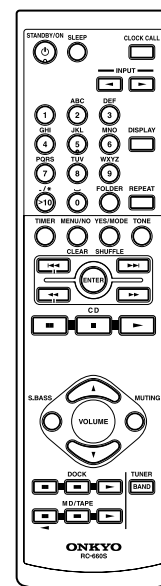
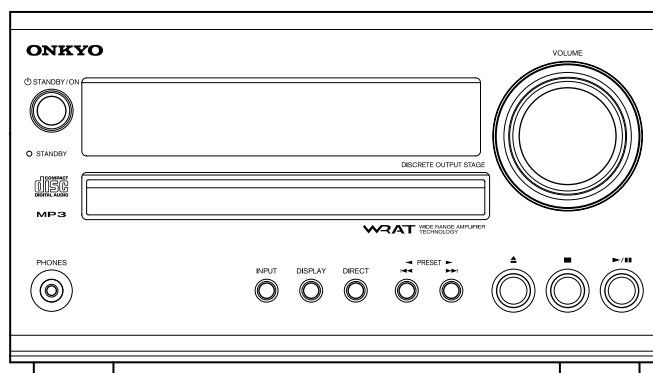
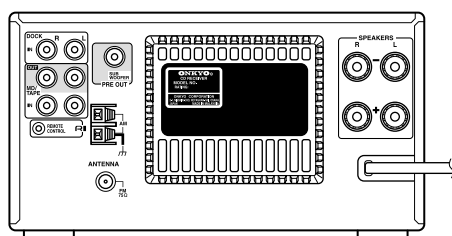


ONKYO SERVICE MANUAL

CD-Receiver MODEL CR-325



RC-660S

Black and Silver models

B MDC, B MDD, S MDT	120V AC, 60Hz
S MPP, B MPP	
S MGQ, S MGT, S MGR	220-230V AC, 50/60Hz

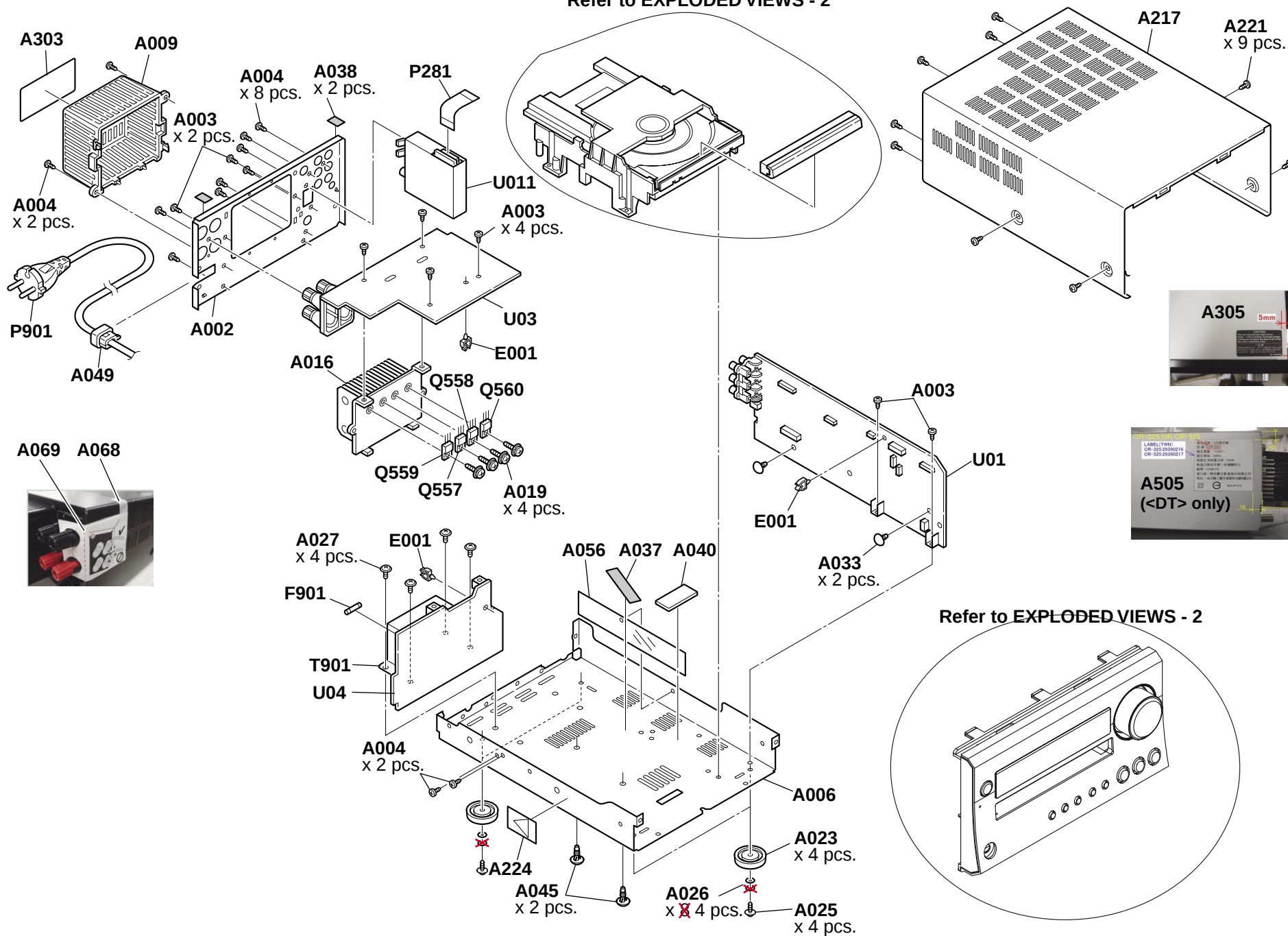
SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  ON THE SCHEMATIC DIAGRAM AND IN THE PARTS LIST ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE THESE COMPONENTS WITH ONKYO PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL.

MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

EXPLODED VIEWS - 1

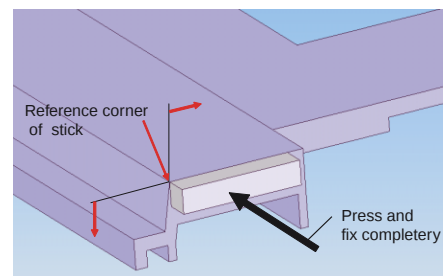
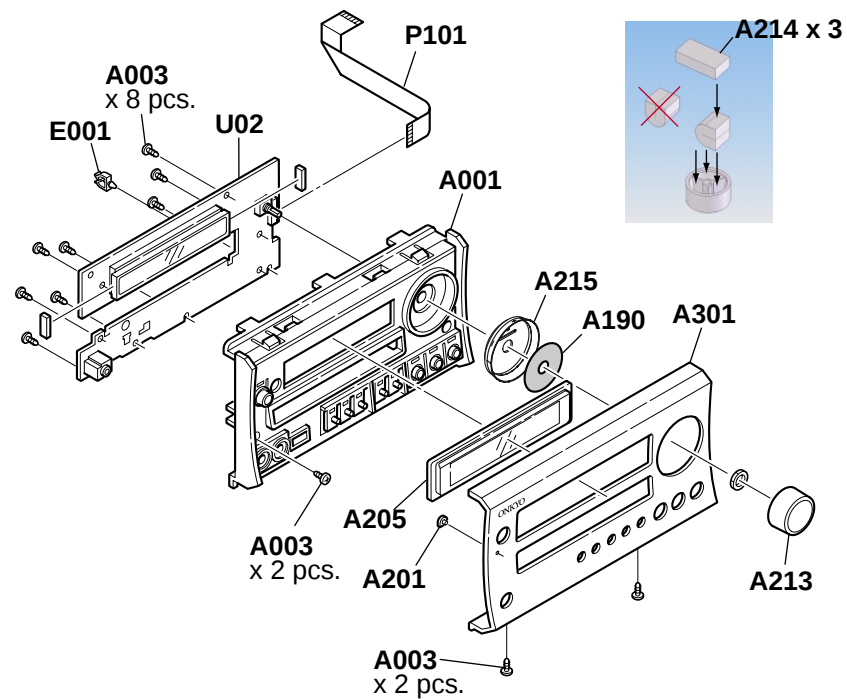
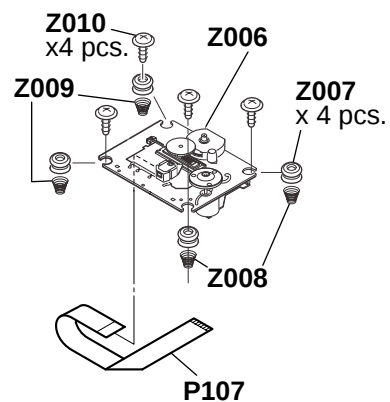
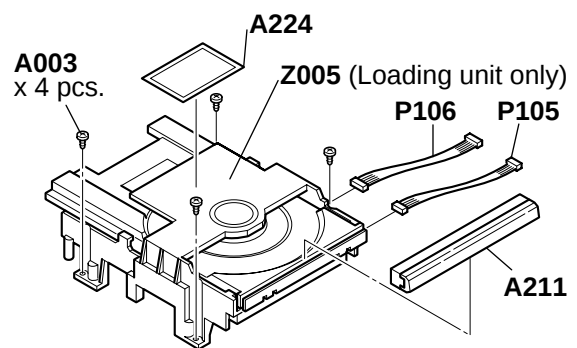
Refer to EXPLODED VIEWS - 2



Refer to EXPLODED VIEWS - 2

EXPLODED VIEWS - 2

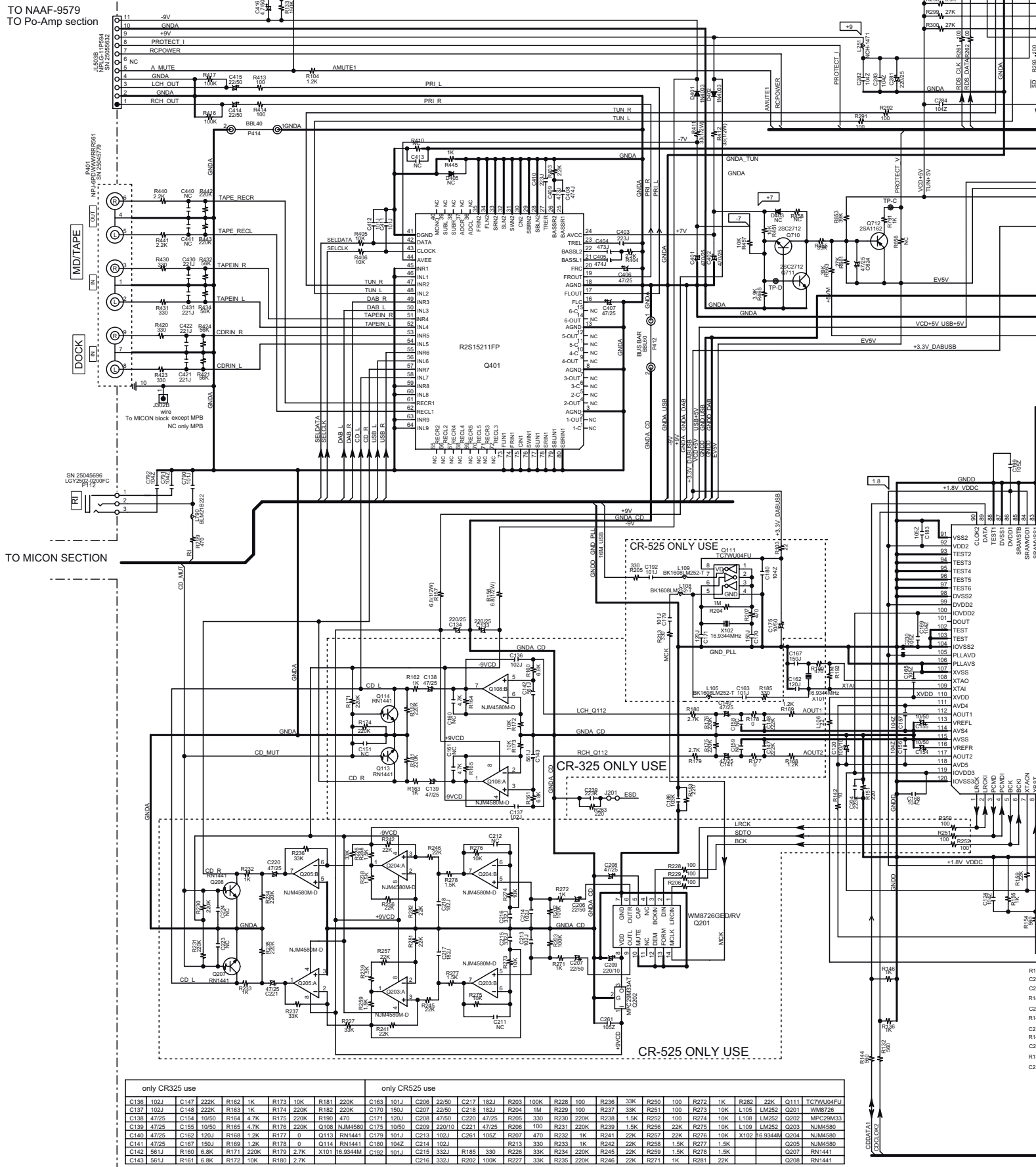
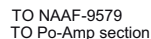
Mechanism and Front panel



AF CEL CD DAC SECTION

AF CEL CD DAC SECTION

TO TUNNER PA



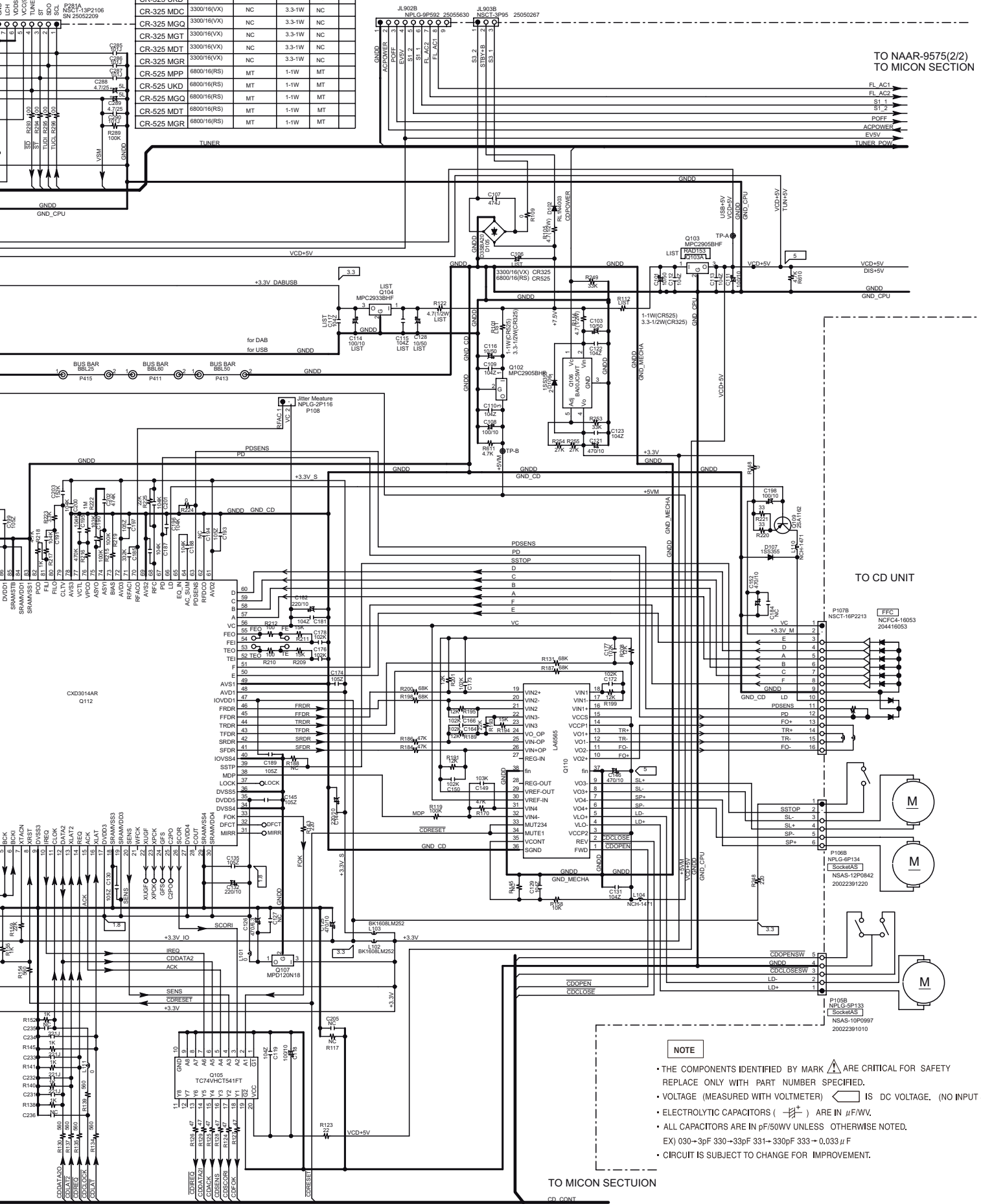
PACK

NCFC7-130512
2047130512
[FFC]

MODEL	C106	Q104 C114 C115	R122 C117 C128	R101 R112	Q103A Heatsink
CR-325 MPP	3300/16(VX)	NC	3.3-1W	NC	
CR-325 UKD	3300/16(VX)	MT	3.3-1W	NC	
CR-325 MDC	3300/16(VX)	NC	3.3-1W	NC	
CR-325 MGQ	3300/16(VX)	NC	3.3-1W	NC	
CR-325 MGT	3300/16(VX)	NC	3.3-1W	NC	
CR-325 MDT	3300/16(VX)	NC	3.3-1W	NC	
CR-325 MGR	3300/16(VX)	NC	3.3-1W	NC	
CR-525 MPP	6800/16(RS)	MT	1-1W	MT	
CR-525 UKD	6800/16(RS)	MT	1-1W	MT	
CR-525 MGQ	6800/16(RS)	MT	1-1W	MT	
CR-525 MDT	6800/16(RS)	MT	1-1W	MT	
CR-525 MGR	6800/16(RS)	MT	1-1W	MT	

TO NAPS-9580
TO POWER SECTION

TO NAAR-9575(2/2)
TO MICON SECTION



TO MICON SECTION

CD CONT

CPU DAB USB SECTION

ON



MODEL



AFCEL SECTION



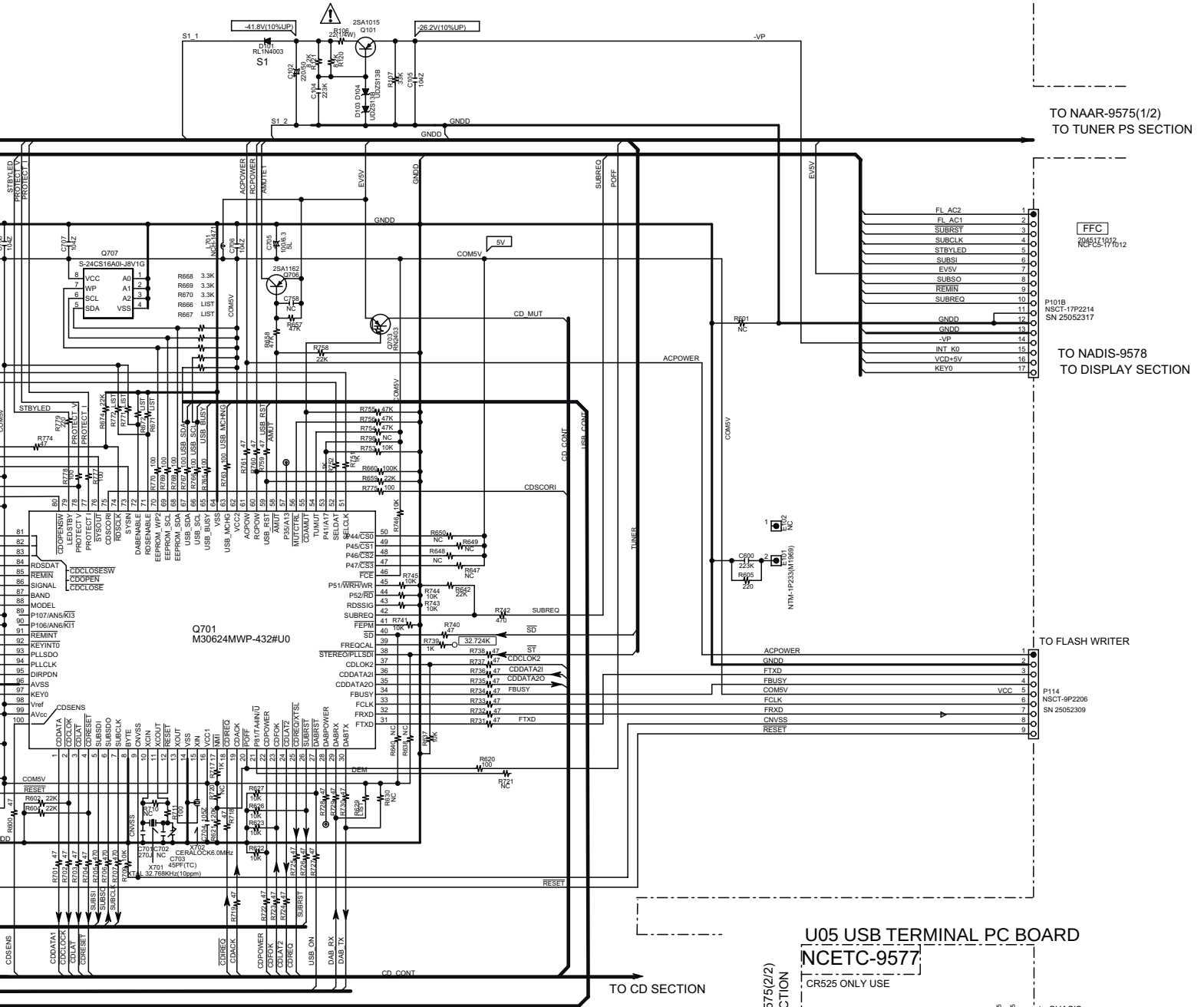
DAB CONT

USB CONT

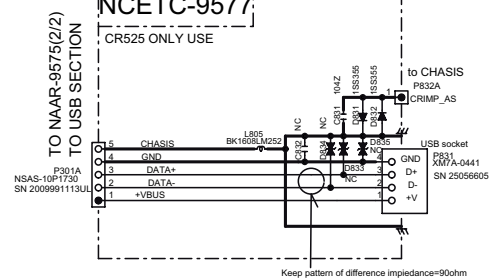
only MPB use

only CR525 use

U01 MAIN CIRCUIT PC BOARD NAAR-9575(2/2)



U05 USB TERMINAL PC BOARD NCETC-9577



NOTE

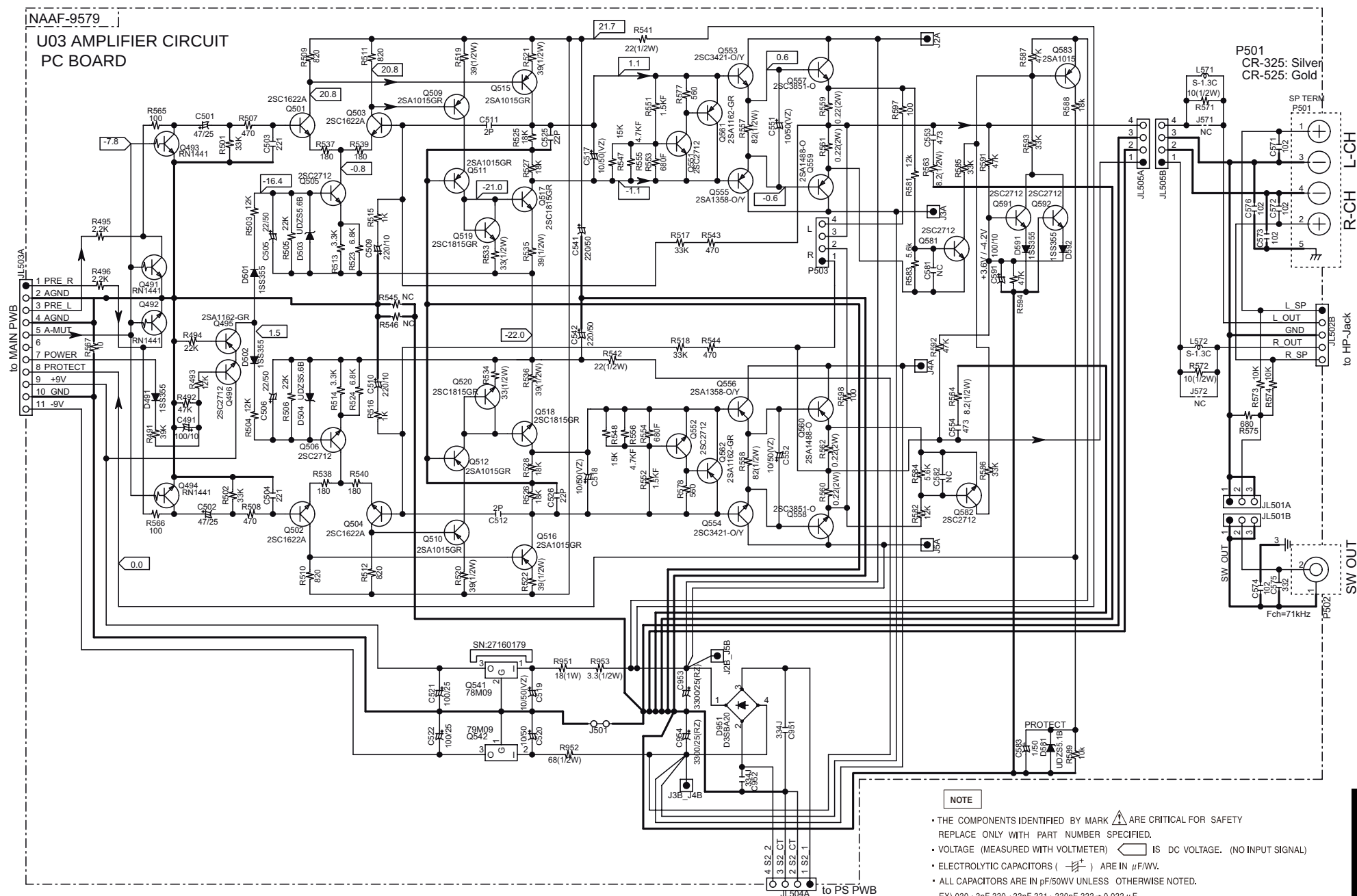
- THE COMPONENTS IDENTIFIED BY MARK ARE CRITICAL FOR SAFETY. REPLACE ONLY WITH PART NUMBER SPECIFIED.
- VOLTAGE (MEASURED WITH VOLT METER) IS DC VOLTAGE. (NO INPUT SIGNAL)
- ELECTROLYTIC CAPACITORS () ARE IN $\mu F/WV$.
- ALL CAPACITORS ARE IN pF/50WV UNLESS OTHERWISE NOTED.
- EX) 030 $\rightarrow$ 3pF 330 $\rightarrow$ 33pF 331 $\rightarrow$ 330pF 333 $\rightarrow$ 0.033 μF
- CIRCUIT IS SUBJECT TO CHANGE FOR IMPROVEMENT.

R525 use									
C341	104Z	R301	10K	R310	100	R321	10K	R334	6.8K
C342	104Z	R302	10K	R313	10K	R322	12K	R335	10K
C343	105Z	R304	0	R314	10K	R324	1M	R336	10K
C344	100/10	R305	10K	R316	10K	R326	3.3K	R338	0
C347	1050	R306	10K	R317	10K	R327	3.3K	R339	4.7K
C351	103K	R307	100	R318	10K	R328	0	R340	4.7K
		R309	100	R319	10K	R333	6.8K	R341	220K
				R320	10K			R342	220K

AMPLIFIER SECTION

NAAF-9579

U03 AMPLIFIER CIRCUIT PC BOARD



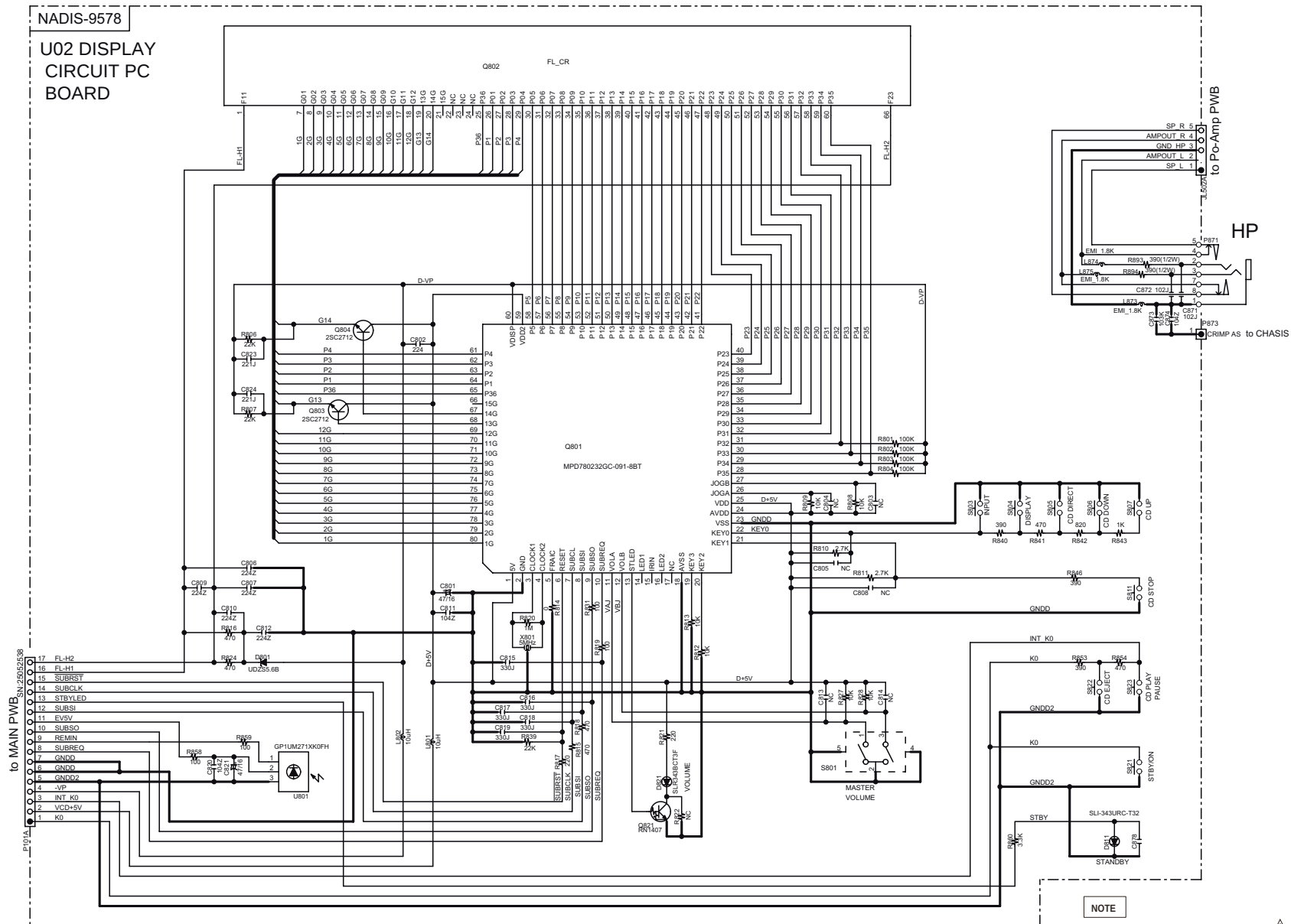
NOTE

- THE COMPONENTS IDENTIFIED BY MARK  ARE CRITICAL FOR SAFETY. REPLACE ONLY WITH PART NUMBER SPECIFIED.
 - VOLTAGE (MEASURED WITH VOLTMETER)  IS DC VOLTAGE. (NO INPUT SIGNAL).
 - ELECTROLYTIC CAPACITORS () ARE IN $\mu\text{F/WV}$.
 - ALL CAPACITORS ARE IN pF/50WV UNLESS OTHERWISE NOTED.
- EX) 030 ~ 3pF 330 ~ 33pF 331 ~ 330pF 333 ~ 0.033 μF
- CIRCUIT IS SUBJECT TO CHANGE FOR IMPROVEMENT.

SCHEMATIC DIAGRAMS - 4

DISPLAY SECTION

NADIS-9578

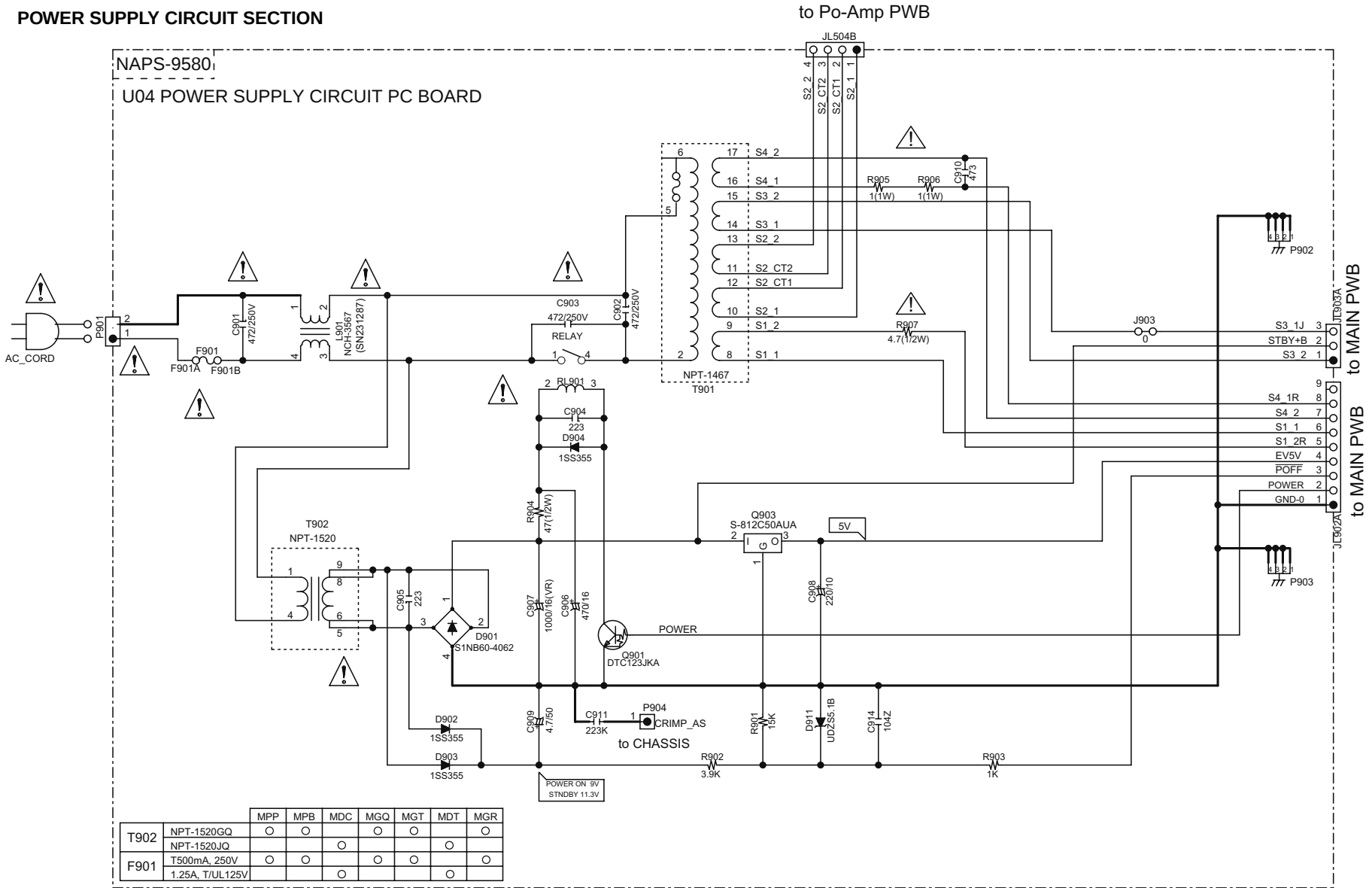
U02 DISPLAY
CIRCUIT PC
BOARD

NOTE

- THE COMPONENTS IDENTIFIED BY MARK  ARE CRITICAL FOR SAFETY. REPLACE ONLY WITH PART NUMBER SPECIFIED.
- VOLTAGE (MEASURED WITH VOLTMETER)  IS DC VOLTAGE. (NO INPUT SIGNAL).
- ELECTROLYTIC CAPACITORS () ARE IN $\mu\text{F}/\text{WV}$.
- ALL CAPACITORS ARE IN pF/50WV UNLESS OTHERWISE NOTED.
EX) 030-3pF 330-33pF 331-330pF 333-0.033 μF
- CIRCUIT IS SUBJECT TO CHANGE FOR IMPROVEMENT.

