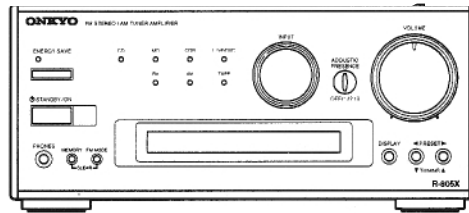


ONKYO® SERVICE MANUAL

FM STEREO/AM TUNER AMPLIFIER

MODEL R-805X



Black model

BUDD	120VAC, 60Hz
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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****Power output**

20 watts per channel, min RMS, at 4 ohms, both channels driven 1 kHz, with no more than 0.6% THD

15 watt per channel, min RMS, at 8 ohms, both channels driven 1 kHz, with no more than 0.6% THD

2 X 20 watts at 4 ohms, 1 kHz, DIN
 2 X 17 watts at 6 ohms, 1 kHz, DIN
 2 X 15 watts at 8 ohms, 1 kHz, DIN
 2 X 29 watts at 4 ohms, 1 kHz, EIAJ

Dynamic power output

2 X 24 watts at 4 ohms
 2 X 17 watts at 8 ohms

Total harmonic distortion

0.6% at rated power

IM distortion

0.6% at rated power

Damping factor

30 at 8 ohms

Input Sensitivity and Impedance

TAPE/MD PLAY: 150 mV, 50 kohms
 LINE IN: 150 mV, 50 kohms

Frequency and response

10 to 50,000 Hz +0 / -3 dB

Tone control

ACOUSTIC PRESENCE 1
 +4 dB at 82 Hz
 ACOUSTIC PRESENCE 2
 +3 dB at 20.5 Hz, +3 dB at 82 Hz
 ACOUSTIC PRESENCE 3
 +3 dB at 20.5 Hz, +6 dB at 82 Hz
 BASS
 ±8 dB at 100 Hz
 TREBLE
 ±8 dB at 10 kHz

Signal to noise ratio

TAPE: 100 dB (IHF-A)

Muting

-∞ dB

Tuner Section**Tuning range**

FM: 87.9 to 107.9 MHz (200 kHz steps)
 AM: 530 to 1710 kHz (10 kHz steps)

Usable sensitivity

FM: Mono 11.2 dBf,
 1.0 μV (75 ohms IHF)
 0.9 μV (75 ohms DIN)
 Stereo 17.2 dBf,
 2.0 μV (75 ohms IHF)
 23.0 μV (75 ohms DIN)

AM: 30 μV

50 dB Quieting sensitivity

FM: Mono 17.2 dBf, 2.0 μV (75 ohms)
 Stereo 37.2 dBf, 20.0 μV (75 ohms)

Capture ratio

FM: 2.0 dB

Image rejection ratio

FM: 40 dB
 AM: 40 dB

IF rejection ratio

FM: 90 dB
 AM: 40 dB

Signal to noise ratio

FM: Mono 73 dB, IHF
 Stereo 67 dB, IHF
 AM: 40 dB

Selectivity

FM: 50 dB DIN
 (±300 kHz at 40 kHz Devi.)

AM Suppression Ratio

50 dB

Harmonic distortion

FM: Mono 0.2%
 Stereo 0.3%
 AM: 0.7 %

Frequency response

FM: 30 to 15,000 Hz (±1.5 dB)

Stereo separation

FM: 45 dB at 1,000 Hz
 30 dB at 100 to 10,000 Hz

Stereo threshold

FM: 17.2 dBf, 2.0 μV (75 ohms)

General**Clock precision**

monthly error: +/-30 seconds
 (at 25 degrees Celsius)

Power supply

AC 120 V, 60 Hz

Power consumption

61 W (120 V, 60 Hz)

Dimensions (W X H X D)

205 X 91 X 302 mm
 8-1/16" X 3-9/16" X 11-7/8"


Weight


3.4 kg, 7.5 lbs

Specifications and external appearance are subject to change without notice as a result of product improvement.

