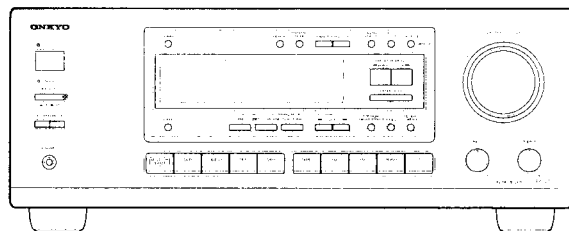


SERVICE MANUAL

AUDIO VIDEO CONTROL RECEIVER

MODEL DTR-5



Black and Silver and Golden models

BMD	120V AC, 60Hz
BMP/BMPT/BMPA/ SMP/GMPT	230V AC, 50Hz
BMWT/BMWR/GMWT/ GMWR	220-230V/120V AC, 50/60Hz

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK Δ 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 PARTS 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.

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SPECIFICATIONS

AMPLIFIER SECTION

Continuous Average Power
output (FTC)

All channels: 70 watts per channel min. RMS at 8 ohms, 2 channels driven from 20 Hz to 20 kHz with no more than 0.08% total harmonic distortion.
90 watts min. RMS at 6 ohms, 2 channels driven from 1 kHz with no more than 0.1% total harmonic distortion.

Continuous Power output (DIN) 100 watts × 5 at 6 ohms
Maximum Power output (EIAJ) 130 watts × 5 at 6 ohms
Total Harmonic Distortion: 0.08% at rated power (Front)
IM Distortion: 0.08% at rated power (Front)
Damping Factor: 60 at 8 ohms (Front)
Input Sensitivity and Impedance
PHONO: 2.5 mV, 50 kohms
LINE (CD, TAPE, DVD, VIDEO 1, 2, 3): 200 mV, 50 kohms
MULTICHANNEL INPUT (FRONT L/R, SURROUND L/R, CENTER): 200 mV, 50 kohms
(SUBWOOFER): 36 mV, 50 kohms
COAXIAL 1, 2 (DIGITAL): 0.5 Vp-p, 75 ohms
Output Level and Impedance
Rec out (TAPE, VIDEO 1): 200 mV, 2.2 kohms
Pre out (SUBWOOFER): 1 V, 2.2 kohms
Phono Overload: 70 mV RMS at 1 kHz, 0.5% T.H.D.
Frequency Response: 20 Hz to 30 kHz, ±1 dB
RIAA Deviation: 20 Hz to 20 kHz, ±0.8 dB
Tone Control
Bass: ±10 dB at 100 Hz
Treble: ±10 dB at 10 kHz
Signal-to-Noise Ratio
Phono: 80 dB (IHF A, 5 mV input)
CD/Tape: 100 dB (IHF A)

VIDEO SECTION

Input sensitivity/Impedance (DVD, VIDEO 1, 2, 3)
VIDEO (Composite): 1 Vp-p, 75 ohms
Output Level/Impedance (VIDEO 1, MONITOR)
VIDEO (Composite): 1 Vp-p, 75 ohms

TUNER SECTION

FM

Tuning Range: 87.5 — 108.0 MHz
Usable Sensitivity
Mono: 11.2 dBf, 1.0 μV (75 ohms)
Stereo: 17.2 dBf, 2.0 μV (75 ohms)
50 dB Quieting Sensitivity
Mono: 17.2 dBf, 2.0 μV (75 ohms)
Stereo: 37.2 dBf, 20 μV (75 ohms)
Capture Ratio: 2.0 dB
Image Rejection Ratio
U.S.A. & Canadian models: 40 dB
Other area models: 85 dB

IF Rejection Ratio: 90 dB
Signal-to-Noise Ratio
Mono: 76 dB
Stereo: 70 dB
Alternate Channel Attenuation: 55 dB
Selectivity: 50 dB (DIN)
AM Suppression Ratio: 50 dB
Total Harmonic Distortion
Mono: 0.2%
Stereo: 0.3%
Frequency Response: 30 Hz — 15 kHz, ±1.0 dB
Stereo Separation: 45 dB at 1 kHz
30 dB at 100 Hz — 10 kHz

AM

Tuning Range
U.S.A. & Canadian models: 530—1,710 kHz (10 kHz steps)
European & Australian models: 522—1,611 kHz (9 kHz steps)
Worldwide models: 531—1,602 kHz (9 kHz steps), 530—1,710 kHz (10 kHz steps)
Usable Sensitivity: 30 μV
Image Rejection Ratio: 40 dB
IF Rejection Ratio: 40 dB
Signal-to-Noise Ratio: 40 dB
Total Harmonic Distortion: 0.7%

GENERAL

Power Supply: AC 120 V, 60 Hz
AC 230 V, 50 Hz
AC 220-230 V and 120 V switchable, 50/60 Hz
Power Consumption: 3.9 A
325 W
Dimensions (W × H × D): 435 × 175 × 390 mm
17-1/8" × 6-7/8" × 15-3/8"
Weight: 12.3 kg, 27.1 lbs.
13.0 kg, 28.7 lbs.
12.9 kg, 28.4 lbs.

REMOTE CONTROL

Transmitter: Infrared
Signal range: Approx. 5 meters, 16 ft.
Power supply: Two "AA" batteries (1.5 V × 2)

Specifications and features are subject to change without notice.

Power supply and voltage vary depending on the area in which the unit is purchased.

SERVICE PROCEDURES

1. Replacing the fuses

 This symbol located near the fuses indicates that the fuse used is fast 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 a rapide. Pour une protection permanente, n'utiliser que fusibles de meme type. Ce dernier est la qu le present symbol est appse.

CIRCUIT NO.	PART NO.	DESCRIPTION
F911	252198Y	8A-UL, Primary <D/W>
F922	252077 or	4A-SE-EAK or
	252243	4A-SE-TL250V,Primary <P/T/W/A>
F933	252075 or	2.5A-SE-EAK or
	252241	2.5A-SE-TL250V,AC outlet <P/T>

Note: <D>:120V model only
 <P>: European model only
 <T>: Asian model only
 <W>:Worldwide model only
 <A>: Australian model only

2. To initialize the unit

This device employs a microprocessor to perform various functions and operations. If interference generated by an external power supply, radio wave, or other electrical source results in accident which causes the specified operations and functions to operate abnormally.

To perform a result, please follow the procedure below.

- 1.Press and hold down the VIDEO-1 button, then press the SPEAKER A button.
- 2.After "clear" is displayed, the preset memory and each mode stored in the memory, such as surround, are initialized and will return to the factory setting.

3. Safety-check out

(Only U.S.A. model)

After correcting the original service problem, perform the following safety check before releasing the set to the customer. Connect the insulating-resistance tester between the plug of power supply cord and screw on the back panel.
 Specifications: 3.3Mohm $\pm$ 10% at 500V.

4. Memory Preservation

This unit does not require memory preservation batteries. A built-in memory power back-up system preserves the contents of the memory during power failures and even when the unit is unplugged. The unit must be plugged in order to charge the back-up system.

The memory preservation period after the unit has been unplugged varies depending on climate and placement of the unit. On the average, memory contents are protected over a period of a few weeks after the last time the unit has been unplugged. This period is shorter when the unit is exposed to a highly humid climate.

5.Setting the AM tuning step frequency (Woldrwide models only)

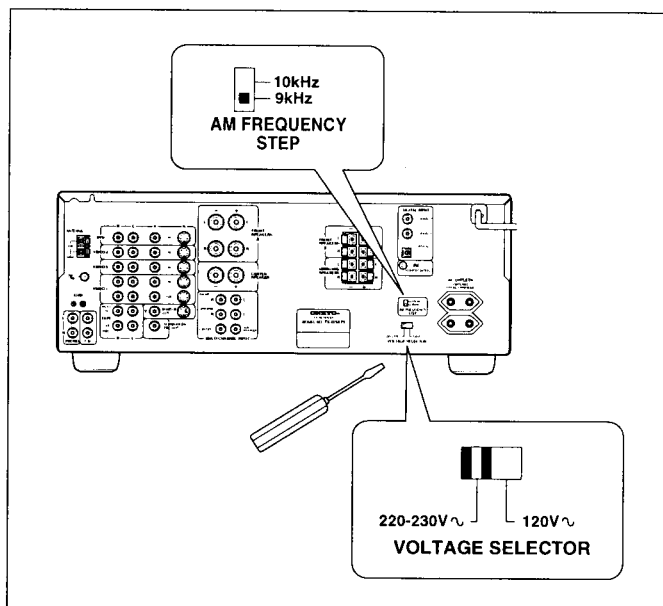
Worldwide models are equipped with a switch that controls the AM band tuning steps. Please set this switch to match the AM band tuning step frequency in your area.

U.S.A. and Canada : 10 kHz
 Other areas : 9 kHz

6.Setting the Voltage selector (Worldwide models only)

Worldwide models are equipped with a voltage selector to conform with local power supplies. Be sure to set this switch to match the voltage of the power supply in your area before plugging in the unit.

1. Determine the proper voltage for your area: 220-230 V or 120 V.
2. If the preset voltage is not correct for your area, insert a screw-driver into the groove in the switch. Slide the switch all the way to the right (120 V) or to the left (220-230 V), whichever is appropriate.



7. Changing the AM band step

With the exception of the worldwide models,a tuning step selector switch is not provided. When you change the band step, change the parts as shown below.

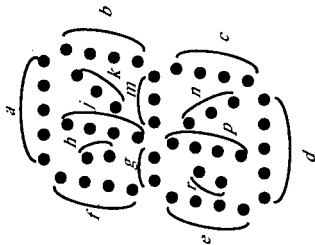
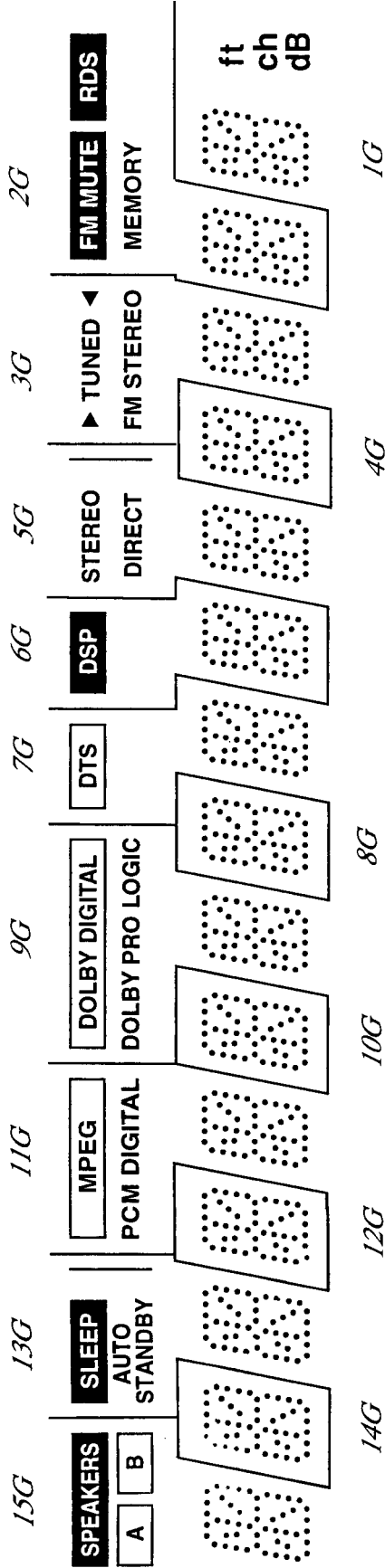
	To 10kHz	To 9kHz
R7077	Open	2.2k
R7130	10k	18k