SCHEMATIC DIAGRAMS - 5

POWER SUPPLY CIRCUIT SECTION



CAUTION

FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH FUSE OF SAME TYPE AND RATING INDICATED.

ATTENTION

AFIN D'ASSURER UNE PROTECTION PERMANENTE CONTRE LES RISQUES D'INCENDIE, REMPLACER UNIQUEMENT PAR UN FUSIBLE DE MEME TYPE ET CALIBRATION COMME INDIQUE.



THIS SYMBOL LOCATED NEAR THE FUSE INDICATES THAT THE FUSE USED IS SLOW OPERATING TYPE FOR CONTINUED PROTECTION AGAINST FIRE HAZARD. REPLACE WITH SAME TYPE FUSE. FOR FUSE RATING REFER TO THE MARKING ADJACENT TO THE SYMBOL.



CE SYMBOLE INDIQUE QUE LE FUSIBLE UTILISE EST E LENT. POUR UNE PROTECTION PERMANENTE, UTILISER QUE DES FUSIBLES DE MEME TYPE. CE DERNIER EST INDIQUE LA QU LE PRESENT SYMBOLE EST APPOSE.

NOTE

- THE COMPONENTS IDENTIFIED BY MARK ARE CRITICAL FOR SAFETY. REPLACE ONLY WITH PART NUMBER SPECIFIED.
- VOLTAGE (MEASURED WITH VOLTMETER) IS DC VOLTAGE. (NO INPUT SIGNAL)
- ELECTROLYTIC CAPACITORS () ARE IN μ F/VV.
- ALL CAPACITORS ARE IN pF/50WV UNLESS OTHERWISE NOTED.
EX) 030→3pF 330→33pF 331→330pF 333→0.033 μ F
- CIRCUIT IS SUBJECT TO CHANGE FOR IMPROVEMENT.

PACKING PROCEDURE

CR-325(S) MGQ, MGT, MDT, MGR / (B)MDD

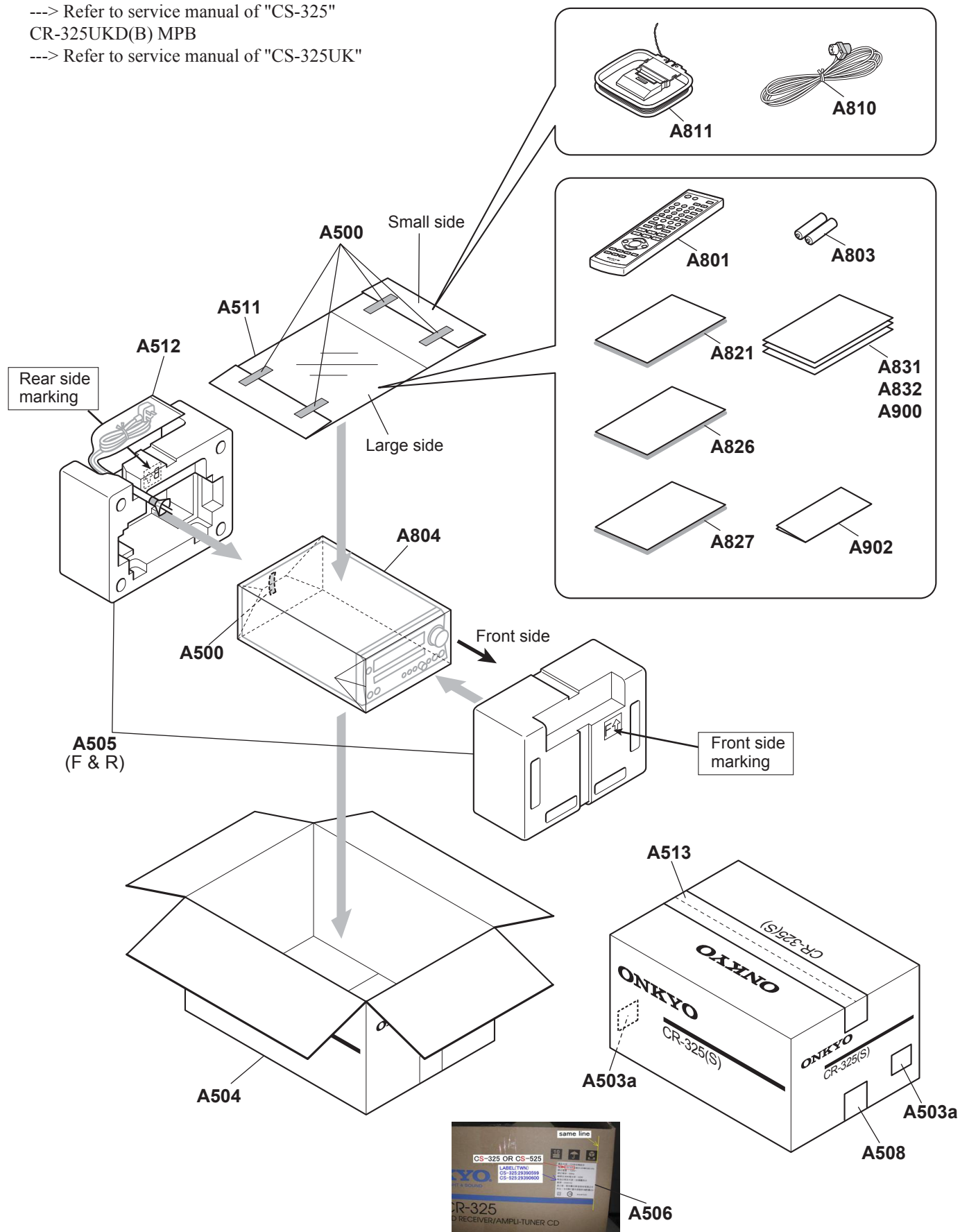
<Note>

CR-325(S) MPP, (B) MPP, MDC

---> Refer to service manual of "CS-325"

CR-325UKD(B) MPB

---> Refer to service manual of "CS-325UK"



A

B

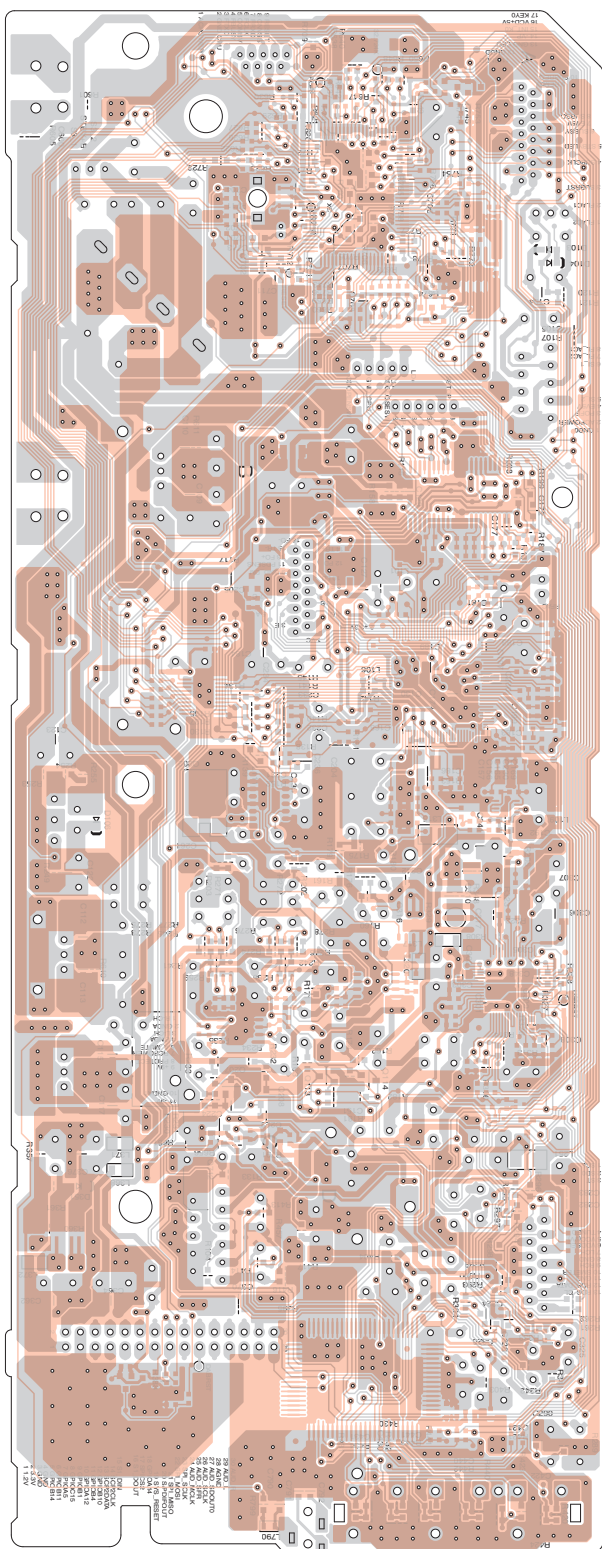
C

D

PRINTED CIRCUIT BOARD VIEWS - 1

U01 Main circuit board (NAAR-9575-1A/B/C/D)

1

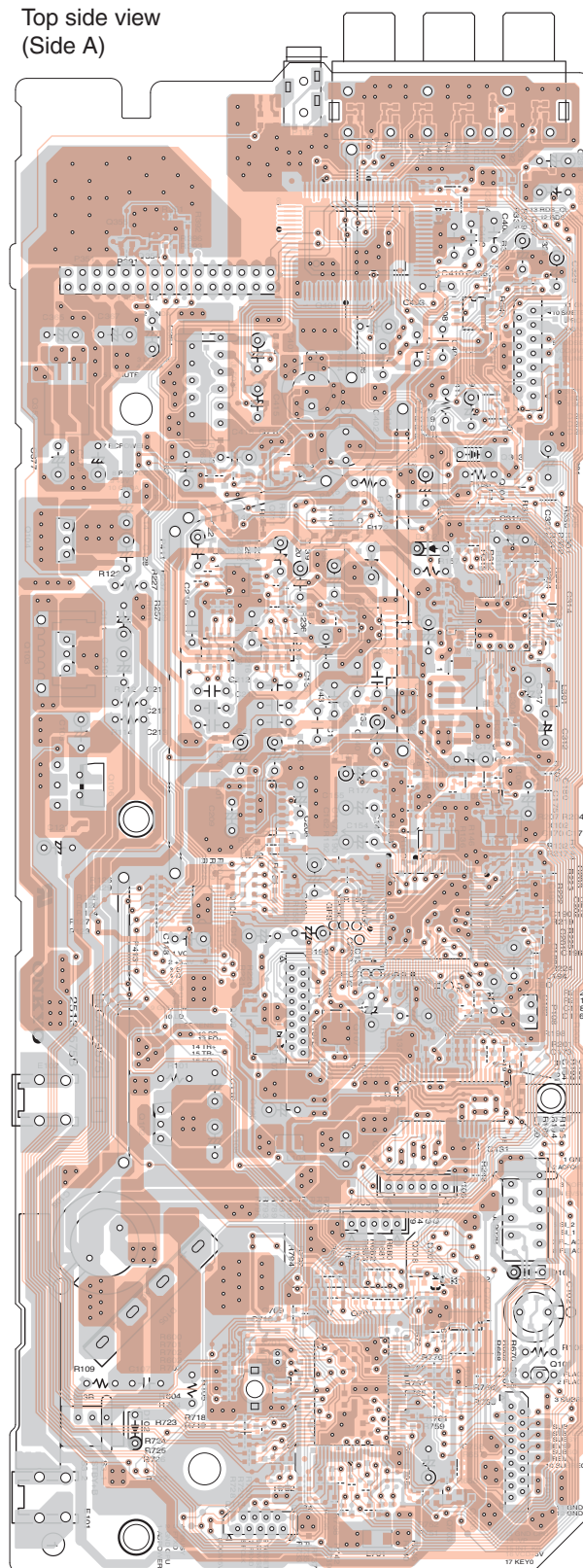
Bottom side view
(Side B)

2

3

4

5

Top side view
(Side A)

U02 Display circuit board (NADIS-9578-1A/B)

1

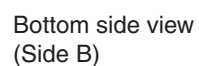
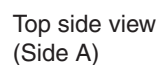


3



5

U03 Amplifier circuit board (NAAF-9579-1A/B)



A

B

C

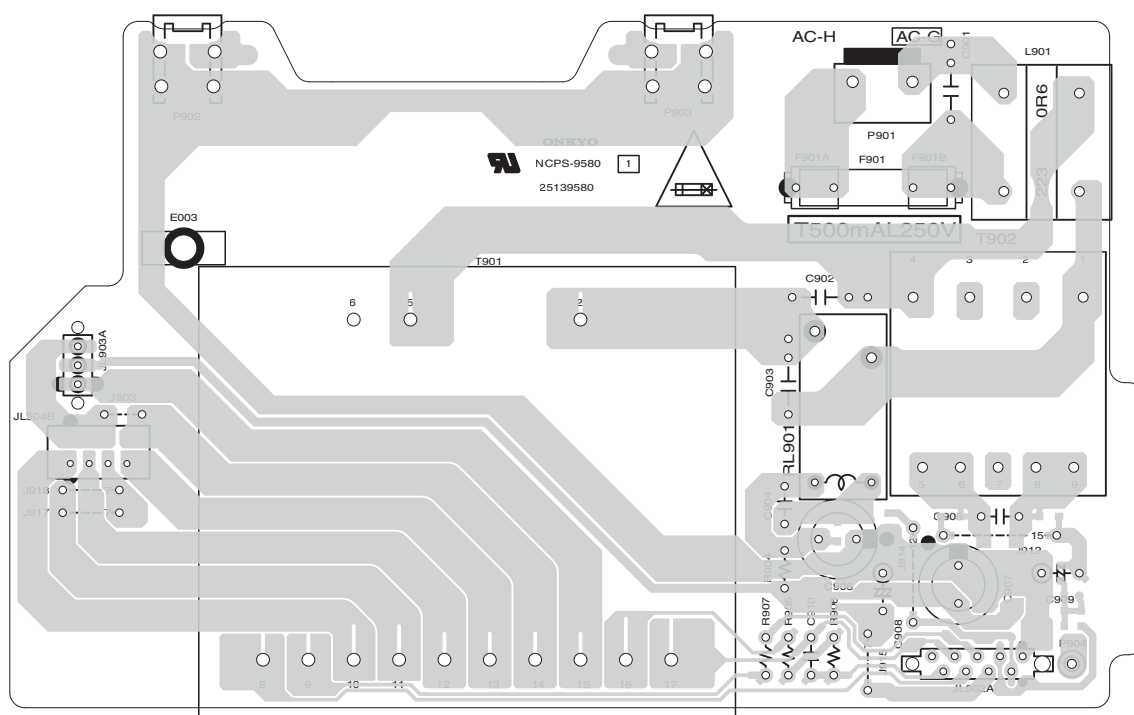
D

PRINTED CIRCUIT BOARD VIEWS - 4

U04 Power supply circuit board (NAPS-9580-1A/B)

1

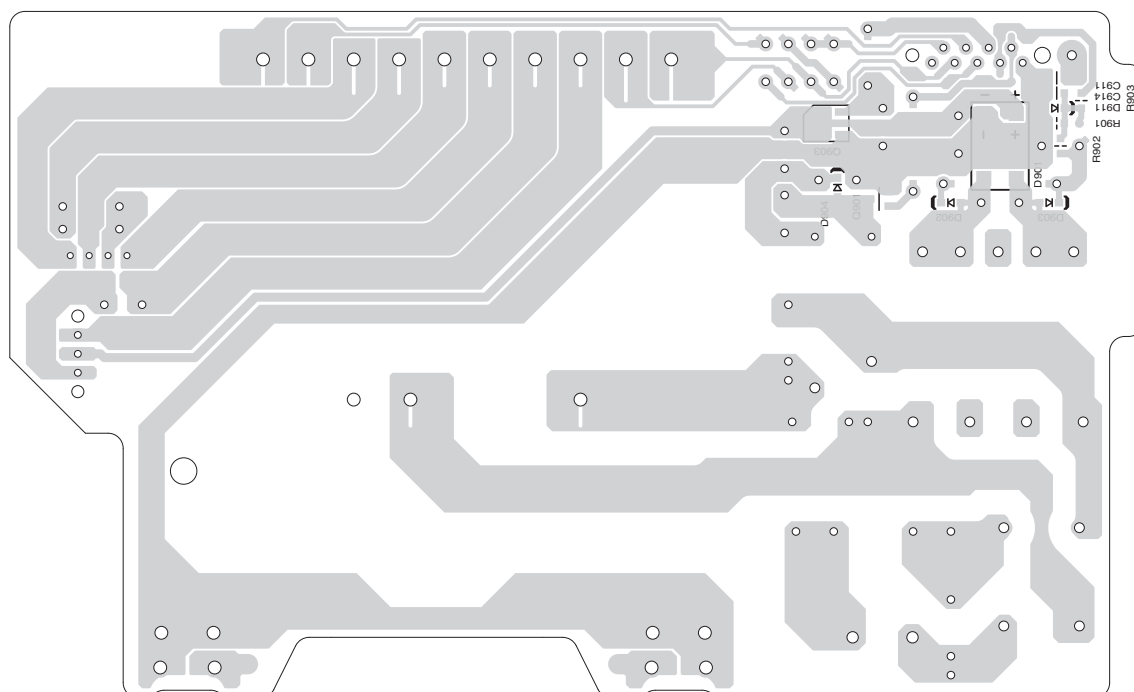
Top side view (Side A)



2

3

Bottom side view (Side B)



4

5

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS

Q105 : TC74VHC541FT (Octal Bus Buffer, Non-Inverted, 3-State Outputs)-1/1

The TC74VHC540/TC74VHC541 are advanced high speed CMOS OCTAL BUS BUFFERS fabricated with silicon gate C2MOS technology. They achieve the high speed operation similar to equivalent Bipolar Schottky TTL while maintaining the CMOS low power dissipation. The TC74VHC540 is an inverting type, and the TC74VHC541 is a non-inverting type.

When either G1 or G2 are high, the terminal outputs are in the high-impedance state.

An input protection circuit ensures that 0 to 5.5 V can be applied to the input pins without regard to the supply voltage.

This device can be used to interface 5 V to 3 V systems and two supply systems such as battery back up. This circuit prevents device destruction due to mismatched supply and input voltages.

Features

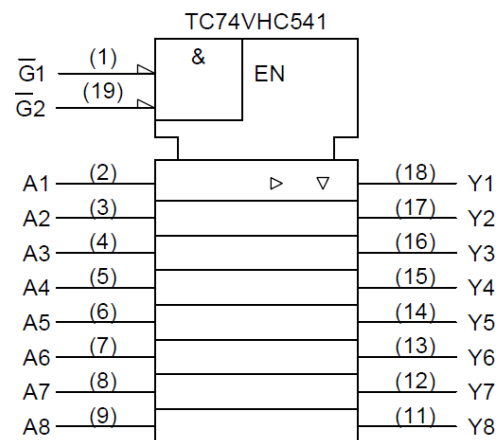
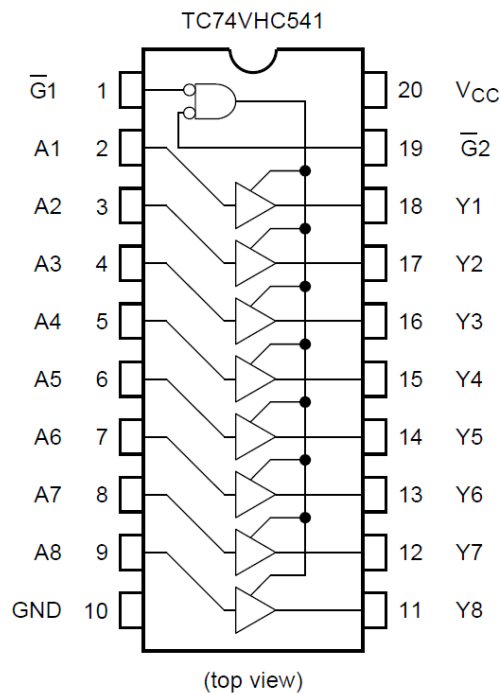
- High speed: $t_{pd} = 3.7 \text{ ns}$ (typ.) at $V_{CC} = 5 \text{ V}$
- Low power dissipation: $I_{CC} = 4 \mu\text{A}$ (max) at $T_a = 25^\circ\text{C}$
- High noise immunity: $V_{NIH} = V_{NIL} = 28\% V_{CC}$ (min)
- Power down protection is provided on all inputs.
- Balanced propagation delays: $t_{pLH} \sim t_{pHL}$
- Wide operating voltage range: $V_{CC} (\text{opr}) = 2 \text{ V to } 5.5 \text{ V}$
- Low noise: $V_{OLP} = 1.2 \text{ V}$ (max)
- Pin and function compatible with 74ALS540/541

TC74VHC540FT, TC74VHC541FT



TSSOP20-P-0044-0.65A

BLOCK DIAGRAM



Truth Table

Inputs			Outputs	
$\overline{G1}$	$\overline{G2}$	A_n	Y_n	$\overline{Y}_n$
H	X	X	Z	Z
X	H	X	Z	Z
L	L	H	H	L
L	L	L	L	H

X: Don't care

Z: High impedance

Y_n : TC74VHC541

$\overline{Y}_n$: TC74VHC540

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS

Q106 : BA00JC5WT (Variable Rated Voltage, 1.5A Secondary LDO Regulators)

●Description

The BA□□JC5 are low-saturation regulators with an output current of 1.5 A and a voltage accuracy of $\pm 1\%$. A broad output voltage range is offered, from 1.5V to 12V, and built-in overcurrent protection and thermal shutdown (TSD) circuits prevent damage due to short-circuiting and overloading, respectively.

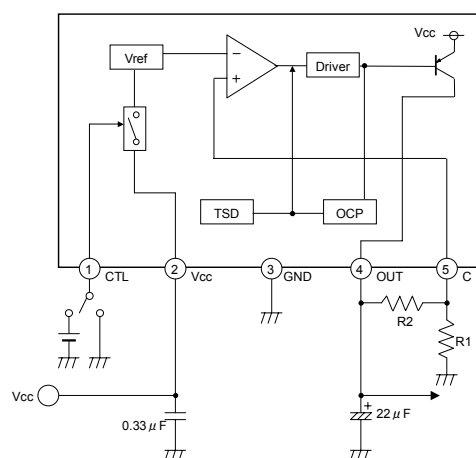
●Features

- 1) Output current: 1.5A (min.)
- 2) Output voltage accuracy: $\pm 1\%$
- 3) Broad output voltage range available: 1.5V -12V (BA□□JC5 series)
- 4) Low saturation-voltage type with PNP output
- 5) Built-in overcurrent protection circuit
- 6) Built-in thermal shutdown circuit
- 7) Integrated shutdown switch (BA□□JC5WT)
- 8) Operating temperature range: -40°C to $+105^{\circ}\text{C}$

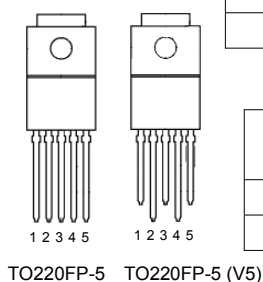
●Applications

All electronic devices that use microcontrollers and logic circuits

● Block Diagrams / Standard Example Application Circuits



TOP VIEW



Pin No.	Pin name	Function
1	CTL	Output voltage on/off control
2	Vcc	Power supply voltage input
3	GND	GND
4	OUT	Voltage output
5	C	ADJ pin

or seing range	
Vcc (2 Pin)	Approximately 0.33 μF
OUT (4 Pin)	22 μF to 1000 μF

● Input / Output Equivalent Circuits

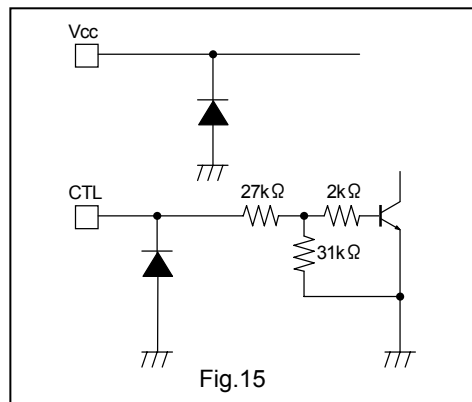
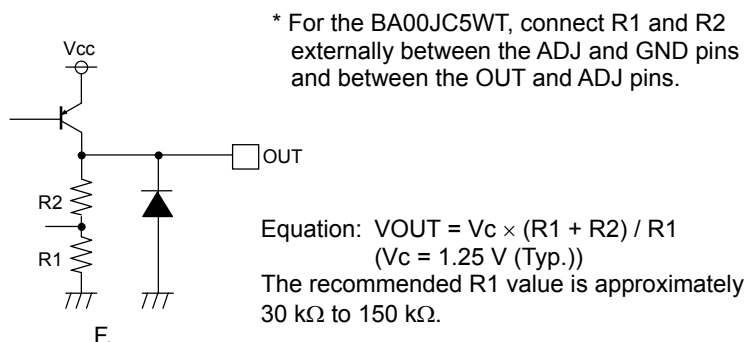


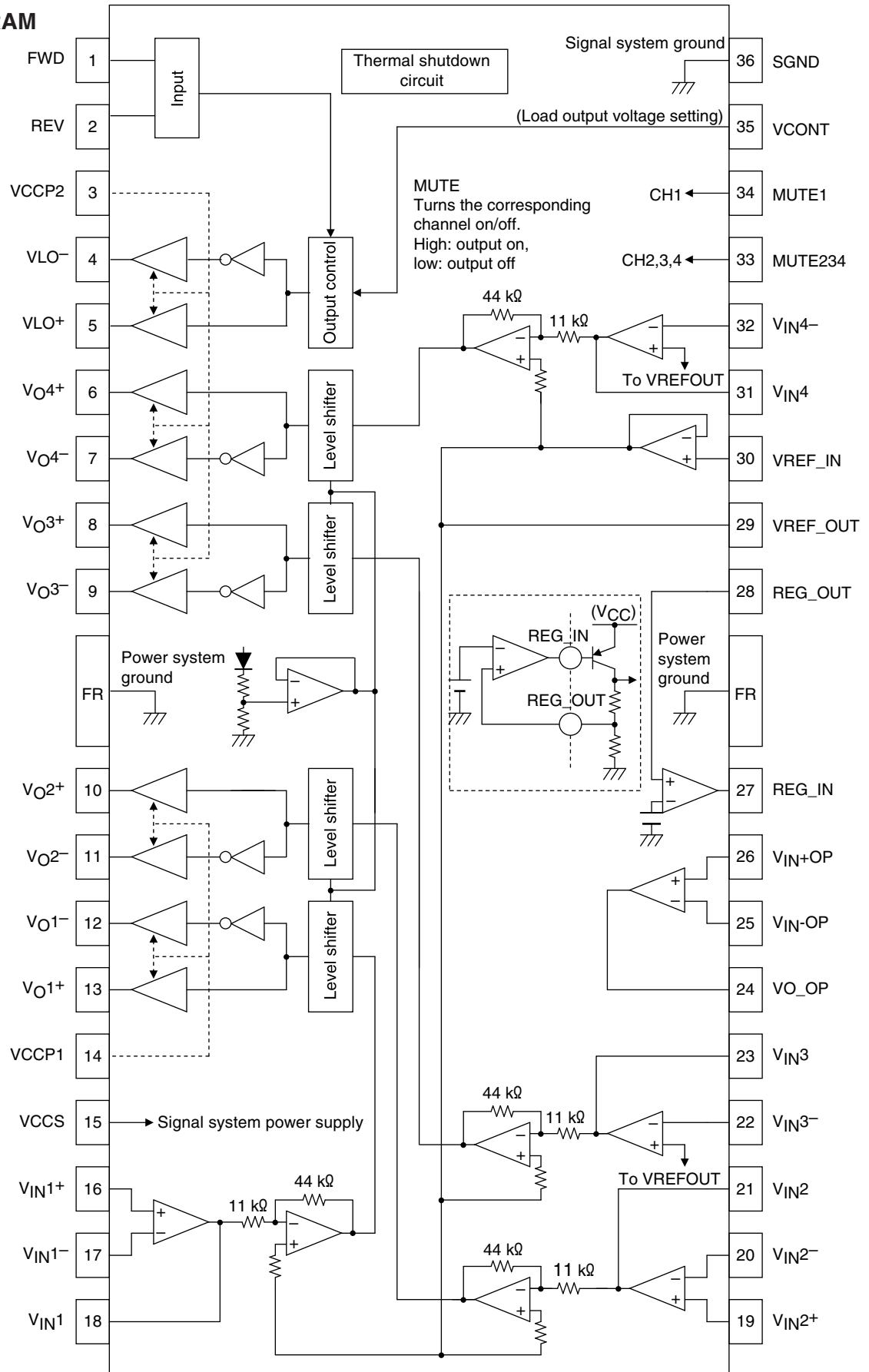
Fig.15



IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS

Q110 : LA6565 (Five-Channel CD Actuator Driver)-1/4

BLOCK DIAGRAM



IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS

Q110 : LA6565 (Five-Channel CD Actuator Driver)-2/4

TERMINAL DESCRIPTION

Pin No.	Pin Name	Pin Descriptions
1	FWD	Loading output direction switching (FWD). Loading system logic input.
2	REV	Loading output direction switching (REV). Loading system logic input.
3	V _{CC2}	Channels 3, 4, and loading power stage power supply
4	VLO ⁻	Loading output (-)
5	VLO ⁺	Loading output (+)
6	VO4 ⁺	Channel 4 output (+)
7	VO4 ⁻	Channel 4 output (-)
8	VO3 ⁺	Channel 3 output (+)
9	VO3 ⁻	Channel 3 output (-)
10	VO2 ⁺	Channel 2 output (+)
11	VO2 ⁻	Channel 2 output (-)
12	VO1 ⁻	Channel 1 output (-)
13	VO1 ⁺	Channel 1 output (+)
14	VCCP1	Channels 1 and 2 power stage power supply
15	VCCS	Signal system power supply
16	VIN1 ⁺	Channel 1 input. Input operational amplifier + input.
17	VIN1 ⁻	Channel 1 input. Input operational amplifier - input.
18	VIN1	Channel 1 input. Input operational amplifier output.
19	VIN2 ⁺	Channel 2 input. Input operational amplifier + input.
20	VIN2 ⁻	Channel 2 input. Input operational amplifier - input.
21	VIN2	Channel 2 input. Input operational amplifier output.
22	VIN3 ⁻	Channel 3 input. Input operational amplifier - input.
23	VIN3	Channel 3 input. Input operational amplifier output.
24	VO_OP	Operational amplifier output
25	VIN-OP	Operational amplifier - input
26	VIN+OP	Operational amplifier + input
27	REG_IN	Regulator error amplifier output. Connect this pin to the base of the external pnp transistor.
28	REG_OUT	Regulator error amplifier input (+).
29	VREF_OUT	VREF amplifier (voltage follower) output.
30	VREF_IN	VREF input. Apply the external reference voltage to this pin.
31	VIN4	Channel 4 input. Input operational amplifier output.
32	VIN4 ⁻	Channel 4 input. Input operational amplifier - input.
33	MUTE234	Controls the on/off state of channels 2, 3, and 4.
34	MUTE1	Channel 1 output on/off control
35	VCONT	Loading block output high-level voltage setting
36	S_GND	Signal system ground

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS

Q110 : LA6565 (Five-Channel CD Actuator Driver)-3/4

TERMINAL DESCRIPTION (Continued)

Pin No.	Pin Name	Symbol	Description	Equivalent Circuit
16 17 18 19 20 21 22 23 32 31 26 25 24	Input (CH1 to 4)	VIN1+ VIN1- VIN1 VIN2+ VIN2- VIN2 VIN3- VIN3 VIN4- VIN4 VIN+OP VIN-OP VO_OP	Inputs (channels 1 to 4 and the independent operational amplifier)	
1 2	Input (H bridge)	FWD REV	Logic inputs The IC is set to one of four modes, forward, reverse, brake, and free running by the combination of high and low values applied to these pins.	
13 12 10 11 8 9 6 7	Output (BTL-AMP)	VO1+ VO1- VO2+ VO2- VO3+ VO3- VO4+ VO4-	Channel 1 to 4 outputs	
4 5 35	Output (H bridge)	VLO- VLO+ VCONT	H bridge (loading) output and loading output setting	
33 34	MUTE	MUTE234 MUTE1	BTL amplifier output on/off state setting. High: output on Low: output off	

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS

Q110 : LA6565 (Five-Channel CD Actuator Driver)-4/4

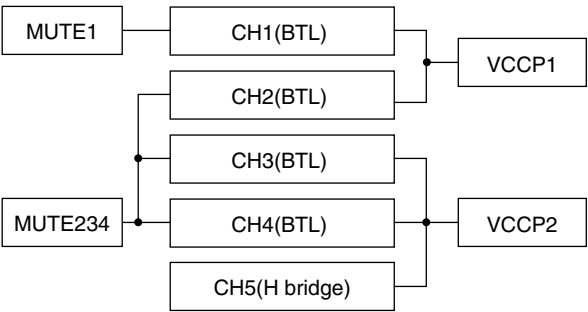
Truth Table (Loading (H bridge) block)

FWD	REV	VLO+	VLO-	Loading output
L	L	OFF	OFF	OFF *1
	H	H	L	Forward
H	L	L	H	Reverse
	H	L	L	Short-circuit braking *2

*1. The output goes to the high-impedance state.

*2. In braking mode, the sink side transistor is turned on (for short-circuit braking).
The VLO+ and VLO- pins go to a level that is essentially the ground level.