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
F901	252157	1.25A-UL/T237, Primary

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 MEMORY button, then press the DISPLAY button.
2. Press the STANDBY/ON button.

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. Changing the AM band step

The tuning step selectorswitch is not provided in this model. When you change the band step, change the parts as shown below.

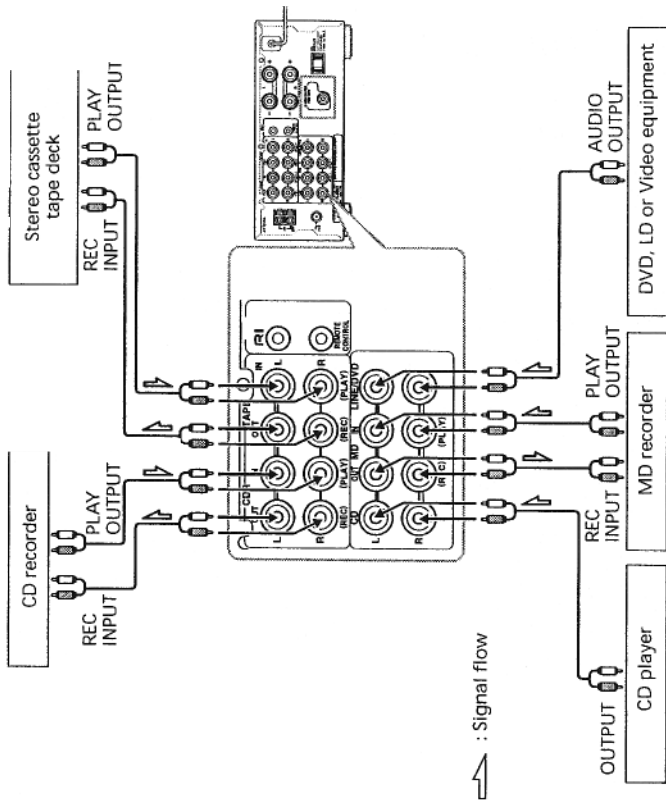
	To 10kHz	To 9kHz
R715	3.3k	Open
R716	5.6k	10k

6. Adjustment of clock frequency

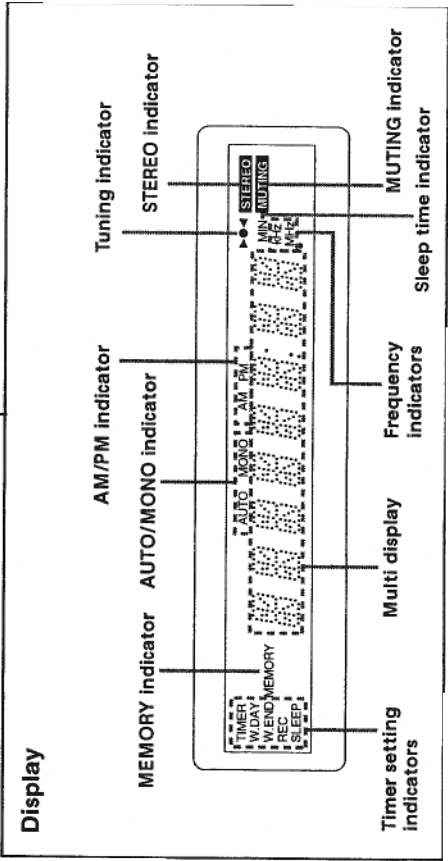
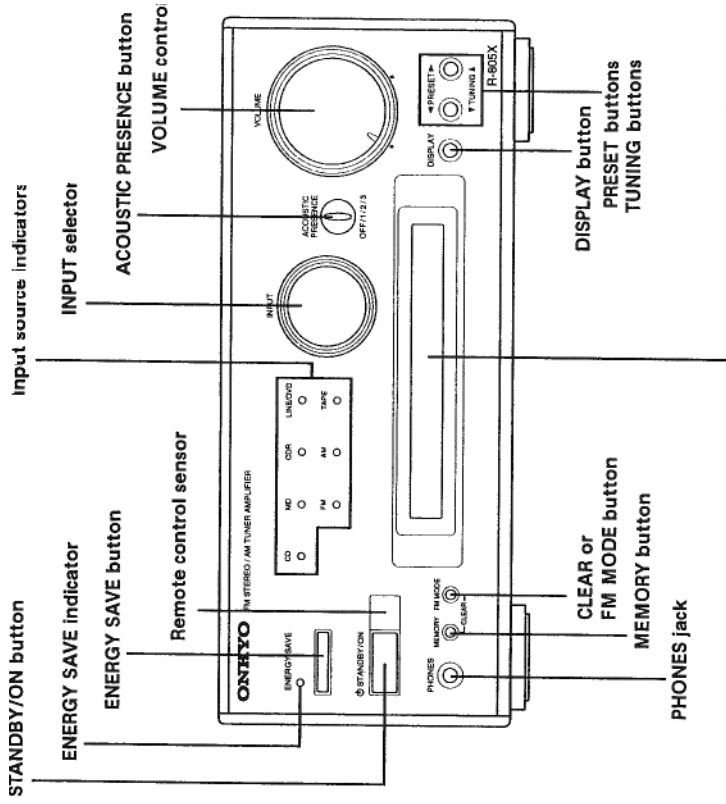
1. Connect the frequency counter to the terminal TP701.
2. Press and hold down the MEMORY button, then press the DISPLAY button.(All segments on FL tube light on)
3. Adjust the trimmer capacitor C707 so that the reading of frequency counter becomes 524.288 kHz \pm 1Hz.

