40A		11/35/AUX3 -36	(INPUT)		01
LD231	**V3670100**	LED Yellow/Green	LT1E40A		11/35/AUX3 -48	(INPUT)		01
LD232	**V3670000**	LED Red	LT1D40A		12/36/AUX4 OVER	(INPUT)		01
LD233	**V3670200**	LED Yellow	LT1H40A		12/36/AUX4 0	(INPUT)		01
LD234	**V3670200**	LED Yellow	LT1H40A		12/36/AUX4 -3	(INPUT)		01
LD235	**V3670200**	LED Yellow	LT1H40A		12/36/AUX4 -6	(INPUT)		01
LD236	**V3670200**	LED Yellow	LT1H40A		12/36/AUX4 -9	(INPUT)		01
LD237	**V3670200**	LED Yellow	LT1H40A		12/36/AUX4 -12	(INPUT)		01
LD238	**V3670200**	LED Yellow	LT1H40A		12/36/AUX4 -15	(INPUT)		01
LD239	**V3670200**	LED Yellow	LT1H40A		12/36/AUX4 -18	(INPUT)		01
LD240	**V3670100**	LED Yellow/Green	LT1E40A		12/36/AUX4 -24	(INPUT)		01
LD241	**V3670100**	LED Yellow/Green	LT1E40A		12/36/AUX4 -30	(INPUT)		01
LD242	**V3670100**	LED Yellow/Green	LT1E40A		12/36/AUX4 -36	(INPUT)		01
LD243	**V3670100**	LED Yellow/Green	LT1E40A		12/36/AUX4 -48	(INPUT)		01
LD244	**V3670000**	LED Red	LT1D40A		13/37/AUX5 OVER	(INPUT)		01
LD245	**V3670200**	LED Yellow	LT1H40A		13/37/AUX5 0	(INPUT)		01
LD246	**V3670200**	LED Yellow	LT1H40A		13/37/AUX5 -3	(INPUT)		01
LD247	**V3670200**	LED Yellow	LT1H40A		13/37/AUX5 -6	(INPUT)		01
LD248	**V3670200**	LED Yellow	LT1H40A		13/37/AUX5 -9	(INPUT)		01
LD249	**V3670200**	LED Yellow	LT1H40A		13/37/AUX5 -12	(INPUT)		01
LD250	**V3670200**	LED Yellow	LT1H40A		13/37/AUX5 -15	(INPUT)		01
LD251	**V3670200**	LED Yellow	LT1H40A		13/37/AUX5 -18	(INPUT)		01
LD252	**V3670100**	LED Yellow/Green	LT1E40A		13/37/AUX5 -24	(INPUT)		01
LD253	**V3670100**	LED Yellow/Green	LT1E40A		13/37/AUX5 -30	(INPUT)		01
LD254	**V3670100**	LED Yellow/Green	LT1E40A		13/37/AUX5 -36	(INPUT)		01
LD255	**V3670100**	LED Yellow/Green	LT1E40A		13/37/AUX5 -48	(INPUT)		01
LD256	**V3670000**	LED Red	LT1D40A		14/38/AUX6 OVER	(INPUT)		01
LD257	**V3670200**	LED Yellow	LT1H40A		14/38/AUX6 0	(INPUT)		01
LD258	**V3670200**	LED Yellow	LT1H40A		14/38/AUX6 -3	(INPUT)		01
LD259	**V3670200**	LED Yellow	LT1H40A		14/38/AUX6 -6	(INPUT)		01
LD260	**V3670200**	LED Yellow	LT1H40A		14/38/AUX6 -9	(INPUT)		01
LD261	**V3670200**	LED Yellow	LT1H40A		14/38/AUX6 -12	(INPUT)		01
LD262	**V3670200**	LED Yellow	LT1H40A		14/38/AUX6 -15	(INPUT)		01

✻: New Parts

RANK: Japan only

REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
LD263	**V3670200**	LED Yellow	LT1H40A		14/38/AUX6 -18 (INPUT)		01
LD264	**V3670100**	LED Yellow/Green	LT1E40A		14/38/AUX6 -24 (INPUT)		01
LD265	**V3670100**	LED Yellow/Green	LT1E40A		14/38/AUX6 -30 (INPUT)		01
LD266	**V3670100**	LED Yellow/Green	LT1E40A		14/38/AUX6 -36 (INPUT)		01
LD267	**V3670100**	LED Yellow/Green	LT1E40A		14/38/AUX6 -48 (INPUT)		01
LD268	**V3670000**	LED Red	LT1D40A		15/39/AUX7 OVER (INPUT)		01
LD269	**V3670200**	LED Yellow	LT1H40A		15/39/AUX7 0 (INPUT)		01
LD270	**V3670200**	LED Yellow	LT1H40A		15/39/AUX7 -3 (INPUT)		01
LD271	**V3670200**	LED Yellow	LT1H40A		15/39/AUX7 -6 (INPUT)		01
LD272	**V3670200**	LED Yellow	LT1H40A		15/39/AUX7 -9 (INPUT)		01
LD273	**V3670200**	LED Yellow	LT1H40A		15/39/AUX7 -12 (INPUT)		01
LD274	**V3670200**	LED Yellow	LT1H40A		15/39/AUX7 -15 (INPUT)		01
LD275	**V3670200**	LED Yellow	LT1H40A		15/39/AUX7 -18 (INPUT)		01
LD276	**V3670100**	LED Yellow/Green	LT1E40A		15/39/AUX7 -24 (INPUT)		01
LD277	**V3670100**	LED Yellow/Green	LT1E40A		15/39/AUX7 -30 (INPUT)		01
LD278	**V3670100**	LED Yellow/Green	LT1E40A		15/39/AUX7 -36 (INPUT)		01
LD279	**V3670100**	LED Yellow/Green	LT1E40A		15/39/AUX7 -48 (INPUT)		01
LD280	**V3670000**	LED Red	LT1D40A		16/40/AUX8 OVER (INPUT)		01
LD281	**V3670200**	LED Yellow	LT1H40A		16/40/AUX8 0 (INPUT)		01
LD282	**V3670200**	LED Yellow	LT1H40A		16/40/AUX8 -3 (INPUT)		01
LD283	**V3670200**	LED Yellow	LT1H40A		16/40/AUX8 -6 (INPUT)		01
LD284	**V3670200**	LED Yellow	LT1H40A		16/40/AUX8 -9 (INPUT)		01
LD285	**V3670200**	LED Yellow	LT1H40A		16/40/AUX8 -12 (INPUT)		01
LD286	**V3670200**	LED Yellow	LT1H40A		16/40/AUX8 -15 (INPUT)		01
LD287	**V3670200**	LED Yellow	LT1H40A		16/40/AUX8 -18 (INPUT)		01
LD288	**V3670100**	LED Yellow/Green	LT1E40A		16/40/AUX8 -24 (INPUT)		01
LD289	**V3670100**	LED Yellow/Green	LT1E40A		16/40/AUX8 -30 (INPUT)		01
LD290	**V3670100**	LED Yellow/Green	LT1E40A		16/40/AUX8 -36 (INPUT)		01
LD291	**V3670100**	LED Yellow/Green	LT1E40A		16/40/AUX8 -48 (INPUT)		01
LD300	**V3670000**	LED Red	LT1D40A		17/41/BUS1 OVER (INPUT)		01
LD301	**V3670200**	LED Yellow	LT1H40A		17/41/BUS1 0 (INPUT)		01
LD302	**V3670200**	LED Yellow	LT1H40A		17/41/BUS1 -3 (INPUT)		01
LD303	**V3670200**	LED Yellow	LT1H40A		17/41/BUS1 -6 (INPUT)		01
LD304	**V3670200**	LED Yellow	LT1H40A		17/41/BUS1 -9 (INPUT)		01
LD305	**V3670200**	LED Yellow	LT1H40A		17/41/BUS1 -12 (INPUT)		01
LD306	**V3670200**	LED Yellow	LT1H40A		17/41/BUS1 -15 (INPUT)		01
LD307	**V3670200**	LED Yellow	LT1H40A		17/41/BUS1 -18 (INPUT)		01
LD308	**V3670100**	LED Yellow/Green	LT1E40A		17/41/BUS1 -24 (INPUT)		01
LD309	**V3670100**	LED Yellow/Green	LT1E40A		17/41/BUS1 -30 (INPUT)		01
LD310	**V3670100**	LED Yellow/Green	LT1E40A		17/41/BUS1 -36 (INPUT)		01
LD311	**V3670100**	LED Yellow/Green	LT1E40A		17/41/BUS1 -48 (INPUT)		01
LD312	**V3670000**	LED Red	LT1D40A		18/42/BUS2 OVER (INPUT)		01
LD313	**V3670200**	LED Yellow	LT1H40A		18/42/BUS2 0 (INPUT)		01
LD314	**V3670200**	LED Yellow	LT1H40A		18/42/BUS2 -3 (INPUT)		01
LD315	**V3670200**	LED Yellow	LT1H40A		18/42/BUS2 -6 (INPUT)		01
LD316	**V3670200**	LED Yellow	LT1H40A		18/42/BUS2 -9 (INPUT)		01
LD317	**V3670200**	LED Yellow	LT1H40A		18/42/BUS2 -12 (INPUT)		01
LD318	**V3670200**	LED Yellow	LT1H40A		18/42/BUS2 -15 (INPUT)		01
LD319	**V3670200**	LED Yellow	LT1H40A		18/42/BUS2 -18 (INPUT)		01
LD320	**V3670100**	LED Yellow/Green	LT1E40A		18/42/BUS2 -24 (INPUT)		01
LD321	**V3670100**	LED Yellow/Green	LT1E40A		18/42/BUS2 -30 (INPUT)		01
LD322	**V3670100**	LED Yellow/Green	LT1E40A		18/42/BUS2 -36 (INPUT)		01
LD323	**V3670100**	LED Yellow/Green	LT1E40A		18/42/BUS2 -48 (INPUT)		01
LD324	**V3670000**	LED Red	LT1D40A		19/43/BUS3 OVER (INPUT)		01
LD325	**V3670200**	LED Yellow	LT1H40A		19/43/BUS3 0 (INPUT)		01
LD326	**V3670200**	LED Yellow	LT1H40A		19/43/BUS3 -3 (INPUT)		01
LD327	**V3670200**	LED Yellow	LT1H40A		19/43/BUS3 -6 (INPUT)		01
LD328	**V3670200**	LED Yellow	LT1H40A		19/43/BUS3 -9 (INPUT)		01
LD329	**V3670200**	LED Yellow	LT1H40A		19/43/BUS3 -12 (INPUT)		01
LD330	**V3670200**	LED Yellow	LT1H40A		19/43/BUS3 -15 (INPUT)		01
LD331	**V3670200**	LED Yellow	LT1H40A		19/43/BUS3 -18 (INPUT)		01
LD332	**V3670100**	LED Yellow/Green	LT1E40A		19/43/BUS3 -24 (INPUT)		01
LD333	**V3670100**	LED Yellow/Green	LT1E40A		19/43/BUS3 -30 (INPUT)		01
LD334	**V3670100**	LED Yellow/Green	LT1E40A		19/43/BUS3 -36 (INPUT)		01
LD335	**V3670100**	LED Yellow/Green	LT1E40A		19/43/BUS3 -48 (INPUT)		01
LD336	**V3670000**	LED Red	LT1D40A		20/44/BUS4 OVER (INPUT)		01
LD337	**V3670200**	LED Yellow	LT1H40A		20/44/BUS4 0 (INPUT)		01
LD338	**V3670200**	LED Yellow	LT1H40A		20/44/BUS4 -3 (INPUT)		01
LD339	**V3670200**	LED Yellow	LT1H40A		20/44/BUS4 -6 (INPUT)		01
LD340	**V3670200**	LED Yellow	LT1H40A		20/44/BUS4 -9 (INPUT)		01

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REF NO.	PART NO.	DESCRIPTION			REMARKS		QTY	RANK
LD341	**V3670200**	LED Yellow	LT1H40A		20/44/BUS4 -12	(INPUT)		01
LD342	**V3670200**	LED Yellow	LT1H40A		20/44/BUS4 -15	(INPUT)		01
LD343	**V3670200**	LED Yellow	LT1H40A		20/44/BUS4 -18	(INPUT)		01
LD344	**V3670100**	LED Yellow/Green	LT1E40A		20/44/BUS4 -24	(INPUT)		01
LD345	**V3670100**	LED Yellow/Green	LT1E40A		20/44/BUS4 -30	(INPUT)		01
LD346	**V3670100**	LED Yellow/Green	LT1E40A		20/44/BUS4 -36	(INPUT)		01
LD347	**V3670100**	LED Yellow/Green	LT1E40A		20/44/BUS4 -48	(INPUT)		01
LD348	**V3670000**	LED Red	LT1D40A		21/45/BUS5 OVER	(INPUT)		01
LD349	**V3670200**	LED Yellow	LT1H40A		21/45/BUS5 0	(INPUT)		01
LD350	**V3670200**	LED Yellow	LT1H40A		21/45/BUS5 -3	(INPUT)		01
LD351	**V3670200**	LED Yellow	LT1H40A		21/45/BUS5 -6	(INPUT)		01
LD352	**V3670200**	LED Yellow	LT1H40A		21/45/BUS5 -9	(INPUT)		01
LD353	**V3670200**	LED Yellow	LT1H40A		21/45/BUS5 -12	(INPUT)		01
LD354	**V3670200**	LED Yellow	LT1H40A		21/45/BUS5 -15	(INPUT)		01
LD355	**V3670200**	LED Yellow	LT1H40A		21/45/BUS5 -18	(INPUT)		01
LD356	**V3670100**	LED Yellow/Green	LT1E40A		21/45/BUS5 -24	(INPUT)		01
LD357	**V3670100**	LED Yellow/Green	LT1E40A		21/45/BUS5 -30	(INPUT)		01
LD358	**V3670100**	LED Yellow/Green	LT1E40A		21/45/BUS5 -36	(INPUT)		01
LD359	**V3670100**	LED Yellow/Green	LT1E40A		21/45/BUS5 -48	(INPUT)		01
LD360	**V3670000**	LED Red	LT1D40A		22/46/BUS6 OVER	(INPUT)		01
LD361	**V3670200**	LED Yellow	LT1H40A		22/46/BUS6 0	(INPUT)		01
LD362	**V3670200**	LED Yellow	LT1H40A		22/46/BUS6 -3	(INPUT)		01
LD363	**V3670200**	LED Yellow	LT1H40A		22/46/BUS6 -6	(INPUT)		01
LD364	**V3670200**	LED Yellow	LT1H40A		22/46/BUS6 -9	(INPUT)		01
LD365	**V3670200**	LED Yellow	LT1H40A		22/46/BUS6 -12	(INPUT)		01
LD366	**V3670200**	LED Yellow	LT1H40A		22/46/BUS6 -15	(INPUT)		01
LD367	**V3670200**	LED Yellow	LT1H40A		22/46/BUS6 -18	(INPUT)		01
LD368	**V3670100**	LED Yellow/Green	LT1E40A		22/46/BUS6 -24	(INPUT)		01
LD369	**V3670100**	LED Yellow/Green	LT1E40A		22/46/BUS6 -30	(INPUT)		01
LD370	**V3670100**	LED Yellow/Green	LT1E40A		22/46/BUS6 -36	(INPUT)		01
LD371	**V3670100**	LED Yellow/Green	LT1E40A		22/46/BUS6 -48	(INPUT)		01
LD372	**V3670000**	LED Red	LT1D40A		23/47/BUS7 OVER	(INPUT)		01
LD373	**V3670200**	LED Yellow	LT1H40A		23/47/BUS7 0	(INPUT)		01
LD374	**V3670200**	LED Yellow	LT1H40A		23/47/BUS7 -3	(INPUT)		01
LD375	**V3670200**	LED Yellow	LT1H40A		23/47/BUS7 -6	(INPUT)		01
LD376	**V3670200**	LED Yellow	LT1H40A		23/47/BUS7 -9	(INPUT)		01
LD377	**V3670200**	LED Yellow	LT1H40A		23/47/BUS7 -12	(INPUT)		01
LD378	**V3670200**	LED Yellow	LT1H40A		23/47/BUS7 -15	(INPUT)		01
LD379	**V3670200**	LED Yellow	LT1H40A		23/47/BUS7 -18	(INPUT)		01
LD380	**V3670100**	LED Yellow/Green	LT1E40A		23/47/BUS7 -24	(INPUT)		01
LD381	**V3670100**	LED Yellow/Green	LT1E40A		23/47/BUS7 -30	(INPUT)		01
LD382	**V3670100**	LED Yellow/Green	LT1E40A		23/47/BUS7 -36	(INPUT)		01
LD383	**V3670100**	LED Yellow/Green	LT1E40A		23/47/BUS7 -48	(INPUT)		01
LD384	**V3670000**	LED Red	LT1D40A		24/48/BUS8 OVER	(INPUT)		01
LD385	**V3670200**	LED Yellow	LT1H40A		24/48/BUS8 0	(INPUT)		01
LD386	**V3670200**	LED Yellow	LT1H40A		24/48/BUS8 -3	(INPUT)		01
LD387	**V3670200**	LED Yellow	LT1H40A		24/48/BUS8 -6	(INPUT)		01
LD388	**V3670200**	LED Yellow	LT1H40A		24/48/BUS8 -9	(INPUT)		01
LD389	**V3670200**	LED Yellow	LT1H40A		24/48/BUS8 -12	(INPUT)		01
LD390	**V3670200**	LED Yellow	LT1H40A		24/48/BUS8 -15	(INPUT)		01
LD391	**V3670200**	LED Yellow	LT1H40A		24/48/BUS8 -18	(INPUT)		01
LD392	**V3670100**	LED Yellow/Green	LT1E40A		24/48/BUS8 -24	(INPUT)		01
LD393	**V3670100**	LED Yellow/Green	LT1E40A		24/48/BUS8 -30	(INPUT)		01
LD394	**V3670100**	LED Yellow/Green	LT1E40A		24/48/BUS8 -36	(INPUT)		01
LD395	**V3670100**	LED Yellow/Green	LT1E40A		24/48/BUS8 -48	(INPUT)		01
LD396	**V3670200**	LED Yellow	LT1H40A		PEAK HOLD			01
LD397	**V3670100**	LED Yellow/Green	LT1E40A		PRE EQ	(INPUT)		01
LD398	**V3670100**	LED Yellow/Green	LT1E40A		PRE FADER	(INPUT)		01
LD399	**V3670100**	LED Yellow/Green	LT1E40A		POST FADER	(INPUT)		01
LD400	**V3670100**	LED Yellow/Green	LT1E40A		1-24			01
LD401	**V3670100**	LED Yellow/Green	LT1E40A		25-48			01
LD402	**V3670100**	LED Yellow/Green	LT1E40A		49-56/AUX1-8/BUS1-8			01
LD403	**V3670100**	LED Yellow/Green	LT1E40A		1-24			01
LD404	**V3670100**	LED Yellow/Green	LT1E40A		25-48			01
LD405	**V3670100**	LED Yellow/Green	LT1E40A		49-56/AUX1-8/BUS1-8			01
LD600	**V3670000**	LED Red	LT1D40A		BUS1 OVER	(OUTPUT)		01
LD601	**V3670200**	LED Yellow	LT1H40A		BUS1 0	(OUTPUT)		01
LD602	**V3670200**	LED Yellow	LT1H40A		BUS1 -3	(OUTPUT)		01
LD603	**V3670200**	LED Yellow	LT1H40A		BUS1 -6	(OUTPUT)		01
LD604	**V3670200**	LED Yellow	LT1H40A		BUS1 -9	(OUTPUT)		01

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REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
LD605	**V3670200**	LED Yellow	LT1H40A		BUS1 -12 (OUTPUT)		01
LD606	**V3670200**	LED Yellow	LT1H40A		BUS1 -15 (OUTPUT)		01
LD607	**V3670200**	LED Yellow	LT1H40A		BUS1 -18 (OUTPUT)		01
LD608	**V3670100**	LED Yellow/Green	LT1E40A		BUS1 -24 (OUTPUT)		01
LD609	**V3670100**	LED Yellow/Green	LT1E40A		BUS1 -30 (OUTPUT)		01
LD610	**V3670100**	LED Yellow/Green	LT1E40A		BUS1 -36 (OUTPUT)		01
LD611	**V3670100**	LED Yellow/Green	LT1E40A		BUS1 -48 (OUTPUT)		01
LD612	**V3670000**	LED Red	LT1D40A		BUS2 OVER (OUTPUT)		01
LD613	**V3670200**	LED Yellow	LT1H40A		BUS2 0 (OUTPUT)		01
LD614	**V3670200**	LED Yellow	LT1H40A		BUS2 -3 (OUTPUT)		01
LD615	**V3670200**	LED Yellow	LT1H40A		BUS2 -6 (OUTPUT)		01
LD616	**V3670200**	LED Yellow	LT1H40A		BUS2 -9 (OUTPUT)		01
LD617	**V3670200**	LED Yellow	LT1H40A		BUS2 -12 (OUTPUT)		01
LD618	**V3670200**	LED Yellow	LT1H40A		BUS2 -15 (OUTPUT)		01
LD619	**V3670200**	LED Yellow	LT1H40A		BUS2 -18 (OUTPUT)		01
LD620	**V3670100**	LED Yellow/Green	LT1E40A		BUS2 -24 (OUTPUT)		01
LD621	**V3670100**	LED Yellow/Green	LT1E40A		BUS2 -30 (OUTPUT)		01
LD622	**V3670100**	LED Yellow/Green	LT1E40A		BUS2 -36 (OUTPUT)		01
LD623	**V3670100**	LED Yellow/Green	LT1E40A		BUS2 -48 (OUTPUT)		01
LD624	**V3670000**	LED Red	LT1D40A		BUS3 OVER (OUTPUT)		01
LD625	**V3670200**	LED Yellow	LT1H40A		BUS3 0 (OUTPUT)		01
LD626	**V3670200**	LED Yellow	LT1H40A		BUS3 -3 (OUTPUT)		01
LD627	**V3670200**	LED Yellow	LT1H40A		BUS3 -6 (OUTPUT)		01
LD628	**V3670200**	LED Yellow	LT1H40A		BUS3 -9 (OUTPUT)		01
LD629	**V3670200**	LED Yellow	LT1H40A		BUS3 -12 (OUTPUT)		01
LD630	**V3670200**	LED Yellow	LT1H40A		BUS3 -15 (OUTPUT)		01
LD631	**V3670200**	LED Yellow	LT1H40A		BUS3 -18 (OUTPUT)		01
LD632	**V3670100**	LED Yellow/Green	LT1E40A		BUS3 -24 (OUTPUT)		01
LD633	**V3670100**	LED Yellow/Green	LT1E40A		BUS3 -30 (OUTPUT)		01
LD634	**V3670100**	LED Yellow/Green	LT1E40A		BUS3 -36 (OUTPUT)		01
LD635	**V3670100**	LED Yellow/Green	LT1E40A		BUS3 -48 (OUTPUT)		01
LD636	**V3670000**	LED Red	LT1D40A		BUS4 OVER (OUTPUT)		01
LD637	**V3670200**	LED Yellow	LT1H40A		BUS4 0 (OUTPUT)		01
LD638	**V3670200**	LED Yellow	LT1H40A		BUS4 -3 (OUTPUT)		01
LD639	**V3670200**	LED Yellow	LT1H40A		BUS4 -6 (OUTPUT)		01
LD640	**V3670200**	LED Yellow	LT1H40A		BUS4 -9 (OUTPUT)		01
LD641	**V3670200**	LED Yellow	LT1H40A		BUS4 -12 (OUTPUT)		01
LD642	**V3670200**	LED Yellow	LT1H40A		BUS4 -15 (OUTPUT)		01
LD643	**V3670200**	LED Yellow	LT1H40A		BUS4 -18 (OUTPUT)		01
LD644	**V3670100**	LED Yellow/Green	LT1E40A		BUS4 -24 (OUTPUT)		01
LD645	**V3670100**	LED Yellow/Green	LT1E40A		BUS4 -30 (OUTPUT)		01
LD646	**V3670100**	LED Yellow/Green	LT1E40A		BUS4 -36 (OUTPUT)		01
LD647	**V3670100**	LED Yellow/Green	LT1E40A		BUS4 -48 (OUTPUT)		01
LD648	**V3670000**	LED Red	LT1D40A		BUS5 OVER (OUTPUT)		01
LD649	**V3670200**	LED Yellow	LT1H40A		BUS5 0 (OUTPUT)		01
LD650	**V3670200**	LED Yellow	LT1H40A		BUS5 -3 (OUTPUT)		01
LD651	**V3670200**	LED Yellow	LT1H40A		BUS5 -6 (OUTPUT)		01
LD652	**V3670200**	LED Yellow	LT1H40A		BUS5 -9 (OUTPUT)		01
LD653	**V3670200**	LED Yellow	LT1H40A		BUS5 -12 (OUTPUT)		01
LD654	**V3670200**	LED Yellow	LT1H40A		BUS5 -15 (OUTPUT)		01
LD655	**V3670200**	LED Yellow	LT1H40A		BUS5 -18 (OUTPUT)		01
LD656	**V3670100**	LED Yellow/Green	LT1E40A		BUS5 -24 (OUTPUT)		01
LD657	**V3670100**	LED Yellow/Green	LT1E40A		BUS5 -30 (OUTPUT)		01
LD658	**V3670100**	LED Yellow/Green	LT1E40A		BUS5 -36 (OUTPUT)		01
LD659	**V3670100**	LED Yellow/Green	LT1E40A		BUS5 -48 (OUTPUT)		01
LD660	**V3670000**	LED Red	LT1D40A		BUS6 OVER (OUTPUT)		01
LD661	**V3670200**	LED Yellow	LT1H40A		BUS6 0 (OUTPUT)		01
LD662	**V3670200**	LED Yellow	LT1H40A		BUS6 -3 (OUTPUT)		01
LD663	**V3670200**	LED Yellow	LT1H40A		BUS6 -6 (OUTPUT)		01
LD664	**V3670200**	LED Yellow	LT1H40A		BUS6 -9 (OUTPUT)		01
LD665	**V3670200**	LED Yellow	LT1H40A		BUS6 -12 (OUTPUT)		01
LD666	**V3670200**	LED Yellow	LT1H40A		BUS6 -15 (OUTPUT)		01
LD667	**V3670200**	LED Yellow	LT1H40A		BUS6 -18 (OUTPUT)		01
LD668	**V3670100**	LED Yellow/Green	LT1E40A		BUS6 -24 (OUTPUT)		01
LD669	**V3670100**	LED Yellow/Green	LT1E40A		BUS6 -30 (OUTPUT)		01
LD670	**V3670100**	LED Yellow/Green	LT1E40A		BUS6 -36 (OUTPUT)		01
LD671	**V3670100**	LED Yellow/Green	LT1E40A		BUS6 -48 (OUTPUT)		01
LD672	**V3670000**	LED Red	LT1D40A		BUS7 OVER (OUTPUT)		01
LD673	**V3670200**	LED Yellow	LT1H40A		BUS7 0 (OUTPUT)		01
LD674	**V3670200**	LED Yellow	LT1H40A		BUS7 -3 (OUTPUT)		01

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REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
LD675	**V3670200**	LED Yellow	LT1H40A		BUS7 -6 (OUTPUT)		01
LD676	**V3670200**	LED Yellow	LT1H40A		BUS7 -9 (OUTPUT)		01
LD677	**V3670200**	LED Yellow	LT1H40A		BUS7 -12 (OUTPUT)		01
LD678	**V3670200**	LED Yellow	LT1H40A		BUS7 -15 (OUTPUT)		01
LD679	**V3670200**	LED Yellow	LT1H40A		BUS7 -18 (OUTPUT)		01
LD680	**V3670100**	LED Yellow/Green	LT1E40A		BUS7 -24 (OUTPUT)		01
LD681	**V3670100**	LED Yellow/Green	LT1E40A		BUS7 -30 (OUTPUT)		01
LD682	**V3670100**	LED Yellow/Green	LT1E40A		BUS7 -36 (OUTPUT)		01
LD683	**V3670100**	LED Yellow/Green	LT1E40A		BUS7 -48 (OUTPUT)		01
LD684	**V3670000**	LED Red	LT1D40A		BUS8 OVER (OUTPUT)		01
LD685	**V3670200**	LED Yellow	LT1H40A		BUS8 0 (OUTPUT)		01
LD686	**V3670200**	LED Yellow	LT1H40A		BUS8 -3 (OUTPUT)		01
LD687	**V3670200**	LED Yellow	LT1H40A		BUS8 -6 (OUTPUT)		01
LD688	**V3670200**	LED Yellow	LT1H40A		BUS8 -9 (OUTPUT)		01
LD689	**V3670200**	LED Yellow	LT1H40A		BUS8 -12 (OUTPUT)		01
LD690	**V3670200**	LED Yellow	LT1H40A		BUS8 -15 (OUTPUT)		01
LD691	**V3670200**	LED Yellow	LT1H40A		BUS8 -18 (OUTPUT)		01
LD692	**V3670100**	LED Yellow/Green	LT1E40A		BUS8 -24 (OUTPUT)		01
LD693	**V3670100**	LED Yellow/Green	LT1E40A		BUS8 -30 (OUTPUT)		01
LD694	**V3670100**	LED Yellow/Green	LT1E40A		BUS8 -36 (OUTPUT)		01
LD695	**V3670100**	LED Yellow/Green	LT1E40A		BUS8 -48 (OUTPUT)		01
LD700	**V3670100**	LED Yellow/Green	LT1E40A		1-24 switch		01
LD701	**V3670100**	LED Yellow/Green	LT1E40A		25-48 switch		01
LD702	**V3670100**	LED Yellow/Green	LT1E40A		MASTER		01
LD703	**V3670100**	LED Yellow/Green	LT1E40A		REMOTE		01
LD704	**V3670200**	LED Yellow	LT1H40A		CONTROL ROOM		01
LD705	**V3670100**	LED Yellow/Green	LT1E40A		PRE EQ (OUTPUT)		01
LD706	**V3670100**	LED Yellow/Green	LT1E40A		PRE FADER (OUTPUT)		01
LD707	**V3670100**	LED Yellow/Green	LT1E40A		POST FADER (OUTPUT)		01
R100	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
-103	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
R104	**RD256100**	Carbon Resistor (chip)	1.0K 0.1 J				01
-106	**RD256100**	Carbon Resistor (chip)	1.0K 0.1 J				01
R107	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
-113	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
R300	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
-303	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
R304	**RD256100**	Carbon Resistor (chip)	1.0K 0.1 J				01
R305	**RD256100**	Carbon Resistor (chip)	1.0K 0.1 J				01
R306	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
-310	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
R500	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
-502	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R505	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R506	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R507	**RD250000**	Carbon Resistor (chip)	0.0 0.0 J				01
R509	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R510	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R511	**RD255220**	Carbon Resistor (chip)	220.0 0.1 J				01
R512	**RD256300**	Carbon Resistor (chip)	3.0K 0.1 J				01
R513	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R514	**RD255220**	Carbon Resistor (chip)	220.0 0.1 J				01
R515	**RD257100**	Carbon Resistor (chip)	10.0K 0.1 J				01
R600	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
-603	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
R604	**RD256100**	Carbon Resistor (chip)	1.0K 0.1 J				01
-606	**RD256100**	Carbon Resistor (chip)	1.0K 0.1 J				01
R607	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
-613	**RD255100**	Carbon Resistor (chip)	100.0 0.1 J				01
RA100	**RE047100**	Resistor Array	10KX4				01
RA101	**RE046220**	Resistor Array	2.2KX4				01
RA102	**RE046220**	Resistor Array	2.2KX4				01
RA300	**RE046220**	Resistor Array	2.2KX4				01
RA301	**RE046220**	Resistor Array	2.2KX4				01
RA500	**RE047100**	Resistor Array	10KX4				01
-520	**RE047100**	Resistor Array	10KX4				01
RA600	**RE046220**	Resistor Array	2.2KX4				01
RA601	**RE046220**	Resistor Array	2.2KX4				01
SW300	**VV056000**	Tact Switch	SKQNAED010		INPUT METERING POSITION		01
SW301	**VV056000**	Tact Switch	SKQNAED010		PEAK HOLD		01

✻: New Parts

RANK: Japan only

	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
	SW500	**KA401270**	Slide Switch	SSS212				03
	SW600	**VV056000**	Tact Switch	SKQNAED010		OUTPUT METERING POSITION		01
	SW601	**VV056000**	Tact Switch	SKQNAED010		1-24		01
	SW602	**VV056000**	Tact Switch	SKQNAED010		25-48		01
	SW603	**VV056000**	Tact Switch	SKQNAED010		MASTER		01
	SW604	**VV056000**	Tact Switch	SKQNAED010		REMOTE		01
	SW605	**VV056000**	Tact Switch	SKQNAED010		CONTROL ROOM		01
	TA500	**VQ248500**	Transistor Array	TD62381F				04
	TR500	**VV655400**	Digital Transistor	DTC114EKA TP				01
	TR501	**VV655400**	Digital Transistor	DTC114EKA TP				01
	W001	**V8393000**	Jumper Wire	FVP=2.0C26SB10-200				01
*	W002	**V8967300**	Jumper Wire	FVP=2.0C26SB17-300				
*	W003	**VU073500**	Jumper Wire	FVP=2.0C26SB11-350				
*	W004	**V2015800**	Jumper Wire	FVP=2.0C26SB13-460				
	X500	**V3719200**	Quartz Crystal Unit	6.7584MHz SMD-49				03

✻: New Parts

RANK: Japan only

WOODEN SIDE PANELS

SP02R96

PARTS LIST

■ CONTENTS

OVERALL ASSEMBLY 2

Notes : DESTINATION ABBREVIATIONS

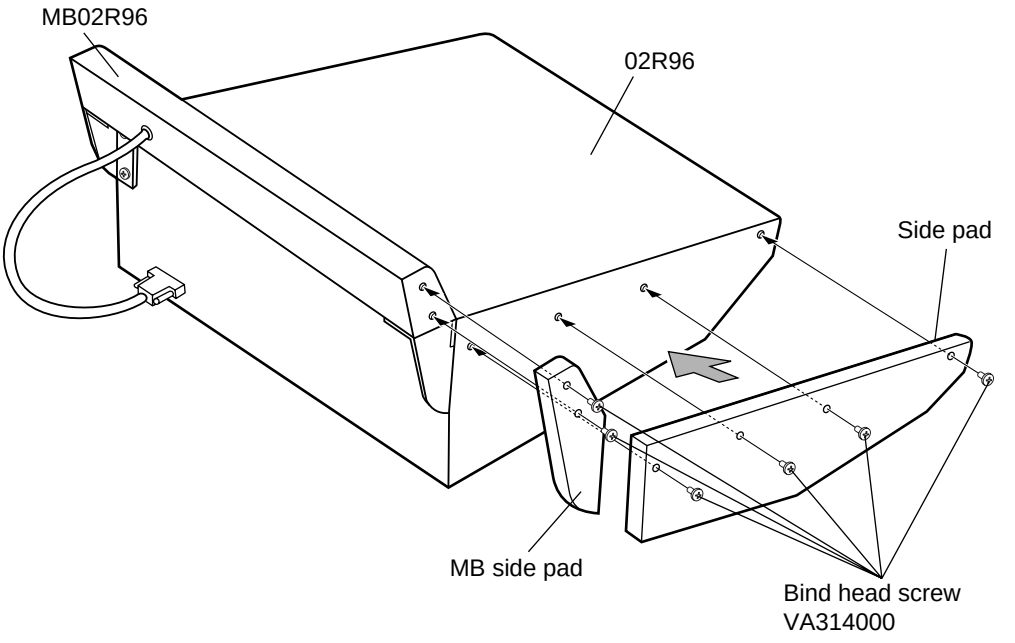
A : Australian model	M : South African model
B : British model	O : Chinese model
C : Canadian model	Q : South-east Asia model
D : German model	T : Taiwan model
E : European model	U : U.S.A. model
F : French model	V : General export model (110V)
H : North European model	W: General export model (220V)
I : Indonesian model	N,X: General export model
J : Japanese model	Y : Export model

■ WARNING

Components having special characteristics are marked ⚠ and must be replaced with parts having specification equal to those originally installed.

- The numbers “QTY” show quantities for each unit.
- The parts with “--” in “PART NO.” are not available as spare parts.
- This mark “ } ” in the REMARKS column means these parts are interchangeable.
- The second letter of the shaded ( ) part number is O, not zero.
- The second letter of the shaded ( ) part number is I, not one.

OVERALL ASSEMBLY



	REF NO.	PART NO.	DESCRIPTION			REMARKS	QTY	RANK
			OVERALL ASSEMBLY			SP02R96		
		--	Overall Assembly			J (V868530)		
		--	Overall Assembly			Y (V910140)		
		VA314000	Bind Head Screw	PW 4.0X20 MFZN2BL			12	01
*		**V8680900**	Side Pad L	LEFT				
*		**V8681000**	Side Pad R	RIGHT				
*		**V9036600**	MB Side Pad L	LEFT				
*		**V9036700**	MB Side Pad R	RIGHT				

✻: New Parts

RANK: Japan only

DIGITAL MIXING CONSOLE

O2R96

CIRCUIT DIAGRAM

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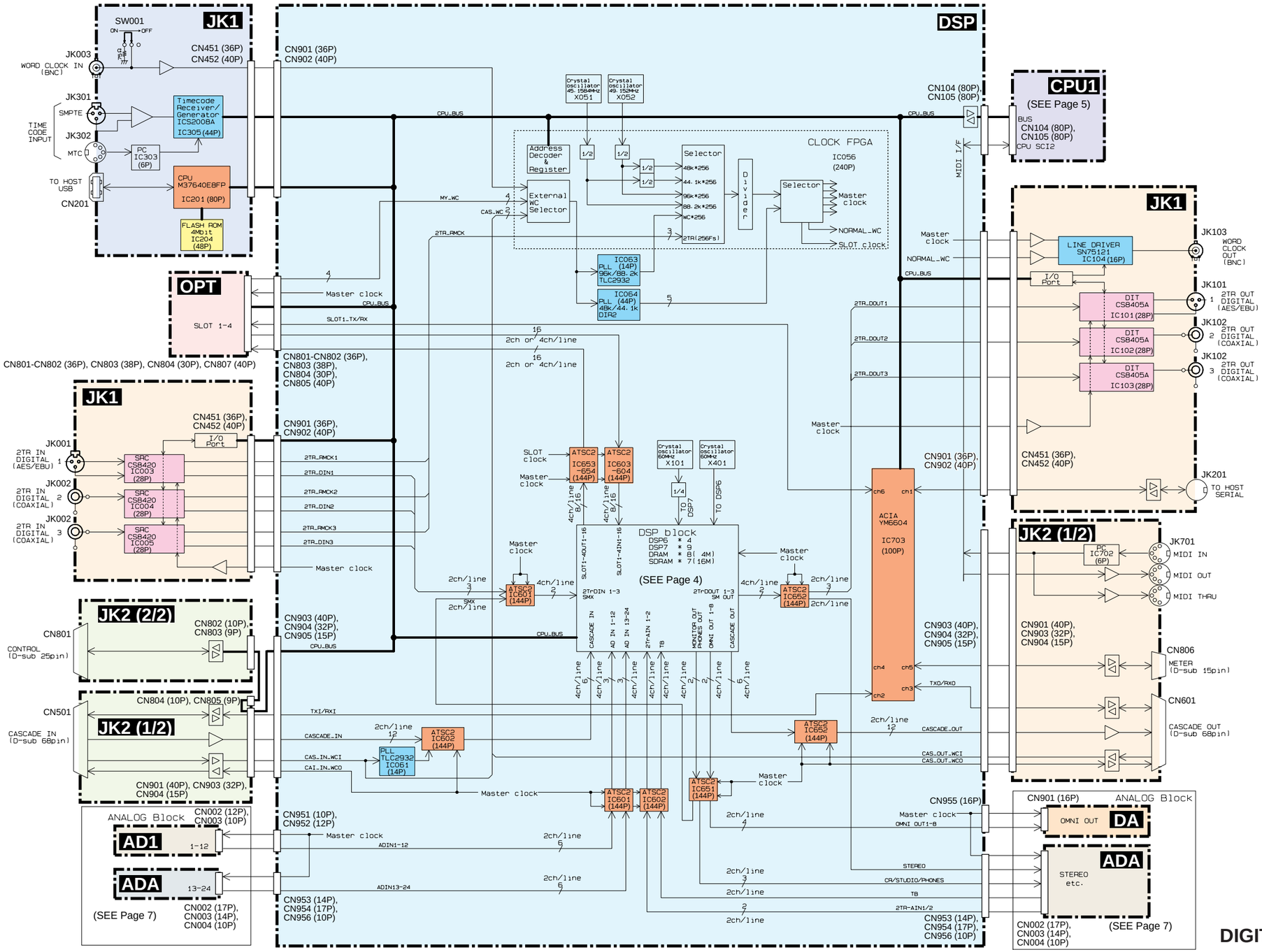
Note: See parts list for details of circuit board component parts.

■ BLOCK DIAGRAM 002 (02R96)

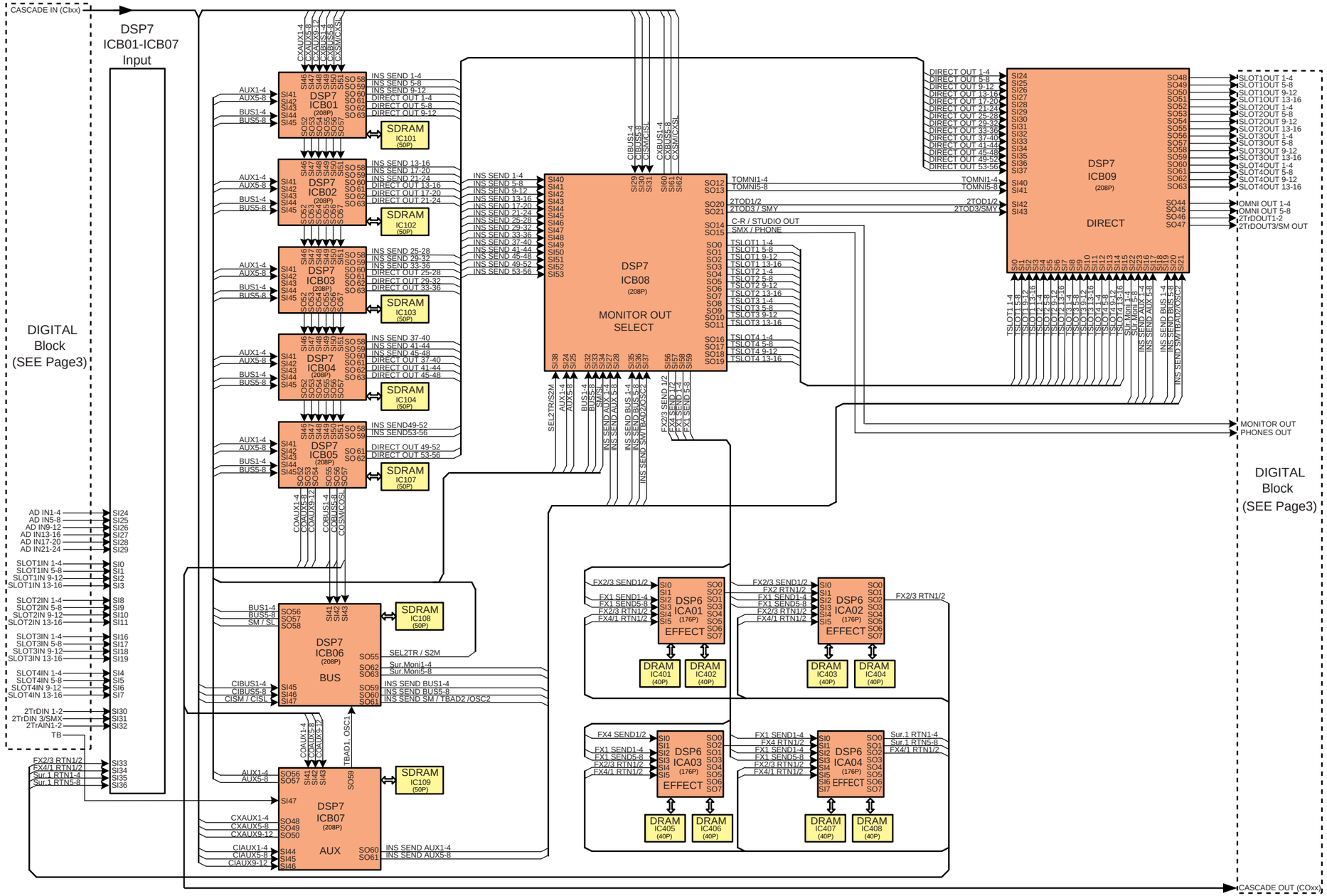


DIGITAL Block

■ BLOCK DIAGRAM 002 (02R96)

■ BLOCK DIAGRAM 003 (02R96)

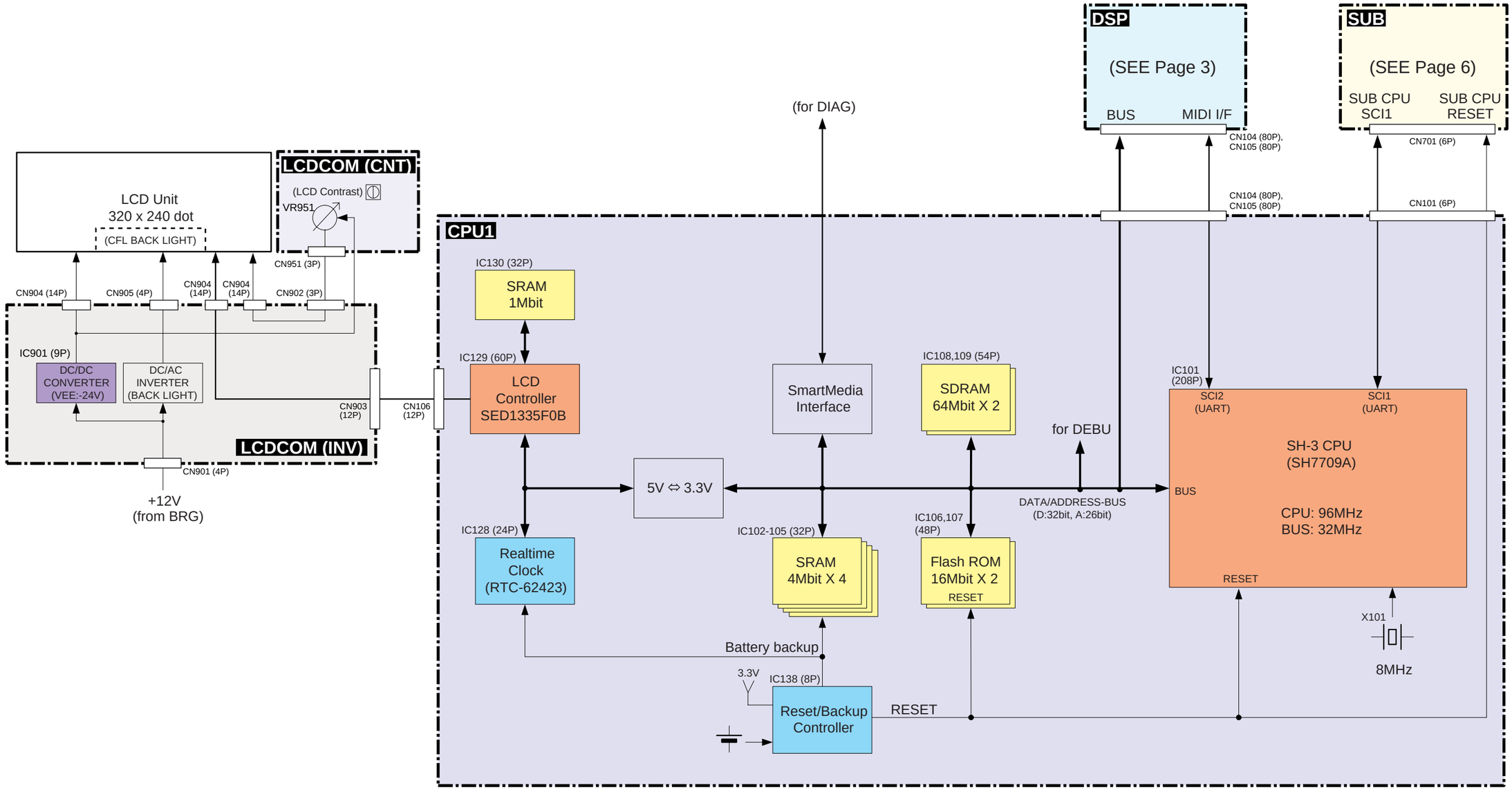
02R96



DSP Block

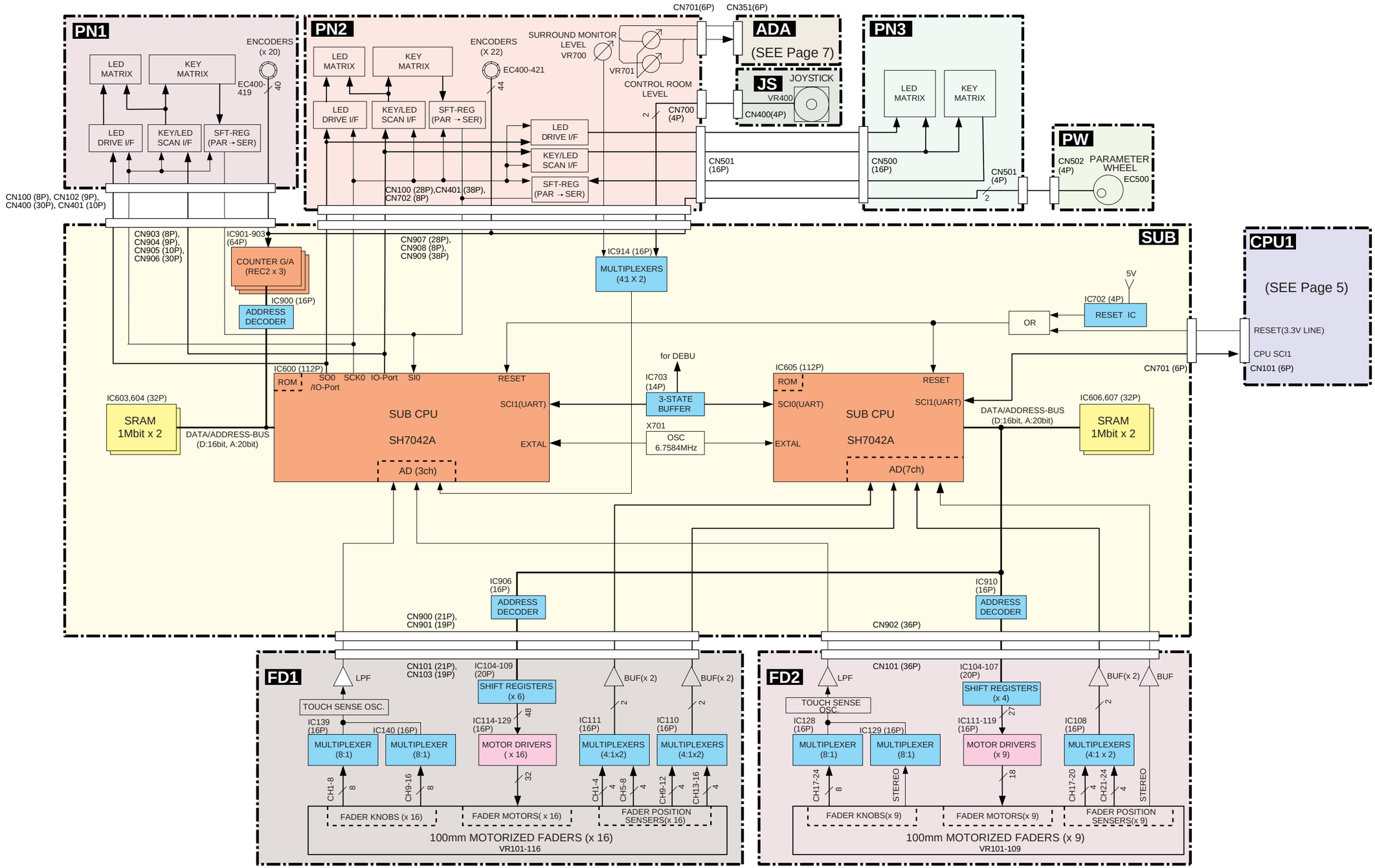
■ BLOCK DIAGRAM 003 (02R96)