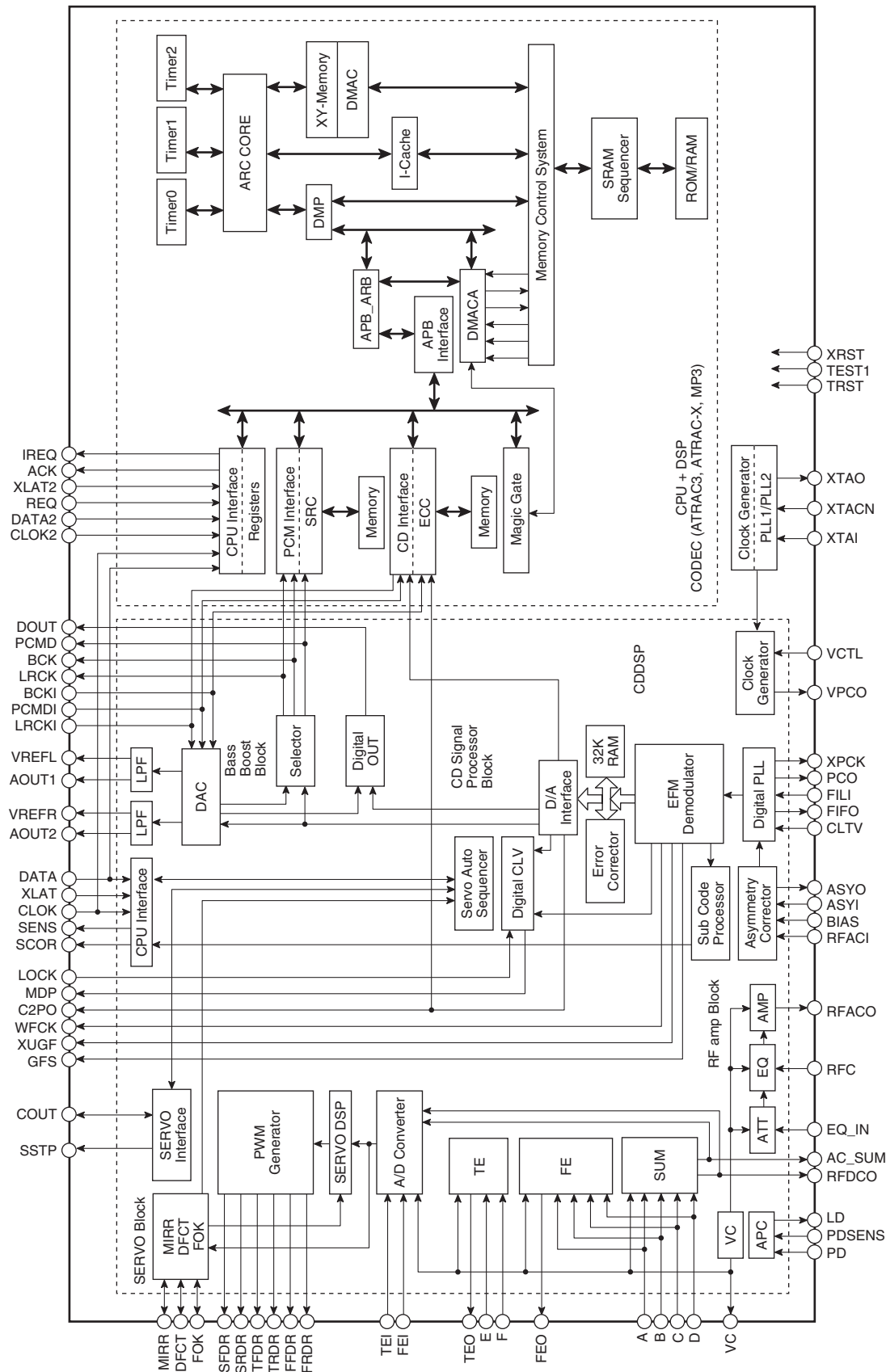
Relationship between the MUTE pins and the power supply systems (VCCP*)



IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS

Q112 : CXD3014R (CD Digital Signal Processor with Built-in RF Amplifier and Digital Servo + Digital High & Bass Boost + CODEC)-1/4

BLOCK DIAGRAM



IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS

Q112 : CXD3014R (CD Digital Signal Processor with Built-in RF Amplifier and Digital Servo + Digital High & Bass Boost + CODEC)-2/4

TERMINAL DESCRIPTION

Pin No.	Pin name	I/O	Description
1	LRCK	O	LR clock output.
2	LRCKI	I	LR clock input.
3	PCMD	O	PCMD data output.
4	PCMDI	I	PCMD data input.
5	BCK	O	BCK data output.
6	BCKI	I	BCK data input.
7	XTACN	I	Oscillation circuit control. Self-oscillation when high, oscillation stop when low.
8	XRST	I	System reset. Reset when low.
9	DVss3	---	Internal digital GND.
10	IREQ	O	ARC → Interrupt to microprocessor.
11	CLOCK	I	CPU I/F ARC(CLK)
12	DATA2	I/O	CPU I/F ARC(DATA)
13	XLAT2	I	Codec latch signal.
14	REQ	I	CPU I/F ARC (REQ).
15	ACK	O	CPU I/F ARC (ACK).
16	XLAT	I	CDDSP control latch signal.
17	DVDD3	---	Internal digital power supply.
18	DVss8	---	Internal digital GND.
19	DVDD8	---	Internal digital power supply.
20	SENS	O	SENS output to CPU.
21	WFCK	O	WFCK output.
22	XUGF	O	XUGF output. Output MNT0, RFCK, SOUT by command switch.
23	XPCK	O	XPCK output. Output MNT1, SOCK by command switch.
24	GFS	O	GFS output. Output MNT2, XROF, XOLT by command switch.
25	C2PO	O	C2PO output. Output MNT3, GTOF by command switch.
26	SCOR	O	High output when the subcode sync, S0 or S1, is detected.
27	DVDD4	---	Digital power supply.
28	COUT	I/O	Track number count signal input/output.
29	DVss9	---	Internal digital GND.
30	DVDD9	---	Internal digital power supply.
31	MIRR	I/O	Mirror signal input/output.
32	DFCT	I/O	Defect signal input/output.
33	FOK	I/O	Focus OK signal input/output.
34	DVss4	---	Internal digital GND.
35	DVDD5	---	Internal digital power supply.
36	DVss5	---	Internal digital GND.
37	LOCK	I/O	GFS is sampled at 460Hz; when GFS is high, this pin outputs a high signal. If GFS is low eight consecutive samples, this pin outputs low. Or input when LKIN = "1".
38	MDP	O	Spindle motor servo control output.
39	SSTP	I	Disc innermost detection signal input.
40	IOVss1	---	I/O digital GND.
41	SFDR	O	Sled drive output.
42	SRDR	O	Sled drive output.

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS

Q112 : CXD3014R (CD Digital Signal Processor with Built-in RF Amplifier and Digital Servo + Digital High & Bass Boost + CODEC)-3/4

TERMINAL DESCRIPTION (Continued)

Pin No.	Pin name	I/O	Description
43	TFDR	O	Tracking drive output.
44	TRDR	O	Tracking drive output.
45	FFDR	O	Focus drive output.
46	FRDR	O	Focus drive output.
47	IOV _{DD1}	---	I/O digital power supply.
48	AVD1	---	Analog power supply.
49	AVS1	---	Analog GND.
50	E	I	E signal input.
51	F	I	F signal input.
52	TEI	I	Tracking error signal input to DSSP block or F input.
53	TEO	O	Tracking error signal output from RF amplifier block.
54	FEI	I	Focus error signal input to DSSP block or A input.
55	FEO	O	Focus error signal output form RF amplifier block.
56	VC	I/O	Center voltage output from RF amplifier block. Center voltage input to DSSP block by command switch.
57	A	I	A signal input.
58	B	I	B signal input.
59	C	I	C signal input.
60	D	I	D signal input.
61	AVD2	---	Analog power supply.
62	RFDCO	I/O	RFDC signal output. RFDC signal input to DSSP block by command switch.
63	PDSSENS	I	Reference voltage pin for PD.
64	AC_SUM	O	RFAC summing amplifier output.
65	EQ_IN	I	Equalizer circuit input.
66	LD	O	APC amplifier output.
67	PD	I	APC amplifier input.
68	RFC	I	Equalizer cut-off frequency adjustment pin.
69	AVS2	---	Analog GND.
70	RFACO	O	RFAC signal output.
71	RFACI	I	RFAC signal input or EFM signal input.
72	AVD3	---	Analog power supply.
73	BIAS	I	Asymmetry circuit constant current input.
74	ASYI	I	Asymmetry comparator voltage input.
75	ASYO	O	EFM full-swing output. (Low = V _{SS} , High = V _{DD})
76	VPCO	O	Wide-band EFM PLL charge pump output.
77	VCTL	I	Wide-band EFM PLL VCO2 control voltage input.
78	AVS3	---	Analog GND.
79	CLTV	I	Multiplier VCO1 control voltage input.
80	FILO	O	Master PLL (slave = digital PLL) filter output.
81	FILI	I	Master PLL filter input.
82	PCO	O	Master PLL charge pump output.
83	DV _{SS6}	---	Internal digital GND.
84	DV _{DD6}	---	Internal digital power supply.
85	SRAMSTB	I	Normally low.
86	DV _{DD1}	---	Internal digital power supply.
87	DV _{SS1}	---	Internal digital GND.

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS

Q112 : CXD3014R (CD Digital Signal Processor with Built-in RF Amplifier and Digital Servo + Digital High & Bass Boost + CODEC)-4/4

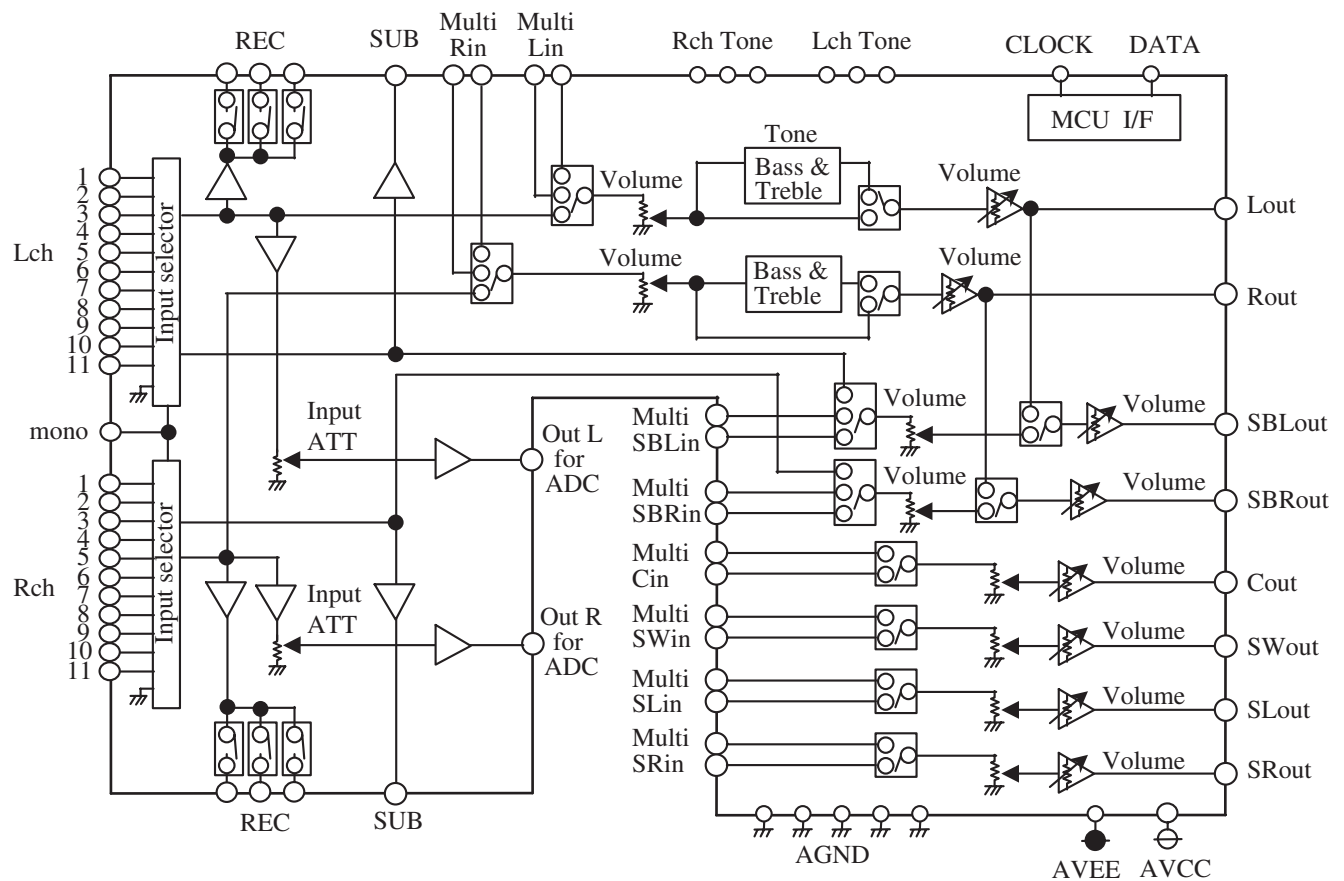
TERMINAL DESCRIPTION (Continued)

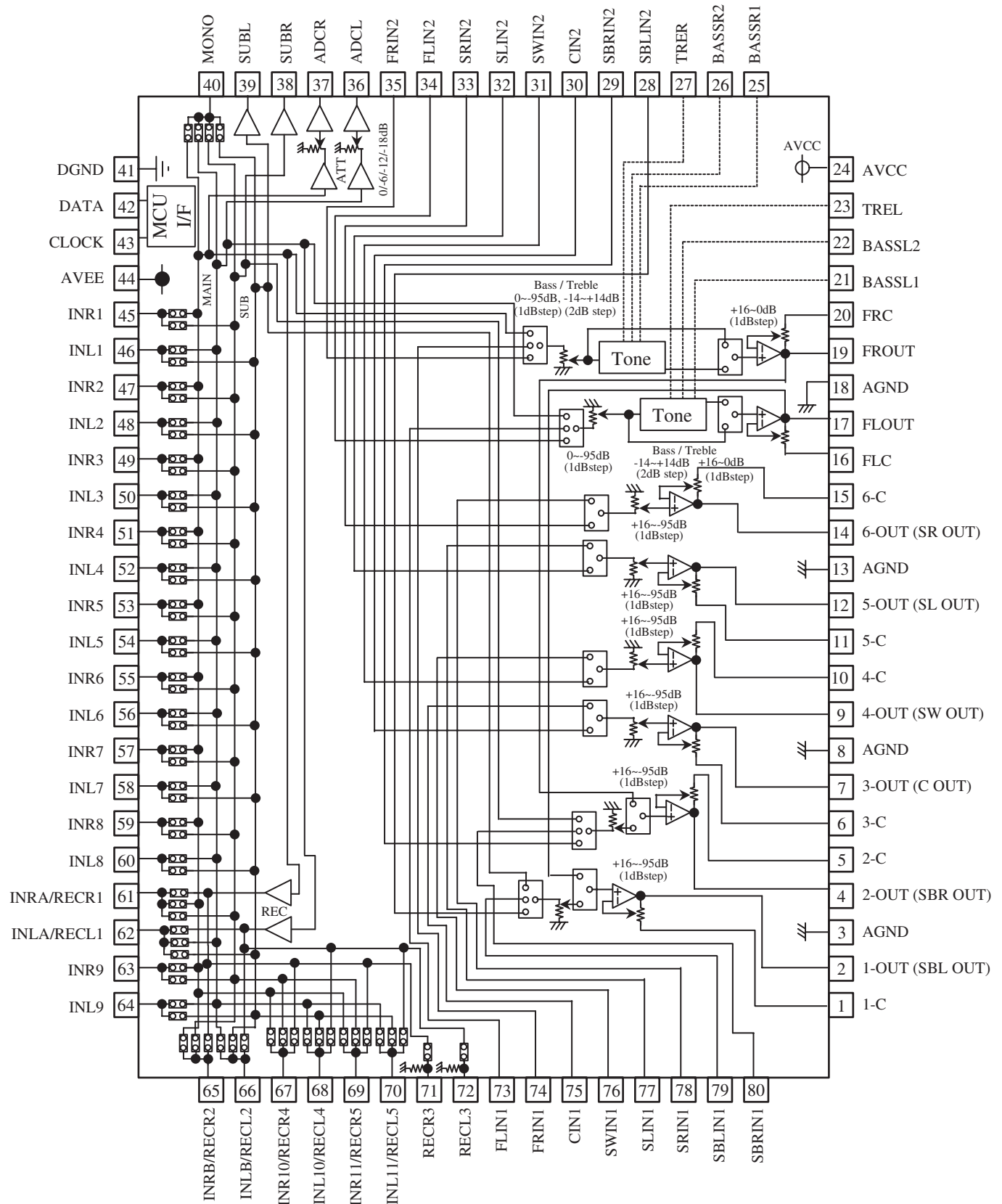
Pin No.	Pin name	I/O	Description
88	TEST1	I	Test mode set.
89	DATA	I/O	CPU I/F ARC (DATA).
90	CLOK2	I	CPU I/F ARC (CLK).
91	DVss7	---	Internal digital GND.
92	DVDD7	---	Internal digital power supply.
93	TEST2	I	Test pin. Normally GND.
94	TEST3	I	Test pin. Normally GND.
95	TEST4	O	Open.
96	TEST5	I	Test pin. Normally GND.
97	TEST6	I	Test pin. Normally GND.
98	DVss2	---	Internal digital GND.
99	DVDD2	---	Internal digital power supply.
100	IOVDD2	---	I/O digital power supply.
101	DOUT	O	Digital Out output.
102	TEST	I	Test pin. Normally GND.
103	TES1	I	Test pin. Normally GND.
104	IOVss2	---	I/O digital GND.
105	PLLAVD	---	PLL cell power supply.
106	PLLAVS	---	PLL cell GND.
107	XVss	---	Master clock GND.
108	XTAO	O	Crystal oscillation circuit output.
109	XTAI	I	Crystal oscillation circuit input.
110	XVDD	---	Master clock power supply.
111	AVD4	---	Analog power supply.
112	AOUT1	O	Lch analog output.
113	VREFL	O	Lch reference voltage.
114	AVS4	---	Analog GND.
115	AVS5	---	Analog GND.
116	VREFR	O	Rch reference voltage.
117	AOUT2	O	Rch analog output.
118	AVD5	---	Analog power supply.
119	IOVDD3	---	I/O digital power supply.
120	IOVss3	---	I/O digital GND.

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS

Q401 : R2S15211FP (8 ch Electronic Volume and 11 Input Selector and Tone Control)-1/3

SYSTEM BLOCK DIAGRAM





IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS

Q401 : R2S15211FP (8 ch Electronic Volume and 11 Input Selector and Tone Control)-3/3

TERMINAL DESCRIPTION

PIN No.	Name	Function
19,17, 14,12, 9,7, 4,2	FROUT,FLOUT, 6-OUT,5-OUT, 4-OUT, 3-OUT, 2-OUT,1-OUT	Output pin of FL/FR/C/SW/SL/SR/SBL/SBR channel
20,16, 15,11, 10,6, 5,1	FRC,FLC, 6-C,5-C, 4-C,3-C, 2-C,1-C	Connects capacitor for reducing click noise of L/R/C/SW/SL/SR/SBL/SBR channel volume
3,8, 13,18	AGND	Analog ground of internal circuit
23,27	TREL, TRER	Frequency characteristic setting pin of L/R channel tone control(Treble)
21,22, 25,26	BASSL1, BASSL2 BASSR1, BASSR2	Frequency characteristic setting pin of L/R channel tone control(Bass)
24	AVCC	Positive power supply to internal circuit
35,34, 33,32, 31,30, 29,28	FRIN2, FLIN2, SRN2,SLIN2, SWIN2,CIN2, SBRIN2,SBLIN2	Input pin of L/R/C/SW/SL/SR/SBL/SBR channel (Multi IN 1/2)
73,74, 75,76, 77,78, 79,80	FLIN1, FRIN1, CIN1,SWIN1, SLIN1,SRIN1, SBLIN1,SBRIN1	
41	DGND	Digital ground of internal circuit
42	DATA	Input pin of control data
43	CLOCK	Input pin of control clock
44	AVEE	Negative power supply to internal circuit
46,48,50, 52,54,56, 58,60,64	INL1, INL2, INL3, INL4, INL5, INL6, INL7, INL8, INL9	Input pin of L/R channel (Input Selector)
45,47,49, 51,53,55, 57,59,63	INR1, INR2, INR3, INR4, INR5, INR6, INR7, INR8, INR9	
40	MONO	Input pin of monaural (Input Selector)
38,39	SUBL,SUBR	Output pin for L/R channel SUB Output
36,37	ADCL, ADCR	Output pin for L/R channel ADC
72	RECL3	Output pin for L/R channel REC Output
71	RECR3	
61,62, 65,66, 67,68, 69,70	INRA/RECR1,INLA/RECL1, INRB/RECR2,INLB/RECL2, INR10/RECR4,INL10/RECL4, INR11/RECR5,INL11/RECL5	Input pin of L/R channel (Input Selector)/ Output pin for L/R channel REC Output

SERVICE PROCEDURE-1

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs a laser. Therefore, be sure to follow carefully the instructions below when servicing.

WARNING!!

SERVICE WARNING : DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY.

IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION, BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.

Laser Diode Properties

Material: GaAS/GaALAs

Wavelength: 780nm

Laser output: max. 0.5mW*

Emission Duration: continuous

*This output is the value measured at a distance about 1.8mm from the objective lens surface on the Optical Pick-up Block.

LASER WARNING LABEL

The label shown below are affixed.

1. Warning label



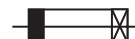
2. Class 1 label

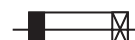


**LUOKAN 1
LASERLAITE
KLASS 1
LASER APPARAT**

SERVICE PROCEDURE

1. Replacing the fuses

 This symbol located near the fuse indicates that the fuse used is show operating type, For continued protection against fire hazard, replace with same type fuse , For fuse rating, refer to the marking adjust to the symbol.

 Ce symbole indique que le fusible utilise est e lent. Pour une protection permanente, n'utiliser que des fusibles de meme type. Ce dernier est indique la qu le present symbol est apposse.

REF.NO.	PART NAME	DESCRIPTION	PART NO	REMARK
F901	FUSE	0.5A-SE-EAWK	252063GR	!, <BPP, SGQ, SGR, SGT, SPP>
F901	FUSE	1.25A-T/UL-ST2	252251GR	!, <BDD, BDC, SDT>

<Notes>

<DC> : Canadian model

<DD> : U.S.A model

<PP> : European model

<DT> : Taiwanese model

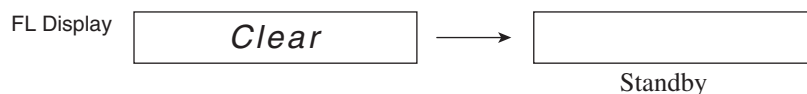
<GQ> : Hong Kong model

<GR> : China model

SERVICE PROCEDURE-2

2. Initialize the unit

- (1) Press STANDBY/ON button while pressing down CD STOP button, then the FLT displays "CLEAR", and turn to STAND-BY. Remove power cord from power line.



- (2) Disconnect the AC power cord from a wall outlet.

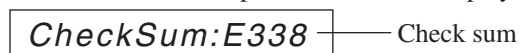
3. Check version of microprocessor.

Main microprocessor (Q701), Sub microprocessor (Q801).

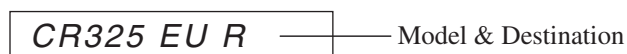
- (1) Press STANDBY/ON button while pressing down DISPLAY button, and press Input up button when the unit is POWER ON.



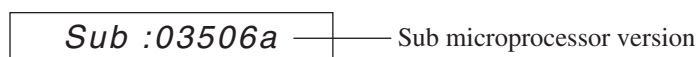
- (3) Press Input button while Main Microprocessor version display.



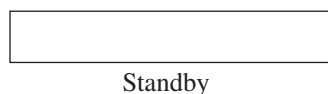
- (4) Press the INPUT button.



- (5) Press the INPUT button.



- (6) Press the STANDBY/ON button.



- (7) Disconnect the AC power cord from a wall outlet.

ADJUSTMENT PROCEDURE

CLOCK FREQUENCY ADJUSTMENT

[When]

1. Exchange Main circuit PC board (NAAR-9575).
2. Exchange crystal (X702).

[Procedure]

1. Connect the frequency counter to the test point 32.724K and GND on Main circuit PC board (NAAR-9575).

Refer to <Fig-1>

2. Press the **STANDBY/ON** button to turn on the unit.
3. Press and hold down the **OPEN/CLOSE** button and then press the **STANDBY/ON** button.
" *Test* - - " is displayed only for 5 seconds.

FL display *Test- -*
|
blink

4. Press the **INPUT** button while the characters of " *Test - _-* " are displayed.
" *Test - 1-00* " is displayed only for 5 seconds.

Test-1-00

5. Repeatedly press **DIRECT** button until the characters of " *Test-1-02* " are displayed.

Test-1-02

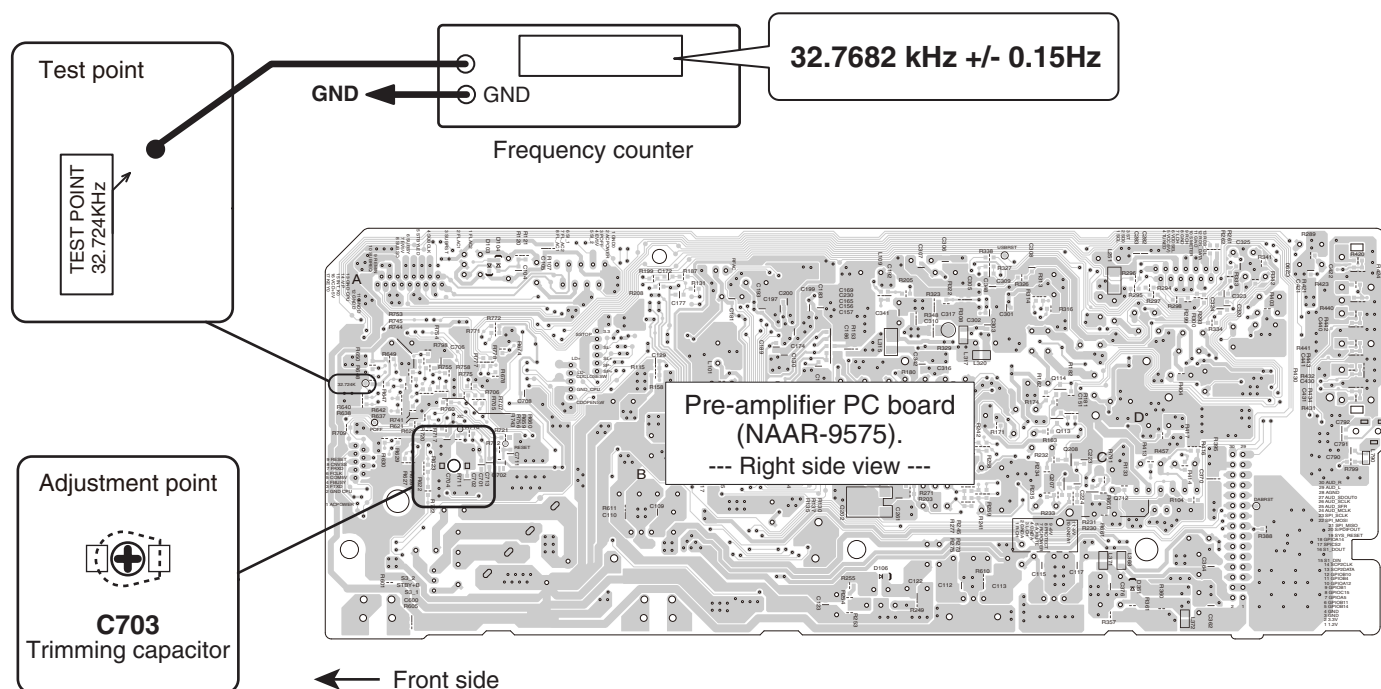
6. Adjust the trimming capacitor C703 so that the reading of frequency counter becomes following specification.
Specification : 32.7682 kHz +/- 0.15 Hz when the room temperature is 15 ~ 20 degree.
32.7682 kHz +/- 0.2 Hz when the room temperature is 20 ~ 25 degree.

7. Press and hold down the **STOP** button and then press the **STANDBY/ON** button.

Clear $\longrightarrow$ Standby

8. Disconnect the power cord from a wall outlet and the frequency counter.

<Fig-1> Test point and Adjustment point



ONKYO CORPORATION

Sales & Product Planning Div. : 2-1, Nisshin-cho, Neyagawa-shi, OSAKA 572-8540, JAPAN
Tel: 072-831-8023 Fax: 072-831-8124

ONKYO U.S.A. CORPORATION

18 Park Way, Upper Saddle River, N.J. 07458, U.S.A.
Tel: 201-785-2600 Fax: 201-785-2650 <http://www.us.onkyo.com/>

ONKYO EUROPE ELECTRONICS GmbH

Liegnitzerstrasse 6, 82194 Groebenzell, GERMANY
Tel: +49-8142-4401-0 Fax: +49-8142-4401-555 <http://www.eu.onkyo.com/>

ONKYO EUROPE UK Office

Suite 1, Gregories Court, Gregories Road, Beaconsfield, Buckinghamshire, HP9 1HQ
UNITED KINGDOM Tel: +44-(0)1494-681515 Fax: +44(0)-1494-680452

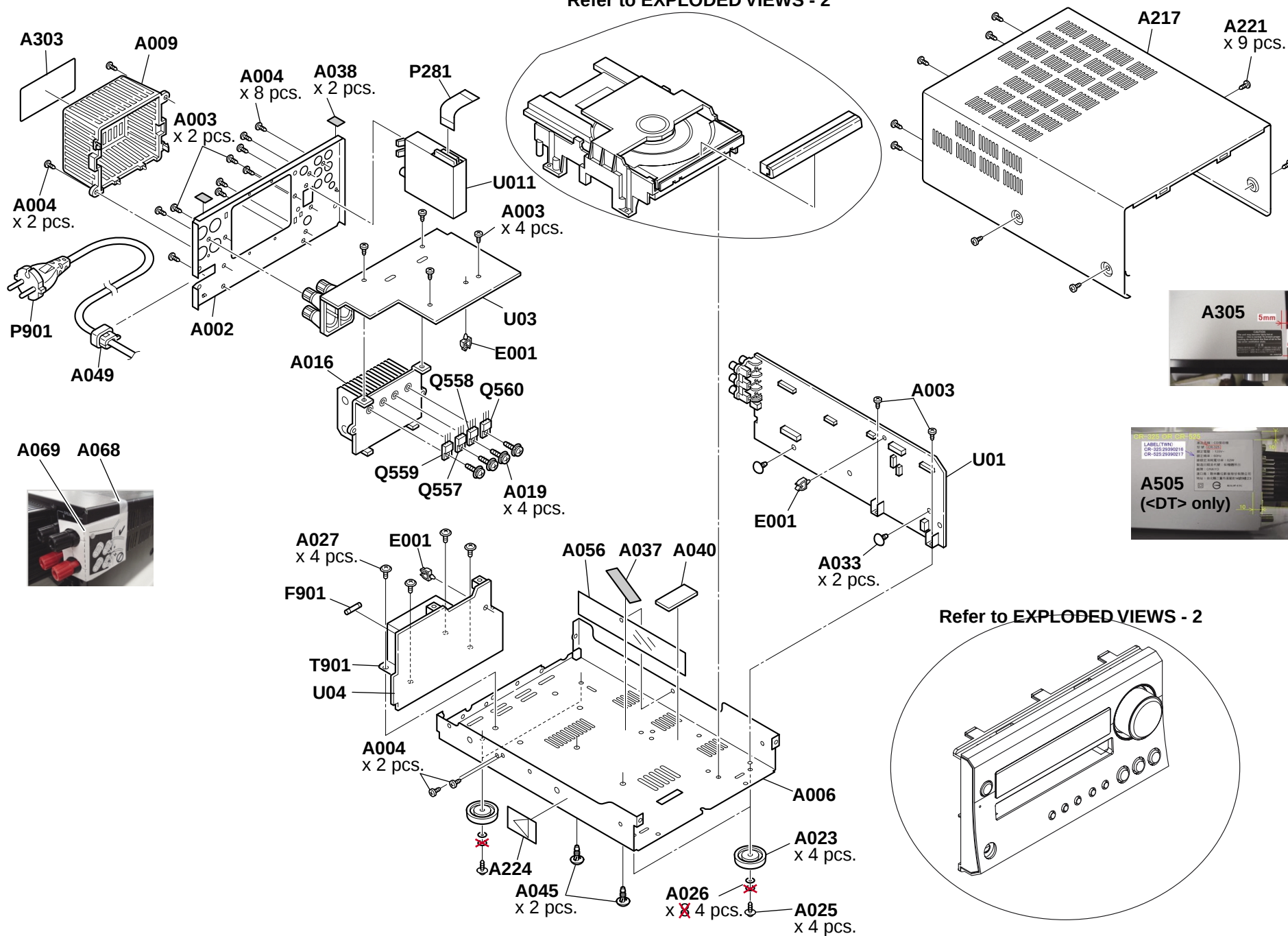
ONKYO CHINA LIMITED

Units 2102-2107, Metroplaza Tower I, 223 Hing Fong Road, Kwai Chung,
N.T., HONG KONG Tel: 852-2429-3118 Fax: 852-2428-9039
<http://www.ch.onkyo.com/>



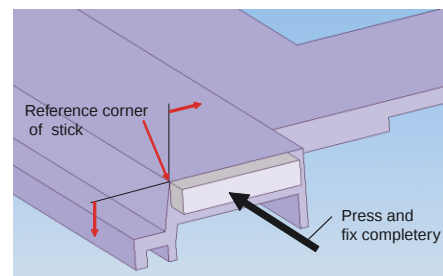
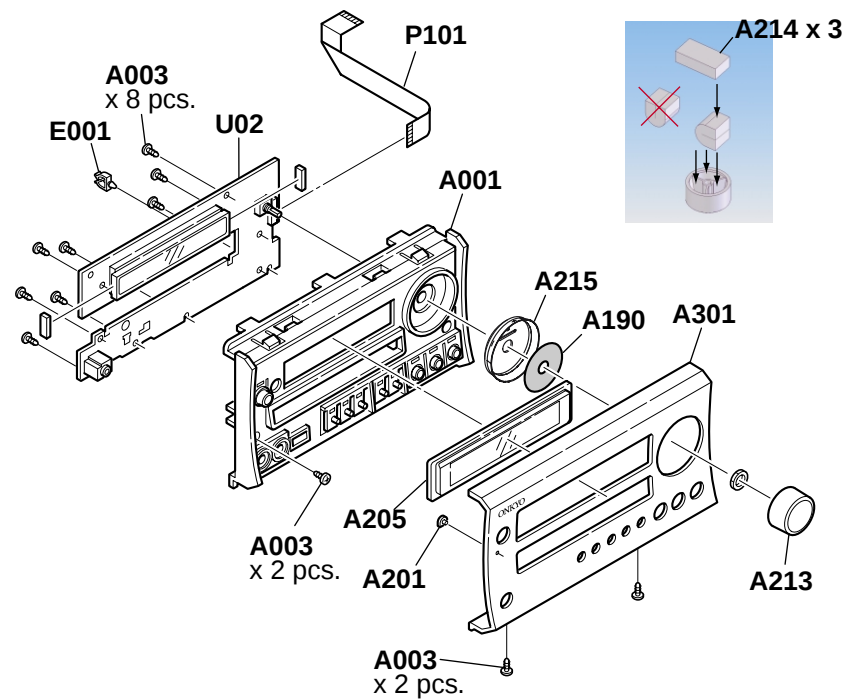
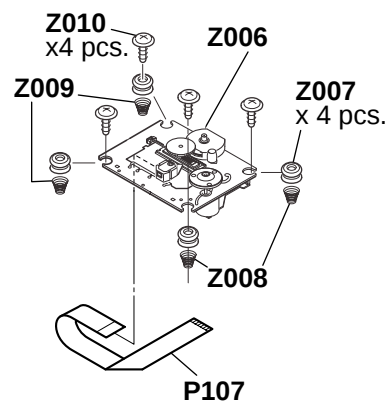
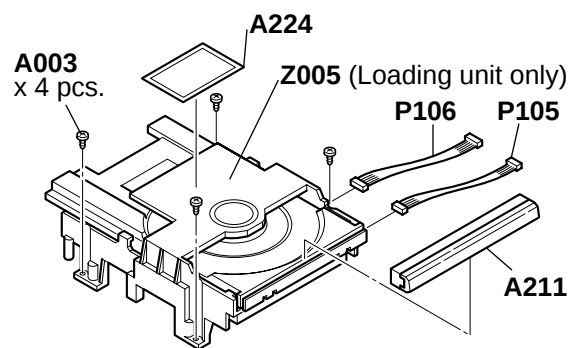
EXPLODED VIEWS - 1