MICROPROCESSOR TERMINAL DESCRIPTION

No.	Symbol	I/O	Description	No.	Symbol	I/O	Description
1	V _{DD}	-	Power supply pin	39	REMIN	I	Signal input pin for remote controller
2	STBY/RECV	O	Standby/Received indicator control output pin	40	AV _{SS}	-	ground pin
3	FSWSDO	O	Serial data output pin to function switch IC	41	TUMUT	O	Muting control signal output pin for tuner section
4	FSWSCK	O	Serial clock output pin to function switch IC	42	AMUT	O	Muting control signal output pin for amplifier section
5	FSWSLT	O	Serial latch output pin to function switch IC	43	ABOOT/INT	I/O	AUTOBOOT/INTREQ input/output pin
6	RDSDATA	I	Data input pin from RDS decoder	44	VOL RL2	O	Control output pin for volume selector relay 2
7	SDO	O	Serial data output pin to PLL and Electro volume ICs	45	VOL RL1	O	Control output pin for volume selector relay 1
8	SCK	O	Serial clock output pin to PLL and Electro volume ICs	46	V _{DD}	-	Power supply pin
9	PLLOE	O	Serial data latch output pin to PLL IC	47	SPORL	O	Speaker relay control output pin
10	RESET	I	System reset input pin	48	CODE CPD	O	Power down control output pin for CODEC IC
11	X2	O	Master clock connection pins.	49	DIRPD	O	Power down control output pin for AK4110
12	X1	I	Connect the ceramic oscillator across the both pins.	50	DIRCS	O	Chip select output pin for AK4110
13	IC	I	Internal connection pin.	51	BTADRH	O	Setting input pin for LSB address of boot ROM
14	XT2	O	Sub clock connection pins. Not used.	52	BTADRL	O	Setting input pin for MSB address of boot ROM
15	XT1	I	Not used.	53	SD	I	Broadcast detection input
16	V _{DD1}	-	Power supply pin	54	STEREO	I	FM stereo broadcast detection input pin
17	VOLSLT	O	Serial latch output pin to Electro volume IC	55	RDSSIG	I	Signal input pin from RDS decoder
18	SYSOUT	O	Signal output pin for system code	56	HPIN	I	Detection input pin when the headphones are inserted
19	DSPRST	O	Reset signal output pin to DSP IC CS4926	57	ERF	I	ERF signal input pin from AK4110
20	DSPCS	O	Chip select output pin to DSP IC	58	FS96	I	FS96 signal input pin from AK4110
21	DRISOI	I	Serial data input pin from the digital audio interface receiver IC AK4110	59	AUTO	I	AUTO signal input pin from AK4110
22	DSPSCK	O	Serial clock output pin to AK4110 and CS4926	60	ENC1	I	Rotary encoder input pin for volume control
23	DSPSDO	O	Serial data output pin to AK4110 and CS4926	61	ENC2	I	Rotary encoder input pin for volume control
24	DSPSDI	I	Serial data input pin from CS4926	62	PROTECT	I	Detection input pin for protection circuit
25	Av _{SS}	I	Ground pin for A/D converter	63	POWER	O	Control output pin for power switch relay
26	AM9K/10K	I	Initializing input pin for AM band step. 9 kHz step at "H"	64	VCTRB	O	Control output pin for video selector switch
27	OEM	I	Initializing input pin for unit setting	65	VCTRA	O	Control output pin for video selector switch
28	MODE	I	Initializing input pin for operation mode	66	SPARL	O	Control output pin for speaker relay A
29	IPM	I	IPM switch connection pin. Not used.	67	SPBRL	O	Control output pin for speaker relay B
30-33	K3-K0	I	Operation key connection pins.	68-79	P17-P07	O	Segment output pins
34	AV _{DD}	-	Power supply pin for A/D converter	79	VLOAD	O	Power supply pin for FL controller
35	AVREF	I	Reference voltage input pin for A/D converter	80-85	P06-P01	O	Segment output pins
36	SYSIN	I	System code input pin	86-100	15G-1G	O	Grid output pins
37	POFF	I	Power failure detect input pin				
38	RDSSCK	I	Clock input pin from RDS decoder				

FL TUBE VIEW



	15G	14G	13G	12G	11G	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	SPEAKERS		SLEEP		MPEG		DOLBY DIGITAL		DTS	DSP	STEREO		TUNED	RDS	dB
P2	A		AUTO STANDBY											FM MUTE	ch
P3	B				PCM DIGITAL		DOLBY PRO LOGIC						FM STEREO	MEMORY	ft
P4	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c
P5	h	h	h	h	h	h	h	h	h	h	h	h	h	h	h
P6	j	j	j	j	j	j	j	j	j	j	j	j	j	j	j
P7	k	k	k	k	k	k	k	k	k	k	k	k	k	k	k
P8	b	b	b	b	b	b	b	b	b	b	b	b	b	b	b
P9	f	f	f	f	f	f	f	f	f	f	f	f	f	f	f
P10	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
P11	g	g	g	g	g	g	g	g	g	g	g	g	g	g	g
P12	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c
P13	e	e	e	e	e	e	e	e	e	e	e	e	e	e	e
P14	r	r	r	r	r	r	r	r	r	r	r	r	r	r	r
P15	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p
P16	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
P17	d	d	d	d	d	d	d	d	d	d	d	d	d	d	d

PRINTED CIRCUIT BOARD PARTS LIST

PRE., AMPLIFIER PC BOARD (NAVD-6566-1A/1B/1C/1D)

CIRCUIT NO.	PART NO.	DESCRIPTION
ICs		
Q203	22240373	BA7625
Q3171	22241296	M62447SP
Q3180,Q3181	22240247 or	BA15218N or
Q3281,Q3381	22240293	NJM4558L-D
Q3184	22240025	LC4966
Q3581	22240247 or	BA15218N or
	22240293	NJM4558L-D
Transistors		
Q201,Q204	2213354 or	2SA933S-R or
	2212125	2SA1048-GR
Q202	2212286 or	2SC2878-B or
	2212285	2SC2878-A
Q205	2215830,	NP KRC105M,
	2213640 or	DTC123JS or
	2214660	RN1205
Q3182,Q3183	2213631 or	RN1241-A or
Q3282,Q3283	2213632	RN1241-B
Q3185	2215770,	NP KRA102M,
	2213510 or	DTA114ES or
	2214350	RN2202
Q3187	2215780,	NP KRA103M,
	2213580 or	RN2203 or
	2212600	DTA124ES
Q3186	2215960,	NP KRC102M,
	2213290 or	DTC114ES or
	2214230	RN1202
Q3188	221282,	DTC144ES,
	2213560 or	RN1204 or
	2215820	NP KRC104M
Q3383,Q3483	2213631 or	RN1241-A or
Q3583,Q3683	2213632	RN1241-B
Q3684	2213631 or	RN1241-A or
	2213632	RN1241-B
Diodes		
D201,D202	223163 or	1SS133 or
D207,D208	223205	1SS270A
D3171	224470512	MTZJ5.1B
D3182	223163 or	1SS133 or
	223205	1SS270A
D3276,D3277	224470472	MTZJ4.7B
Capacitors		
C201-C204	354780229	2.2 μ F,50V, Elect.
C205,C206	354724719	470 μ F,6.3V, Elect.
C210	354721019	100 μ F,6.3V, Elect.
C3171,C3271	354780229	2.2 μ F,50V, Elect.
C3173,C3175	354741009	10 μ F,16V, Elect.
C3177,C3186	354741009	10 μ F,16V, Elect.
C3187,C3287	374721534	0.015 μ F $\pm$ 5%,50V,Plastic
C3189,C3195	354784709	47 μ F,50V, Elect.
C3192,C3193	354741009	10 μ F,16V, Elect.
C3194	354780479	4.7 μ F,50V, Elect.
C3196,C3296	354782209	22 μ F,50V, Elect.
C3286	354741009	10 μ F,16V, Elect.
C3289,C3295	354784709	47 μ F,50V, Elect.
C3371,C3471	354780229	2.2 μ F,50V, Elect.
C3381,C3481	354782209	22 μ F,50V, Elect.
C3384,C3484	354744709	47 μ F,16V, Elect.
C3571,C3671	354780229	2.2 μ F,50V, Elect.

NP : No spare parts

**NOTE: THE COMPONENTS IDENTIFIED BY MARK Δ ARE
CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK.
REPLACE ONLY WITH PART NUMBER SPECIFIED.**

CIRCUIT NO.	PART NO.	DESCRIPTION
Capacitors		
C3581,C3681	354782209	22 μ F,50V, Elect.
C3586,C3684	354744709	47 μ F,16V, Elect.
C3683	374724734	0.047 μ F $\pm$ 5%,50V,Plastic
Terminals		
P201	25045567	NPJ-1PDBL382
P202,P203	25045299	NPJ-3PDYE158
Sockets		
P204	25051233	NSCT-8P1023
P205	25051527	NSCT-16P1314
P206	25051526	NSCT-4P1313
P391	2009990554UL	NSAS-16P0734
P601	2009990541UL	NSAS-10P0712

S TERMINAL PC BOARD (NAVD-6567-1B/1C/1D)

(Except 120V model)

This PC board is included to NAVD-6566.

CIRCUIT NO.	PART NO.	DESCRIPTION
ICs		
Q2003,Q2004	22240373	BA7625
Transistors		
Q2001,Q2002	2213354 or	2SA933S-R or
Q2005,Q2006	2212125	2SA1048-GR
Diodes		
D2001,D2002	223163 or	1SS133 or
	223205	1SS270A
Capacitors		
C2001-C2009	354780229	2.2 μ F,50V, Elect.
C2010,C2012	354724719	470 μ F,6.3V, Elect.
C2011	354780229	2.2 μ F,50V, Elect.
C2024	354741009	10 μ F,16V, Elect.
C2028,C2029	354722219	220 μ F,6.3V, Elect.
Terminals		
P2001,P2002	25051568	NSCT-12P1355

PRIMARY CIRCUIT PC BOARD (NAPS-6570-1A/1B/1C/1D)

CIRCUIT NO.	PART NO.	DESCRIPTION
Transistor		
Q951	2215830, NP	KRC105M,
	2213640 or	DTC123JS or
	2214660	RN1205
Diodes		
D952	22380260,	RL1N4003,
	22380032 or	1SR139-100 or
	22380035	GP104003E
D955	223163 or	1SS133 or
	223205	1SS270A
Power transformer		
T902	2301258 or Δ	NPT-1294D or
	2301381 Δ	NPT-1358D <D>
	2301382 Δ	NPT-1358P <P/T/A>
	2301383 Δ	NPT-1358DG <W>
Capacitors		
C902	3500196S Δ	RE275V-103M,IS
C952	354743319	330 μ F,16V, Elect.
Resistor		
R901	431533355 Δ	3.3M Ω ,1/2W, Solid <D>
Switch		
S902	25065437 Δ	NSS-22157P, Voltage <W>

NOTE: THE COMPONENTS IDENTIFIED BY MARK Δ ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE ONLY WITH PART NUMBER SPECIFIED.

CIRCUIT NO.	PART NO.	DESCRIPTION	CIRCUIT NO.	PART NO.	DESCRIPTION
Relay			Diodes		
RL901	25065561, Δ	NRL-1P5A-DC12-127,	D101-D109	223234R2 or	1SS352 or
	25065508, Δ	NRL-1P10A-DC12-093,		223233R1	1SS355
	25065515 or Δ	NRL-1P5A-DC12-096 or	Oscillators		
	25065526 Δ	NRL-1P5A-DC12-102	X103	3010320	AT-49 12.288MHz, Crystal
Fuses			X701	3010278	CST12.2MTW040, Ceramic
F911	252198 Δ	8A-UL, Fuse <D/W>	Coils		
F922	252077 or Δ	4A-SE-EAK or	L108-L110	231237M022R2	NCH-1471
	252243 Δ	4A-SE-TL250V, Fuse <P/T/W/A>	L166, L168	230921R2	BLM21B222SPT <D>
F933	252075 or Δ	2.5A-SE-EAK or			To 15, 100 p's.
	252241 Δ	2.5A-SE-TL250V, Fuse <P/T>		433123314R1	330 Ohm <D>
Fuse holders					From 15, 101 p's.
F901, F902	25052133 Δ	NSCT-1P2031 <D/W>	L170, L171	230921R2	BLM21B222SPT
F903, F904	25052133 Δ	NSCT-1P2031 <P/T/W/A>	L703-L705	231237M022R2	NCH-1471
F905, F906	25052133 Δ	NSCT-1P2031 <P>	L8501, L8502	231237M022R2	NCH-1471
AC outlet			R8507, R8508	230921R2	BLM21B222SPT
P903	25051126 Δ	NSCT-4P913 <D>	Capacitors		
	25051125 Δ	NSCT-4P912 <P/T/W>	C101, C102	356741009R2	10 μ F, 16V, Elect.
	25052115 Δ	NSCT-2P2013 <A>	C108	356741009R2	10 μ F, 16V, Elect.
Plug			C148, C158	356724709R2	47 μ F, 6.3V, Elect.
P901A	25055675 Δ	NPLG-2P631	C701, C702	354724719S	470 μ F, 6.3V, Elect.
Socket			C703, C704	356721019R2	100 μ F, 6.3V, Elect.
JL961B	25050267	NSCT-3P95	C716, C718	356724709R2	47 μ F, 6.3V, Elect.
POWER SWITCH PC BOARD (NASW-6571-1A/1B/1C/1D)			C8501, C8504	356721019R2	100 μ F, 6.3V, Elect.
CIRCUIT NO.	PART NO.	DESCRIPTION	C8507	356721019R2	100 μ F, 6.3V, Elect.
C901	3500196S Δ	RE275V-103M, IS capacitor	C8509-C8514	356741009R2	10 μ F, 16V, Elect.
S901	25035550 Δ	NPS-111-L512P, Push switch	Sockets		
INPUT SWITCH PC BOARD (NAETC-6572-1A/1B/1C/1D)			P7004B	25052049,	NSCT-40P1836,
CIRCUIT NO.	PART NO.	DESCRIPTION		25050980,	NSCT-40P767,
ICs				25051306,	NSCT-40P1095,
Q301	22240864	TC9273N-004		25051847 or	NSCT-40P1634 or
Q302	22240247 or	BA15218N or		25052236	NSCT-40P2133
	22240293	NJM4558L-D	P7205A	2009990542UL	NSAS-12P0713
Capacitors			DISPLAY CIRCUIT PC BOARD		
C315, C316	354741009	10 μ F, 16V, Elect.	(NADIS-6576-1A/1B/1C/1D)		
C321, C322	354782209	22 μ F, 50V, Elect.	CIRCUIT NO.	PART NO.	DESCRIPTION
Terminals			FL tube		
P301, P302	25045575 or	NPJ-4PDRW389 or	Q7005	212198	15-BT-64GNK
	25045303	NPJ-4PDBL162	ICs		
P305	25045571 or	NPJ-6PDRW386 or	Q1001	22241297R2	BU1923F <P>
	25045300	NPJ-6PDBL159	Q401	22240581R1	NJM4565M
Sockets			Q7001	22241398	MPD780208GF-047-3BA
P303	25051529	NSCT-18P1316	Refer to Caution 1 on page 22.		
P304	25051526	NSCT-4P1313	Remote sensor		
DSP CIRCUIT PC BOARD (NADG-6575-1)			U7001	241330	PIC-26043TE2
CIRCUIT NO.	PART NO.	DESCRIPTION	Transistors		
ICs			Q402, Q403	2215410R2	RN1441
Q101, Q102	22240581R1	NJM4565M	Q7002	2214490R2	RN1404
Q114	22241338R2	AK4110VF	Q7003, Q7004	2214540R2	RN2403
Q701	22278033ENEC	MPC29M33HF	Diodes		
Q702	22241399R2	TC7WU04F	D1001	223234R2 or	1SS352 or
Q707	22241340R9	CS492604-CL		223233R1	1SS355 <P>
Q708, Q709	22274574ER2TO	TC74VHC574FT	D7001	225290	SEL4110R
Q710	22241339R2	LC372100PT-K25-TLM	D7002, D7003	223234R2 or	1SS352 or
Q713	22274244ER2TO	TC74VHC244FT		223233R1	1SS355
Q8501	22241341R3	AK4526A-VQ	D7004	224490560R2	UDZ5.6B
Q8502-Q8504	22240581R1	NJM4565M	D7009	224490910R2	UDZ9.1B
			D7010	223234R2 or	1SS352 or
				223233R1	1SS355