■ BLOCK DIAGRAM 004 (02R96)



02R96

■ BLOCK DIAGRAM 005 (02R96)

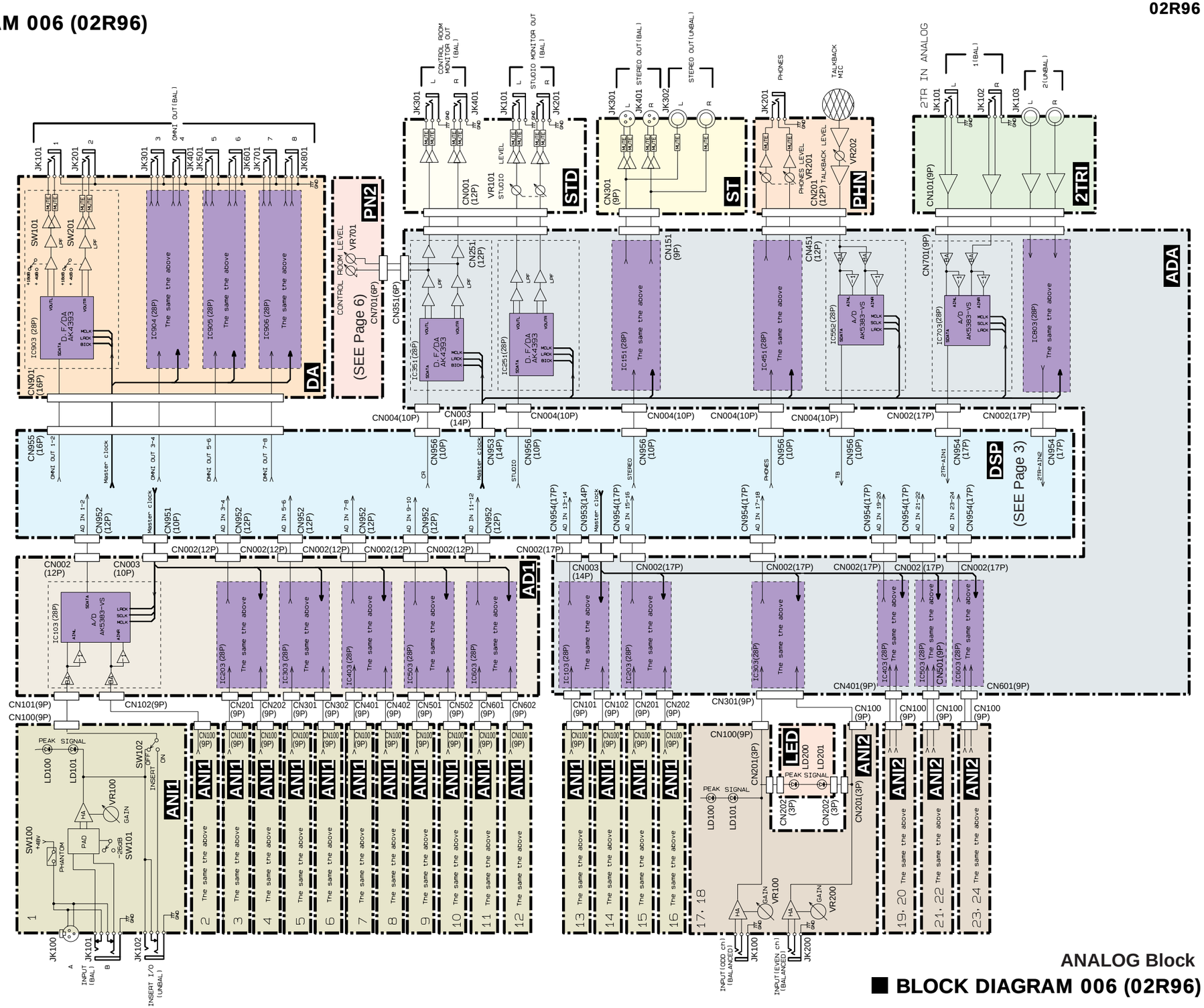


CONTROL PANEL Block

■ BLOCK DIAGRAM 005 (02R96)

■ BLOCK DIAGRAM 006 (02R96)

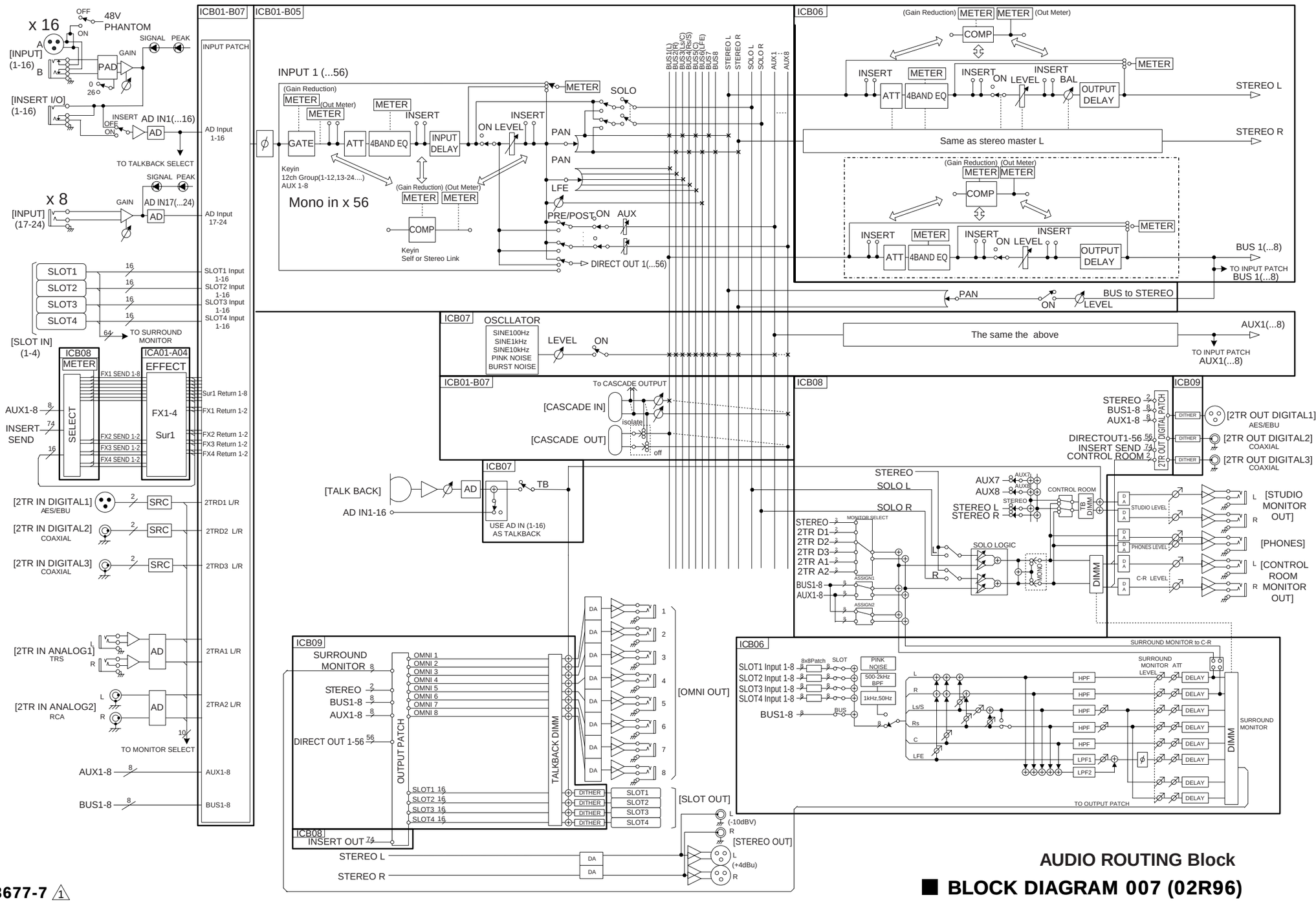
02R96



ANALOG Block

■ BLOCK DIAGRAM 006 (02R96)

■ BLOCK DIAGRAM 007 (02R96)

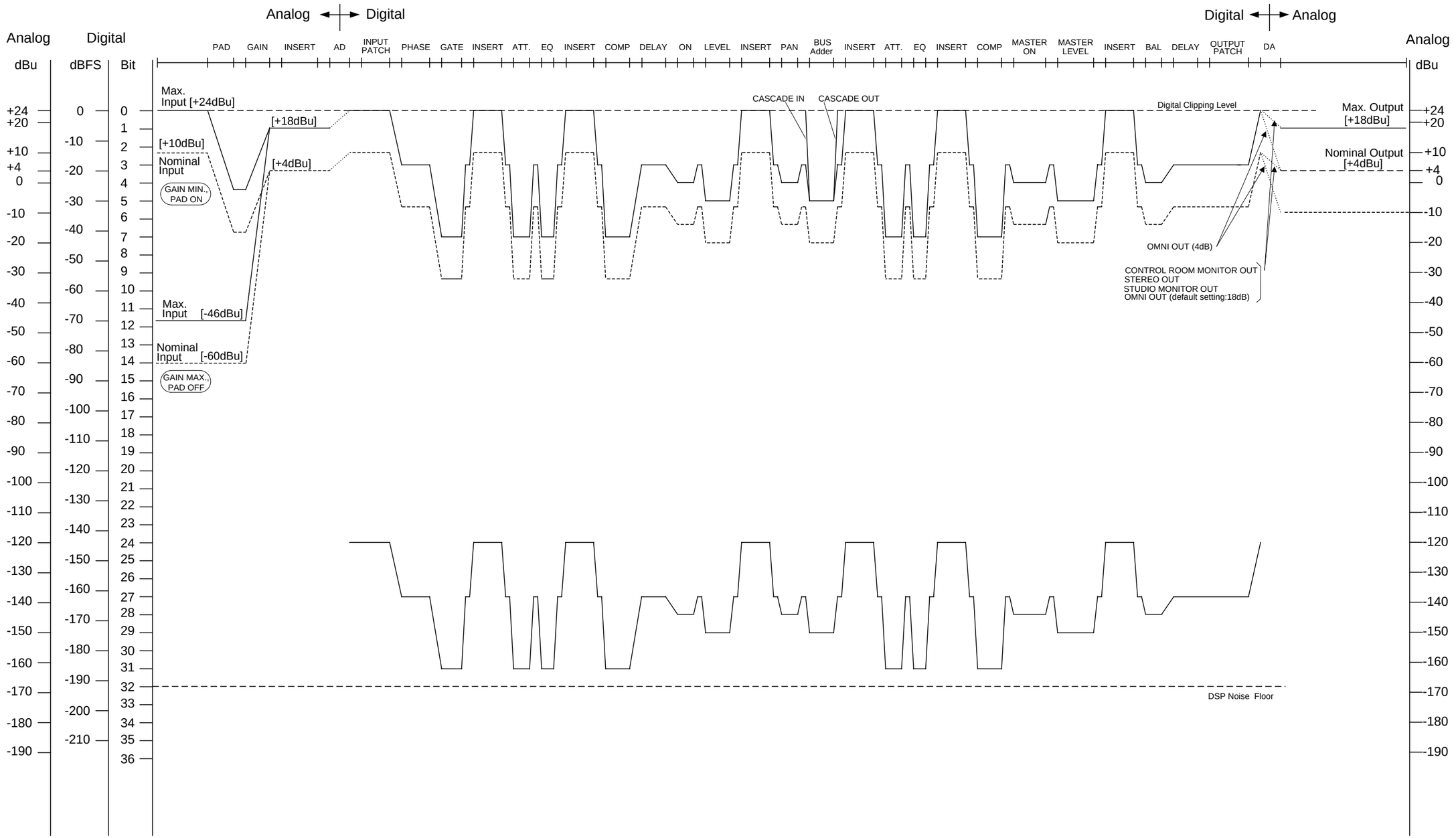


AUDIO ROUTING Block

■ BLOCK DIAGRAM 007 (02R96)

38CA1-8823677-7 ⚠1

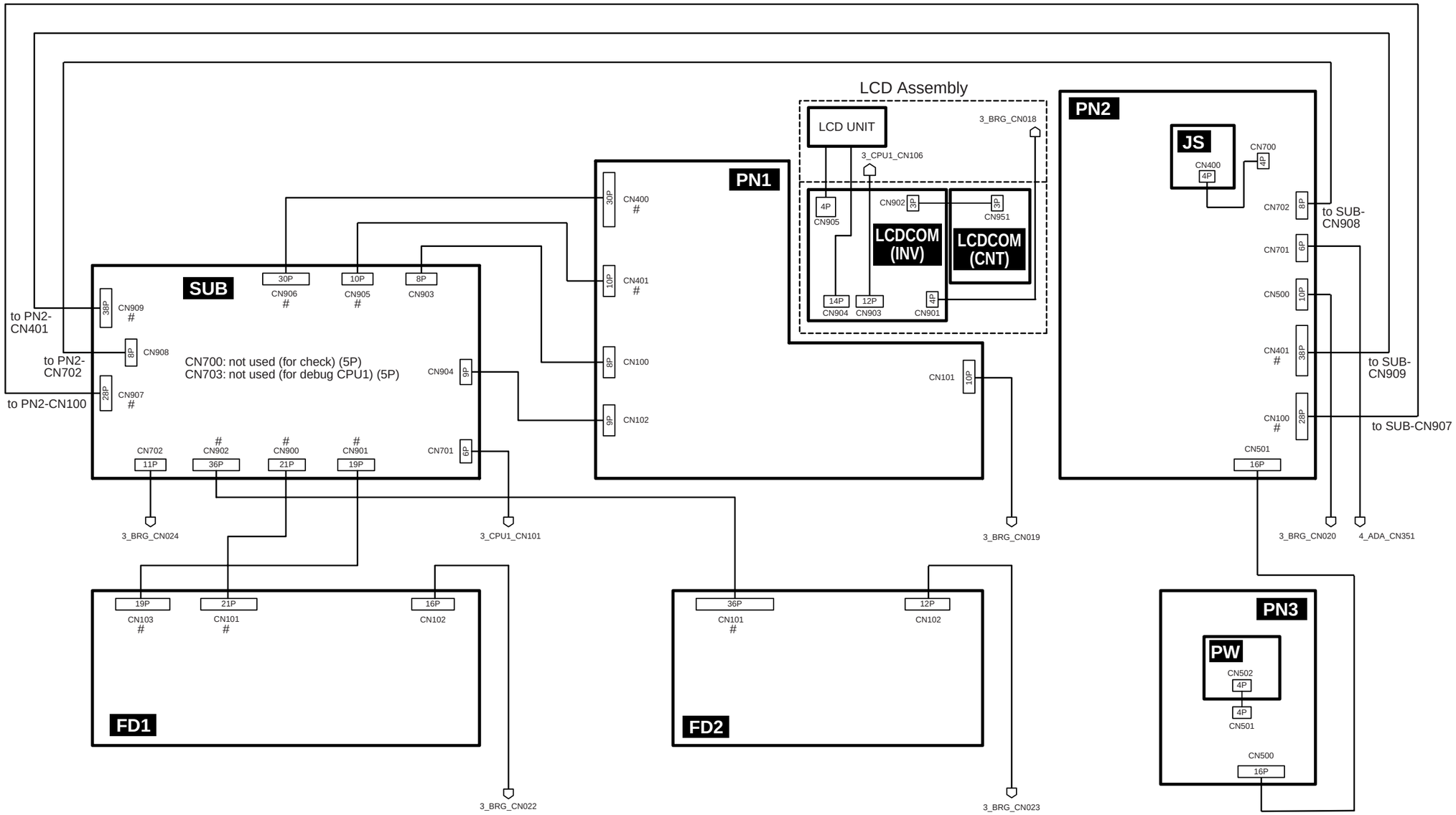
■ BLOCK DIAGRAM 008 (02R96)



[0dBu = 0.775Vrms]
[0dBFS = Full Scale]

02R96

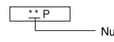
■ OVERALL CONNECTOR CIRCUIT DIAGRAM 002 (02R96)



Note) ・ ☐ indicates the sheet name.（ ☐ 内はシート名称を示します。）

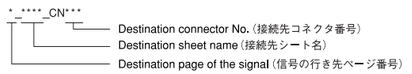
・Connection between connectors is connected to the same pin numbers, but connection between connectors marked # is connected like pin 1 to pin N, pin 2 to pin (N-1), … when the last pin number is set to N.
（コネクタ間の接続は、同じピン番号同士がつながるように接続されます。ただし、#の印のついたコネクタ間は、最終ピン番号をNとしたとき、1ピンとNピン、2ピンと(N-1)ピン、…のように接続されます。）

・Connectors are identified by the following items.
（コネクタ部の表示については下記の通りとします。）



・Inter-assembly connections are indicated as follows.
（Ass'y間のコネクタ接続については下記の通りとします。）

Connection between assemblies is indicated by the symbol given on the right, and the destination is indicated as follows.
（Ass'y間の接続は左記の記号にて示します。また接続先は下記の表示通りとします。）



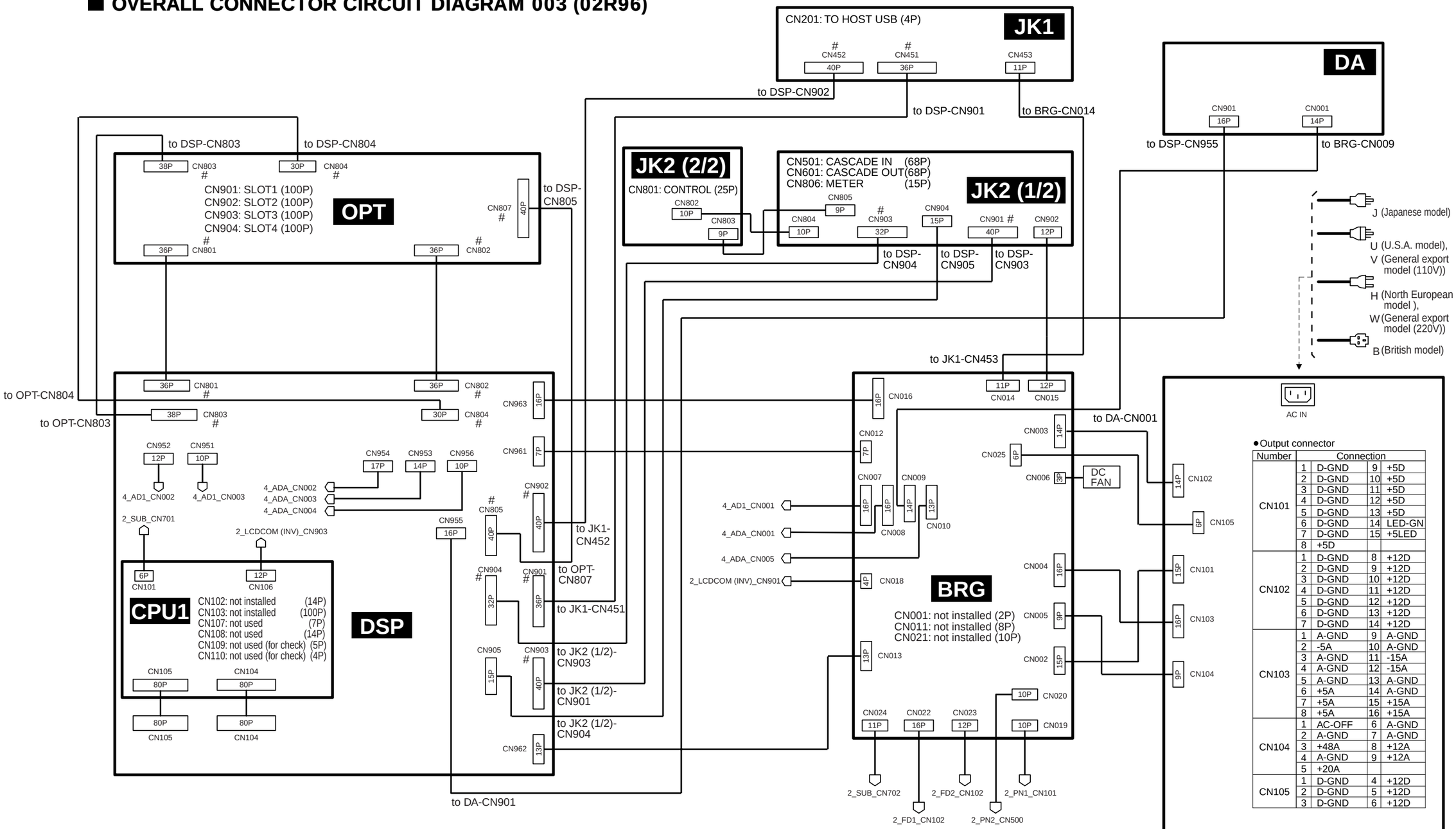
Control Panel Assembly

38CA2-8823678-2

■ OVERALL CONNECTOR CIRCUIT DIAGRAM 002 (02R96)

■ OVERALL CONNECTOR CIRCUIT DIAGRAM 003 (02R96)

02R96



● Output connector

Number				
CN101	1	D-GND	9	+5D
	2	D-GND	10	+5D
	3	D-GND	11	+5D
	4	D-GND	12	+5D
	5	D-GND	13	+5D
	6	D-GND	14	LED-GN
	7	D-GND	15	+5LED
	8	+5D		
CN102	1	D-GND	8	+12D
	2	D-GND	9	+12D
	3	D-GND	10	+12D
	4	D-GND	11	+12D
	5	D-GND	12	+12D
	6	D-GND	13	+12D
	7	D-GND	14	+12D
CN103	1	A-GND	9	A-GND
	2	-5A	10	A-GND
	3	A-GND	11	-15A
	4	A-GND	12	-15A
	5	A-GND	13	A-GND
	6	+5A	14	A-GND
	7	+5A	15	+15A
	8	+5A	16	+15A
CN104	1	AC-OFF	6	A-GND
	2	A-GND	7	A-GND
	3	+48A	8	+12A
	4	A-GND	9	+12A
	5	+20A		
CN105	1	D-GND	4	+12D
	2	D-GND	5	+12D
	3	D-GND	6	+12D

Note) ・ ☐ indicates the sheet name. (☐ 内はシート名称を示します。)

・ Connection between connectors is connected to the same pin numbers, but connection between connectors marked # is connected like pin 1 to pin N, pin 2 to pin (N-1), … when the last pin number is set to N.
(コネクタ間の接続は、同じピン番号同士がつながるように接続されます。ただし、#の印のついたコネクタ間は、最終ピン番号をNとしたとき、1ピンとNピン、2ピンと(N-1)ピン、…のように接続されます。)

・ Connectors are identified by the following items.
(コネクタ部の表示については下記の通りとします。)

☐ ** P
Number of pins (ピン数)

・ Inter-assembly connections are indicated as follows.
(Ass'y間のコネクタ接続については下記の通りとします。)

Connection between assemblies is indicated by the symbol given on the right, and the destination is indicated as follows.
(Ass'y間の接続は左記の記号にて示します。また接続先は下記の表示通りとします。)

* - **** _CN*** - *
- Destination connector No. (接続先コネクタ番号)
- Destination sheet name (接続先シート名)
- Destination page of the signal (信号の行き先ページ番号)

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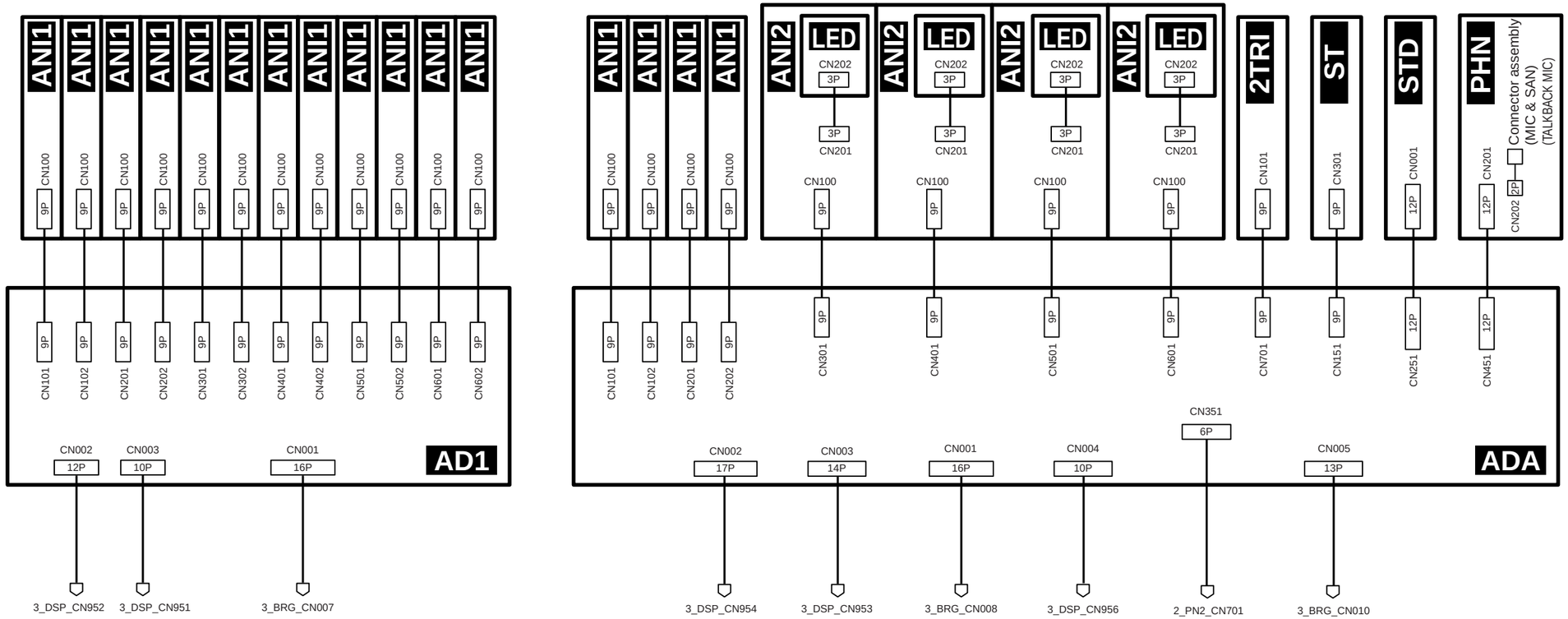
Bottom Assembly

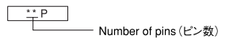
■ OVERALL CONNECTOR CIRCUIT DIAGRAM 003 (02R96)

02R96

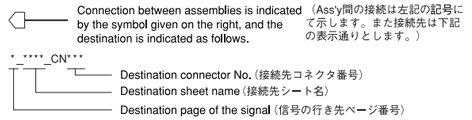
■ OVERALL CONNECTOR CIRCUIT DIAGRAM 004 (02R96)



Note) ・ ☐ indicates the sheet name.（ ☐ 内はシート名称を示します。）
・Connection between connectors is connected to the same pin numbers.
（コネクタ間の接続は、同じピン番号同士がつながるように接続されます。）
・Connectors are identified by the following items.
（コネクタ部の表示については下記の通りとします。）

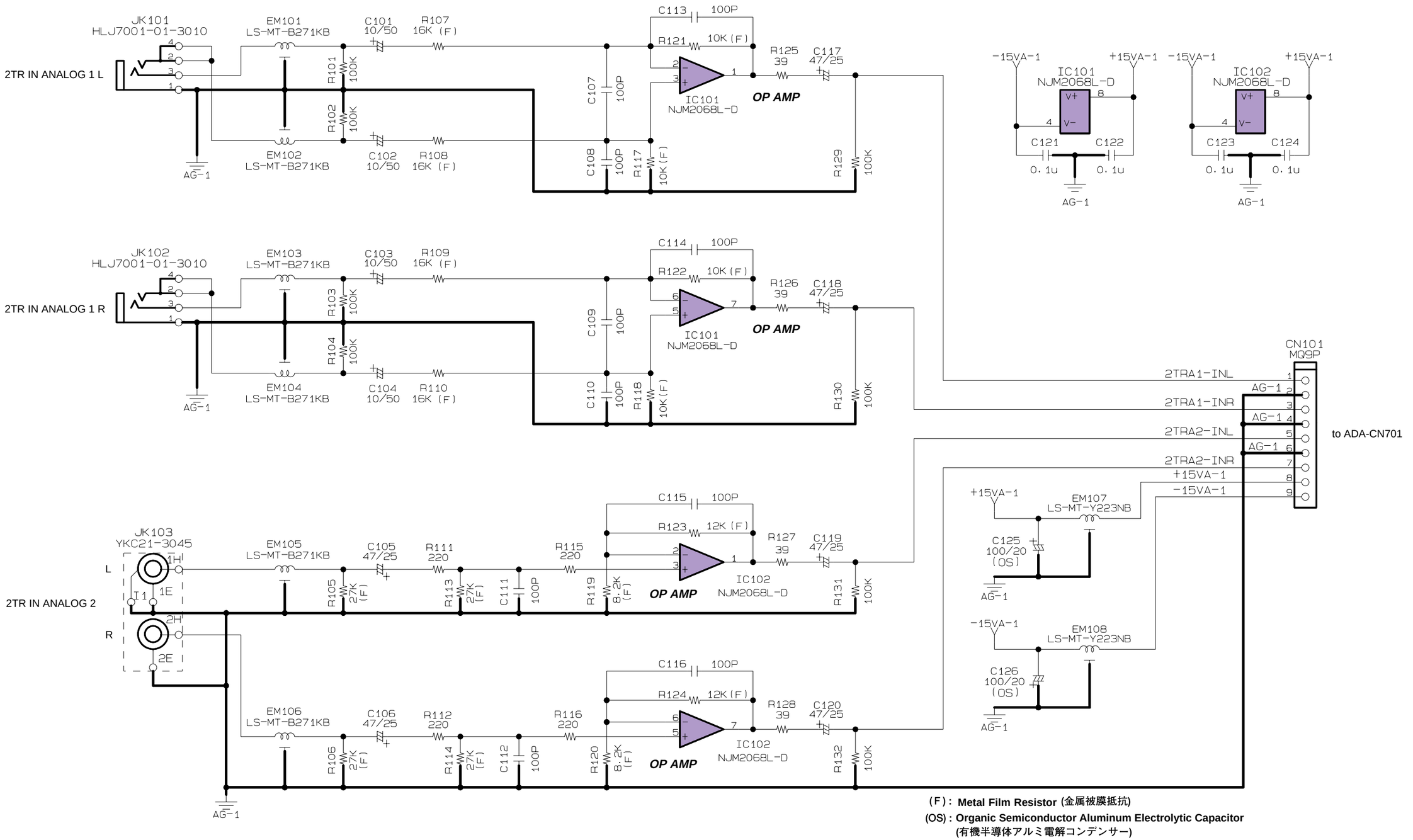


・Inter-assembly connections are indicated as follows.
（Ass'y間のコネクタ接続については下記の通りとします。）



■ OVERALL CONNECTOR CIRCUIT DIAGRAM 004 (02R96)

■ 2TRI CIRCUIT DIAGRAM (02R96)

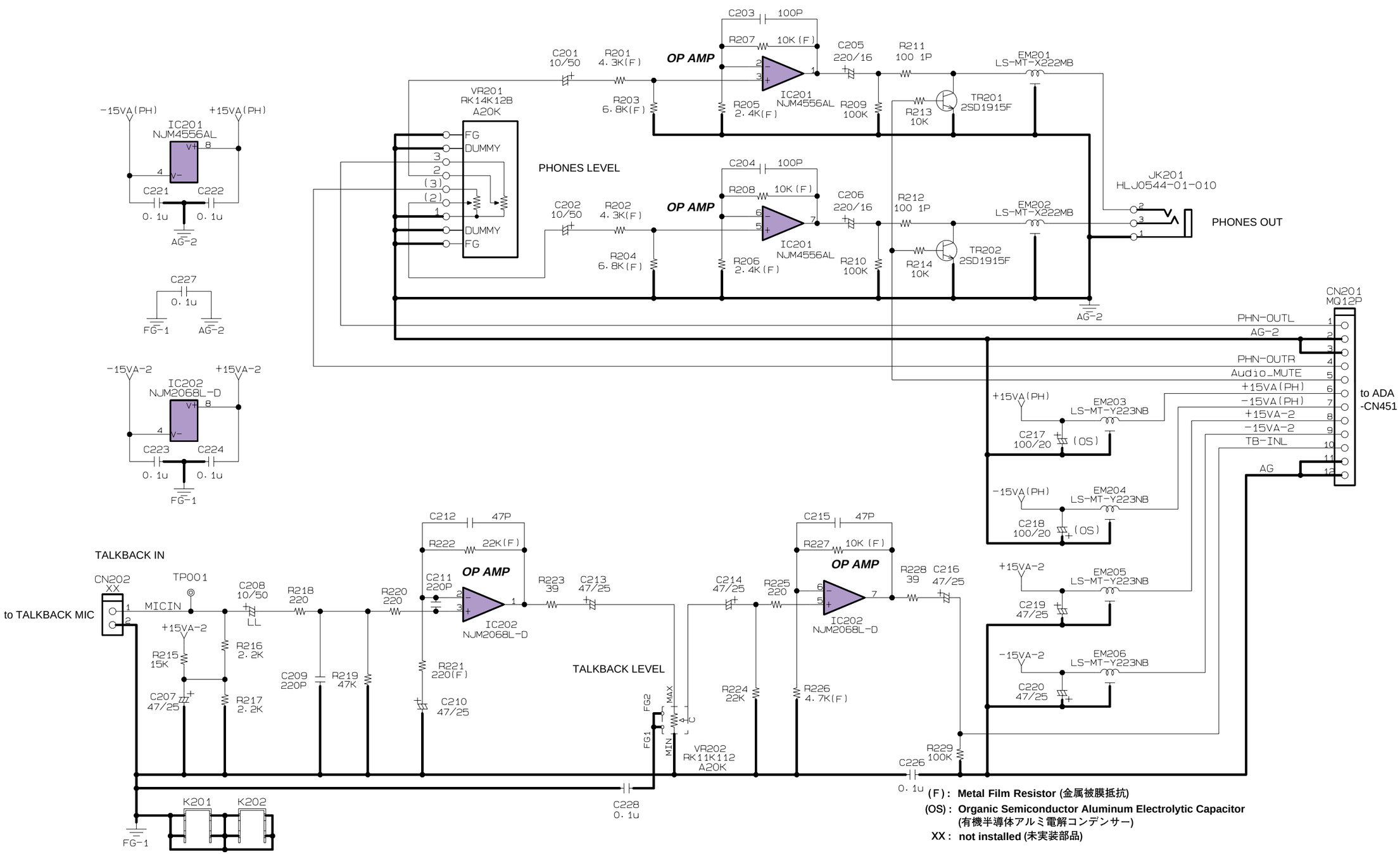


(F) : Metal Film Resistor (金属被膜抵抗)
(OS) : Organic Semiconductor Aluminum Electrolytic Capacitor
(有機半導体アルミ電解コンデンサー)

■ 2TRI CIRCUIT DIAGRAM (02R96)

■ PHN CIRCUIT DIAGRAM (02R96)

02R96

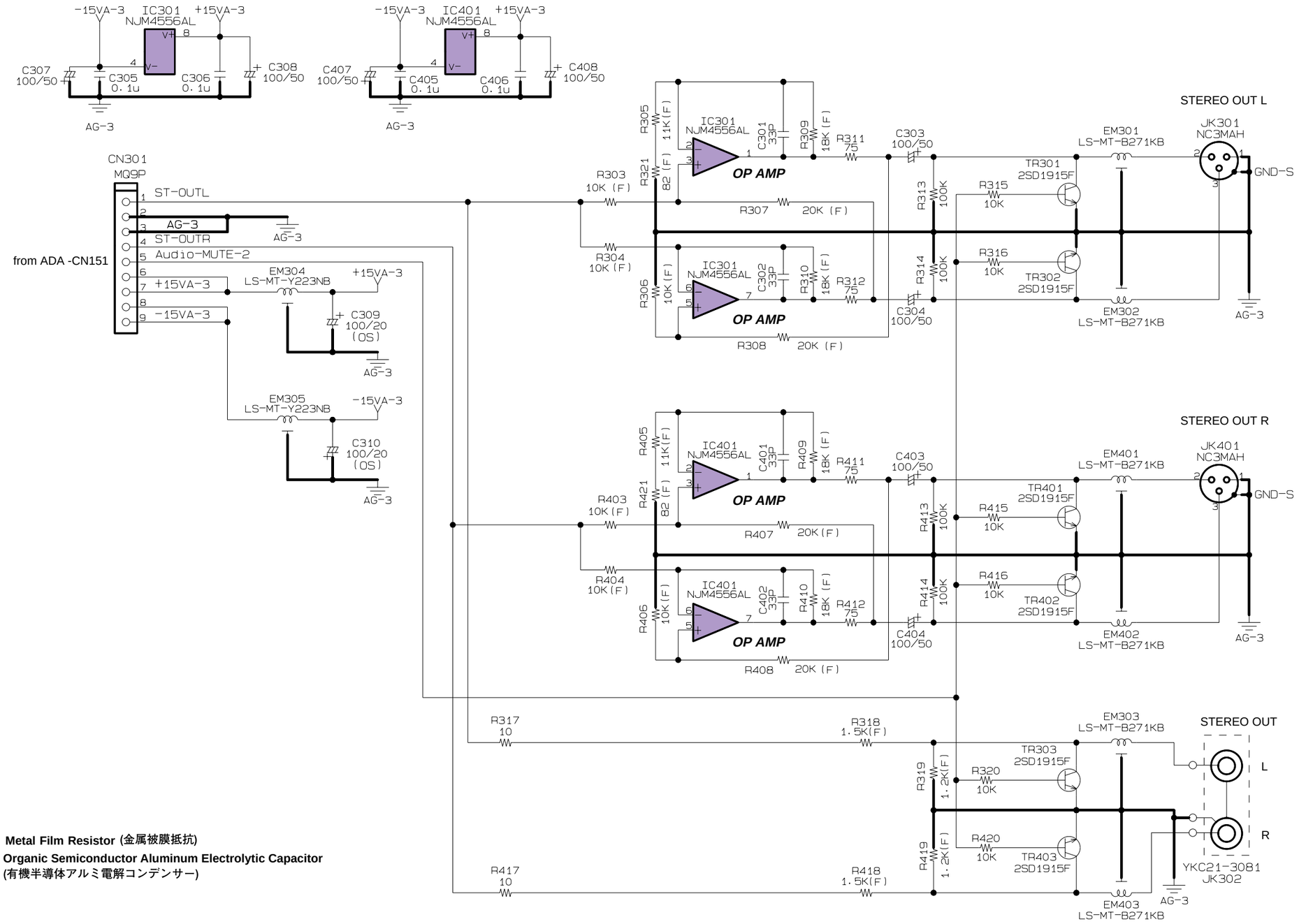


(F) : Metal Film Resistor (金属被膜抵抗)
(OS) : Organic Semiconductor Aluminum Electrolytic Capacitor (有機半導体アルミ電解コンデンサー)
XX : not installed (未実装部品)

■ PHN CIRCUIT DIAGRAM (02R96)

■ ST CIRCUIT DIAGRAM (02R96)

02R96



(F) : **Metal Film Resistor (金属被膜抵抗)**

(OS) : **Organic Semiconductor Aluminum Electrolytic Capacitor (有機半導体アルミ電解コンデンサー)**

■ AD1 CIRCUIT DIAGRAM (02R96)

02R96

from DSP-CN951

to DSP-CN952

to BRG-CN007

INVERTER

MCLK:128FS at 96KHz
256FS at 48KHz

DFS_AD1 H : 96KHz
L : 48KHz

TRANSCEIVER

TRANSCEIVER

ADC

OP AMP

IN1 to ANI1 #1-CN100
IN2 to ANI1 #2-CN100
IN3 to ANI1 #3-CN100
IN4 to ANI1 #4-CN100
IN5 to ANI1 #5-CN100
IN6 to ANI1 #6-CN100
IN7 to ANI1 #7-CN100
IN8 to ANI1 #8-CN100
IN9 to ANI1 #9-CN100
IN10 to ANI1 #10-CN100
IN11 to ANI1 #11-CN100
IN12 to ANI1 #12-CN100

(F) : **Metal Film Resistor** (金属被膜抵抗)
(マ) : **Mylar Capacitor** (マイラーコンデンサー)
(OS) : **Organic Semiconductor Aluminum Electrolytic Capacitor** (有機半導体アルミ電解コンデンサー)
XX : **not installed** (未実装部品)

38CC1-8822218-1 △2

■ AD1 CIRCUIT DIAGRAM (02R96)

■ ADA CIRCUIT DIAGRAM 002 (02R96)

02R96

Notation for Circuit Diagrams (回路図表記上の注意)

1. How to identify inter-sheet connectors (シート間コネクタの読み方について)

/WR — Signal name (信号名)

003 : V9
- The 3-digit number indicates the destination page. (3桁の数字は信号の行先ページ数を示します。)
- This indicates the location of the counter inter-sheet connector. (The alphabet indicates horizontal direction and the number indicates vertical direction.) 対応するシート間コネクタのあるロケーションを示します。(アルファベットが水平方向、数字が垂直方向)

from DSP-CN953

to DSP-CN954

to BRG-CN008

	MCLK	128FS	256FS
DFS_ADA	H (Double Rate)		
	L (Normal Rate)		

INVERTER

TRANSCEIVER

ADC

OP AMP

IN13
to ANI1 #13-CN100

IN14
to ANI1 #14-CN100

IN15
to ANI1 #15-CN100

IN16
to ANI1 #16-CN100

IN17/18
to ANI2 #1-CN100

IN19/20
to ANI2 #2-CN100

IN21/22
to ANI2 #3-CN100

IN23/24
to ANI2 #4-CN100

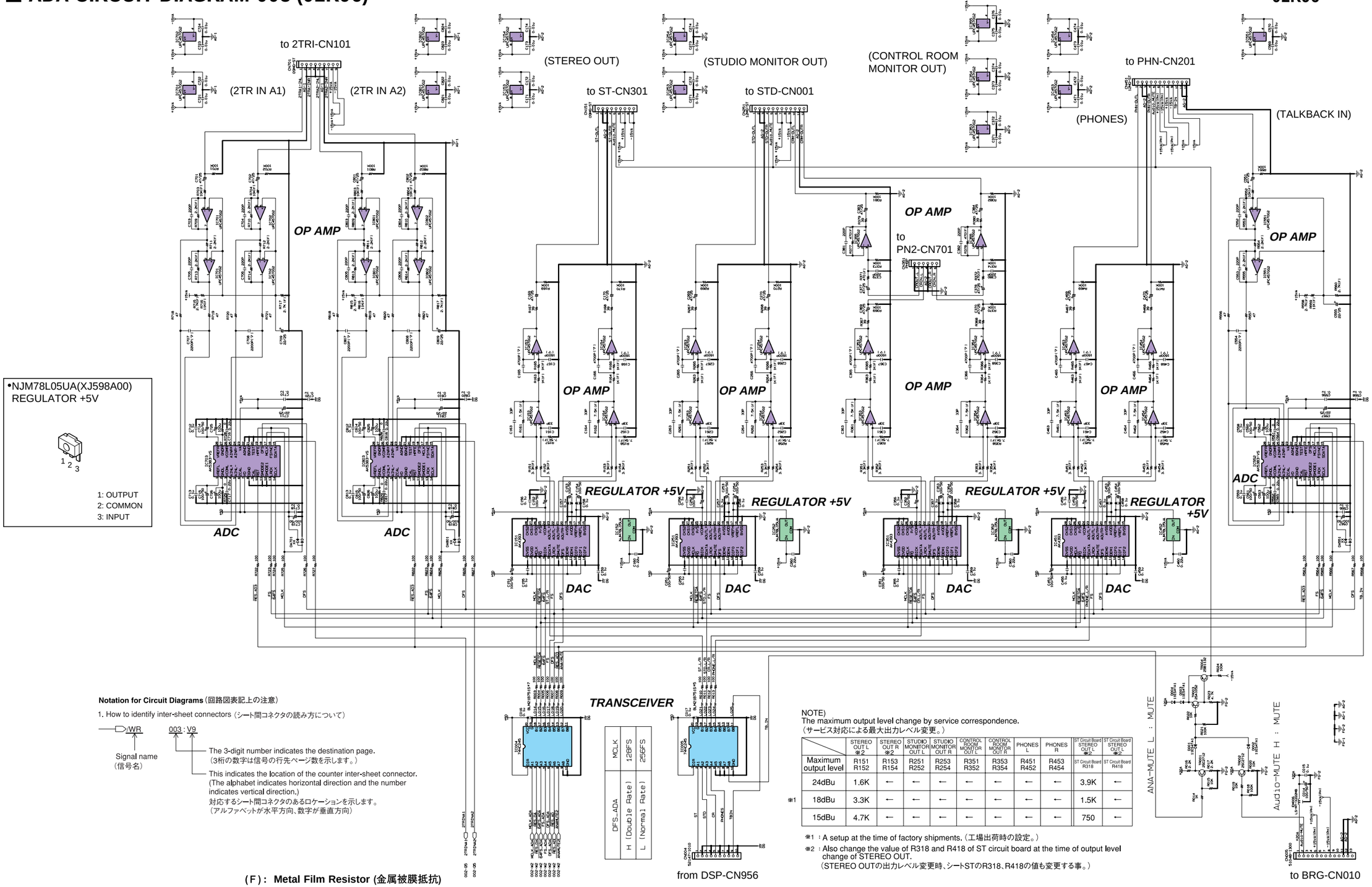
(F) : **Metal Film Resistor** (金属被膜抵抗)
(マ) : **Mylar Capacitor** (マイラーコンデンサー)
(OS) : **Organic Semiconductor Aluminum Electrolytic Capacitor** (有機半導体アルミ電解コンデンサー)
XX : **not installed** (未実装部品)

38CC1-8823582-2

■ ADA CIRCUIT DIAGRAM 002 (02R96)

■ ADA CIRCUIT DIAGRAM 003 (02R96)

02R96



•NJM78L05UA(XJ598A00)
REGULATOR +5V

1 2 3

1: OUTPUT
2: COMMON
3: INPUT

Notation for Circuit Diagrams（回路図表記上の注意）

1. How to identify inter-sheet connectors（シート間コネクタの読み方について）

/WR — Signal name（信号名）

003 : V9
- The 3-digit number indicates the destination page.（3桁の数字は信号の行先ページ数を示します。）
- This indicates the location of the counter inter-sheet connector. (The alphabet indicates horizontal direction and the number indicates vertical direction.)
対応するシート間コネクタのあるロケーションを示します。
（アルファベットが水平方向、数字が垂直方向）

NOTE)
The maximum output level change by service correspondence.
（サービス対応による最大出力レベル変更。）

		STEREO OUT L ※2	STEREO OUT R ※2	STUDIO MONITOR OUT L	STUDIO MONITOR OUT R	CONTROL ROOM MONITOR OUT L	CONTROL ROOM MONITOR OUT R	PHONES L	PHONES R	ST Circuit Board STEREO OUT L ※2	ST Circuit Board STEREO OUT L ※2
Maximum output level		R151 R152	R153 R154	R251 R252	R253 R254	R351 R352	R353 R354	R451 R452	R453 R454	ST Circuit Board R318	ST Circuit Board R418
※1	24dBu	1.6K	←	←	←	←	←	←	←	3.9K	←
	18dBu	3.3K	←	←	←	←	←	←	←	1.5K	←
	15dBu	4.7K	←	←	←	←	←	←	←	750	←

※1 ：A setup at the time of factory shipments.（工場出荷時の設定。）

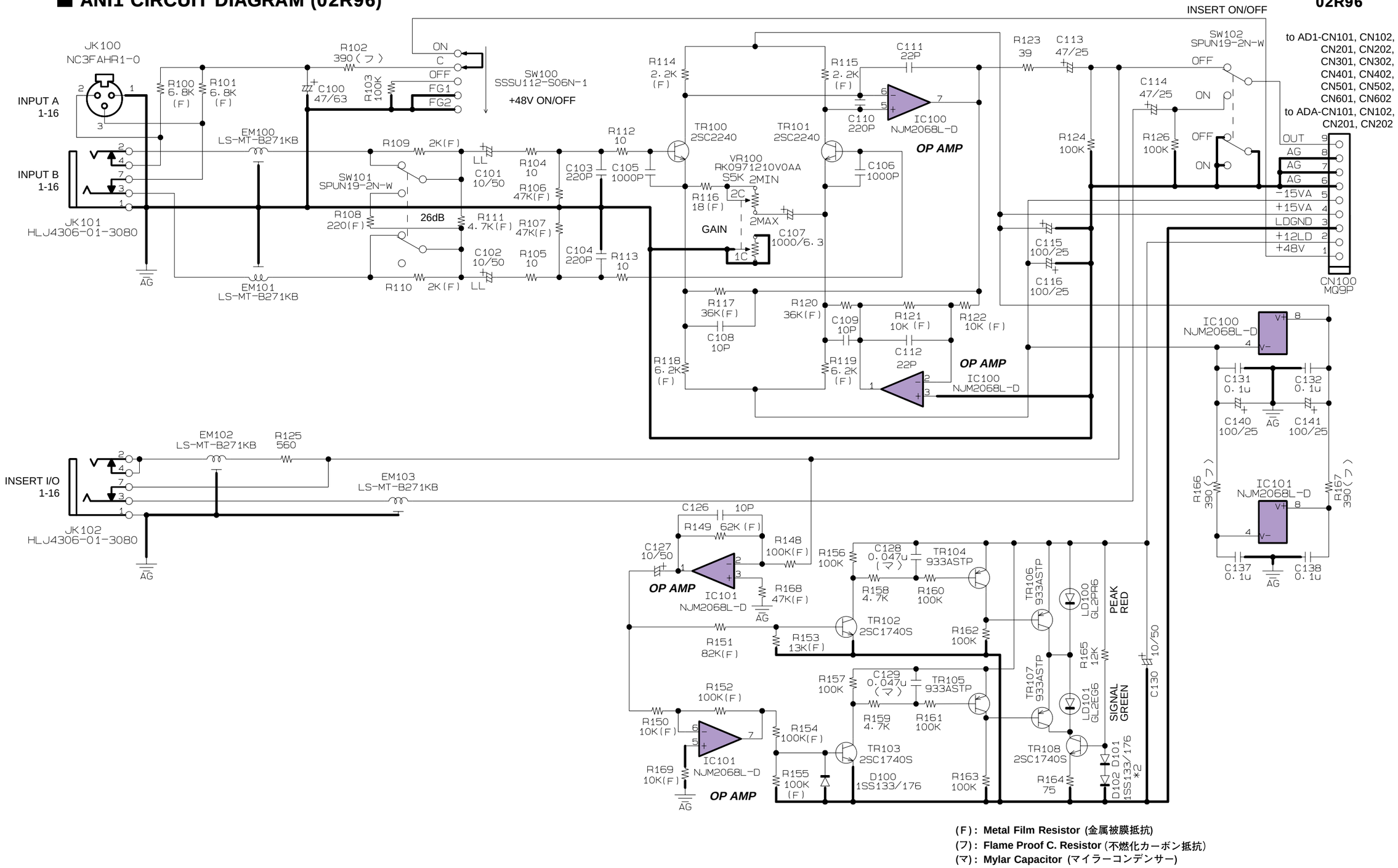
※2 ：Also change the value of R318 and R418 of ST circuit board at the time of output level change of STEREO OUT.
（STEREO OUTの出力レベル変更時、シートSTのR318、R418の値も変更する事。）

(F) : **Metal Film Resistor (金属被膜抵抗)**
(マ) : **Mylar Capacitor (マイラーコンデンサー)**
(OS) : **Organic Semiconductor Aluminum Electrolytic Capacitor (有機半導体アルミ電解コンデンサー)**
XX : **not installed (未実装部品)**

■ ADA CIRCUIT DIAGRAM 003 (02R96)

■ ANI1 CIRCUIT DIAGRAM (02R96)

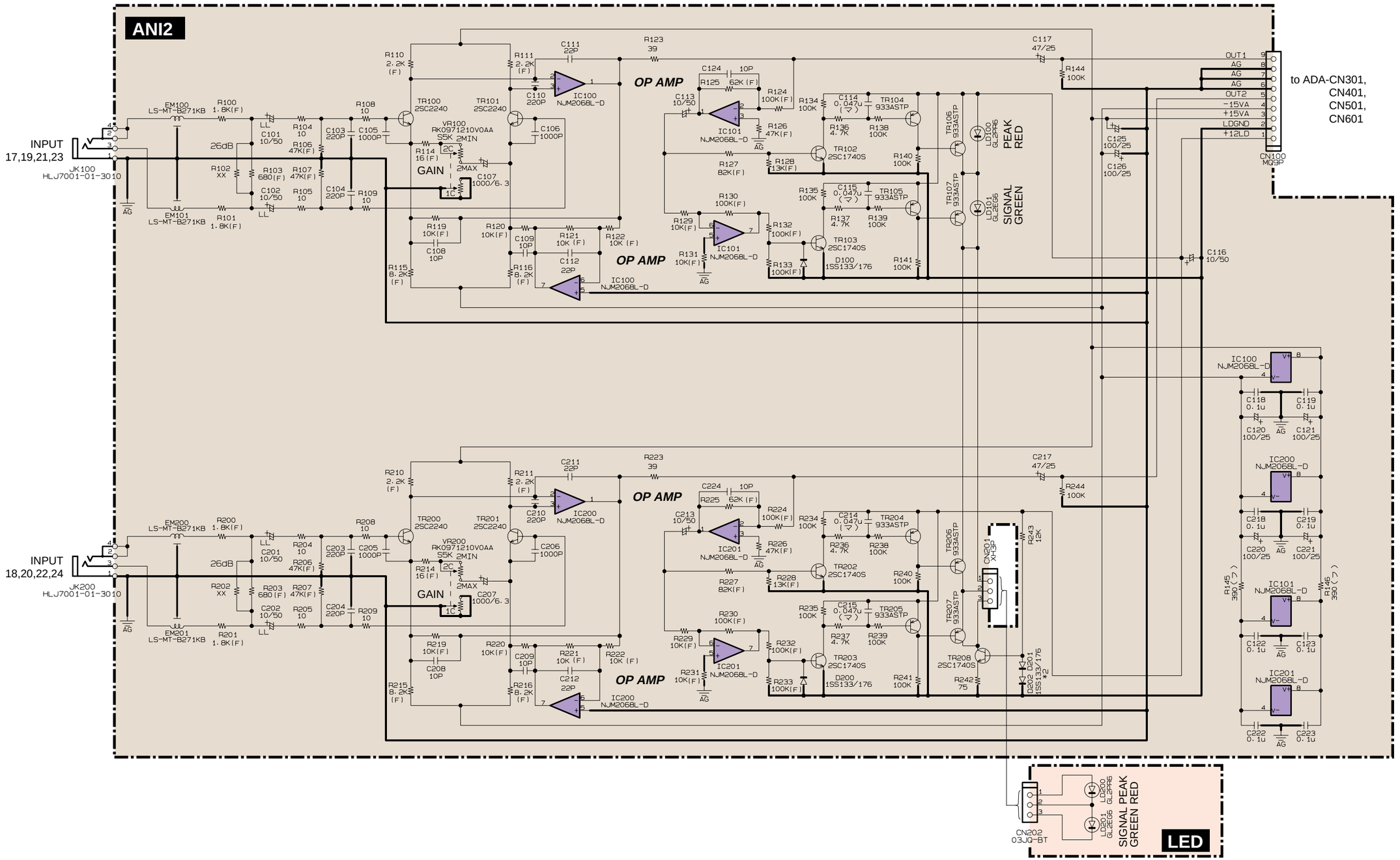
02R96



(F) : Metal Film Resistor (金属被膜抵抗)
(フ) : Flame Proof C. Resistor (不燃化カーボン抵抗)
(マ) : Mylar Capacitor (マイラーコンデンサー)

■ ANI2, LED CIRCUIT DIAGRAM (02R96)

02R96



(F) : **Metal Film Resistor** (金属被膜抵抗)
(フ) : **Flame Proof C. Resistor** (不燃化カーボン抵抗)
(マ) : **Mylar Capacitor** (マイラーコンデンサー)
XX : **not installed** (未実装部品)

■ ANI2, LED CIRCUIT DIAGRAM (02R96)

■ BRG CIRCUIT DIAGRAM 002 (02R96)

02R96

from Power Supply Unit-CN101

from Power Supply Unit-CN105

from Power Supply Unit-CN102

from Power Supply Unit-CN103

from Power Supply Unit-CN104

to AD1 -CN001

to ADA -CN001

to DA -CN001

to ADA -CN005

to FAN

to DSP -CN961

to DSP -CN962

to JK1 -CN453

to JK2 (1/2) -CN902

to DSP -CN963

to LCDCOM (INV)-CN901

to PN1 -CN101

to PN2 -CN500

to FD1 -CN102

to FD2 -CN102

to SUB -CN702

(1P) : **Metal Oxide Film Resistor** (酸化金属被膜抵抗)

XX : **not installed** (部品実装しない)

Rating of resistor without the rated notation is set to 1/10W.