Refer to EXPLODED VIEWS - 2



EXPLODED VIEWS - 2

Mechanism and Front panel



SCHEMATIC DIAGRAMS - 1

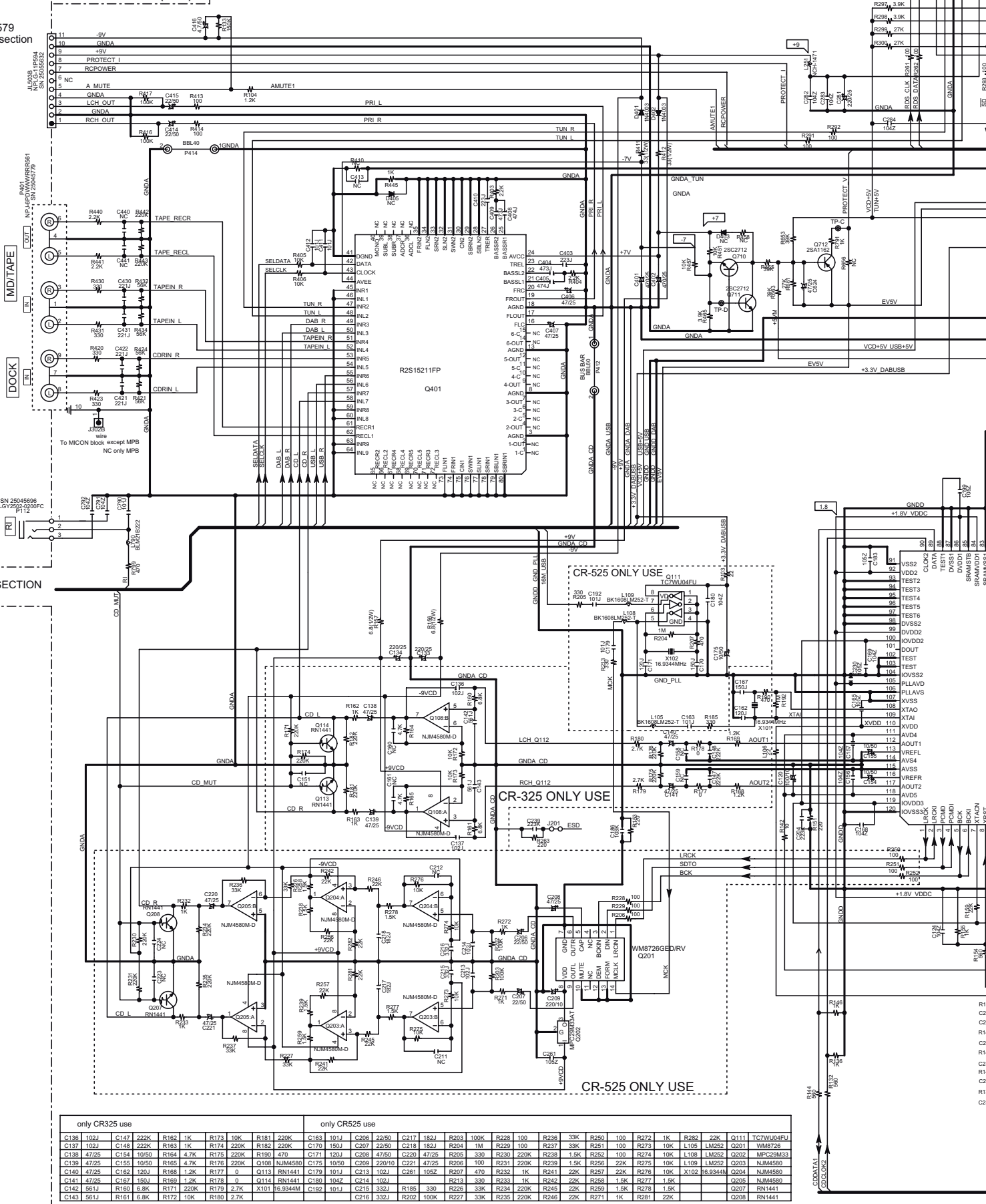
AF CEL CD DAC SECTION

TO TUNNER PA

TO NAAF-9579
TO Po-Amp section

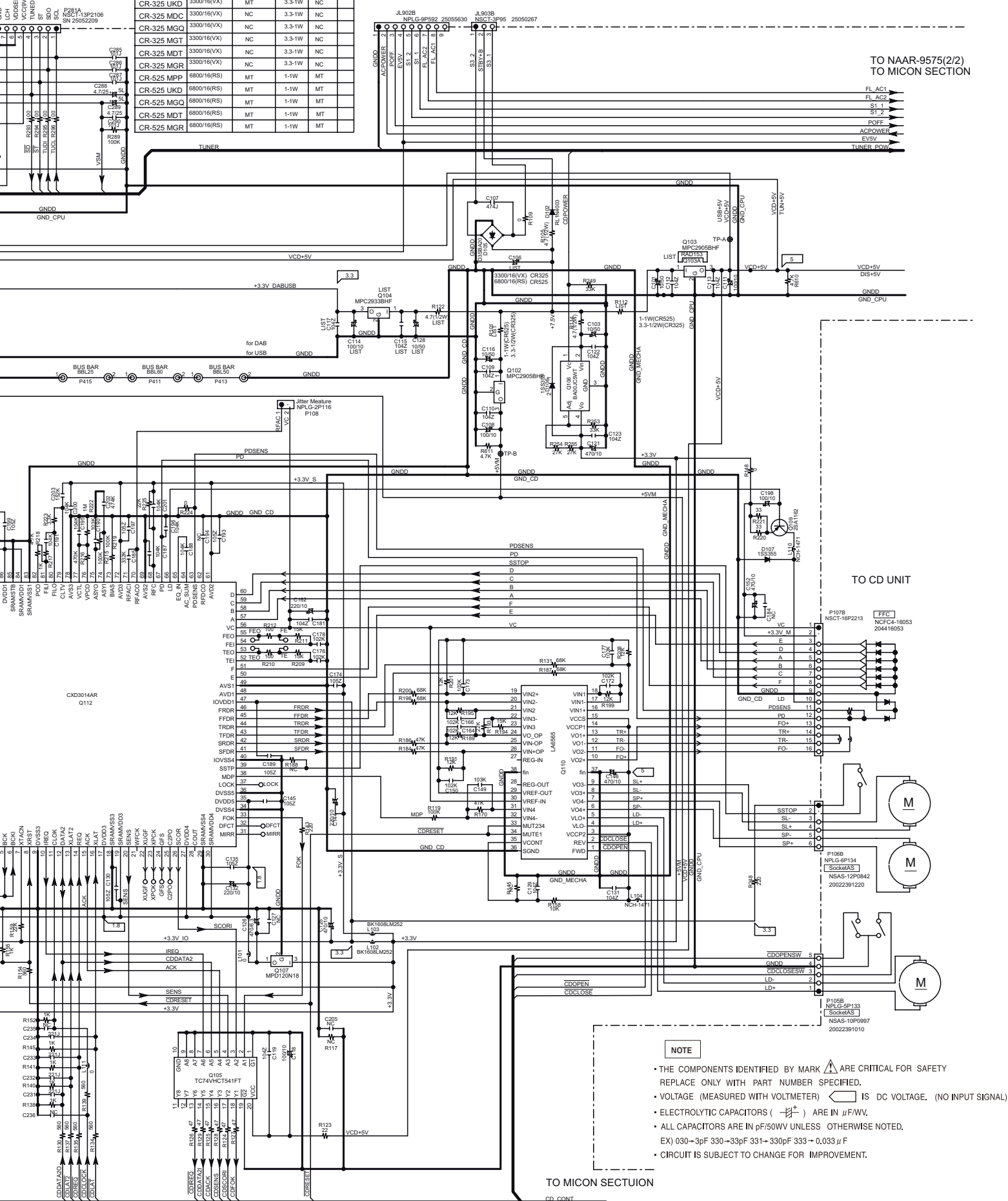
NAAR-9575(1/2)

U01 MAIN CIRCUIT PC BOARD



MODEL \	C106	D104 C114 C115	R132 C117 C128	R101 R112	D103A Heatsink
CR-325 MPP	3300/16(VX)	NC		3-3-1W	NC
CR-325 UKD	3300/16(VX)	MT		3-3-1W	NC
CR-325 MDC	3300/16(VX)	NC		3-3-1W	NC
CR-325 MGQ	3300/16(VX)	NC		3-3-1W	NC
CR-325 MGT	3300/16(VX)	NC		3-3-1W	NC
CR-325 MDT	3300/16(VX)	NC		3-3-1W	NC
CR-325 MGR	3300/16(VX)	NC		3-3-1W	NC
CR-525 MPP	6800/16(RS)	MT		1-1W	MT
CR-525 UKD	6800/16(RS)	MT		1-1W	MT
CR-525 MGQ	6800/16(RS)	MT		1-1W	MT
CR-525 MDT	6800/16(RS)	MT		1-1W	MT
CR-525 MGR	6800/16(RS)	MT		1-1W	MT

TO NAPS-9580
TO POWER SECTION

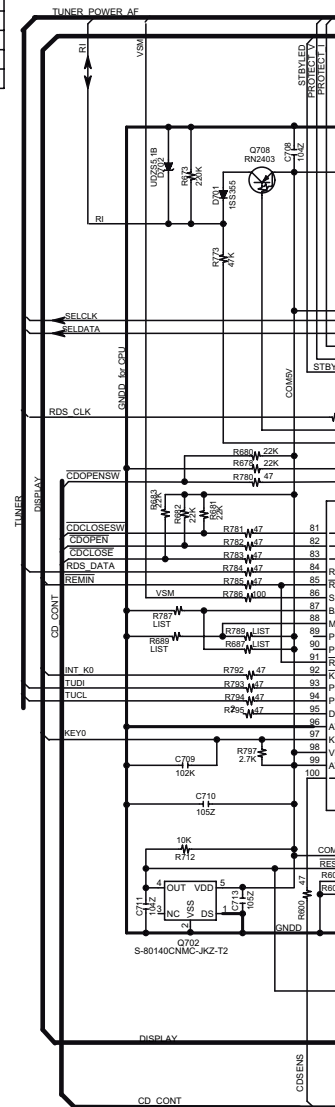


NOTE

- THE COMPONENTS IDENTIFIED BY MARK  ARE CRITICAL FOR SAFETY. REPLACE ONLY WITH PART NUMBER SPECIFIED.
 - VOLTAGE (MEASURED WITH VOLTMETER)  IS DC VOLTAGE. (NO INPUT SIGNAL)
 - ELECTROLYTIC CAPACITORS () ARE IN $\mu\text{F/VV}$.
 - ALL CAPACITORS ARE IN pF/50VV UNLESS OTHERWISE NOTED.
- EX) 030-3pF 330-33pF 331-330pF 333-0.033 μF
- CIRCUIT IS SUBJECT TO CHANGE FOR IMPROVEMENT.

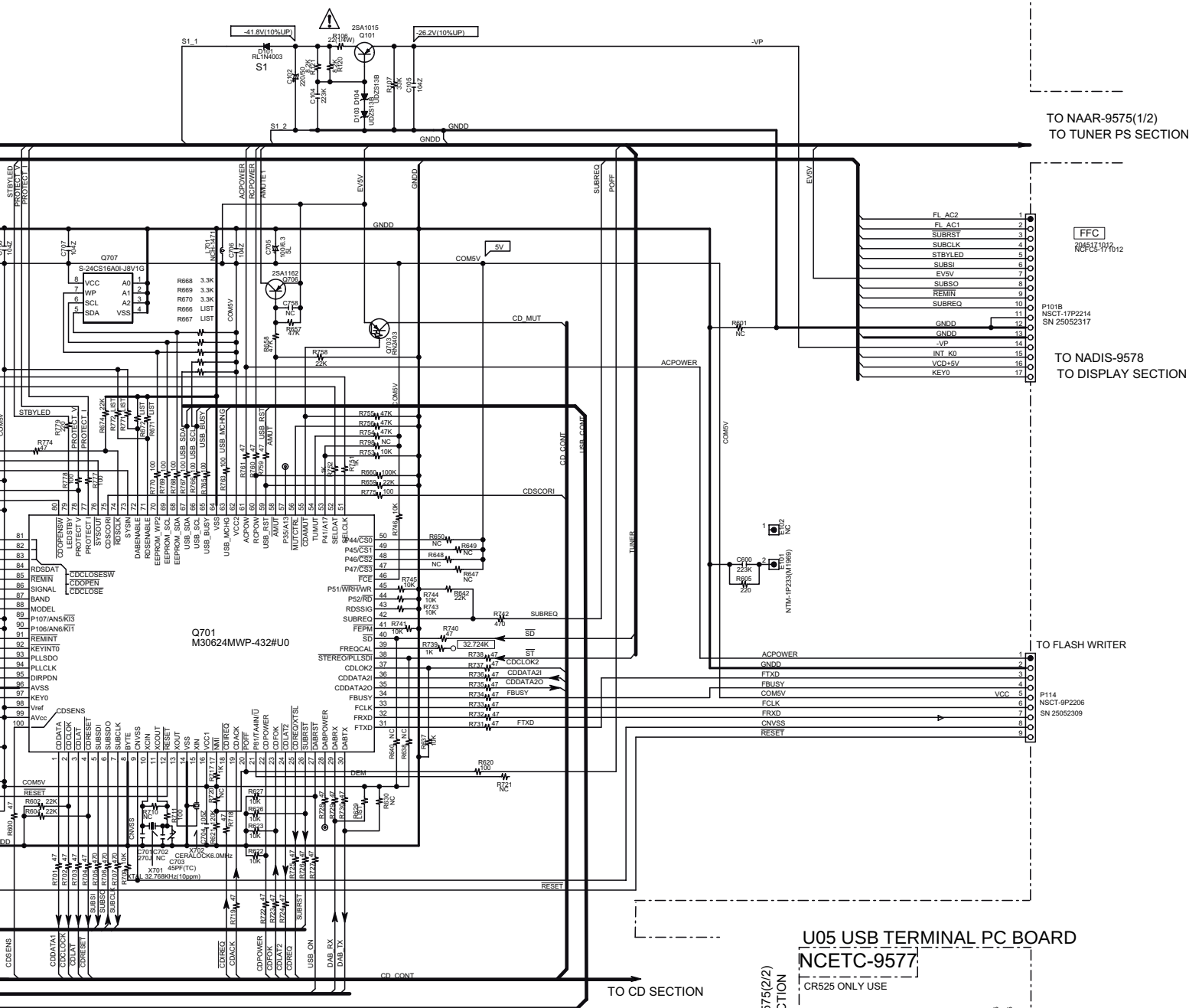
CPU DAB USB SECTION

		BAND				MODEL		RDS		DAB	
		R887	R787	R889	R629	R871	R772	R872	R772		
MODEL	CR-325 MPP	10K	NC	33K	56K	4.7K	NC	2.7K	OK	NC	OK
	CR-325 MDC	10K	NC	10K	33K	NC	NC	2.7K	NC	2.7K	NC
	CR-325 MPB	10K	OK	4.7K	33K	4.7K	OK	NC	OK	NC	OK
	CR-325 MGQ	10K	NC	10K	NC	4.7K	OK	NC	OK	NC	OK
	CR-325 MGT	10K	NC	10K	NC	4.7K	OK	NC	OK	NC	OK
	CR-325 MDT	10K	NC	10K	NC	4.7K	OK	NC	OK	NC	OK
	CR-325 MGR	10K	NC	10K	NC	4.7K	OK	NC	OK	NC	OK
	CR-525 MPP	10K	NC	NC	OK	4.7K	NC	2.7K	OK	NC	OK
	CR-525 MPB	10K	NC	33K	4.7K	NC	NC	2.7K	NC	2.7K	NC
CR-525 MGQ	10K	NC	56K	33K	4.7K	OK	NC	OK	NC	OK	
CR-525 MDT	10K	NC	56K	33K	4.7K	OK	NC	OK	NC	OK	
CR-525 MGR	10K	NC	56K	33K	4.7K	OK	NC	OK	NC	OK	



only MPB use						only CR525 use						
C361	100/10	1368	2R2	R329	220	C301	104Z	C309	471J	C319	1050	C341
C362	104Z	1371	2R2	R351	470	C302	104Z	C311	100/10	C320	102K	C342
C364	104Z	1371	2R2	R351	27K	C303	104Z	C312	109/10	C321	109/10	C343
C365	100/10	1352	B07D20	R360	27K	C304	104Z	C313	104Z	C322	104Z	C344
C367	1050	1334	PN1401	R361	39K	C305	103K	C314	104Z	C323	471J	C347
C375	100/10	1355	RN2002	R391	470	C306	104Z	C315	4750	C324	2250	C831
C376	104Z	D351	HS355	R392	100	C307	104Z	C316	223K	C329	2250	
C377	220/10			R393	100	C308	471J	C318	1050	C330	104Z	

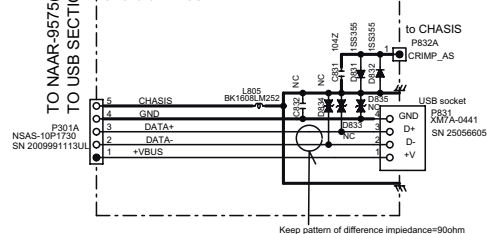
U01 MAIN CIRCUIT PC BOARD | NAAR-9575(2/2)



U05 USB TERMINAL PC BOARD

NCETC-9577

CR525 ONLY USE



Keep pattern of difference impedance=90ohm

NOTE

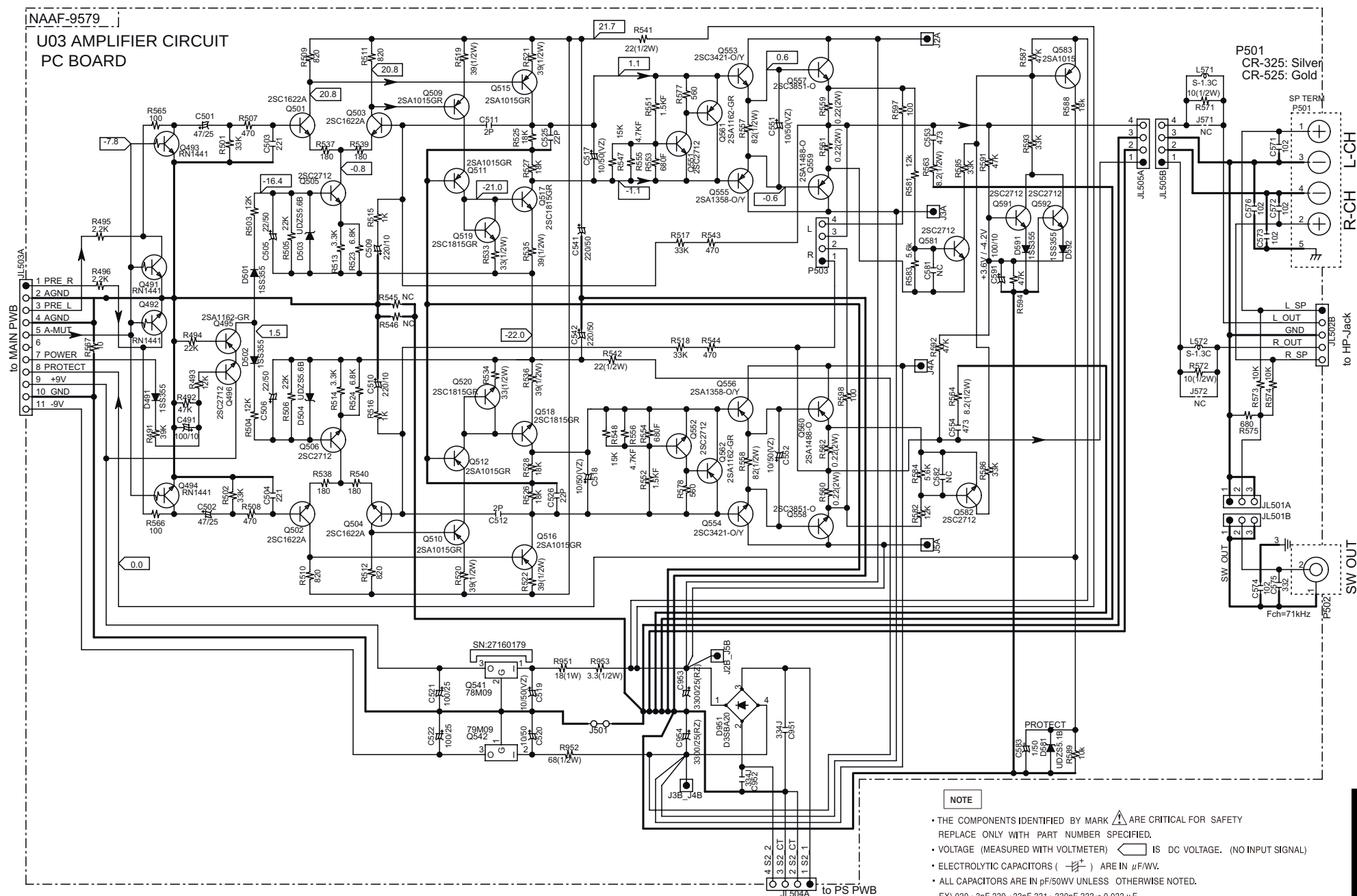
- THE COMPONENTS IDENTIFIED BY MARK  ARE CRITICAL FOR SAFETY. REPLACE ONLY WITH PART NUMBER SPECIFIED.
- VOLTAGE (MEASURED WITH VOLTMETER)  IS DC VOLTAGE. (NO INPUT SIGNAL)
- ELECTROLYTIC CAPACITORS () ARE IN $\mu\text{F/VV}$.
- ALL CAPACITORS ARE IN pF/50VW UNLESS OTHERWISE NOTED.
EX) 030+3pF 330-33pF 331-330pF 333+0.033 μF
- CIRCUIT IS SUBJECT TO CHANGE FOR IMPROVEMENT.

[illegible]

AMPLIFIER SECTION

NAAF-9579

U03 AMPLIFIER CIRCUIT PC BOARD



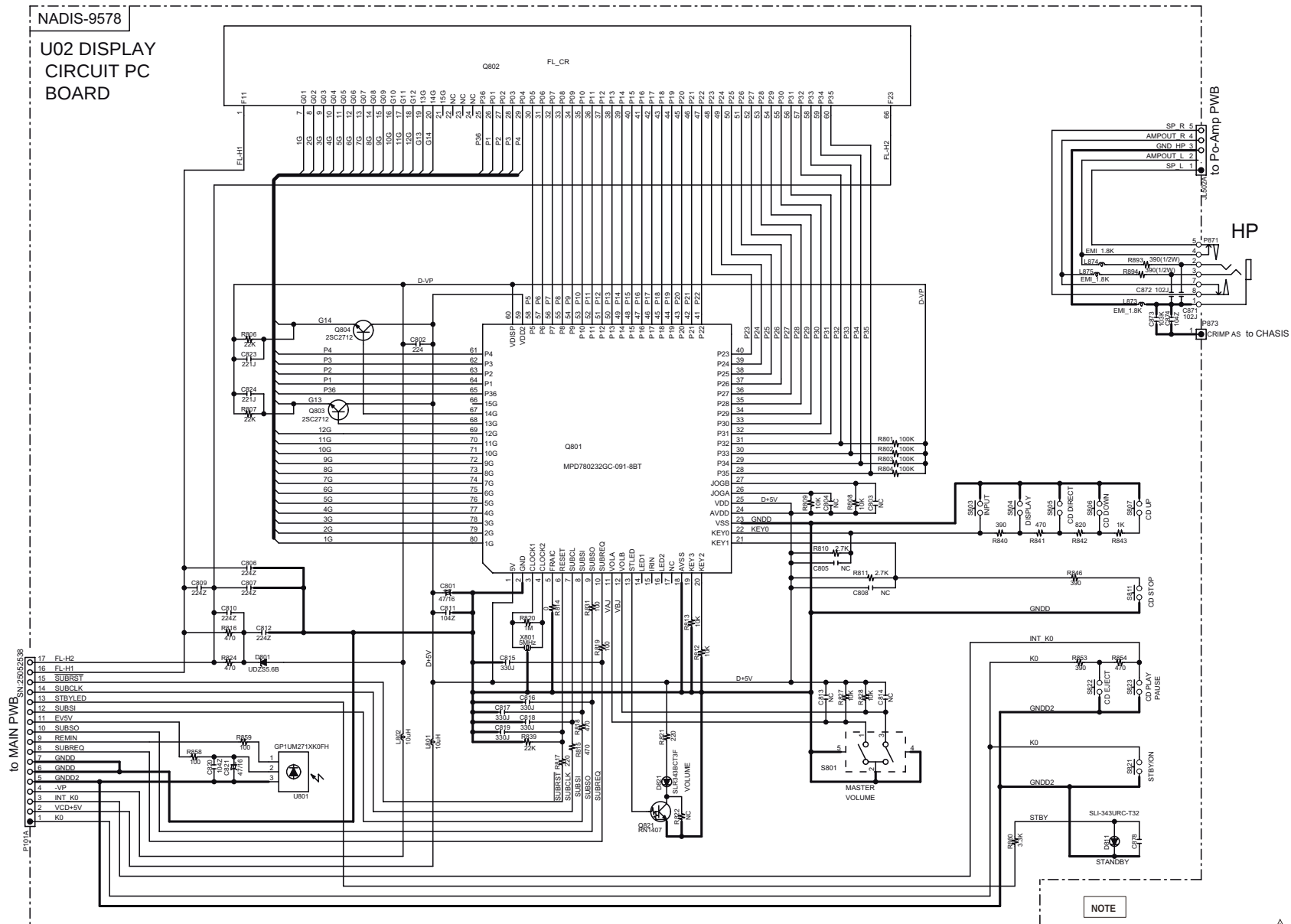
NOTE

- THE COMPONENTS IDENTIFIED BY MARK  ARE CRITICAL FOR SAFETY. REPLACE ONLY WITH PART NUMBER SPECIFIED.
 - VOLTAGE (MEASURED WITH VOLTMETER)  IS DC VOLTAGE. (NO INPUT SIGNAL).
 - ELECTROLYTIC CAPACITORS () ARE IN $\mu\text{F/WV}$.
 - ALL CAPACITORS ARE IN pF/50WV UNLESS OTHERWISE NOTED.
- EX) 030 ~ 3pF 330 ~ 33pF 331 ~ 330pF 333 ~ 0.033 μF
- CIRCUIT IS SUBJECT TO CHANGE FOR IMPROVEMENT.

SCHEMATIC DIAGRAMS - 4

DISPLAY SECTION

NADIS-9578

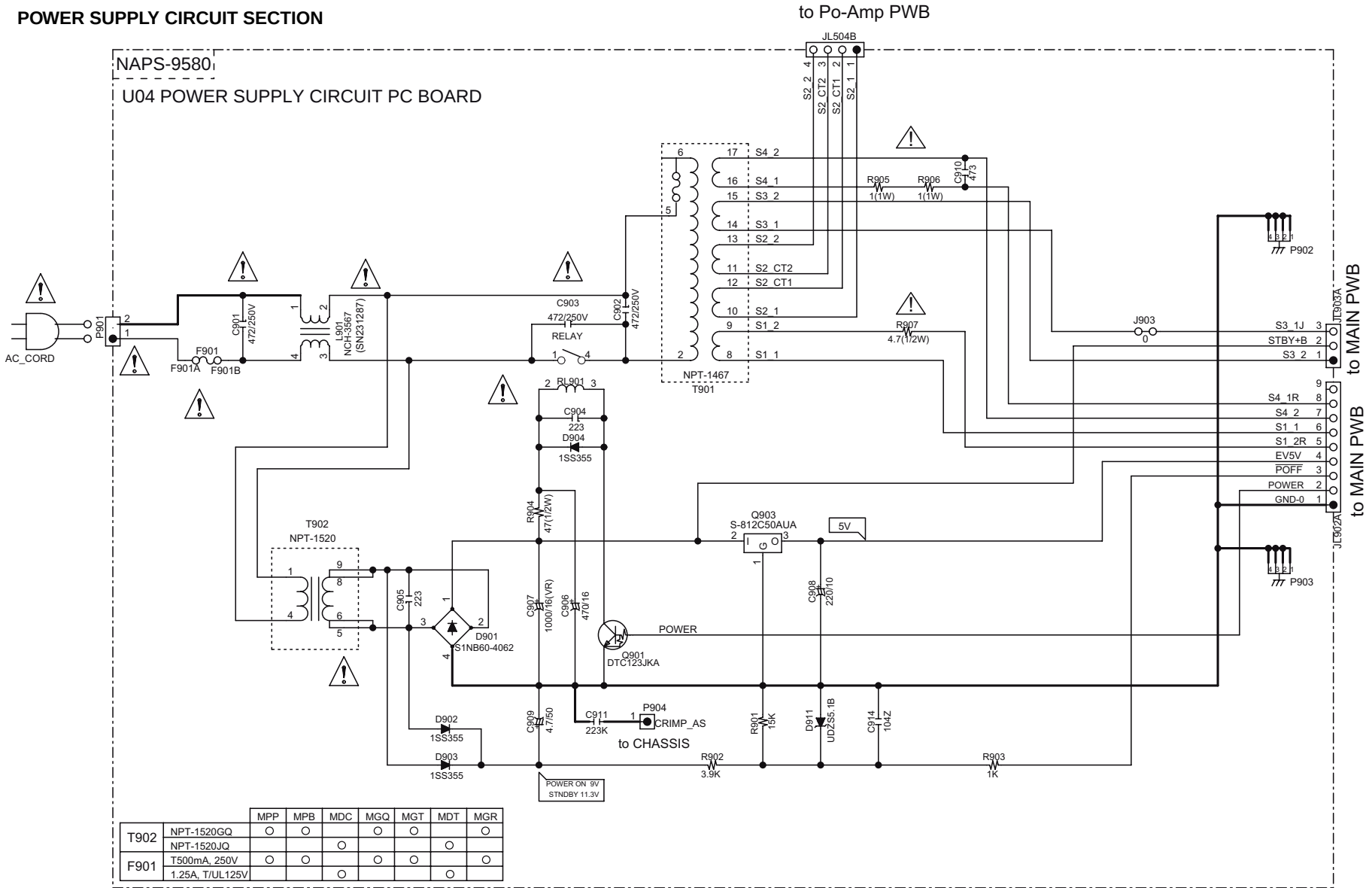
U02 DISPLAY
CIRCUIT PC
BOARD

NOTE

- THE COMPONENTS IDENTIFIED BY MARK  ARE CRITICAL FOR SAFETY. REPLACE ONLY WITH PART NUMBER SPECIFIED.
- VOLTAGE (MEASURED WITH VOLTMETER)  IS DC VOLTAGE. (NO INPUT SIGNAL).
- ELECTROLYTIC CAPACITORS () ARE IN $\mu\text{F}/\text{VW}$.
- ALL CAPACITORS ARE IN pF/50WV UNLESS OTHERWISE NOTED.
EX) 030→3pF 330→33pF 331→330pF 333→0.033 μF
- CIRCUIT IS SUBJECT TO CHANGE FOR IMPROVEMENT.

SCHEMATIC DIAGRAMS - 5

POWER SUPPLY CIRCUIT SECTION



CAUTION

FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH FUSE OF SAME TYPE AND RATING INDICATED.

ATTENTION

AFIN D'ASSURER UNE PROTECTION PERMANENTE CONTRE LES RISQUES D'INCENDIE, REMPLACER UNIQUEMENT PAR UN FUSIBLE DE MEME TYPE ET CALIBRATION COMME INDIQUE.



THIS SYMBOL LOCATED NEAR THE FUSE INDICATES THAT THE FUSE USED IS SLOW OPERATING TYPE FOR CONTINUED PROTECTION AGAINST FIRE HAZARD. REPLACE WITH SAME TYPE FUSE. FOR FUSE RATING REFER TO THE MARKING ADJACENT TO THE SYMBOL.



CE SYMBOLE INDIQUE QUE LE FUSIBLE UTILISE EST E LENT. POUR UNE PROTECTION PERMANENTE, UTILISER QUE DES FUSIBLES DE MEME TYPE. CE DERNIER EST INDIQUE LA QU LE PRESENT SYMBOLE EST APPOSE.

NOTE

- THE COMPONENTS IDENTIFIED BY MARK ARE CRITICAL FOR SAFETY. REPLACE ONLY WITH PART NUMBER SPECIFIED.
- VOLTAGE (MEASURED WITH VOLTMETER) IS DC VOLTAGE. (NO INPUT SIGNAL)
- ELECTROLYTIC CAPACITORS () ARE IN $\mu F/WV$.
- ALL CAPACITORS ARE IN pF/50WV UNLESS OTHERWISE NOTED.
EX) 030→3pF 330→33pF 331→330pF 333→0.033 μF
- CIRCUIT IS SUBJECT TO CHANGE FOR IMPROVEMENT.