PANEL VIEWS

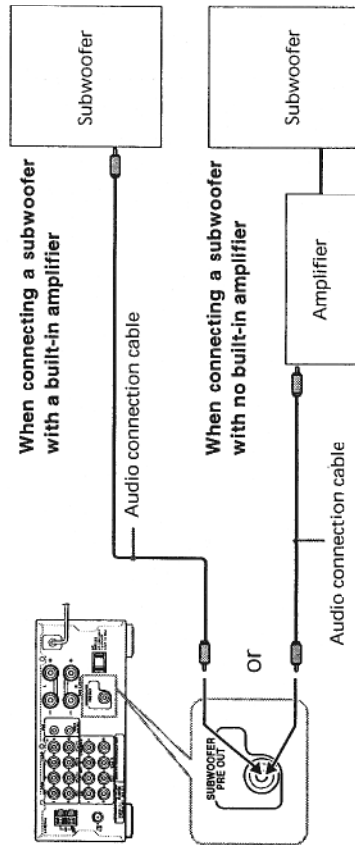
REAR PANEL



FRONT PANEL



Connections



REMOTE CONTROLLER

- You can control the other RI-connected components with the supplied remote controller.
- The remote controller buttons operate in the same way as the buttons on each component with the same indication.
- For actual operations, please refer to the Instruction Manual for each component.

POWER button

Toggles between STANDBY and ON.

Tuner control

◀PRESET▶: Tuner preset select buttons
 FM : FM band select button
 AM : AM band select button

TONE button

Enables you to set the tone.

Mode Select buttons

TIMER: Pressing this button repeatedly to select one of the following eight settings.
WEEKDAY: Timer playback on the specified day(s) of the week
WEEKEND: Timer playback on the specified day(s) of the week
REC: Timer record setting
DAYSET: Sets the day of the week (WEEKDAY & WEEKEND)
ADJUST: Sets the current time and the day of the week.
24H/12H: Enables you to select 24-hour display or 12-hour display by pressing the ENTER button and using the UP ▲/DOWN ▼ buttons.

UP ▲/DOWN ▼: Enables you to select a parameter after you press the TIMER or TONE button. Press the ENTER button to confirm the selection.
ENTER: Press this button to confirm the selection made via the TIMER, TONE, UP ▲ or DOWN ▼ button.

CLOCK button

Press this button to display the current time.

SLEEP button

Enables you to make the Sleep time setting.