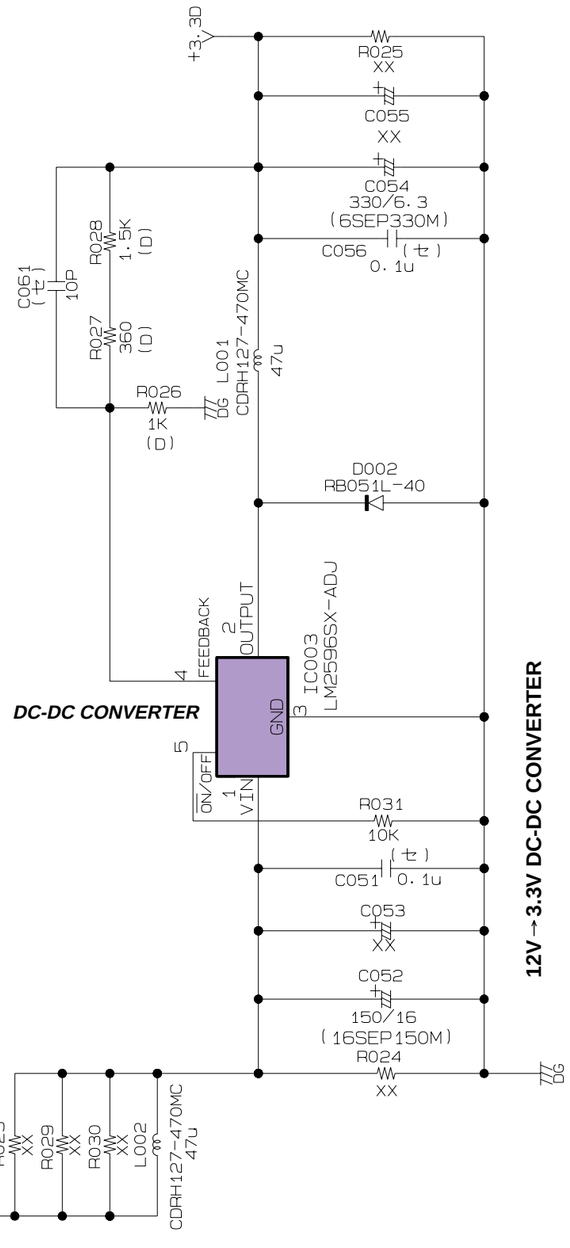
(定格表記のない抵抗の定格は1/10Wとします。)

38CC1-8823584-2 △5

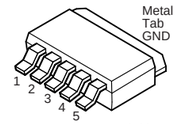
Power Supply Distribution Section

■ BRG CIRCUIT DIAGRAM 002 (02R96)

■ BRG CIRCUIT DIAGRAM 003 (02R96)



●LM2596SX-ADJ (X2790A00)
DC-DC CONVERTER

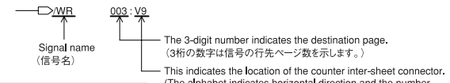


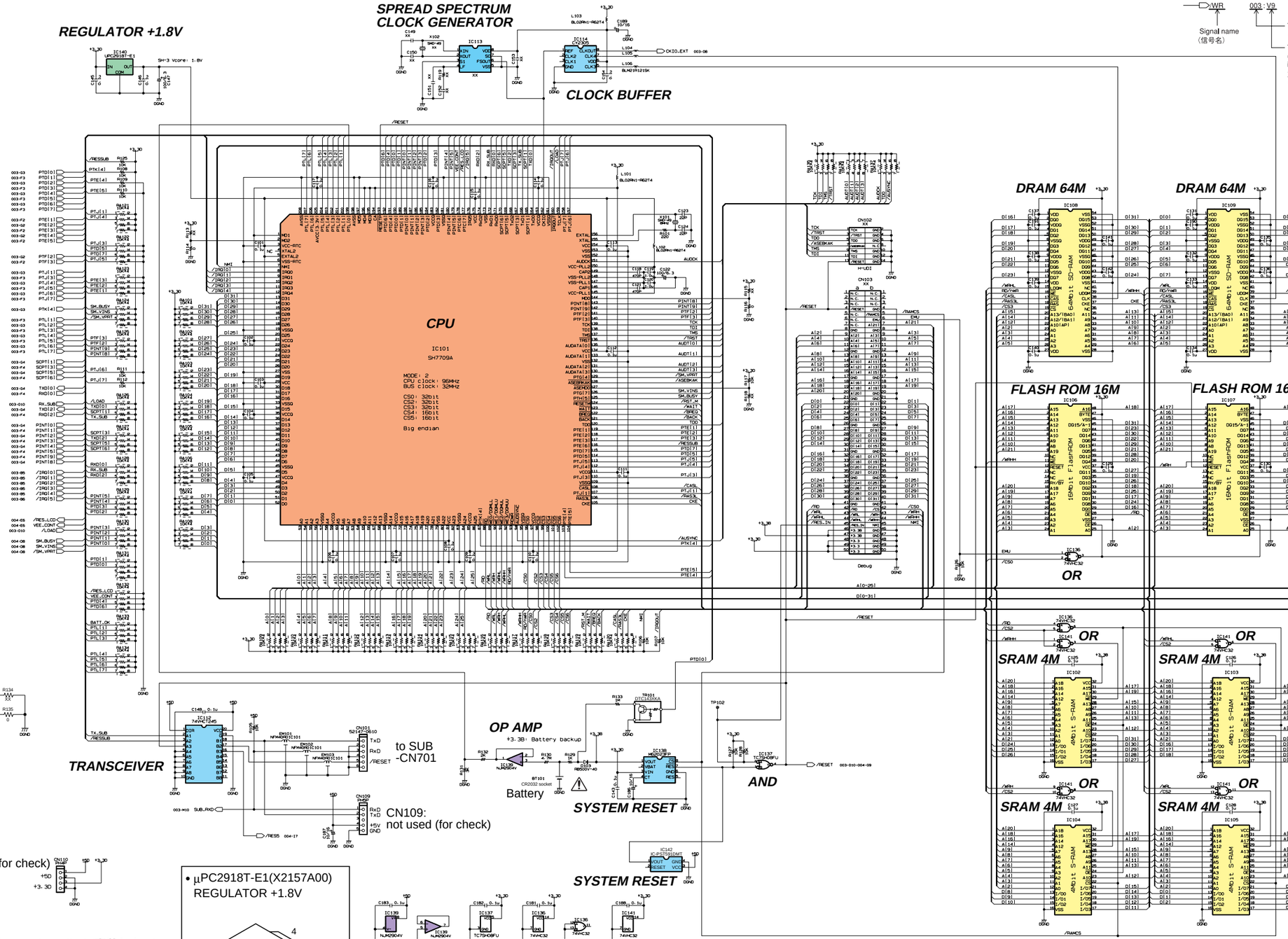
(セ)： **Ceramic Capacitor** (セラミックコンデンサー)
(D)： **Tolerance** (許容差) ±**0.5%**
XX： not installed (部品実装しない)
Rating of resistor without the rated notation is set to 1/10W.
(定格表記のない抵抗の定格は**1/10W**とします。)

■ CPU1 CIRCUIT DIAGRAM 002 (02R96)

Notation for Circuit Diagrams (回路図表記上の注意)

1. How to identify inter-sheet connectors (シート間コネクタの読み方について)



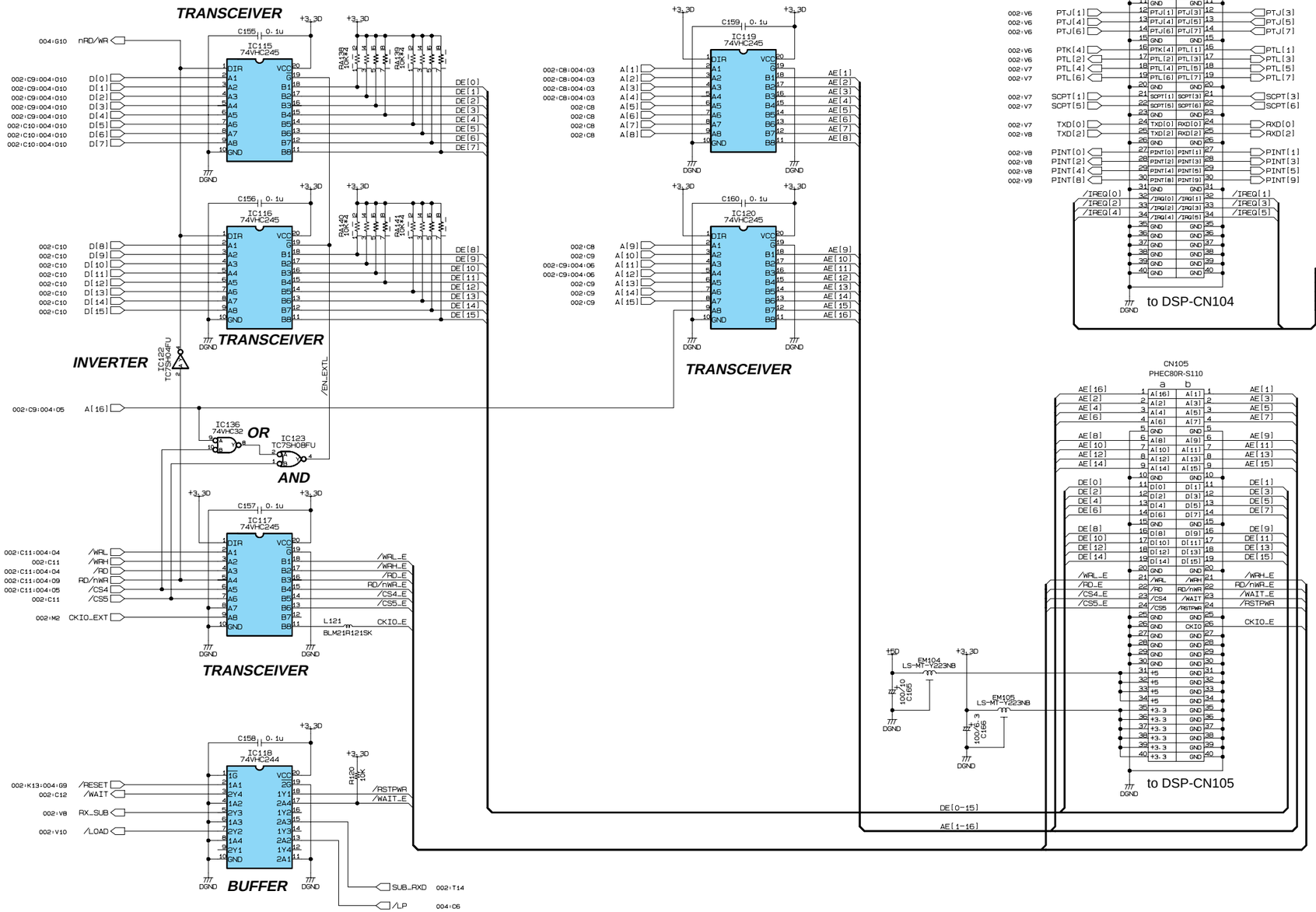


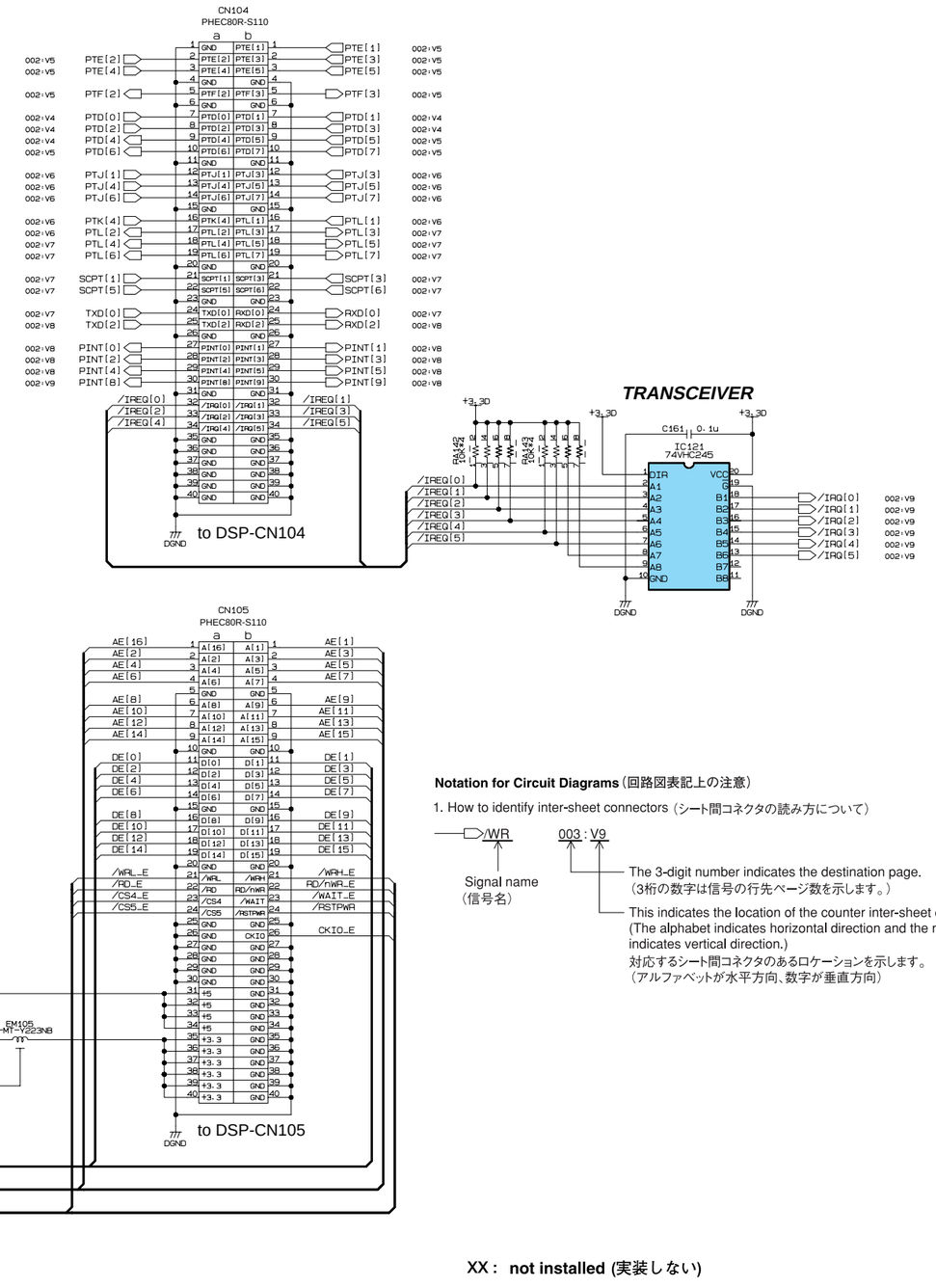
SH3-CPU Circumference Section

■ CPU1 CIRCUIT DIAGRAM 002 (02R96)

■ CPU1 CIRCUIT DIAGRAM 003 (02R96)

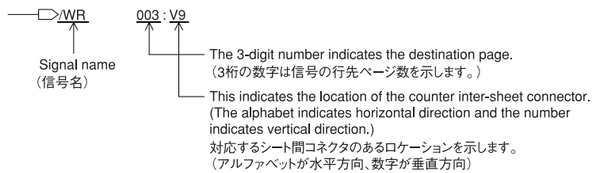
02R96





Notation for Circuit Diagrams (回路図表記上の注意)

1. How to identify inter-sheet connectors (シート間コネクタの読み方について)



XX : **not installed** (実装しない)

38CC1-8822240-3 5

External Interface Section

■ CPU1 CIRCUIT DIAGRAM 003 (02R96)

■ CPU1 CIRCUIT DIAGRAM 004 (02R96)

Notation for Circuit Diagrams（回路図表記上の注意）

1. How to identify inter-sheet connectors（シート間コネクタの読み方について）

/WR — Signal name（信号名）

003 : V9
- The 3-digit number indicates the destination page.（3桁の数字は信号の行先ページ数を示します。）
- This indicates the location of the counter inter-sheet connector. (The alphabet indicates horizontal direction and the number indicates vertical direction.)
対応するシート間コネクタのあるロケーションを示します。（アルファベットが水平方向、数字が垂直方向）

TRANSCEIVER
IC126 74VHC245
NAND
IC133 74VHC00
DECODER
IC125 74VHC139
REAL TIME CLOCK
IC128 RTC-62423
SRAM 1M
IC130
LCD CONTROLLER
IC129 SED1335F0B
INVERTER
IC132 74VHC04
IC131 74VHC245
TRANSCEIVER
IC132 TC74VHC04
INVERTER
IC127 TC74LVX4245FS
3.3V<->5V
TRANSCEIVER
IC134 74VHC245
TRANSCEIVER
IC135 74VHC245
TRANSCEIVER

to LCDCOM (INV)-CN903

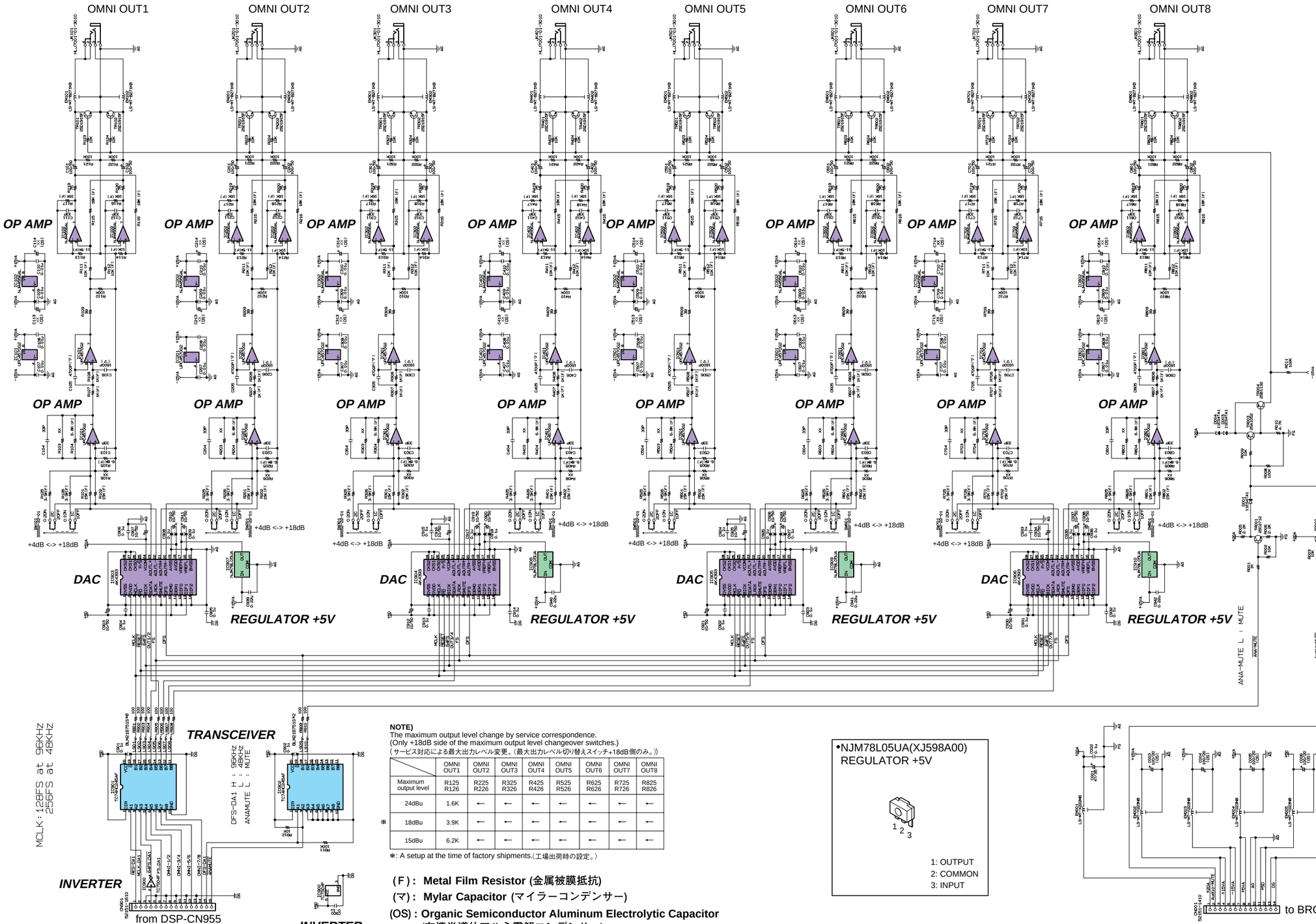
CN107: not used

CN108: not used

XX : **not installed (実装しない)**

■ DA CIRCUIT DIAGRAM (02R96)

02R96



NOTE)
The maximum output level change by service correspondence.
(Only +18dB side of the maximum output level changeover switches.)
（サービス対応による最大出力レベル変更。（最大出力レベル切り替えスイッチ+18dB側のみ。））

※	OMNI OUT1	OMNI OUT2	OMNI OUT3	OMNI OUT4	OMNI OUT5	OMNI OUT6	OMNI OUT7	OMNI OUT8
Maximum output level	R125 R126	R225 R226	R325 R326	R425 R426	R525 R526	R625 R626	R725 R726	R825 R826
24dBu	1.6K	←	←	←	←	←	←	←
18dBu	3.9K	←	←	←	←	←	←	←
15dBu	6.2K	←	←	←	←	←	←	←

※: A setup at the time of factory shipments.（工場出荷時の設定。）

(F) : **Metal Film Resistor (金属被膜抵抗)**
(マ) : **Mylar Capacitor (マイラーコンデンサー)**
(OS) : **Organic Semiconductor Aluminum Electrolytic Capacitor (有機半導体アルミ電解コンデンサー)**
XX : **not installed (未実装部品)**

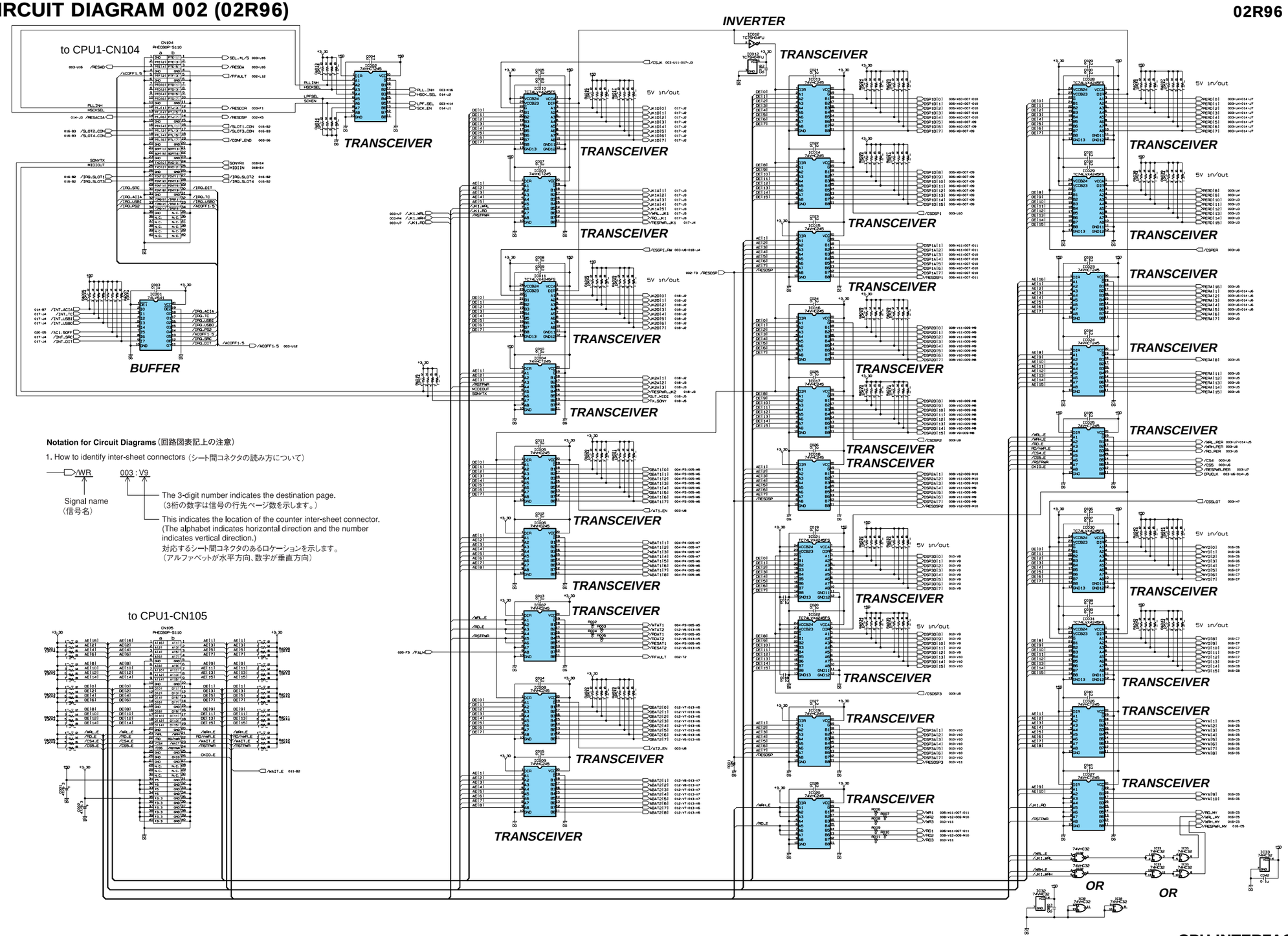
•NJM78L05UA(XJ598A00)
REGULATOR +5V

1: OUTPUT
2: COMMON
3: INPUT

38CC1-8822219-1 3

■ DA CIRCUIT DIAGRAM (02R96)

■ DSP CIRCUIT DIAGRAM 002 (02R96)



Notation for Circuit Diagrams（回路図表記上の注意）

1. How to identify inter-sheet connectors（シート間コネクタの読み方について）

/WR　003 : V9

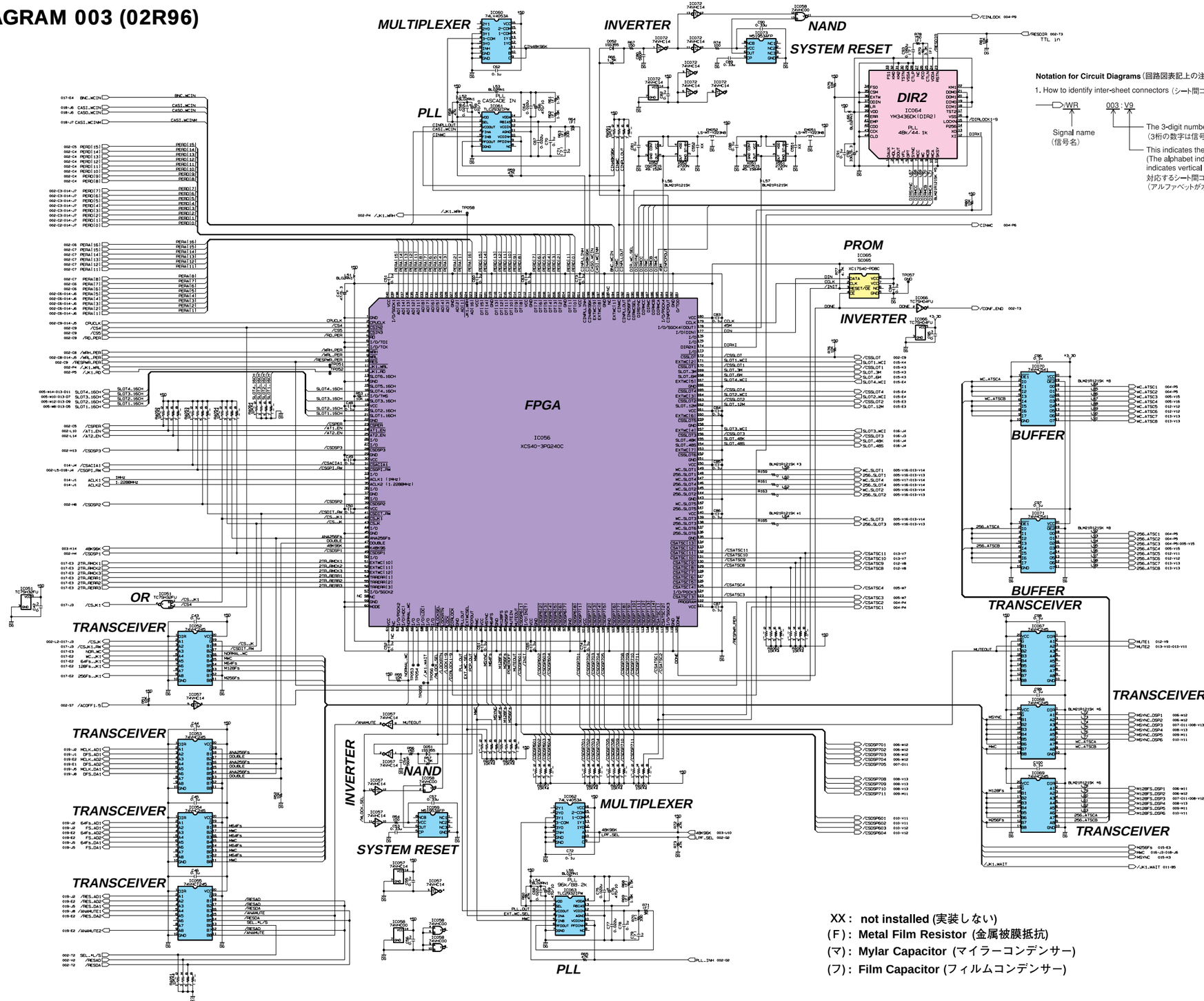
Signal name（信号名）

The 3-digit number indicates the destination page.
（3桁の数字は信号の行先ページ数を示します。）

This indicates the location of the counter inter-sheet connector.
(The alphabet indicates horizontal direction and the number indicates vertical direction.)
対応するシート間コネクタのあるロケーションを示します。
（アルファベットが水平方向、数字が垂直方向）

■ DSP CIRCUIT DIAGRAM 003 (02R96)

02R96



Notation for Circuit Diagrams (回路図表記上の注意)

1. How to identify inter-sheet connectors (シート間コネクタの読み方について)

/WR — Signal name (信号名)

003 : V9
- The 3-digit number indicates the destination page. (3桁の数字は信号の行先ページ数を示します。)
- This indicates the location of the counter inter-sheet connector. (The alphabet indicates horizontal direction and the number indicates vertical direction.) 対応するシート間コネクタのあるロケーションを示します。(アルファベットが水平方向、数字が垂直方向)

XX : **not installed** (実装しない)
(F) : **Metal Film Resistor** (金属被膜抵抗)
(マ) : **Mylar Capacitor** (マイラーコンデンサー)
(フ) : **Film Capacitor** (フィルムコンデンサー)

CLOCK SYSTEM

■ DSP CIRCUIT DIAGRAM 003 (02R96)

■ DSP CIRCUIT DIAGRAM 004 (02R96)

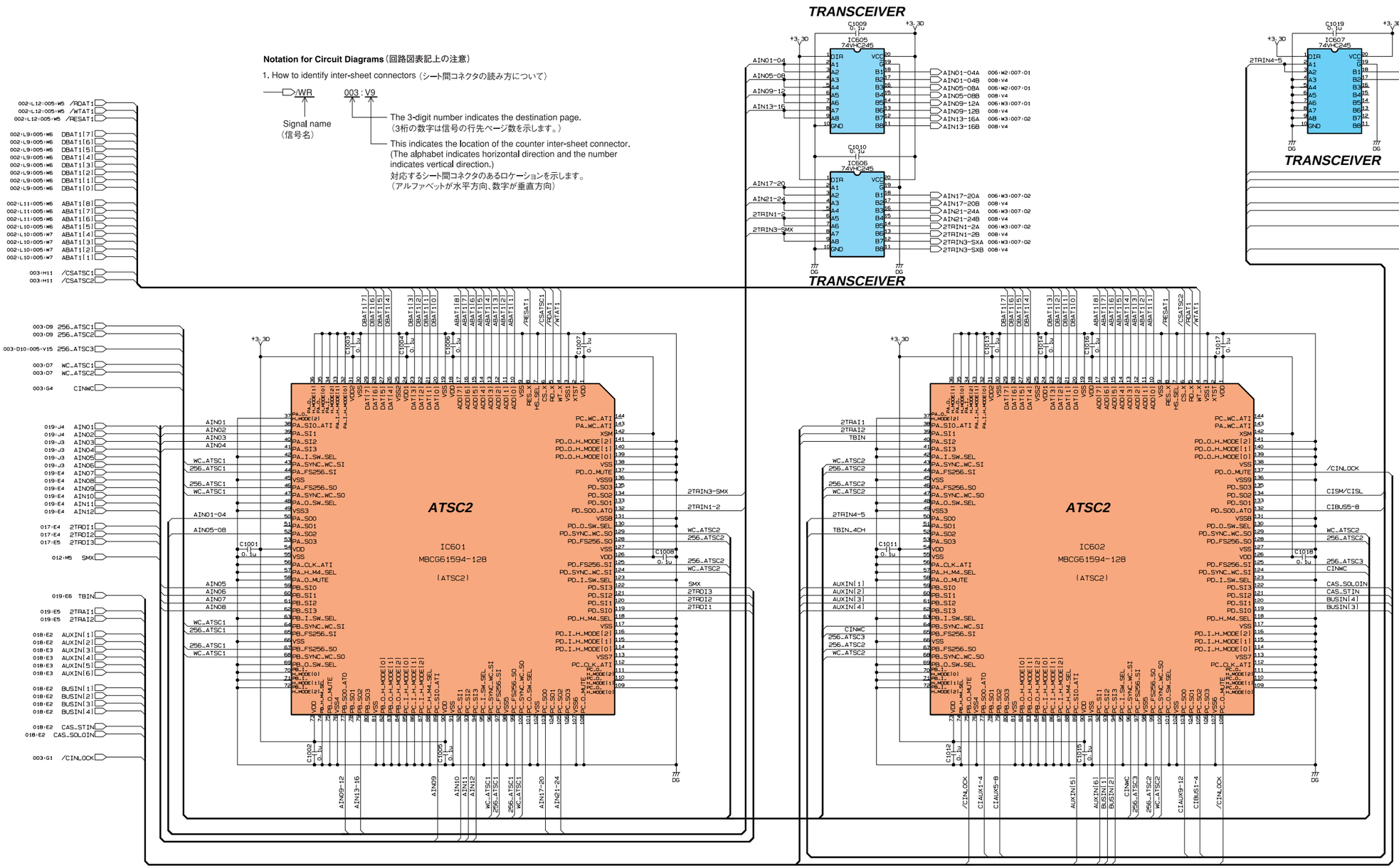
02R96

Notation for Circuit Diagrams (回路図表記上の注意)

1. How to identify inter-sheet connectors (シート間コネクタの読み方について)

/WR — Signal name (信号名)

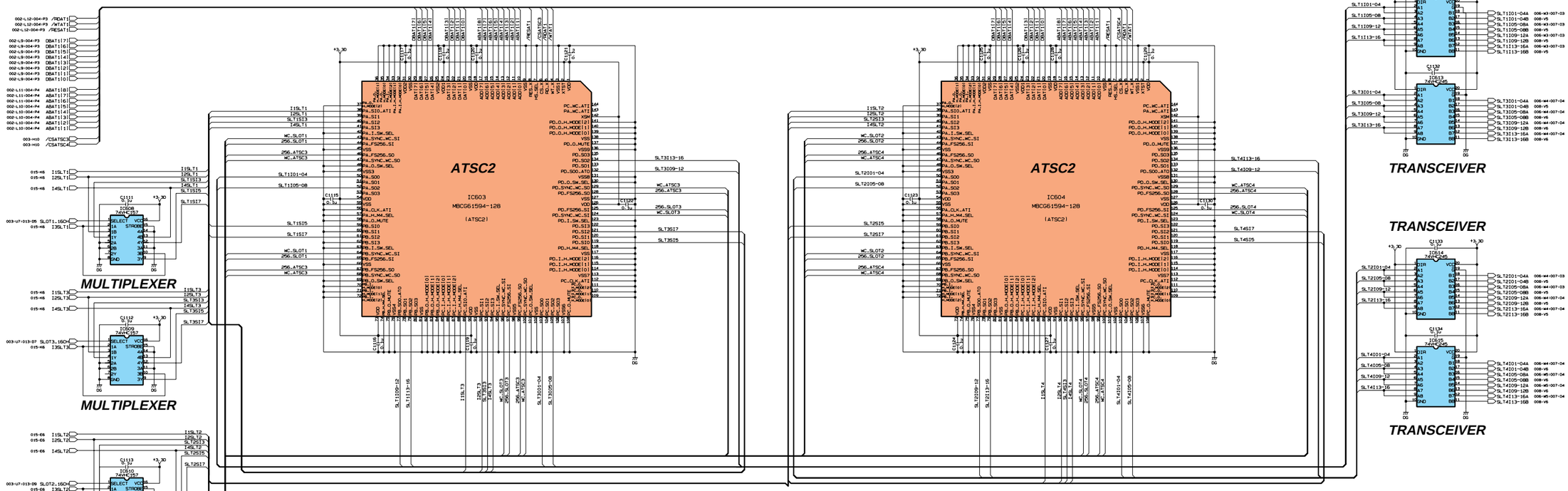
003 : V9
- The 3-digit number indicates the destination page. (3桁の数字は信号の行先ページ数を示します。)
- This indicates the location of the counter inter-sheet connector. (The alphabet indicates horizontal direction and the number indicates vertical direction.) 対応するシート間コネクタのあるロケーションを示します。(アルファベットが水平方向、数字が垂直方向)



1 2 3 4 5 6 7 8 9 10 11 12

■ DSP CIRCUIT DIAGRAM 005 (02R96)

02R96



38CC1-8823583-5 △2

Notation for Circuit Diagrams（回路図表記上の注意）

1. How to identify inter-sheet connectors（シート間コネクタの読み方について）

/WR — Signal name（信号名）

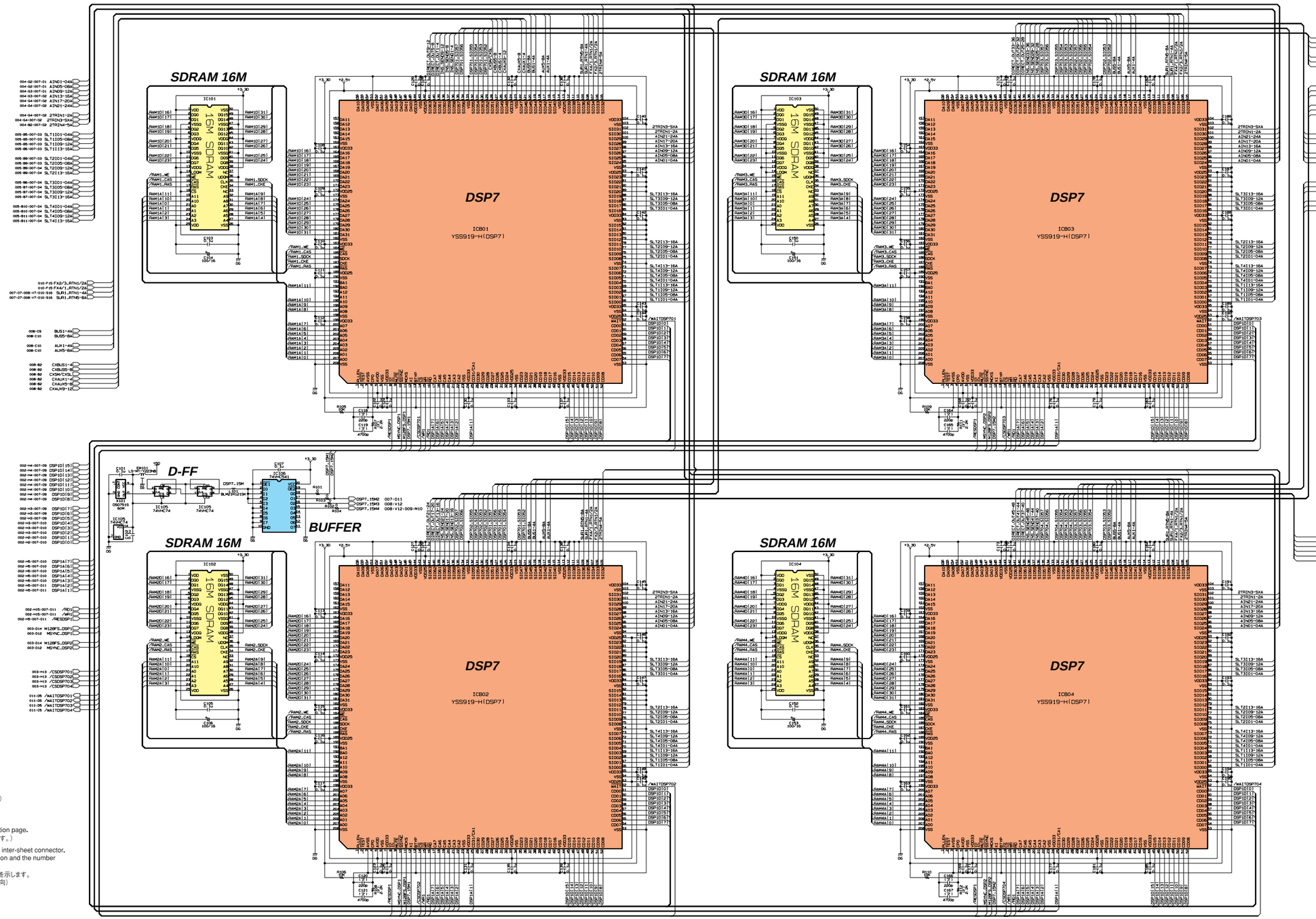
003 : V9
- The 3-digit number indicates the destination page.（3桁の数字は信号の行先ページ数を示します。）
- This indicates the location of the counter inter-sheet connector. (The alphabet indicates horizontal direction and the number indicates vertical direction.) 対応するシート間コネクタのあるロケーションを示します。（アルファベットが水平方向、数字が垂直方向）

ATSC2 IN

■ DSP CIRCUIT DIAGRAM 005 (02R96)

■ DSP CIRCUIT DIAGRAM 006 (02R96)

02R96



Notation for Circuit Diagrams（回路図表記上の注意）

1. How to identify inter-sheet connectors（シート間コネクタの読み方について）

WR — Signal name（信号名）

003 : V9
- The 3-digit number indicates the destination page.（3桁の数字は信号の行先ページ数を示します。）
- This indicates the location of the counter inter-sheet connector. (The alphabet indicates horizontal direction and the number indicates vertical direction.)
  対応するシート間コネクタのあるロケーションを示します。
  （アルファベットが水平方向、数字が垂直方向）

(F) : Metal Film Resistor (金属被膜抵抗)
(マ) : Mylar Capacitor (マイラーコンデンサー)

38CC1-8823583-6

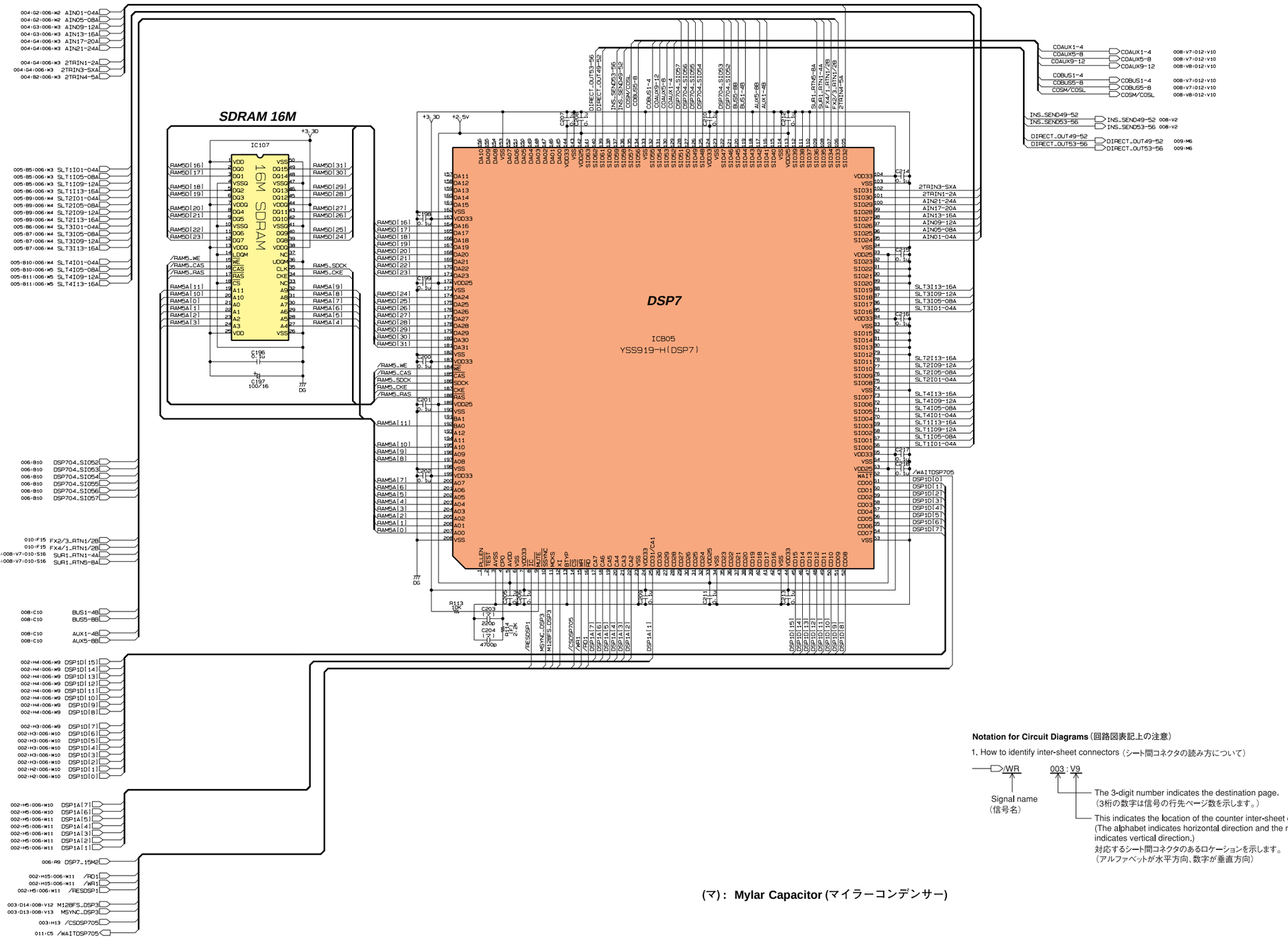
DSP7

■ DSP CIRCUIT DIAGRAM 006 (02R96)

31

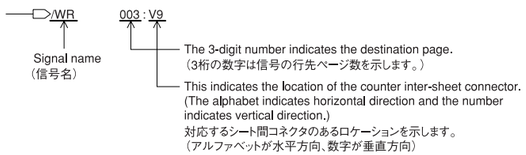
■ DSP CIRCUIT DIAGRAM 007 (02R96)

02R96



Notation for Circuit Diagrams (回路図表記上の注意)