CIRCUIT NO.	PART NO.	DESCRIPTION	CIRCUIT NO.	PART NO.	DESCRIPTION
Oscillators			Diodes		
X1001	3010203	AF6146CG,Crystal <P>	D939	224492700R2	UDZ27B
X7001	3010242	CST5.00MGW,Ceramic	D942,D943	224490750R2	UDZ7.5B
Coils			Capacitors		
L7001-L7003	231237K220R2	NCH-1477	C267,C268	354741009	10 μ F,16V, Elect.
Capacitors			C269,C270	354721019	100 μ F,6.3V, Elect.
C1001	355780229	2.2 μ F,50V, Elect.	C273,C274	374728224	8200pF $\pm$ 5%,50V,Plastic
C1003	355721019	100 μ F,6.3V, Elect.	C275,C276	374721824	1800pF $\pm$ 5%,50V,Plastic
C401,C402	355744709	47 μ F,16V, Elect.	C277,C278	354744709	47 μ F,16V, Elect.
C407,C408	355741009	10 μ F,16V, Elect.	C281	354741009	10 μ F,16V, Elect.
C7001	355780229	2.2 μ F,50V, Elect.	C282,C284	354780339	3.3 μ F,50V, Elect.
C7002	3000078	DX-5R5L104,Super	C3151,C3152	354741009	10 μ F,16V, Elect.
C7004,C7005	355721019	100 μ F,6.3V, Elect.	C923	3504213S	4700 μ F,35V, Elect.
C7008	355721019	100 μ F,6.3V, Elect.	C924	354761029S	1000 μ F,35V, Elect.
C7009,C7010	355780109	1 μ F,50V, Elect.	C927,C928	354741009	10 μ F,16V, Elect.
C7014	355780109	1 μ F,50V, Elect.	C933	354742229S	2200 μ F,16V, Elect.
C7015	355741009	10 μ F,16V, Elect.	C935	354741009	10 μ F,16V, Elect.
C7018,C7019	355721019	100 μ F,6.3V, Elect.	C936	354762219	220 μ F,35V, Elect.
Switches			C937	354772219S	220 μ F,63V, Elect.
S7101-S7109	25035652	NPS-111-S604	C942,C943	354741009	10 μ F,16V, Elect.
S7111-S7118	25035652	NPS-111-S604	C944,C945	354744709	47 μ F,16V, Elect.
S7121-S7128	25035652	NPS-111-S604	Resistors		
S7131-S7138	25035652	NPS-111-S604	R921-R925	453532294	0.22 Ω $\pm$ 5%,1/2W,Metal
Plug			R926,R927	452630564F	5.6 Ω $\pm$ 5%,1W,Metal
JL701B	25055624	NPLG-3P586	R929	441623304F	33 Ω $\pm$ 5%,1W,Metal oxide
Sockets			R932	452530224F	2.2 Ω $\pm$ 5%,1/2W,Metal
JL702A	25051090	NSCT-6P877	R933	452630224F	2.2 Ω $\pm$ 5%,1W,Metal
P7001A	25052086 or	NSCT-40P1873 or	R934	442522204F	22 Ω $\pm$ 5%,1/2W,Metal oxide
P7004A	25052273	NSCT-40P2170	R937	452630334F	3.3 Ω $\pm$ 5%,1W,Metal
Holder			R938,R939	443523314	330 Ω $\pm$ 5%,1/2W,Metal oxide
Q7005A	27191074	(FL)	Terminal		
MAIN PC BOARD (NAAR-6577-1A/1B/1C/1D)			P261	25045303 or 25045575	NPJ-4PDBL162 or NPJ-4PDRW389
CIRCUIT NO.	PART NO.	DESCRIPTION	Plugs		
ICs			P204A	25055704	NPLG-8P660
Q251	222780053	78L05	P205A	25055805	NPLG-16P761
Q261	22240581R1	NJM4565M	P206A,P304A	25055804	NPLG-4P760
Q3151	22241221R2	TC9164AF	P242A	25055995	NPLG-9P947
Q921	222780125	78M12HF	P303A	25055807	NPLG-18P763
Q922	222790125	79M12HF	Sockets		
Q931	222780565JRC	NJM78M56FA	JL911A	25051111	NSCT-7P898
Q933,Q934	222780055	78M05HF	JL961A	25051107	NSCT-3P894
Transistors			P101	25052024, 25050955, 25051281, 25051822 or 25052211	NSCT-15P1811, NSCT-15P742, NSCT-15P1070, NSCT-15P1609 or NSCT-15P2108
Q244	2213510, 2215770 or 2214350	DTA114ES, NP KRA102M or RN2202	P242	200A2281810UL	NSAS-18P0731
Q245,Q246	2215024	2SD1468S-R	P520	25052138	NSCT-7P2036
Q247	2215864, 2212115 or 2213284	NP KTC3199-GR, 2SC2458-GR or 2SC1740S-R <P>	P7001B	25052049 or 25052236	NSCT-40P1836 or NSCT-40P2133
Q932	2211455	2SA1015-GR	Pan head screws		
Diodes			Q921B,Q922B	82143010	3P+10FN(BC)
D203,D204	224490620R2	UDZ6.2B	Q933B,Q934B	82143010	3P+10FN(BC)
D901	22380285F or 22380022F	RS403M or RBV402	Heat sinks		
D931	224490620R2	UDZ6.2B	Q921A	27160179	
D932	223234R2 or 223233R1	1SS352 or 1SS355	Q922A	27160229	
D933-D938	22380260,	RL1N4003,	Q933A	27160209	
D940,D941	22380032 or 22380035	1SR139-100 or GP104003E			

CAUTION: Replacement of the transistor of mark *, if necessary, must be made from the same beta group (HFE) as the original type.

DIGITAL INPUT PC BOARD(NADG-6578-1A/1B/1C/1D)

CIRCUIT NO.	PART NO.	DESCRIPTION
U7201	24120037	TORX178A,Photo coupler
Q7201	222740046R2TO	TC74HCU04F,IC
L7202,L7203	231237M022R2	NCH-1471,Coil
C7203	354721019	100 μ F,6.3V, Elect. Capacitor
P7201	25045504	NPJ-1PDBL319,RI
P7202,P7203	25045473	NPJ-1PDBL291,Coacial
P7205B	25055136	NPLG-6P120,Plug
P7206	2009990540UL	NSAS-4P0711,Socket
S7201	25065286	NSS-22112,Switch <W>

HEADPHONE TERMINAL PC BOARD**(NAETC-6579-1A/1B/1C/1D)**

CIRCUIT NO.	PART NO.	DESCRIPTION
JL702B	25051090	NSCT-6P877,Socket
P504B	25055445	NPLG-7P427,Plug
P7003	25045514	YKB26-5005,Headphone

TONE CONTROL PC BOARD (NAETC-6580-1A/1B/1C/1D)

CIRCUIT NO.	PART NO.	DESCRIPTION
Capacitors		
C391,C392	374721534	0.015 μ F $\pm$ 5%,50V,Plastic
Resistors		
R391,R392	5104356	N14RLC100KWT20Z,Variable
Plug		
P391A	25055139	NPLG-9P123

VOLUME CONTROL PC BOARD**(NAETC-6581-1A/1B)**

CIRCUIT NO.	PART NO.	DESCRIPTION
S7001	25065575	EC16B2425,Rotary encoder
JL701A	25051087	NSCT-3P874,Socket

FRONT CHANNEL POWER AMPLIFIER PC BOARD**(NAAF-6583-1A/1B)**

CIRCUIT NO.	PART NO.	DESCRIPTION
Transistors		
Q501-Q504	2211732,	* 2SC1845-F,
	2211733,	* 2SC1845-E,
	2210755 or	* 2SC1775A-E or
	2210756	* 2SC1775A-F
Q505,Q506	2211732,	2SC1845-F,
Q527,Q528	2211733,	2SC1845-E,
Q581,Q582	2210755 or	2SC1775A-E or
	2210756	2SC1775A-F
Q507-Q510	2215843 or	NP KTA1024-O or
Q513,Q514	2211353	2SA949-O
Q515,Q516	2215853 or	NP KTC3206-O or
	2211633	2SC2229-O
Q517,Q518	2212654 or	2SC3421-Y or
	2212653	2SC3421-O
Q519,Q520	2203010	2SC5171
Q521,Q522	2203000	2SA1930
Q523,Q524	2203063,	* 2SC5198-O,
	2202523,	* 2SC4468-O,
	2202524,	* 2SC4468-Y,
	2202526 or	* 2SC4468-P or
	2203062	* 2SC5198-R
	2211792 or	2SA992-F or
Q583	2211793	2SA992-E

CIRCUIT NO.	PART NO.	DESCRIPTION
Transistors		
Q525,Q526	2203053,	* 2SA1941-O,
	2202513,	* 2SA1695-O,
	2202514,	* 2SA1695-Y,
	2202516 or	* 2SA1695-P or
Q529,Q530	2203052	* 2SA1941-R,Transistor
	2215864,	NP KTC3199-GR,
	2212115 or	2SC2458-GR or
	2213284	2SC1740S-R
Q591	2215830,	NP KRC105M,
	2213640 or	DTC123JS or
	2214660	RN1205
Diodes		
D511,D512	223163 or	1SS133 or
	223205	1SS270A
D571	224470512	MTZJ5.1B
D910	22380038 or	RBV602 or
	22380274	RS603M,Diode
Coils		
L501,L502	231176	S-1.3C
Capacitors		
C501,C502	354784709	47 μ F,50V, Elect.
C503,C504	374721015	100pF $\pm$ 10%,50V,Plastic
C505,C506	354742219	220 μ F,16V, Elect.
C507-C510	354781009	10 μ F,50V, Elect.
C517,C518	374724734	0.047 μ F $\pm$ 5%,50V,Plastic
C519,C520	374721044	0.1 μ F $\pm$ 5%,50V,Plastic
C521,C522	354744709	47 μ F,16V, Elect.
C525,C526	354771019	100 μ F,63V, Elect.
C535,C536	374721034	0.01 μ F $\pm$ 5%,50V,Plastic
		<P/T/W/A>
C581	354721019	100 μ F,6.3V, Elect.
C583	354780109	1 μ F,50V, Elect.
C905,C906	374731044	0.1 μ F $\pm$ 5%,100V,Plastic
C915,C916	3504351	10000 μ F,56V, Elect.
Resistors		
R521-R524	443528204	82 Ω $\pm$ 5%,1/2W,Metal oxide
R525,R526	443526804	68 Ω $\pm$ 5%,1/2W,Metal oxide
R527,R528	443528204	82 Ω $\pm$ 5%,1/2W,Metal oxide
R529,R530	443525604	56 Ω $\pm$ 5%,1/2W,Metal oxide
R539-R542	453530224	2.2 Ω $\pm$ 5%,1/2W,Metal
R543,R544	443522214	220 Ω $\pm$ 5%,1/2W,Metal oxide
R547,R548	4000132 or	RGC55 0.22 or
	4500245	BPR55FK0.22, Metal plate
R555,R556	453630824	8.2 Ω $\pm$ 5%,1W,Metal
R557,R558	443623914	390 Ω $\pm$ 5%,1W,Metal oxide
R573,R574	5210259	N06HR2KBC,Trimming
R591,R592	4500171F	2.2 Ω $\pm$ 5%,1/4W,Metal
Plugs		
P511,P512	25055038	NPLG-2P29
P520A	25055913	NPLG-7P866
Sockets		
P504	2002381460UL	NSAS-14P0710
JL902B	25050269	NSCT-5P97
JL903A	25051108	NSCT-4P895
JL501A	25051110	NSCT-6P897
JL901A	25051111	NSCT-7P898
JL503A	25051112	NSCT-8P899