INPUT button

Enables you to select a listening source.

MUTING button

Mutes the sound temporarily.

VOLUME ▲/▼ buttons

Enables you to increase or decrease the volume level.

ACOUSTIC PRESENCE button

Switches acoustic presence off and types.

Number buttons

Used to set the time/day and select the PRESET stations

Stereo cassette tape deck control

- ◀: Reverse play button
- : Stop button
- ▶: Play button
- ◀◀: Rewind button
- ▶▶: Fast-forward button

DVD player control

- ◀◀: Chapter/track down button
- ▶▶: Chapter/track up button
- : Stop button
- PAUSE/STEP: Pause/Step forward button
- ▶: Play button

CD player (or changer) control

- REPEAT: Repeat mode button
- RANDOM: Random play button
- : Stop button
- : Pause button
- ▶: Play button
- MEMORY: Memory button
- CLEAR: Clear button
- DISC: Disc button for CD changer
- ◀◀: Track down button
- ▶▶: Track up button

Graphic equalizer control

EFFECT: Effect select button
 MODE: Mode select button

MD recorder control

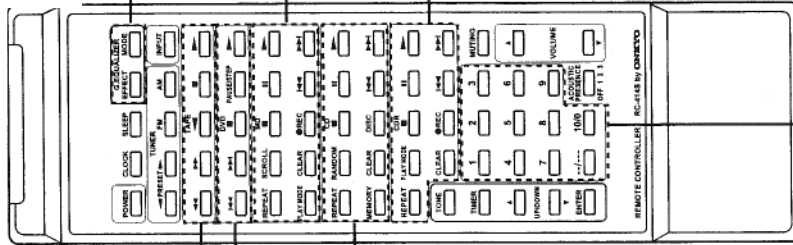
- REPEAT: Repeat mode button
- SCROLL: Scroll button
- : Stop button
- : Pause button
- ▶: Play button
- PLAY MODE: Play mode selection button
- CLEAR: Clear button
- REC: Recording button
- ◀◀: Track down button
- ▶▶: Track up button