PACKING PROCEDURE

CR-325(S) MGQ, MGT, MDT, MGR / (B)MDD

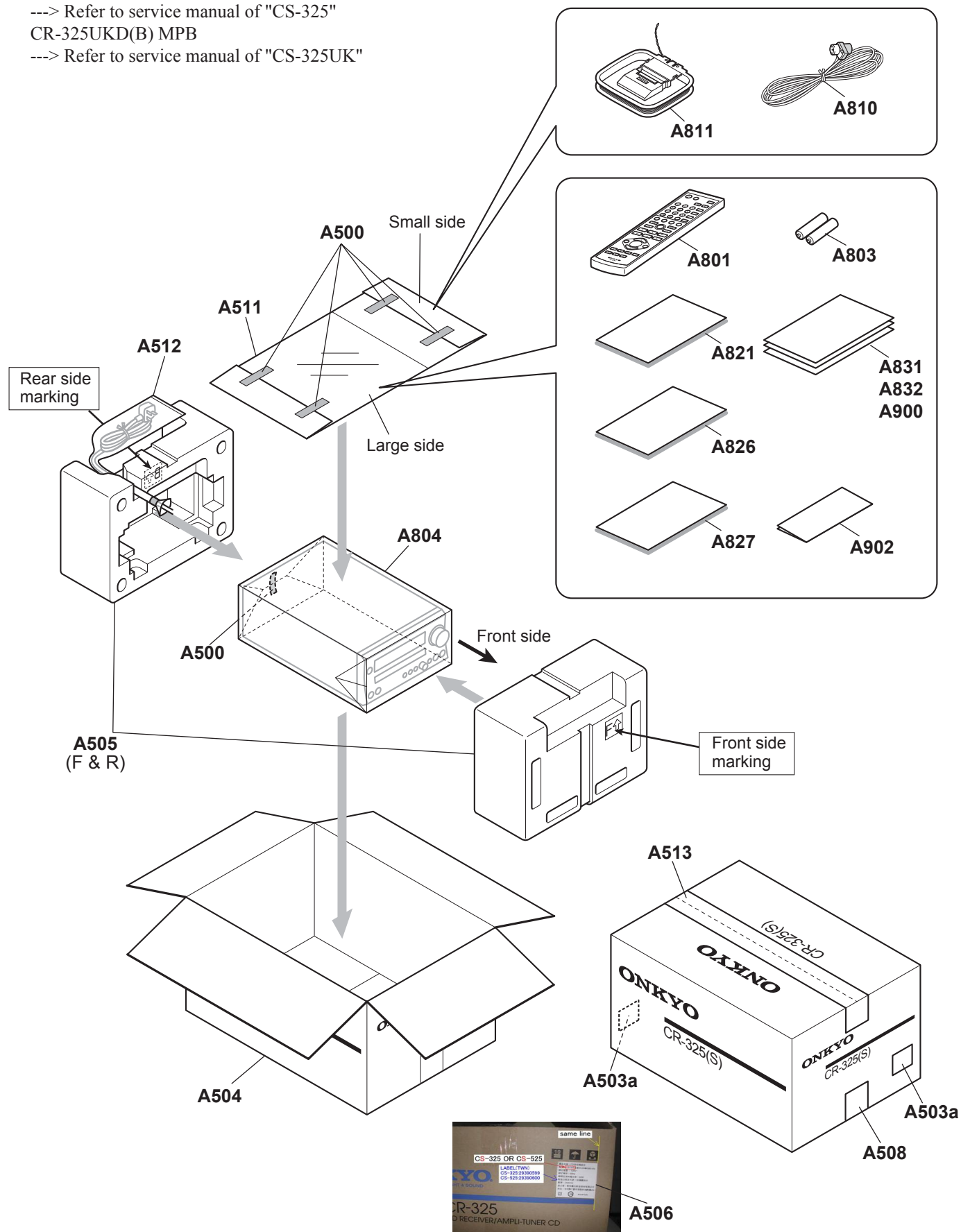
<Note>

CR-325(S) MPP, (B) MPP, MDC

---> Refer to service manual of "CS-325"

CR-325UKD(B) MPB

---> Refer to service manual of "CS-325UK"



A

B

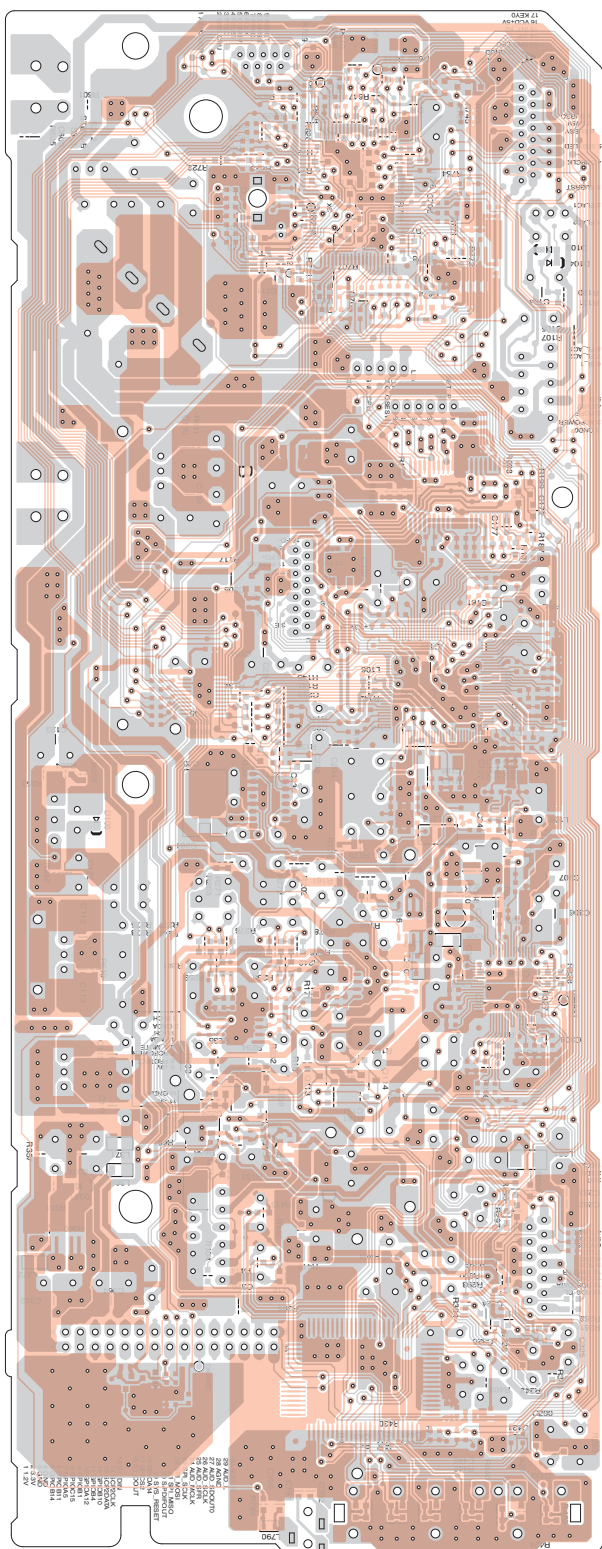
C

D

PRINTED CIRCUIT BOARD VIEWS - 1

U01 Main circuit board (NAAR-9575-1A/B/C/D)

1

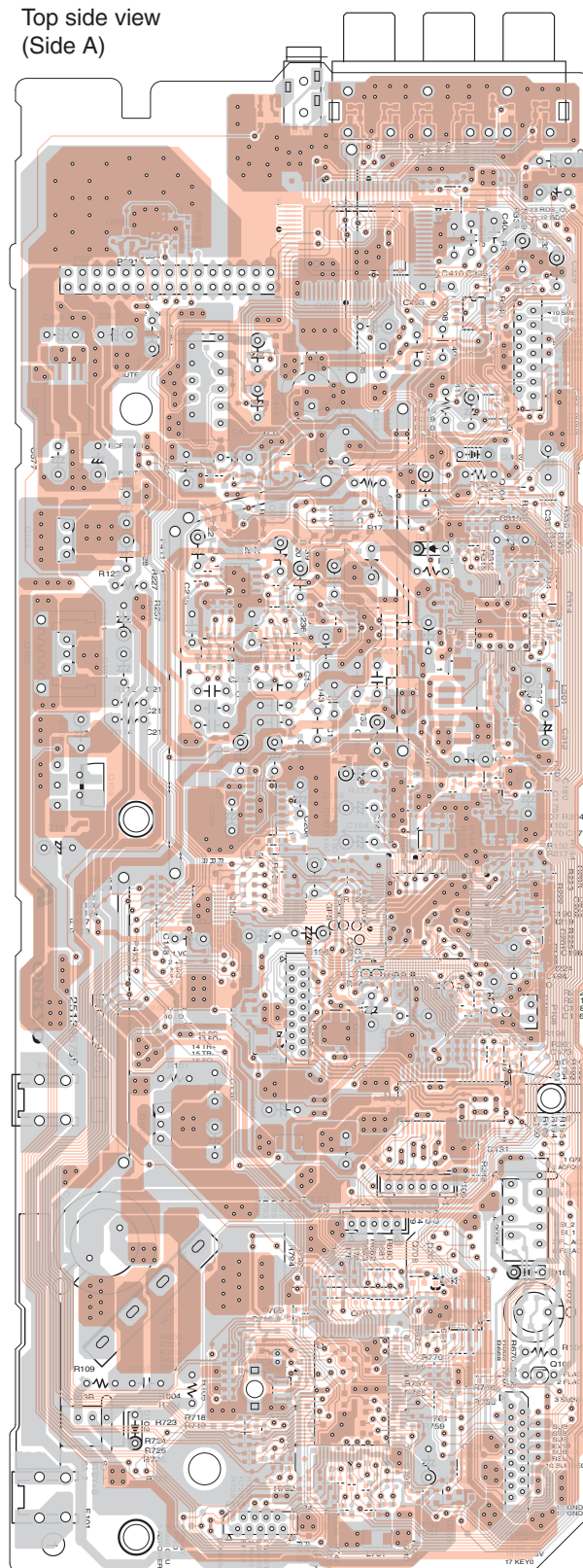
Bottom side view
(Side B)

2

3

4

5

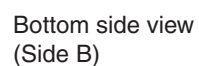
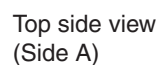
Top side view
(Side A)

U02 Display circuit board (NADIS-9578-1 A/B)

This technical drawing illustrates the internal circuit board of a CD player, showing various components and their connections. The board is populated with numerous integrated circuits (ICs), capacitors, resistors, and other electronic components. Key components and labels include:

- ICs:** S121, S122, S123, S124, S125, S126, S127, S128, S129, S130, S131, S132, S133, S134, S135, S136, S137, S138, S139, S140, S141, S142, S143, S144, S145, S146, S147, S148, S149, S150, S151, S152, S153, S154, S155, S156, S157, S158, S159, S160, S161, S162, S163, S164, S165, S166, S167, S168, S169, S170, S171, S172, S173, S174, S175, S176, S177, S178, S179, S180, S181, S182, S183, S184, S185, S186, S187, S188, S189, S190, S191, S192, S193, S194, S195, S196, S197, S198, S199, S200.
- Capacitors:** C100, C101, C102, C103, C104, C105, C106, C107, C108, C109, C110, C111, C112, C113, C114, C115, C116, C117, C118, C119, C120, C121, C122, C123, C124, C125, C126, C127, C128, C129, C130, C131, C132, C133, C134, C135, C136, C137, C138, C139, C140, C141, C142, C143, C144, C145, C146, C147, C148, C149, C150, C151, C152, C153, C154, C155, C156, C157, C158, C159, C160, C161, C162, C163, C164, C165, C166, C167, C168, C169, C170, C171, C172, C173, C174, C175, C176, C177, C178, C179, C180, C181, C182, C183, C184, C185, C186, C187, C188, C189, C190, C191, C192, C193, C194, C195, C196, C197, C198, C199, C200.
- Resistors:** R100, R101, R102, R103, R104, R105, R106, R107, R108, R109, R110, R111, R112, R113, R114, R115, R116, R117, R118, R119, R120, R121, R122, R123, R124, R125, R126, R127, R128, R129, R130, R131, R132, R133, R134, R135, R136, R137, R138, R139, R140, R141, R142, R143, R144, R145, R146, R147, R148, R149, R150, R151, R152, R153, R154, R155, R156, R157, R158, R159, R160, R161, R162, R163, R164, R165, R166, R167, R168, R169, R170, R171, R172, R173, R174, R175, R176, R177, R178, R179, R180, R181, R182, R183, R184, R185, R186, R187, R188, R189, R190, R191, R192, R193, R194, R195, R196, R197, R198, R199, R200.
- Other Components:** J100, J101, J102, J103, J104, J105, J106, J107, J108, J109, J110, J111, J112, J113, J114, J115, J116, J117, J118, J119, J120, J121, J122, J123, J124, J125, J126, J127, J128, J129, J130, J131, J132, J133, J134, J135, J136, J137, J138, J139, J140, J141, J142, J143, J144, J145, J146, J147, J148, J149, J150, J151, J152, J153, J154, J155, J156, J157, J158, J159, J160, J161, J162, J163, J164, J165, J166, J167, J168, J169, J170, J171, J172, J173, J174, J175, J176, J177, J178, J179, J180, J181, J182, J183, J184, J185, J186, J187, J188, J189, J190, J191, J192, J193, J194, J195, J196, J197, J198, J199, J200.
- Labels:** ON/STANDBY, VOLUME, OPEN/CLOSE, STOP, PLAY, PAUSE, EJECT, CD DIRECT, INPUT, DISPLAY, 3000, 3001, 3002, 3003, 3004, 3005, 3006, 3007, 3008, 3009, 3010, 3011, 3012, 3013, 3014, 3015, 3016, 3017, 3018, 3019, 3020, 3021, 3022, 3023, 3024, 3025, 3026, 3027, 3028, 3029, 3030, 3031, 3032, 3033, 3034, 3035, 3036, 3037, 3038, 3039, 3040, 3041, 3042, 3043, 3044, 3045, 3046, 3047, 3048, 3049, 3050, 3051, 3052, 3053, 3054, 3055, 3056, 3057, 3058, 3059, 3060, 3061, 3062, 3063, 3064, 3065, 3066, 3067, 3068, 3069, 3070, 3071, 3072, 3073, 3074, 3075, 3076, 3077, 3078, 3079, 3080, 3081, 3082, 3083, 3084, 3085, 3086, 3087, 3088, 3089, 3090, 3091, 3092, 3093, 3094, 3095, 3096, 3097, 3098, 3099, 3100.

U03 Amplifier circuit board (NAAF-9579-1A/B)



A

B

C

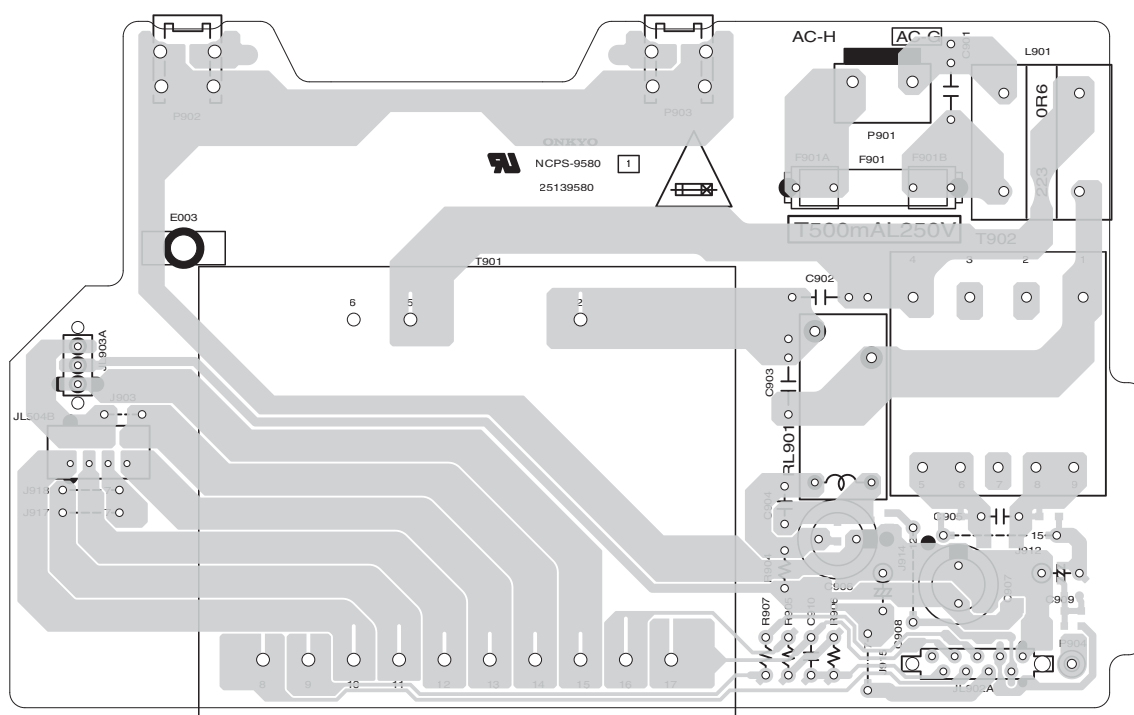
D

PRINTED CIRCUIT BOARD VIEWS - 4

U04 Power supply circuit board (NAPS-9580-1A/B)

1

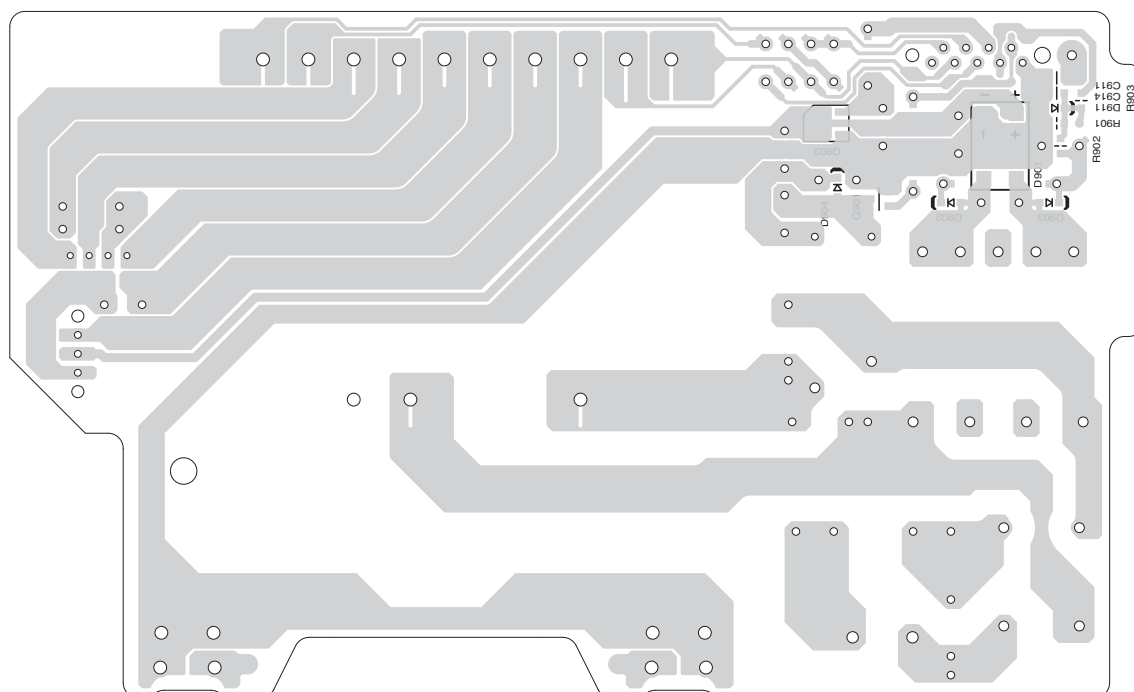
Top side view (Side A)



2

3

Bottom side view (Side B)



4

5

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS

Q105 : TC74VHC541FT (Octal Bus Buffer, Non-Inverted, 3-State Outputs)-1/1

The TC74VHC540/TC74VHC541 are advanced high speed CMOS OCTAL BUS BUFFERS fabricated with silicon gate C2MOS technology. They achieve the high speed operation similar to equivalent Bipolar Schottky TTL while maintaining the CMOS low power dissipation. The TC74VHC540 is an inverting type, and the TC74VHC541 is a non-inverting type.

When either G1 or G2 are high, the terminal outputs are in the high-impedance state.

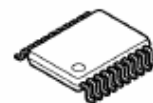
An input protection circuit ensures that 0 to 5.5 V can be applied to the input pins without regard to the supply voltage.

This device can be used to interface 5 V to 3 V systems and two supply systems such as battery back up. This circuit prevents device destruction due to mismatched supply and input voltages.

Features

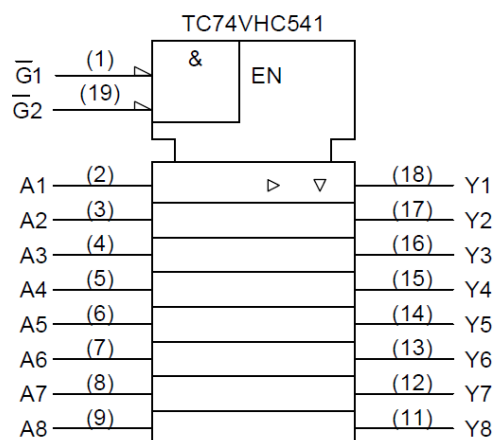
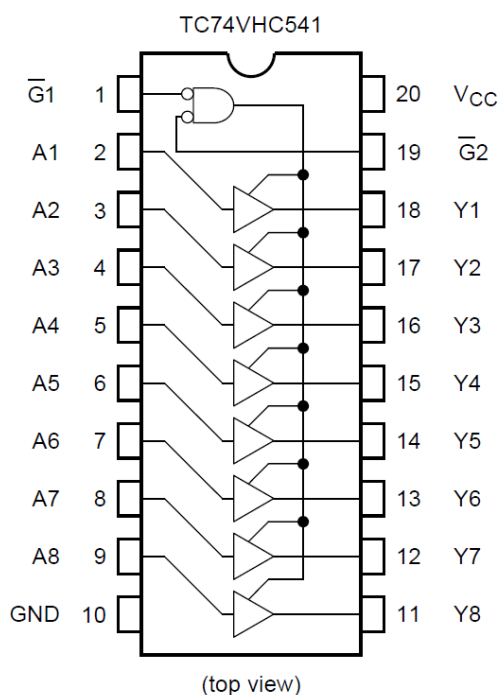
- High speed: $t_{pd} = 3.7 \text{ ns}$ (typ.) at $V_{CC} = 5 \text{ V}$
- Low power dissipation: $I_{CC} = 4 \mu\text{A}$ (max) at $T_a = 25^\circ\text{C}$
- High noise immunity: $V_{NIH} = V_{NIL} = 28\% V_{CC}$ (min)
- Power down protection is provided on all inputs.
- Balanced propagation delays: $t_{pLH} \sim t_{pHL}$
- Wide operating voltage range: $V_{CC} (\text{opr}) = 2 \text{ V to } 5.5 \text{ V}$
- Low noise: $V_{OLP} = 1.2 \text{ V}$ (max)
- Pin and function compatible with 74ALS540/541

TC74VHC540FT, TC74VHC541FT



TSSOP20-P-0044-0.65A

BLOCK DIAGRAM



Truth Table

Inputs			Outputs	
$\overline{G1}$	$\overline{G2}$	A_n	Y_n	$\overline{Y}_n$
H	X	X	Z	Z
X	H	X	Z	Z
L	L	H	H	L
L	L	L	L	H

X: Don't care

Z: High impedance

Y_n : TC74VHC541

$\overline{Y}_n$: TC74VHC540

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS

Q106 : BA00JC5WT (Variable Rated Voltage, 1.5A Secondary LDO Regulators)

●Description

The BA□□JC5 are low-saturation regulators with an output current of 1.5 A and a voltage accuracy of $\pm 1\%$. A broad output voltage range is offered, from 1.5V to 12V, and built-in overcurrent protection and thermal shutdown (TSD) circuits prevent damage due to short-circuiting and overloading, respectively.

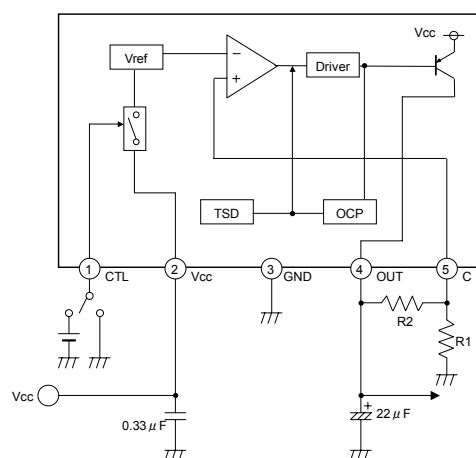
●Features

- 1) Output current: 1.5A (min.)
- 2) Output voltage accuracy: $\pm 1\%$
- 3) Broad output voltage range available: 1.5V -12V (BA□□JC5 series)
- 4) Low saturation-voltage type with PNP output
- 5) Built-in overcurrent protection circuit
- 6) Built-in thermal shutdown circuit
- 7) Integrated shutdown switch (BA□□JC5WT)
- 8) Operating temperature range: -40°C to $+105^{\circ}\text{C}$

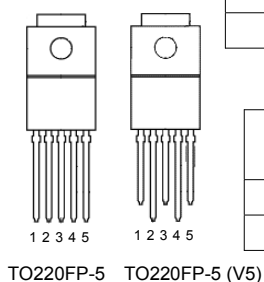
●Applications

All electronic devices that use microcontrollers and logic circuits

● Block Diagrams / Standard Example Application Circuits



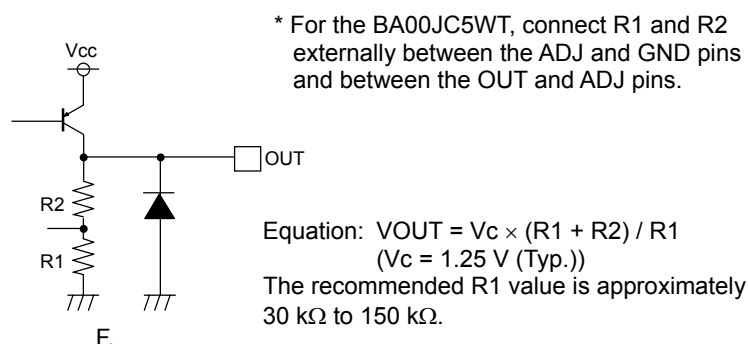
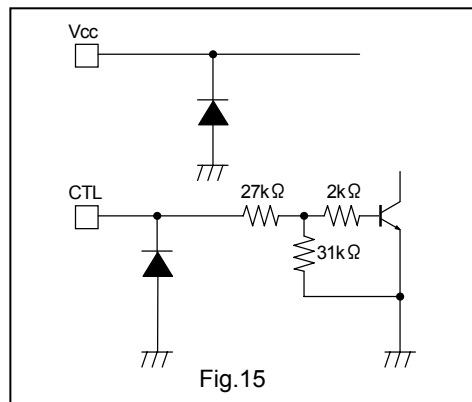
TOP VIEW



Pin No.	Pin name	Function
1	CTL	Output voltage on/off control
2	Vcc	Power supply voltage input
3	GND	GND
4	OUT	Voltage output
5	C	ADJ pin

or seing range	
Vcc (2 Pin)	Approximately 0.33 μF
OUT (4 Pin)	22 μF to 1000 μF

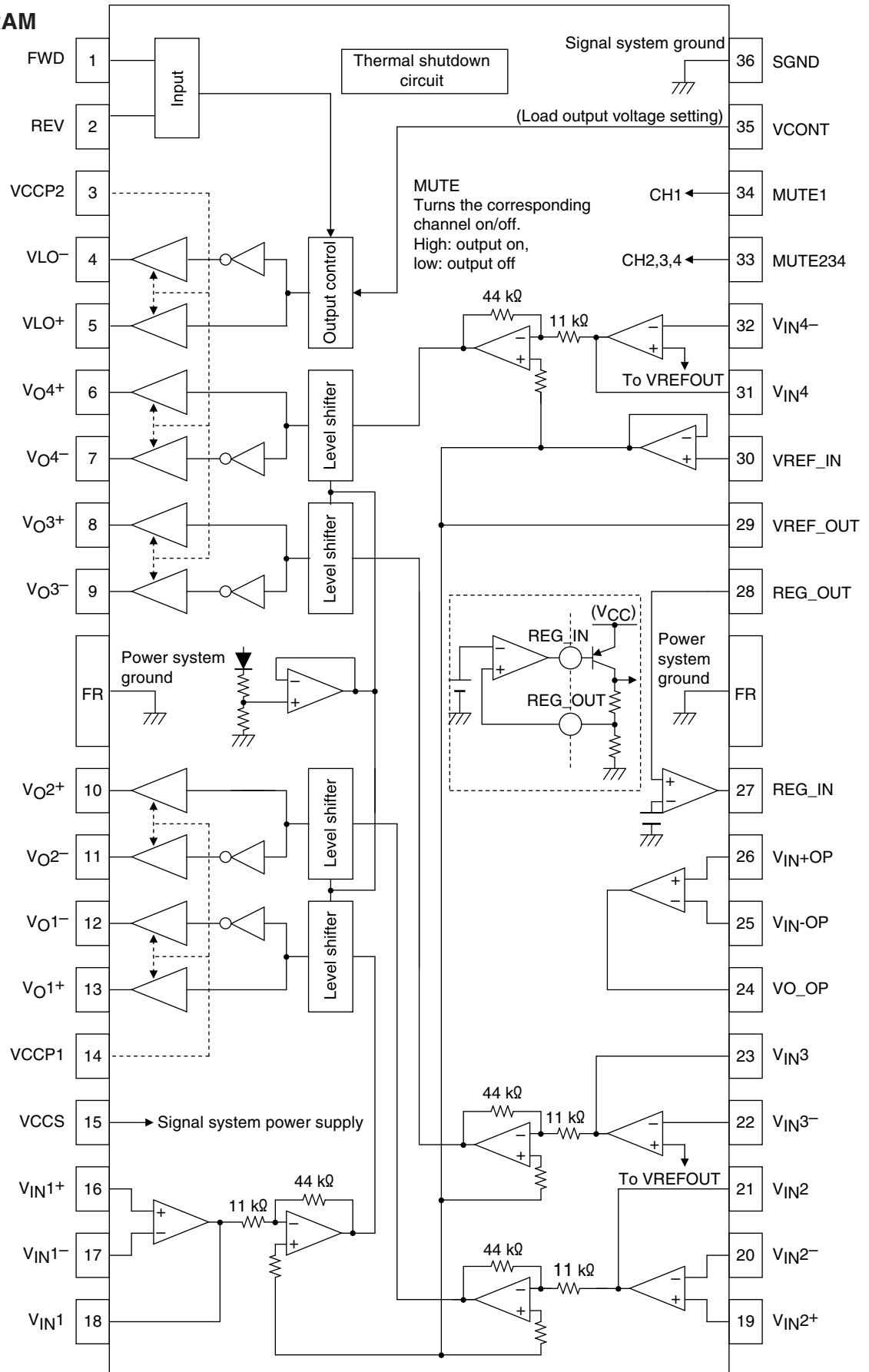
● Input / Output Equivalent Circuits



IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS

Q110 : LA6565 (Five-Channel CD Actuator Driver)-1/4

BLOCK DIAGRAM



IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS

Q110 : LA6565 (Five-Channel CD Actuator Driver)-2/4

TERMINAL DESCRIPTION

Pin No.	Pin Name	Pin Descriptions
1	FWD	Loading output direction switching (FWD). Loading system logic input.
2	REV	Loading output direction switching (REV). Loading system logic input.
3	V _{CC2}	Channels 3, 4, and loading power stage power supply
4	VLO ⁻	Loading output (-)
5	VLO ⁺	Loading output (+)
6	VO4 ⁺	Channel 4 output (+)
7	VO4 ⁻	Channel 4 output (-)
8	VO3 ⁺	Channel 3 output (+)
9	VO3 ⁻	Channel 3 output (-)
10	VO2 ⁺	Channel 2 output (+)
11	VO2 ⁻	Channel 2 output (-)
12	VO1 ⁻	Channel 1 output (-)
13	VO1 ⁺	Channel 1 output (+)
14	VCCP1	Channels 1 and 2 power stage power supply
15	VCCS	Signal system power supply
16	VIN1 ⁺	Channel 1 input. Input operational amplifier + input.
17	VIN1 ⁻	Channel 1 input. Input operational amplifier - input.
18	VIN1	Channel 1 input. Input operational amplifier output.
19	VIN2 ⁺	Channel 2 input. Input operational amplifier + input.
20	VIN2 ⁻	Channel 2 input. Input operational amplifier - input.
21	VIN2	Channel 2 input. Input operational amplifier output.
22	VIN3 ⁻	Channel 3 input. Input operational amplifier - input.
23	VIN3	Channel 3 input. Input operational amplifier output.
24	VO_OP	Operational amplifier output
25	VIN-OP	Operational amplifier - input
26	VIN+OP	Operational amplifier + input
27	REG_IN	Regulator error amplifier output. Connect this pin to the base of the external pnp transistor.
28	REG_OUT	Regulator error amplifier input (+).
29	VREF_OUT	VREF amplifier (voltage follower) output.
30	VREF_IN	VREF input. Apply the external reference voltage to this pin.
31	VIN4	Channel 4 input. Input operational amplifier output.
32	VIN4 ⁻	Channel 4 input. Input operational amplifier - input.
33	MUTE234	Controls the on/off state of channels 2, 3, and 4.
34	MUTE1	Channel 1 output on/off control
35	VCONT	Loading block output high-level voltage setting
36	S_GND	Signal system ground

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS

Q110 : LA6565 (Five-Channel CD Actuator Driver)-3/4

TERMINAL DESCRIPTION (Continued)

Pin No.	Pin Name	Symbol	Description	Equivalent Circuit
16 17 18 19 20 21 22 23 32 31 26 25 24	Input (CH1 to 4)	VIN1+ VIN1- VIN1 VIN2+ VIN2- VIN2 VIN3- VIN3 VIN4- VIN4 VIN+OP VIN-OP VO_OP	Inputs (channels 1 to 4 and the independent operational amplifier)	
1 2	Input (H bridge)	FWD REV	Logic inputs The IC is set to one of four modes, forward, reverse, brake, and free running by the combination of high and low values applied to these pins.	
13 12 10 11 8 9 6 7	Output (BTL-AMP)	VO1+ VO1- VO2+ VO2- VO3+ VO3- VO4+ VO4-	Channel 1 to 4 outputs	
4 5 35	Output (H bridge)	VLO- VLO+ VCONT	H bridge (loading) output and loading output setting	
33 34	MUTE	MUTE234 MUTE1	BTL amplifier output on/off state setting. High: output on Low: output off	

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS

Q110 : LA6565 (Five-Channel CD Actuator Driver)-4/4

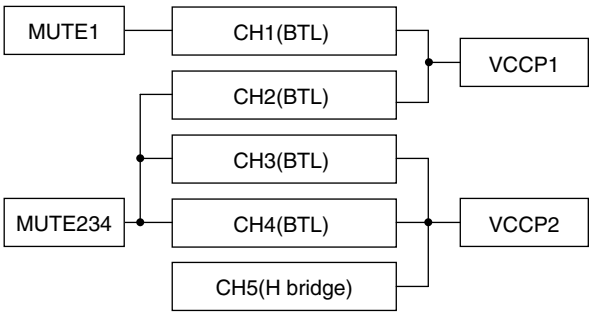
Truth Table (Loading (H bridge) block)

FWD	REV	VLO+	VLO-	Loading output
L	L	OFF	OFF	OFF *1
	H	H	L	Forward
H	L	L	H	Reverse
	H	L	L	Short-circuit braking *2

*1. The output goes to the high-impedance state.

*2. In braking mode, the sink side transistor is turned on (for short-circuit braking).
The VLO+ and VLO- pins go to a level that is essentially the ground level.

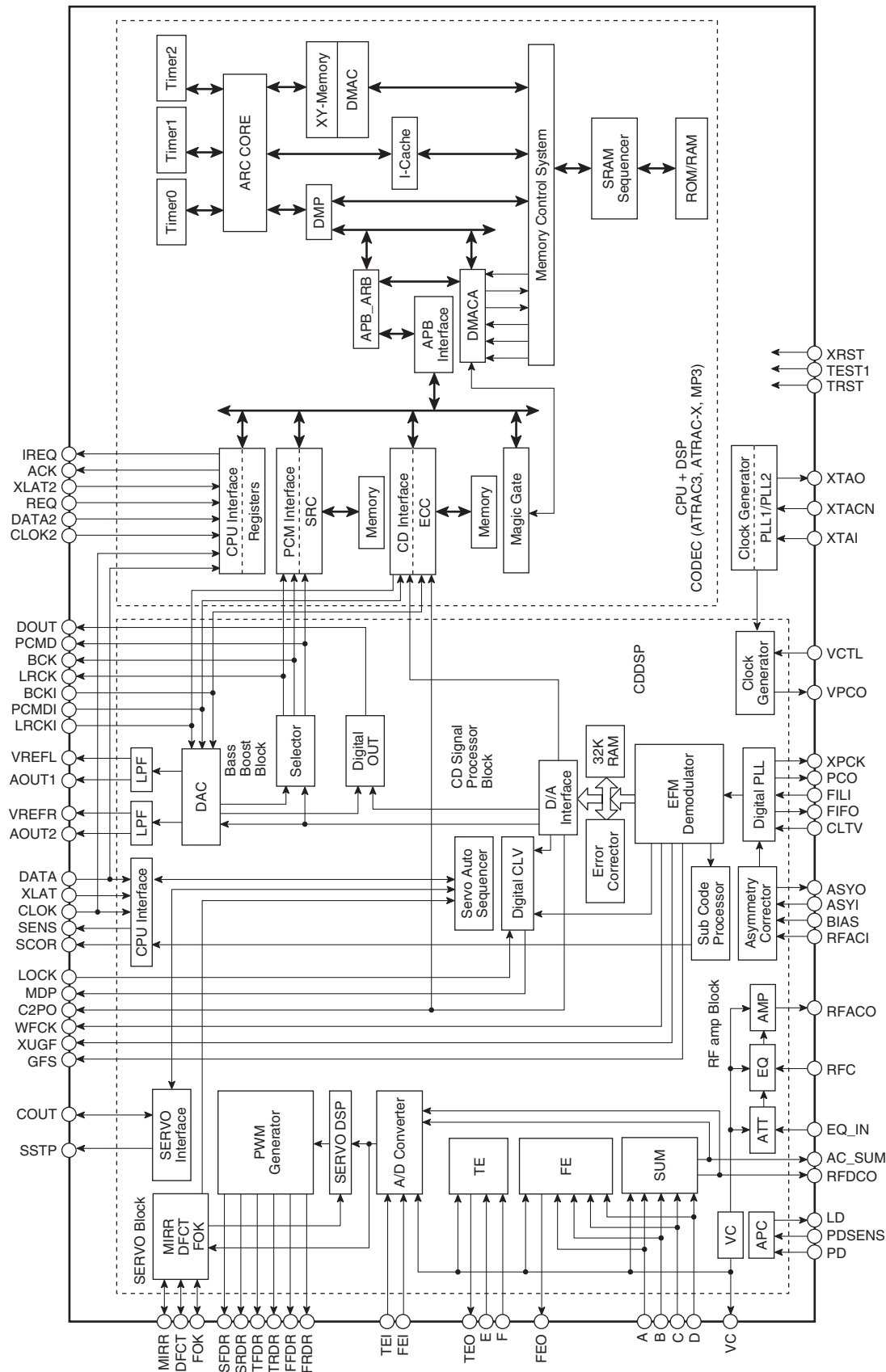
Relationship between the MUTE pins and the power supply systems (VCCP*)



IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS

Q112 : CXD3014R (CD Digital Signal Processor with Built-in RF Amplifier and Digital Servo + Digital High & Bass Boost + CODEC)-1/4

BLOCK DIAGRAM



IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS

Q112 : CXD3014R (CD Digital Signal Processor with Built-in RF Amplifier and Digital Servo + Digital High & Bass Boost + CODEC)-2/4

TERMINAL DESCRIPTION

Pin No.	Pin name	I/O	Description
1	LRCK	O	LR clock output.
2	LRCKI	I	LR clock input.
3	PCMD	O	PCMD data output.
4	PCMDI	I	PCMD data input.
5	BCK	O	BCK data output.
6	BCKI	I	BCK data input.
7	XTACN	I	Oscillation circuit control. Self-oscillation when high, oscillation stop when low.
8	XRST	I	System reset. Reset when low.
9	DVss3	---	Internal digital GND.
10	IREQ	O	ARC → Interrupt to microprocessor.
11	CLOCK	I	CPU I/F ARC(CLK)
12	DATA2	I/O	CPU I/F ARC(DATA)
13	XLAT2	I	Codec latch signal.
14	REQ	I	CPU I/F ARC (REQ).
15	ACK	O	CPU I/F ARC (ACK).
16	XLAT	I	CDDSP control latch signal.
17	DVDD3	---	Internal digital power supply.
18	DVss8	---	Internal digital GND.
19	DVDD8	---	Internal digital power supply.
20	SENS	O	SENS output to CPU.
21	WFCK	O	WFCK output.
22	XUGF	O	XUGF output. Output MNT0, RFCK, SOUT by command switch.
23	XPCK	O	XPCK output. Output MNT1, SOCK by command switch.
24	GFS	O	GFS output. Output MNT2, XROF, XOLT by command switch.
25	C2PO	O	C2PO output. Output MNT3, GTOF by command switch.
26	SCOR	O	High output when the subcode sync, S0 or S1, is detected.
27	DVDD4	---	Digital power supply.
28	COUT	I/O	Track number count signal input/output.
29	DVss9	---	Internal digital GND.
30	DVDD9	---	Internal digital power supply.
31	MIRR	I/O	Mirror signal input/output.
32	DFCT	I/O	Defect signal input/output.
33	FOK	I/O	Focus OK signal input/output.
34	DVss4	---	Internal digital GND.
35	DVDD5	---	Internal digital power supply.
36	DVss5	---	Internal digital GND.
37	LOCK	I/O	GFS is sampled at 460Hz; when GFS is high, this pin outputs a high signal. If GFS is low eight consecutive samples, this pin outputs low. Or input when LKIN = "1".
38	MDP	O	Spindle motor servo control output.
39	SSTP	I	Disc innermost detection signal input.
40	IOVss1	---	I/O digital GND.
41	SFDR	O	Sled drive output.
42	SRDR	O	Sled drive output.