POWER AMPLIFIER PC BOARD (NAAF-6584-1A/1B)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Transistors	
Q1501,Q1502	2211732,	2SC1845-F,
Q601-Q604	2211733,	2SC1845-E,
	2210755 or	2SC1775A-E or
	2210756	2SC1775A-F
Q1503	2211732,	2SC1845-F,
Q1514	2211733,	2SC1845-E,
	2210755 or	2SC1775A-E or
	2210756	2SC1775A-F
Q1504-Q1507	2215843 or	NP KTA1024-O or
	2211353	2SA949-O
Q1508	2215853 or	NP KTC3206-O or
	2211633	2SC2229-O
Q1509	2212653 or	2SC3421-O or
	2212654	2SC3421-Y
Q1510	2203010	2SC5171
Q1511	2203000	2SA1930
Q1512	2203063,	* 2SC5198-O,
Q623,Q624	2202523,	* 2SC4468-O,
	2202524,	* 2SC4468-Y,
	2202526 or	* 2SC4468-P or
	2203062	* 2SC5198-R
Q1513	2203053,	* 2SA1941-O,
Q625,Q626	2202513,	* 2SA1695-O,
	2202514,	* 2SA1695-Y,
	2202516 or	* 2SA1695-P or
	2203052	* 2SA1941-R
Q1515	2215864,	NP KTC3199-GR,
	2212115 or	2SC2458-GR or
	2213284	2SC1740S-R
Q609,Q610	2211732,	2SC1845-F,
Q627,Q628	2211733,	2SC1845-E,
	2210755 or	2SC1775A-E or
	2210756	2SC1775A-F
Q605,Q606	2215843 or	NP KTA1024-O or
Q613,Q614	2211353	2SA949-O
Q611,Q612	2215864,	KTC3199-GR,
	2212115 or	2SC2458-GR or
	2213284	2SC1740S-R
Q615,Q616	2212653 or	2SC3421-O or
	2212654	2SC3421-Y
Q617,Q618	2215853 or	NP KTC3206-O or
	2211633	2SC2229-O
Q619,Q620	2203010	2SC5171
Q621,Q622	2203000	2SA1930
Q629,Q630	2215843 or	NP KTA1024-O or
	2211353	2SA949-O
Q691,Q692	2215830,	NP KRC105M,
	2213640 or	DTC123JS or
	2214660	RN1205
	Diodes	
D1501,D1506	223163 or	1SS133 or
D607,D608	223205	1SS270A
D691,D692	223163 or	1SS133 or
	223205	1SS270A
	Coils	
L1501	231176	S-1.3C
L601,L602	231176	S-1.3C

CIRCUIT NO.	PART NO.	DESCRIPTION
	Capacitors	
C1501	354784709	47 μ F,50V, Elect.
C1502	374721015	100pF $\pm$ 10%,50V,Plastic
C1503	354742219	220 μ F,16V, Elect.
C1504,C1505	354781009	10 μ F,50V, Elect.
C1510	374724734	0.047 μ F $\pm$ 5%,50V,Plastic
C1511	374721044	0.1 μ F $\pm$ 5%,50V,Plastic
C1512	354744709	47 μ F,16V, Elect.
C1526	374721034	0.01 μ F $\pm$ 5%,50V,Plastic
		<P/T/W/A>
C1530	354780109	1 μ F,50V, Elect.
C1533,C1534	354771009	10 μ F,63V, Elect.
C1535	374721024	1000pF $\pm$ 5%,50V,Plastic
		<P/T/W/A>
C601,C602	354784709	47 μ F,50V, Elect.
C603,C604	374721015	100pF $\pm$ 10%,50V,Plastic
C605,C606	354744709	47 μ F,16V, Elect.
C607,C608	354742219	220 μ F,16V, Elect.
C615,C616	354781009	10 μ F,50V, Elect.
C619,C620	354781009	10 μ F,50V, Elect.
C621,C622	374724734	0.047 μ F $\pm$ 5%,50V,Plastic
C623,C624	374721044	0.1 μ F $\pm$ 5%,50V,Plastic
C625,C626	374721034	0.01 μ F $\pm$ 5%,50V,Plastic
		<P/T/W/A>
C627,C628	354772219S	220 μ F,63V, Elect.
C631-C634	354774709	47 μ F,63V, Elect.
C639,C640	354780109	1 μ F,50V, Elect.
C641,C642	374721024	1000pF $\pm$ 5%,50V,Plastic
		<P/T/W/A>
C681	354781009	10 μ F,50V, Elect.
	Resistors	
R1512,R1513	443528204	82 Ω $\pm$ 5%,1/2W,Metal oxide
R1515	443526804	68 Ω $\pm$ 5%,1/2W,Metal oxide
R1516	443528204	82 Ω $\pm$ 5%,1/2W,Metal oxide
R1517	443525604	56 Ω $\pm$ 5%,1/2W,Metal oxide
R1519	443522214	220 Ω $\pm$ 5%,1/2W,Metal oxide
R1522,R1523	453530224	2.2 Ω $\pm$ 5%,1/2W,Metal
R1524	4500245 or	BPR55FK0.22 or
	4000132	RGC55 0.22,Metal plate
R1529	453630824	8.2 Ω $\pm$ 5%,1W,Metal
R1532	5210288	N06HR2.2KBE,Trimming
R1534,R1535	4500159F	0.22 Ω $\pm$ 5%,1/4W,Metal
R623-R626	443528204	82 Ω $\pm$ 5%,1/2W,Metal oxide
R629,R630	443525604	56 Ω $\pm$ 5%,1/2W,Metal oxide
R633,R634	443526804	68 Ω $\pm$ 5%,1/2W,Metal oxide
R635,R636	443528204	82 Ω $\pm$ 5%,1/2W,Metal oxide
R641,R642	443522214	220 Ω $\pm$ 5%,1/2W,Metal oxide
R643-R646	453530224	2.2 Ω $\pm$ 5%,1/2W,Metal
R647,R648	4500245 or	BPR55FK0.22 or
	4000132	RGC55 0.22,Metal plate
R655,R656	453630824	8.2 Ω $\pm$ 5%,1W,Metal
R659,R660	4500268	2.2 Ω $\pm$ 5%,1/2W,Metal
R673,R674	5210288	N06HR2.2KBE,Trimming
R675-R678	4500159F	0.22 Ω $\pm$ 5%,1/4W,Metal
	Relays	
RL1501	25065574	NRL-1P5A-DC24-134
RL601,RL602	25065563,	NRL-2P5A-DC24-129,
	25065510 or	NRL-2P5A-DC24-095 or
	25065517	NRL-2P5A-DC24-098

CIRCUIT NO.	PART NO.	DESCRIPTION
	Plugs	
P1511	25055038	NPLG-2P29
P611,P612	25055038	NPLG-2P29
P601A	25055236	NPLG-5P220
	Sockets	
JL903B	25050268	NSCT-4P96
JL902A	25051109	NSCT-5P896
JL501B	25050283	NSCT-6P111
	Terminal	
P603	25060290	NTM-8PDML221

SPEAKER TERMINAL PC BOARD (NAETC-6588-1A/1B)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Diode	
D591	223163 or 223205	1SS133 or 1SS270A
	Capacitors	
C561,C562	374721034	0.01 μ F $\pm$ 5%,50V, Plastic <P/T/W>
C565,C566	374721024	1000pF $\pm$ 5%, 50V Plastic <P/T/W>
	Relay	
RL501	25065563, 25065510 or 25065517	NRL-2P5A-DC24-129, NRL-2P5A-DC24-095 or NRL-2P5A-DC24-098
	Sockets	
JL503B	25051112	NSCT-8P899
P502	200B010420UL	NSAS-4P0717
	Terminal	
P501	25060291	NTM-6PDMN222

MULTI-CHANNEL INPUT TERMINAL (NAAF-6589-1A/1B)

CIRCUIT NO.	PART NO.	DESCRIPTION
	ICs	
Q241-Q243	22240247 or 22240293	BA15218N or NJM4558L-D
	Capacitors	
C248,C249	354741009	10 μ F,16V, Elect.
	Terminal	
P241	25045572	NPJ-6PDBRW387
	Plug	
P242A	25055995	NPLG-9P947

SECONDARY CIRCUIT PC BOARD (NAETC-6590-1A/1B)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Capacitors	
C992	374731044	0.1 μ F $\pm$ 5%,100V,Plastic
C993,C994	374721044	0.1 μ F $\pm$ 5%,50V,Plastic
	Resistors	
R991,R992	453530104	1 Ω $\pm$ 5%,1/2W,Metal
R993	4500229	0.1 Ω $\pm$ 5%,1/4W,Metal
	Sockets	
JL901B	25051111	NSCT-7P898
JL911B	25050284	NSCT-7P112

NOTE: <D>:120V model only
<P>:European model only
<T>:Asian model only
<W>:Worldwide model only
<A>:Australian model only

CAUTION 1

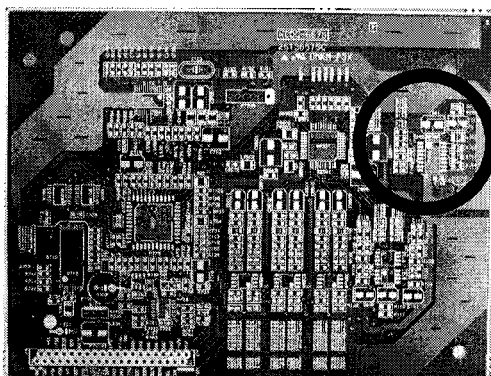
Replacing the microprocessor Q7001

This unit is used the microprocessor of two types.

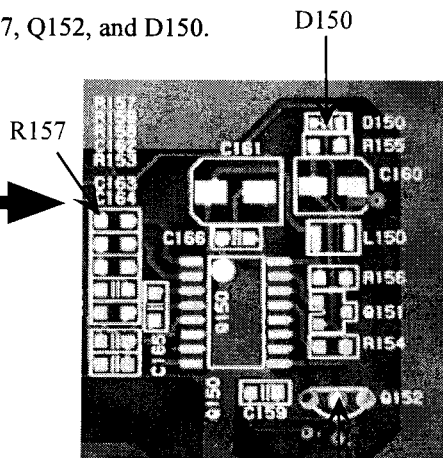
(MPD780208GF-047-3BA or MPD780208GF-045-BA)

When you replace the microprocessor MPD780208GF-045-BA,
use the microprocessor MPD780208GF-047-3BA instead of it.

At the same time you are necessary to remove R157, Q152, and D150.



NADG-6575



ADJUSTMENT PROCEDURES AND CONFIRMATION

1. Idling current adjustment

Before Idling adjustment, turn the trimming resistors R573, R574, R673, R674 and R1532 to counter clockwise.

Connect the DC voltmeter to sockets P511, P512, P611, P612 and P1511.

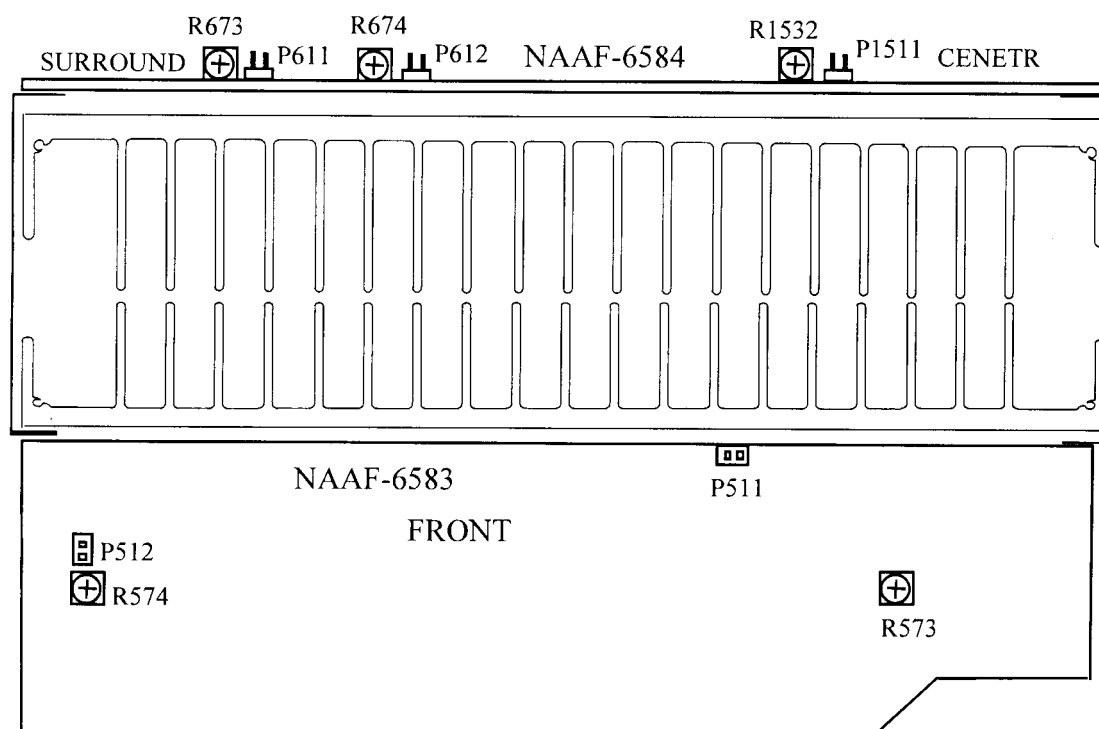
After turn POWER to ON, adjust the trimming resistors R573, R574, R673, R674 and R1532 so that the reading of voltmeter becomes $2.5 \pm 0.2\text{mV}$.