CD recorder control

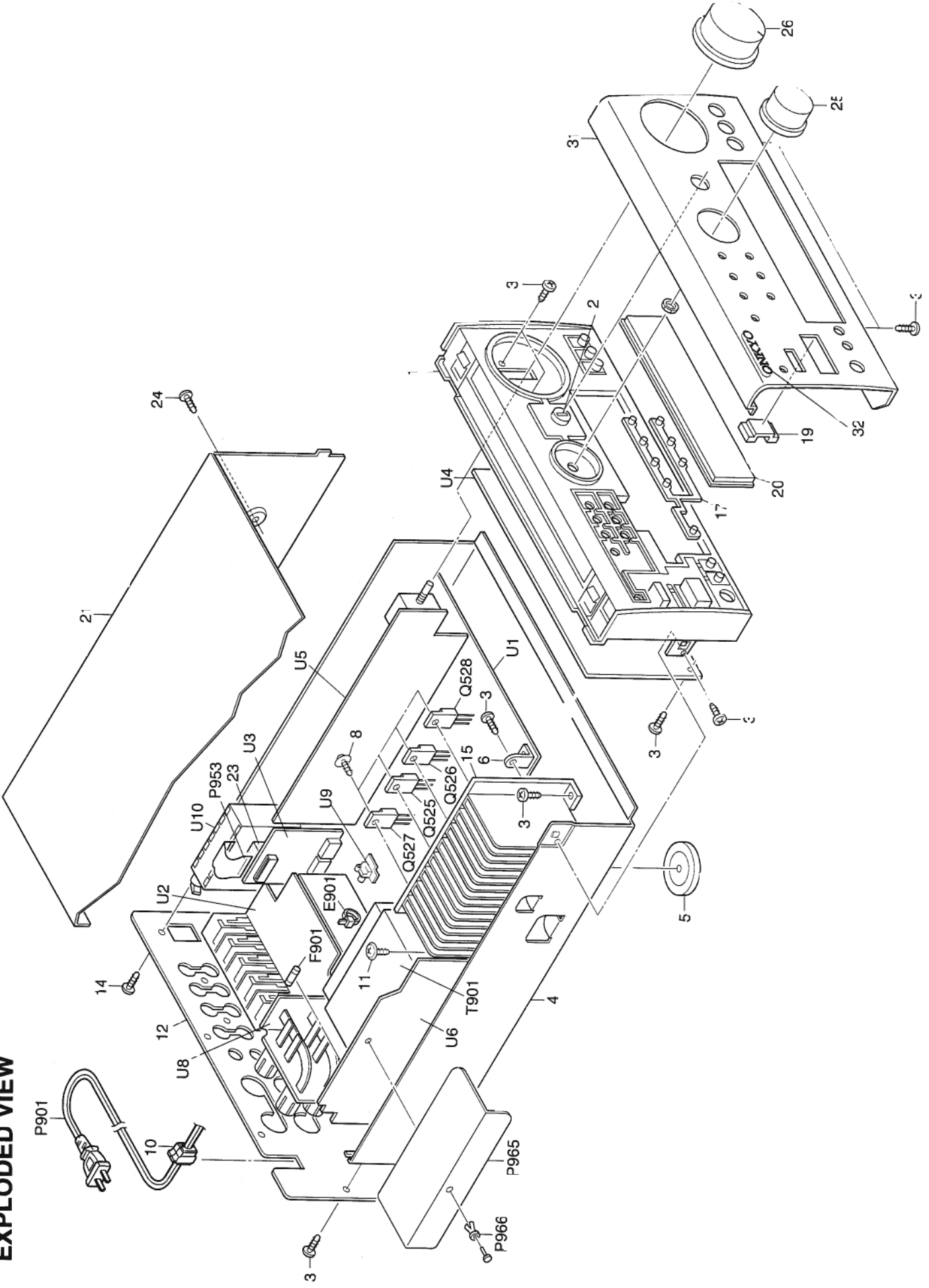
- REPEAT: Repeat mode button
- PLAY MODE: Play mode selection button
- : Stop button
- : Pause button
- ▶: Play button
- CLEAR: Clear button
- REC: Recording button
- ◀◀: Track down button
- ▶▶: Track up button