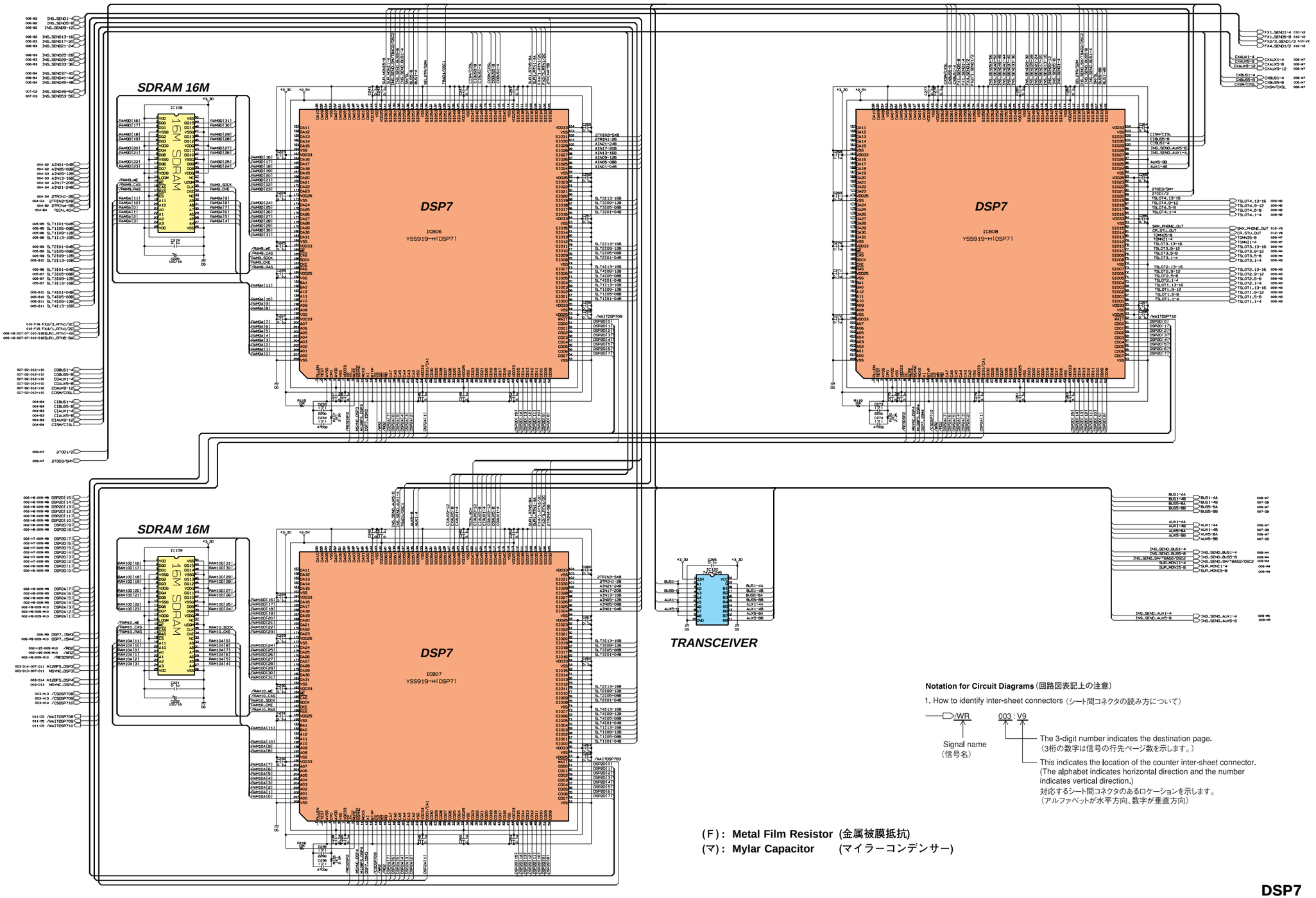
1. How to identify inter-sheet connectors (シート間コネクタの読み方について)



(マ) : **Mylar Capacitor** (マイラーコンデンサー)

■ DSP CIRCUIT DIAGRAM 008 (02R96)

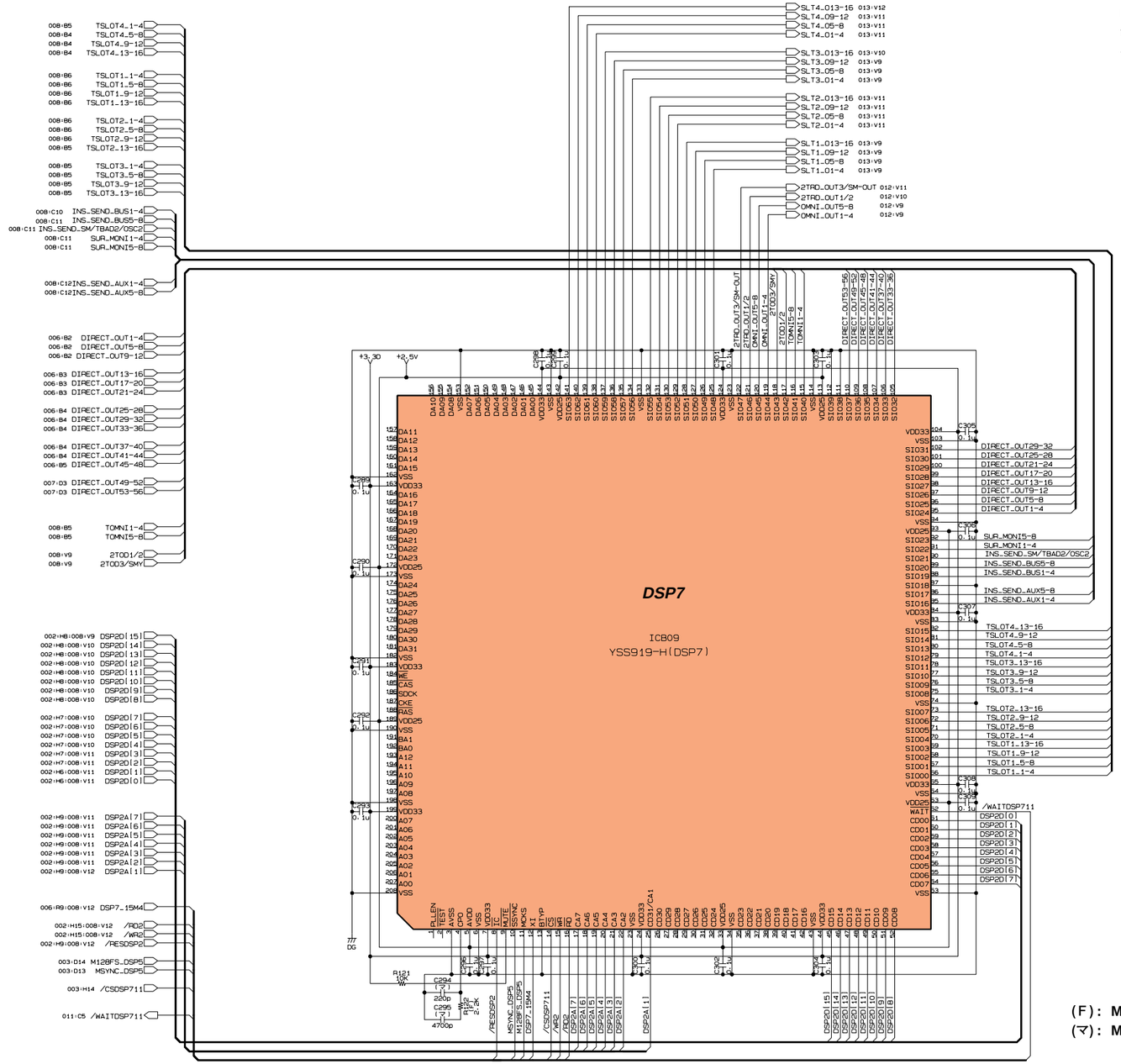
02R96



(F)： **Metal Film Resistor** (金属被膜抵抗)
(マ)： **Mylar Capacitor** (マイラーコンデンサー)

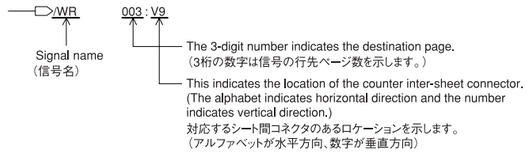
■ DSP CIRCUIT DIAGRAM 009 (02R96)

02R96



Notation for Circuit Diagrams（回路図表記上の注意）

1. How to identify inter-sheet connectors（シート間コネクタの読み方について）



(F) : **Metal Film Resistor** (金属被膜抵抗)
(マ) : **Mylar Capacitor** (マイラーコンデンサー)

■ DSP CIRCUIT DIAGRAM 010 (02R96)

02R96

DRAM 4M

DRAM 4M

DRAM 4M

DRAM 4M

DRAM 4M

DRAM 4M

DRAM 4M

DRAM 4M

DSP6

ICA01
YSS910-S(DSP6)

DSP6

ICA02
YSS910-S(DSP6)

DSP6

ICA03
YSS910-S(DSP6)

DSP6

ICA04
YSS910-S(DSP6)

TRANSCEIVER

TRANSCEIVER

Notation for Circuit Diagrams（回路図表記上の注意）

1. How to identify inter-sheet connectors（シート間コネクタの読み方について）

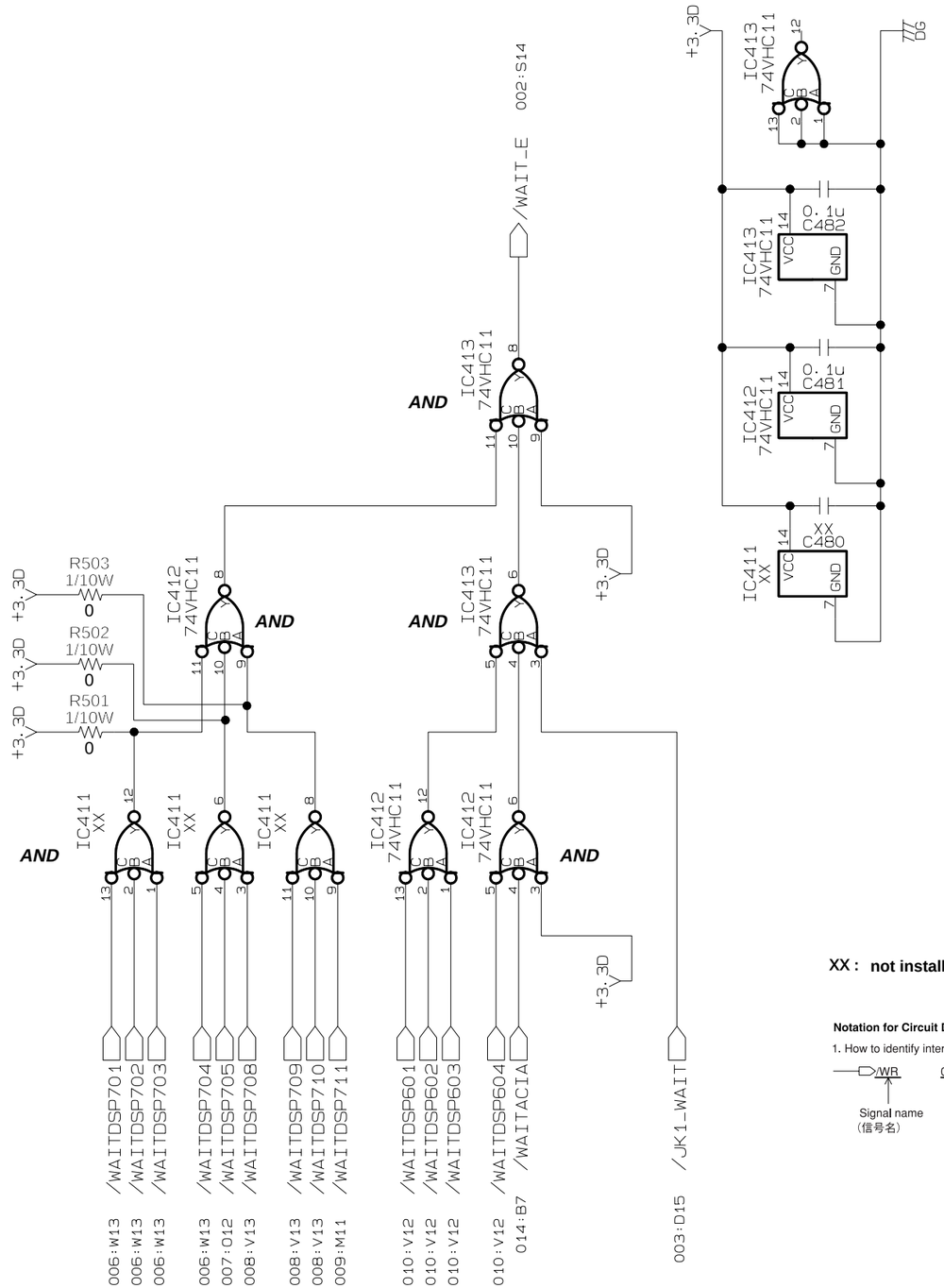
/WR　003 : V9

Signal name（信号名）

The 3-digit number indicates the destination page.
（3桁の数字は信号の行先ページ数を示します。）

This indicates the location of the counter inter-sheet connector.
(The alphabet indicates horizontal direction and the number indicates vertical direction.)
対応するシート間コネクタのあるロケーションを示します。
（アルファベットが水平方向、数字が垂直方向）

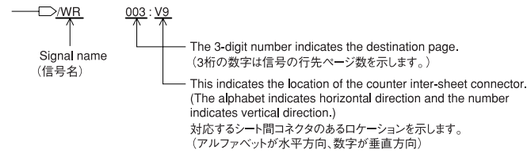
■ DSP CIRCUIT DIAGRAM 011 (02R96)



XX： **not installed (実装しない)**

Notation for Circuit Diagrams（回路図表記上の注意）

1. How to identify inter-sheet connectors（シート間コネクタの読み方について）

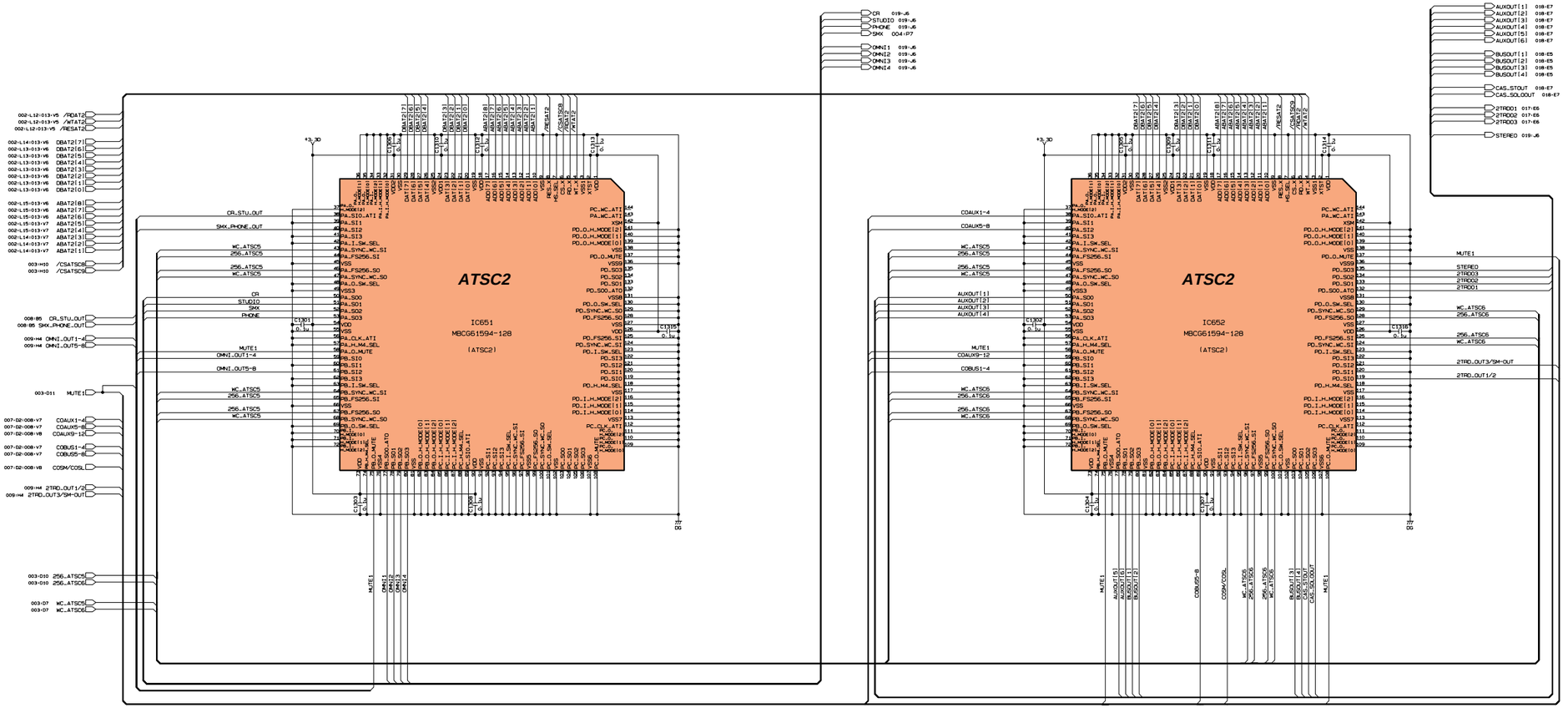


WAIT GATE

■ DSP CIRCUIT DIAGRAM 011 (02R96)

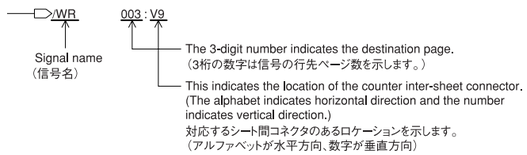
■ DSP CIRCUIT DIAGRAM 012 (02R96)

02R96



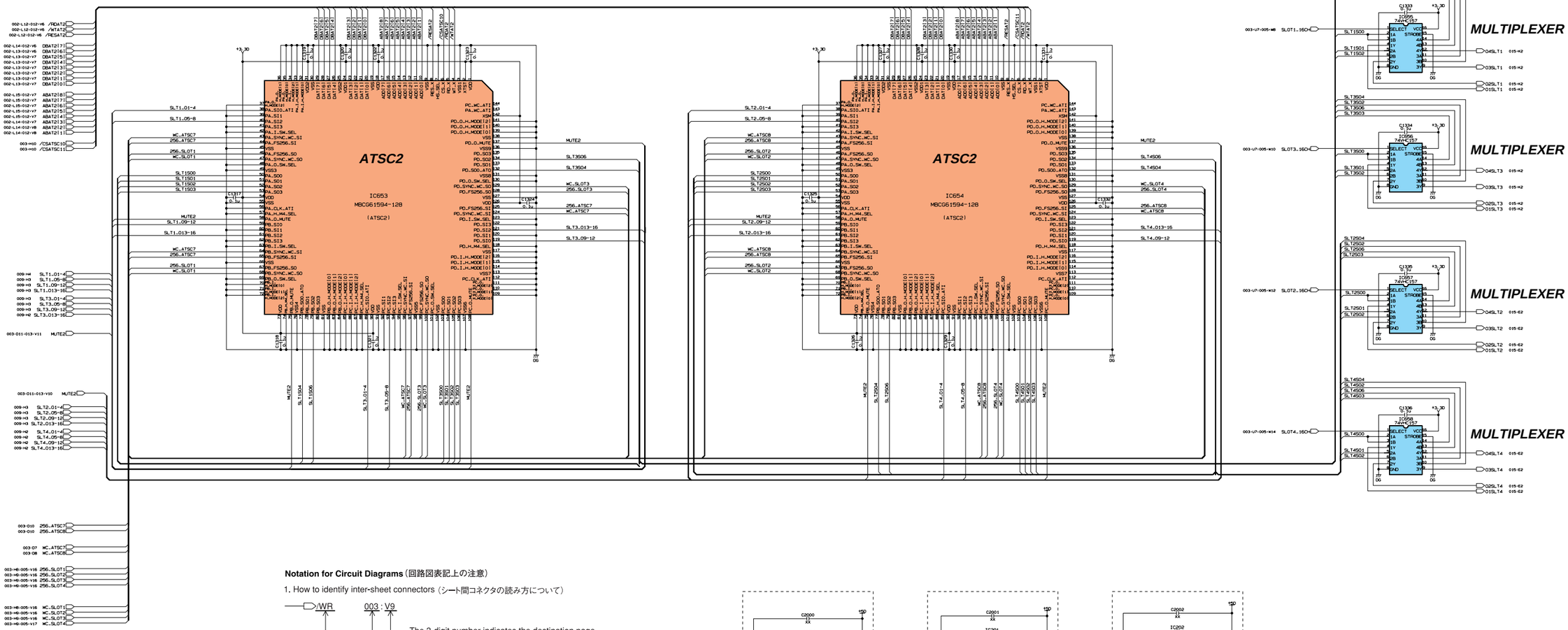
Notation for Circuit Diagrams（回路図表記上の注意）

1. How to identify inter-sheet connectors（シート間コネクタの読み方について）



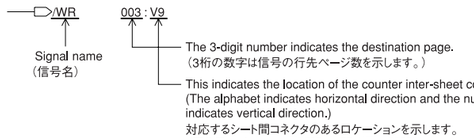
■ DSP CIRCUIT DIAGRAM 013 (02R96)

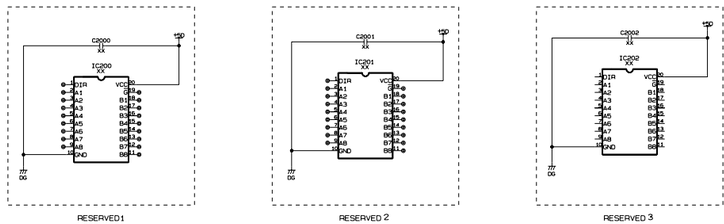
02R96



Notation for Circuit Diagrams（回路図表記上の注意）

1. How to identify inter-sheet connectors（シート間コネクタの読み方について）





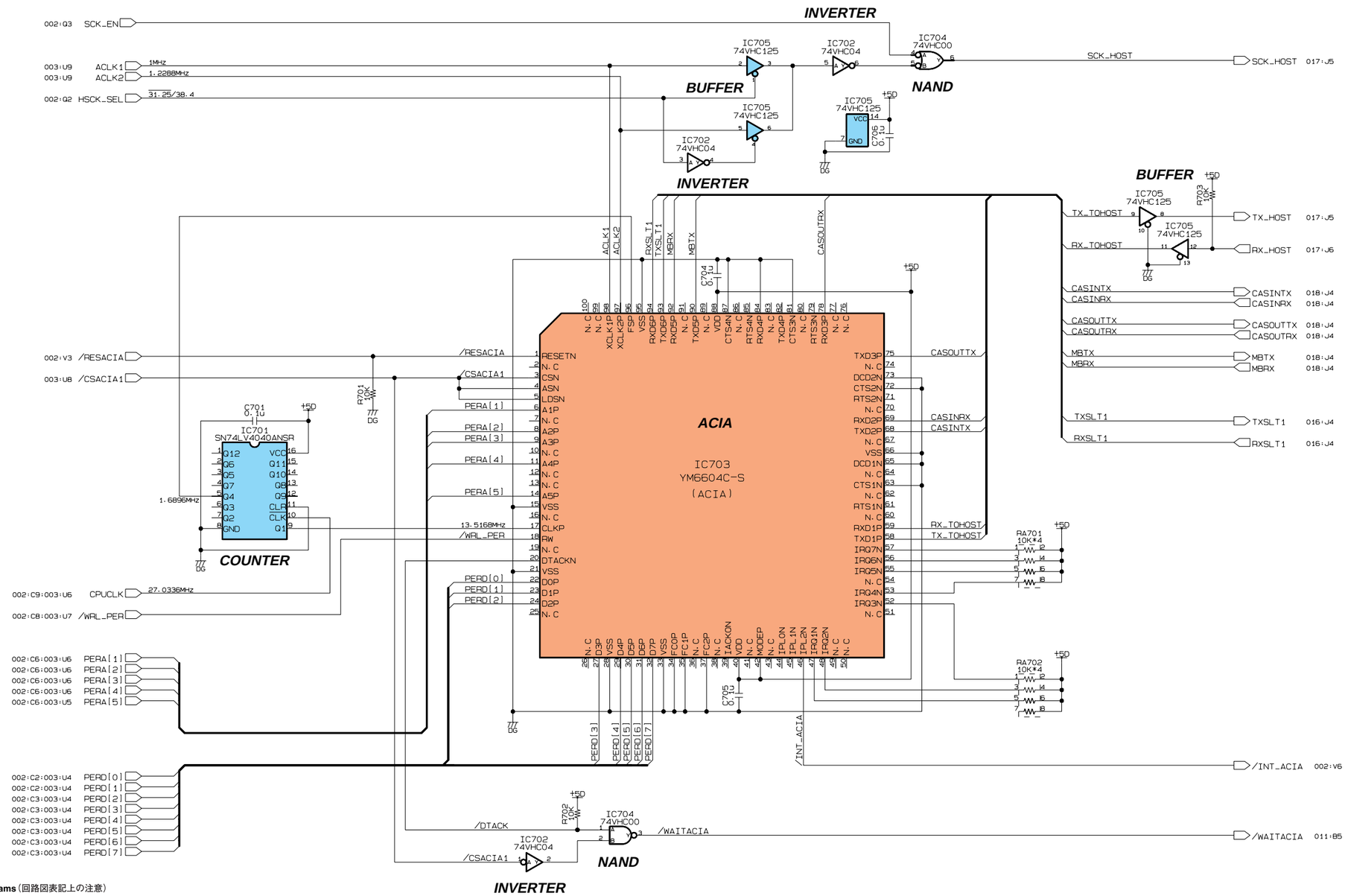
ATSC2 OUT

■ DSP CIRCUIT DIAGRAM 013 (02R96)

38CC1-8823583-13 8

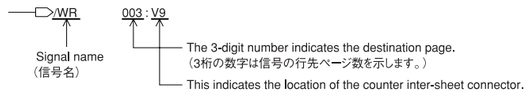
■ DSP CIRCUIT DIAGRAM 014 (02R96)

02R96



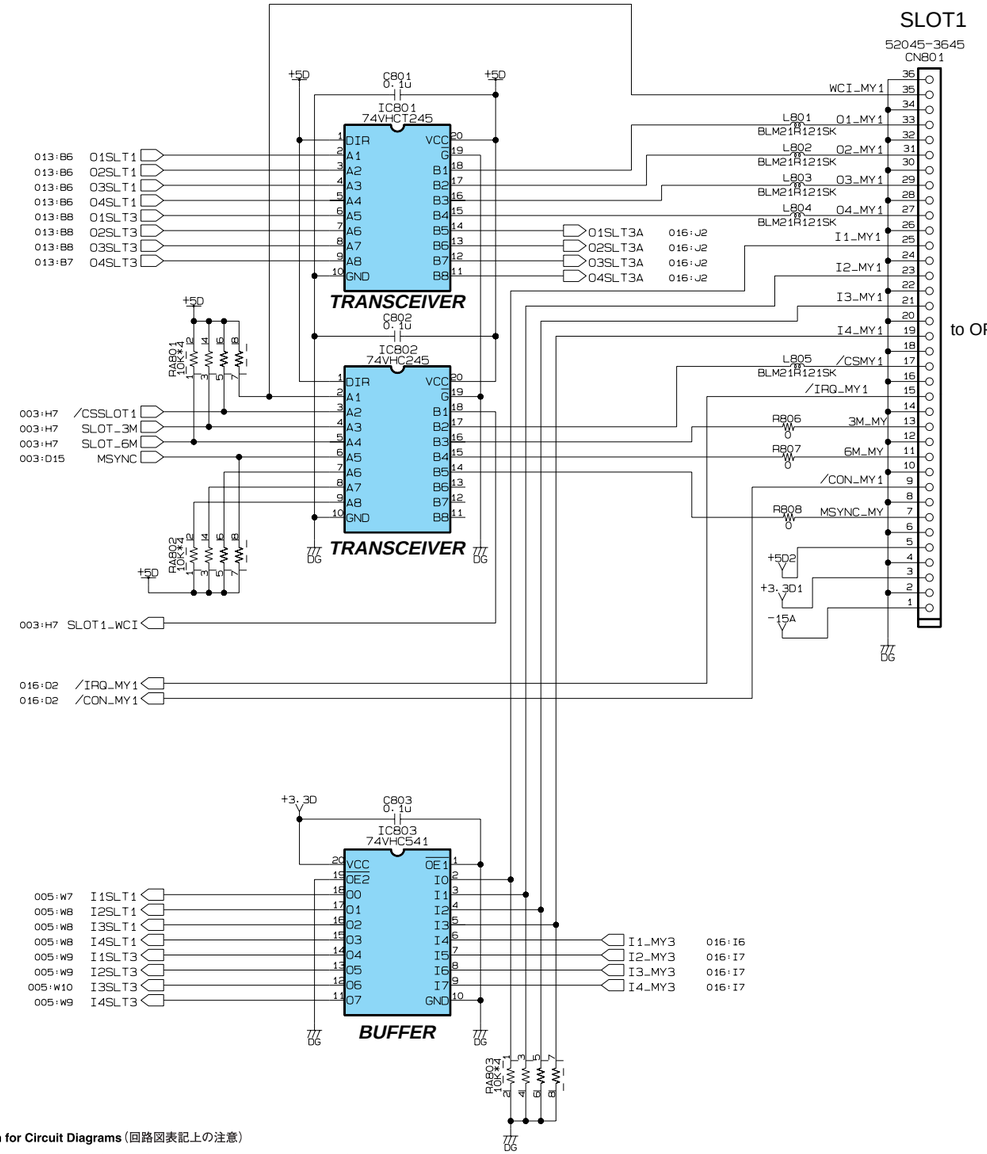
Notation for Circuit Diagrams (回路図表記上の注意)

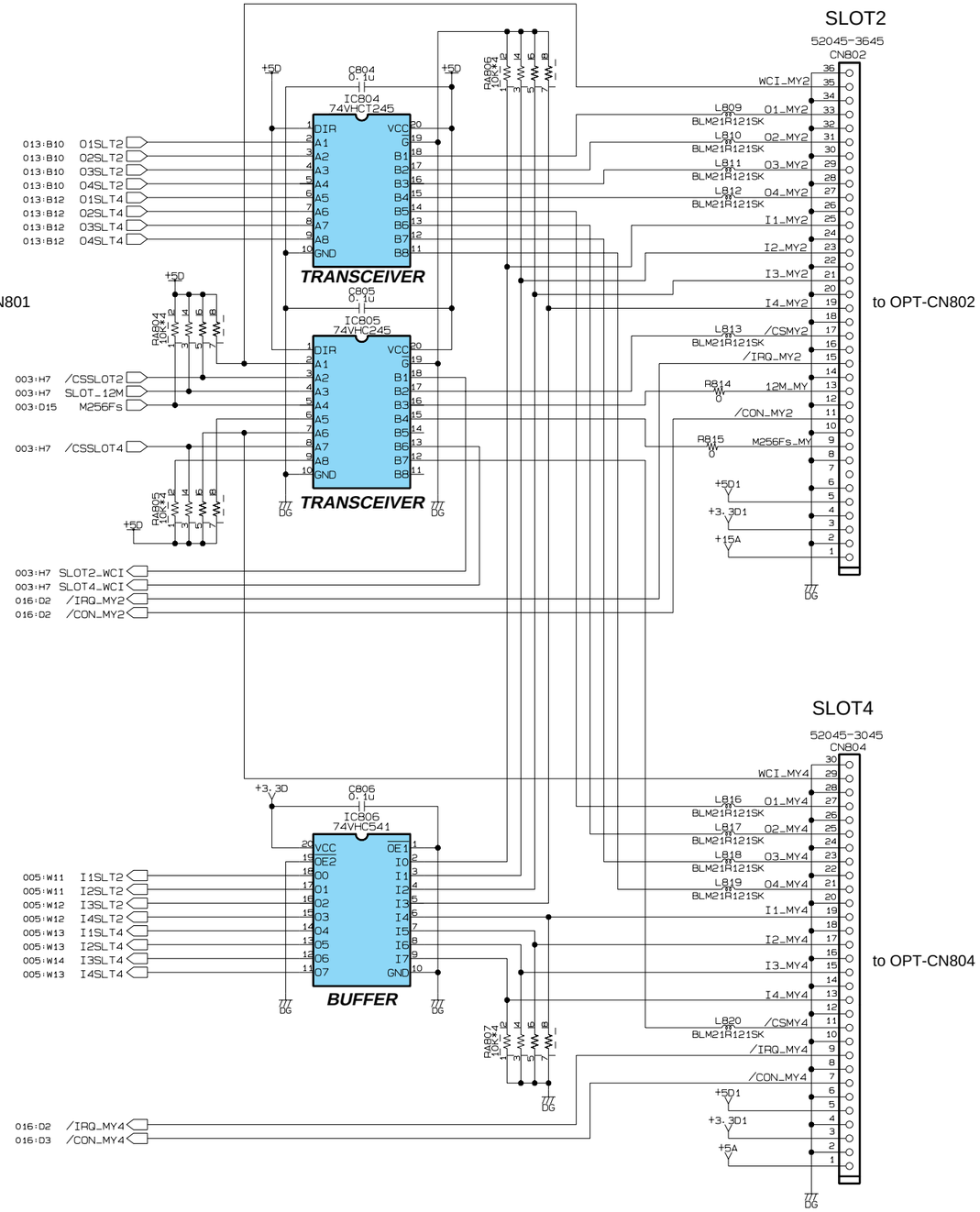
1. How to identify inter-sheet connectors (シート間コネクタの読み方について)



■ DSP CIRCUIT DIAGRAM 015 (02R96)

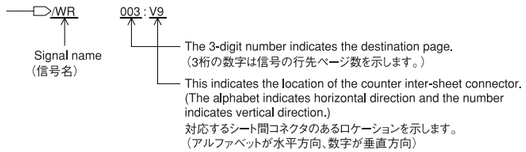
02R96





Notation for Circuit Diagrams（回路図表記上の注意）

1. How to identify inter-sheet connectors（シート間コネクタの読み方について）

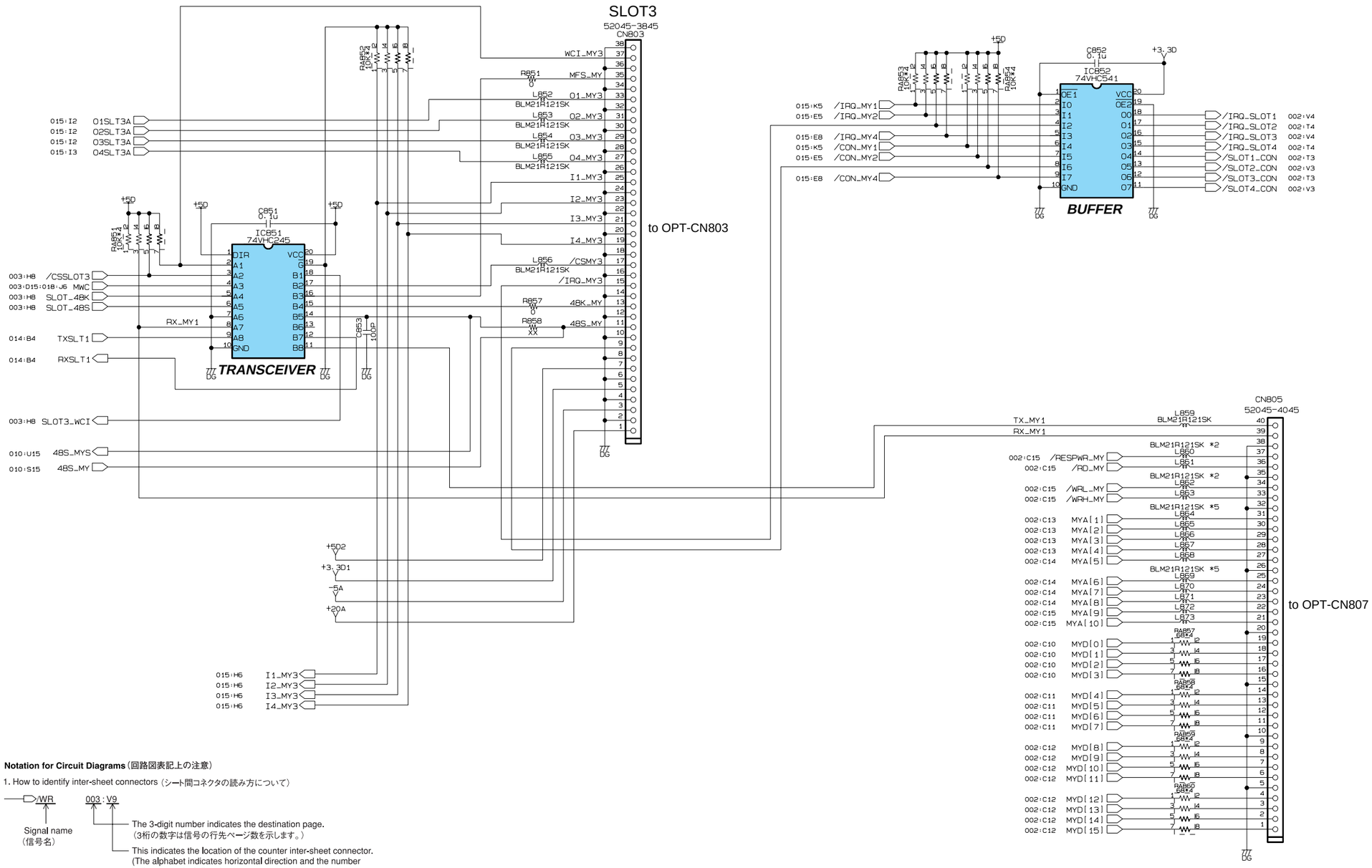


MY SLOT I/F

■ DSP CIRCUIT DIAGRAM 015 (02R96)

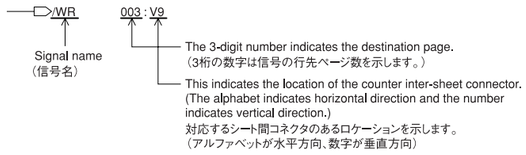
■ DSP CIRCUIT DIAGRAM 016 (02R96)

02R96



Notation for Circuit Diagrams（回路図表記上の注意）

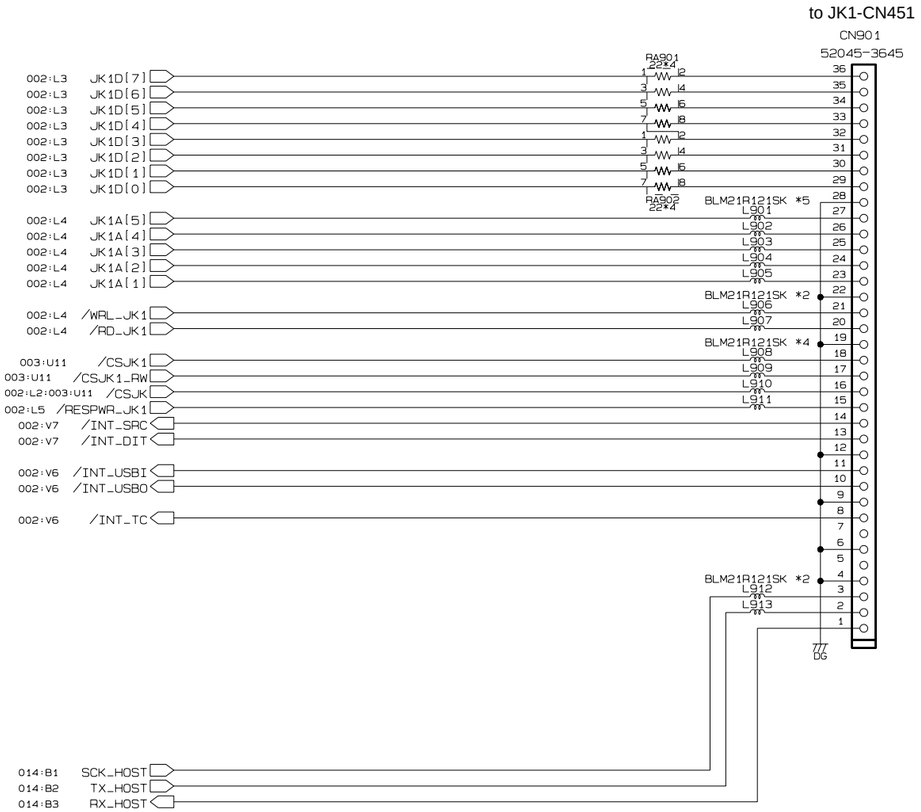
1. How to identify inter-sheet connectors（シート間コネクタの読み方について）

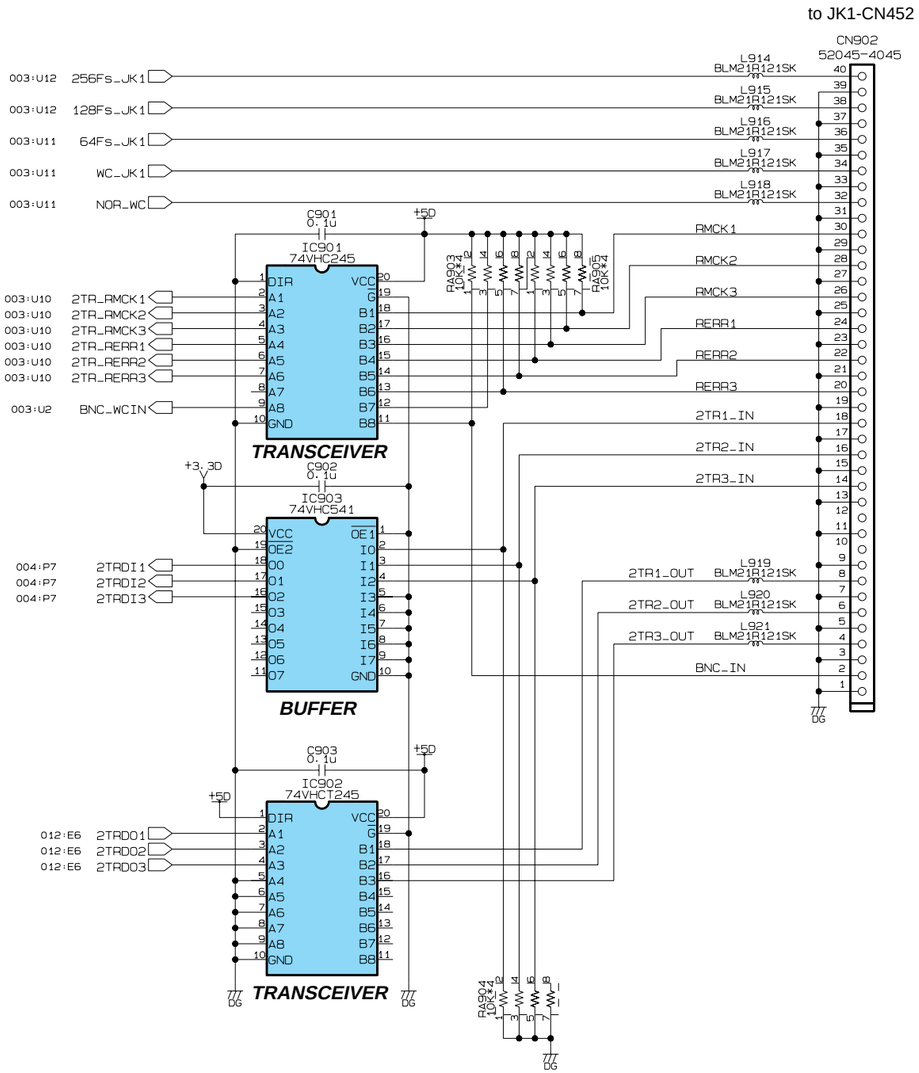


XX : **not installed (実装しない)**

■ DSP CIRCUIT DIAGRAM 017 (02R96)

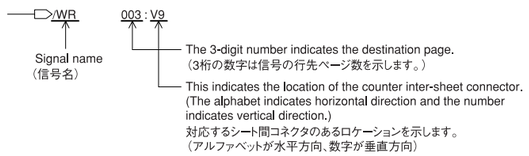
02R96





Notation for Circuit Diagrams（回路図表記上の注意）

1. How to identify inter-sheet connectors（シート間コネクタの読み方について）

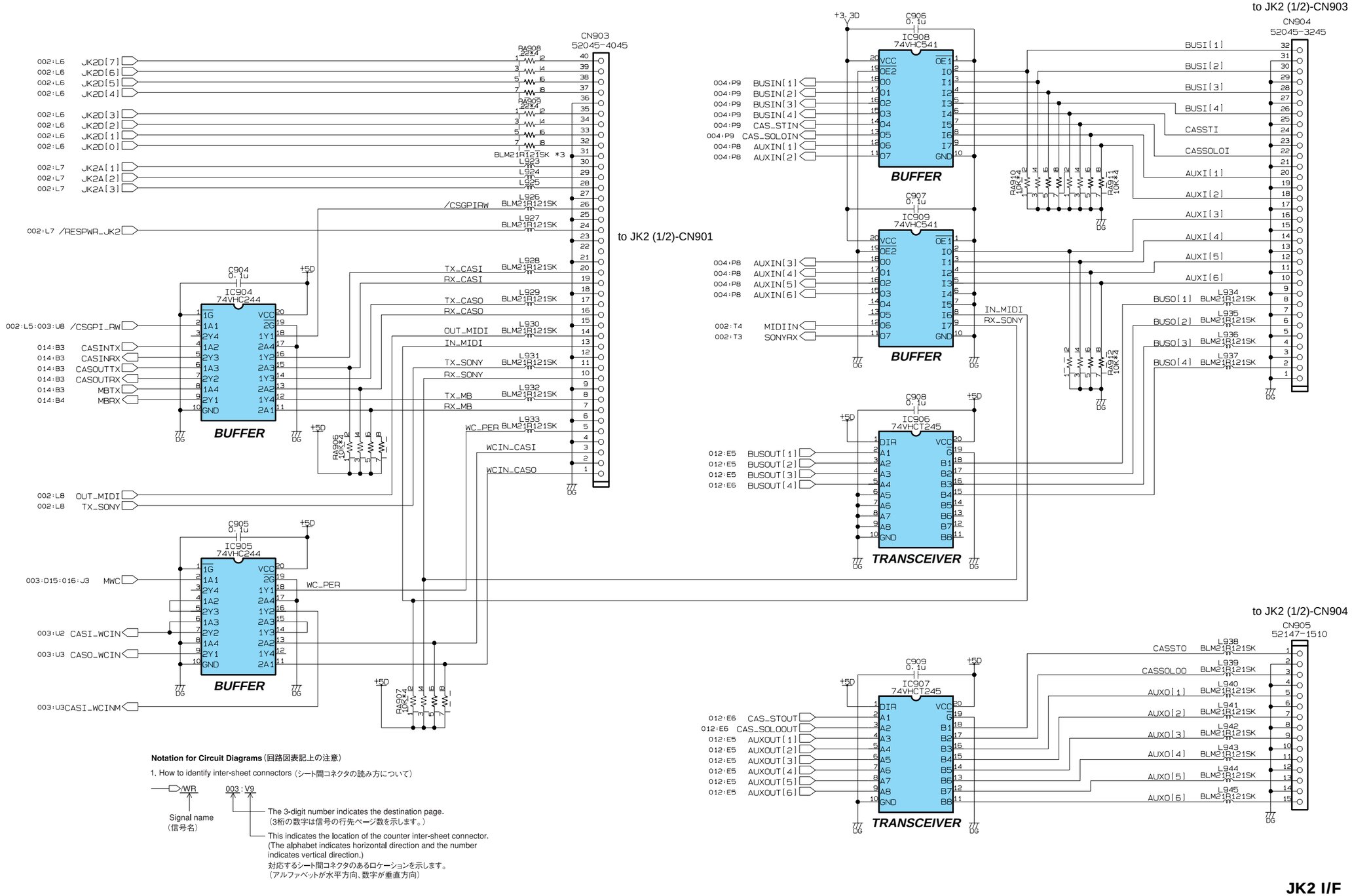


JK1 I/F

■ DSP CIRCUIT DIAGRAM 017 (02R96)

■ DSP CIRCUIT DIAGRAM 018 (02R96)

02R96

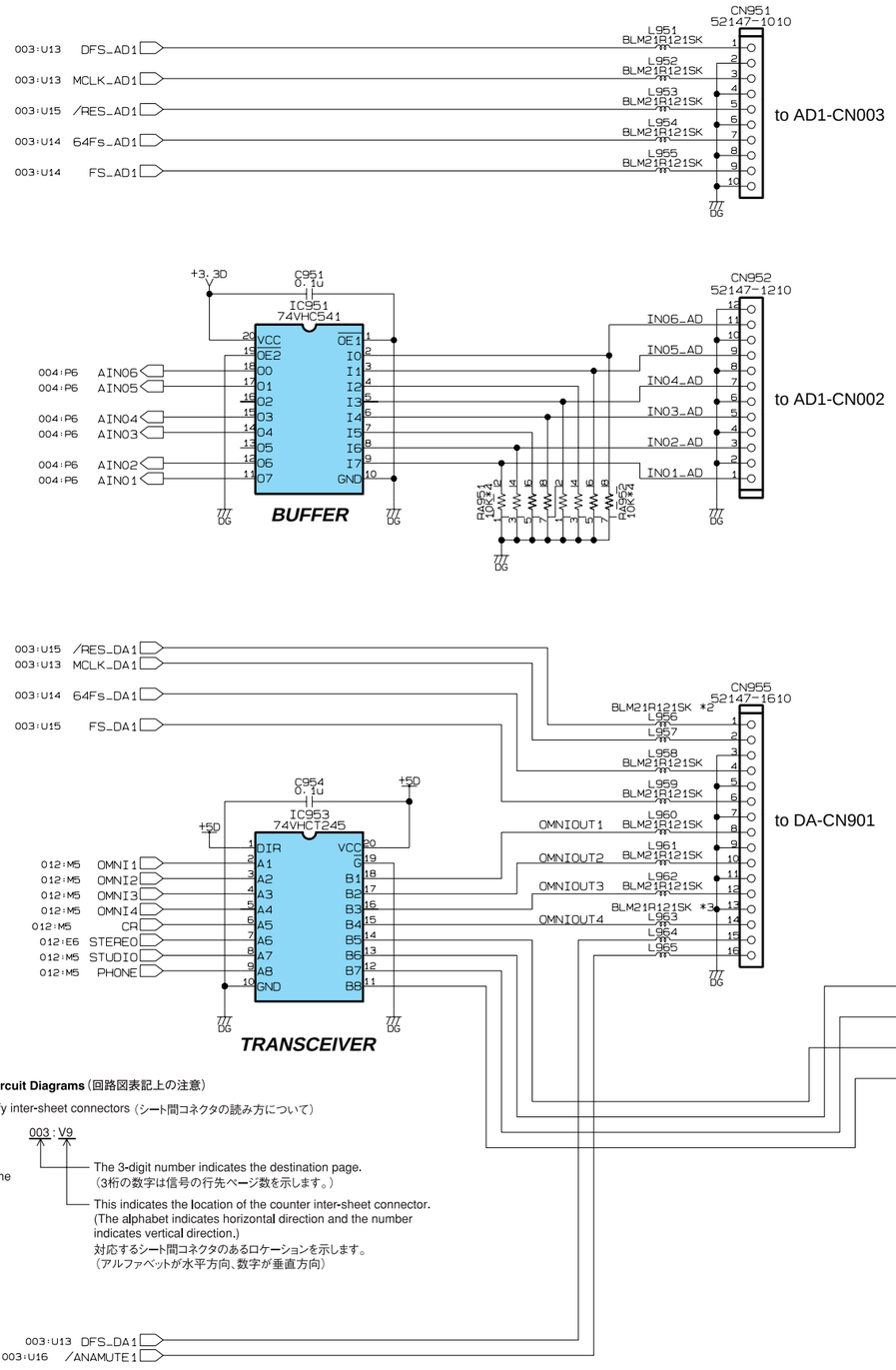


Notation for Circuit Diagrams (回路図表記上の注意)