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS

Q112 : CXD3014R (CD Digital Signal Processor with Built-in RF Amplifier and Digital Servo + Digital High & Bass Boost + CODEC)-3/4

TERMINAL DESCRIPTION (Continued)

Pin No.	Pin name	I/O	Description
43	TFDR	O	Tracking drive output.
44	TRDR	O	Tracking drive output.
45	FFDR	O	Focus drive output.
46	FRDR	O	Focus drive output.
47	IOVDD1	---	I/O digital power supply.
48	AVD1	---	Analog power supply.
49	AVS1	---	Analog GND.
50	E	I	E signal input.
51	F	I	F signal input.
52	TEI	I	Tracking error signal input to DSSP block or F input.
53	TEO	O	Tracking error signal output from RF amplifier block.
54	FEI	I	Focus error signal input to DSSP block or A input.
55	FEO	O	Focus error signal output form RF amplifier block.
56	VC	I/O	Center voltage output from RF amplifier block. Center voltage input to DSSP block by command switch.
57	A	I	A signal input.
58	B	I	B signal input.
59	C	I	C signal input.
60	D	I	D signal input.
61	AVD2	---	Analog power supply.
62	RFDCO	I/O	RFDC signal output. RFDC signal input to DSSP block by command switch.
63	PDSSENS	I	Reference voltage pin for PD.
64	AC_SUM	O	RFAC summing amplifier output.
65	EQ_IN	I	Equalizer circuit input.
66	LD	O	APC amplifier output.
67	PD	I	APC amplifier input.
68	RFC	I	Equalizer cut-off frequency adjustment pin.
69	AVS2	---	Analog GND.
70	RFACO	O	RFAC signal output.
71	RFACI	I	RFAC signal input or EFM signal input.
72	AVD3	---	Analog power supply.
73	BIAS	I	Asymmetry circuit constant current input.
74	ASYI	I	Asymmetry comparator voltage input.
75	ASYO	O	EFM full-swing output. (Low = VSS, High = VDD)
76	VPCO	O	Wide-band EFM PLL charge pump output.
77	VCTL	I	Wide-band EFM PLL VCO2 control voltage input.
78	AVS3	---	Analog GND.
79	CLTV	I	Multiplier VCO1 control voltage input.
80	FILO	O	Master PLL (slave = digital PLL) filter output.
81	FILI	I	Master PLL filter input.
82	PCO	O	Master PLL charge pump output.
83	DVSS6	---	Internal digital GND.
84	DVDD6	---	Internal digital power supply.
85	SRAMSTB	I	Normally low.
86	DVDD1	---	Internal digital power supply.
87	DVSS1	---	Internal digital GND.

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS

Q112 : CXD3014R (CD Digital Signal Processor with Built-in RF Amplifier and Digital Servo + Digital High & Bass Boost + CODEC)-4/4

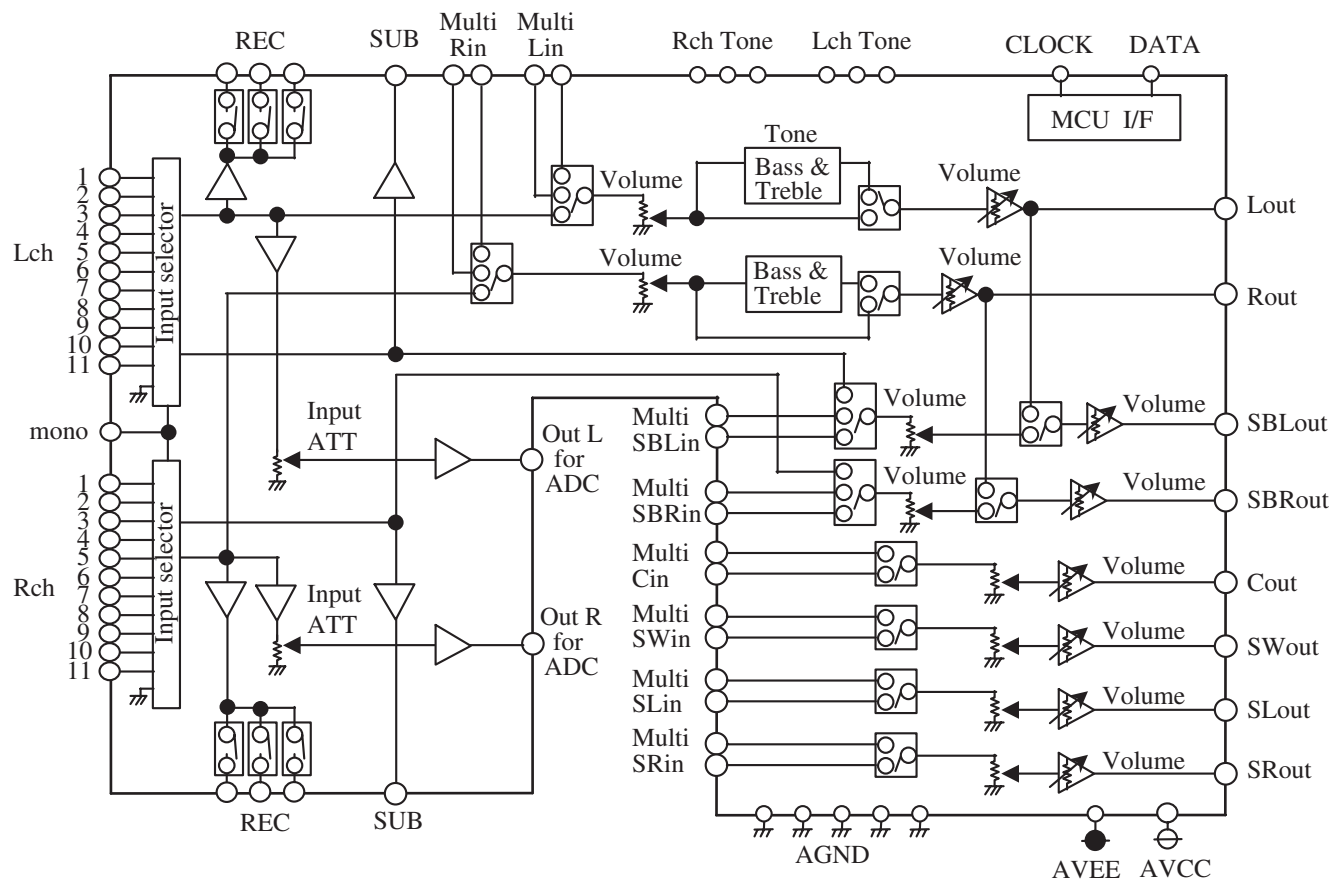
TERMINAL DESCRIPTION (Continued)

Pin No.	Pin name	I/O	Description
88	TEST1	I	Test mode set.
89	DATA	I/O	CPU I/F ARC (DATA).
90	CLOK2	I	CPU I/F ARC (CLK).
91	DVss7	---	Internal digital GND.
92	DVDD7	---	Internal digital power supply.
93	TEST2	I	Test pin. Normally GND.
94	TEST3	I	Test pin. Normally GND.
95	TEST4	O	Open.
96	TEST5	I	Test pin. Normally GND.
97	TEST6	I	Test pin. Normally GND.
98	DVss2	---	Internal digital GND.
99	DVDD2	---	Internal digital power supply.
100	IOVDD2	---	I/O digital power supply.
101	DOUT	O	Digital Out output.
102	TEST	I	Test pin. Normally GND.
103	TES1	I	Test pin. Normally GND.
104	IOVss2	---	I/O digital GND.
105	PLLAVD	---	PLL cell power supply.
106	PLLAVS	---	PLL cell GND.
107	XVss	---	Master clock GND.
108	XTAO	O	Crystal oscillation circuit output.
109	XTAI	I	Crystal oscillation circuit input.
110	XVDD	---	Master clock power supply.
111	AVD4	---	Analog power supply.
112	AOUT1	O	Lch analog output.
113	VREFL	O	Lch reference voltage.
114	AVS4	---	Analog GND.
115	AVS5	---	Analog GND.
116	VREFR	O	Rch reference voltage.
117	AOUT2	O	Rch analog output.
118	AVD5	---	Analog power supply.
119	IOVDD3	---	I/O digital power supply.
120	IOVss3	---	I/O digital GND.

IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS

Q401 : R2S15211FP (8 ch Electronic Volume and 11 Input Selector and Tone Control)-1/3

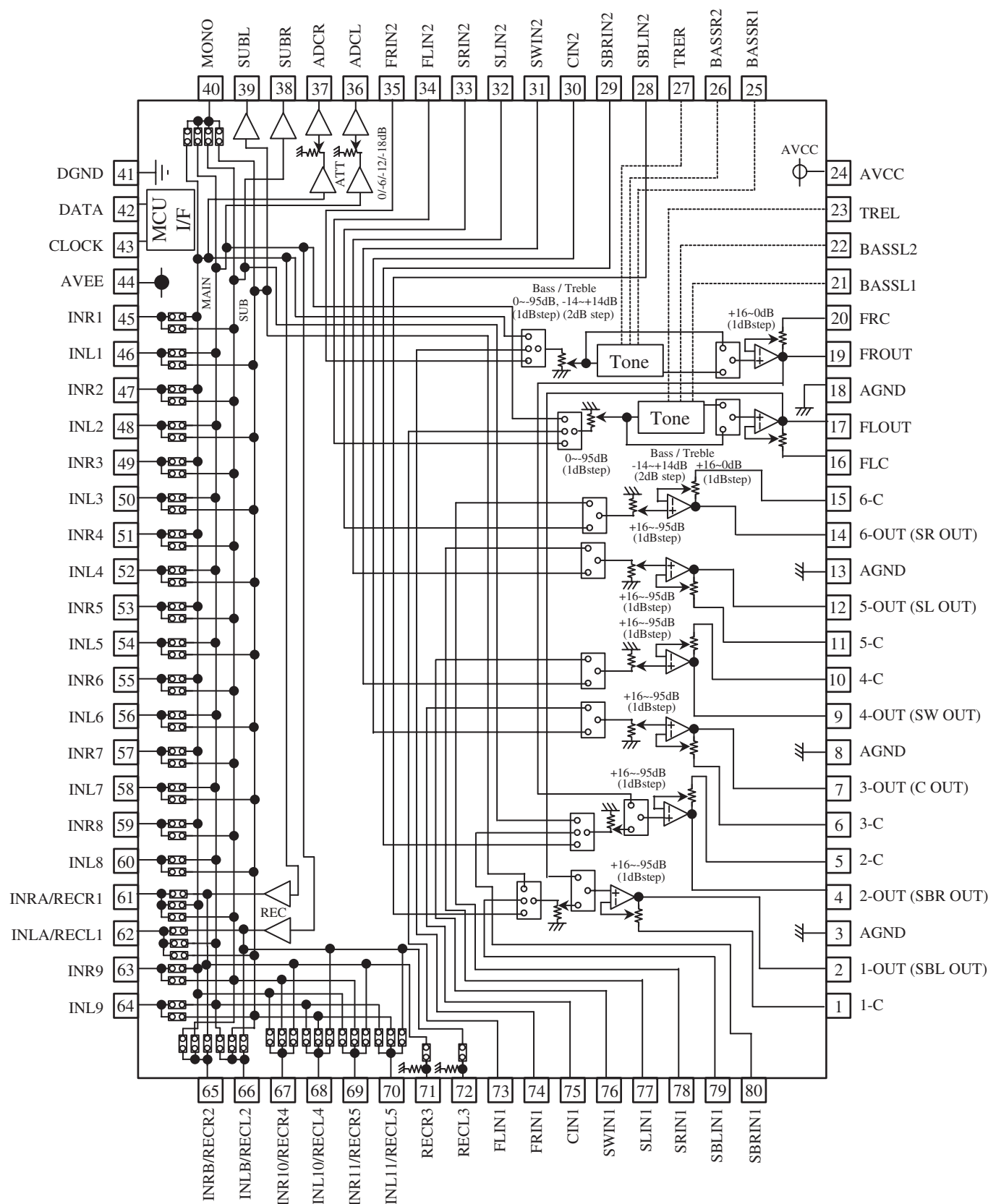
SYSTEM BLOCK DIAGRAM



IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS

Q401 : R2S15211FP (8 ch Electronic Volume and 11 Input Selector and Tone Control)-2/3

BLOCK DIAGRAM AND PIN CONFIGURATION



IC BLOCK DIAGRAMS AND TERMINAL DESCRIPTIONS

Q401 : R2S15211FP (8 ch Electronic Volume and 11 Input Selector and Tone Control)-3/3

TERMINAL DESCRIPTION

PIN No.	Name	Function
19,17, 14,12, 9,7, 4,2	FROUT,FLOUT, 6-OUT,5-OUT, 4-OUT, 3-OUT, 2-OUT,1-OUT	Output pin of FL/FR/C/SW/SL/SR/SBL/SBR channel
20,16, 15,11, 10,6, 5,1	FRC,FLC, 6-C,5-C, 4-C,3-C, 2-C,1-C	Connects capacitor for reducing click noise of L/R/C/SW/SL/SR/SBL/SBR channel volume
3,8, 13,18	AGND	Analog ground of internal circuit
23,27	TREL, TRER	Frequency characteristic setting pin of L/R channel tone control(Treble)
21,22, 25,26	BASSL1, BASSL2 BASSR1, BASSR2	Frequency characteristic setting pin of L/R channel tone control(Bass)
24	AVCC	Positive power supply to internal circuit
35,34, 33,32, 31,30, 29,28	FRIN2, FLIN2, SRN2,SLIN2, SWIN2,CIN2, SBRIN2,SBLIN2	Input pin of L/R/C/SW/SL/SR/SBL/SBR channel (Multi IN 1/2)
73,74, 75,76, 77,78, 79,80	FLIN1, FRIN1, CIN1,SWIN1, SLIN1,SRIN1, SBLIN1,SBRIN1	
41	DGND	Digital ground of internal circuit
42	DATA	Input pin of control data
43	CLOCK	Input pin of control clock
44	AVEE	Negative power supply to internal circuit
46,48,50, 52,54,56, 58,60,64	INL1, INL2, INL3, INL4, INL5, INL6, INL7, INL8, INL9	Input pin of L/R channel (Input Selector)
45,47,49, 51,53,55, 57,59,63	INR1, INR2, INR3, INR4, INR5, INR6, INR7, INR8, INR9	
40	MONO	Input pin of monaural (Input Selector)
38,39	SUBL,SUBR	Output pin for L/R channel SUB Output
36,37	ADCL, ADCR	Output pin for L/R channel ADC
72	RECL3	Output pin for L/R channel REC Output
71	RECR3	
61,62, 65,66, 67,68, 69,70	INRA/RECR1,INLA/RECL1, INRB/RECR2,INLB/RECL2, INR10/RECR4,INL10/RECL4, INR11/RECR5,INL11/RECL5	Input pin of L/R channel (Input Selector)/ Output pin for L/R channel REC Output

SERVICE PROCEDURE-1

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs a laser. Therefore, be sure to follow carefully the instructions below when servicing.

WARNING!!

SERVICE WARNING : DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY.

IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION, BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.

Laser Diode Properties

Material: GaAS/GaALAs

Wavelength: 780nm

Laser output: max. 0.5mW*

Emission Duration: continuous

*This output is the value measured at a distance about 1.8mm from the objective lens surface on the Optical Pick-up Block.

LASER WARNING LABEL

The label shown below are affixed.

1. Warning label



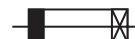
2. Class 1 label

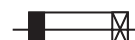


**LUOKAN 1
LASERLAITE
KLASS 1
LASER APPARAT**

SERVICE PROCEDURE

1. Replacing the fuses

 This symbol located near the fuse indicates that the fuse used is show operating type, For continued protection against fire hazard, replace with same type fuse , For fuse rating, refer to the marking adjust to the symbol.

 Ce symbole indique que le fusible utilise est e lent. Pour une protection permanente, n'utiliser que des fusibles de meme type. Ce demier est indique la qu le present symbol est apposse.

REF.NO.	PART NAME	DESCRIPTION	PART NO	REMARK
F901	FUSE	0.5A-SE-EAWK	252063GR	!, <BPP, SGQ, SGR, SGT, SPP>
F901	FUSE	1.25A-T/UL-ST2	252251GR	!, <BDD, BDC, SDT>

<Notes>

<DC> : Canadian model

<DD> : U.S.A model

<PP> : European model

<DT> : Taiwanese model

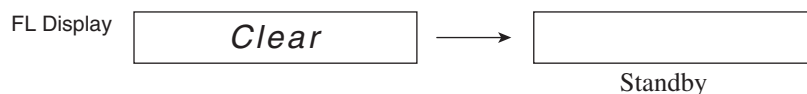
<GQ> : Hong Kong model

<GR> : China model

SERVICE PROCEDURE-2

2. Initialize the unit

- (1) Press STANDBY/ON button while pressing down CD STOP button, then the FLT displays "CLEAR", and turn to STAND-BY. Remove power cord from power line.



- (2) Disconnect the AC power cord from a wall outlet.

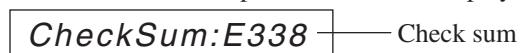
3. Check version of microprocessor.

Main microprocessor (Q701), Sub microprocessor (Q801).

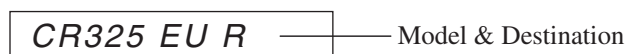
- (1) Press STANDBY/ON button while pressing down DISPLAY button, and press Input up button when the unit is POWER ON.



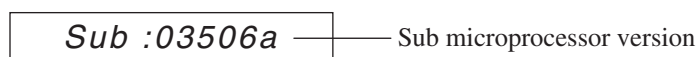
- (3) Press Input button while Main Microprocessor version display.



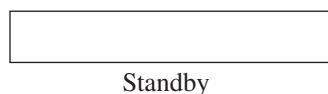
- (4) Press the INPUT button.



- (5) Press the INPUT button.



- (6) Press the STANDBY/ON button.



- (7) Disconnect the AC power cord from a wall outlet.

ADJUSTMENT PROCEDURE

CLOCK FREQUENCY ADJUSTMENT

[When]

1. Exchange Main circuit PC board (NAAR-9575).
2. Exchange crystal (X702).

[Procedure]

1. Connect the frequency counter to the test point 32.724K and GND on Main circuit PC board (NAAR-9575).

Refer to <Fig-1>

2. Press the **STANDBY/ON** button to turn on the unit.
3. Press and hold down the **OPEN/CLOSE** button and then press the **STANDBY/ON** button.
" *Test* - - " is displayed only for 5 seconds.

FL display *Test- -*
|
blink

4. Press the **INPUT** button while the characters of " *Test - _-* " are displayed.
" *Test - 1-00* " is displayed only for 5 seconds.

Test-1-00

5. Repeatedly press **DIRECT** button until the characters of " *Test-1-02* " are displayed.

Test-1-02

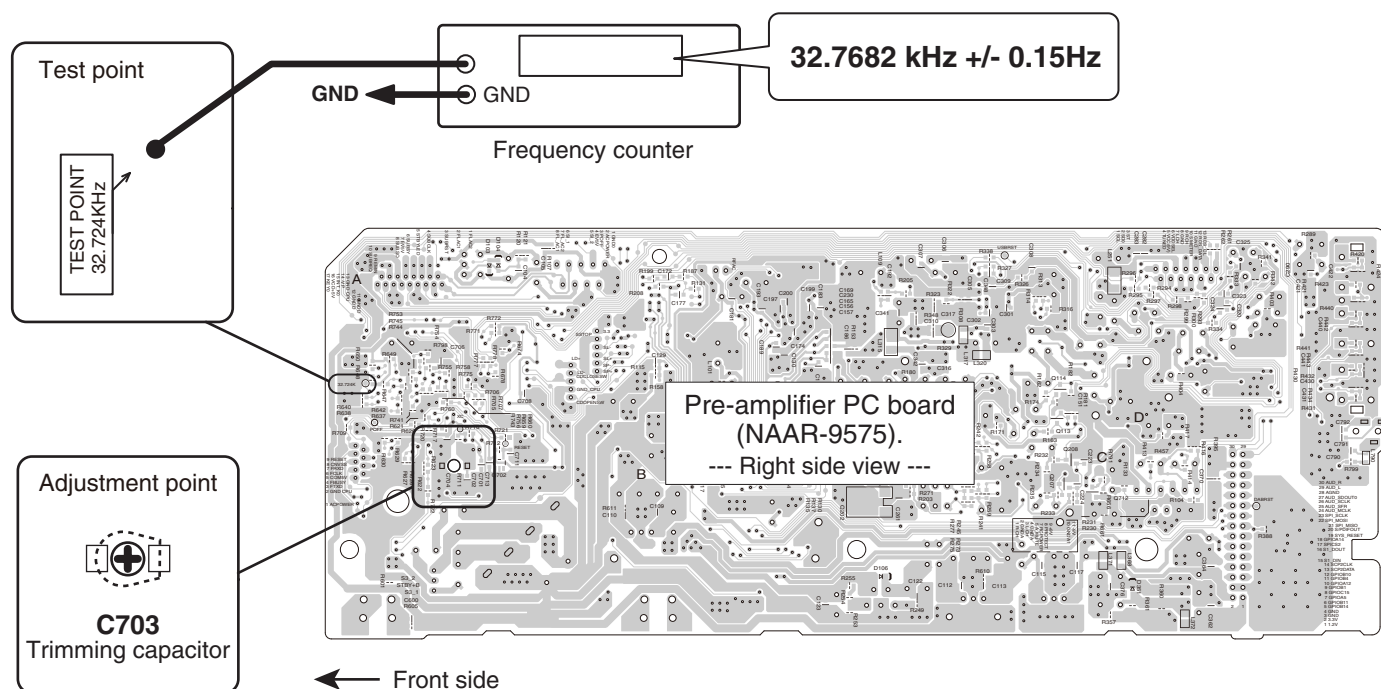
6. Adjust the trimming capacitor C703 so that the reading of frequency counter becomes following specification.
Specification : 32.7682 kHz +/- 0.15 Hz when the room temperature is 15 ~ 20 degree.
32.7682 kHz +/- 0.2 Hz when the room temperature is 20 ~ 25 degree.

7. Press and hold down the **STOP**  button and then press the **STANDBY/ON** button.

Clear $\longrightarrow$ Standby

8. Disconnect the power cord from a wall outlet and the frequency counter.

<Fig-1> Test point and Adjustment point



IC TERMINAL DESCRIPTION

CR-325 / 325UKD / 525 / 525UKD

Q701 : MAIN MICROPROCESSOR

No.	PIN NAME	SIGNAL NAME	I/O	Act.	DESCRIPTION
1	P96/ANEX1/SOUT4	CDDATA	O	H	Command serial data output port to CD signal microprocessor.
2	P95/ANEX0/CLK4	-CDCLOCK	O	CLK	Command transport serial clock output port to CD signal microprocessor.
3	P94/DA1/TB4IN	-CDLAT1	O	L	Command latch port to CD signal microprocessor.
4	P93/DA0/TB3IN	-CDRESET	O	L	Reset port for CD signal and MP3 decoder.
5	P92/TB2IN/SOUT3	SUBSDI	O	H	Serial data output port from sub microprocessor.
6	P91/TB1IN/SIN3	SUBSDO	I	H	Serial data input port from sub microprocessor.
7	P90/TB0IN/CLK3	SUBCLK	O	CLK	Serial clock output port to sub microprocessor.
8	BYTE	BYTE			Ground.
9	CNVSS	CNVss			Ground.
10	P87/XCIN	XCIN			Sub clock oscillator port.(32.768kHz)
11	P86/XCOUT	XCOUT			Sub clock oscillator port.(32.768kHz)
12	-RESET	-RESET	I		Reset input port.
13	XOUT	Xout			Ceramic oscillator port. (6.00MHz)
14	VSS	Vss			Ground.
15	XIN	Xin		H	Ceramic oscillator port. (6.00MHz)
16	VCC1	Vcc1			Power supply port.
17	P85/-NMI	-NMI	I		No use.
18	P84/-INT2	-CDIREQ	I	L	Interrupt request port from CODEC block of the signal processing IC for CD.
19	P83/-INT1	CDACK	I	H	Acknowledging signal input terminal from CODEC block of the signal processing IC for CD.
20	P82/-INT0	-POFF	I	L	Power failure/return detection terminal < At the time of WAIT with DOWN, when having a power failure with UP interruption processing >
21	P81/TA4IN/-U		O		No use.(Open)
22	P80/TA4OUT/U	CDPOWER	O	H	Circuit power source control terminal around CD
23	P77/TA3IN	CDFOK	I	H	FOK signal input terminal from of the signal processing IC for CD
24	P76/TA3OUT	-CDLAT2	O	L	Command latch to CODEC block of the signal processing IC for CD
25	P75/TA2IN/-W	-CDREQ/XTSL	O	H	Command transfer required signal output terminal to CODEC block of the signal processing IC for CD. At the time of CXD3059 mode XTSL signal output terminal
26	P74/TA2OUT/W	-SUBRST	O	H	Reset signal output terminal to sub micro-computer
27	P73/-CTS2/-RTS2/TA1IN/-V	-DABRST	O	L	Reset terminal of DAB module
28	P72/CLK2/TA1OUT/V	DABPOWER	O	H	DAB module circuit power source control terminal.
29	P71/RXD2/SCL2/TA0IN/TB5IN	DABRX	I	H	DAB module serial data entry terminal.
30	P70/TXD2/SDA2/TA0OUT	DABTX	O	H	DAB module serial data output terminal.
31	P67/TXD1/SDA1	FTXD	O	H	Port for Flash transfer
32	P66/RXD1/SCL1	FRXD	I	H	Port for Flash transfer
33	P65/CLK1	FCLK	O	CLK	Port for Flash transfer
34	P64/-CTS1/-RTS1/-CTS0/CLK0	FBUSY	O	H	Port for Flash transfer
35	P63/TXD0/SDA0	CDDATA2O	O	H	Command transfer serial data output terminal to CODEC block of the signal processing IC for CD.
36	P62/RXD0/SCL0	CDDATA2I	I	H	Serial data entry terminal from CODEC block of the signal processing IC for CD
37	P61/CLK0	-CDCLOCK2	O	CLK	Command transfer serial clock output terminal to CODEC block of the signal processing IC for CD.

S機種 メインマイコン (M3062LFHPP)

38	P60/~CTS0/~RTS0	~STEREO/PLLS DI	I	L	Tuner FM stereo detection terminal /Tuner PLL serial data entry terminal
39	P57/~RDY/CLKOUT	FREQCAL	O	CLK	Clock output terminal for adjustment
40	P56/ALE	~SD	I	L	Tuner recovery detection terminal
41	P55/~HOLD	~FEPM	O	H	Port for Flash transfer
42	P54/~HLDA	SUBREQ	I	H	Communication ready signal input terminal from sub micro-computer
43	P53/BCLK		I		Unused terminal
44	P52/~RD		I		Unused terminal
45	P51/~WRH/~BHE		I		Unused terminal
46	P50/~WRL/~WR	~FCE	I	H	Port for Flash transfer
47	P47/~CS3	DIRCLK	O	CLK	DIR serial communication clock output terminal.
48	P46/~CS2	DIRSI	I	H	DIR serial communication data entry terminal.
49	P45/~CS1	DIRSO	O	H	DIR serial communication data output terminal.
50	P44/~CS0	DIRCS	O	H	DIR tip/chip selection output terminal.
51	P43/A19	SELCLK	O	H	Function switch (R2S15211) serial clock output terminal
52	P42/A18	SELDAT	O	H	Function switch (R2S15211) serial data output terminal
53	P41/A17		I	H	Unused terminal (GND)
54	P40/A16	TUMUT	O	H	Tuner mute output terminal < At the time of WAIT/ power failure input port >
55	P37/A15	~CDAMUTE	O	L	CD analog mute output terminal.
56	P36/A14	~MUTCTRL	O	L	MUT control output terminal.
57	P35/A13	~CDDACMUT	O	L	Mute signal output terminal to outside DAC.
58	P34/A12	~AMUT	O	L	AMUTE control output terminal.
59	P33/A11	USB_RST	O	L	USB tip/chip reset terminal
60	P32/A10	RCPOW	O	H	Circuit power source control terminal around receiver
61	P31/A09	ACPOW	O	H	Power source (Main trance) control terminal
62	VCC2	Vcc2			Vcc2
63	P30/A8(/-/D7)	USB_MUSHNG	O		USB tip/chip MUCHNG terminal
64	VSS	Vss			Power source GND
65	P27/AN27/A7(/D7/D6)	USB_BUSY	O	L	USB tip/chip BUSY terminal
66	P26/AN26/A6(/D6/D5)	USB_SCL	O	CLK	USB tip/chip clock terminal
67	P25/AN25/A5(/D5/D4)	USB_SDA	I/O		USB tip/chip data terminal
68	P24/AN24/A4(/D4/D3)	E2PROM_SDA	I/O	H	E2PROM serial data terminal
69	P23/AN23/A3(/D3/D2)	E2PROM_SCL	O	CLK	E2PROM3 line serial clock output terminal.
70	P22/AN22/A2(/D2/D1)	E2PROM_WP2	O	L	E2PROM write protection cancellation output terminal
71	P21/AN21/A1(/D1/D0)	RDSENABLE	I	H	With RDS effective/invalid change input terminal H validity
72	P20/AN20/A0(/D0/-)	DABENABLE	I	H	With DAB effective/invalid change input terminal H validity
73	P17/D15/~INT5	SYSIN	I	H	Ri input terminal < Only at the time of WAIT with UP interruption processing >
74	P16/D14/~INT4	~RDSCLK	I		RDS serial clock input terminal/RDS there is no model GND
75	P15/D13/~INT3	CDSCORI			
76	P14/D12	~SYSOUT	O	L	~SYSOUT
77	P13/D11	PROTECT_I	I	H	After the relay ON of the electric current and the temperature protect detection terminal ACPOWER starting protect detection operation from 0.5 seconds

S機種 メインマイコン (M3062LFHPPF)

78	P12/D10	PROTECT_V	I	H	After the relay ON of the electric current and the temperature protect detection terminal ACPOWER starting protect detection operation from 0.5 seconds
79	P11/D9	LEDSTBY	O	H	STANDBY LED control terminal
80	P10/D8	~CDOPENSW	I	L	CD mechanic tray OPENS input terminal
81	P07/AN07/D7	HP_IN	I	L	CD mechanic tray CLOSESW input terminal
82	P06/AN06/D6	~CDCLOSE	O	L	CD mechanic tray control CLOSE output terminal
83	P05/AN05/D5	~CDOPEN	O	L	CD mechanic tray control OPEN output terminal
84	P04/AN04/D4	RDSDAT	I		RDS serial data entry terminal/RDS there is no model GND
85	P03/AN03/D3	~REMIN	I	L	Remote control input terminal < Only at the time of WAIT with DOWN interruption processing >
86	P02/AN02/D2	SIGNAL	I	A/D	Tuner field intensity detection terminal
87	P01/AN01/D1	BAND	I	A/D	Tuner frequency setting terminal
88	P00/AN00/D0	MODEL	I	A/D	Terminal 1 for initializing
89	P107/AN7/~KI3		I		Unused terminal.
90	P106/AN6/~KI2		I		Unused terminal.
91	P105/AN5/~KI1	~REMINT	I	L	Remote control input terminal < Only at the time of WAIT with DOWN interruption processing >
92	P104/AN4/~KI0	~KEYINT0	I	L	Key-in interruption 0 < Only at the time of WAIT interruption processing >
93	P103/AN3	PLLSDO	O	H	TunerPLL serial data output terminal
94	P102/AN2	PLLCLK	O	CLK	TunerPLL serial clock output terminal
95	P101/AN1	DIRPDN	O	L	Output terminal for DIR PDN control.
96	AVSS	AVss			A/D power source GND
97	P100/AN0	KEY0	I	A/D	Key-in 0
98	Vref	Vref			A/D standard power source (Vcc)
99	AVcc	Avcc			A/D power source Vcc
100	P97/~ADTRG/SIN4	CDSSENS	I	H/L	Sense input of the signal processing IC for CD

IC TERMINAL DESCRIPTION

CR-325 / 325UKD / 525 / 525UKD

Q801 : SUB MICROPROCESSOR

PIN NO.	PIN NAME	SIGNAL NAME	IO	Act.	Description
1	VDD1	+5V	H		Power supply.
2	VSS1	GND	H		Ground.
3	X1	CLOCK	H		Connect a clock oscillator for main system microprocessor.
4	X2	CLOCK	H		Connect a clock oscillator for main system microprocessor.
5	IC		H		Internal connection.
6	-RESET	-SUBRESET	H		System reset input port.
7	P27/-SCK1	SUBCLK	I	H	Clock input port from main microprocessor.
8	P26/SI1	SUBSI	I	H	Data signal input port from main microprocessor.
9	P25/SO1	SUBSO	O	H	Data signal output port from main microprocessor.
10	P24/BSY	SUBREQ	O	H	Request signal output port to main microprocessor.
11	P23	VOLA	I	H	Volume rotary encoder pulse A input port.
12	P22	VOLB	I	H	Volume rotary encoder pulse B input port.
13	P21/SO3	STANDBYLED	O	H	Standby LED control output port.
14	P20/-SCK3	APRESLED	O	H	Acoustic presense LED control output port.
15	P00/INTP0	-IRIN	I	H	Remote control signal input port.
16	P01/INTP1		O		Not used. (Open pin).
17	P02/I1		O		Not used. (Open pin).
18	AVSS	GND	H		A/D converter ground port.
19	ANI0	K3	I	H	Key input port.
20	ANI2	K2	I	H	Key input port.
21	ANI1	K1	I	H	Key input port.
22	ANI0	K0	I	H	Key input port.
23	VSS0	GND	H		Ground port.
24	AVDD	+5V	H		A/D converter power supply port.
25	VDD0	+5V	H		Power supply port.
26	P64/FIP52	XOGA	I	H	XOG ntally encoder pulse A input terminal.
27	P63/FIP51	XOGB	I	H	XOG ntally encoder pulse B input terminal.
28	P62/FIP50	P35	O	H	Segment 35 output port.
29	P61/FIP49	P34	O	H	Segment 34 output port.
30	P50/FIP46	P33	O	H	Segment 33 output port.
31	P57/FIP47	P32	O	H	Segment 32 output port.
32	P56/FIP46	P31	O	H	Segment 31 output port.
33	P55/FIP46	P30	O	H	Segment 30 output port.
34	P54/FIP44	P29	O	H	Segment 29 output port.
35	P53/FIP43	P28	O	H	Segment 28 output port.
36	P52/FIP42	P27	O	H	Segment 27 output port.
37	P51/FIP41	P26	O	H	Segment 26 output port.
38	P50/FIP40	P25	O	H	Segment 25 output port.
39	P47/FIP39	P24	O	H	Segment 24 output port.
40	P46/FIP38	P23	O	H	Segment 23 output port.
41	P45/FIP27	P22	O	H	Segment 22 output port.
42	P44/FIP26	P21	O	H	Segment 21 output port.
43	P43/FIP26	P20	O	H	Segment 20 output port.
44	P42/FIP24	P19	O	H	Segment 19 output port.
45	P41/FIP23	P18	O	H	Segment 18 output port.
46	P40/FIP23	P17	O	H	Segment 17 output port.
47	P37/FIP31	P16	O	H	Segment 16 output port.
48	P36/FIP30	P15	O	H	Segment 15 output port.
49	P35/FIP29	P14	O	H	Segment 14 output port.
50	P34/FIP28	P13	O	H	Segment 13 output port.
51	P33/FIP27	P12	O	H	Segment 12 output port.
52	P32/FIP26	P11	O	H	Segment 11 output port.
53	P31/FIP26	P10	O	H	Segment 10 output port.
54	P30/FIP24	P9	O	H	Segment 9 output port.
55	FIP23	P8	O	H	Segment 8 output port.
56	FIP22	P7	O	H	Segment 7 output port.
57	FIP21	P6	O	H	Segment 6 output port.
58	FIP20	P5	O	H	Segment 5 output port.
59	VDD2	+5V	H		Power supply port.
60	VLOAD	-Vtftp	H		Power supply port.
61	FIP19	P4	O	H	Segment 4 output port.
62	FIP18	P3	O	H	Segment 3 output port.
63	FIP17	P2	O	H	Segment 2 output port.
64	FIP16	P1	O	H	Segment 1 output port.
65	FIP15	P36	O	H	Segment 36 output port.
66	FIP14		O		Not used. (Open pin).
67	FIP13	14C	O	H	Grid 14 output port.
68	FIP12	13C	O	H	Grid 13 output port.
69	FIP11	12C	O	H	Grid 12 output port.
70	FIP10	11C	O	H	Grid 11 output port.
71	FIP9	10C	O	H	Grid 10 output port.
72	FIP8	9C	O	H	Grid 9 output port.
73	FIP7	8C	O	H	Grid 8 output port.
74	FIP6	7C	O	H	Grid 7 output port.
75	FIP5	6C	O	H	Grid 6 output port.
76	FIP4	5C	O	H	Grid 5 output port.
77	FIP3	4C	O	H	Grid 4 output port.
78	FIP2	3C	O	H	Grid 3 output port.
79	FIP1	2C	O	H	Grid 2 output port.
80	FIP0	1C	O	H	Grid 1 output port.