CD player (or changer) / MD recorder control

1-9 10/0: Number button
 -/--- Ten's hold button



EXPLODED VIEW



PARTS LIST

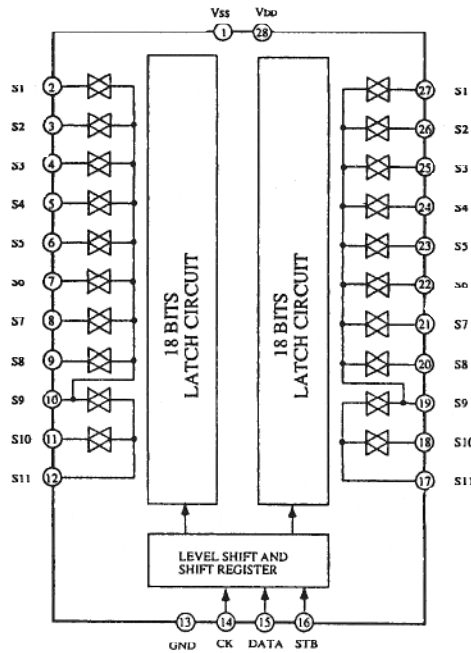
REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
1	27111170	Front bracket	E901	260208	Wire tie
2	28325755	Knob, acoustic	F901	252157	△ 1.25A-UL/T-237,Fuse
3	838130088	3TTB+8B,Self-tapping screw	P901	253277MIL	△ AS-UC-2#18,Power supply cord
4	27100375C	Chassis	P953	2047150512	NCFC7-150512,Flexible flat cable
5	27175323	Leg	P965	27150448A	Shield plate
6	27141530A	Retainer	P966	880009	NRP-345,Plastic rivet
8	801433	3SMS8W.SW+14B(BC),Special screw	P967	27301779	HL-38-0, Clamp
10	27300750	△ Bushing, cord	Q525,Q526	2202064,	* 2SC4511-Y,
11	830440089	4TTC+8C(BC),Self-tapping screw		2202066 or	* 2SC4511-P or
12	27122682B	Rear panel		2202063	* 2SC4511-O,Transistor
14	838430068	3TTB+6B(BC),Self-tapping screw	Q527,Q528	2202054,	* 2SA1725-Y,
15	27160451B	Heat sink		2202056 or	* 2SA1725-P or
17	28198901	Facet		2202053	* 2SA1725-O, Transistor
19	28191798	Clear plate, remote control	T901	2301443	△ NPT-1385D,Power transformer
20	28191892	Clear plate	U1	1A872501-1B	NAAF-6801-1B,Main circuit PC board ass'y
21	28184784	Top cover	U2	1A872502-1B	NAETC-6802-1B,Input/output terminal PC board ass'y
23	28141409A	Cushion	U3	1A872503-1B	NAPS-6803-1B,Secondary circuit PC board ass'y
24	838430088	3TTB+8B(BC), Self-tapping screw	U4	1A872504-1B	NADG-6804-1B,Indicator circuit PC board ass'y
25	28325776	Knob, input	U5	1A872505-1B	NAAF-6805-1B,Tone circuit PC board ass'y
26	28325777	Knob, volume	U6	1A872506-1B	NAPS-6806-1B,Primary circuit PC board ass'y
31	27212223	Front panel	U8	1A872507-1B	NAETC-6807-1B,Speaker terminal PC board ass'y
32	28135279	Badge	U9	1A872518-1B	NAETC-6918-1B,Subwoofer PC board ass'y
33	29362572A	Label	U10	240134	TFCE1U114A, Tuner pack

NOTE: THE COMPONENTS IDENTIFIED BY MARK

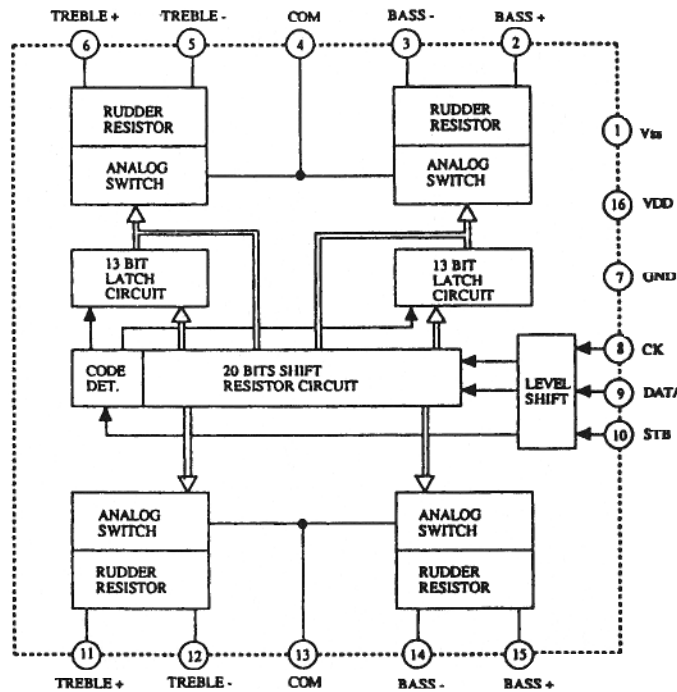
△ ARE CRITICAL FOR RISK OF FIRE AND
ELECTRIC SHOCK. REPLACE ONLY WITH
PART NUMBER SPECIFIED.