1. How to identify inter-sheet connectors (シート間コネクタの読み方について)

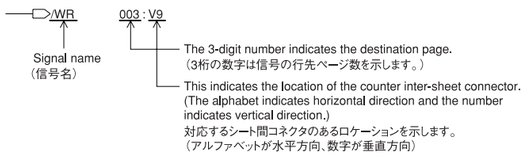
■ DSP CIRCUIT DIAGRAM 019 (02R96)

02R96



Notation for Circuit Diagrams（回路図表記上の注意）

1. How to identify inter-sheet connectors（シート間コネクタの読み方について）



AD, DA I/F

■ DSP CIRCUIT DIAGRAM 019 (02R96)

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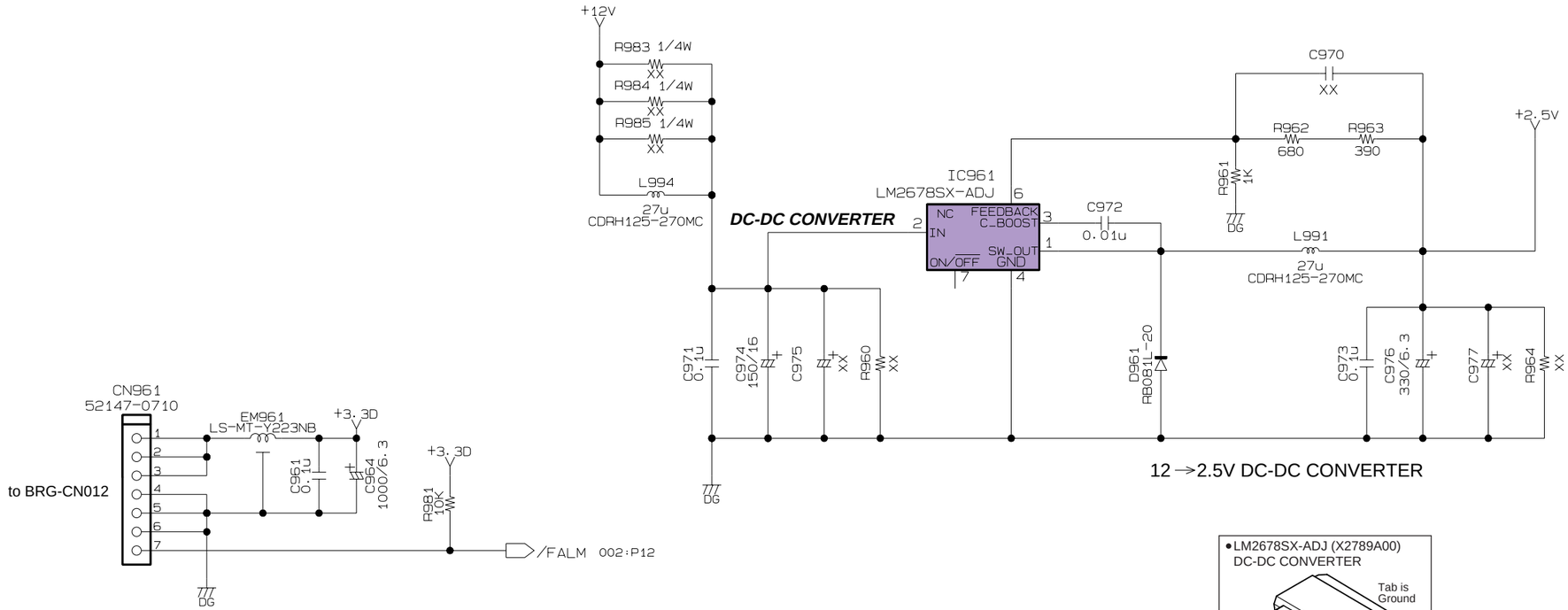
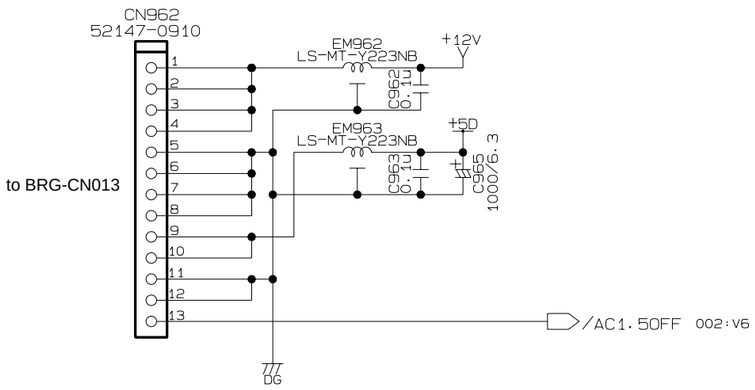
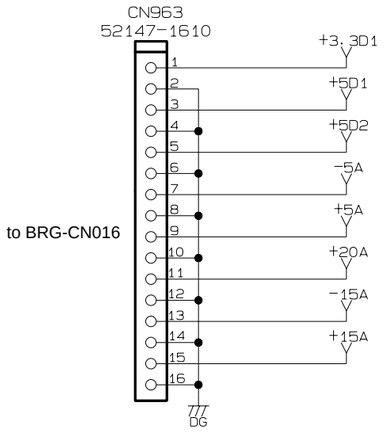
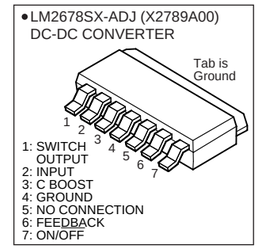
■ DSP CIRCUIT DIAGRAM 020 (02R96)





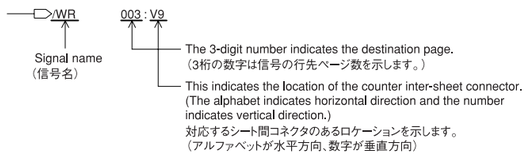




XX : not installed (実装しない)

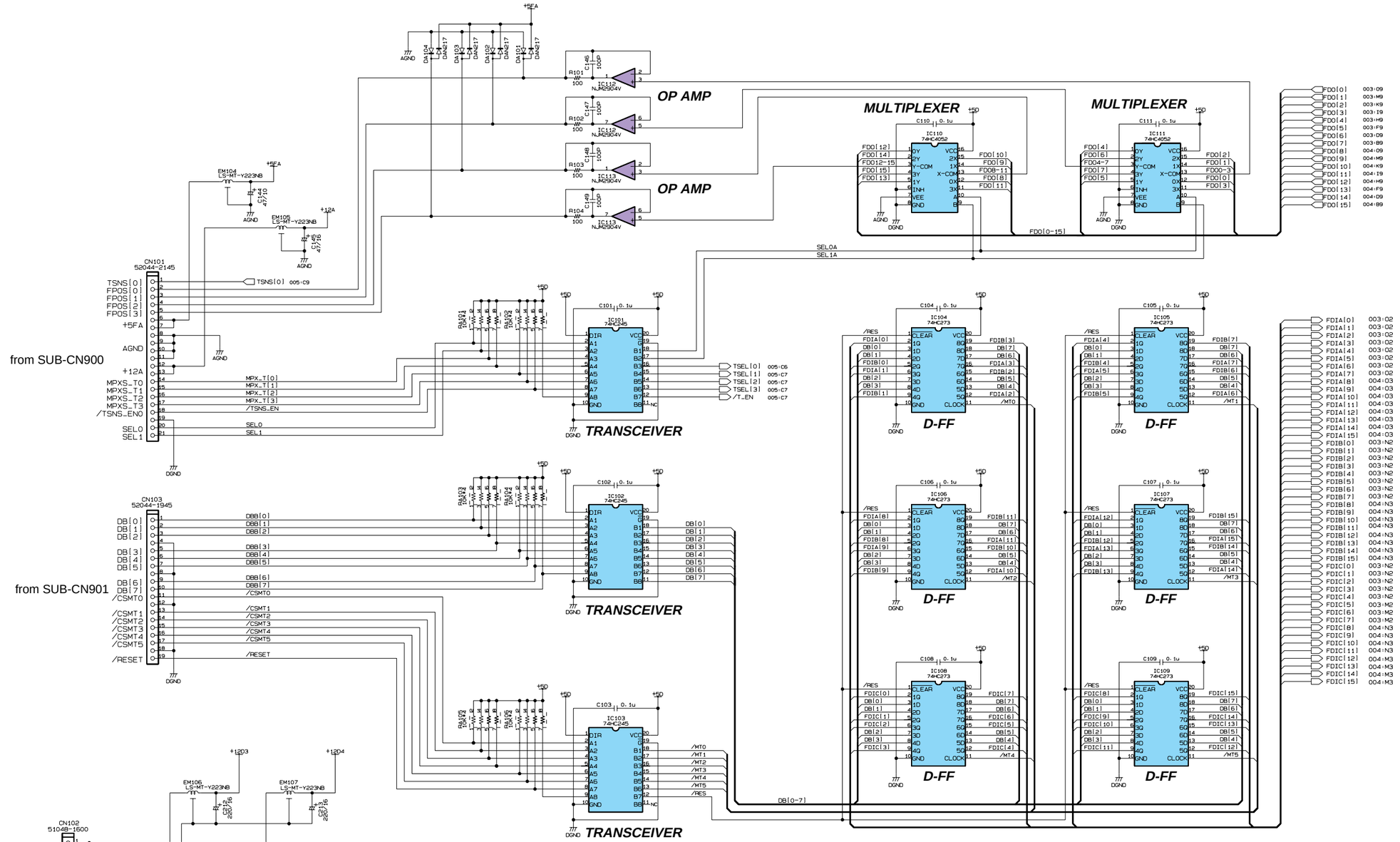
Notation for Circuit Diagrams（回路図表記上の注意）

1. How to identify inter-sheet connectors（シート間コネクタの読み込について）



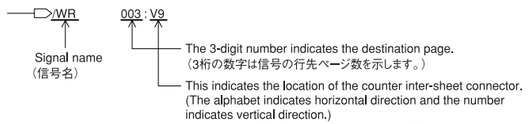
■ FD1 CIRCUIT DIAGRAM 002 (02R96)

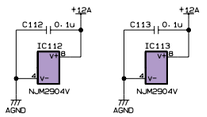
02R96



Notation for Circuit Diagrams（回路図表記上の注意）

1. How to identify inter-sheet connectors（シート間コネクタの読み方について）





38CC1-8823588-2

Interface Section

■ FD1 CIRCUIT DIAGRAM 002 (02R96)

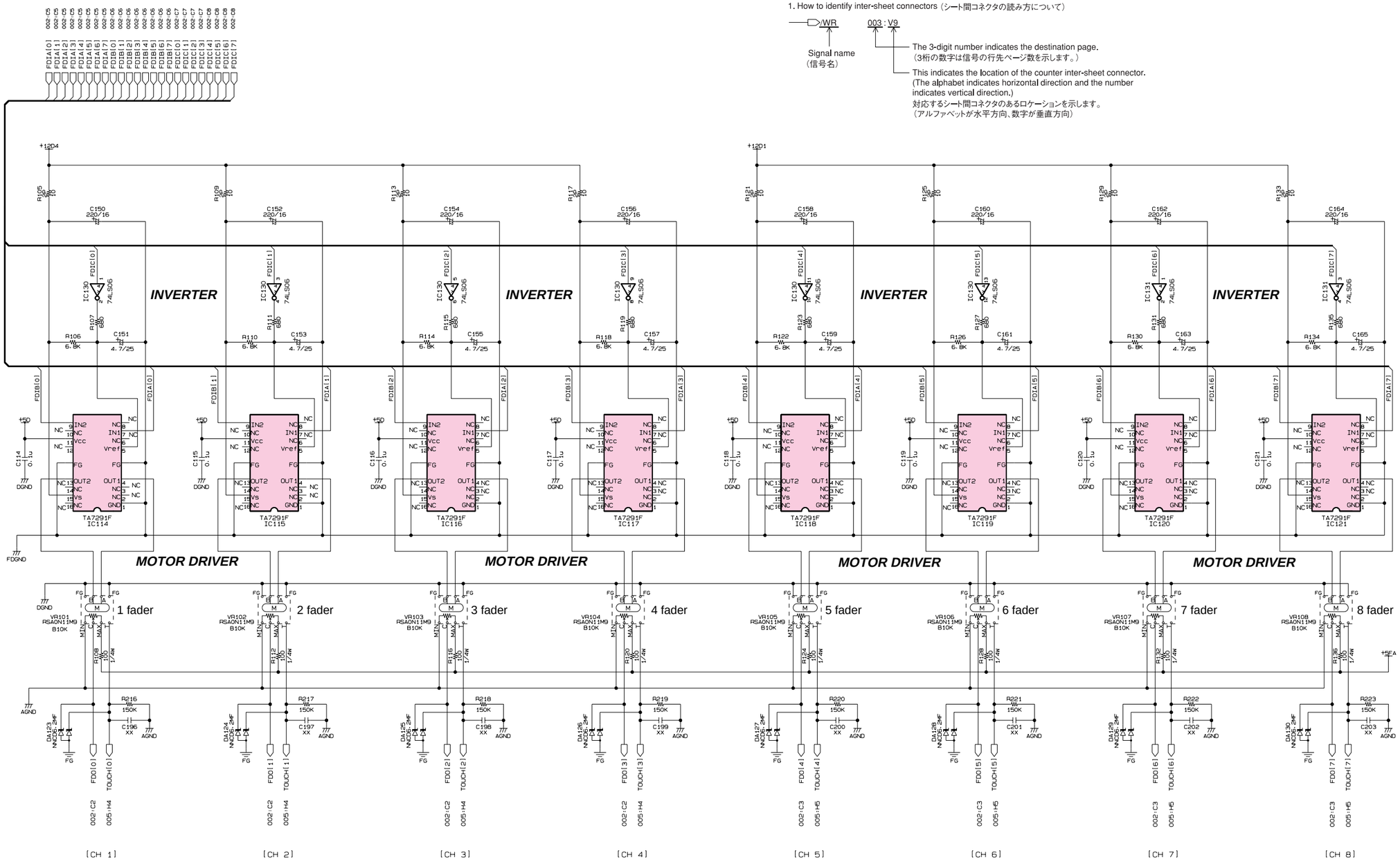
■ FD1 CIRCUIT DIAGRAM 003 (02R96)

Notation for Circuit Diagrams（回路図表記上の注意）

1. How to identify inter-sheet connectors（シート間コネクタの読み方について）

/WR — Signal name（信号名）

003 : V9
- The 3-digit number indicates the destination page.（3桁の数字は信号の行先ページ数を示します。）
- This indicates the location of the counter inter-sheet connector. (The alphabet indicates horizontal direction and the number indicates vertical direction.) 対応するシート間コネクタのあるロケーションを示します。（アルファベットが水平方向、数字が垂直方向）



XX : not installed (実装しない)

2P : 2W Metal Oxide Film Resistor (2W酸化金属被膜抵抗)

Fader Drive Section (CH1~8)

■ FD1 CIRCUIT DIAGRAM 003 (02R96)

■ FD1 CIRCUIT DIAGRAM 004 (02R96)

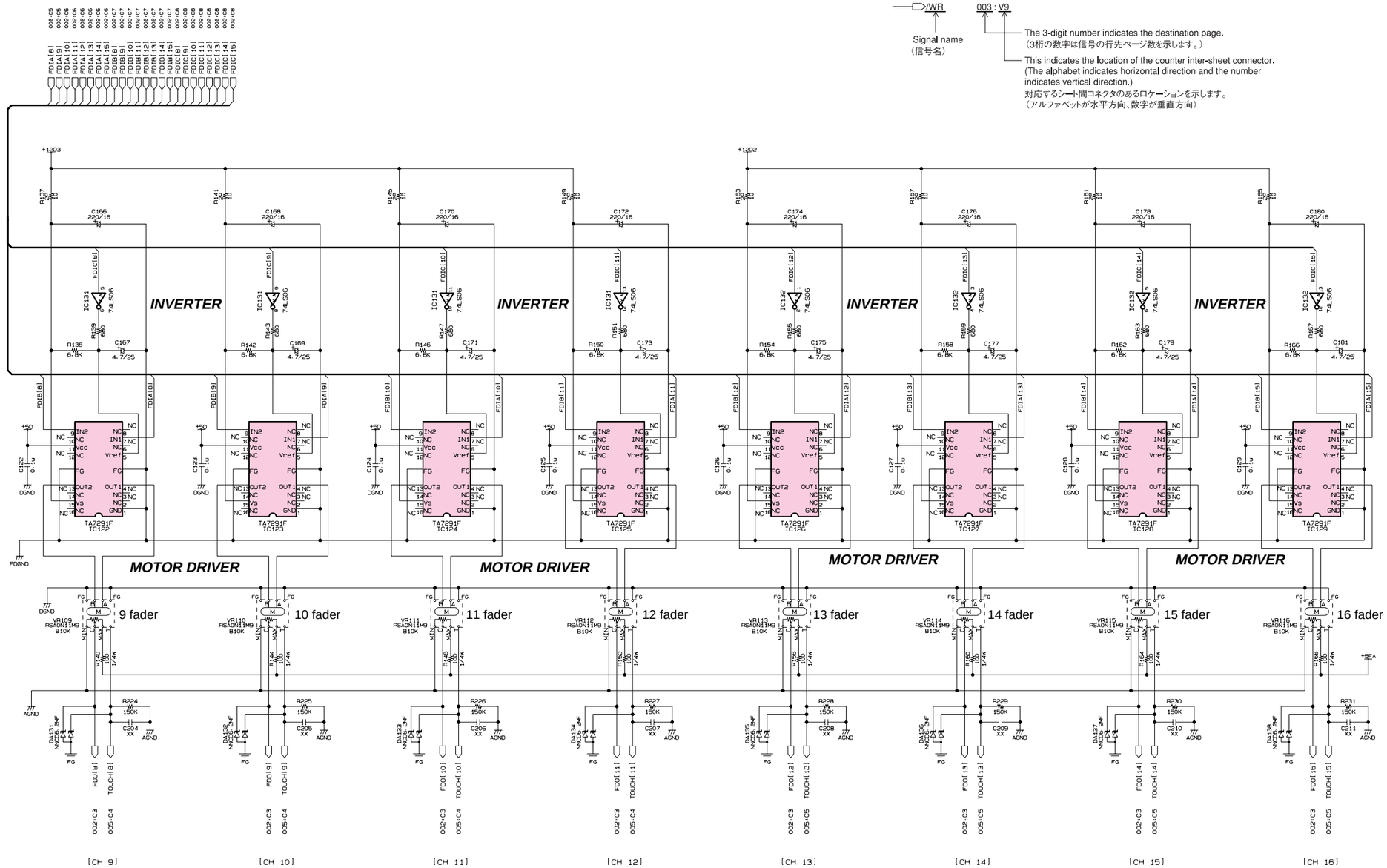
02R96

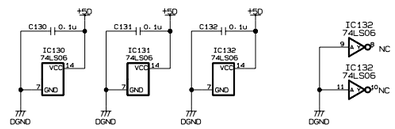
Notation for Circuit Diagrams（回路図表記上の注意）

1. How to identify inter-sheet connectors（シート間コネクタの読み方について）

/WR — Signal name（信号名）

003 : V9
- The 3-digit number indicates the destination page.（3桁の数字は信号の行先ページ数を示します。）
- This indicates the location of the counter inter-sheet connector. (The alphabet indicates horizontal direction and the number indicates vertical direction.) 対応するシート間コネクタのあるロケーションを示します。（アルファベットが水平方向、数字が垂直方向）





XX： not installed (実装しない)

2P： 2W Metal Oxide Film Resistor (2W酸化金属被膜抵抗)

Fader Drive Section (CH9~16)

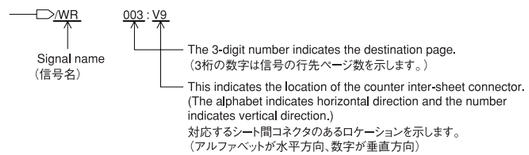
■ FD1 CIRCUIT DIAGRAM 004 (02R96)

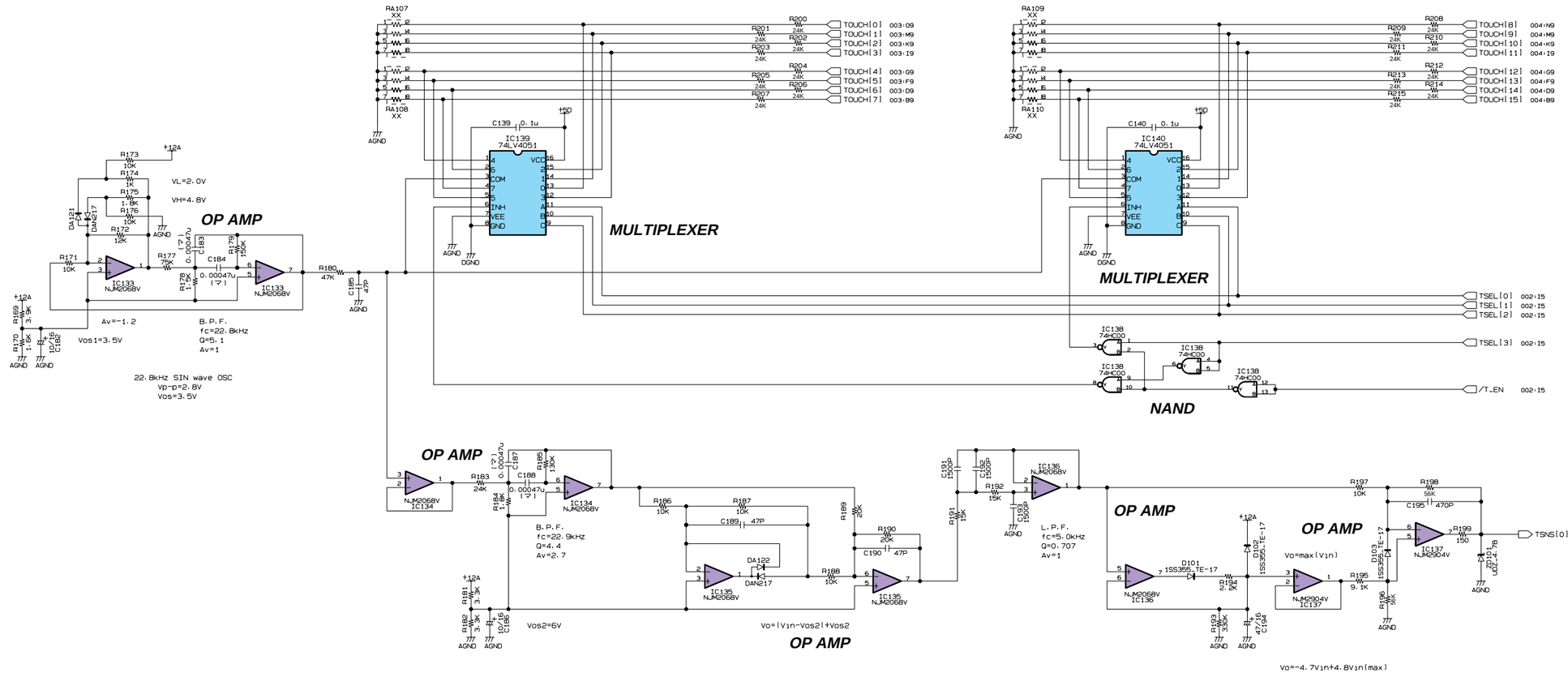
■ FD1 CIRCUIT DIAGRAM 005 (02R96)

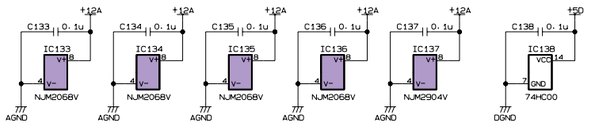
02R96

Notation for Circuit Diagrams（回路図表記上の注意）

1. How to identify inter-sheet connectors（シート間コネクタの読み方について）



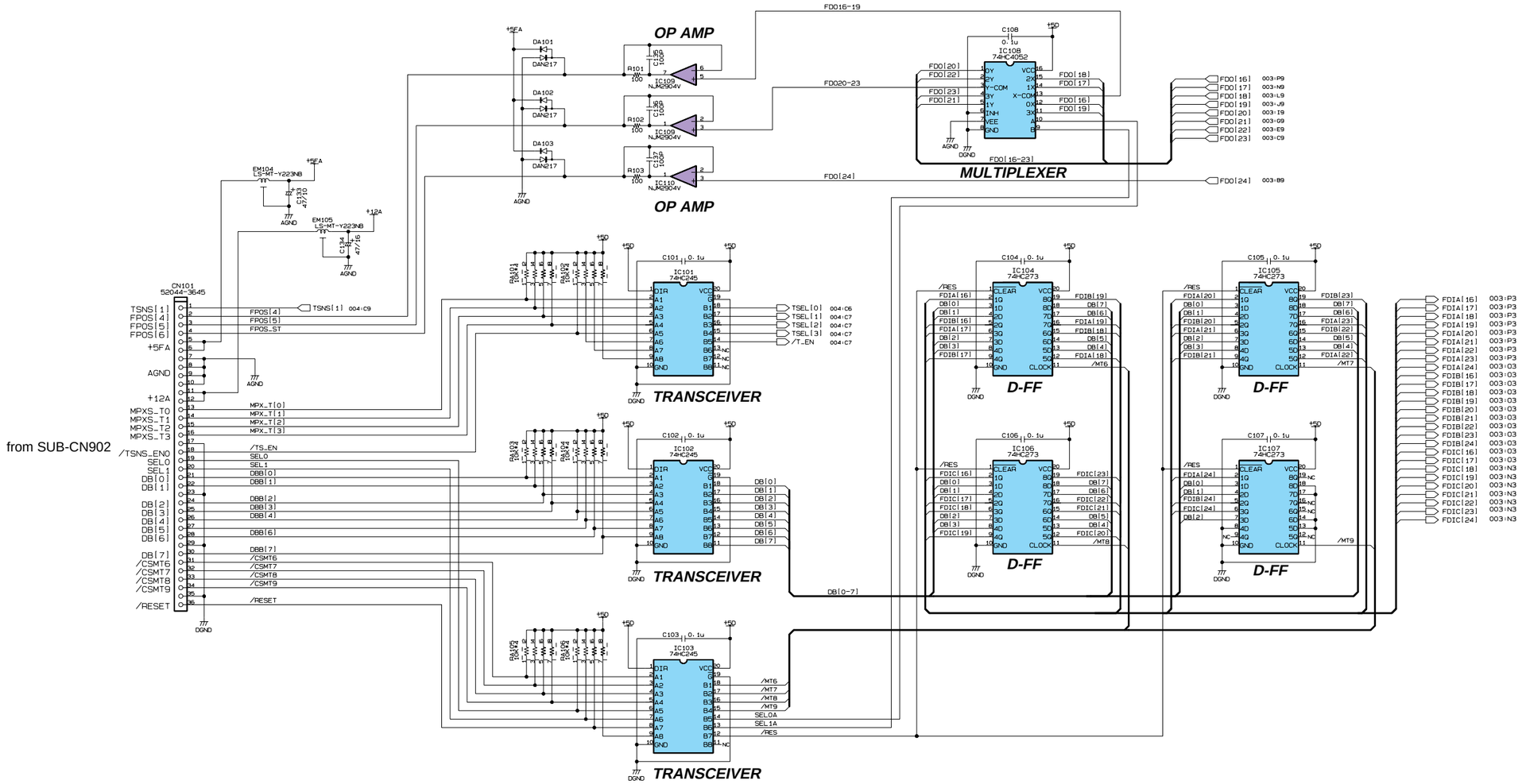




(マ) : **Mylar Capacitor** (マイラーコンデンサー)
XX : **not installed** (実装しない)

■ FD2 CIRCUIT DIAGRAM 002 (02R96)

02R96



Notation for Circuit Diagrams（回路図表記上の注意）

1. How to identify inter-sheet connectors（シート間コネクタの読み方について）

/WR — Signal name（信号名）

003 : V9
- The 3-digit number indicates the destination page.（3桁の数字は信号の行先ページ数を示します。）
- This indicates the location of the counter inter-sheet connector. (The alphabet indicates horizontal direction and the number indicates vertical direction.) 対応するシート間コネクタのあるロケーションを示します。（アルファベットが水平方向、数字が垂直方向）

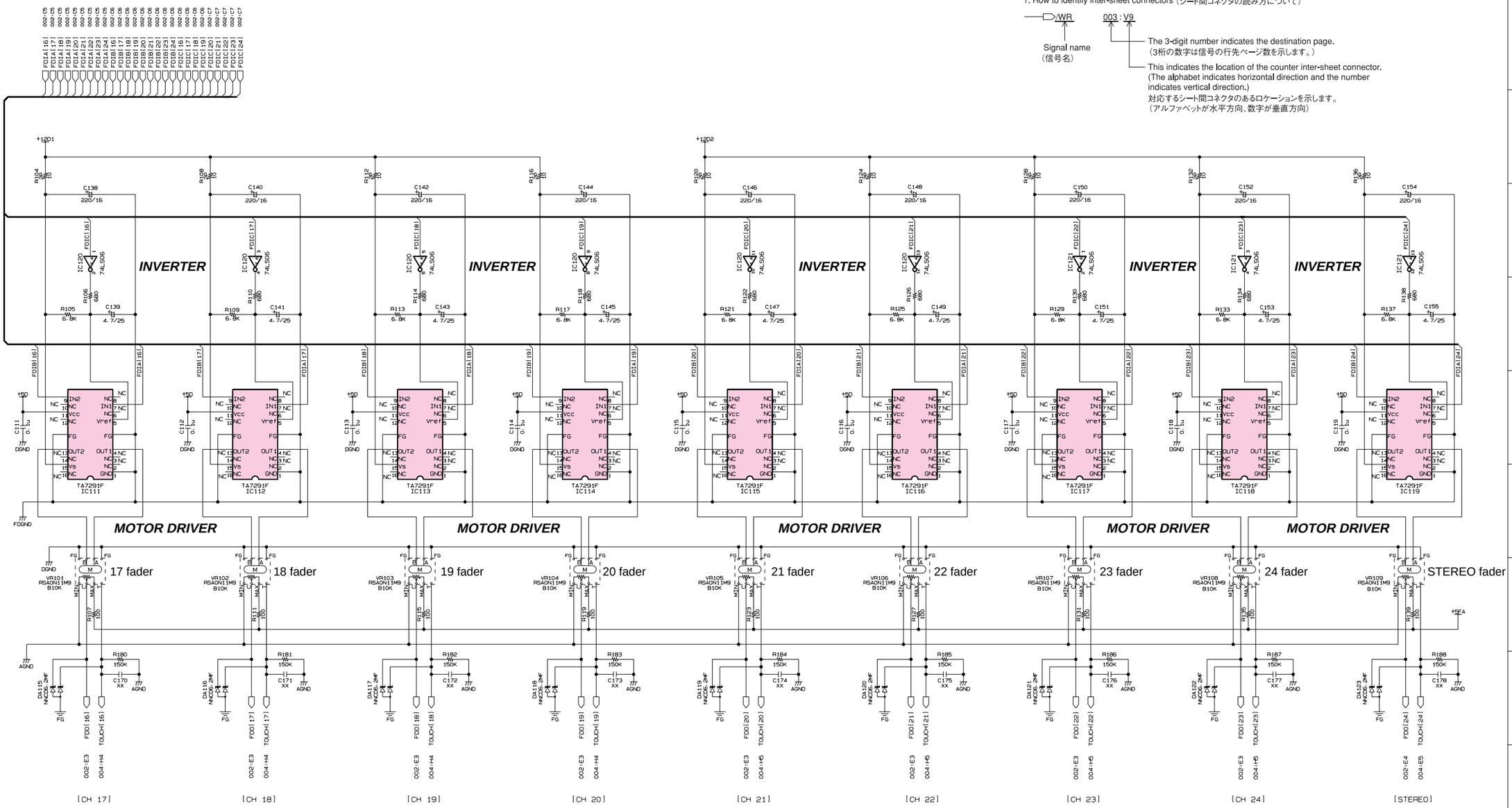
■ FD2 CIRCUIT DIAGRAM 003 (02R96)

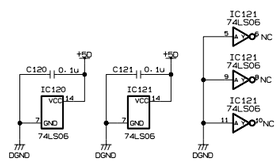
Notation for Circuit Diagrams (回路図表記上の注意)

1. How to identify inter-sheet connectors (シート間コネクタの読み方について)

/WR — Signal name (信号名)

003 : V9
- The 3-digit number indicates the destination page. (3桁の数字は信号の行先ページ数を示します。)
- This indicates the location of the counter inter-sheet connector. (The alphabet indicates horizontal direction and the number indicates vertical direction.) 対応するシート間コネクタのあるロケーションを示します。(アルファベットが水平方向、数字が垂直方向)





XX : **not installed** (実装しない)

2P : **2W Metal Oxide Film Resistor** (2W酸化金属被膜抵抗)

38CC1-8823589-3

Fader Drive Section (CH17~24, STEREO)

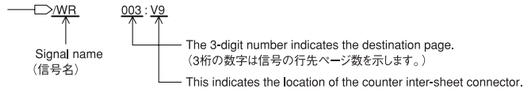
■ FD2 CIRCUIT DIAGRAM 003 (02R96)

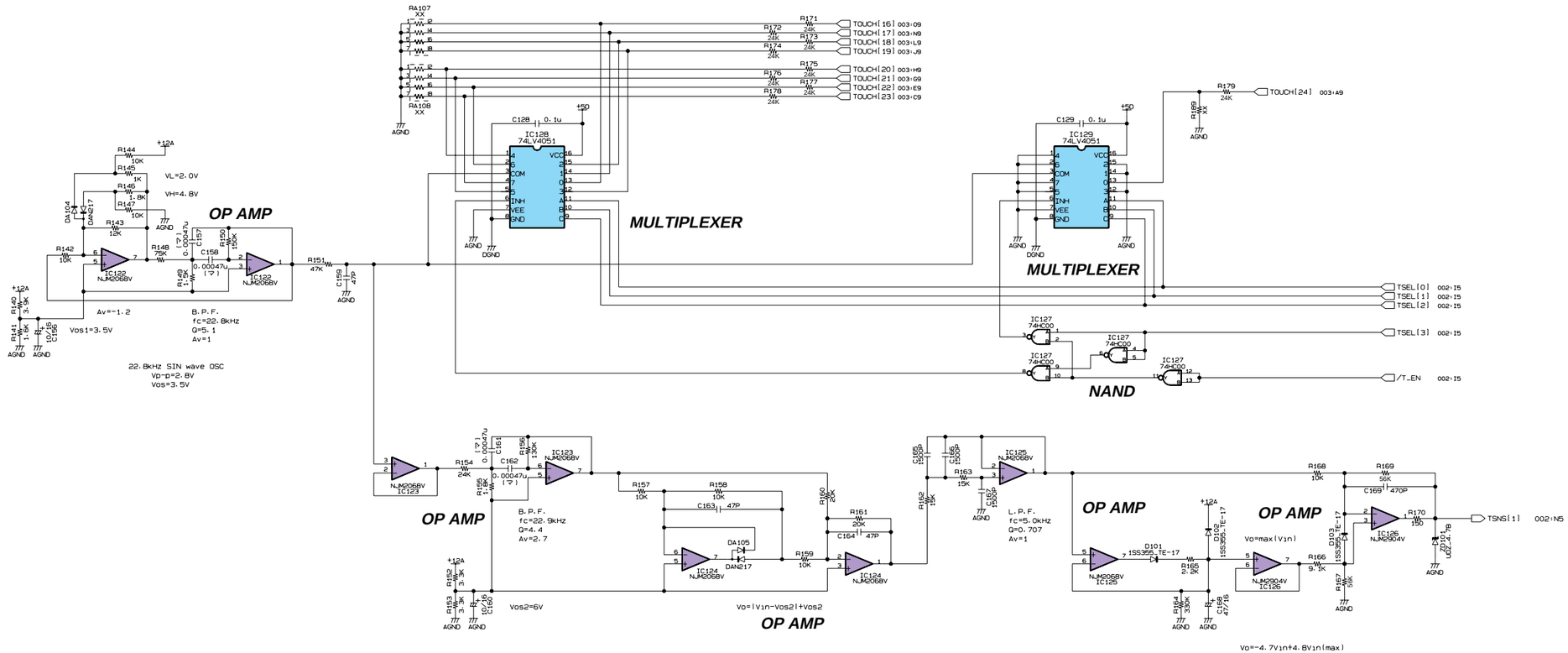
■ FD2 CIRCUIT DIAGRAM 004 (02R96)

02R96

Notation for Circuit Diagrams（回路図表記上の注意）

1. How to identify inter-sheet connectors（シート間コネクタの読み方について）

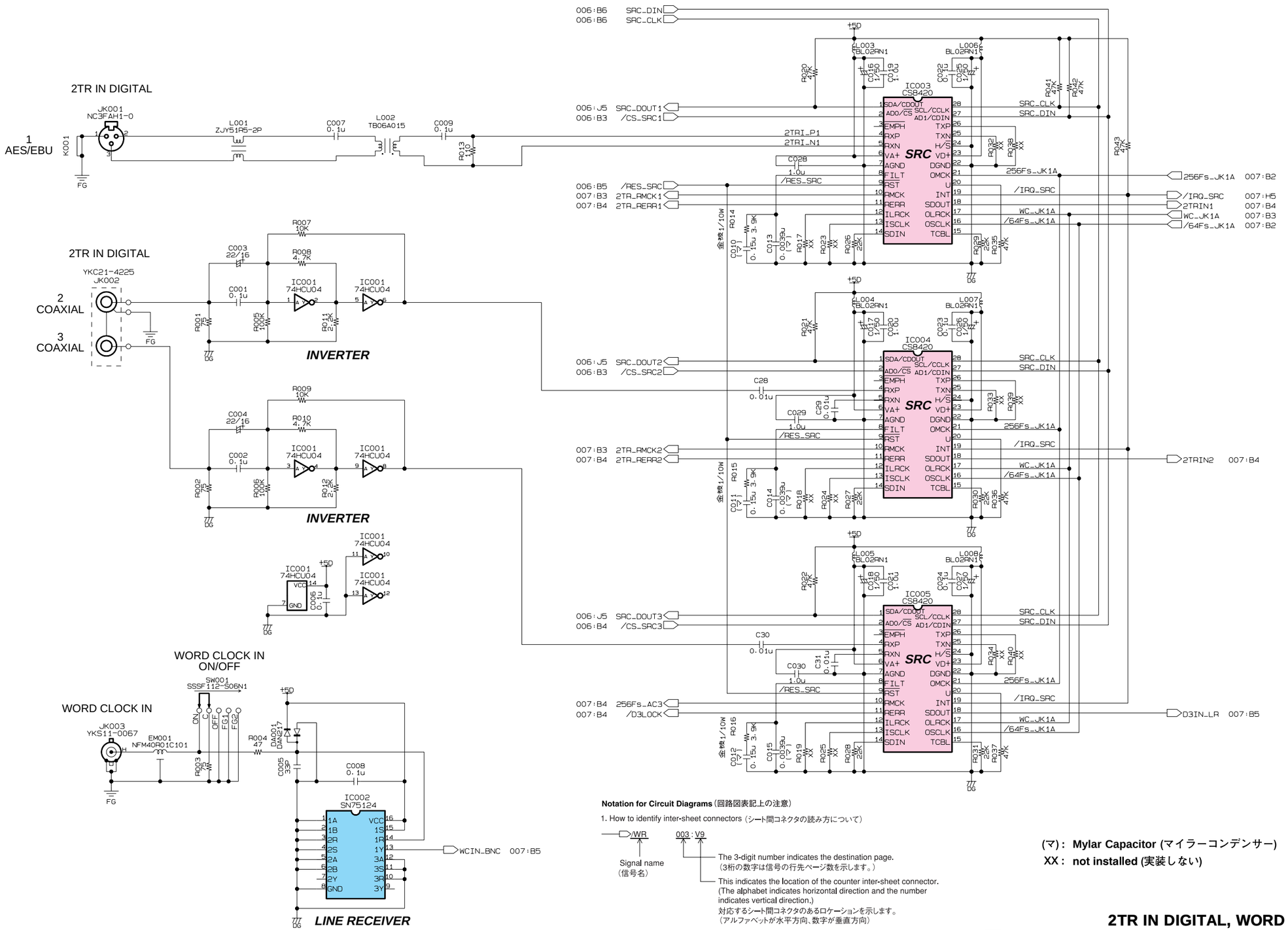




(マ) : **Mylar Capacitor** (マイラーコンデンサー)

XX : **not installed** (実装しない)

■ JK1 CIRCUIT DIAGRAM 002 (02R96)



Notation for Circuit Diagrams（回路図表記上の注意）

1. How to identify inter-sheet connectors（シート間コネクタの読み方について）

(マ) : **Mylar Capacitor** (マイラーコンデンサー)

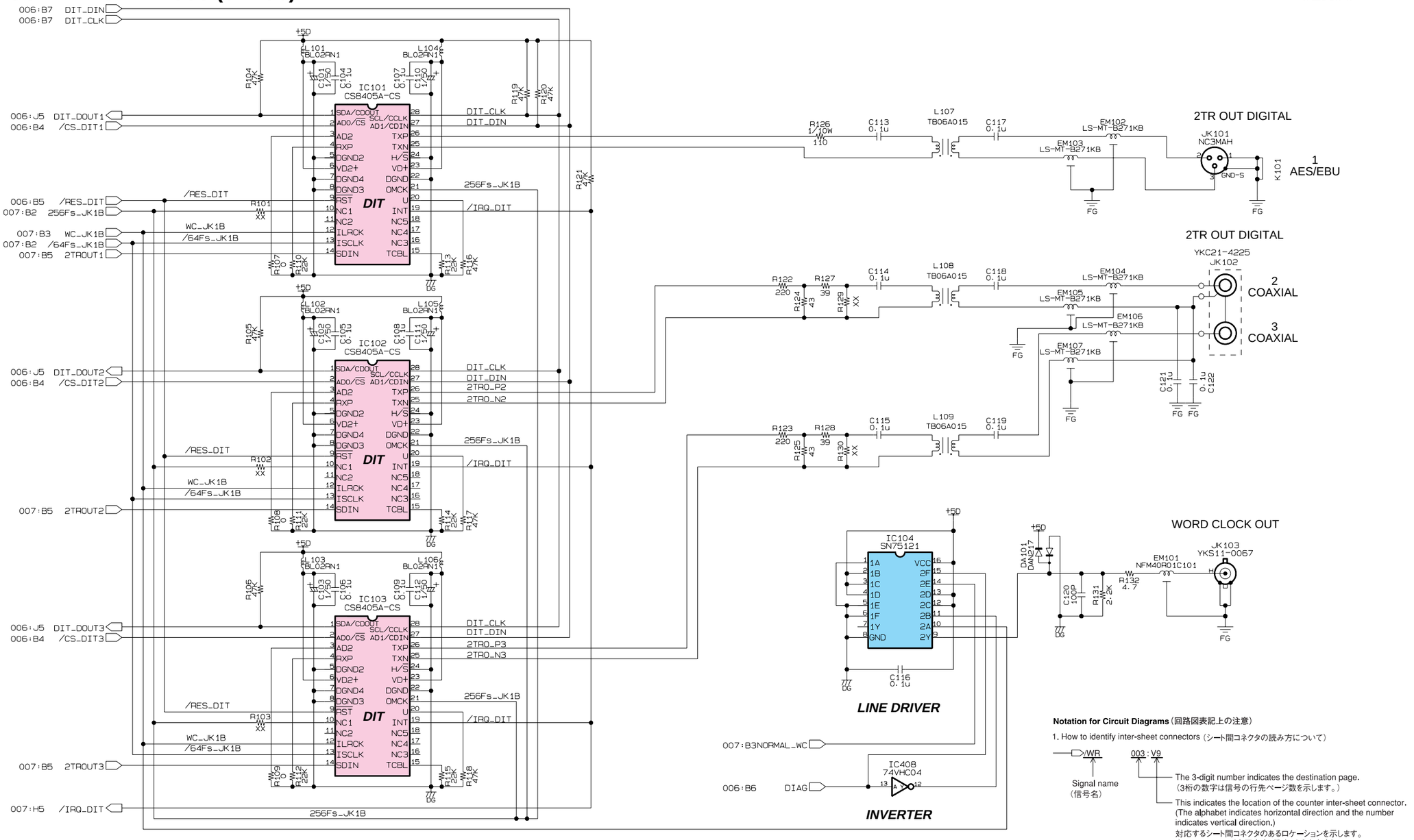
XX : not installed (実装しない)

2TR IN DIGITAL, WORD CLOCK IN

■ JK1 CIRCUIT DIAGRAM 002 (02R96)

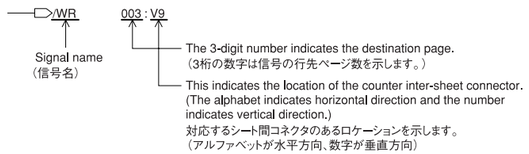
■ JK1 CIRCUIT DIAGRAM 003 (02R96)

02R96



Notation for Circuit Diagrams（回路図表記上の注意）

1. How to identify inter-sheet connectors（シート間コネクタの読み方について）

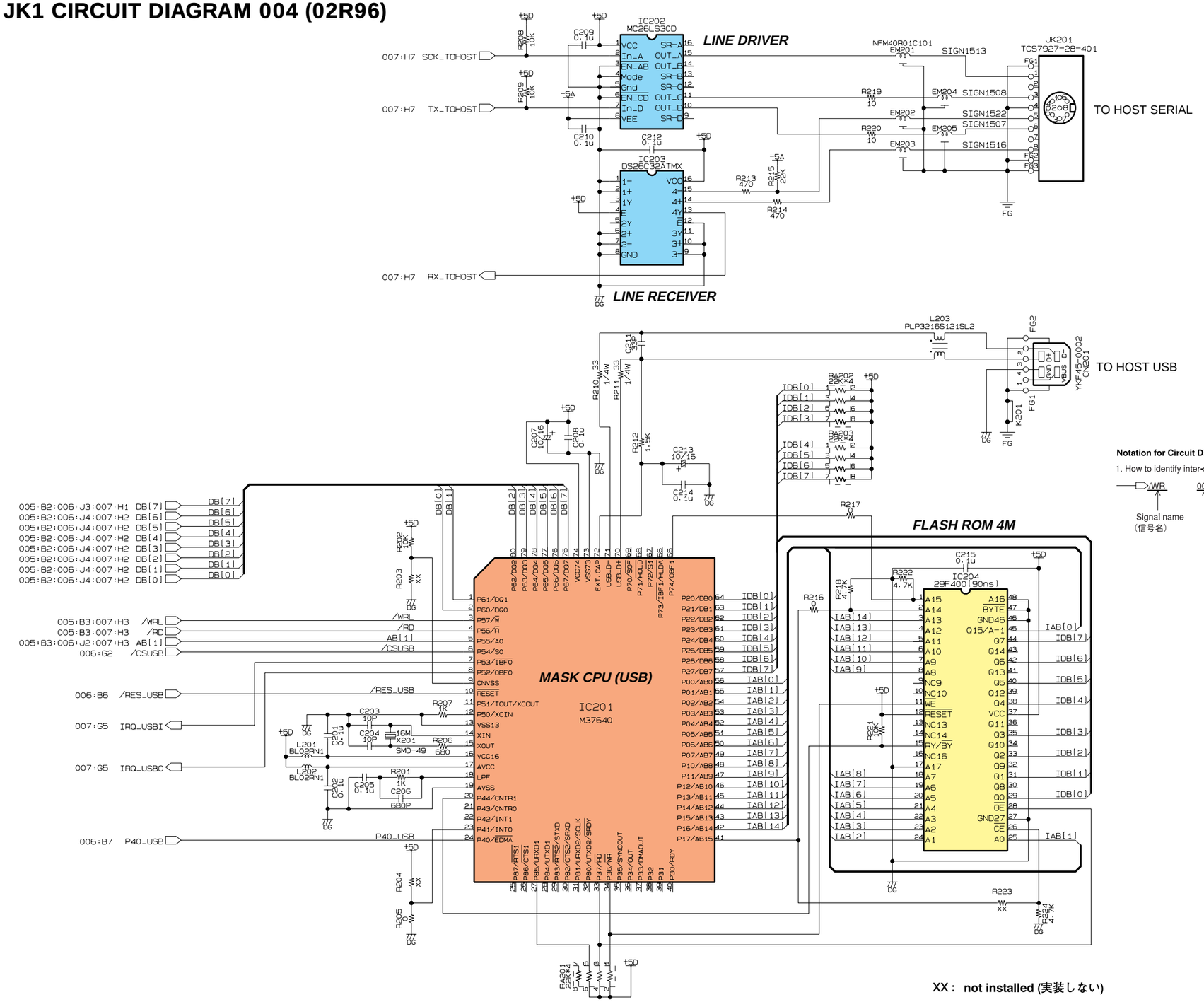


XX： **not installed (実装しない)**

2TR OUT DIGITAL, WORD CLOCK OUT

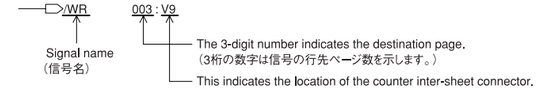
■ JK1 CIRCUIT DIAGRAM 003 (02R96)

■ JK1 CIRCUIT DIAGRAM 004 (02R96)



Notation for Circuit Diagrams（回路図表記上の注意）

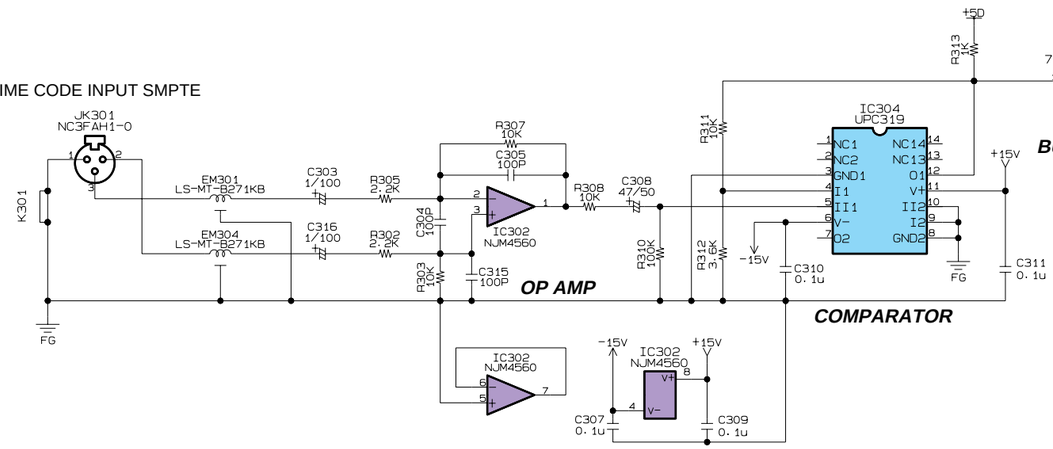
1. How to identify inter-sheet connectors（シート間コネクタの読み方について）



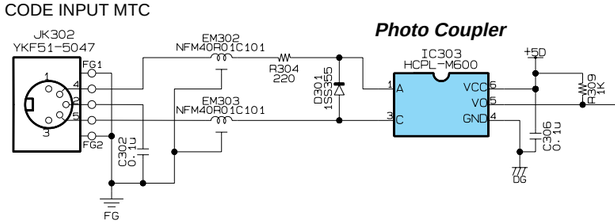
■ JK1 CIRCUIT DIAGRAM 005 (02R96)