PARTS LIST

CR-325

! : Safety parts
 <DC> : Canadian model
 <DD> : U.S.A model
 <PP> : European model
 <DT> : Taiwanese model
 <GQ> : Hong Kong model
 <GR> : China model
 : Black color model
 <S> : Silver color model

EXPLODED VIEW PARTS LIST

REF. NO.	PART NAME	DESCRIPTION	PART NO.	Q'TY	REMARKS
A001	F BRACKET	BLACK	27111506	1	<DD, DC, PP>
A001	F BRACKET	SILVER	27111507	1	<S>,<DC, DT, GQ, GR, GT, PP>
A002	REAR PANEL	CR-325MPP	27123813	1	<BPP, SDT, SGQ, SGT, SPP>
A002	REAR PANEL	CR-325MDC	27123814	1	<BDD, BDC>
A002	REAR PANEL	CR-325MGR	27123816	1	<SGR>
A003	SCREW	3TTB+8B(3CM)SR	801637	22	
A004	SCREW	3TTB+8B(3BC)	838430088GR	10	
A009	COVER	(HT)	28188025	1	
A016	HEAT SINK	250	27160629	1	
A019	SCREW	3SMS8W.SW+14B(CU)	801634	4	
A023	BOTTOM LEG	.	27175440A	4	SAME TIME
A025	SCREW	3TTB+10B(3BC)	838430108GR	4	
A026	WASHER	W3*8F(3CM)	87613008GR	4	
A027	SCREW	4TTC+6C(3BC)	830440069GR	4	
A033	HOLDER	KGPS-5RF	27191224	2	
A037	TAPE	TAPE(CLOTH-8U)	29110082	1	
A038	TAPE	TAPE(CLOTH-8U)	29110082	2	
A040	TAPE	TAPE(CLOTH-16U)	29110083	1	
A045	HOLDER	KGLS-5RT	27191156	2	
A049	BUSHING	S-RELIEF #2271	27300750	1	
A056	SHLD PLT	CR325	27150521	1	
A057	IB CUSHION	W15*3t TAPE	28141585	1	
A058	RIVET	P-RIVET NRP-345	880009	4	<BPP, SDT, SGQ, SGR, SGT, SPP>
A059	IB CUSHION	W15*3t TAPE	28141585	1	
A060	CUSHION	(BUTYL)	28141748	1	
A068	TAPE	FIXLON W:12	29110069	1	
A069	LABEL	(SP)	29390548	1	
A190	CUSHION	.	28141766	1	

A201	FACET	(S)	28198906	1	
A205	CLEAR PLT	CR-325	28192197	1	
A207	SCREW	3TTB+6B(3BC)	838430068GR	1	
A211	DOOR	(CD)	28148655	1	<SDC, SDT, SGQ, SGR, SGT, SPP>
A211	DOOR	(CD)	28148656	1	<BDD, BDC, BPP>
A213	KNOB	(VOL)	28326331-1	1	<SDC, SDT, SGQ, SGR, SGT, SPP>
A213	KNOB	(VOL)	28326627A	1	<BDD, BDC, BPP>
A214	CUSHION	.	28141637	3	
A215	FACET	(VOL)	28200033A	1	
A217	COVER	CR-325(B)	28185462	1	<BDD, BDC, BPP>
A217	COVER	CR-325(S)	28185463	1	<SDC, SDT, SGQ, SGR, SGT, SPP>
A220	CUSHION	.	28141478	1	
A221	SCREW	3TTB+8B(3CM)	838130088GR	9	<SDC, SDT, SGQ, SGR, SGT, SPP>
A221	SCREW	3TTB+8B(3BC)	838430088GR	9	<BDD, BDC, BPP>
A224	LABEL	(DVD3-S)	29364822	1	
A301	F PANEL	CR-325(B)MPP	27213106	1	<BPP>
A301	F PANEL	CR-325(S)MPP	27213107	1	<SPP>
A301	F PANEL	325(B)MDC	27213116	1	<BDD, BDC>
A301	F PANEL	325(S)	27213117	1	<SDC, SDT, SGQ, SGR, SGT>
A303	SPEC LABEL	325MPP	29365113A	1	<BPP, SPP>
A303	SPEC LABEL	325MDC	29365114A	1	<SDC>
A303	SPEC LABEL	325MDC	29365114A	1	<BDD, BDC>
A303	SPEC LABEL	325MGQ/MGT	29365115	1	<SGQ, SGT>
A303	SPEC LABEL	325MDT	29365116	1	<SDT>
A303	SPEC LABEL	325MGR	29365117	1	<SGR>
A305	LABEL	(COVER)	29364123	1	
A505	LABEL	(TWN) CR-325	29390216	<1>	<SDT>
E001	HOLDER	(CRAMP) UA-0 V0	27190608-1	4	
F901	FUSE	0.5A-SE-EAWK	252063GR	1	! <BPP, SGQ, SGR, SGT, SPP>
F901	FUSE	1.25A-T/UL-ST2	252251GR	1	! <BDD, BDC, SDT>
P101	FFC	NCFC5-171012	2045171012	1	
P105	SOCKET AS	NSAS-10P0997	20022391010	1	
P106	SOCKET AS	NSAS-12P0842	20022391220	1	
P107	FFC	NCFC4-16053	204416053	1	
P281	FFC	NCFC7-130512	2047130512	1	
P901	AC CORD	AS-BS	253198VOL	1	! <SGQ>
P901or	AC CORD	AS-BS	253198LTK	(1)	! <SGQ>
P901	AC CORD	AS-CEE-2	253306VOL	1	! <BPP, SGT, SPP>
P901or	AC CORD	AS-CEE-2	253374YUN	(1)	! <BPP, SGT, SPP>
P901	AC CORD	AS-UC-2	253333VOL	1	! <BDD, BDC>
P901or	AC CORD	AS-UC-2	253368AYUN	(1)	! <BDD, BDC>

P901	AC CORD	AS-CCC	253355VOL	1	! <SGR>
P901or	AC CORD	AS-CCC	253377LTK	(1)	! <SGR>
P901	AC CORD	AS-CNS	253429VOL	1	! <SDT>
Q557	TR	2SC3851-O	2203383	1	
Q557or	TR	2SC3851-Y	2203384	(1)	
Q558	TR	2SC3851-O	2203383	1	
Q558or	TR	2SC3851-Y	2203384	(1)	
Q559	TR	2SA1488-O	2203393	1	
Q559or	TR	2SA1488-Y	2203394	(1)	
Q560	TR	2SA1488-O	2203393	1	
Q560or	TR	2SA1488-Y	2203394	(1)	
T901	P TRANS	NPT-1467P	2301836	1	! <BPP, SGQ, SGR, SGT, SPP>
T901	P TRANS	NPT-1467D	2301837	1	! <BDD, BDC, SDT>
U01	Main circuit pc board a'ssy	NAAR-9575-1A *	1B215575-1A	1	<PP>
U01	Main circuit pc board a'ssy	NAAR-9575-1B *	1B215575-1B	1	<PB>
U01	Main circuit pc board a'ssy	NAAR-9575-1C *	1B215575-1C	1	<DC, DD>
U01	Main circuit pc board a'ssy	NAAR-9575-1D *	1B215575-1D	1	<GT, GR, GQ, DT>
U02	Display circuit pc board a'ssy	NADIS-9578-1A *	1B215578-1A	1	<PP, GT, GR, GQ, PB>
U02	Display circuit pc board a'ssy	NADIS-9578-1B *	1B215578-1B	1	<DC, DD, DT>
U03	Amplifier circuit pc board a'ssy	NAAF-9579-1A	1B215579-1A	1	<PP, GT, GR, GQ, PB>
U03	Amplifier circuit pc board a'ssy	NAAF-9579-1B	1B215579-1B	1	<DC, DD, DT>
U04	Power supply circuit oc board a'ssy	NAPS-9580-1A	1B215580-1A	1	<PP, GT, GR, GQ, PB>
U04	Power supply circuit oc board a'ssy	NAPS-9580-1B	1B215580-1B	1	<DC, DD, DT>
U011	TUNER UNIT	FAE385-A11US	240152	1	<BDD, BDC>
U011or	TUNER UNIT	ENG06507QFUS	240156	(1)	<BDD, BDC>
U011	TUNER UNIT	FAE485-E11EU	240154	1	<BPP, SPP>
U011or	TUNER UNIT	ENG07505QFEU	240158	(1)	<BPP, SPP>
U011	TUNER UNIT	FAE485-E12EX	240155	1	<SDT, SGQ, SGR, SGT>
U011or	TUNER UNIT	ENG07506QFEX	240159	(1)	<SDT, SGQ, SGT>
Z005	LOADER	DLM1A01-14CA	24800056	1	
Z006	MECHA UNIT	KSM-213CLCM	24800017	1	
Z007	INSULATOR	(CDC-A)	24818058	4	
Z008	SPRING	(TP-D)	24820071	2	
Z009	SPRING	(TP-E)	24820072	2	
Z010	SCREW	2.6*8*w10	801632	4	

PACKING PARTS LIST

CR-325

REF. NO.	PART NAME	DESCRIPTION	PART NO.	Q'TY	REMARKS
A500	TAPE	(SEROHAN)NITTO NO.29	29110149	2	
A502	LABEL	(APV)	29390190	1	<SGR>
A503a	EAN LABEL	CR-325(S)MGQ	29390312	<1>	<SGQ>
A503a	EAN LABEL	CR-325(S)MDT	29390313	<1>	<SDT>
A503a	EAN LABEL	CR-325(S)MGT	29390314	<1>	<SGT>

A503a	EAN LABEL	CR-325(S)MGR	29390315	<1> <SGR>
A503a	UPC LABEL	CR-325BMDD	29390537	<1> <BDD>
A504	CARTON	325MGQ,MGT,MDT	29054818	1 <BDD, SDT, SGQ, SGT>
A504	CARTON	CR-325MGR	29054890	1 <SGR>
A505	PAD	AS	29092332D	1
A506	LABEL	(TWN) CR-325	29390599	<1> <SDT>
A507	LABEL	(CHINA)	29390371	1 <SGR>
A508	LABEL	(CCC)	29364396	1 <SGR>
A511	POLY BAG	w430xd550	29100246	1
A512	POLY BAG	T0.05*650*100	29100238A	1
A513	PP TAPE	W50 SBT-70	29110200	1 <BDD, SDT, SGQ, SGR, SGT>
A801	REMO CON	RC-660S	24140660	1
A803	BATTERY	R6/AA(UM-3)	3010194	2
A804	POLY BAG	D350xd200xW250(t0.04)	29100255A	1
A810	FM ANT AS	Type D	292189	1 <BDD>
A810	FM ANT AS	Type W	292191	1 < SDT, SGQ, SGR, SGT>
A811	ANT COIL	NMA-3057	232140	1
A821	INS MANUAL	En(CR-325/525)	29344705	1
A825	WRNTY CARD	(ONKYO)	29365102A	1 <BDD>
A826	INS MANUAL	Cr(CR-325/525)	29344710	1 <SDT, SGQ, SGT>
A827	INS MANUAL	Cs(CR-325/525)	29344709	1 <SGR>
A831	INST SHEET	CHINA ROHS	29355616A	1 <SGR>
A900	HANDBILL	(DS-A2X)US	29380150	1 <BDD>
A902	WRNTY CARD	(ONKYO-CH)	29365098B	1 <SGR>
A902	WRNTY CARD	MGQ	29365099A	1 <SGQ>

PRINTED CIRCUIT PARTS LIST

CR-325

U01 : Main circuit pc board NAAR-9575-1A/1B/1C/1D
U02 : Arranging wire pc board NAETC-9576-1A/1B/1C/1D

CIRCUIT NO.	PART NAME	DESCRIPTION	PART NO.	Q'TY	REMARKS
C101	UTSP C	CE04W50V-10M(UTSP)	397581007T	1	
C102	UTSP C	CE04W50V-220M(UTSP)	397582217T	1	
C103	UTSP C	CE04W50V-10M(UTSP)	397581007T	1	
C104	C-CERA C	CK725B1H-223K1	332102235R1	1	
C105	C-CERA C	CK725F1E-104Z1	332161040R1	1	
C106	VX C	CE04W16V-3300M(VX_BLK)	397343327S	1	
C107	TF C	ECQ-V50V-474J	374724744T	1	
C108	UTSP C	CE04W10V-100M(UTSP)	397531017T	1	
C109	C-CERA C	CK725F1E-104Z1	332161040R1	1	
C110	C-CERA C	CK725F1E-104Z1	332161040R1	1	
C111	UTSP C	CE04W10V-100M(UTSP)	397531017T	1	
C112	C-CERA C	CK725F1E-104Z1	332161040R1	1	

C113	C-CERA C	CK725F1E-104Z1	332161040R1	1
C116	UTSP C	CE04W50V-10M(UTSP)	397581007T	1
C118	UTSP C	CE04W10V-100M(UTSP)	397531017T	1
C119	C-CERA C	CK725F1E-104Z1	332161040R1	1
C120	UTSP C	CE04W10V-100M(UTSP)	397531017T	1
C121	UTSP C	CE04W10V-470M(UTSP)	397534717T	1
C122	C-CERA C	CK725F1E-104Z1	332161040R1	1
C123	C-CERA C	CK725F1E-104Z1	332161040R1	1
C124	C-CERA C	CK725F1E-104Z1	332161040R1	1
C125	UTSP C	CE04W10V-470M(UTSP)	397534717T	1
C126	VR C	CE04W6.3V-470M(VR)	394624717T	1
C129	C-CERA C	CK725F1E-104Z1	332161040R1	1
C130	C-CERA C	CK725F1A-105Z1	332181050R1	1
C131	C-CERA C	CK725F1E-104Z1	332161040R1	1
C132	UTSP C	CE04W10V-220M(UTSP)	397532217T	1
C133	UTSP C	CE04W25V-220M(UTSP)	397552217T	1
C134	UTSP C	CE04W25V-220M(UTSP)	397552217T	1
C135	C-CERA C	CK725F1A-105Z1	332181050R1	1
C136	TF C	ECQ-B50V-102J	374721024T	1
C137	TF C	ECQ-B50V-102J	374721024T	1
C138	UTSP C	CE04W25V-47M(UTSP)	397554707T	1
C139	UTSP C	CE04W25V-47M(UTSP)	397554707T	1
C140	UTSP C	CE04W25V-47M(UTSP)	397554707T	1
C141	UTSP C	CE04W25V-47M(UTSP)	397554707T	1
C142	TF C	ECQ-B50V-561J	374725614T	1
C143	TF C	ECQ-B50V-561J	374725614T	1
C144	UTSP C	CE04W10V-220M(UTSP)	397532217T	1
C145	C-CERA C	CK725F1A-105Z1	332181050R1	1
C146	UTSP C	CE04W10V-470M(UTSP)	397534717T	1
C147	C-CERA C	CK725B1H-222K1	332102225R1	1
C148	C-CERA C	CK725B1H-222K1	332102225R1	1
C149	C-CERA C	CK725B1H-103K1	332101035R1	1
C150	C-CERA C	CK725B1H-102K1	332101025R1	1
C152	UTSP C	CE04W10V-470M(UTSP)	397534717T	1
C154	UTSP C	CE04W50V-10M(UTSP)	397581007T	1
C155	UTSP C	CE04W50V-10M(UTSP)	397581007T	1
C156	C-CERA C	CK725F1E-104Z1	332161040R1	1
C157	C-CERA C	CK725F1E-104Z1	332161040R1	1
C162	C-CERA C	CC725CH1H-120J1	342101204R1	1
C164	C-CERA C	CK725B1H-102K1	332101025R1	1
C165	C-CERA C	CK725F1A-105Z1	332181050R1	1
C166	C-CERA C	CK725B1H-102K1	332101025R1	1
C167	C-CERA C	CC725CH1H-150J1	342101504R1	1
C168	C-CERA C	CK725F1E-104Z1	332161040R1	1
C169	C-CERA C	CK725F1E-104Z1	332161040R1	1

C172	C-CERA C	CK725B1H-102K1	332101025R1	1
C173	C-CERA C	CK725B1H-102K1	332101025R1	1
C174	C-CERA C	CK725F1A-105Z1	332181050R1	1
C176	C-CERA C	CK725B1H-102K1	332101025R1	1
C177	C-CERA C	CK725B1H-102K1	332101025R1	1
C178	C-CERA C	CK725B1H-102K1	332101025R1	1
C181	C-CERA C	CK725F1E-104Z1	332161040R1	1
C182	UTSP C	CE04W10V-220M(UTSP)	397532217T	1
C183	C-CERA C	CK725F1A-105Z1	332181050R1	1
C185	C-CERA C	CK725B1H-332K1	332103325R1	1
C186	C-CERA C	CK725B1H-103K1	332101035R1	1
C187	C-CERA C	CK725B1C-104K1	332121045R1	1
C188	C-CERA C	CK725B1C-104K1	332121045R1	1
C189	C-CERA C	CK725F1A-105Z1	332181050R1	1
C190	C-CERA C	CK725B1H-103K1	332101035R1	1
C191	C-CERA C	CK725B1C-104K1	332121045R1	1
C193	C-CERA C	CK725F1A-105Z1	332181050R1	1
C195	C-CERA C	CK725B1C-104K1	332121045R1	1
C196	C-CERA C	CK725B1C-104K1	332121045R1	1
C197	C-CERA C	CK725F1A-105Z1	332181050R1	1
C198	UTSP C	CE04W10V-100M(UTSP)	397531017T	1
C199	C-CERA C	CK725F1A-105Z1	332181050R1	1
C200	C-CERA C	CK725B1C-104K1	332121045R1	1
C201	C-CERA C	CK725B1C-104K1	332121045R1	1
C202	C-CERA C	CK725B1A-474K1	332134745R1	1
C203	C-CERA C	CK725B1H-152K1	332101525R1	1
C204	C-CERA C	CK725B1H-223K1	332102235R1	1
C230	C-CERA C	CK725F1A-105Z1	332181050R1	1
C231	C-CERA C	CC725CH1H-221J1	342102214R1	1
C232	C-CERA C	CC725CH1H-221J1	342102214R1	1
C233	C-CERA C	CC725CH1H-221J1	342102214R1	1
C234	C-CERA C	CC725CH1H-221J1	342102214R1	1
C281	UTSP C	CE04W25V-220M(UTSP)	397552217T	1
C282	C-CERA C	CK725F1E-104Z1	332161040R1	1
C283	C-CERA C	CK725F1E-104Z1	332161040R1	1
C284	C-CERA C	CK725F1E-104Z1	332161040R1	1
C285	C-CERA C	CC725CH1H-101J1	342101014R1	1
C286	C-CERA C	CC725CH1H-101J1	342101014R1	1
C287	C-CERA C	CC725CH1H-101J1	342101014R1	1
C288	ELECT C	CE04W25V-4.7M(MA)	355750479T	1
C289	ELECT C	CE04W25V-4.7M(MA)	355750479T	1
C290	C-CERA C	CC725CH1H-101J1	342101014R1	1
C305	C-CERA C	CK725B1H-223K1	332102235R1	1
C316	C-CERA C	CK725B1H-223K1	332102235R1	1
C317	C-CERA C	CK725B1H-223K1	332102235R1	1

C348	C-CERA C	CK725B1H-103K1	332101035R1	1
C370	C-CERA C	CK725B1H-223K1	332102235R1	1
C401	UTSP C	CE04W25V-470M(UTSP)	397554717T	1
C402	UTSP C	CE04W25V-470M(UTSP)	397554717T	1
C403	TF C	ECQ-B50V-223J	374722234T	1
C404	TF C	ECQ-V50V-473J	374724734T	1
C405	TF C	ECQ-V50V-474J	374724744T	1
C406	UTSP C	CE04W25V-47M(UTSP)	397554707T	1
C407	UTSP C	CE04W25V-47M(UTSP)	397554707T	1
C408	TF C	ECQ-V50V-474J	374724744T	1
C409	TF C	ECQ-V50V-473J	374724734T	1
C410	TF C	ECQ-B50V-223J	374722234T	1
C411	C-CERA C	CC725CH1H-101J1	342101014R1	1
C412	C-CERA C	CC725CH1H-101J1	342101014R1	1
C414	UTSP C	CE04W50V-22M(UTSP)	397582207T	1
C415	UTSP C	CE04W50V-22M(UTSP)	397582207T	1
C416	UTSP C	CE04W50V-4.7M(UTSP)	397580477T	1
C421	C-CERA C	CC725CH1H-221J1	342102214R1	1
C422	C-CERA C	CC725CH1H-221J1	342102214R1	1
C430	C-CERA C	CC725CH1H-221J1	342102214R1	1
C431	C-CERA C	CC725CH1H-221J1	342102214R1	1
C600	C-CERA C	CK725B1H-223K1	332102235R1	1
C624	UTSP C	CE04W25V-47M(UTSP)	397554707T	1
C701	C-CERA C	CC725CH1H-270J1	342102704R1	1
C703	TRIM C	NTC-45P27	3060031	1
C704	C-CERA C	CK725F1A-105Z1	332181050R1	1
C705	ELECT C	CE04W6.3V-100M	355721019T	1
C706	C-CERA C	CK725F1E-104Z1	332161040R1	1
C707	C-CERA C	CK725F1E-104Z1	332161040R1	1
C708	C-CERA C	CK725F1E-104Z1	332161040R1	1
C709	C-CERA C	CK725B1H-102K1	332101025R1	1
C710	C-CERA C	CK725F1A-105Z1	332181050R1	1
C711	C-CERA C	CK725F1E-104Z1	332161040R1	1
C713	C-CERA C	CK725F1A-105Z1	332181050R1	1
C790	C-CERA C	CC725CH1H-101J1	342101014R1	1
C791	C-CERA C	CK725F1E-104Z1	332161040R1	1
C792	C-CERA C	CK725F1E-104Z1	332161040R1	1
D101	DIODE	RL1N4003	22380260T	1
D101or	DIODE	GP104003E	22380035T	(1)
D102	DIODE	RL1N4003	22380260T	1
D102or	DIODE	GP104003E	22380035T	(1)
D103	ZENER D	UDZS13B	224551300R2	1
D104	ZENER D	UDZS13B	224551300R2	1
D105	DIODE	D3SBA20	22380271F	1
D105or	DIODE	RBV402	22380022F	(1)

D106	C-DIODE	1SS355	223269R2	1
D106or	C-DIODE	1SS352	223234R2	(1)
D107	C-DIODE	1SS355	223269R2	1
D107or	C-DIODE	1SS352	223234R2	(1)
D401	DIODE	RL1N4003	22380260T	1
D401or	DIODE	GP104003E	22380035T	(1)
D402	DIODE	RL1N4003	22380260T	1
D402or	DIODE	GP104003E	22380035T	(1)
D701	C-DIODE	1SS355	223269R2	1
D701or	C-DIODE	1SS352	223234R2	(1)
D702	ZENER D	UDZS5.1B	224550510R2	1
E101	TRM	NTM-1P233(M1969)	25060302	1
J001	PVC	1007#22 .26/7HAND RED	72132080505	1
J002	PVC	1007#24 .2/7HAN	72120030505	1
JL503B	WIRE TRAP	NPLG-11P594	25055632	1
JL902B	WIRE TRAP	NPLG-9P592	25055630	1
JL903B	SOCKET	NSCT-3P95	25050267	1
L101	C-CARBON R	RN72K1J-000JE	435030004R1	1
L102	EMIFIL	BK1608LM252-T	230956R2	1
L103	EMIFIL	BK1608LM252-T	230956R2	1
L104	CHOKE COIL	NCH-1471	231237K022R2	1
L106	C-CARBON R	RN72K1J-220JE	435032204R1	1
L110	CHOKE COIL	NCH-1471	231237K022R2	1
L111	C-CARBON R	RN72K1J-000JE	435030004R1	1
L251	CHOKE COIL	NCH-1471	231237K022R2	1
L701	CHOKE COIL	NCH-1471	231237K022R2	1
L790	CHOKE COIL	BLM21B222SPT	230921R2	1
P101B	SOCKET	NSCT-17P2214	25052317	1
P105B	PLUG	NPLG-5P133	25055149	1
P106B	PLUG	NPLG-6P134	25055150	1
P107B	SOCKET	NSCT-16P2213	25052316	1
P108	PLUG	NPLG-2P116	25055132	1
P112	ST JACK	LGY2502-0200FC	25045696	1
P114	SOCKET	NSCT-9P2206	25052309	1
P281A	SOCKET	NSCT-13P2106	25052209	1
P401	PIN JACK	NPJ-6PDWWWRRR561	25045779	1
P401or	PIN JACK	NPJ-6PDBL279	25045458	(1)
P401or	PIN JACK	NPJ-6PDRW386	25045571	(1)
P411	BUS BAR	BBL60	27141754	1
P412	BUS BAR	BBL60	27141754	1
P413	BUS BAR	BBL50	27141753	1
P414	BUS BAR	BBL40	27141773	1
P415	BUS BAR	BBL25	27141806	1
P833A	CRIMP AS	CRIMP AS	20799178	1
Q101	TR	2SA1015-GR	2211455T	1

Q102	IC	UPC2905AHF-AZ	22278005DNE	1
Q102or	IC	MPC2905BHF	22278005DBNE	(1)
Q103	IC	UPC2905AHF-AZ	22278005DNE	1
Q103or	IC	MPC2905BHF	22278005DBNE	(1)
Q105	IC	TC74VHCT541AFT	22274541GR2TO	1
Q106	IC	BA00JC5WT-V5	222580002	1
Q107	IC	MPD120N18T1B-E1-AZ	22278018NR2NE	1
Q108	IC	NJM4580M-D	22241448R2	1
Q109	TR	2SA1162-GR	2214375R2	1
Q110	IC	LA6565	22242339R2	1
Q112	IC	CXD3014AR	22242264R3	1
Q113	TR	RN1441	2215410R2	1
Q114	TR	RN1441	2215410R2	1
Q401	IC	R2S15211FP	22242297R3	1
Q701	IC	M30624MWP-432#U0	22242572R3	1
Q702	IC	S-80140CNMC-JKZ-T2	22242238R2	1
Q703	TR	RN2403	2214540R2	1
Q703or	TR	KRA103S	2216230R2	(1)
Q706	TR	2SA1162-GR	2214375R2	1
Q707	IC	S-24CS16A0I-J8V1G	22242326R2	1
Q708	TR	RN2403	2214540R2	1
Q708or	TR	KRA103S	2216230R2	(1)
Q710	TR	2SC2712-GR	2213145R2	1
Q711	TR	2SC2712-GR	2213145R2	1
Q712	TR	2SA1162-GR	2214375R2	1
R101	METAL R	RNU1/2WCJ-3.3	453530334T	1
R104	C-CARBON R	RN72K1J-122JE	435031224R1	1
R105	METAL R	RNU1/2WCJ-4.7	453530474T	1
R106	NF CARBON R	R25J-22	415472204T	1
R107	C-CARBON R	RN72K1J-333JE	435033334R1	1
R109	JMP WIRE	TA050	78002	1
R112	METAL R	RNU1/2WCJ-3.3	453530334T	1
R114	METAL R	RNU1/2WCJ-4.7	453530474T	1
R119	C-CARBON R	RN72K1J-104JE	435031044R1	1
R120	C-CARBON R	RN72K1J-822JE	435038224R1	1
R121	C-CARBON R	RN72K1J-822JE	435038224R1	1
R123	C-CARBON R	RN72K1J-220JE	435032204R1	1
R124	C-CARBON R	RN72K1J-470JE	435034704R1	1
R125	C-CARBON R	RN72K1J-470JE	435034704R1	1
R126	C-CARBON R	RN72K1J-470JE	435034704R1	1
R127	C-CARBON R	RN72K1J-470JE	435034704R1	1
R128	C-CARBON R	RN72K1J-470JE	435034704R1	1
R129	C-CARBON R	RN72K1J-470JE	435034704R1	1
R130	C-CARBON R	RN72K1J-561JE	435035614R1	1
R131	C-CARBON R	RN72K1J-683JE	435036834R1	1

R132	C-CARBON R	RN72K1J-561JE	435035614R1	1
R133	C-CARBON R	RN72K1J-154JE	435031544R1	1
R134	C-CARBON R	RN72K1J-561JE	435035614R1	1
R135	C-CARBON R	RN72K1J-561JE	435035614R1	1
R136	C-CARBON R	RN72K1J-102JE	435031024R1	1
R137	C-CARBON R	RN72K1J-561JE	435035614R1	1
R138	C-CARBON R	RN72K1J-102JE	435031024R1	1
R139	C-CARBON R	RN72K1J-561JE	435035614R1	1
R140	C-CARBON R	RN72K1J-102JE	435031024R1	1
R141	C-CARBON R	RN72K1J-102JE	435031024R1	1
R142	C-CARBON R	RN72K1J-100JE	435031004R1	1
R143	C-CARBON R	RN72K1J-221JE	435032214R1	1
R144	C-CARBON R	RN72K1J-561JE	435035614R1	1
R145	C-CARBON R	RN72K1J-102JE	435031024R1	1
R146	C-CARBON R	RN72K1J-102JE	435031024R1	1
R148	C-CARBON R	RN72K1J-000JE	435030004R1	1
R151	C-CARBON R	RN72K1J-221JE	435032214R1	1
R152	C-CARBON R	RN72K1J-102JE	435031024R1	1
R153	C-CARBON R	RN72K1J-221JE	435032214R1	1
R154	C-CARBON R	RN72K1J-561JE	435035614R1	1
R155	C-CARBON R	RN72K1J-102JE	435031024R1	1
R156	METAL R	RNU1/2WCJ-6.8	453530684T	1
R157	METAL R	RNU1/2WCJ-6.8	453530684T	1
R158	C-CARBON R	RN72K1J-103JE	435031034R1	1
R159	C-CARBON R	RN72K1J-223JE	435032234R1	1
R160	C-CARBON R	RN72K1J-682JE	435036824R1	1
R161	C-CARBON R	RN72K1J-682JE	435036824R1	1
R162	C-CARBON R	RN72K1J-102JE	435031024R1	1
R163	C-CARBON R	RN72K1J-102JE	435031024R1	1
R164	C-CARBON R	RN72K1J-472JE	435034724R1	1
R165	C-CARBON R	RN72K1J-472JE	435034724R1	1
R168	C-CARBON R	RN72K1J-122JE	435031224R1	1
R169	C-CARBON R	RN72K1J-122JE	435031224R1	1
R170	C-CARBON R	RN72K1J-473JE	435034734R1	1
R171	C-CARBON R	RN72K1J-224JE	435032244R1	1
R172	C-CARBON R	RN72K1J-103JE	435031034R1	1
R173	C-CARBON R	RN72K1J-103JE	435031034R1	1
R174	C-CARBON R	RN72K1J-224JE	435032244R1	1
R175	C-CARBON R	RN72K1J-224JE	435032244R1	1
R176	C-CARBON R	RN72K1J-224JE	435032244R1	1
R177	C-CARBON R	RN72K1J-000JE	435030004R1	1
R178	C-CARBON R	RN72K1J-000JE	435030004R1	1
R179	C-CARBON R	RN72K1J-272JE	435032724R1	1
R180	C-CARBON R	RN72K1J-272JE	435032724R1	1
R181	C-CARBON R	RN72K1J-224JE	435032244R1	1

R182	C-CARBON R	RN72K1J-224JE	435032244R1	1
R184	C-CARBON R	RN72K1J-473JE	435034734R1	1
R186	C-CARBON R	RN72K1J-473JE	435034734R1	1
R187	C-CARBON R	RN72K1J-683JE	435036834R1	1
R189	C-CARBON R	RN72K1J-123JE	435031234R1	1
R190	C-CARBON R	RN72K1J-471JE	435034714R1	1
R191	C-CARBON R	RN72K1J-123JE	435031234R1	1
R192	C-CARBON R	RN72K1J-105JE	435031054R1	1
R193	C-CARBON R	RN72K1J-223JE	435032234R1	1
R194	C-CARBON R	RN72K1J-153JE	435031534R1	1
R195	C-CARBON R	RN72K1J-123JE	435031234R1	1
R198	C-CARBON R	RN72K1J-683JE	435036834R1	1
R199	C-CARBON R	RN72K1J-123JE	435031234R1	1
R200	C-CARBON R	RN72K1J-683JE	435036834R1	1
R201	C-CARBON R	RN72K1J-123JE	435031234R1	1
R208	C-CARBON R	RN72K1J-123JE	435031234R1	1
R209	C-CARBON R	RN72K1J-153JE	435031534R1	1
R210	C-CARBON R	RN72K1J-101JE	435031014R1	1
R211	C-CARBON R	RN72K1J-153JE	435031534R1	1
R212	C-CARBON R	RN72K1J-101JE	435031014R1	1
R215	C-CARBON R	RN72K1J-104JE	435031044R1	1
R216	C-CARBON R	RN72K1J-474JE	435034744R1	1
R217	C-CARBON R	RN72K1J-102JE	435031024R1	1
R218	C-CARBON R	RN72K1J-472JE	435034724R1	1
R219	C-CARBON R	RN72K1J-104JE	435031044R1	1
R220	C-CARBON R	RN72K1J-330JE	435033304R1	1
R221	C-CARBON R	RN72K1J-330JE	435033304R1	1
R222	C-CARBON R	RN72K1J-105JE	435031054R1	1
R223	C-CARBON R	RN72K1J-332JE	435033324R1	1
R224	C-CARBON R	RN72K1J-000JE	435030004R1	1
R225	C-CARBON R	RN72K1J-223JE	435032234R1	1
R248	C-CARBON R	RN72K1J-221JE	435032214R1	1
R249	C-CARBON R	RN72K1J-333JE	435033334R1	1
R253	C-CARBON R	RN72K1J-333JE	435033334R1	1
R254	C-CARBON R	RN72K1J-273JE	435032734R1	1
R255	C-CARBON R	RN72K1J-273JE	435032734R1	1
R261	C-CARBON R	RN72K1J-101JE	435031014R1	1
R262	C-CARBON R	RN72K1J-101JE	435031014R1	1
R289	C-CARBON R	RN72K1J-104JE	435031044R1	1
R291	C-CARBON R	RN72K1J-101JE	435031014R1	1
R292	C-CARBON R	RN72K1J-101JE	435031014R1	1
R293	C-CARBON R	RN72K1J-101JE	435031014R1	1
R294	C-CARBON R	RN72K1J-101JE	435031014R1	1
R295	C-CARBON R	RN72K1J-101JE	435031014R1	1
R296	C-CARBON R	RN72K1J-101JE	435031014R1	1