IC BLOCK DIAGRAMS AND DESCRIPTIONS

TC9273N-010 (Analog Switch)

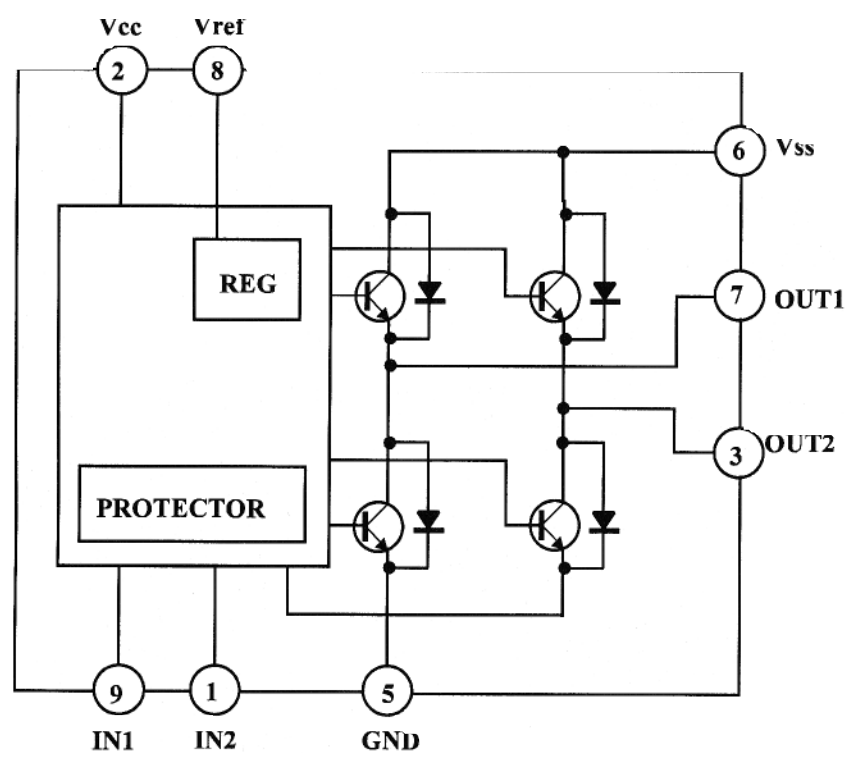


TC9184P (Electro Tone Volume)



No.	Symbol	Function
1	Vss	Power supply terminal for analogue section
16	VDD	
2,15	BASS +	Volume terminals
3,14	BASS -	
5,12	TREBLE -	
6,11	TREBLE +	
4,13	COM	
7	GND	Ground terminal for digital section
8	CK	Clock input terminal to take in the data of terminal DATA.
9	DATA	Data input terminal
10	STB	Strobe input terminal

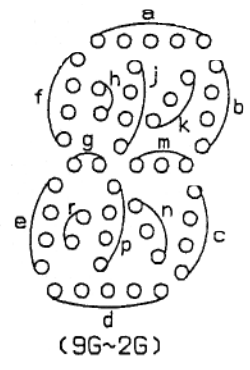
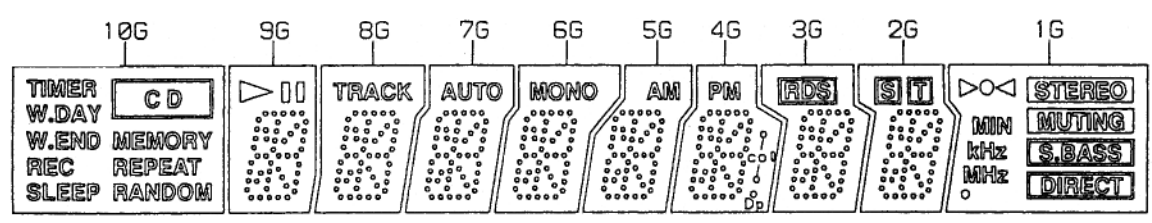
TA7291S (VOLUME MOTOR DRIVER)