After adjustment, attach the top cover.

Confirm the voltage of above points after five minutes.

Readjust the above resistors so that the voltage becomes $6.5 \pm 0.2\text{mV}$.

Note: No load and No signal



Confirmation of protection circuit

1. Confirmation of operation of speaker relay

Confirm that the speaker relay turns ON approximate. 5 seconds after the power switch is turned ON.

Confirm that the speaker relay turns OFF immediately after the power switch is turned OFF.

2. Confirmation of DC detection circuit

Press and hold down CD button, then press SPEAKERS-A and SPEAKERS-B buttons at the same time.

During "TEST-" on the FL tube is displayed, press DVD button. Next, press CD button.(Refer to Test mode.)

Apply DC 1.5~3V to MULTI CHANNEL INPUT terminals with no load.

Confirm that the speaker relay turns OFF.

Apply DC -1.5~-3V to MULTI CHANNEL INPUT terminals with no load.

Confirm that the speaker relay turns OFF.

3. Confirmation of Current detection circuit

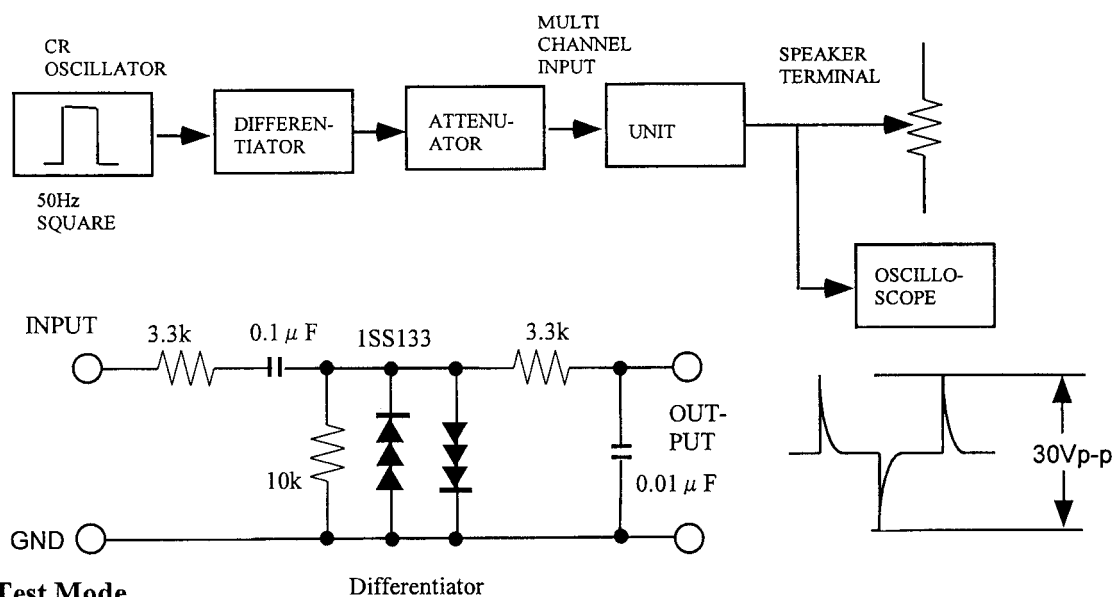
Press and hold down CD button, then press SPEAKERS-A and SPEAKERS-B buttons at the same time.

During "TEST-" on the FL tube is displayed, press DVD button. Next, press CD button.

Connect Differentiator and apply the 50Hz square signal to the terminal of MULTI CHANNEL INPUT.

Adjust the attenuator or Volume so that the output level becomes 30V p-p.

Confirm that the speaker relay turns OFF when a 1.5 ohm load is connected.



Test Mode

1. Turn POWER button on.
2. Press and hold down CD button, then press SPEAKERS-A and SPEAKERS-B buttons at the same time.
3. During "TEST-" on the FL tube is displayed, press CD, DVD, VIDEO 1, or VIDEO 2 button to set the unit to the test mode shown below.
4. Press CD or PHONO button to select the test item.

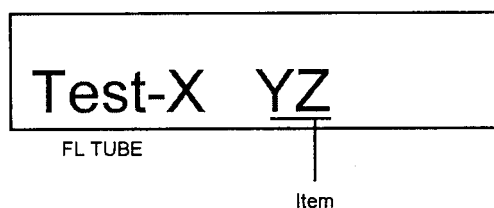
Button Operation in the Test Mode

Button Operation

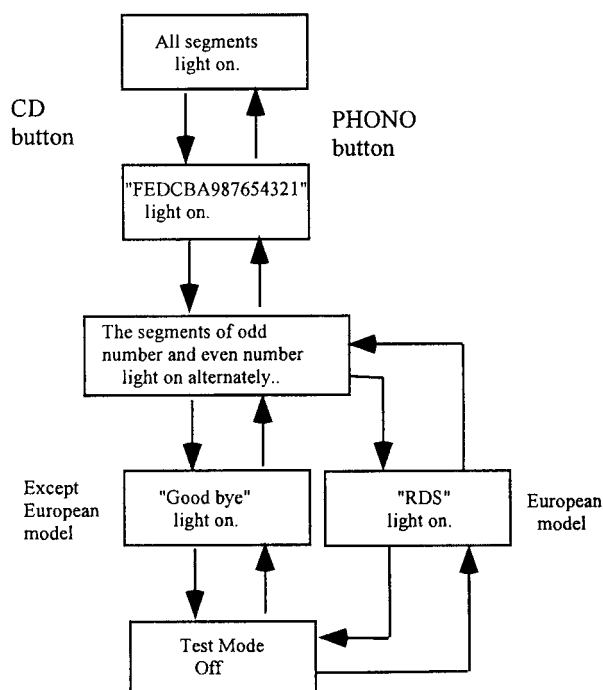
CD
DVD
VIDEO 1
VIDEO 2
CD
PHONO

Test Mode

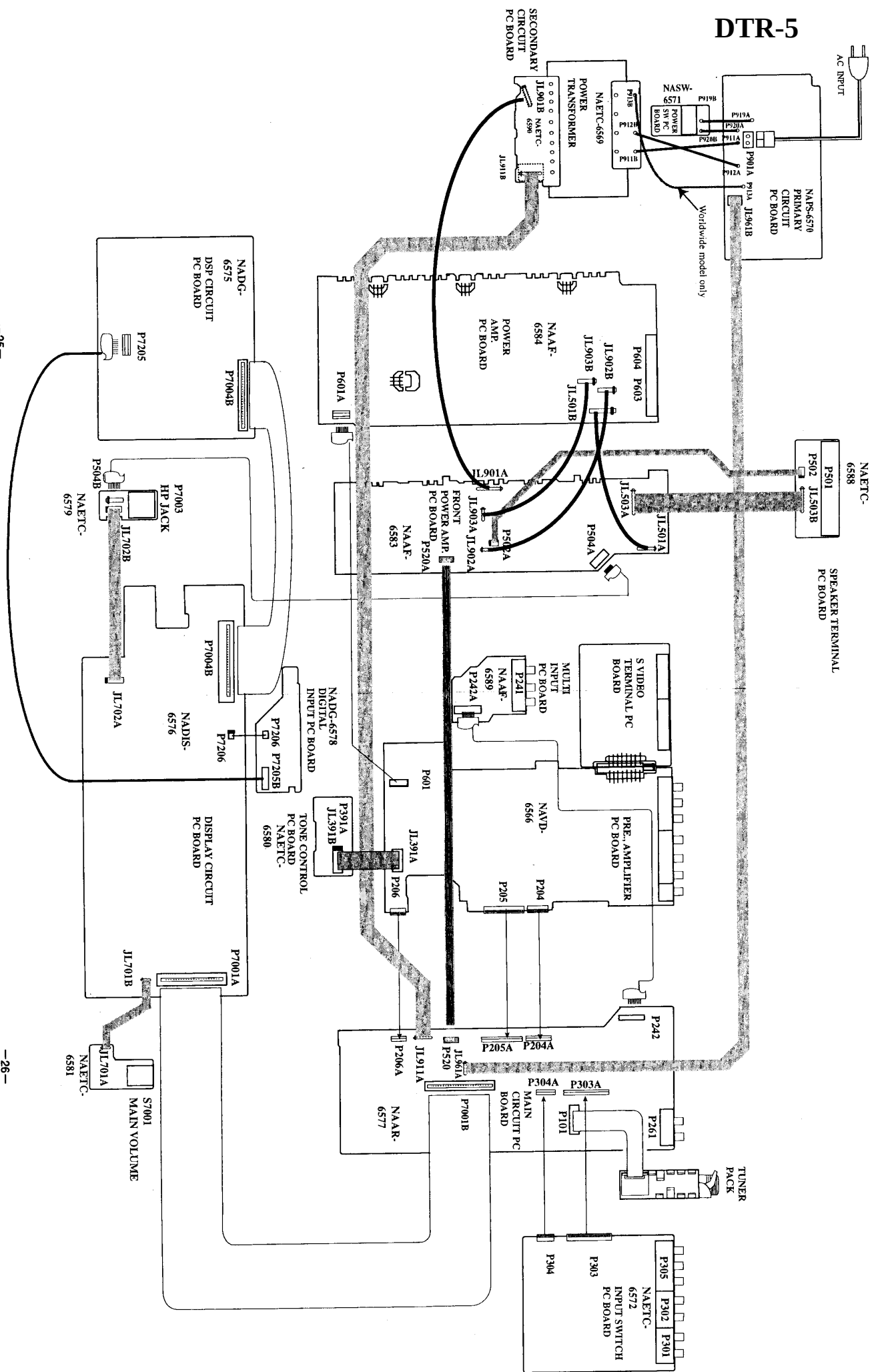
TEST-0
TEST-1
TEST-2
TEST-3
UP of item
DOWN of item