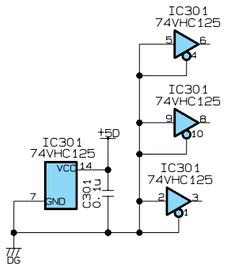
02R96

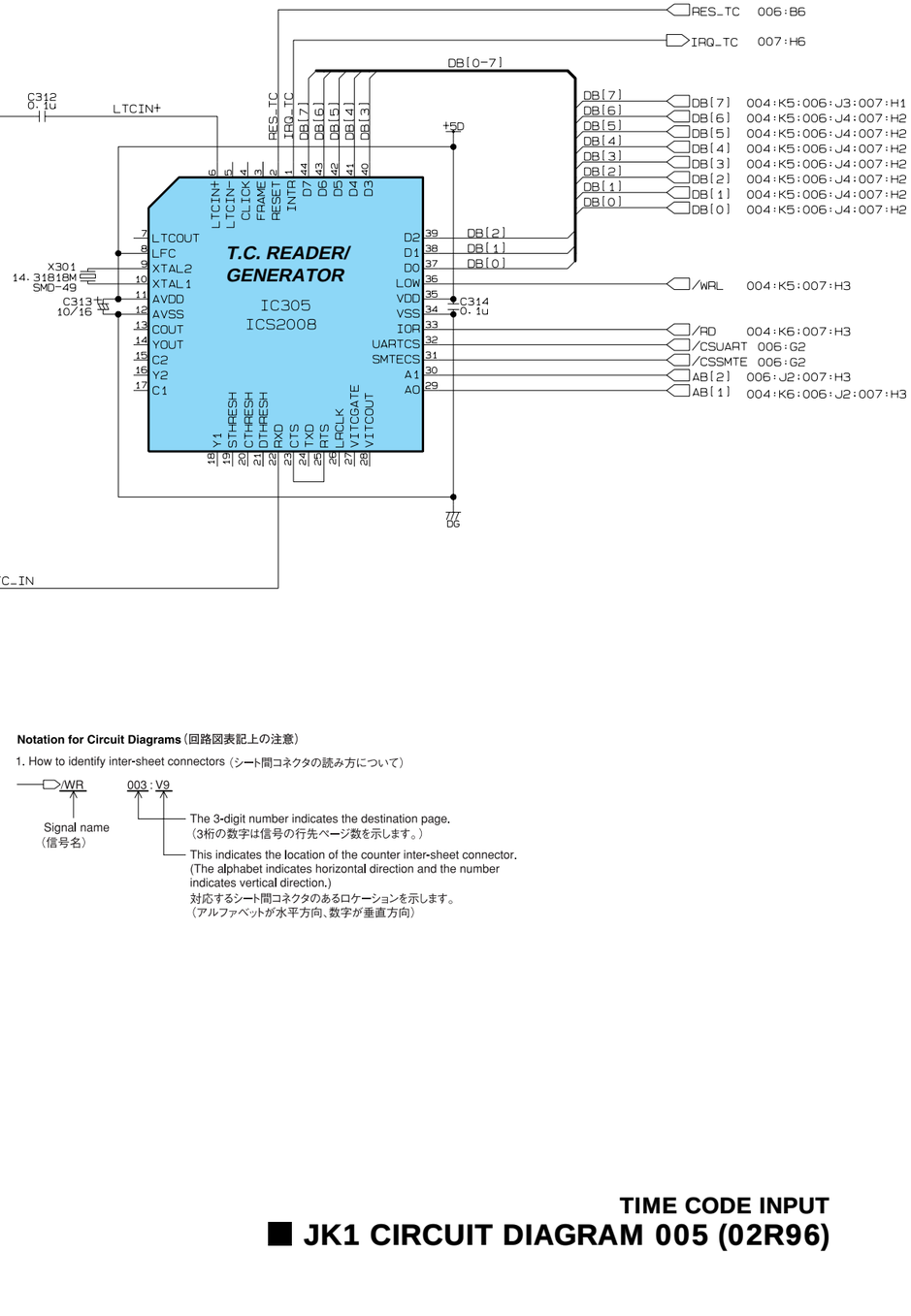
TIME CODE INPUT SMPTE



TIME CODE INPUT MTC







Notation for Circuit Diagrams（回路図表記上の注意）

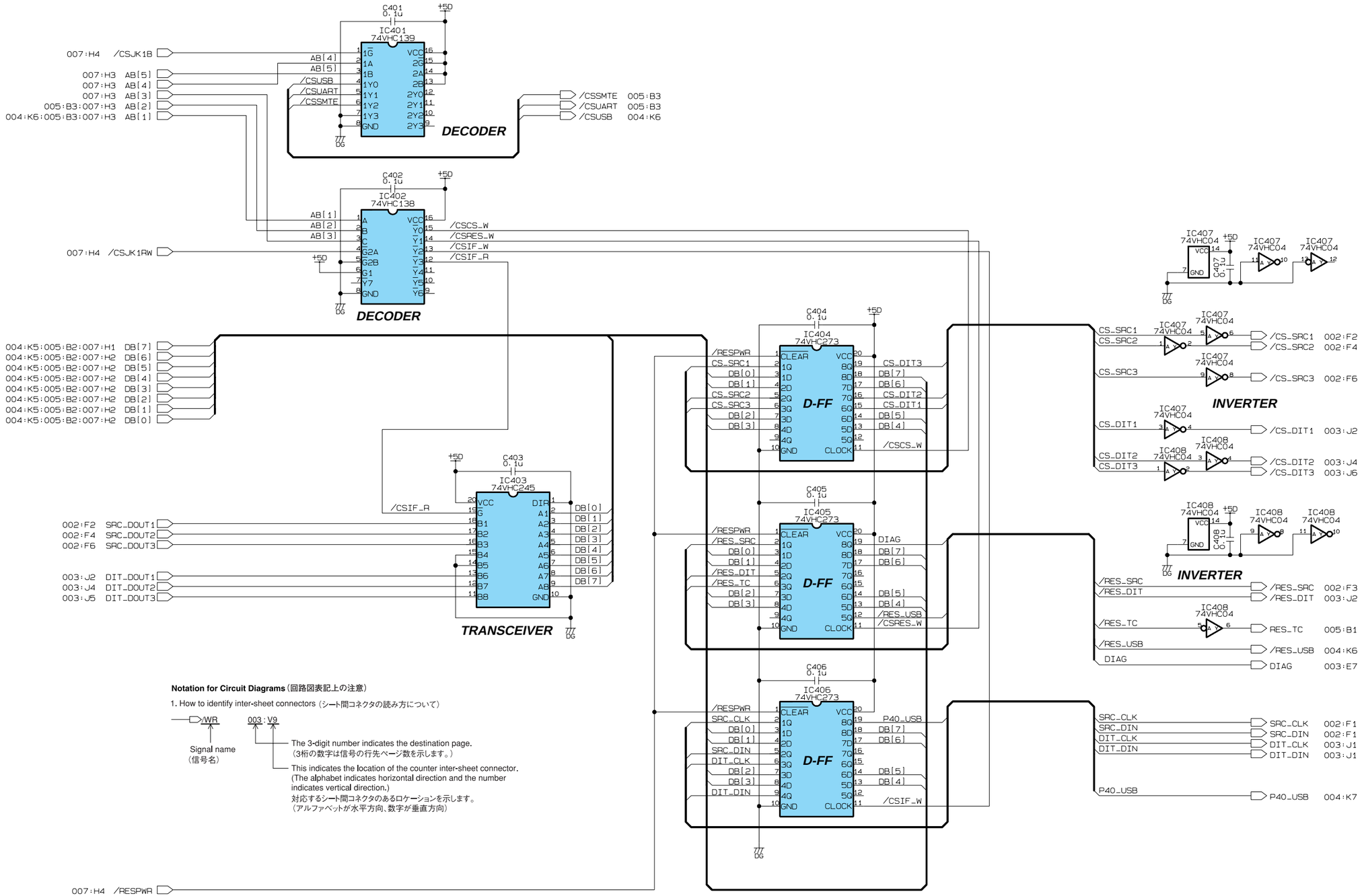
1. How to identify inter-sheet connectors（シート間コネクタの読み方について）

TIME CODE INPUT

■ JK1 CIRCUIT DIAGRAM 005 (02R96)

■ JK1 CIRCUIT DIAGRAM 006 (02R96)

02R96

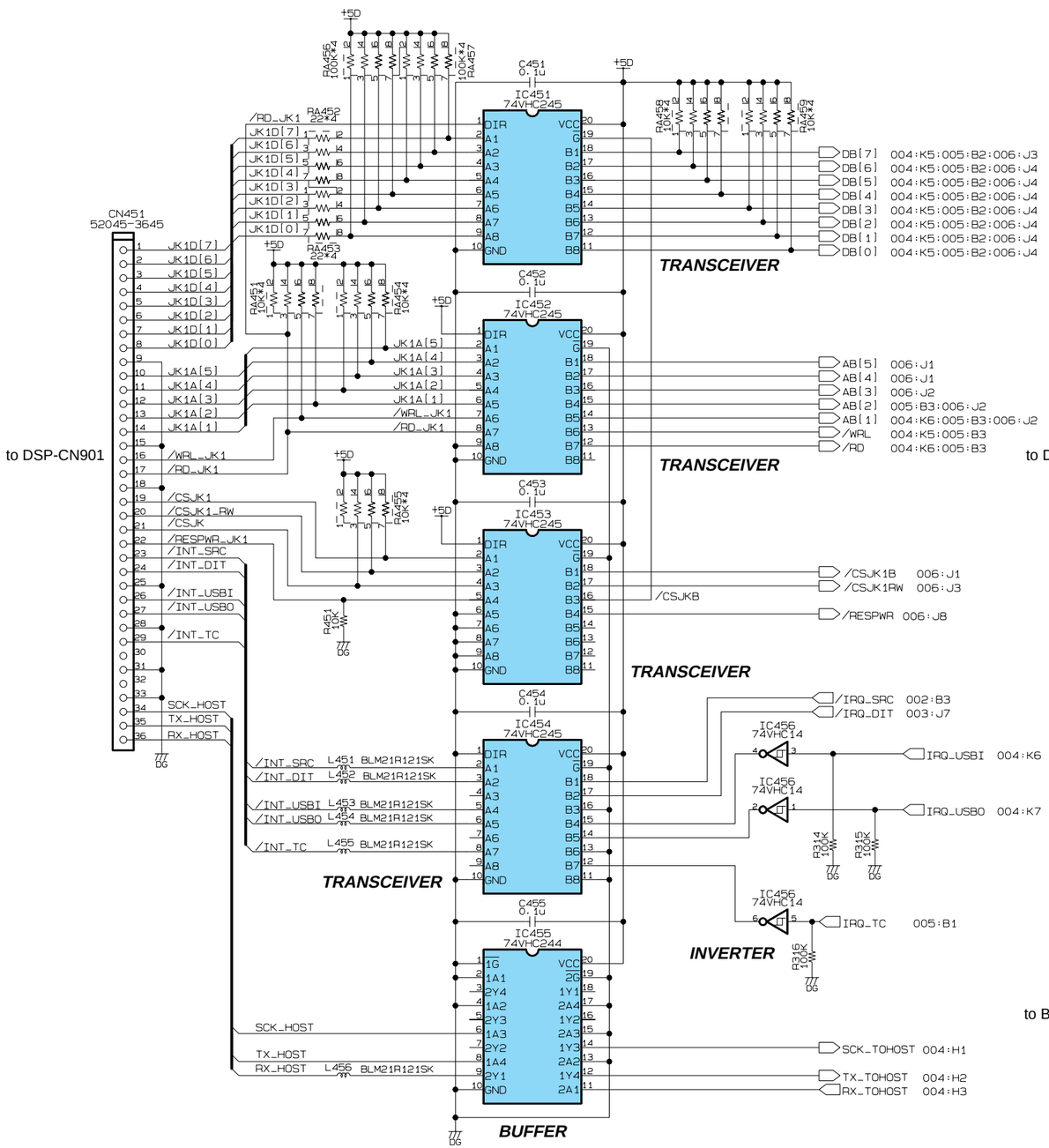


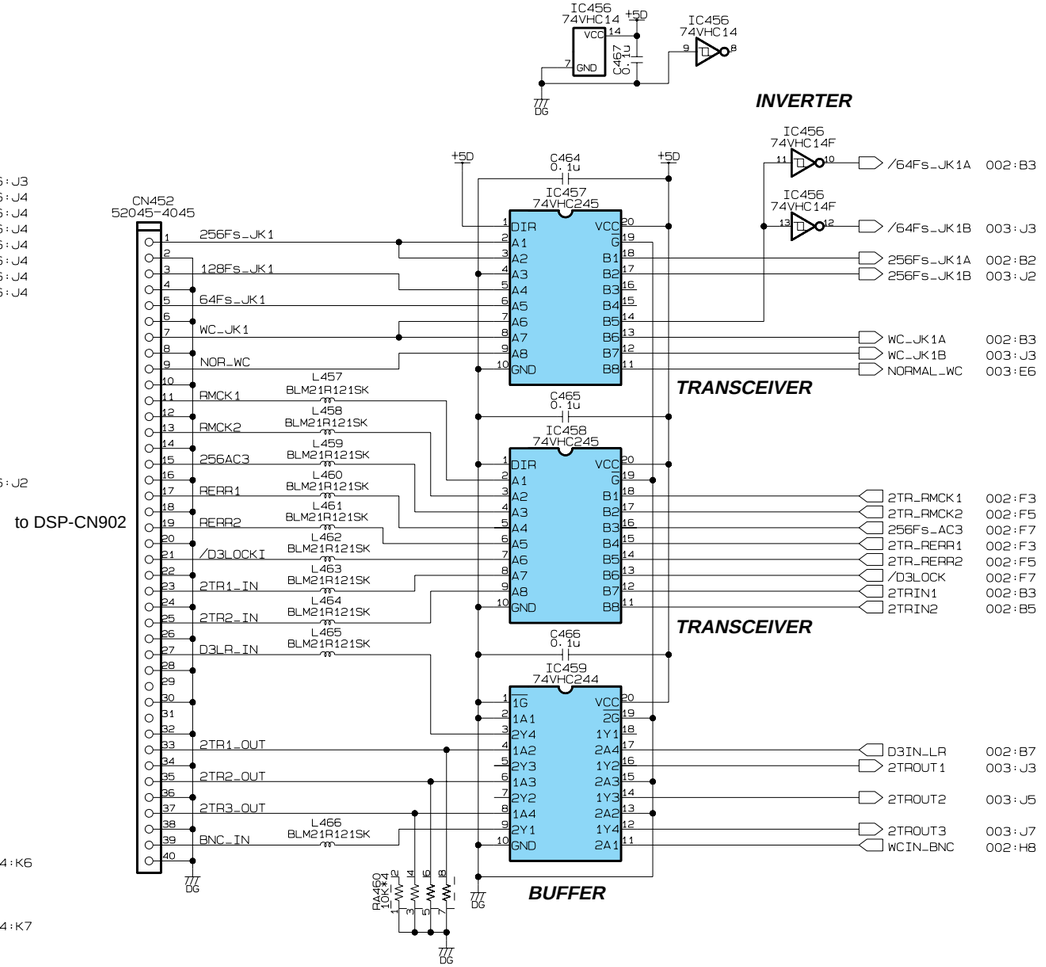
Notation for Circuit Diagrams（回路図表記上の注意）

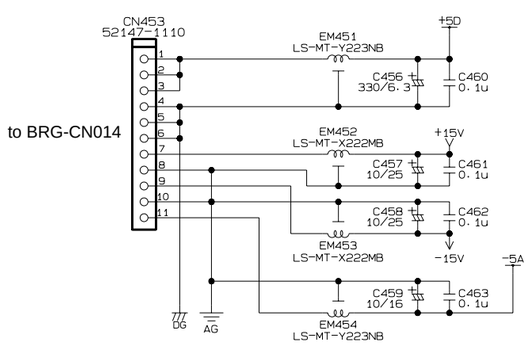
1. How to identify inter-sheet connectors（シート間コネクタの読み方について）

■ JK1 CIRCUIT DIAGRAM 007 (02R96)

02R96







Notation for Circuit Diagrams（回路図表記上の注意）

1. How to identify inter-sheet connectors（シート間コネクタの読み方について）

/WR — Signal name（信号名）

003 : V9
- The 3-digit number indicates the destination page.（3桁の数字は信号の行先ページ数を示します。）
- This indicates the location of the counter inter-sheet connector. (The alphabet indicates horizontal direction and the number indicates vertical direction.)
対応するシート間コネクタのあるロケーションを示します。（アルファベットが水平方向、数字が垂直方向）

CONNECTER

■ JK1 CIRCUIT DIAGRAM 007 (02R96)

■ JK2 CIRCUIT DIAGRAM 002 (02R96)

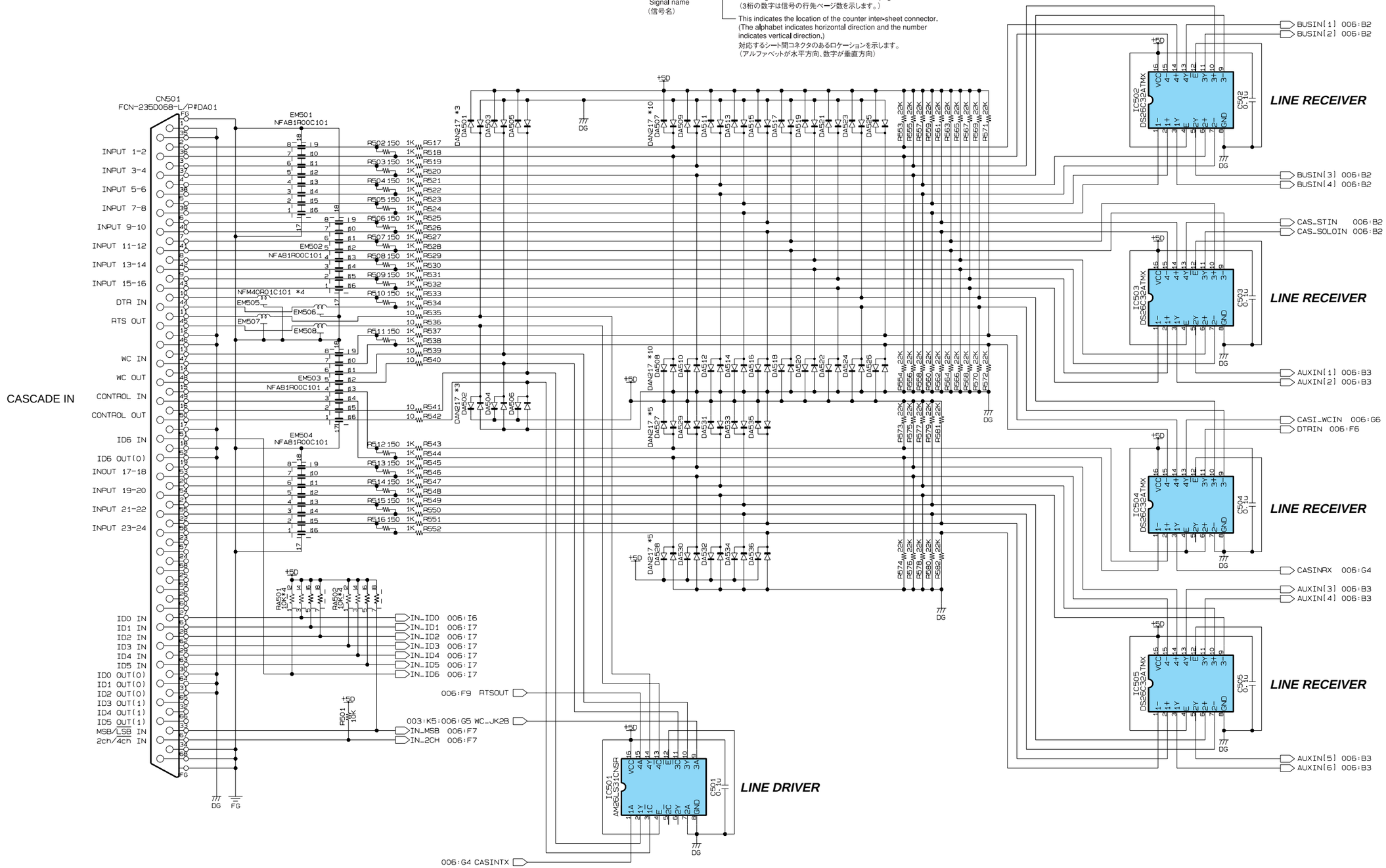
JK2 (1/2)

Notation for Circuit Diagrams (回路図表記上の注意)

1. How to identify inter-sheet connectors (シート間コネクタの読み方について)

WR — Signal name (信号名)

003 : V9
- The 3-digit number indicates the destination page. (3桁の数字は信号の行先ページ数を示します。)
- This indicates the location of the counter inter-sheet connector. (The alphabet indicates horizontal direction and the number indicates vertical direction.) 対応するシート間コネクタのあるロケーションを示します。(アルファベットが水平方向、数字が垂直方向)



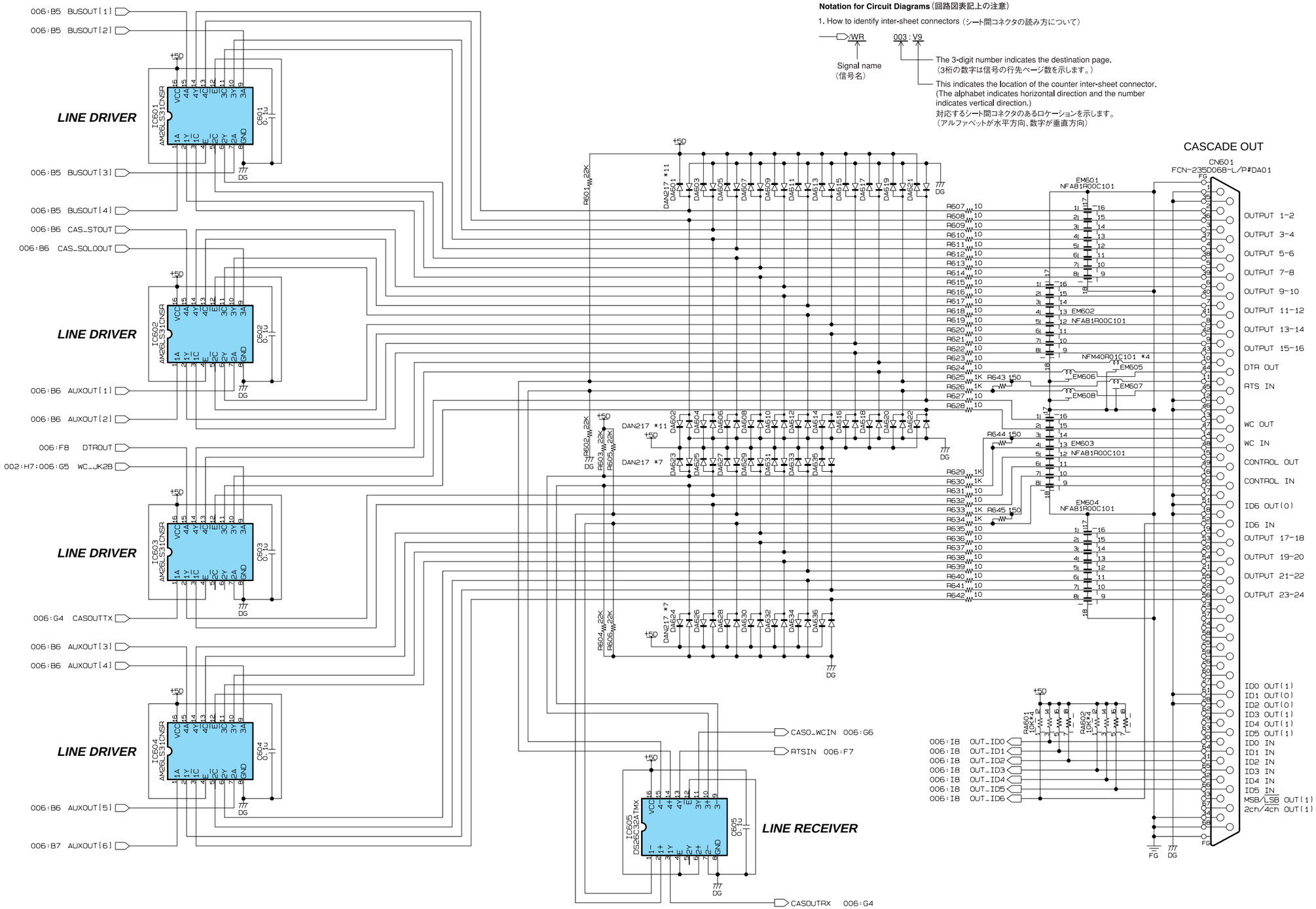
■ JK2 CIRCUIT DIAGRAM 003 (02R96)

02R96

JK2 (1/2)

Notation for Circuit Diagrams（回路図表記上の注意）

1. How to identify inter-sheet connectors（シート間コネクタの読み方について）



CASCADE OUT

■ JK2 CIRCUIT DIAGRAM 003 (02R96)

■ JK2 CIRCUIT DIAGRAM 004 (02R96)

JK2 (1/2)

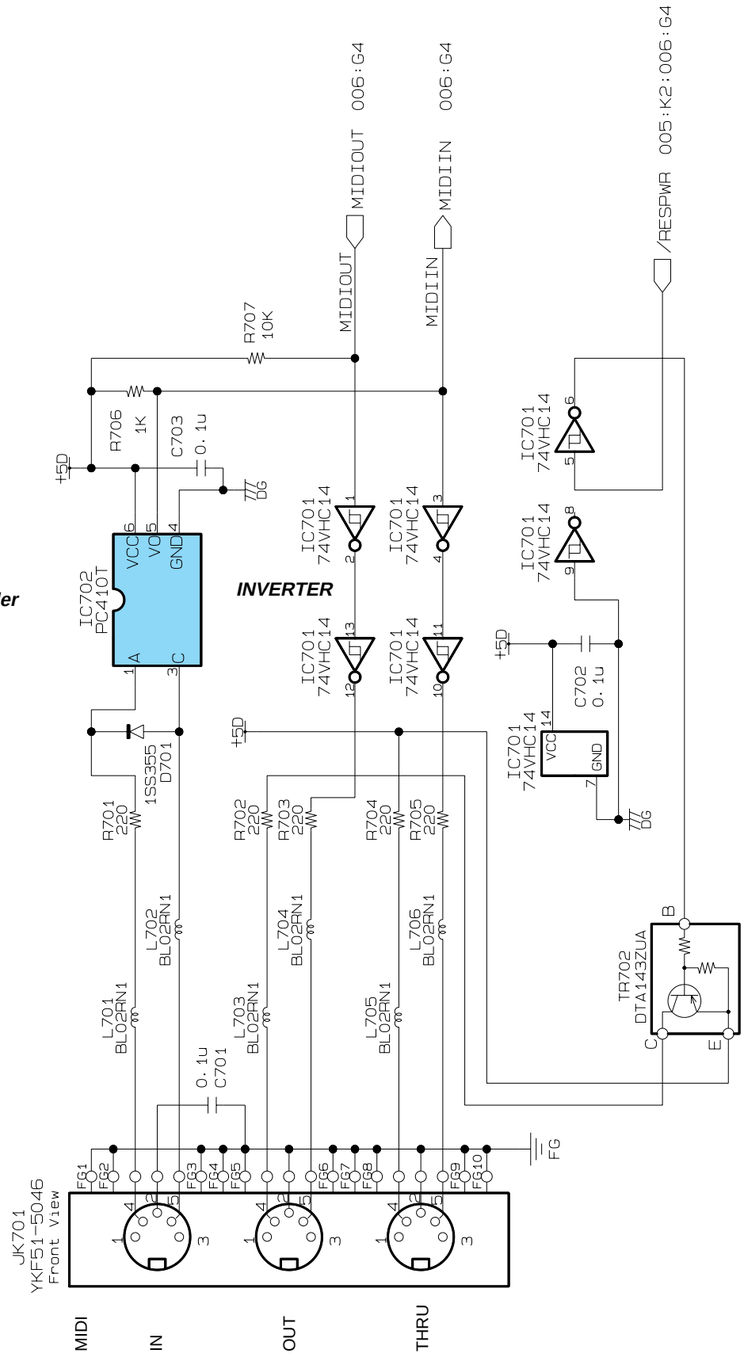


Photo Coupler

Notation for Circuit Diagrams（回路図表記上の注意）

1. How to identify inter-sheet connectors（シート間コネクタの読み方について）

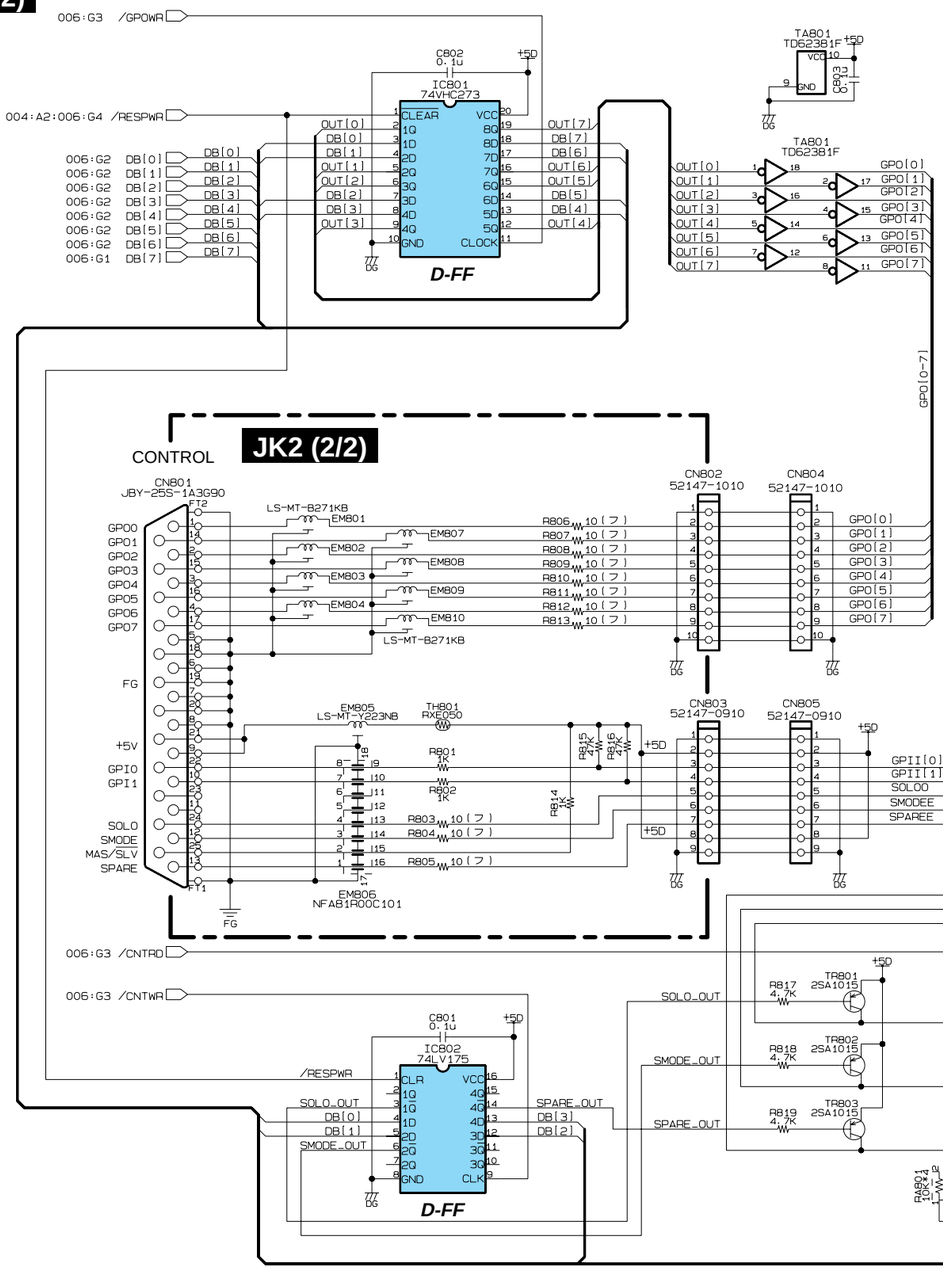
/WR — Signal name（信号名）

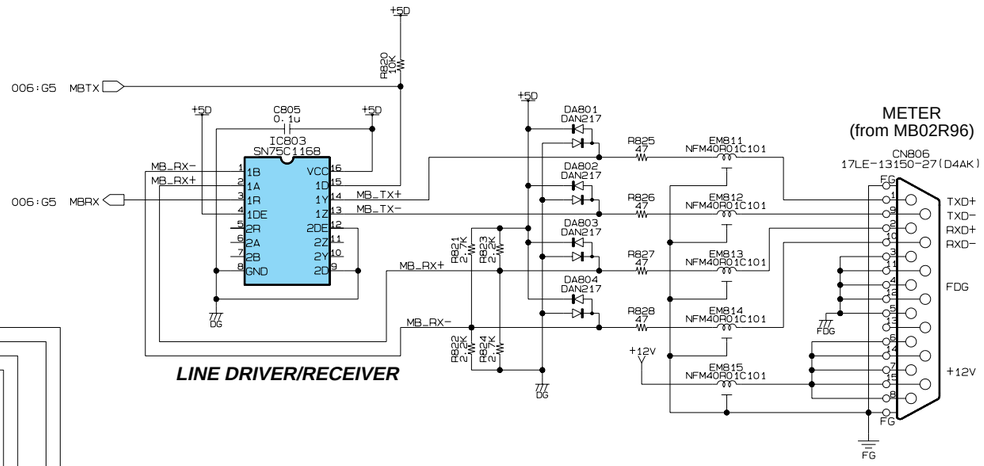
003 : V9
- The 3-digit number indicates the destination page.（3桁の数字は信号の行先ページ数を示します。）
- This indicates the location of the counter inter-sheet connector. (The alphabet indicates horizontal direction and the number indicates vertical direction.) 対応するシート間コネクタのあるロケーションを示します。（アルファベットが水平方向、数字が垂直方向）

■ JK2 CIRCUIT DIAGRAM 005 (02R96)

02R96

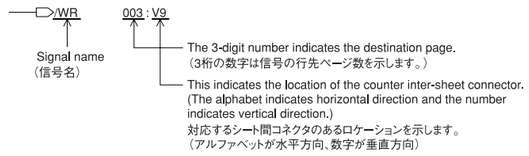
JK2 (1/2)





Notation for Circuit Diagrams（回路図表記上の注意）

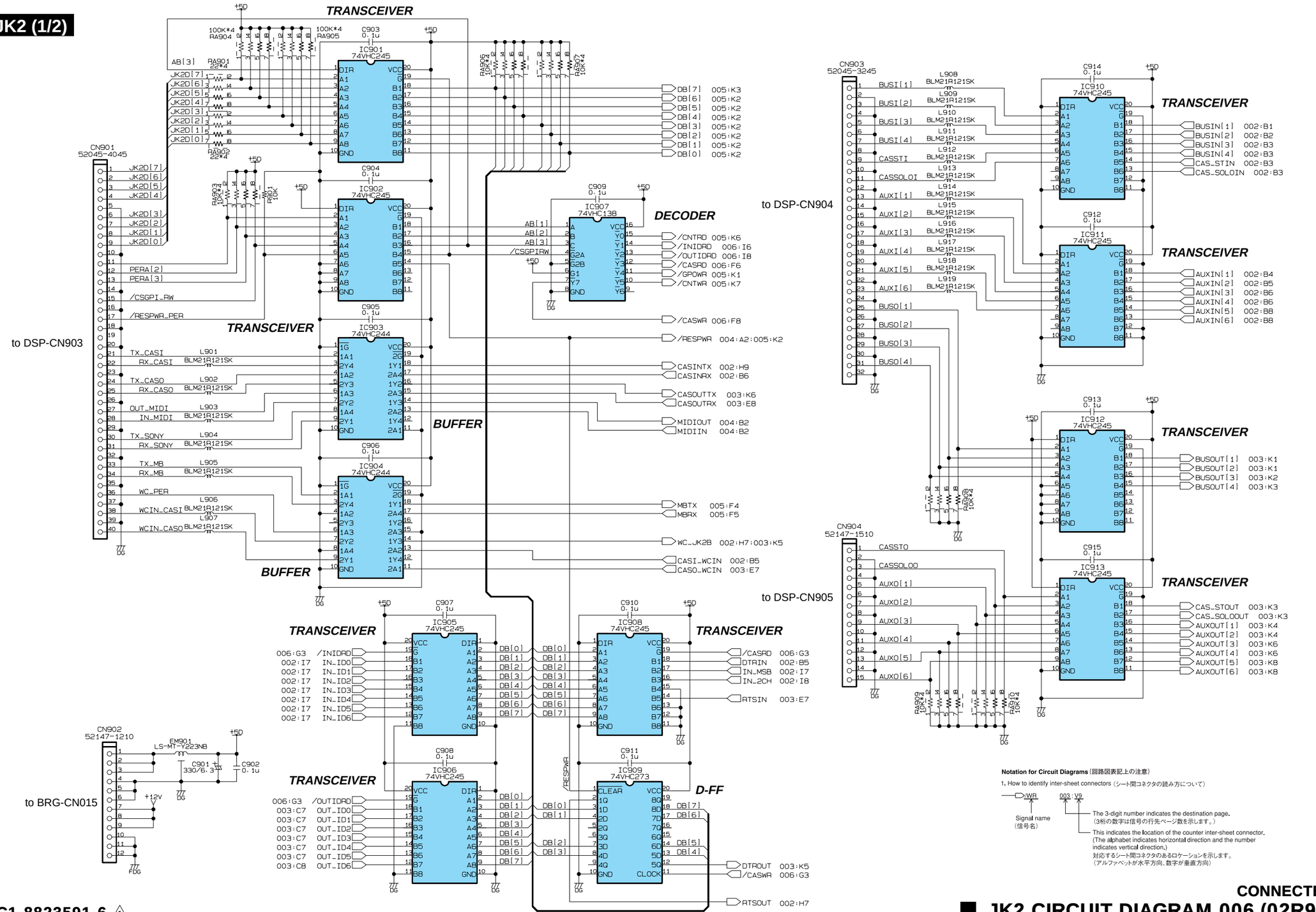
1. How to identify inter-sheet connectors（シート間コネクタの読み方について）



(フ) : **Flame Proof C. Resistor (不燃化カーボン抵抗)**

■ JK2 CIRCUIT DIAGRAM 006 (02R96)

JK2 (1/2)



Notation for Circuit Diagrams (回路図表記上の注意)

1. How to identify inter-sheet connectors (シート間コネクタの読み方について)

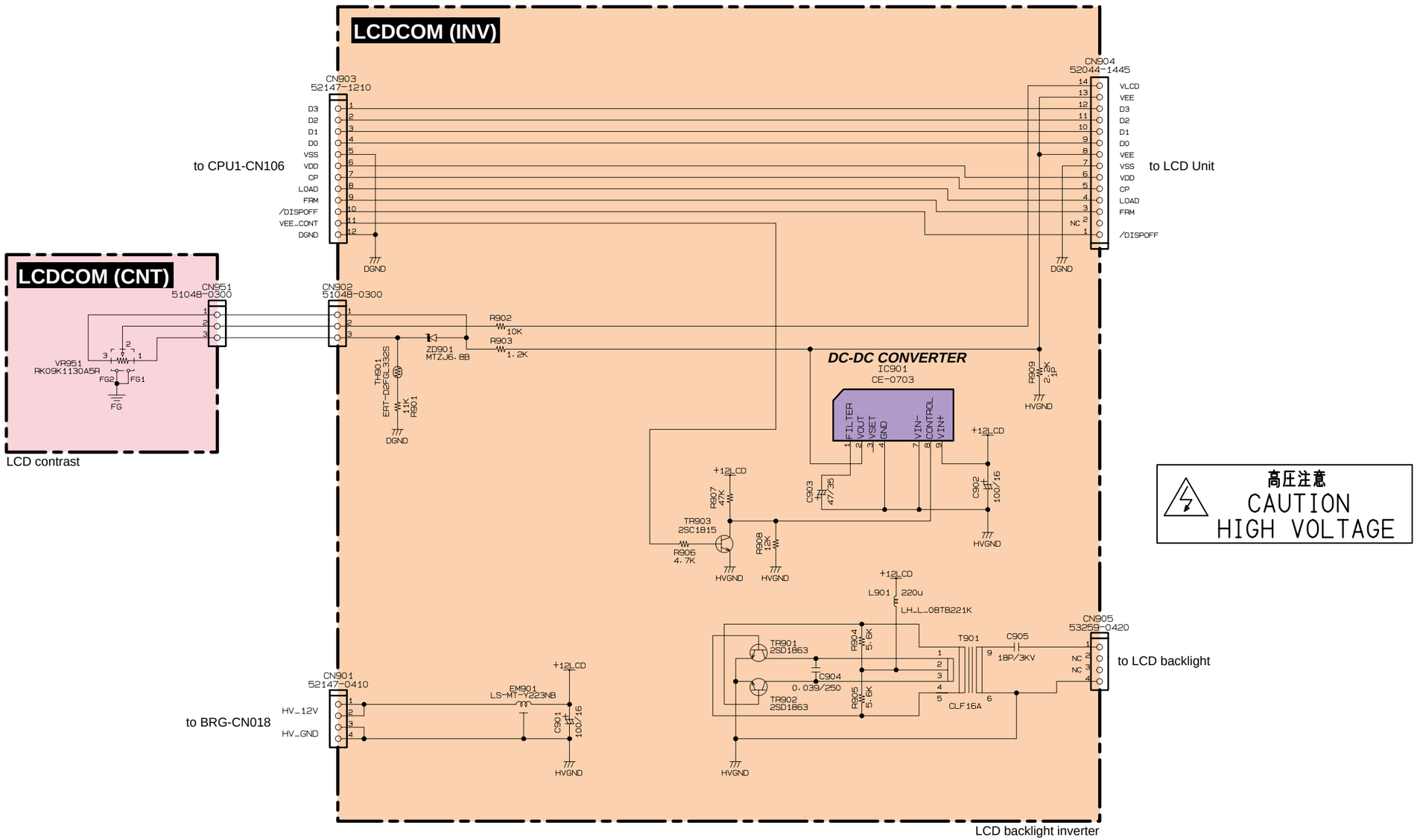
38CC1-8823591-6 ⚠1

CONNECTER

■ JK2 CIRCUIT DIAGRAM 006 (02R96)

■ LCDCOM CIRCUIT DIAGRAM (02R96)

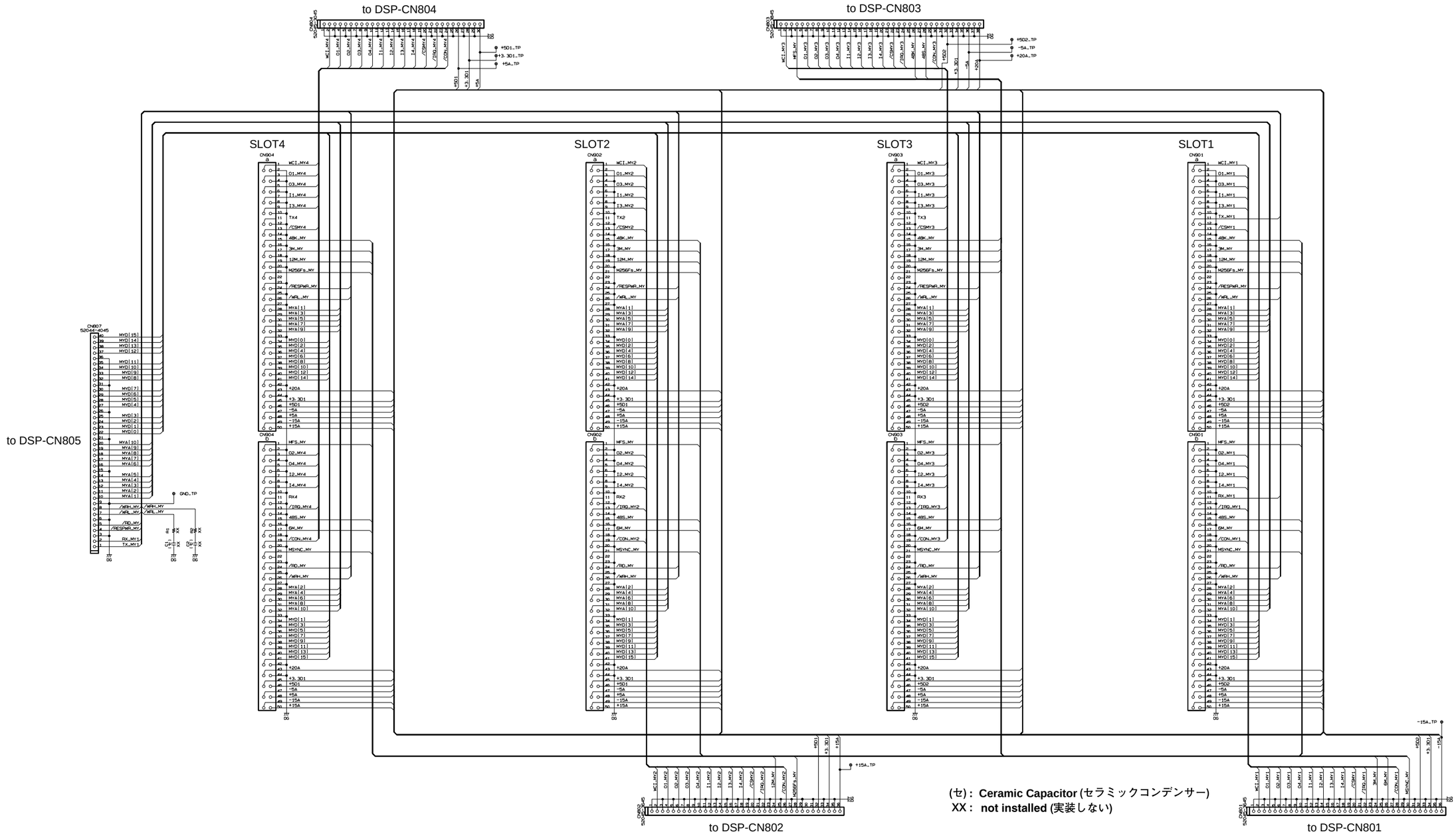
02R96



高压注意
CAUTION
HIGH VOLTAGE

1P： **1W Metal Oxide Film Resistor** (1W酸化金属被膜抵抗)

■ OPT CIRCUIT DIAGRAM (02R96)



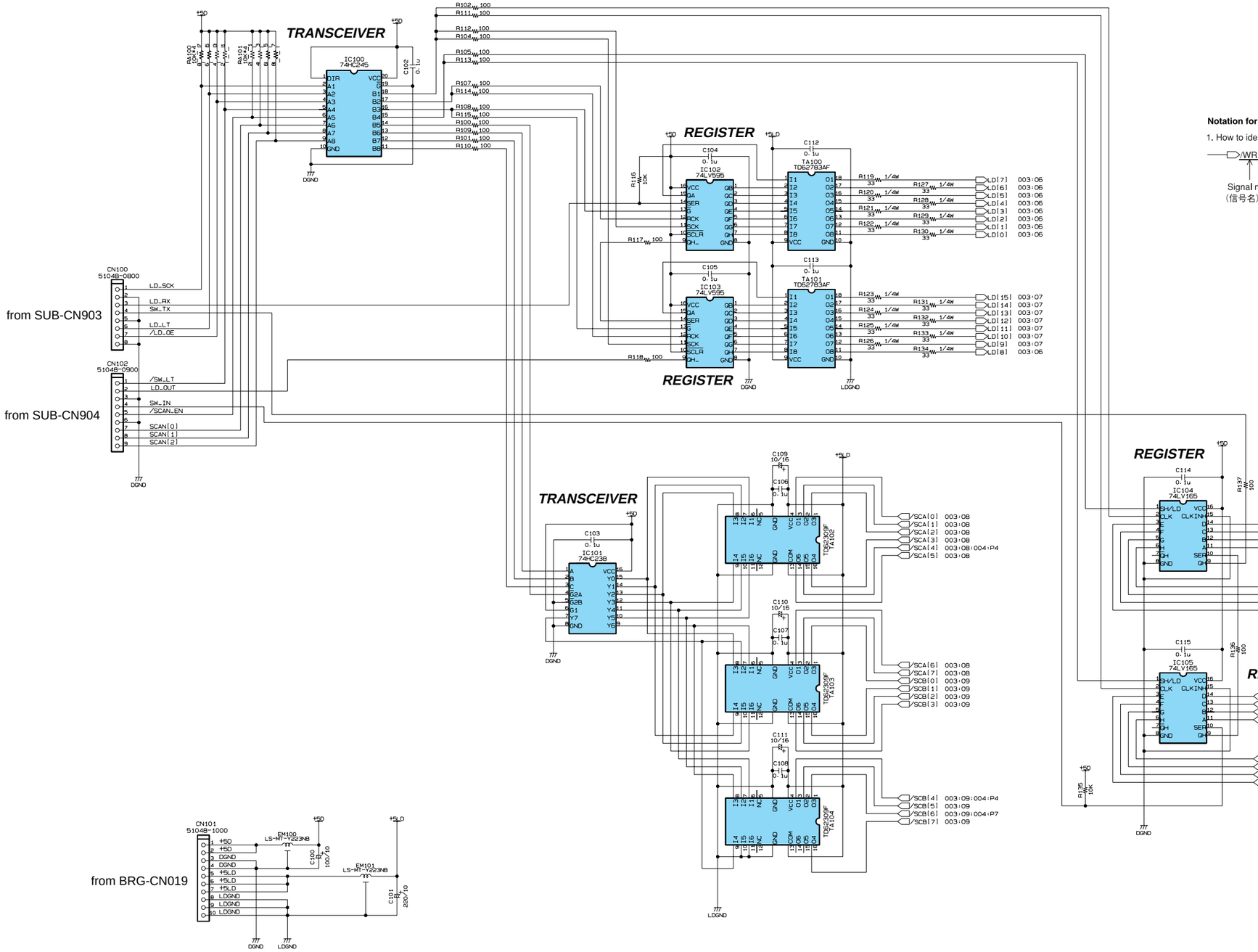
(セ) : **Ceramic Capacitor** (セラミックコンデンサー)
XX : not installed (実装しない)

38CC1-8823593-2 ⚠1

■ OPT CIRCUIT DIAGRAM (02R96)

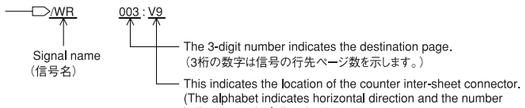
■ PN1 CIRCUIT DIAGRAM 002 (02R96)

02R96

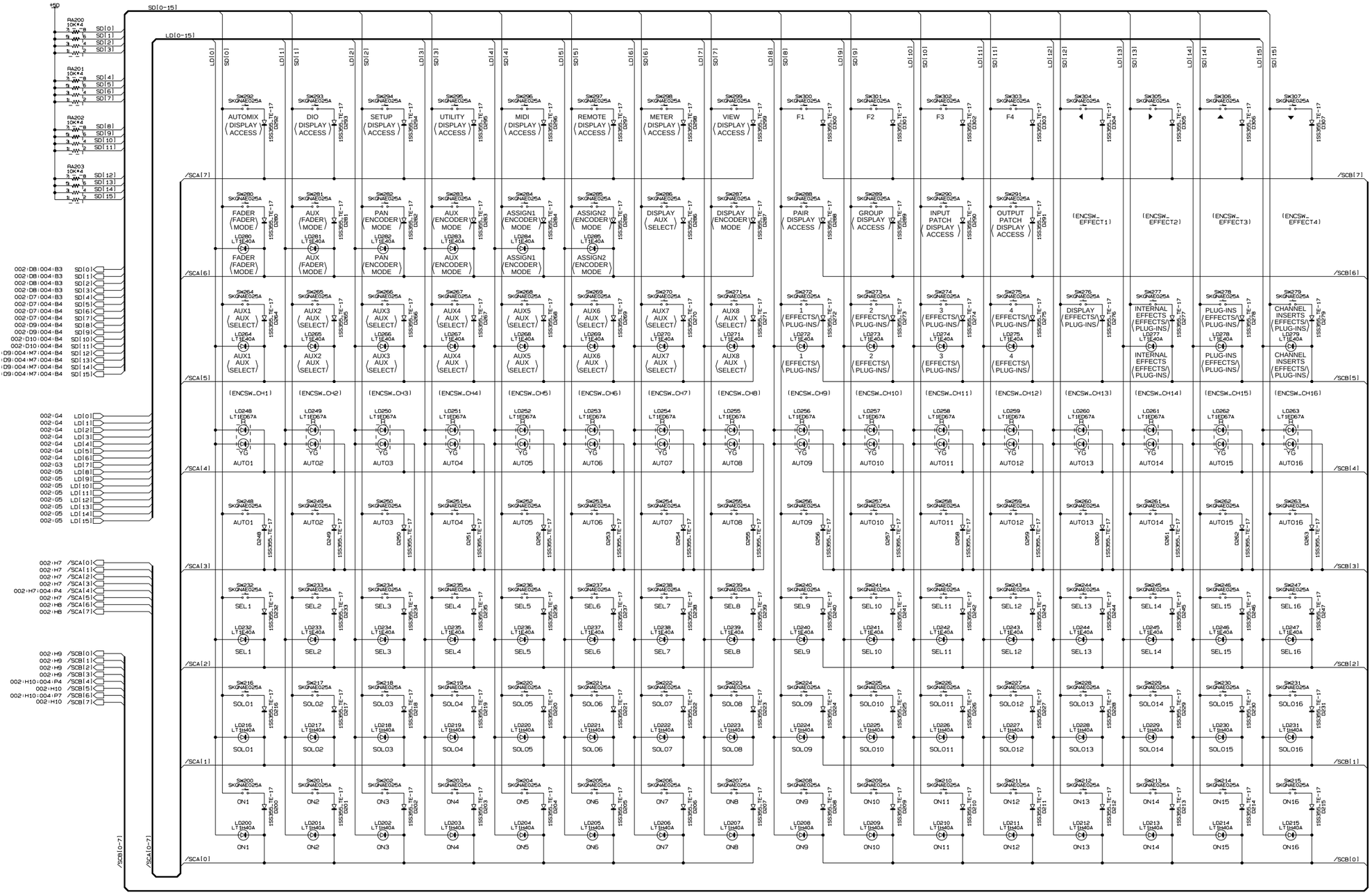


Notation for Circuit Diagrams（回路図表記上の注意）

1. How to identify inter-sheet connectors（シート間コネクタの読み方について）

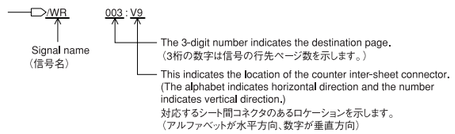


■ PN1 CIRCUIT DIAGRAM 003 (02R96)