R297	C-CARBON R	RN72K1J-392JE	435033924R1	1
R298	C-CARBON R	RN72K1J-392JE	435033924R1	1
R299	C-CARBON R	RN72K1J-273JE	435032734R1	1
R300	C-CARBON R	RN72K1J-273JE	435032734R1	1
R308	C-CARBON R	RN72K1J-221JE	435032214R1	1
R323	C-CARBON R	RN72K1J-221JE	435032214R1	1
R329	C-CARBON R	RN72K1J-221JE	435032214R1	1
R388	C-CERA C	CK725B1H-223K1	332102235R1	1
R395	C-CARBON R	RN72K1J-221JE	435032214R1	1
R403	C-CARBON R	RN72K1J-222JE	435032224R1	1
R404	C-CARBON R	RN72K1J-222JE	435032224R1	1
R405	C-CARBON R	RN72K1J-103JE	435031034R1	1
R406	C-CARBON R	RN72K1J-103JE	435031034R1	1
R411	METAL O R	RS1/2WBJ-33	443523304T	1
R412	METAL O R	RS1/2WBJ-33	443523304T	1
R413	C-CARBON R	RN72K1J-101JE	435031014R1	1
R414	C-CARBON R	RN72K1J-101JE	435031014R1	1
R416	C-CARBON R	RN72K1J-104JE	435031044R1	1
R417	C-CARBON R	RN72K1J-104JE	435031044R1	1
R420	C-CARBON R	RN72K1J-331JE	435033314R1	1
R421	C-CARBON R	RN72K1J-563JE	435035634R1	1
R423	C-CARBON R	RN72K1J-331JE	435033314R1	1
R424	C-CARBON R	RN72K1J-563JE	435035634R1	1
R430	C-CARBON R	RN72K1J-331JE	435033314R1	1
R431	C-CARBON R	RN72K1J-331JE	435033314R1	1
R432	C-CARBON R	RN72K1J-563JE	435035634R1	1
R434	C-CARBON R	RN72K1J-563JE	435035634R1	1
R440	C-CARBON R	RN72K1J-222JE	435032224R1	1
R441	C-CARBON R	RN72K1J-222JE	435032224R1	1
R442	C-CARBON R	RN72K1J-224JE	435032244R1	1
R443	C-CARBON R	RN72K1J-224JE	435032244R1	1
R445	C-CARBON R	RN72K1J-102JE	435031024R1	1
R451	C-CARBON R	RN72K1J-103JE	435031034R1	1
R455	C-CARBON R	RN72K1J-393JE	435033934R1	1
R457	C-CARBON R	RN72K1J-103JE	435031034R1	1
R465	C-CARBON R	RN72K1J-392JE	435033924R1	1
R600	C-CARBON R	RN72K1J-470JE	435034704R1	1
R602	C-CARBON R	RN72K1J-223JE	435032234R1	1
R604	C-CARBON R	RN72K1J-223JE	435032234R1	1
R605	C-CARBON R	RN72K1J-221JE	435032214R1	1
R610	C-CARBON R	RN72K1J-472JE	435034724R1	1
R611	C-CARBON R	RN72K1J-472JE	435034724R1	1
R620	C-CARBON R	RN72K1J-101JE	435031014R1	1
R621	C-CARBON R	RN72K1J-124JE	435031244R1	1
R622	C-CARBON R	RN72K1J-103JE	435031034R1	1

R623	C-CARBON R	RN72K1J-103JE	435031034R1	1	
R626	C-CARBON R	RN72K1J-103JE	435031034R1	1	
R627	C-CARBON R	RN72K1J-103JE	435031034R1	1	
R629	C-CARBON R	RN72K1J-472JE	435034724R1	1	
R637	C-CARBON R	RN72K1J-103JE	435031034R1	1	
R642	C-CARBON R	RN72K1J-223JE	435032234R1	1	
R653	C-CARBON R	RN72K1J-393JE	435033934R1	1	
R657	C-CARBON R	RN72K1J-473JE	435034734R1	1	
R658	C-CARBON R	RN72K1J-473JE	435034734R1	1	
R659	C-CARBON R	RN72K1J-223JE	435032234R1	1	
R660	C-CARBON R	RN72K1J-104JE	435031044R1	1	
R661	C-CARBON R	RN72K1J-273JE	435032734R1	1	
R663	C-CARBON R	RN72K1J-393JE	435033934R1	1	
R668	C-CARBON R	RN72K1J-332JE	435033324R1	1	
R669	C-CARBON R	RN72K1J-332JE	435033324R1	1	
R670	C-CARBON R	RN72K1J-332JE	435033324R1	1	
R671	C-CARBON R	RN72K1J-000JE	435030004R1	1	<BDD, BDC, SDT, SGQ, SGR, SGT>
R672	C-CARBON R	RN72K1J-000JE	435030004R1	1	
R673	C-CARBON R	RN72K1J-224JE	435032244R1	1	
R674	C-CARBON R	RN72K1J-223JE	435032234R1	1	
R678	C-CARBON R	RN72K1J-223JE	435032234R1	1	
R680	C-CARBON R	RN72K1J-223JE	435032234R1	1	
R681	C-CARBON R	RN72K1J-223JE	435032234R1	1	
R682	C-CARBON R	RN72K1J-223JE	435032234R1	1	
R683	C-CARBON R	RN72K1J-223JE	435032234R1	1	
R687	C-CARBON R	RN72K1J-103JE	435031034R1	1	<BPP, SPP, SDT, SGQ, SGR, SGT>
R689	C-CARBON R	RN72K1J-333JE	435033334R1	1	<BDD, BDC>
R689	C-CARBON R	RN72K1J-563JE	435035634R1	1	<BPP, SPP>
R701	C-CARBON R	RN72K1J-470JE	435034704R1	1	
R702	C-CARBON R	RN72K1J-470JE	435034704R1	1	
R703	C-CARBON R	RN72K1J-470JE	435034704R1	1	
R704	C-CARBON R	RN72K1J-470JE	435034704R1	1	
R705	C-CARBON R	RN72K1J-471JE	435034714R1	1	
R706	C-CARBON R	RN72K1J-471JE	435034714R1	1	
R707	C-CARBON R	RN72K1J-471JE	435034714R1	1	
R709	C-CARBON R	RN72K1J-103JE	435031034R1	1	
R711	C-CARBON R	RN72K1J-101JE	435031014R1	1	
R712	C-CARBON R	RN72K1J-103JE	435031034R1	1	
R717	C-CARBON R	RN72K1J-102JE	435031024R1	1	
R718	C-CARBON R	RN72K1J-470JE	435034704R1	1	
R719	C-CARBON R	RN72K1J-470JE	435034704R1	1	
R722	C-CARBON R	RN72K1J-470JE	435034704R1	1	
R723	C-CARBON R	RN72K1J-470JE	435034704R1	1	

R724	C-CARBON R	RN72K1J-470JE	435034704R1	1
R725	C-CARBON R	RN72K1J-470JE	435034704R1	1
R726	C-CARBON R	RN72K1J-470JE	435034704R1	1
R727	C-CARBON R	RN72K1J-470JE	435034704R1	1
R728	C-CARBON R	RN72K1J-470JE	435034704R1	1
R729	C-CARBON R	RN72K1J-470JE	435034704R1	1
R730	C-CARBON R	RN72K1J-470JE	435034704R1	1
R731	C-CARBON R	RN72K1J-470JE	435034704R1	1
R732	C-CARBON R	RN72K1J-470JE	435034704R1	1
R733	C-CARBON R	RN72K1J-470JE	435034704R1	1
R734	C-CARBON R	RN72K1J-470JE	435034704R1	1
R735	C-CARBON R	RN72K1J-470JE	435034704R1	1
R736	C-CARBON R	RN72K1J-470JE	435034704R1	1
R737	C-CARBON R	RN72K1J-470JE	435034704R1	1
R738	C-CARBON R	RN72K1J-470JE	435034704R1	1
R739	C-CARBON R	RN72K1J-102JE	435031024R1	1
R740	C-CARBON R	RN72K1J-470JE	435034704R1	1
R741	C-CARBON R	RN72K1J-103JE	435031034R1	1
R742	C-CARBON R	RN72K1J-471JE	435034714R1	1
R743	C-CARBON R	RN72K1J-103JE	435031034R1	1
R744	C-CARBON R	RN72K1J-103JE	435031034R1	1
R745	C-CARBON R	RN72K1J-103JE	435031034R1	1
R746	C-CARBON R	RN72K1J-103JE	435031034R1	1
R751	C-CARBON R	RN72K1J-102JE	435031024R1	1
R752	C-CARBON R	RN72K1J-102JE	435031024R1	1
R753	C-CARBON R	RN72K1J-103JE	435031034R1	1
R754	C-CARBON R	RN72K1J-473JE	435034734R1	1
R755	C-CARBON R	RN72K1J-473JE	435034734R1	1
R756	C-CARBON R	RN72K1J-473JE	435034734R1	1
R758	C-CARBON R	RN72K1J-223JE	435032234R1	1
R759	C-CARBON R	RN72K1J-470JE	435034704R1	1
R760	C-CARBON R	RN72K1J-470JE	435034704R1	1
R761	C-CARBON R	RN72K1J-470JE	435034704R1	1
R763	C-CARBON R	RN72K1J-101JE	435031014R1	1
R765	C-CARBON R	RN72K1J-101JE	435031014R1	1
R766	C-CARBON R	RN72K1J-101JE	435031014R1	1
R767	C-CARBON R	RN72K1J-101JE	435031014R1	1
R768	C-CARBON R	RN72K1J-101JE	435031014R1	1
R769	C-CARBON R	RN72K1J-101JE	435031014R1	1
R770	C-CARBON R	RN72K1J-101JE	435031014R1	1
R772	C-CARBON R	RN72K1J-272JE	435032724R1	1 <BPP, SPP>
R773	C-CARBON R	RN72K1J-473JE	435034734R1	1
R774	C-CARBON R	RN72K1J-470JE	435034704R1	1
R775	C-CARBON R	RN72K1J-101JE	435031014R1	1
R777	C-CARBON R	RN72K1J-101JE	435031014R1	1

R778	C-CARBON R	RN72K1J-101JE	435031014R1	1	
R779	C-CARBON R	RN72K1J-221JE	435032214R1	1	
R780	C-CARBON R	RN72K1J-470JE	435034704R1	1	
R781	C-CARBON R	RN72K1J-470JE	435034704R1	1	
R782	C-CARBON R	RN72K1J-470JE	435034704R1	1	
R783	C-CARBON R	RN72K1J-470JE	435034704R1	1	
R784	C-CARBON R	RN72K1J-470JE	435034704R1	1	
R785	C-CARBON R	RN72K1J-470JE	435034704R1	1	
R786	C-CARBON R	RN72K1J-101JE	435031014R1	1	
R787	C-CARBON R	RN72K1J-000JE	435030004R1	1	<BDD, BDC>
R789	C-CARBON R	RN72K1J-103JE	435031034R1	1	<SDT, SGQ, SGR, SGT>
R789	C-CARBON R	RN72K1J-333JE	435033334R1	1	<BPP, SPP>
R789	C-CARBON R	RN72K1J-472JE	435034724R1	1	<BDD, BDC>
R791	C-CARBON R	RN72K1J-102JE	435031024R1	1	
R792	C-CARBON R	RN72K1J-470JE	435034704R1	1	
R793	C-CARBON R	RN72K1J-470JE	435034704R1	1	
R794	C-CARBON R	RN72K1J-470JE	435034704R1	1	
R795	C-CARBON R	RN72K1J-470JE	435034704R1	1	
R797	C-CARBON R	RN72K1J-272JE	435032724R1	1	
R799	C-CARBON R	RN72K1J-471JE	435034714R1	1	
X101	CRYSTAL	FCX-03-16.9344MHz	3010428R2	1	
X701	CRYSTAL	DT-38 (10ppm)	3010467	1	
X702	CERA LOCK	CSTCR6M0055-R0	3010397R2	1	

U03 : Display circuit pc board NADIS-9578-1A/1B
U04 : Amplifier circuit pc board NAAF-9579-1A/1B
U05 : Power supply circuit pc board NAPS-9580-1A/1B

CR-325

CIRCUIT NO.	PART NAME	DESCRIPTION	PART NO.	Q'TY	REMARKS
X801	CERA LOCK	CSTLS5M00G56-A0	3010406T	1	
C491	UTSP C	CE04W10V-100M(UTSP)	397531017T	1	
C501	UTSP C	CE04W25V-47M(UTSP)	397554707T	1	
C502	UTSP C	CE04W25V-47M(UTSP)	397554707T	1	
C503	TF C	ECQ-B50V-221K	374722215T	1	
C504	TF C	ECQ-B50V-221K	374722215T	1	
C505	UTSP C	CE04W50V-22M(UTSP)	397582207T	1	
C506	UTSP C	CE04W50V-22M(UTSP)	397582207T	1	
C509	UTSP C	CE04W10V-220M(UTSP)	397532217T	1	
C510	UTSP C	CE04W10V-220M(UTSP)	397532217T	1	
C511	C-CERA C	CC725CH1H-020C1	342100201R1	1	
C512	C-CERA C	CC725CH1H-020C1	342100201R1	1	
C517	ELECT C	CE04W50V-10M(VZ)	394581007T	1	
C518	ELECT C	CE04W50V-10M(VZ)	394581007T	1	

C519	ELECT C	CE04W50V-10M(VZ)	394581007T	1
C520	UTSP C	CE04W50V-10M(UTSP)	397581007T	1
C521	UTSP C	CE04W25V-100M(UTSP)	397551017T	1
C522	UTSP C	CE04W25V-100M(UTSP)	397551017T	1
C525	C-CERA C	CC725CH1H-220J1	342102204R1	1
C526	C-CERA C	CC725CH1H-220J1	342102204R1	1
C541	UTSP C	CE04W50V-220M(UTSP)	397582217T	1
C542	UTSP C	CE04W50V-220M(UTSP)	397582217T	1
C551	ELECT C	CE04W50V-10M(VZ)	394581007T	1
C552	ELECT C	CE04W50V-10M(VZ)	394581007T	1
C553	TF C	ECQ-V50V-473J	374724734T	1
C554	TF C	ECQ-V50V-473J	374724734T	1
C571	TF C	ECQ-B50V-102J	374721024T	1
C572	TF C	ECQ-B50V-102J	374721024T	1
C573	TF C	ECQ-B50V-102J	374721024T	1
C574	TF C	ECQ-B50V-102J	374721024T	1
C575	TF C	ECQ-B50V-332J	374723324T	1
C576	TF C	ECQ-B50V-102J	374721024T	1
C583	UTSP C	CE04W50V-1M(UTSP)	397580107T	1
C591	UTSP C	CE04W10V-100M(UTSP)	397531017T	1
C801	ELECT C	CE04W16V-47M	355744709T	1
C802	C-CERA C	CK725F1H-224Z1	332152240R1	1
C806	C-CERA C	CK725F1H-224Z1	332152240R1	1
C807	C-CERA C	CK725F1H-224Z1	332152240R1	1
C809	C-CERA C	CK725F1H-224Z1	332152240R1	1
C810	C-CERA C	CK725F1H-224Z1	332152240R1	1
C811	C-CERA C	CK725F1H-104Z1	332151040R1	1
C812	C-CERA C	CK725F1H-224Z1	332152240R1	1
C815	C-CERA C	CC725CH1H-330J1	342103304R1	1
C816	C-CERA C	CC725CH1H-330J1	342103304R1	1
C817	C-CERA C	CC725CH1H-330J1	342103304R1	1
C818	C-CERA C	CC725CH1H-330J1	342103304R1	1
C819	C-CERA C	CC725CH1H-330J1	342103304R1	1
C820	C-CERA C	CK725F1H-104Z1	332151040R1	1
C821	ELECT C	CE04W16V-47M	355744709T	1
C823	C-CERA C	CC725CH1H-221J1	342102214R1	1
C824	C-CERA C	CC725CH1H-221J1	342102214R1	1
C871	C-CERA C	CC725CH1H-102J1	342101024R1	1
C872	C-CERA C	CC725CH1H-102J1	342101024R1	1
C873	C-CERA C	CK725B1H-103K1	332101035R1	1
C874	C-CERA C	CK725F1H-104Z1	332151040R1	1
C878	C-CERA C	CK725F1H-104Z1	332151040R1	1
C901	IS C	DE1007E472M-KY	3300063	1 !
C902	IS C	DE1007E472M-KY	3300063	1 !
C903	IS C	DE1007E472M-KY	3300063	1 !

C904	TF C	ECQ-B50V-223J	374722234T	1
C905	TF C	ECQ-B50V-223J	374722234T	1
C906	UTSP C	CE04W16V-470M(UTSP)	397544717T	1
C907	VR C	CE04W16V-1000M(VR)	394641027T	1
C908	UTSP C	CE04W10V-220M(UTSP)	397532217T	1
C909	UTSP C	CE04W50V-4.7M(UTSP)	397580477T	1
C910	TF C	ECQ-V50V-473J	374724734T	1
C911	C-CERA C	CK725B1H-223K1	332102235R1	1
C914	C-CERA C	CK725F1H-104Z1	332151040R1	1
C951	TF C	ECQ-V50V-334J	374723344T	1
C952	TF C	ECQ-V50V-334J	374723344T	1
C953	ELECT C	CE04W25V-3300M(RZ)	3504447S	1
C954	ELECT C	CE04W25V-3300M(RZ)	3504447S	1
D491	C-DIODE	1SS355	223269R2	1
D501	C-DIODE	1SS355	223269R2	1
D502	C-DIODE	1SS355	223269R2	1
D503	ZENER D	UDZS5.6B	224550560R2	1
D504	ZENER D	UDZS5.6B	224550560R2	1
D581	ZENER D	UDZS5.1B	224550510R2	1
D591	C-DIODE	1SS355	223269R2	1
D592	C-DIODE	1SS355	223269R2	1
D801	ZENER D	UDZS5.6B	224550560R2	1
D811	LED	SLI-343URC-T32	225436T	1
D821	LED	SLR343BCT3F	225445	1
D901	C-DIODE	S1NB60-4062	22380318R2	1
D902	C-DIODE	1SS355	223269R2	1
D903	C-DIODE	1SS355	223269R2	1
D904	C-DIODE	1SS355	223269R2	1
D911	ZENER D	UDZS5.1B	224550510R2	1
D951	DIODE	D10XB60H	22380337F	1
F901A	FUSE HOL	NSCT-1P2031	25052133T	1
F901B	FUSE HOL	NSCT-1P2031	25052133T	1
F901C	FUSE LABEL	1.25A125V	29364667	1 <BDD, BDC, SDT>
J501	BUS BAR	BBL60	27141754	1
JL501	JUMPER LEAD	JL3 200 B	3J200606B15	1
JL501A	WIRE HOL	NSCT-3P874	25051087	1
JL501B	WIRE HOL	NSCT-3P874	25051087	1
JL502	JUMPER LEAD	JL 5 350 B	5J350606B15	1
JL502A	WIRE HOL	NSCT-5P876	25051089	1
JL502B	WIRE TRAP	NPLG-5P588	25055626	1
JL503	JUMPER LEAD	JL11 200 B	1J200606B15	1
JL503A	WIRE HOL	NSCT-11P882	25051095	1
JL504	JUMPER LEAD	JL4 200 H	4J200606H	1
JL504A	WIRE HOL	NSCT-4P895	25051108	1
JL504B	SOCKET	NSCT-4P96	25050268	1

JL505	JUMPER LEAD	JL4 100 H	4J100606H	1
JL505A	WIRE HOL	NSCT-4P895	25051108	1
JL505B	WIRE HOL	NSCT-4P895	25051108	1
JL902	JUMPER LEAD	JL9 350 B(7-7)	9J350606B15	1
JL902A	WIRE HOL	NSCT-9P880	25051093	1
JL903	JUMPER LEAD	JL3 250 H	3J250606H	1
JL903A	WIRE HOL	NSCT-3P894	25051107	1
L571	S COIL	S-1.3C	231176S	1
L572	S COIL	S-1.3C	231176S	1
L801	CHOKE COIL	NCH-1475	231237K100R2	1
L802	CHOKE COIL	NCH-1475	231237K100R2	1
L873	EMIFIL	BK1608LM182-T	230958R1	1
L874	EMIFIL	BK1608LM182-T	230958R1	1
L875	EMIFIL	BK1608LM182-T	230958R1	1
L901	CHOKE COIL	NCH-3567	231287	1 !
P101A	SOCKET	NSCT-17P2435	25052538	1
P501	TRM	NTM-4PDMNRR414	25060486	1
P502	PIN JACK	NPJ-1PDBL382	25045567	1
P871	JACK	LGT1516-0101	25045396	1
P873	CRIMP AS	CRIMP AS	2067A12100	1
P901	PLUG	NPLG-2P631	25055675	1 !
P902	TRM(SCREW)	NEJITANSI M3	25065425	1
P903	TRM(SCREW)	NEJITANSI M3	25065425	1
P904	CRIMP AS	CRIMP AS	2067A12100	1
Q491	TR	RN1441	2215410R2	1
Q492	TR	RN1441	2215410R2	1
Q493	TR	RN1441	2215410R2	1
Q494	TR	RN1441	2215410R2	1
Q495	TR	2SA1162-GR	2214375R2	1
Q496	TR	2SC2712-GR	2213145R2	1
Q501	TR	2SC1622A(D17)	2216153R2	1
Q501or	TR	2SC2713-BL	2213136R2	(1)
Q501or	TR	2SC1622A-T-AZ	2216154R2	(1)
Q502	TR	2SC1622A(D17)	2216153R2	1
Q502or	TR	2SC2713-BL	2213136R2	(1)
Q502or	TR	2SC1622A-T-AZ	2216154R2	(1)
Q503	TR	2SC1622A(D17)	2216153R2	1
Q503or	TR	2SC2713-BL	2213136R2	(1)
Q503or	TR	2SC1622A-T-AZ	2216154R2	(1)
Q504	TR	2SC1622A(D17)	2216153R2	1
Q504or	TR	2SC2713-BL	2213136R2	(1)
Q504or	TR	2SC1622A-T-AZ	2216154R2	(1)
Q505	TR	2SC2712-GR	2213145R2	1
Q506	TR	2SC2712-GR	2213145R2	1
Q509	TR	2SA1015-GR	2211455T	1

Q510	TR	2SA1015-GR	2211455T	1
Q511	TR	2SA1015-GR	2211455T	1
Q512	TR	2SA1015-GR	2211455T	1
Q515	TR	2SA1015-GR	2211455T	1
Q516	TR	2SA1015-GR	2211455T	1
Q517	TR	2SC1815-GR	2211255T	1
Q518	TR	2SC1815-GR	2211255T	1
Q519	TR	2SC1815-GR	2211255T	1
Q520	TR	2SC1815-GR	2211255T	1
Q541	IC	78M09HF(NJM78M09FA)	222780095JRC	1
Q541A	HEAT-SINK	HEAT-SINK	27160179	1
Q541B	SCREW	3P+10FN(3BC)	82143010GR	1
Q542	IC	79M09HF(NJM79M09FA)	222790095JRC	1
Q551	TR	2SC2712-GR	2213145R2	1
Q552	TR	2SC2712-GR	2213145R2	1
Q553	TR	2SC3421-O	2212653	1
Q553or	TR	2SC3421-Y(Q)	2212654	(1)
Q554	TR	2SC3421-O	2212653	1
Q554or	TR	2SC3421-Y(Q)	2212654	(1)
Q555	TR	2SA1358-O	2212643	1
Q555or	TR	2SA1358-Y(Q)	2212644	(1)
Q556	TR	2SA1358-O	2212643	1
Q556or	TR	2SA1358-Y(Q)	2212644	(1)
Q561	TR	2SA1162-GR	2214375R2	1
Q562	TR	2SA1162-GR	2214375R2	1
Q581	TR	2SC2712-GR	2213145R2	1
Q582	TR	2SC2712-GR	2213145R2	1
Q583	TR	2SA1015-GR	2211455T	1
Q591	TR	2SC2712-GR	2213145R2	1
Q592	TR	2SC2712-GR	2213145R2	1
Q801	IC	UPD780232GC-091-8BT-A	22241989R3	1
Q802	FL TUBE	14-ST-56GNK	212261	1
Q802A	HOLDER	(FL)	27191281	1
Q802B	DF TAPE	NITTO#500W6	29110023	1
Q803	TR	2SC2712-GR	2213145R2	1
Q804	TR	2SC2712-GR	2213145R2	1
Q821	TR	RN1407	2216260R2	1
Q901	TR	DTC123JKA	2216690R2	1
Q903	IC	S-812C50AUA-C3E	22242240R2	1
R491	C-CARBON R	RN72K1J-393JE	435033934R1	1
R492	C-CARBON R	RN72K1J-473JE	435034734R1	1
R493	C-CARBON R	RN72K1J-123JE	435031234R1	1
R494	C-CARBON R	RN72K1J-223JE	435032234R1	1
R495	C-CARBON R	RN72K1J-222JE	435032224R1	1
R496	C-CARBON R	RN72K1J-222JE	435032224R1	1

R501	C-CARBON R	RN72K1J-333JE	435033334R1	1
R502	C-CARBON R	RN72K1J-333JE	435033334R1	1
R503	C-CARBON R	RN72K1J-123JE	435031234R1	1
R504	C-CARBON R	RN72K1J-123JE	435031234R1	1
R505	C-CARBON R	RN72K1J-223JE	435032234R1	1
R506	C-CARBON R	RN72K1J-223JE	435032234R1	1
R507	C-CARBON R	RN72K1J-471JE	435034714R1	1
R508	C-CARBON R	RN72K1J-471JE	435034714R1	1
R509	C-CARBON R	RN72K1J-821JE	435038214R1	1
R510	C-CARBON R	RN72K1J-821JE	435038214R1	1
R511	C-CARBON R	RN72K1J-821JE	435038214R1	1
R512	C-CARBON R	RN72K1J-821JE	435038214R1	1
R513	C-CARBON R	RN72K1J-332JE	435033324R1	1
R514	C-CARBON R	RN72K1J-332JE	435033324R1	1
R515	C-CARBON R	RN72K1J-102JE	435031024R1	1
R516	C-CARBON R	RN72K1J-102JE	435031024R1	1
R517	C-CARBON R	RN72K1J-333JE	435033334R1	1
R518	C-CARBON R	RN72K1J-333JE	435033334R1	1
R519	METAL O R	RS1/2WBJ-39	443523904T	1
R520	METAL O R	RS1/2WBJ-39	443523904T	1
R521	METAL O R	RS1/2WBJ-39	443523904T	1
R522	METAL O R	RS1/2WBJ-39	443523904T	1
R523	C-CARBON R	RN72K1J-682JE	435036824R1	1
R524	C-CARBON R	RN72K1J-682JE	435036824R1	1
R525	C-CARBON R	RN72K1J-183JE	435031834R1	1
R526	C-CARBON R	RN72K1J-183JE	435031834R1	1
R527	C-CARBON R	RN72K1J-183JE	435031834R1	1
R528	C-CARBON R	RN72K1J-183JE	435031834R1	1
R533	METAL O R	RS1/2WBJ-33	443523304T	1
R534	METAL O R	RS1/2WBJ-33	443523304T	1
R535	METAL O R	RS1/2WBJ-39	443523904T	1
R536	METAL O R	RS1/2WBJ-39	443523904T	1
R537	C-CARBON R	RN72K1J-181JE	435031814R1	1
R538	C-CARBON R	RN72K1J-181JE	435031814R1	1
R539	C-CARBON R	RN72K1J-181JE	435031814R1	1
R540	C-CARBON R	RN72K1J-181JE	435031814R1	1
R541	METAL O R	RS1/2WBJ-22	443522204T	1
R542	METAL O R	RS1/2WBJ-22	443522204T	1
R543	C-CARBON R	RN72K1J-471JE	435034714R1	1
R544	C-CARBON R	RN72K1J-471JE	435034714R1	1
R547	C-CARBON R	RN72K1J-153JE	435031534R1	1
R548	C-CARBON R	RN72K1J-153JE	435031534R1	1
R551	C-CARBON R	RN72K1J-152FE	435031522R1	1
R552	C-CARBON R	RN72K1J-152FE	435031522R1	1
R553	C-CARBON R	RN72K1J-681FE	435036812R1	1

R554	C-CARBON R	RN72K1J-681FE	435036812R1	1
R555	C-CARBON R	RN72K1J-472FE	435034722R1	1
R556	C-CARBON R	RN72K1J-472FE	435034722R1	1
R557	METAL O R	RS1/2WBJ-82	443528204T	1
R558	METAL O R	RS1/2WBJ-82	443528204T	1
R559	METAL R	RNU2WCJ-0.22	452732294F	1
R560	METAL R	RNU2WCJ-0.22	452732294F	1
R561	METAL R	RNU2WCJ-0.22	452732294F	1
R562	METAL R	RNU2WCJ-0.22	452732294F	1
R563	METAL R	RNU1/2WCJ-8.2	453530824T	1
R564	METAL R	RNU1/2WCJ-8.2	453530824T	1
R565	C-CARBON R	RN72K1J-101JE	435031014R1	1
R566	C-CARBON R	RN72K1J-101JE	435031014R1	1
R567	C-CARBON R	RN72K1J-100JE	435031004R1	1
R571	METAL O R	RS1/2WBJ-10	443521004T	1
R572	METAL O R	RS1/2WBJ-10	443521004T	1
R573	C-CARBON R	RN72K1J-103JE	435031034R1	1
R574	C-CARBON R	RN72K1J-103JE	435031034R1	1
R575	C-CARBON R	RN72K1J-681JE	435036814R1	1
R577	C-CARBON R	RN72K1J-561JE	435035614R1	1
R578	C-CARBON R	RN72K1J-561JE	435035614R1	1
R581	C-CARBON R	RN72K1J-123JE	435031234R1	1
R582	C-CARBON R	RN72K1J-123JE	435031234R1	1
R583	C-CARBON R	RN72K1J-562JE	435035624R1	1
R584	C-CARBON R	RN72K1J-562JE	435035624R1	1
R585	C-CARBON R	RN72K1J-333JE	435033334R1	1
R586	C-CARBON R	RN72K1J-333JE	435033334R1	1
R587	C-CARBON R	RN72K1J-473JE	435034734R1	1
R588	C-CARBON R	RN72K1J-183JE	435031834R1	1
R589	C-CARBON R	RN72K1J-103JE	435031034R1	1
R591	C-CARBON R	RN72K1J-473JE	435034734R1	1
R592	C-CARBON R	RN72K1J-473JE	435034734R1	1
R593	C-CARBON R	RN72K1J-333JE	435033334R1	1
R594	C-CARBON R	RN72K1J-473JE	435034734R1	1
R597	C-CARBON R	RN72K1J-101JE	435031014R1	1
R598	C-CARBON R	RN72K1J-101JE	435031014R1	1
R801	C-CARBON R	RN72K1J-104JE	435031044R1	1
R802	C-CARBON R	RN72K1J-104JE	435031044R1	1
R803	C-CARBON R	RN72K1J-104JE	435031044R1	1
R804	C-CARBON R	RN72K1J-104JE	435031044R1	1
R806	C-CARBON R	RN72K1J-223JE	435032234R1	1
R807	C-CARBON R	RN72K1J-223JE	435032234R1	1
R808	C-CARBON R	RN72K1J-103JE	435031034R1	1
R809	C-CARBON R	RN72K1J-103JE	435031034R1	1
R810	C-CARBON R	RN72K1J-272JE	435032724R1	1

R811	C-CARBON R	RN72K1J-272JE	435032724R1	1
R812	C-CARBON R	RN72K1J-103JE	435031034R1	1
R813	C-CARBON R	RN72K1J-103JE	435031034R1	1
R814	C-CARBON R	RN72K1J-000JE	435030004R1	1
R815	C-CARBON R	RN72K1J-471JE	435034714R1	1
R816	C-CARBON R	RN72K1J-471JE	435034714R1	1
R817	C-CARBON R	RN72K1J-221JE	435032214R1	1
R818	C-CARBON R	RN72K1J-471JE	435034714R1	1
R819	C-CARBON R	RN72K1J-101JE	435031014R1	1
R820	C-CARBON R	RN72K1J-105JE	435031054R1	1
R821	C-CARBON R	RN72K1J-221JE	435032214R1	1
R824	C-CARBON R	RN72K1J-471JE	435034714R1	1
R827	C-CARBON R	RN72K1J-103JE	435031034R1	1
R828	C-CARBON R	RN72K1J-103JE	435031034R1	1
R831	C-CARBON R	RN72K1J-101JE	435031014R1	1
R839	C-CARBON R	RN72K1J-223JE	435032234R1	1
R840	C-CARBON R	RN72K1J-391JE	435033914R1	1
R841	C-CARBON R	RN72K1J-471JE	435034714R1	1
R842	C-CARBON R	RN72K1J-821JE	435038214R1	1
R843	C-CARBON R	RN72K1J-102JE	435031024R1	1
R846	C-CARBON R	RN72K1J-391JE	435033914R1	1
R853	C-CARBON R	RN72K1J-391JE	435033914R1	1
R854	C-CARBON R	RN72K1J-471JE	435034714R1	1
R858	C-CARBON R	RN72K1J-101JE	435031014R1	1
R859	C-CARBON R	RN72K1J-101JE	435031014R1	1
R860	C-CARBON R	RN72K1J-332JE	435033324R1	1
R893	METAL O R	RS1/2WBJ-390	443523914T	1
R894	METAL O R	RS1/2WBJ-390	443523914T	1
R901	C-CARBON R	RN72K1J-153JE	435031534R1	1
R902	C-CARBON R	RN72K1J-392JE	435033924R1	1
R903	C-CARBON R	RN72K1J-102JE	435031024R1	1
R904	METAL O R	RS1/2WBJ-47	443524704T	1
R905	METAL R	RNU1WCJ-1	453630104T	1 !
R906	METAL R	RNU1WCJ-1	453630104T	1 !
R907	METAL R	RNU1/2WCJ-4.7	453530474T	1 !
R951	METAL O R	RS1WBJ-18	443621804T	1
R952	METAL O R	RS1/2WBJ-68	443526804T	1
R953	METAL R	RNU1/2WCJ-3.3	453530334T	1
RL901	RELAY	NRL-1P5A-DC9-179	25065669	1 !
S801	R ENCODE	REB12305PVB-299-9092	25065688	1
S803	PUSH SW	NPS-111-S681	25035718T	1
S804	PUSH SW	NPS-111-S681	25035718T	1
S805	PUSH SW	NPS-111-S681	25035718T	1
S806	PUSH SW	NPS-111-S681	25035718T	1
S807	PUSH SW	NPS-111-S681	25035718T	1

S811	PUSH SW	NPS-111-S681	25035718T	1	
S821	PUSH SW	NPS-111-S681	25035718T	1	
S822	PUSH SW	NPS-111-S681	25035718T	1	
S823	PUSH SW	NPS-111-S681	25035718T	1	
T902A	P TRANS	NPT-1520JQ	2301812A	1	! <BDD, BDC, SDT>
T902B	P TRANS	NPT-1520GQ	2301813A	1	! <BPP, SGQ, SGR, SGT, SPP, BPB>

ONKYO CORPORATION

Sales & Product Planning Div. : 2-1, Nisshin-cho, Neyagawa-shi, OSAKA 572-8540, JAPAN
Tel: 072-831-8023 Fax: 072-831-8124

ONKYO U.S.A. CORPORATION

18 Park Way, Upper Saddle River, N.J. 07458, U.S.A.
Tel: 201-785-2600 Fax: 201-785-2650 <http://www.us.onkyo.com/>

ONKYO EUROPE ELECTRONICS GmbH

Liegnitzerstrasse 6, 82194 Groebenzell, GERMANY
Tel: +49-8142-4401-0 Fax: +49-8142-4401-555 <http://www.eu.onkyo.com/>

ONKYO EUROPE UK Office

Suite 1, Gregories Court, Gregories Road, Beaconsfield, Buckinghamshire, HP9 1HQ
UNITED KINGDOM Tel: +44-(0)1494-681515 Fax: +44(0)-1494-680452

ONKYO CHINA LIMITED

Units 2102-2107, Metroplaza Tower I, 223 Hing Fong Road, Kwai Chung,
N.T., HONG KONG Tel: 852-2429-3118 Fax: 852-2428-9039
<http://www.ch.onkyo.com/>