TEST-0

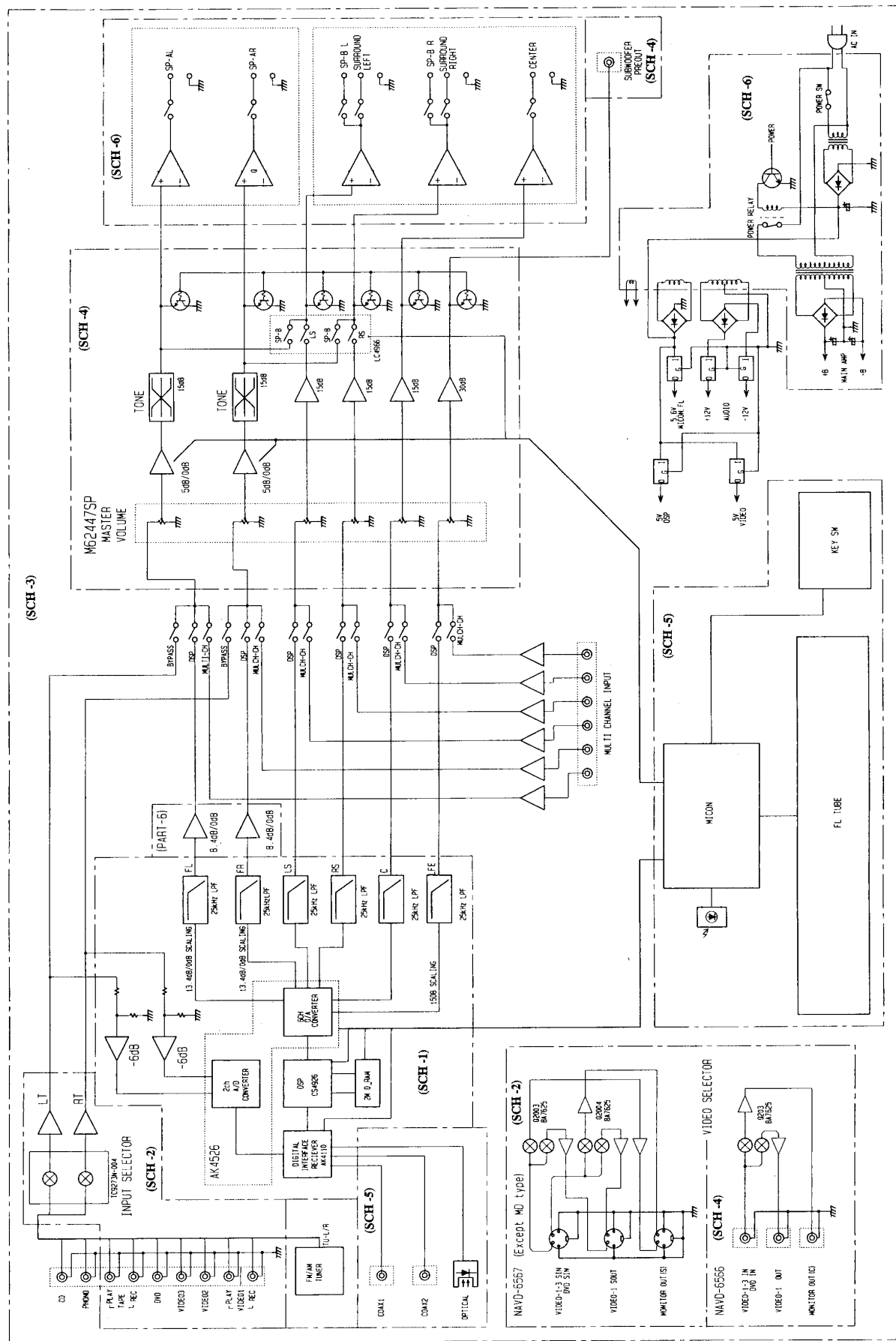


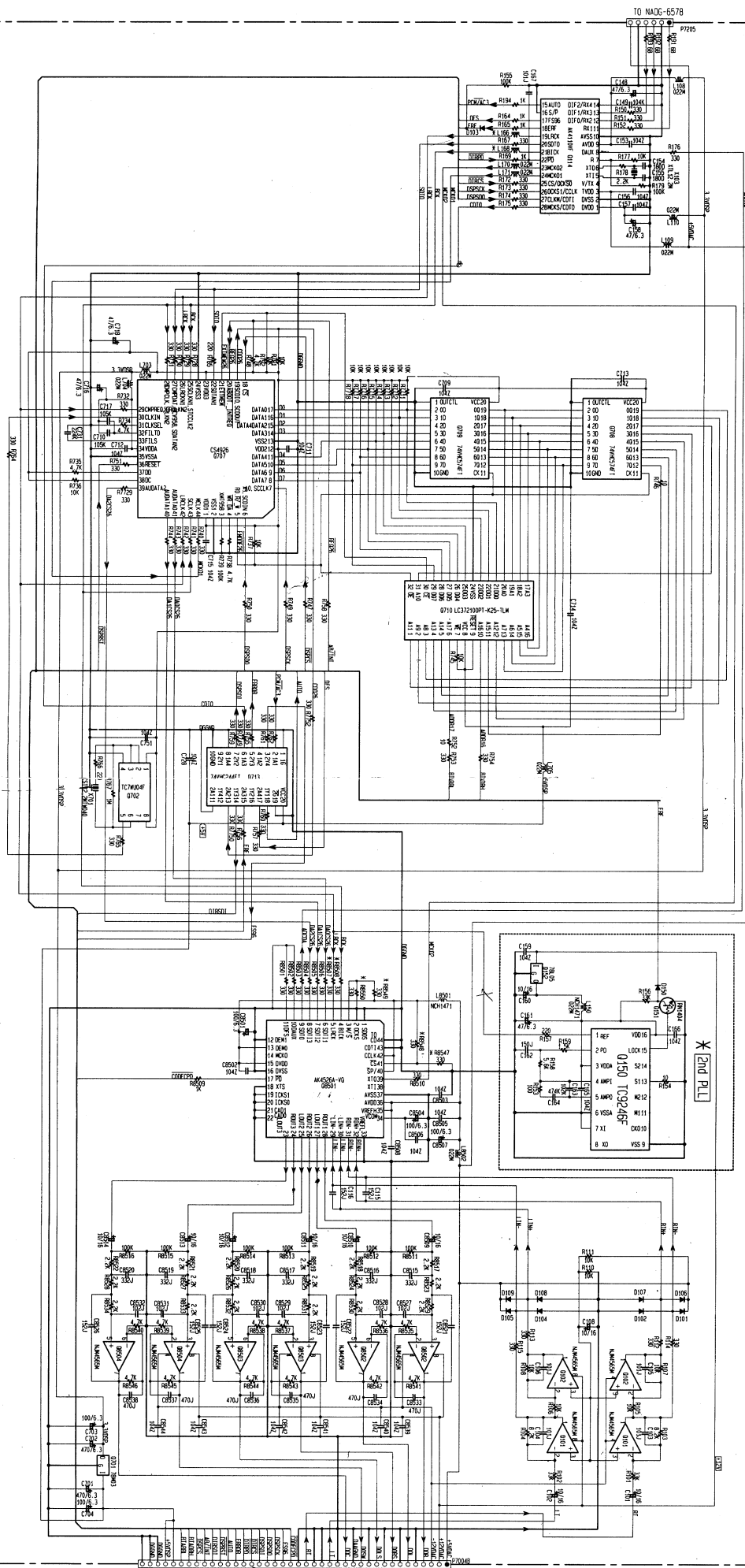
WIRING VIEW



BLOCK DIAGRAM

DTR-5



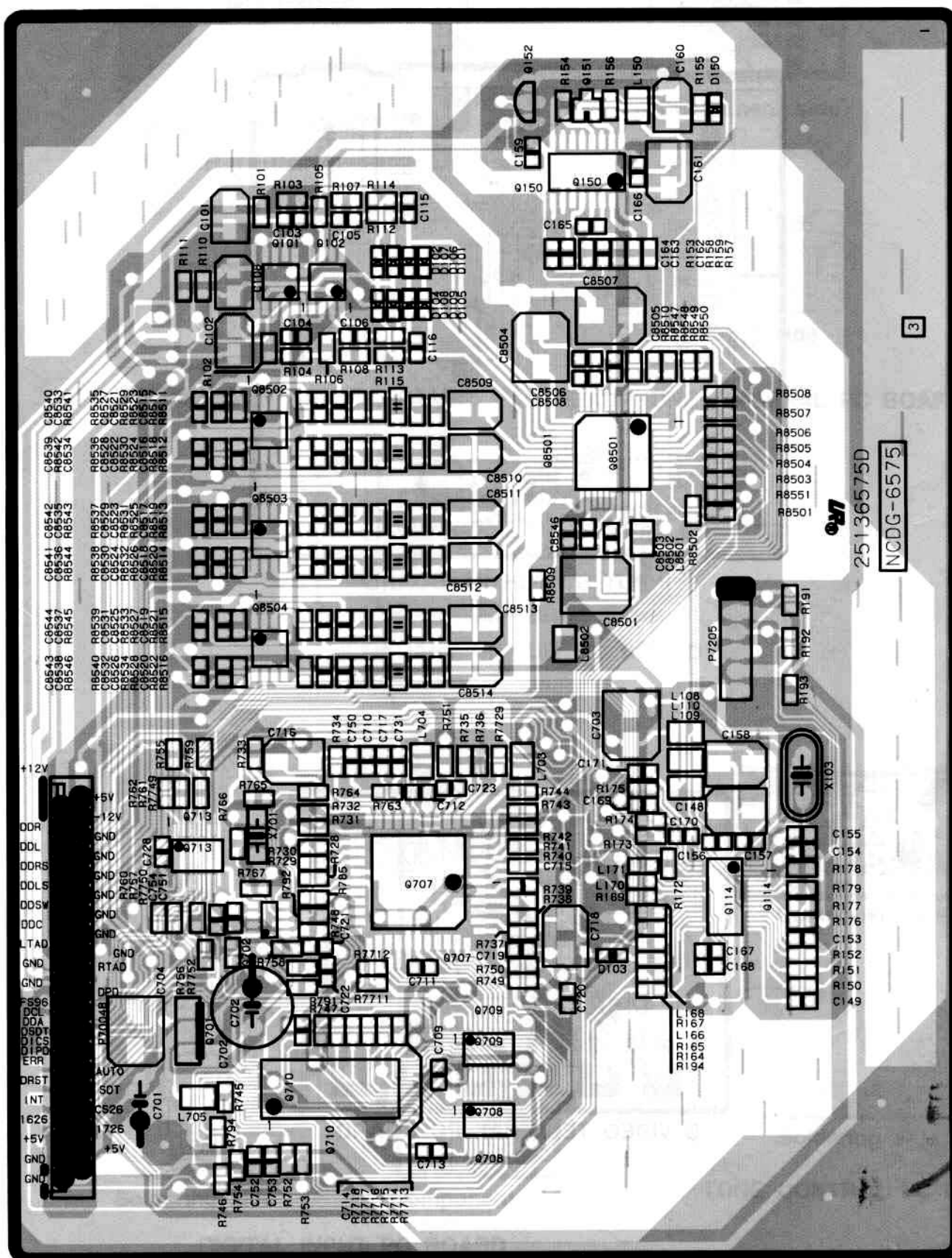


DTR-5

TX-05575 Lot. #15100	YES	BLM21822SP1	331 LE	YES	NO
TX-05575 Lot. #15101-	NO	BLM21822SP7		NO	YES



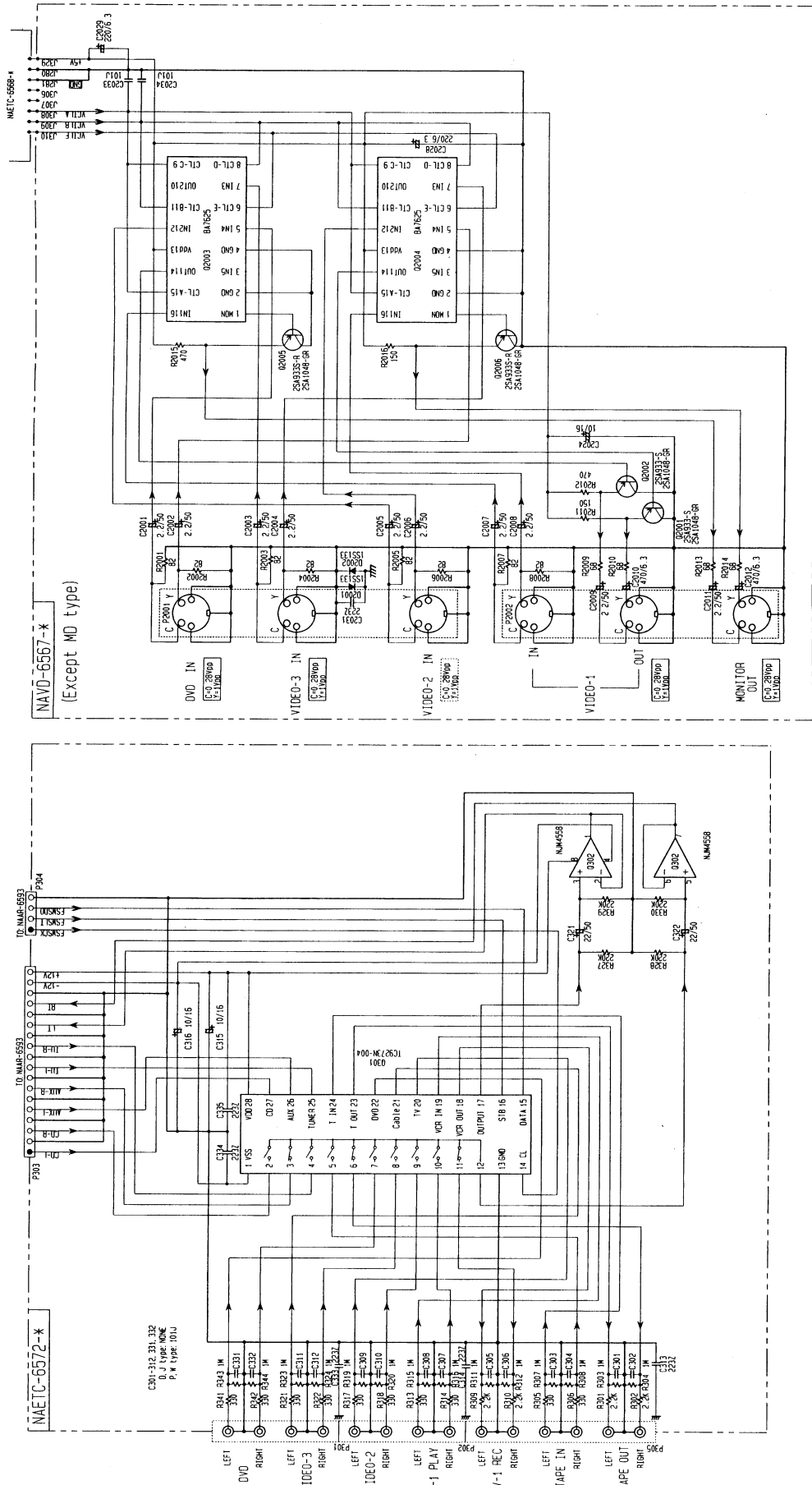
PRINTED CIRCUIT BOARD VIEW



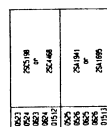
DSP CIRCUIT PC BORAD

SCHEMATIC DIAGRAM 2

DTR-5



DTR-5



CAUTION

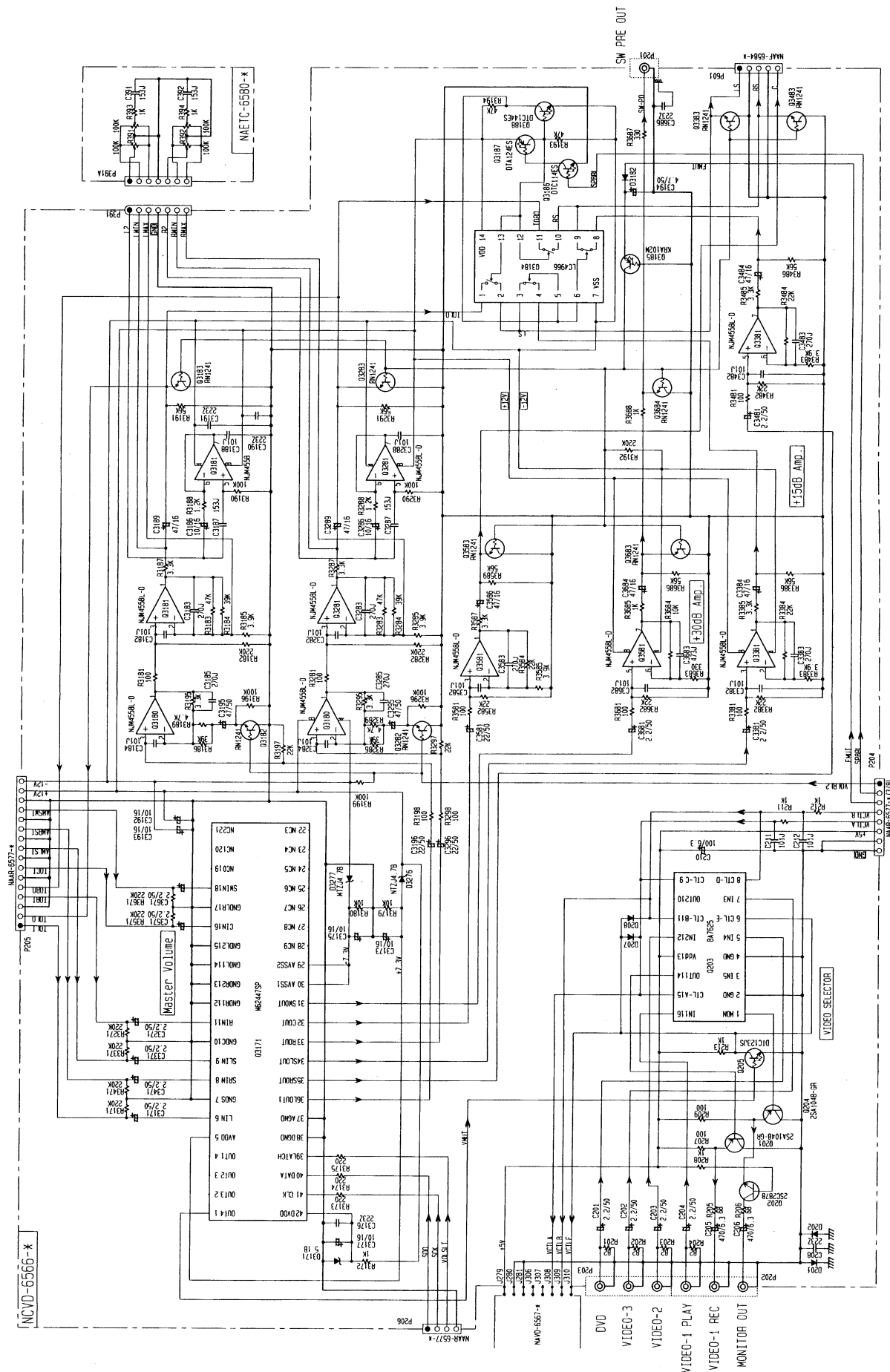