Notation for Circuit Diagrams（回路図表記上の注意）

1. How to identify inter-sheet connectors（シート間コネクタの読み方について）

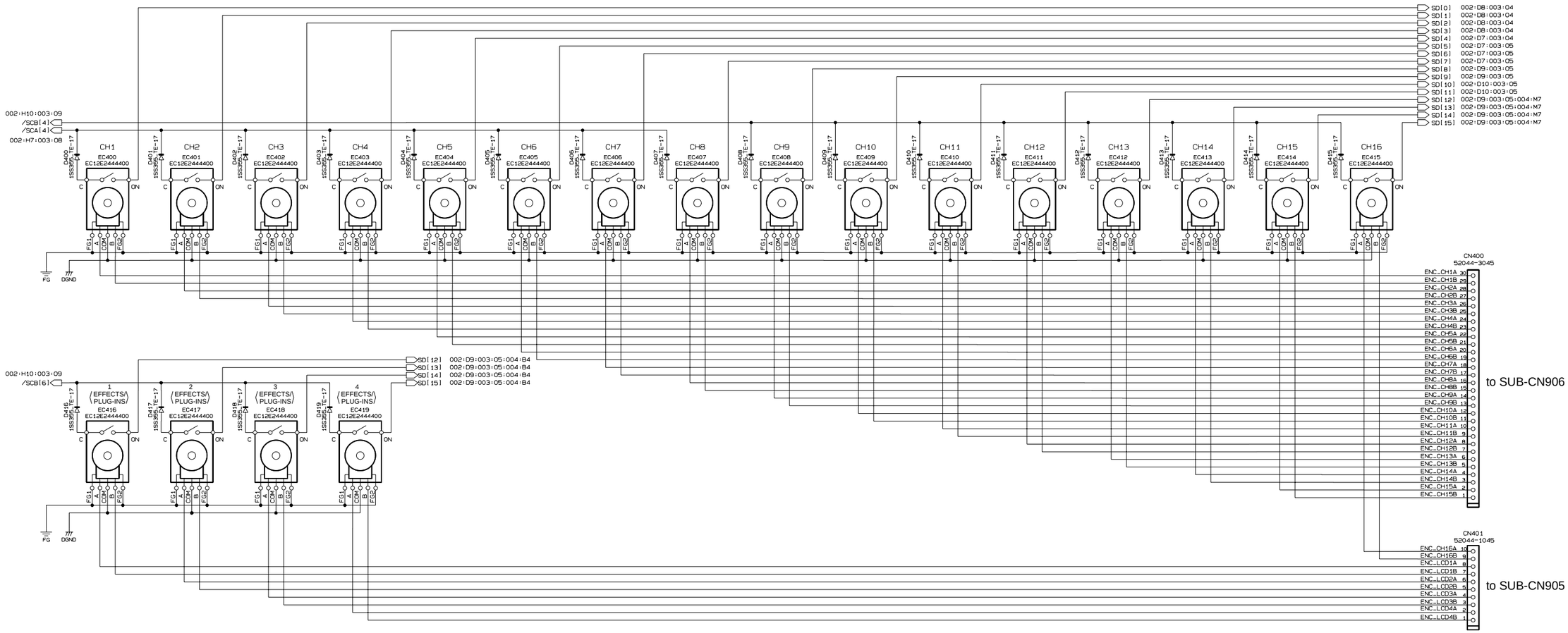


LED
LT1H40A: Yellow
LT1E40A: Yellow Green
LT1ED67A: Red/Yellow Green

ENCSW_ = ENCODER SWITCH

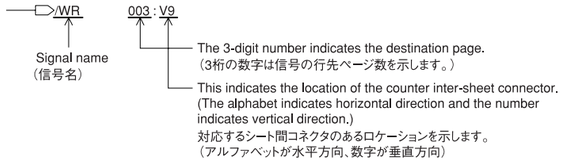
■ PN1 CIRCUIT DIAGRAM 004 (02R96)

02R96



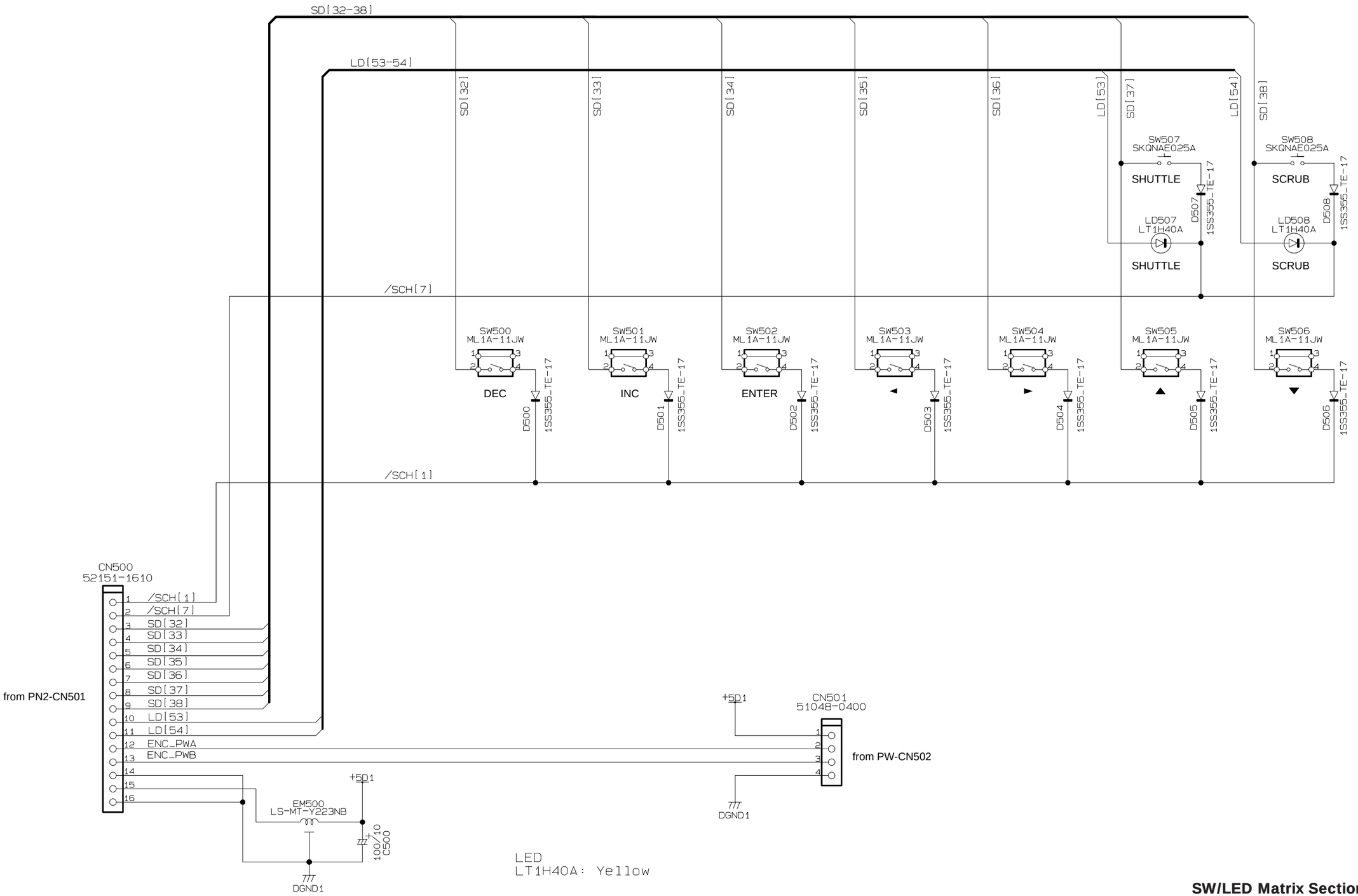
Notation for Circuit Diagrams（回路図表記上の注意）

1. How to identify inter-sheet connectors（シート間コネクタの読み方について）

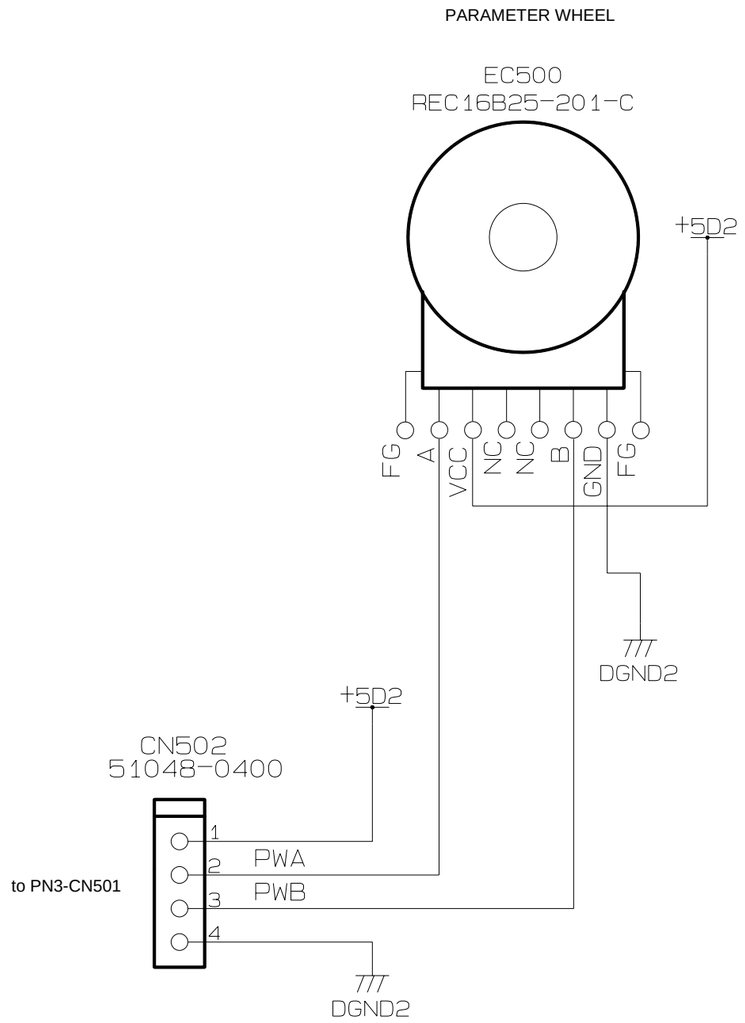


■ PN3 CIRCUIT DIAGRAM (02R96)

02R96



■ PW CIRCUIT DIAGRAM (02R96)

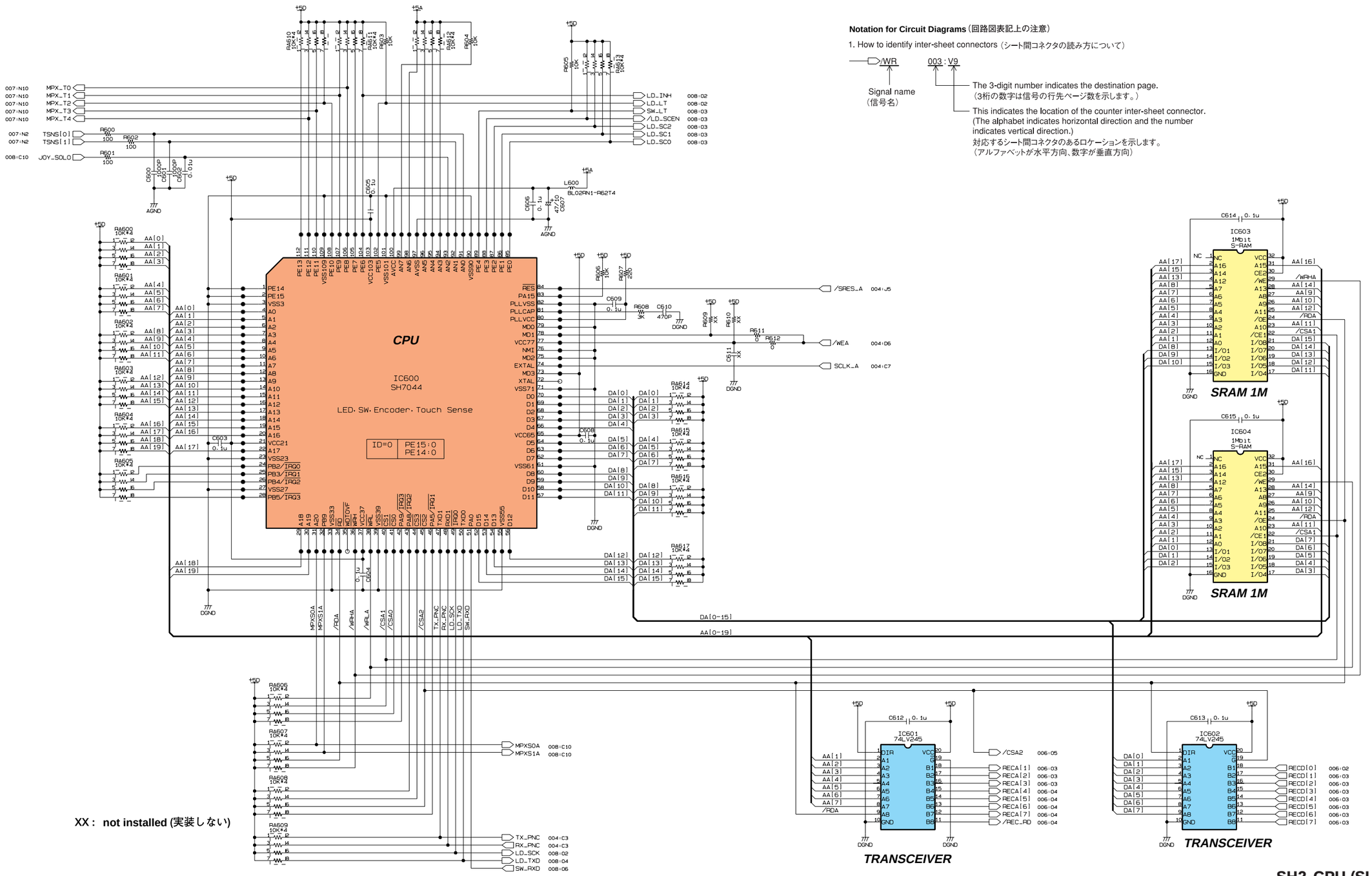


■ PW CIRCUIT DIAGRAM (02R96)

■ SUB CIRCUIT DIAGRAM 002 (02R96)

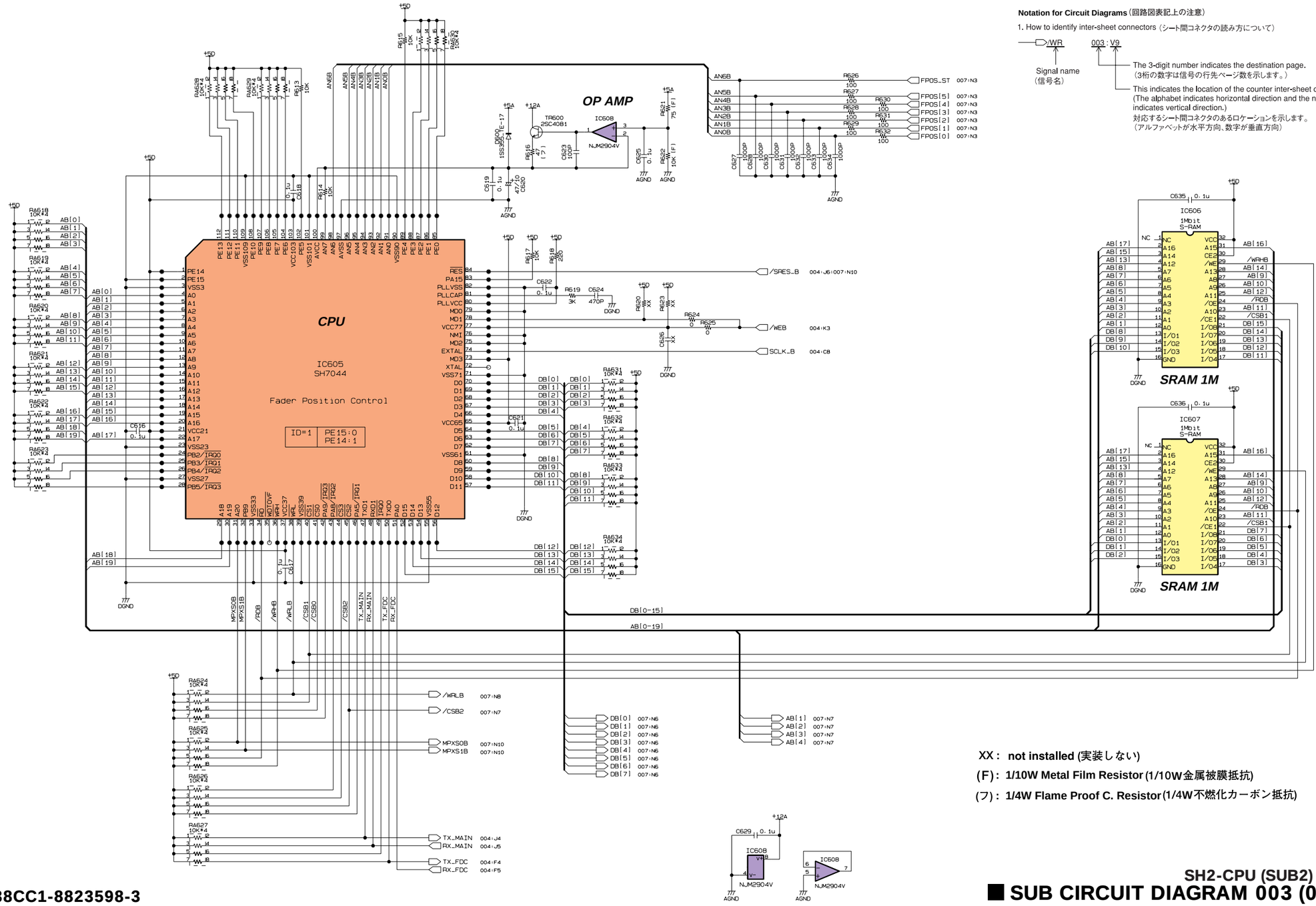
Notation for Circuit Diagrams（回路図表記上の注意）

1. How to identify inter-sheet connectors（シート間コネクタの読み方について）



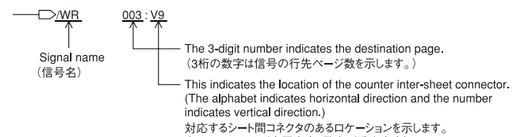
■ SUB CIRCUIT DIAGRAM 003 (02R96)

02R96



Notation for Circuit Diagrams（回路図表記上の注意）

1. How to identify inter-sheet connectors（シート間コネクタの読み方について）



XX : **not installed** (実装しない)

(F) : **1/10W Metal Film Resistor** (1/10W金属被膜抵抗)

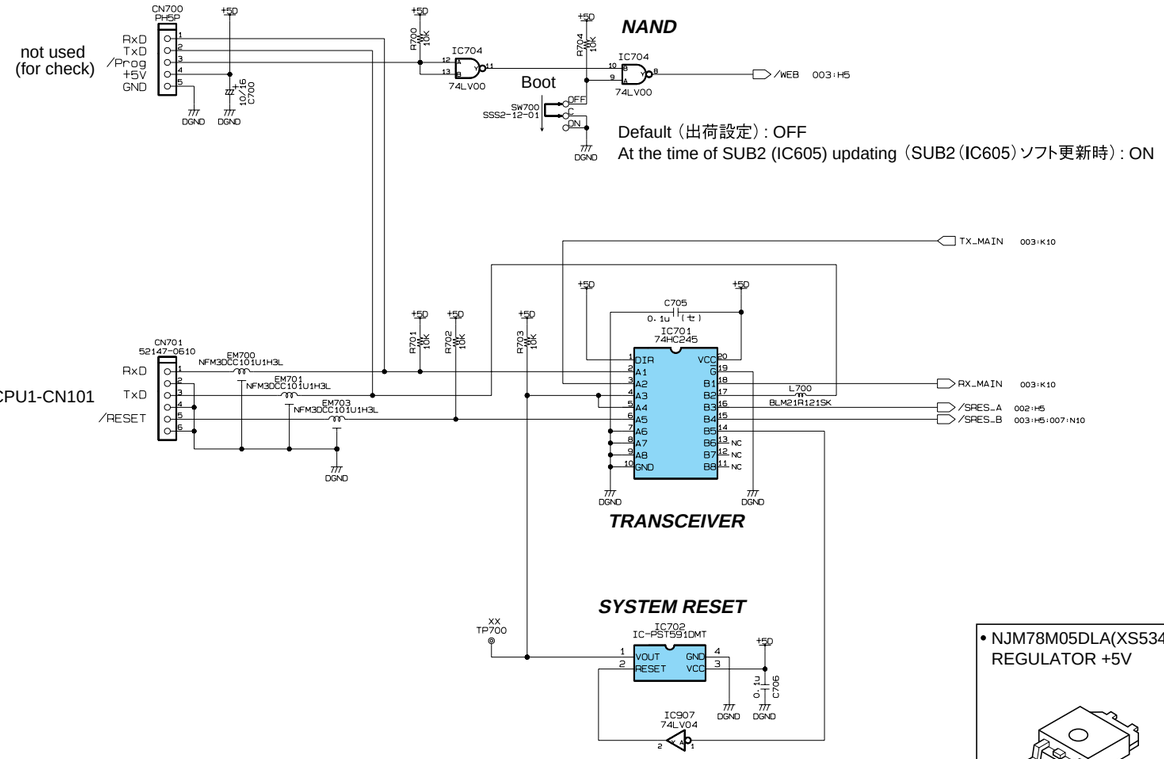
(フ) : **1/4W Flame Proof C. Resistor** (1/4W不燃化カーボン抵抗)

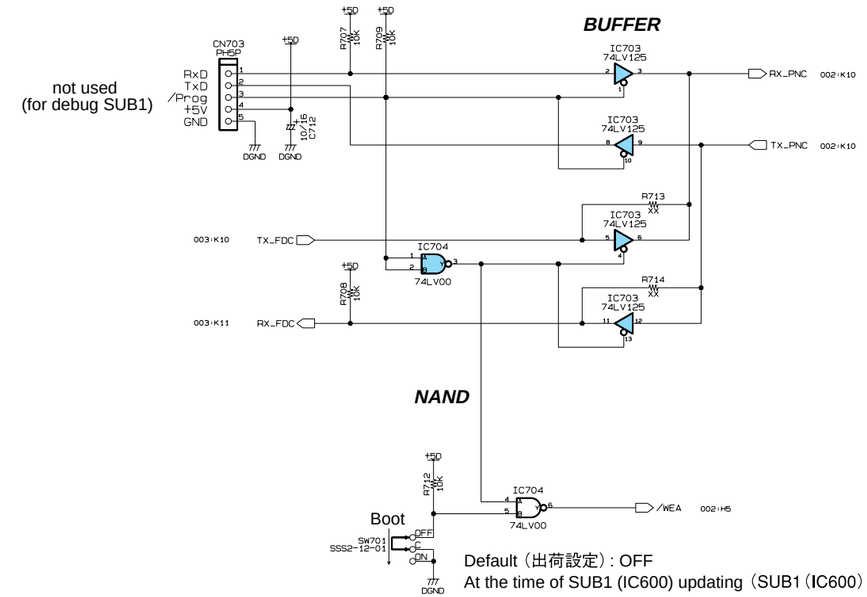
38CC1-8823598-3

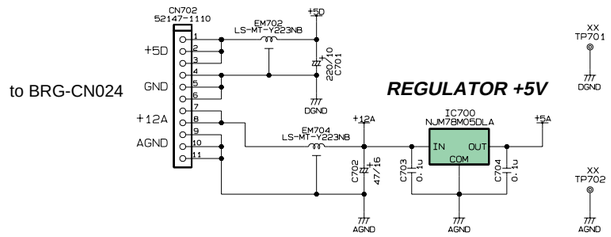
SH2-CPU (SUB2) Section

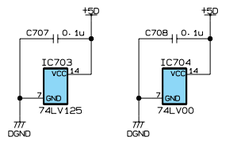
■ SUB CIRCUIT DIAGRAM 003 (02R96)

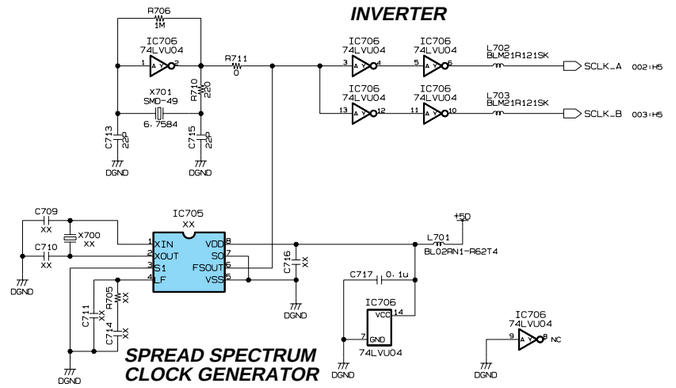
■ SUB CIRCUIT DIAGRAM 004 (02R96)





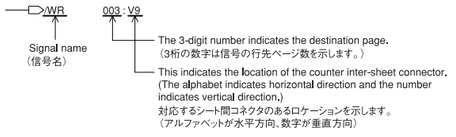






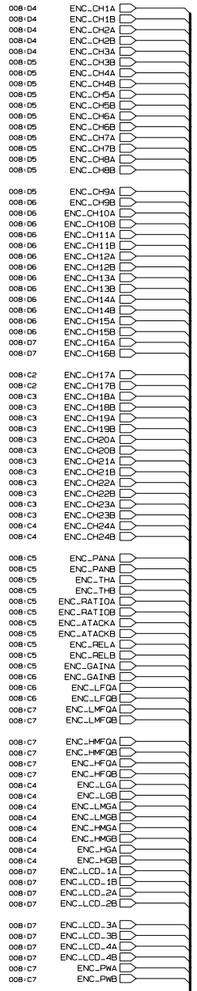
Notation for Circuit Diagrams（回路図表記上の注意）

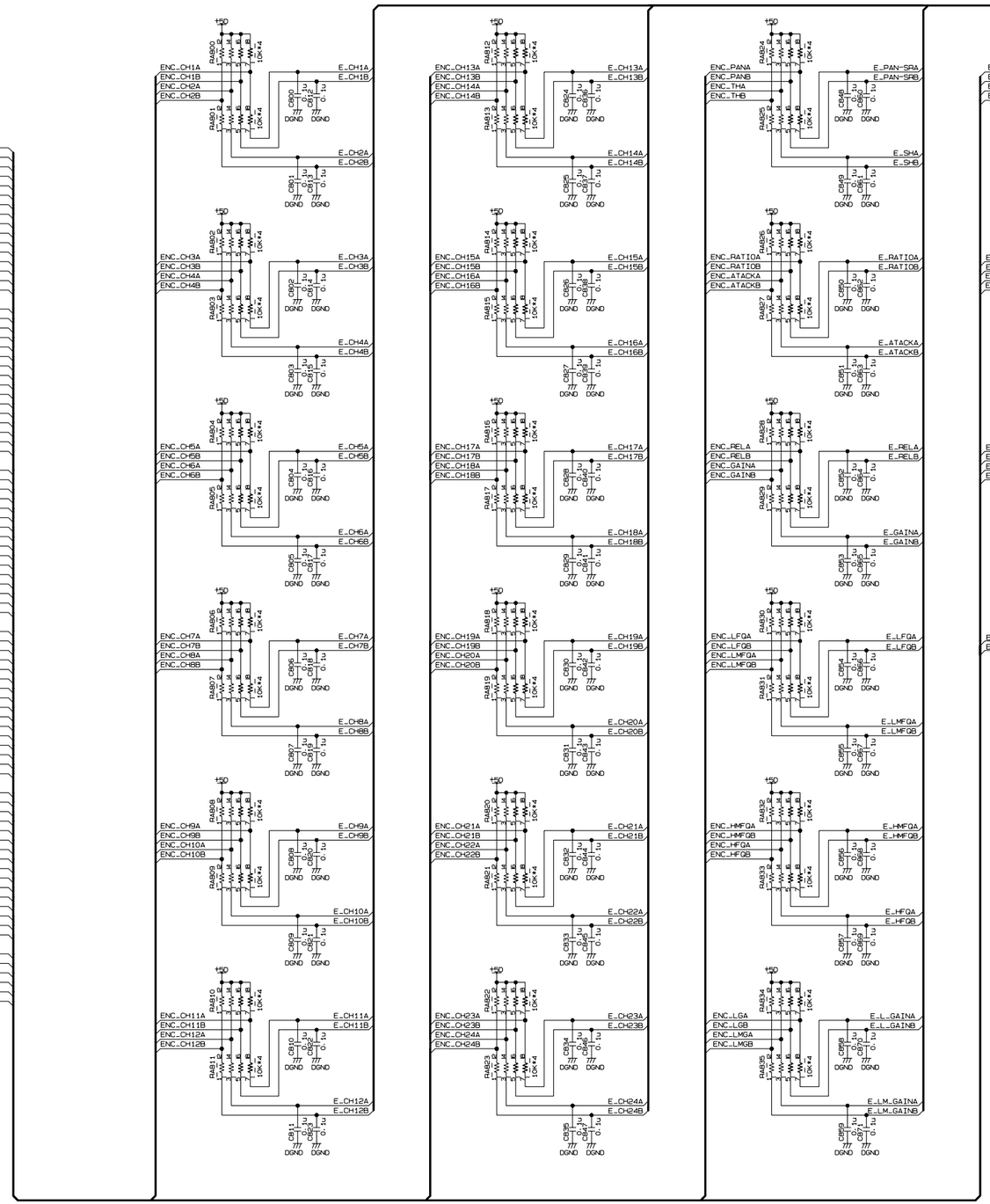
1. How to identify inter-sheet connectors（シート間コネクタの読み方について）



■ SUB CIRCUIT DIAGRAM 005 (02R96)

02R96





E_CH1A 006:C2
E_CH1B 006:C3
E_CH2A 006:C3
E_CH2B 006:C3
E_CH3A 006:C3
E_CH3B 006:C3
E_CH4A 006:C3
E_CH4B 006:C3
E_CH5A 006:C3
E_CH5B 006:C3
E_CH6A 006:C3
E_CH6B 006:C3
E_CH7A 006:C3
E_CH7B 006:C4
E_CH8A 006:C4
E_CH8B 006:C4
E_CH9A 006:C4
E_CH9B 006:C4
E_CH10A 006:C4
E_CH10B 006:C4
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E_CH11B 006:C4
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E_CH12B 006:C4
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E_PAN-SRB 006:C7
E_SHA 006:C7
E_SHB 006:C7
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E_LMFQA 006:C8
E_LMFQB 006:C8
E_HMFQA 006:C8
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E_HFQA 006:C8
E_HFQB 006:C8
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E_L_GAINB 006:C8
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E_LM_GAINB 006:C8
E_HM_GAINA 006:C9
E_HM_GAINB 006:C9
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E_H_GAINB 006:C9
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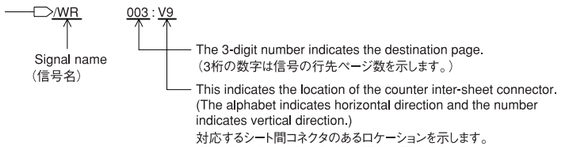
E_LCD_1B 006:C9
E_LCD_2A 006:C9
E_LCD_2B 006:C9
E_LCD_3A 006:C9
E_LCD_3B 006:C9
E_LCD_4A 006:C9
E_LCD_4B 006:C10
E_PW_A 006:C10
E_PW_B 006:C10

Notation for Circuit Diagrams（回路図表記上の注意）

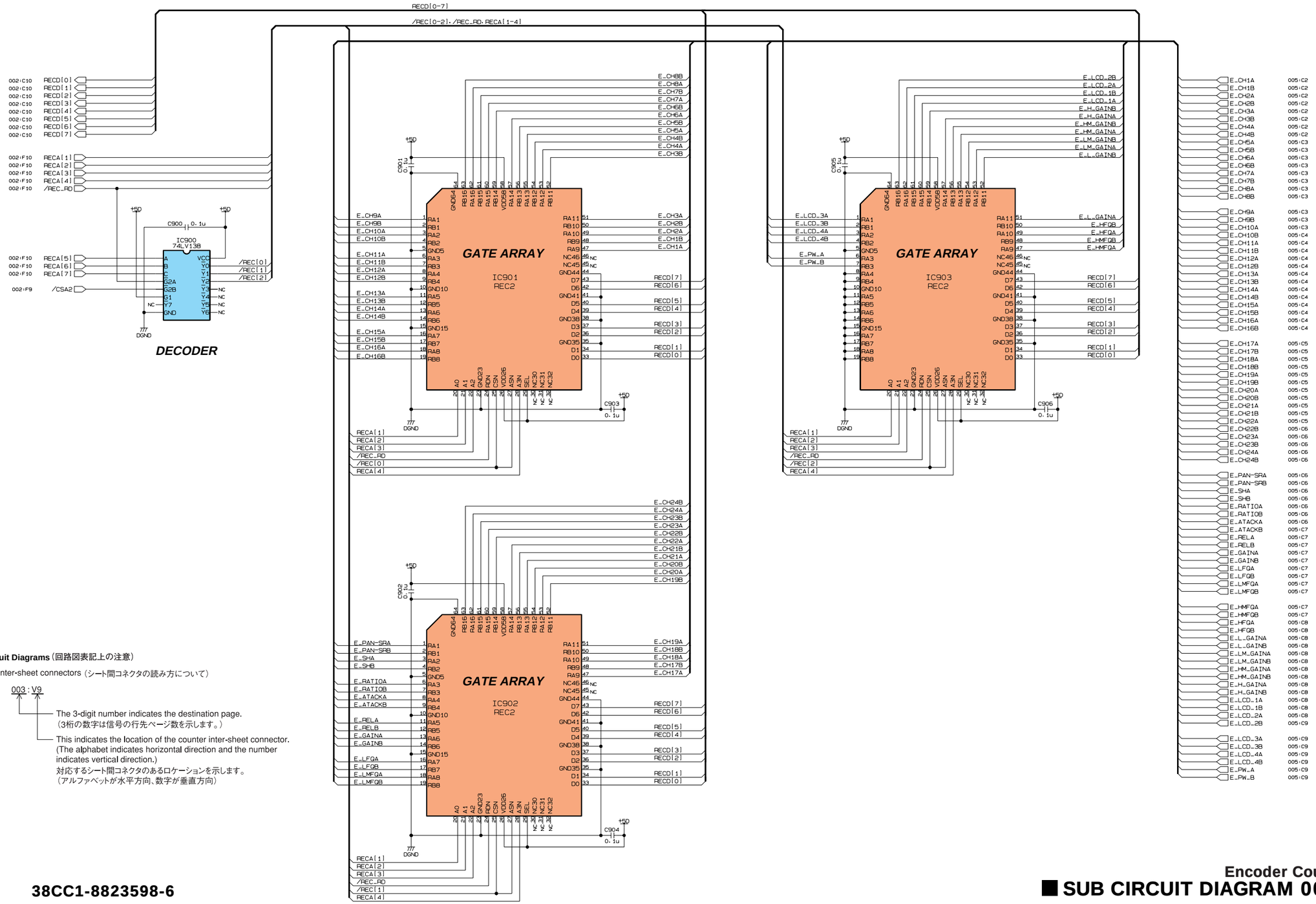
1. How to identify inter-sheet connectors（シート間コネクタの読み方について）



Encoder Input Filter Section

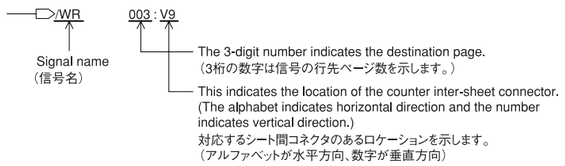
■ SUB CIRCUIT DIAGRAM 005 (02R96)

■ SUB CIRCUIT DIAGRAM 006 (02R96)



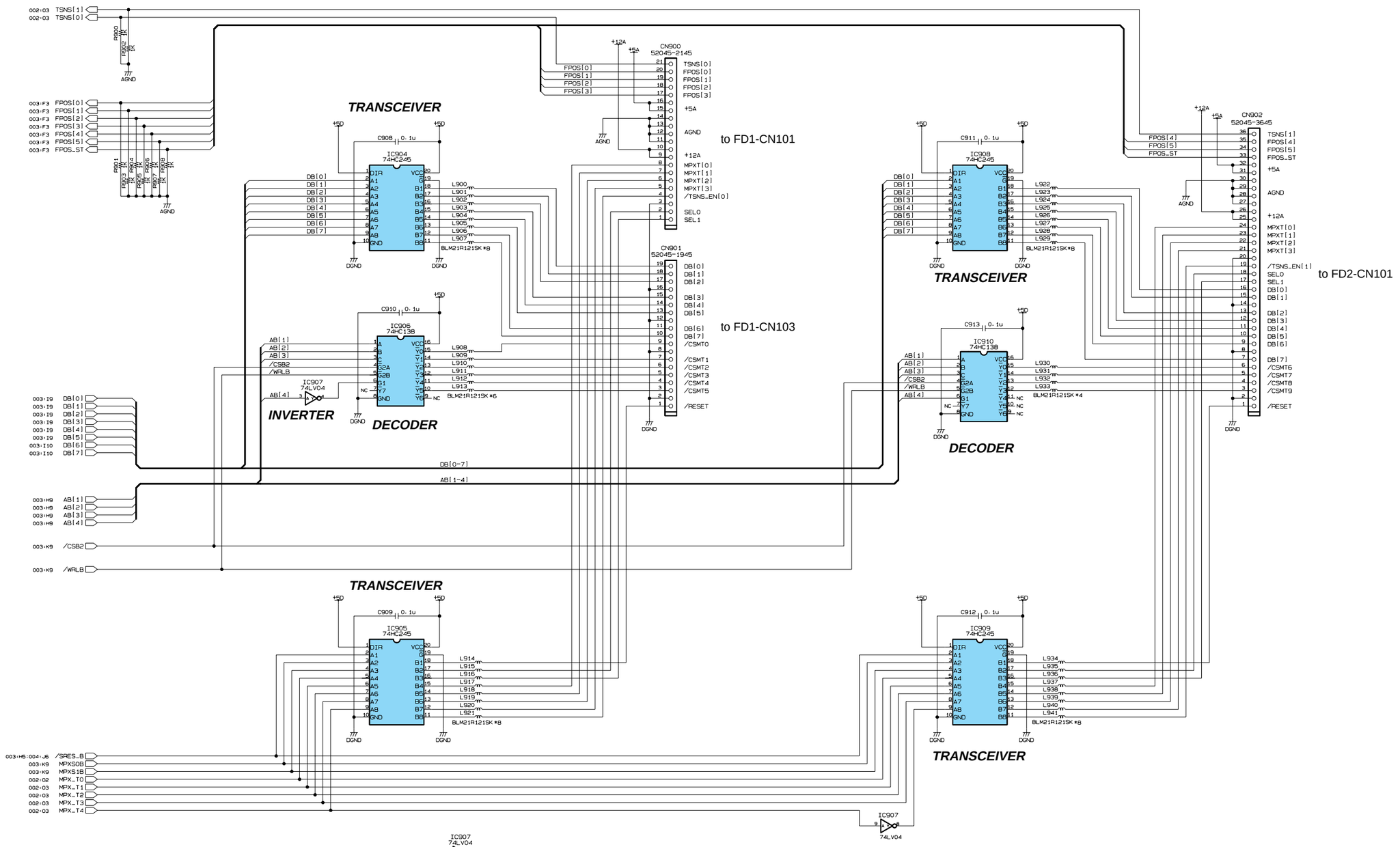
Notation for Circuit Diagrams（回路図表記上の注意）

1. How to identify inter-sheet connectors（シート間コネクタの読み方について）



■ SUB CIRCUIT DIAGRAM 007 (02R96)

02R96



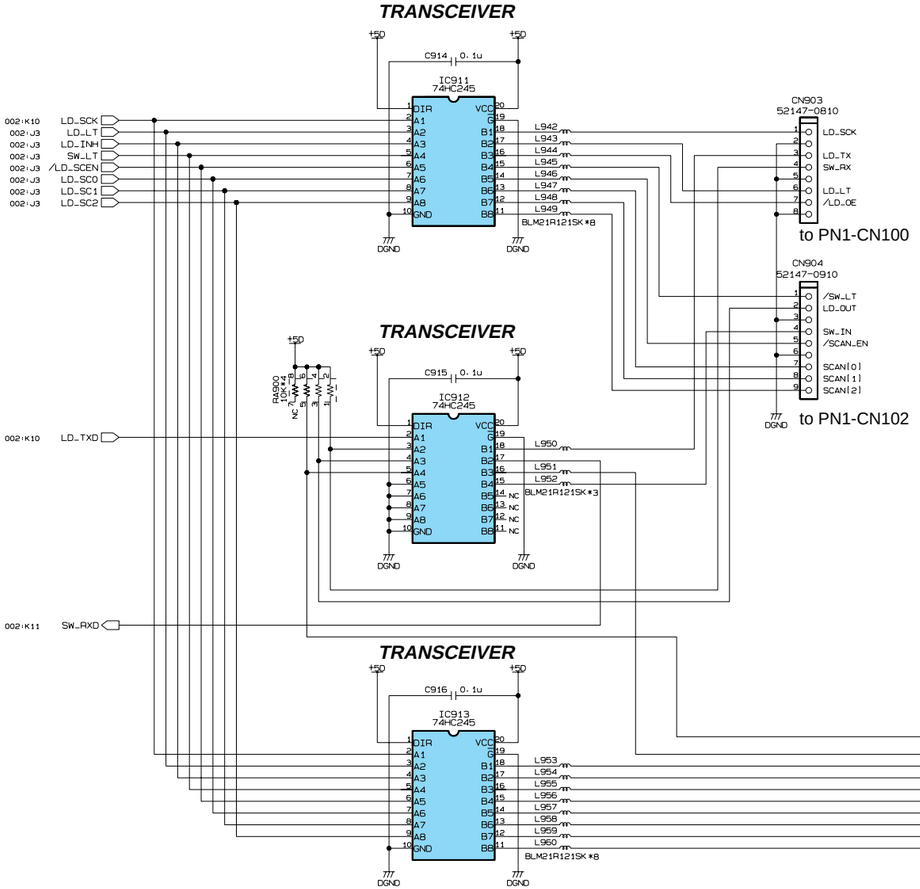
Notation for Circuit Diagrams（回路図表記上の注意）

1. How to identify inter-sheet connectors（シート間コネクタの読み方について）

/WR — Signal name（信号名）

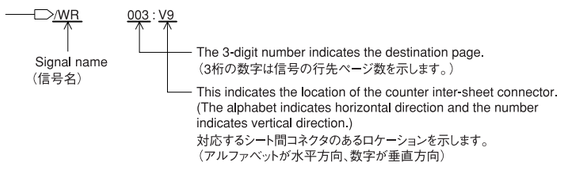
003 : V9
- The 3-digit number indicates the destination page.（3桁の数字は信号の行先ページ数を示します。）
- This indicates the location of the counter inter-sheet connector. (The alphabet indicates horizontal direction and the number indicates vertical direction.)
  対応するシート間コネクタのあるロケーションを示します。（アルファベットが水平方向、数字が垂直方向）

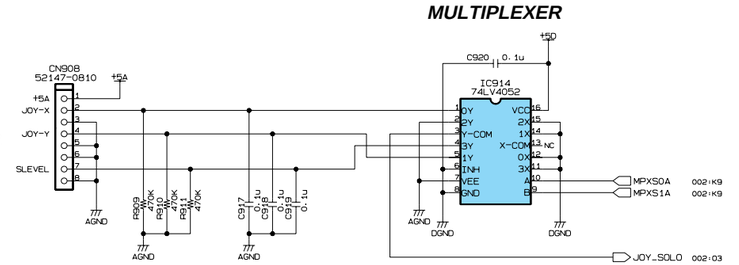
■ SUB CIRCUIT DIAGRAM 008 (02R96)



Notation for Circuit Diagrams（回路図表記上の注意）

1. How to identify inter-sheet connectors（シート間コネクタの読み方について）

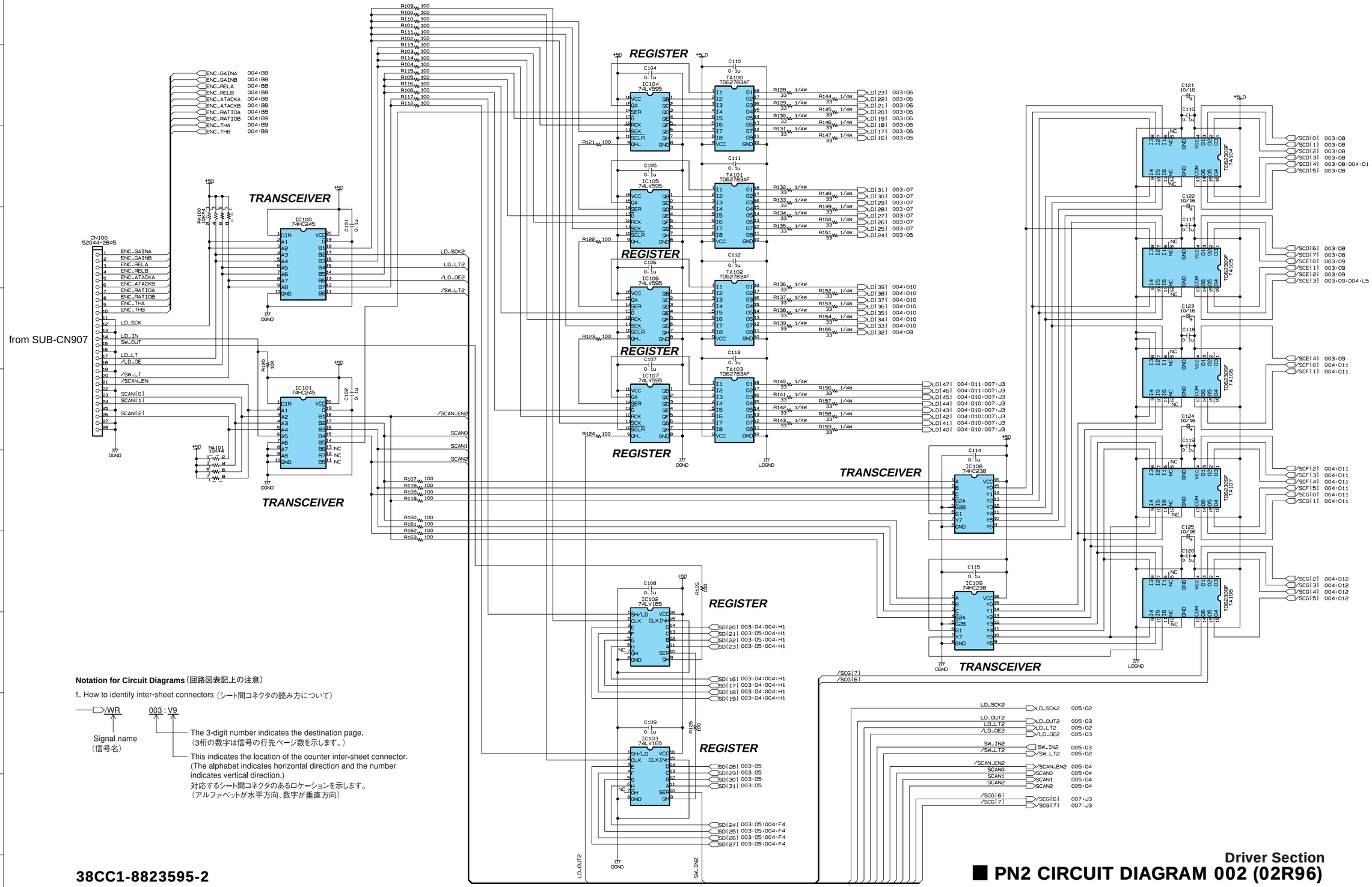




■ SUB CIRCUIT DIAGRAM 008 (02R96)

■ PN2 CIRCUIT DIAGRAM 002 (02R96)

02R96



Notation for Circuit Diagrams（回路図表記上の注意）

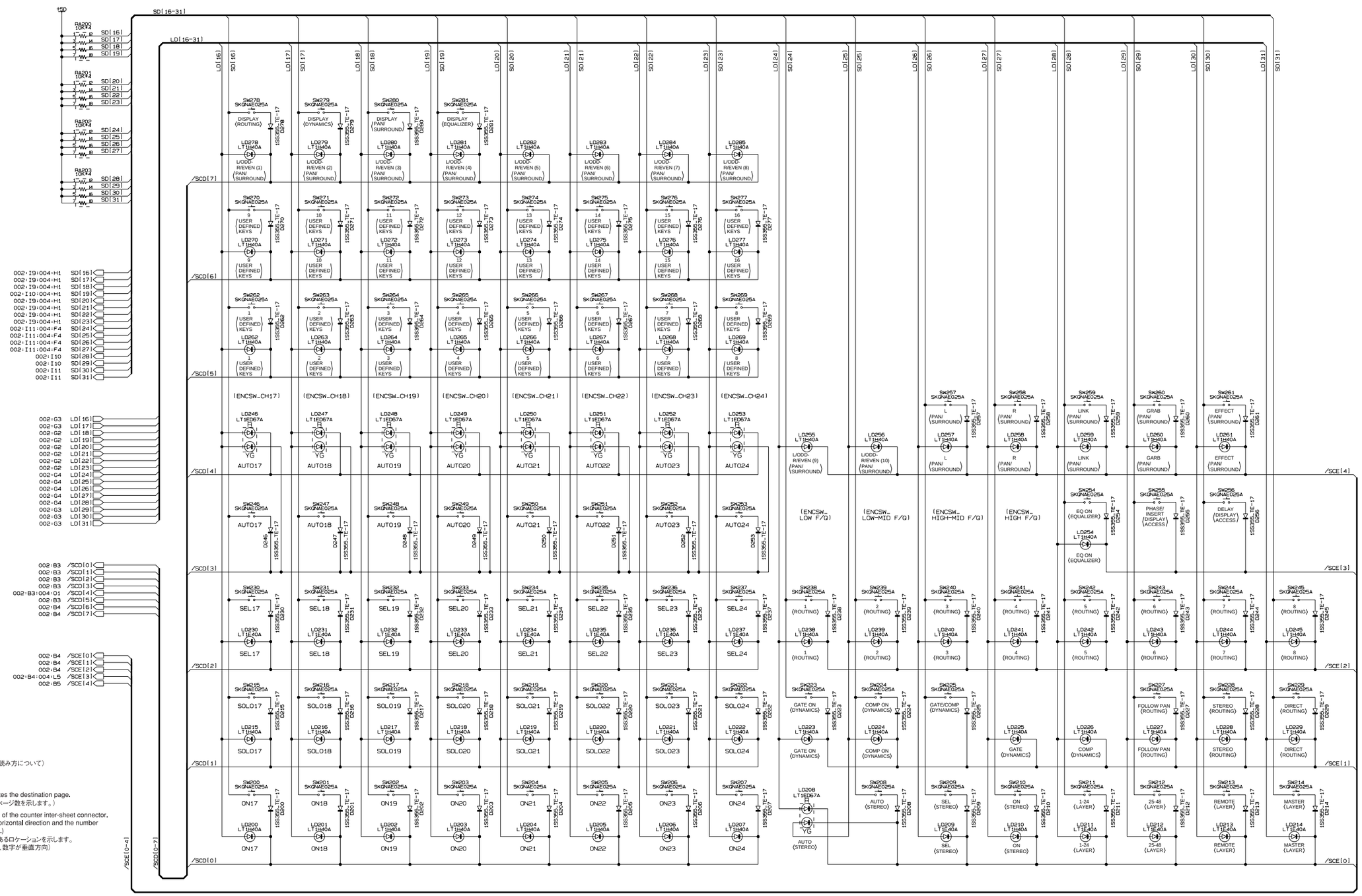
1. How to identify inter-sheet connectors（シート間コネクタの読み方について）