 NEVER PREPARE
 SAMPLES FROM MATERIALS OF
 UNKNOWN OR UNSTABLE TYPE
 WITHOUT THE PROPER
 TRAINING AND EQUIPMENT

ATTENTION

 NEVER ASSUME A PROTECTION
 LEVEL FROM THE PRESENCE OF
 A PROTECTIVE SYMBOL. ALWAYS
 DETERMINE THE PROTECTIVE
 LEVEL OF THE SAMPLE BY
 MEANS OF THE PROPER
 TRAINING AND EQUIPMENT.

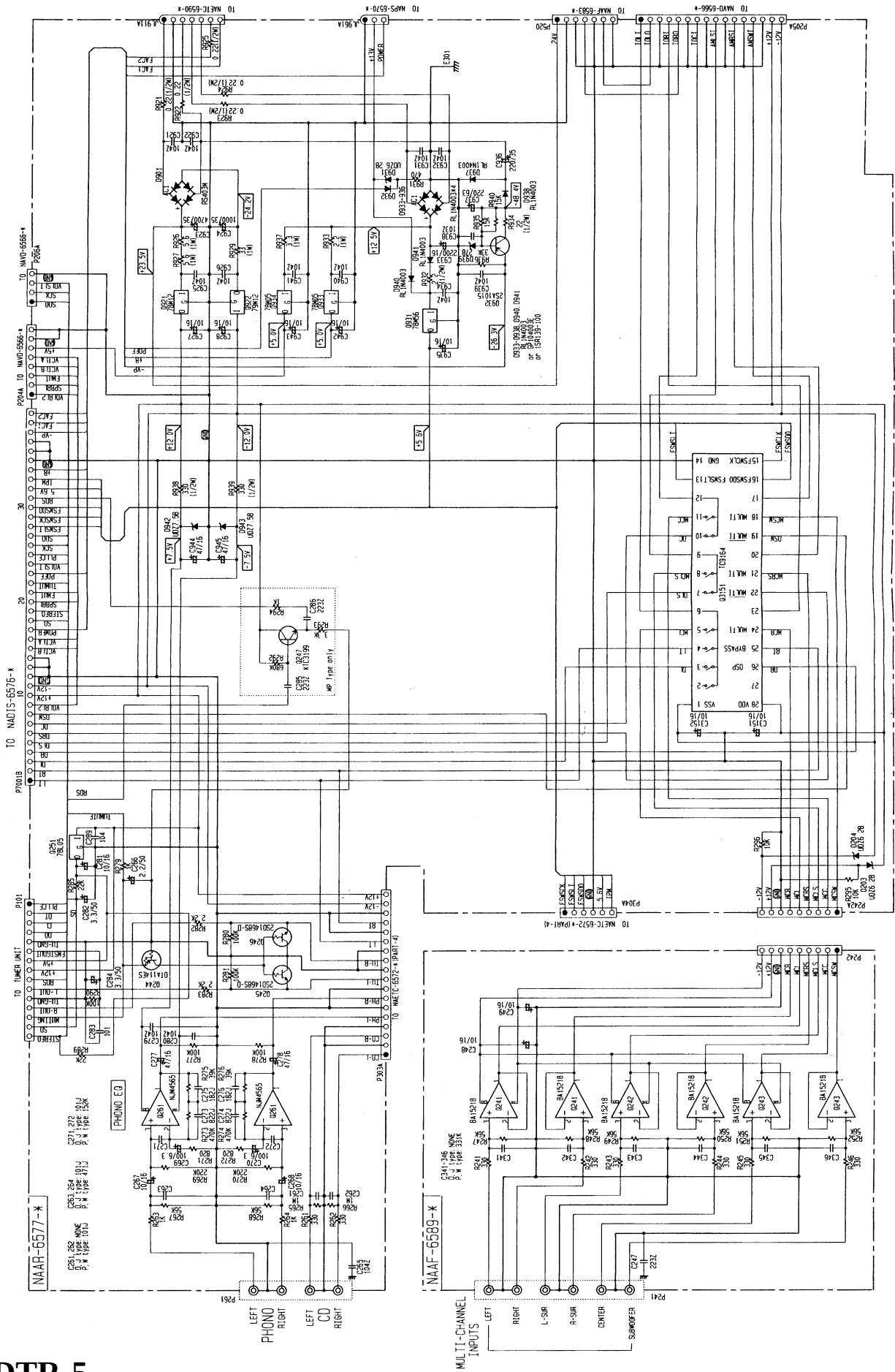
SCHEMATIC DIAGRAM 4

DTR-5

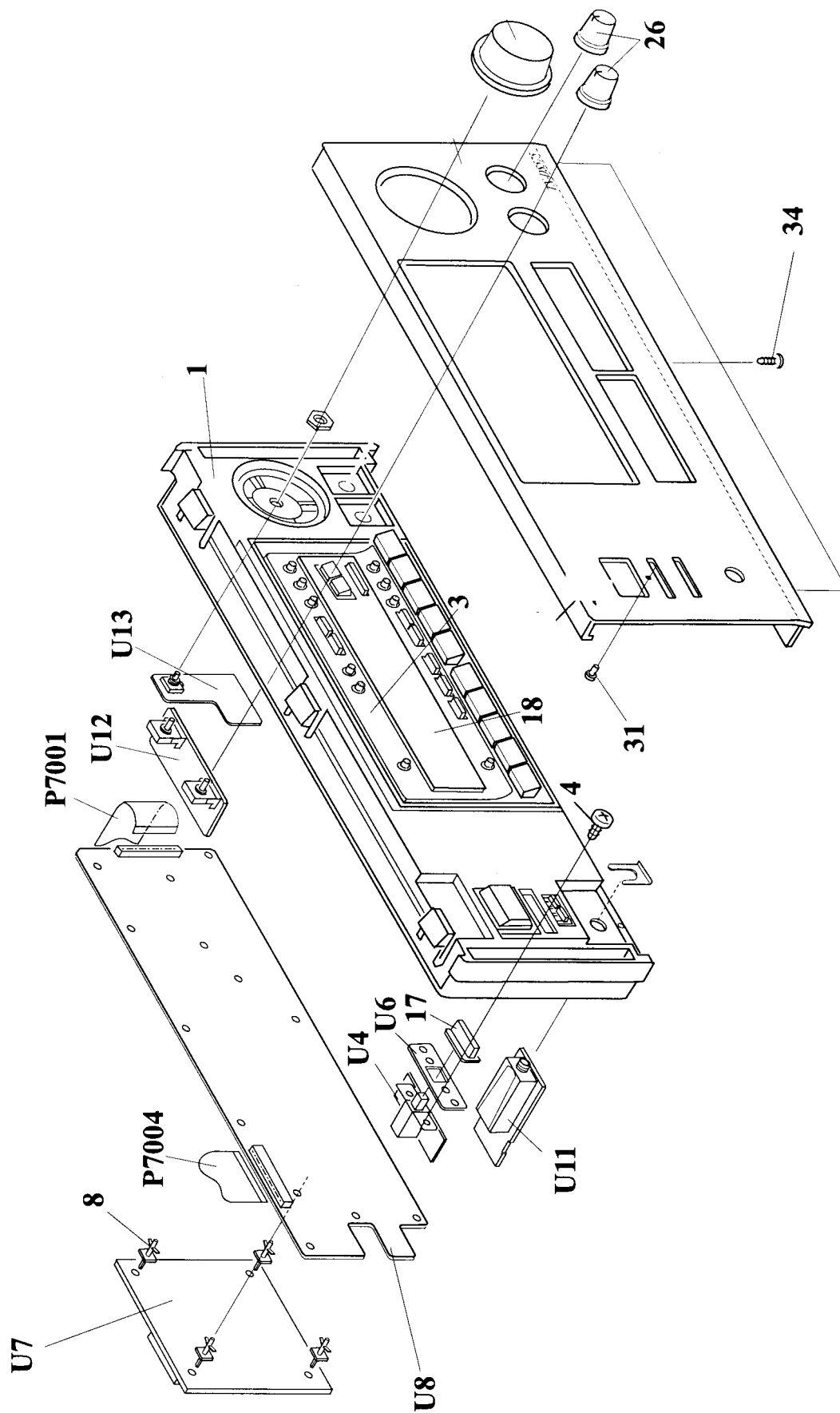


SCHEMATIC DIAGRAM 6

DTR-5



EXPLODED VIEW



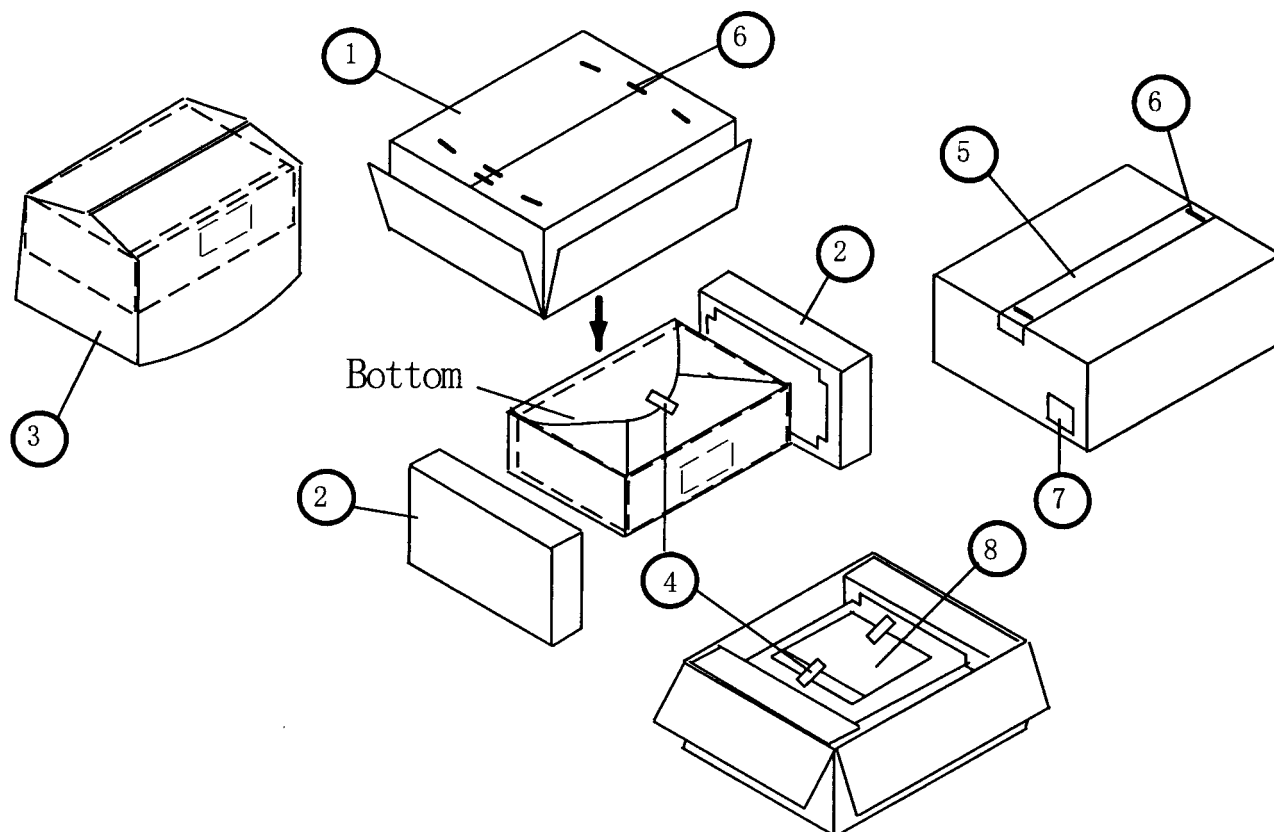
[illegible]

PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	Note: : Black model only <S>: Silver model only <G>: Golden model only <D>: 120V model only <P>: 230V model only <T>: Asian model only <W>: Worldwide model only <A>: Australian model only <R>: Chinese model only
1	27111108	Front bracket 	28	838430068	3TTB+6B(BC),Self-tapping screw	
	27111109	Front bracket <S>	29	87643010	W3*10F(BC),Flat washer	
2	27111110	Front bracket <G>				
	27160439	Heat sink S				
3	27215319	Decorative frame <D/T/W/A>				
	27215320	Decorative frame <S>				
	27215321	Decorative frame <G>				
	27215322	Decorative frame <P>				
4	82143010	3P+10FN(BC), Pan head screw				
5	27100371A	Chassis				
6	27190266	KGLS-12RF,Holder	31	28198778	Facet	
7	27190428A	KGLS-10RF,Holder	32	838930088	3TTB+8B(UN),Self-tapping screw	
8	27190896	KGLS-10S,Holder	33	28135244Y	Badge 	
9	830440089	4TTC+8C(BC), Self-tapping screw		28135245	Badge <S/G>	
10	27300750	Bushing, cord	34	838130088	3TTB+8B,Self-tapping screw	
11	27160438	Heat sink L	D910	22380038 or	RBV602 or	
12	27141681	Retainer PWB		22380274	RS603M,Diode	
13	27141736	Retainer, front	E801	260208	Wire tie	
14	27141737	Retainer, rear	E811	223024	AC238 Isolated sheet	
15	29110083	Tape	E891	880048	P-3055B-8L,Plastic rivet <P/T/A>	
16	801433	3SMS8W,SW+14B(BC),Special screw	P101	2047152012	NCFC7-152012,Flexible flat cable	
17	28325497A	Knob, Power 	P7001	2047402512	NCFC7-402512,Flexible flat cable	
	28325499A	Knob, Power <G>	P7004	2047401512	NCFC7-401512,Flexible flat cable	
	28325547A	Knob, Power <S>	P7011	27190608-1	Clamp	
18	28191846	Clear plate 	Q1512	2203063,	* 2SC5198-O,	
	28191847	Clear plate <G/S>	Q523,Q524	2203062,	* 2SC5198-R,	
19	28184752	Top cover 	Q623,Q624	2202523,	* 2SC4468-O,	
	28184753	Top cover <G>		2202524 or	* 2SC4468-Y or	
	28184754	Top cover <S>		2202526	* 2SC4468-P,Transistor	
20	28141272Y	10x60x20,Cushion	Q1513	2203053,	* 2SA1941-O,	
21	838430088	3TTB+8B(BC),Self-tapping screw 	Q525,Q526	2203052,	* 2SA1941-R,	
	838930088	3TTB+8B(UN),Self-tapping screw <G/S>	Q625,Q626	2202513,	* 2SA1695-O,	
22	27175319A	Leg		2202514 or	* 2SA1695-Y or	
23	28141332	Cushion		2202516	* 2SA1695-P,Transistor	
24	831430088	3TTW+8B(BC), Self-tapping screw	Q517,Q518	2212654 or	2SC3421-Y or	
25				2212653	2SC3421-O,Transistor	
			T901	2301405	△ NPT-1368D,Power transformer <D>	
26	28325405	Knob, Tone 		2301406	△ NPT-1368P,Power transformer <P/T/A>	
	28325407	Knob, Tone <G>		2301407	△ NPT-1368DG,Power transformer <W>	
	28325474Y	Knob, Tone <S>				

CAUTION: Replacement for transistor of mark * , if necessary must be made from the same beta group (HFE) as the original type.

PACKING VIEW



REF. NO.	PART NO.	DESCRIPTION
1	29053413	Carton box <D>
	29053414	Carton box <P>
	29053415	Carton box <T/W/A>
	29053417	Carton box <S>
	29053416	Carton box <G>
2	29091844	Pad
3	29100034-1A	850*650, Polybag
4	261504	Paper tape
5	29110071 or	PP tape
	29110098	PP tape
6	282301	Staple
7	29362439	Label UPC <D>
	29362441	Label EAN <P/T/W/A>
	29362442	Label EAN <S>
	29362443	Label EAN <G>
8	232140	NMA-3057, AM loop antenna
	25055018	CV-K-1, Conversion plug <WT>
	25065462	YAE21-0237, Antenna adapter <T/W/A>
	29095866	Sheet <D>
	29100097-1A	350*250, Polybag
	292115	FM antenna <P/T/W/A>
	292142	FM antenna <D>
	29342699A	Instruction manual E—
	29342700	Instruction manual U3 GDSW <P>
	29342701	Instruction manual U3 FSI <P>
	29342702	Instruction manual T <T/W>
	29342709	Instruction sheet <D>
	29342760	Instruction sheet, S video <P/T/W/A>
	29361786	Label <T/WT>
	29365083	Warranty card <D>
	3010054	UM-3, Battery

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
F911	252198Y	△ 8A-UL,Fuse <D/W>	U9	1A832577-1A	NAAR-6577-1A,Main PC board ass'y <D>
F922	252077 or	△ 4A-SE-EAK or		1A832577-1B	NAAR-6577-1B,Main PC board ass'y <P>
	252243	△ 4A-SE-TL250V,Fuse <P/T/W/A>		1A832577-1C	NAAR-6577-1C,Main PC board ass'y <T/A>
F933	252075 or	△ 2.5A-SE-EAK or	U10	1A832577-1D	NAAR-6577-1D,Main PC board ass'y <W>
	252241	△ 2.5A-SE-TL250V,Fuse <P/T>		1A832578-1A	NADG-6578-1A,Digital input PC board ass'y <D>
P901	253279HIT or	△ AS-UC-2#18 or		1A832578-1B	NADG-6578-1B,Digital input PC board ass'y <P>
	253280VOL	△ AS-UC-2#18,Power supply cord <D>		1A832578-1C	NADG-6578-1C,Digital input PC board ass'y <T/A>
	253193HIT or	△ AS-CEE or	U11	1A832578-1D	NADG-6578-1D,Digital input PC board ass'y <W>
	253195MARY	△ AS-CEE,Power supply cord <P/T>		1A832579-1A	NAETC-6579-1A,Headphone terminal PC board ass'y <D>
	253233KAW	△ AS-CEE-2,Power supply cord <WT>		1A832579-1B	NAETC-6579-1B,Headphone terminal PC board ass'y <P>
	253197HIT	△ AS-SAA,Power supply cord <A>		1A832579-1C	NAETC-6579-1C,Headphone terminal PC board ass'y <T/A>
	253267KAW, △	AS-CCEE,	U12	1A832579-1D	NAETC-6579-1D,Headphone terminal PC board ass'y <W>
	253285HIT or △	AS-CCEE or		1A832580-1A	NAETC-6580-1A,Tone control PC board ass'y <D>
	253286VOL △	AS-CCEE,Power supply cord <R>		1A832580-1B	NAETC-6580-1B,Tone control PC board ass'y <P>
U1	1A832566-1A	NAVD-6566-1A,Pre., amplifier PC board ass'y <D>		1A832580-1C	NAETC-6580-1C,Tone control PC board ass'y <T/A>
	1A832566-1B	NAVD-6566-1B,Pre., amplifier PC board ass'y <P/T>		1A832580-1D	NAETC-6580-1D,Tone control PC board ass'y <W>
	1A832566-1C	NAVD-6566-1C,Pre., amplifier PC board ass'y <W>	U13	1A832581-1A	NAETC-6581-1A,Volume control PC board ass'y <D>
	1A832566-1D	NAVD-6566-1D,Pre., amplifier PC board ass'y <A>		1A832581-1B	NAETC-6581-1B,Volume control PC board ass'y <P>
U2	1A832569-1A	NAETC-6569-1A,Transformer terminal PC board ass'y <D>	U14	1A832582-1A	NAETC-6582-1A,Holder PC board for wire <D>
	1A832569-1B	NAETC-6569-1B,Transformer terminal PC board ass'y <P/T>		1A832582-1B	NAETC-6582-1B,Holder PC board for wire <P/T/W/A>
	1A832569-1C	NAETC-6569-1C,Transformer terminal PC board ass'y <W>	U15	1A832574-1A	NAETC-6574-1A,Holder PC board for wire <D>
	1A832569-1D	NAETC-6569-1D,Transformer terminal PC board ass'y <A>		1A832574-1B	NAETC-6574-1B,Holder PC board for wire <P/T/W/A>
U3	1A832570-1A	NAPS-6570-1A,Primary circuit PC board ass'y <D>	U16	1A832583-1A	NAAF-6583-1A,Front channel power amplifier PC board ass'y <D>
	1A832570-1B	NAPS-6570-1B,Primary circuit PC board ass'y <P/T>		1A832583-1B	NAAF-6583-1B,Front channel power amplifier PC board ass'y <P/T/W/A>
	1A832570-1C	NAPS-6570-1C,Primary circuit PC board ass'y <W>	U17	1A832584-1A	NAAF-6584-1A,Power amplifier PC board ass'y <D>
	1A832570-1D	NAPS-6570-1D,Primary circuit PC board ass'y <A>		1A832584-1B	NAAF-6584-1B,Power amplifier PC board ass'y <P/T/W/A>
U4	1A832571-1A	NASW-6571-1A,Power switch PC board ass'y <D>	U18	1A832588-1A	NAETC-6588-1A,Speaker terminal PC board ass'y <D>
	1A832571-1B	NASW-6571-1B,Power switch PC board ass'y <P/T>		1A832588-1B	NAETC-6588-1B,Speaker terminal PC board ass'y <P/T/W/A>
	1A832571-1C	NASW-6571-1C,Power switch PC board ass'y <W>	U19	1A832589-1A	NAETC-6589-1A,Multi-channel input terminal PC board ass'y <D>
	1A832571-1D	NASW-6571-1D,Power switch PC board ass'y <A>		1A832589-1B	NAETC-6589-1B,Multi-channel input terminal PC board ass'y <P/T/W/A>
U5	1A832572-1A	NAETC-6572-1A,Input switch PC board ass'y <D>	U20	1A832590-1A	NAETC-6590-1A,Secondary circuit PC board ass'y <D>
	1A832572-1B	NAETC-6572-1B,Input switch PC board ass'y <P/T>		1A832590-1B	NAETC-6590-1B,Secondary circuit PC board ass'y <P/T/W/A>
	1A832572-1C	NAETC-6572-1C,Input switch PC board ass'y <W>	U22	240134	TFCEIU114A,Tuner unit <D>
	1A832572-1D	NAETC-6572-1D,Input switch PC board ass'y <A>		240135	TFCEIE512A,Tuner unit <P/T/W/A>
U6	1A832573-1A	NAETC-6573-1A,PC board for holder <D>			
	1A832573-1B	NAETC-6573-1B,PC board for holder <P/T>			
	1A832573-1C	NAETC-6573-1C,PC board for holder <W>			
	1A832573-1D	NAETC-6573-1D,PC board for holder <A>			
U7	1A832575-1	NADG-6575-1,DSP circuit PC board ass'y			
U8	1A832576-1A	NADIS-6576-1A,Display circuit PC board ass'y <D>			
	1A832576-1B	NADIS-6576-1B,Display circuit PC board ass'y <P>			
	1A832576-1C	NADIS-6576-1C,Display circuit PC board ass'y <T/A>			
	1A832576-1D	NADIS-6576-1D,Display circuit PC board ass'y <W>			

NOTE: THE COMPONENTS IDENTIFIED BY MARK △
ARE CRITICAL FOR RISK OF FIRE AND
ELECTRIC SHOCK. REPLACE ONLY WITH
PART NUMBER SPECIFIED.