Driver Section

■ PN2 CIRCUIT DIAGRAM 002 (02R96)

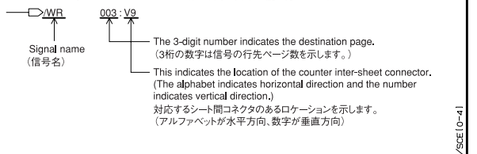
■ PN2 CIRCUIT DIAGRAM 003 (02R96)

02R96



Notation for Circuit Diagrams (回路図表記上の注意)

1. How to identify inter-sheet connectors (シート間コネクタの読み方について)



LED
LT1H40A: Yellow
LT1E40A: Yellow Green
LT1ED67A: Red/Yellow Green

ENCSW_ = ENCODER SWITCH
UDK_ = USER DEFINED KEYS

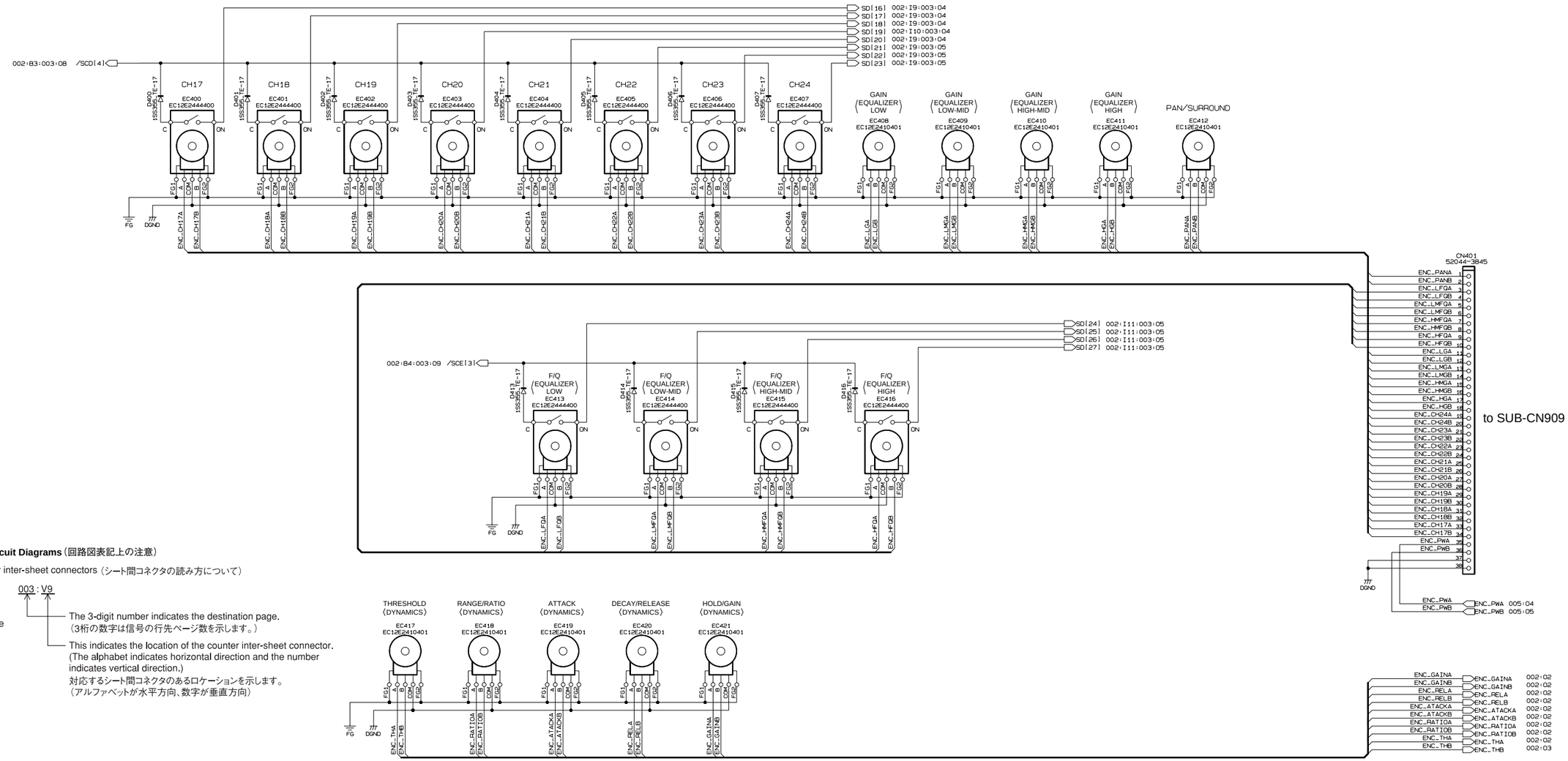
38CC1-8823595-3

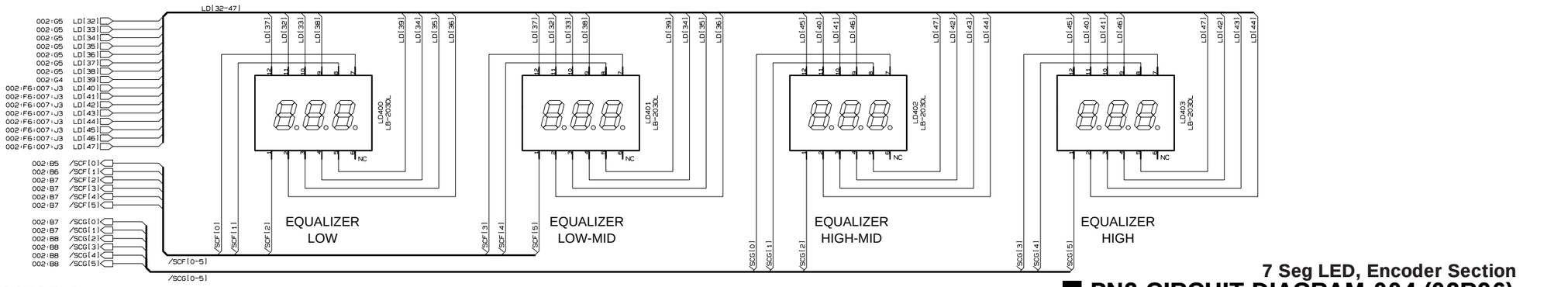
SW/LED Matrix Section

■ PN2 CIRCUIT DIAGRAM 003 (02R96)

■ PN2 CIRCUIT DIAGRAM 004 (02R96)

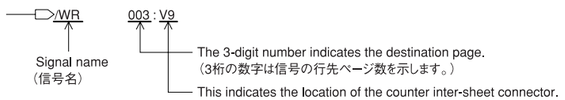
02R96





Notation for Circuit Diagrams（回路図表記上の注意）

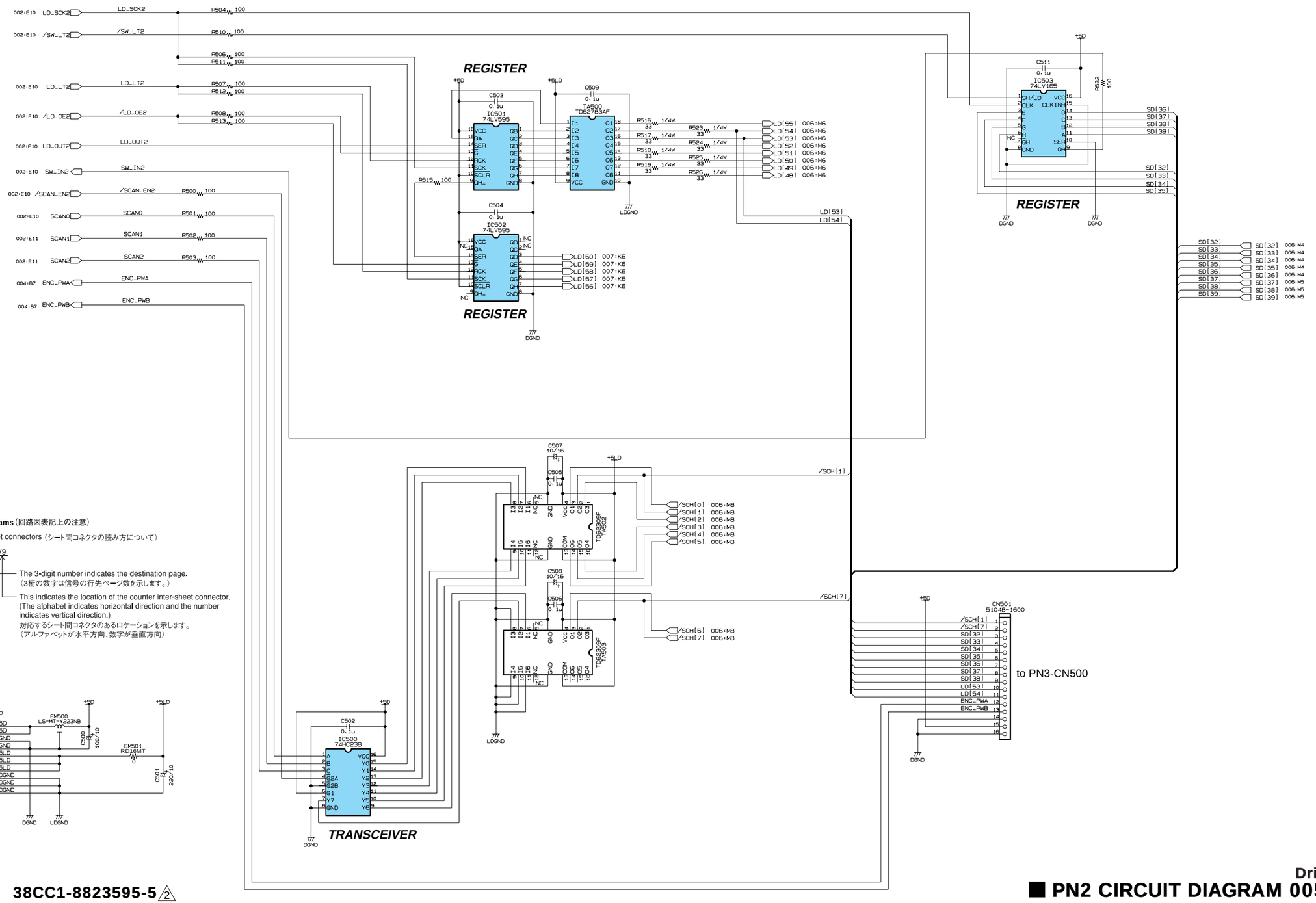
1. How to identify inter-sheet connectors（シート間コネクタの読み方について）



7 Seg LED, Encoder Section

■ PN2 CIRCUIT DIAGRAM 004 (02R96)

■ PN2 CIRCUIT DIAGRAM 005 (02R96)



Notation for Circuit Diagrams（回路図表記上の注意）

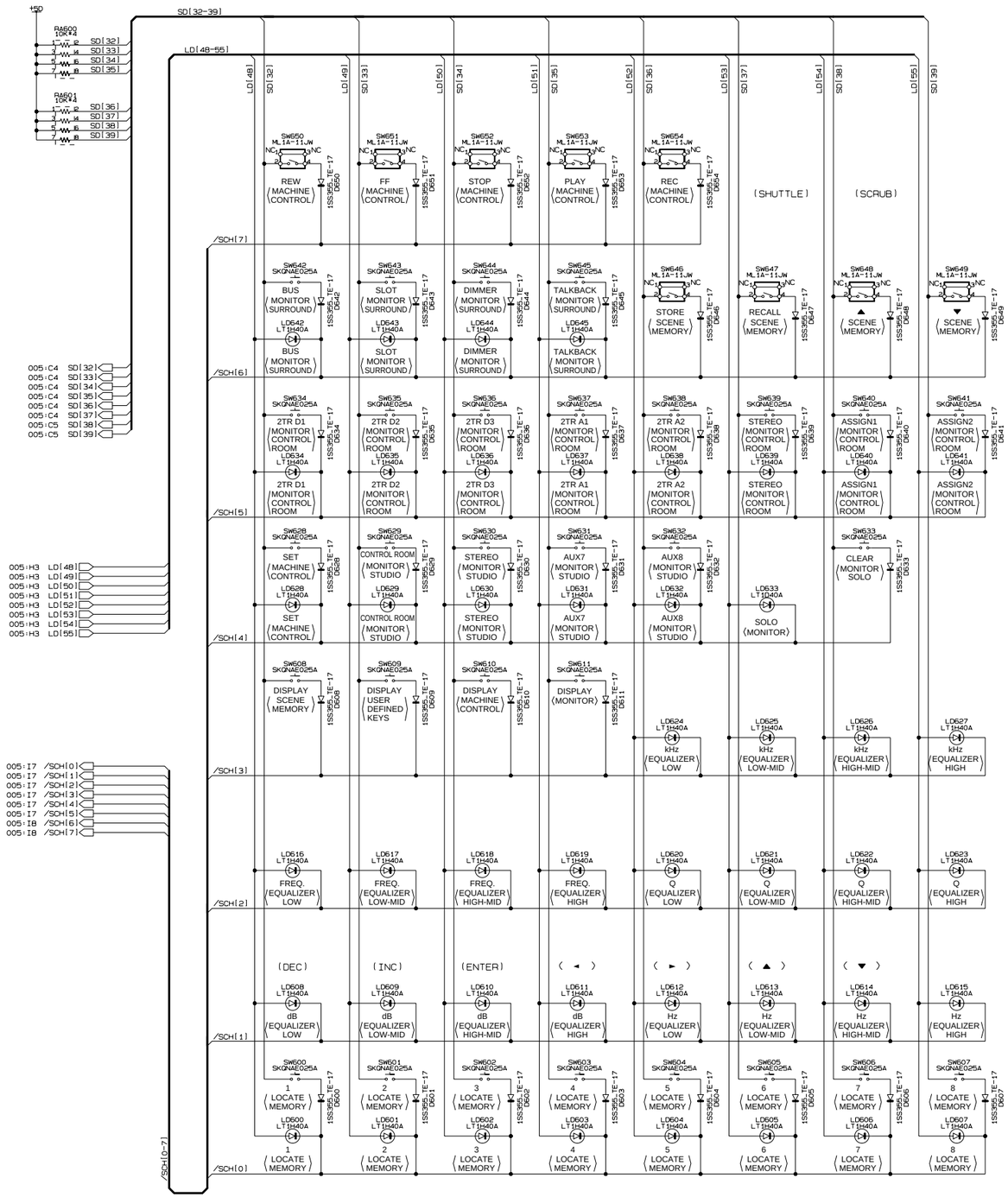
1. How to identify inter-sheet connectors（シート間コネクタの読み方について）

/WR — Signal name（信号名）

003 : V9
- The 3-digit number indicates the destination page.（3桁の数字は信号の行先ページ数を示します。）
- This indicates the location of the counter inter-sheet connector. (The alphabet indicates horizontal direction and the number indicates vertical direction.)
  対応するシート間コネクタのあるロケーションを示します。（アルファベットが水平方向、数字が垂直方向）

■ PN2 CIRCUIT DIAGRAM 006 (02R96)

02R96



LED
LT1H40A: Yellow
LT1D40A: Red

C-R_ = CONTROL ROOM
LM_ = LOCATE MEMORY
SM_ = SCENE MEMORY

Notation for Circuit Diagrams（回路図表記上の注意）

1. How to identify inter-sheet connectors（シート間コネクタの読み方について）

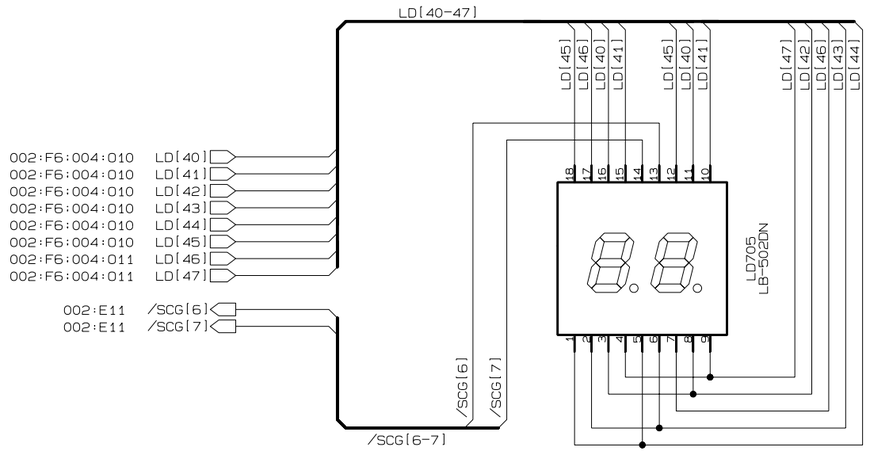
/WR — Signal name（信号名）

003 : V9
- The 3-digit number indicates the destination page.（3桁の数字は信号の行先ページ数を示します。）
- This indicates the location of the counter inter-sheet connector. (The alphabet indicates horizontal direction and the number indicates vertical direction.) 対応するシート間コネクタのあるロケーションを示します。（アルファベットが水平方向、数字が垂直方向）

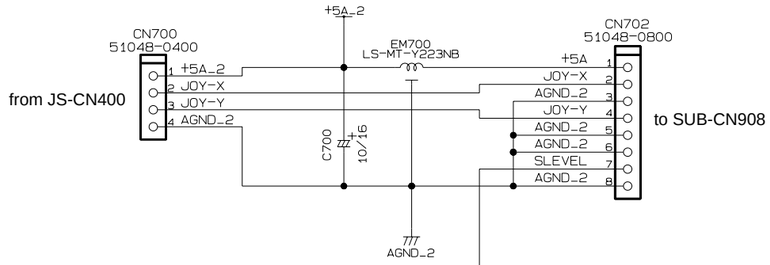
SW/LED Matrix Section

■ PN2 CIRCUIT DIAGRAM 006 (02R96)

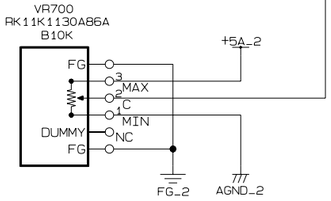
■ PN2 CIRCUIT DIAGRAM 007 (02R96)

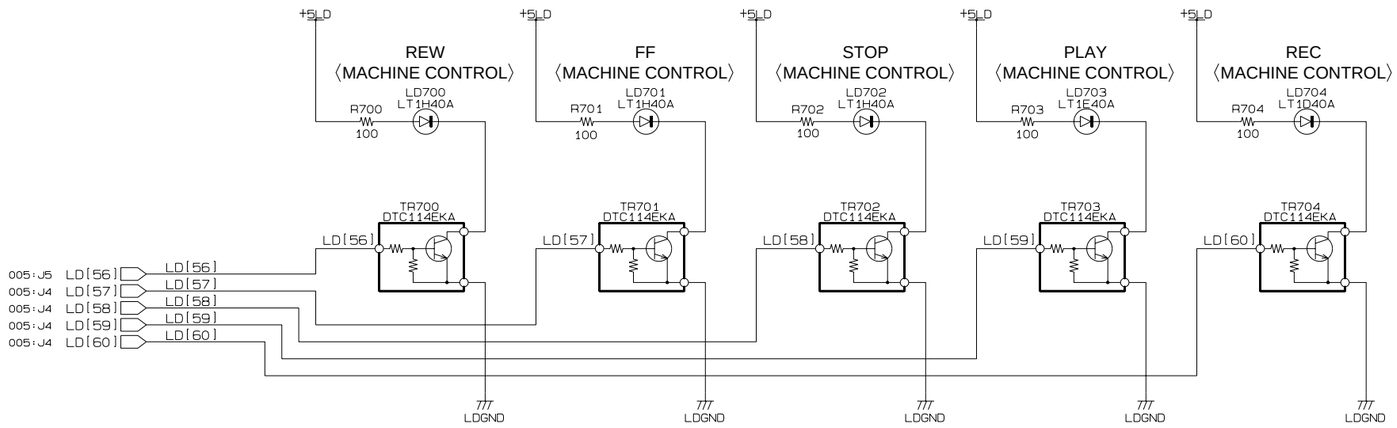


SCENE MEMORY

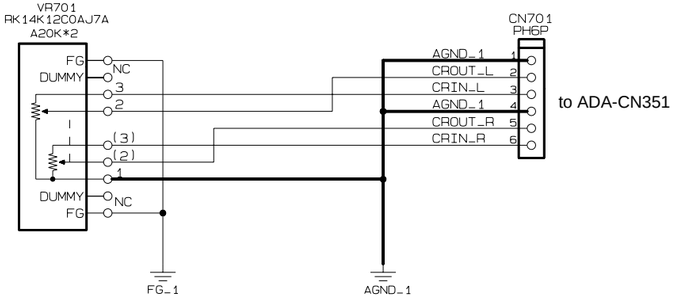


SURROUND MONITOR LEVEL



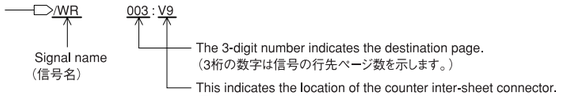


CONTROL ROOM LEVEL



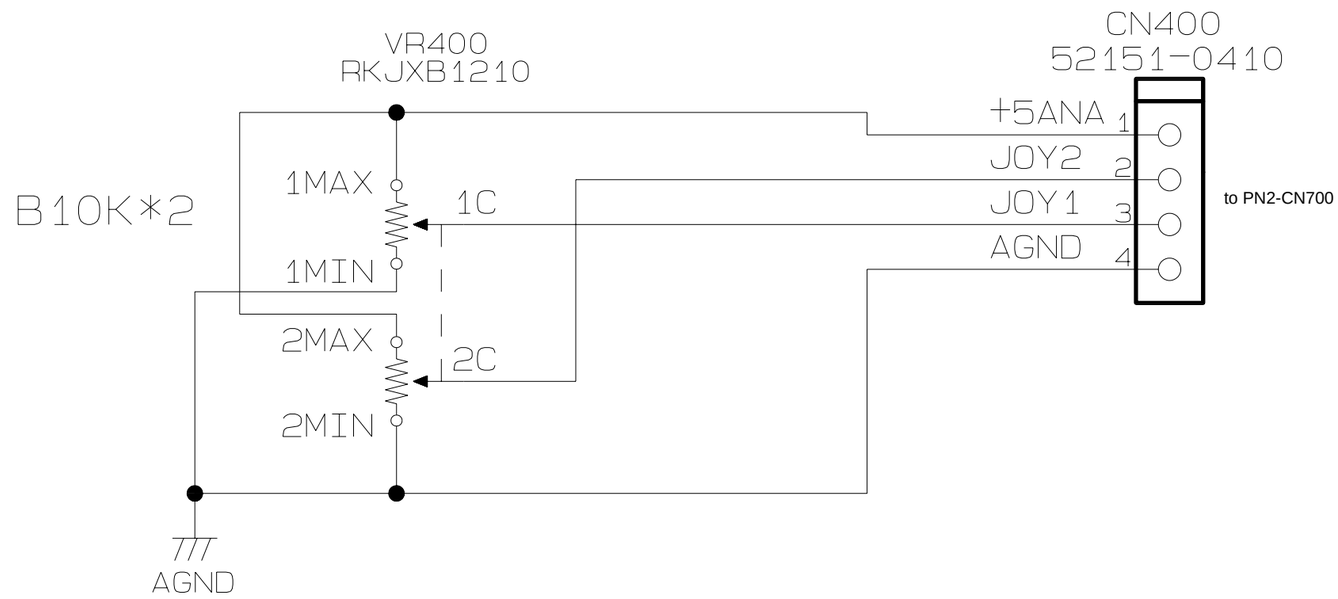
Notation for Circuit Diagrams（回路図表記上の注意）

1. How to identify inter-sheet connectors（シート間コネクタの読み方について）



■ JS CIRCUIT DIAGRAM (02R96)

PAN/SURROUND JOYSTICK



■ JS CIRCUIT DIAGRAM (02R96)

■ STD CIRCUIT DIAGRAM (02R96)

STUDIO MONITOR OUT L

STUDIO MONITOR OUT R

CONTROL ROOM MONITOR OUT L

CONTROL ROOM MONITOR OUT R

OP AMP

STUDIO LEVEL

from ADA-CN251

(F) : Metal Film Resistor (金属被膜抵抗)

(OS) : Organic Semiconductor Aluminum Electrolytic Capacitor (有機半導体アルミ電解コンデンサー)

■ STD CIRCUIT DIAGRAM (02R96)

PEAK METER BRIDGE

MB02R96

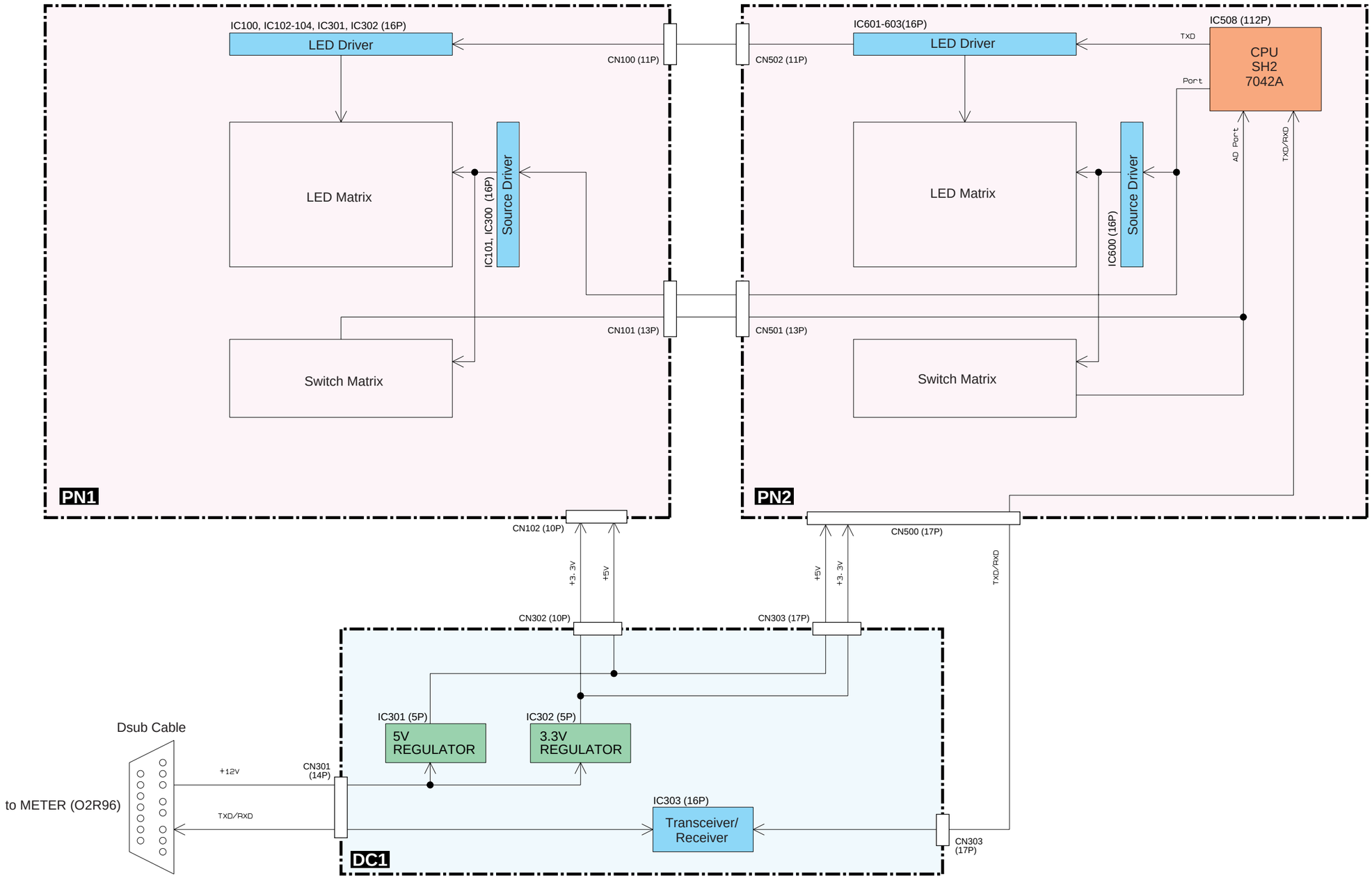
CIRCUIT DIAGRAM

■ CONTENTS

BLOCK DIAGRAM 3
OVERALL CONNECTOR CIRCUIT DIAGRAM 4
OVERALL CIRCUIT DIAGRAM
- DC1 5
- PNCOM (PN1) (002, 003) 6
- PNCOM (PN2) (004~007) 8

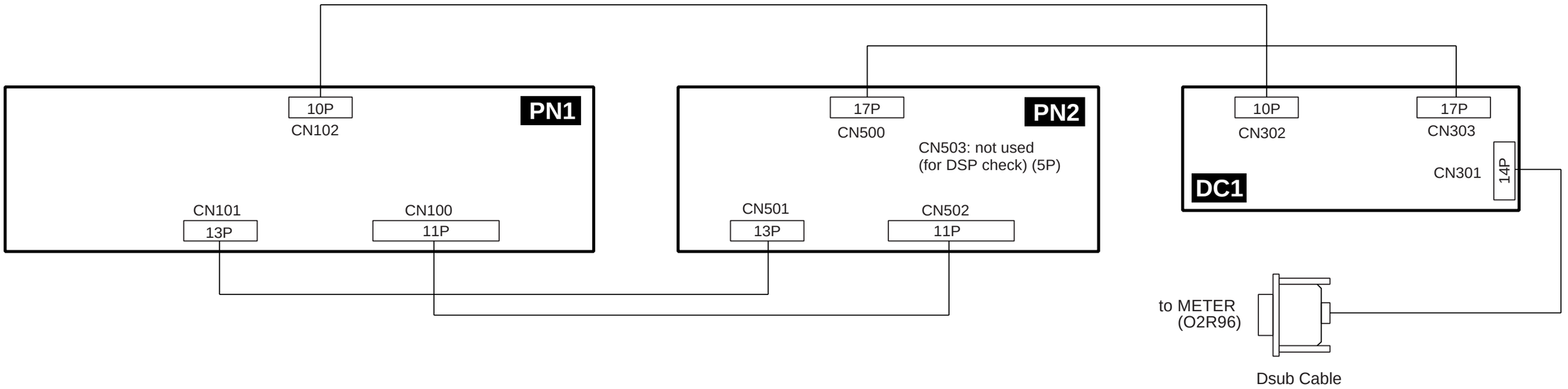
Note: See parts list for details of circuit board component parts.

■ BLOCK DIAGRAM (MB02R96)



MB02R96

■ OVERALL CONNECTOR CIRCUIT DIAGRAM (MB02R96)



Dsub ⇔ Connector CN301

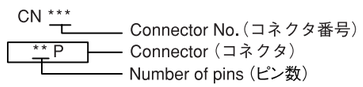
Pin Assignments Table

Dsub 15PIN	14PIN Connector
1	1
9	2
2	3
10	4
3	5
4	6
5	7
11	8
12	9
6	10
7	11
8	12
14	13
15	14
13	NC

Note) ・ ▭ indicates the sheet name.（ ▭ 内はシート名称を示します。）

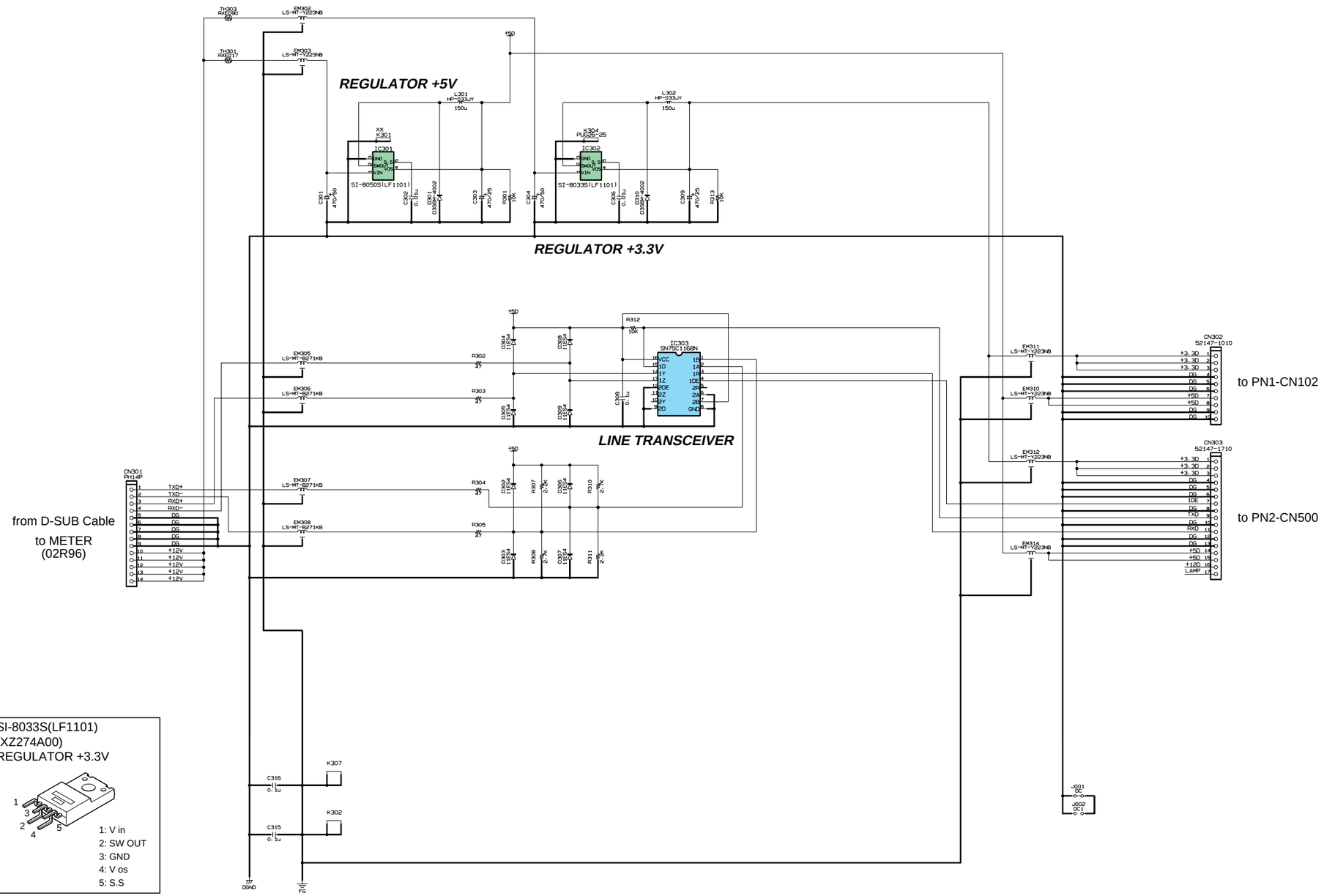
・Pin 1 of each connector, except for CN301, is connected to pin 1of the destination connector.
（CN301以外のコネクタの1ピンは、接続先コネクタの1ピンに接続されます。）

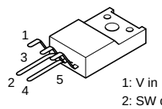
・Connectors are identified by the following items.
（コネクタの読み方については下記の通りとします。）



■ OVERALL CONNECTOR CIRCUIT DIAGRAM (MB02R96)

■ DC1 CIRCUIT DIAGRAM (MB02R96)



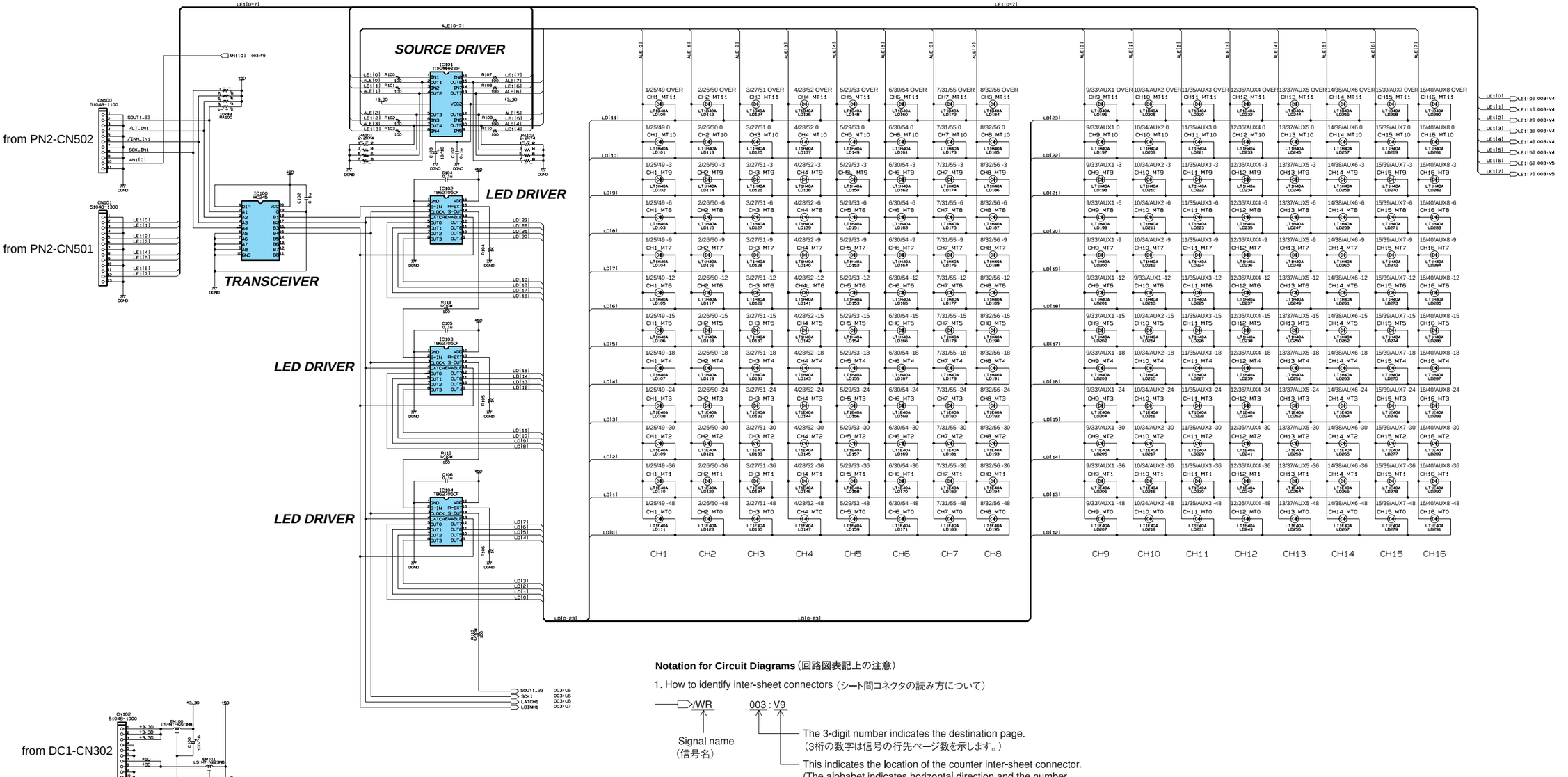
•SI-8050S(XT442A00) REGULATOR +5V	•SI-8033S(LF1101) (XZ274A00) REGULATOR +3.3V
 1: V in 2: SW out 3: GND 4: V os 5: S.S	 1: V in 2: SW OUT 3: GND 4: V os 5: S.S

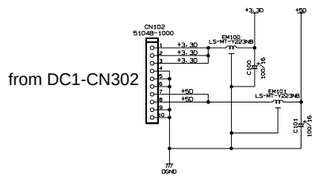
XX : **not installed** (実装しない)

38CC1-8822263-2 ⚠2

■ PN1 CIRCUIT DIAGRAM 002 (MB02R96)

MB02R96





Notation for Circuit Diagrams（回路図表記上の注意）

1. How to identify inter-sheet connectors（シート間コネクタの読み方について）

/WR — Signal name（信号名）

003 : V9
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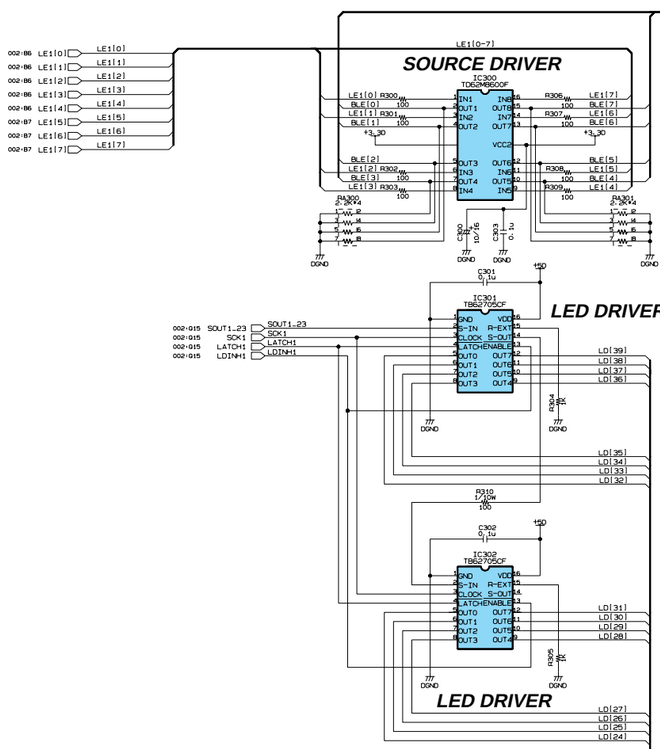
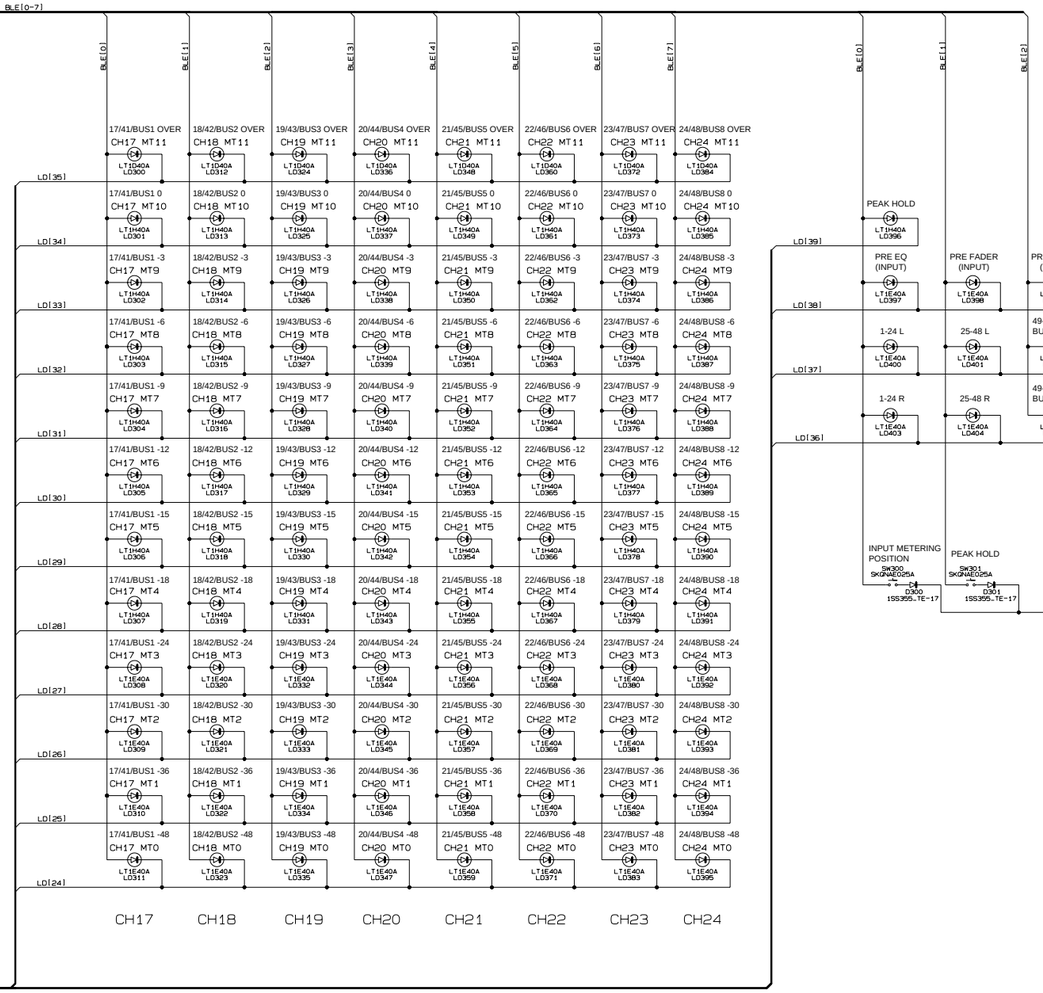
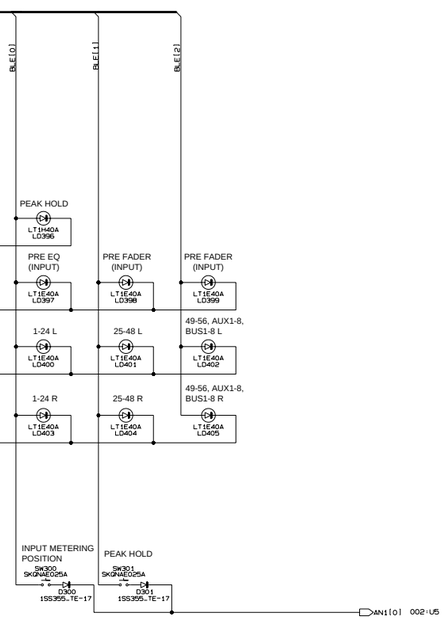
- This indicates the location of the counter inter-sheet connector. (The alphabet indicates horizontal direction and the number indicates vertical direction.) 対応するシート間コネクタのあるロケーションを示します。（アルファベットが水平方向、数字が垂直方向）

■ PN1 CIRCUIT DIAGRAM 003 (MB02R96)

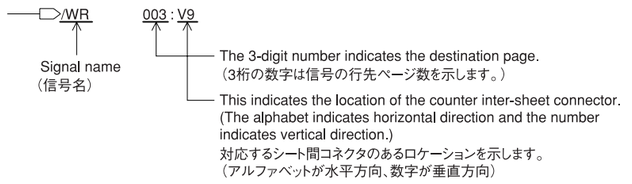






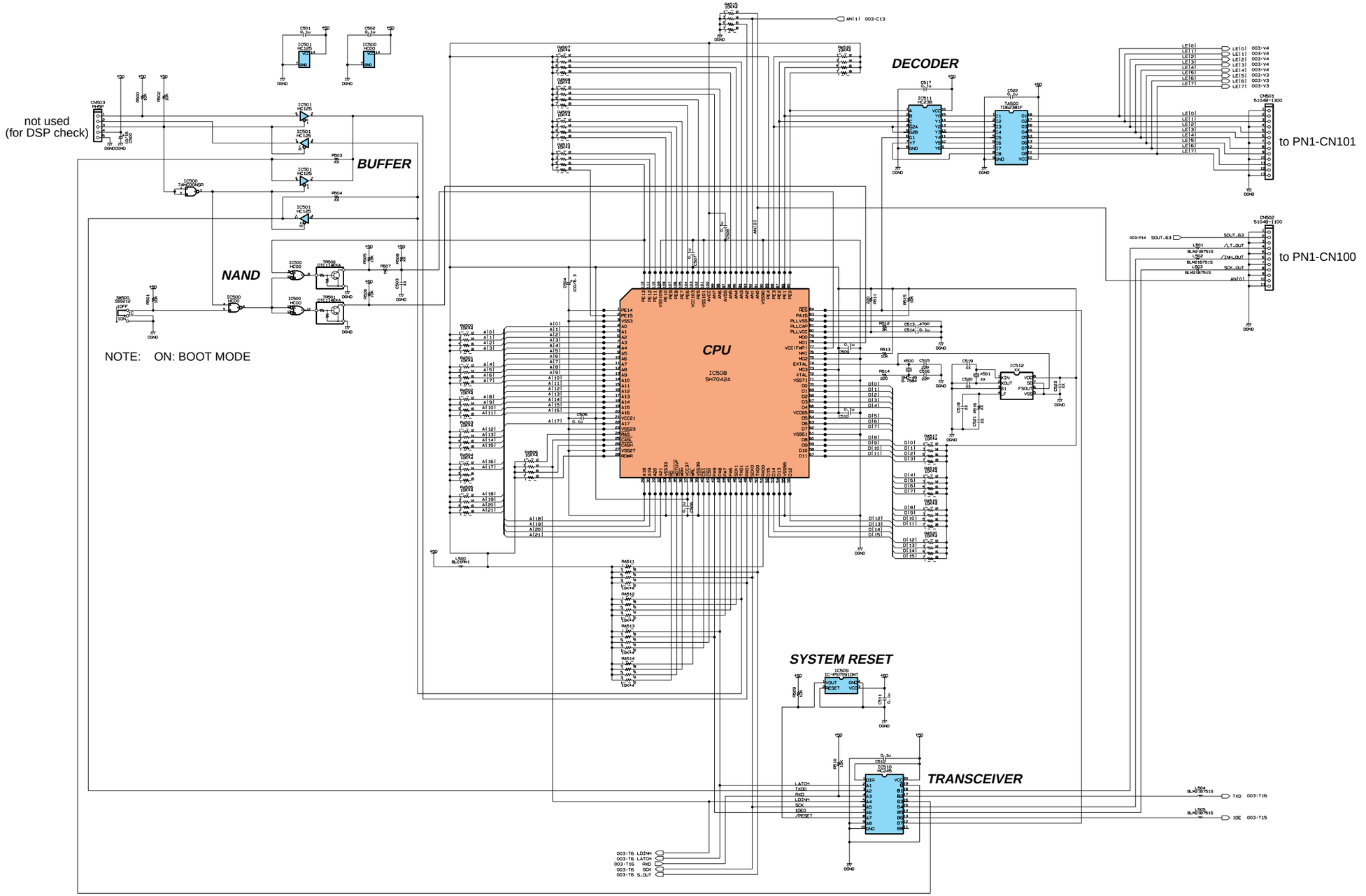
Notation for Circuit Diagrams（回路図表記上の注意）

1. How to identify inter-sheet connectors（シート間コネクタの読み方について）



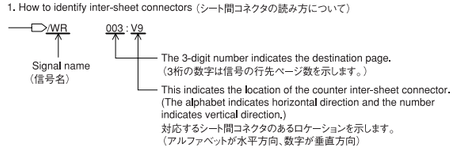
■ PN2 CIRCUIT DIAGRAM 002 (MB02R96)

MB02R96



Notation for Circuit Diagrams（回路図表記上の注意）

1. How to identify inter-sheet connectors（シート間コネクタの読み方について）



XX： **not installed (実装しない)**

■ PN2 CIRCUIT DIAGRAM 003 (MB02R96)

MB02R96