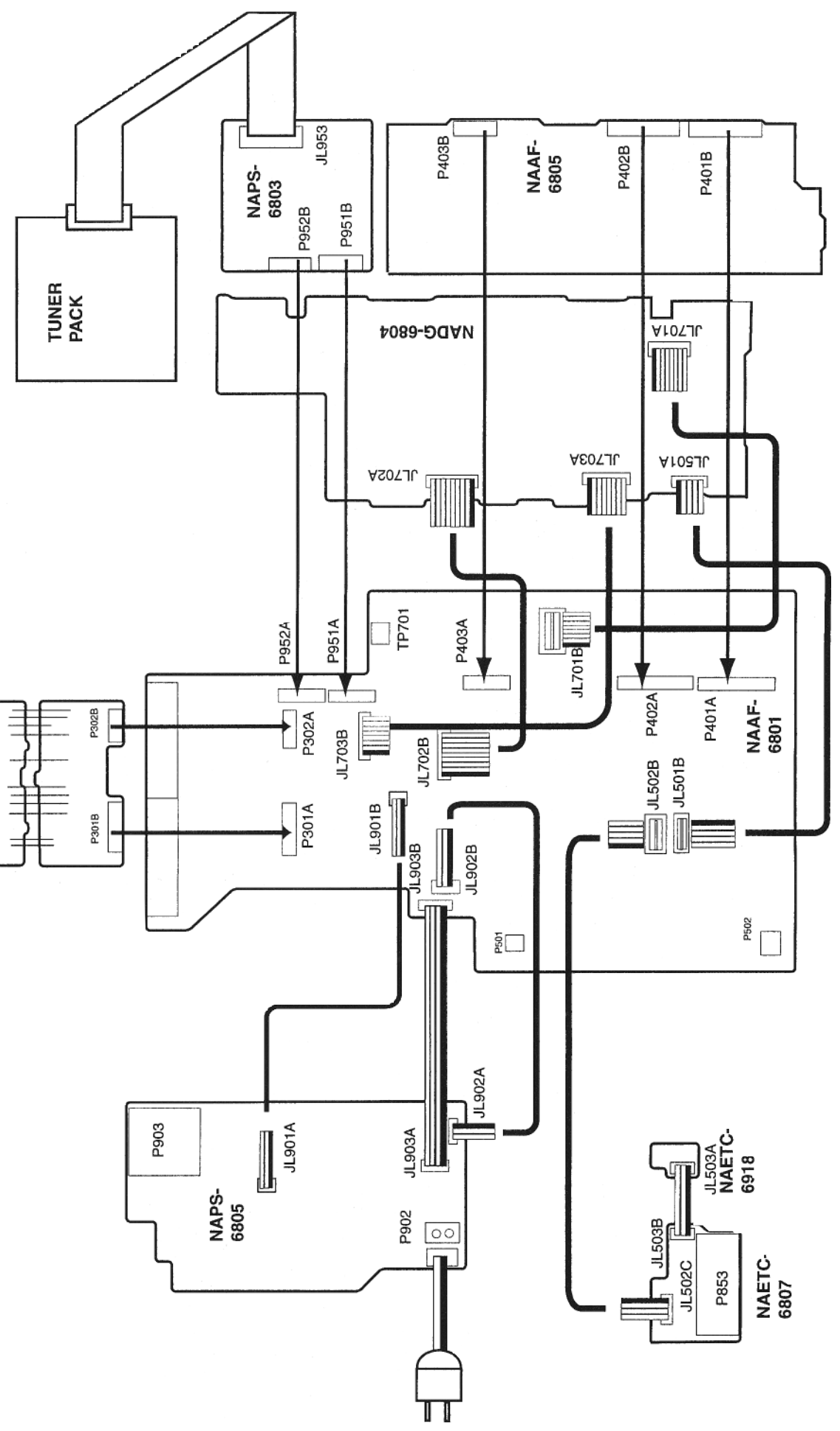
INPUT		OUTPUT		MODE
IN1	IN2	OUT1	OUT2	
0	0	∞	∞	STOP
1	0	H	L	CW/CCW
0	1	L	H	CCW/CW
1	1	L	L	BRAKE

CCW: Counter-clockwise direction
 CW: Clockwise direction

10-BT-167GK (FL TUBE)

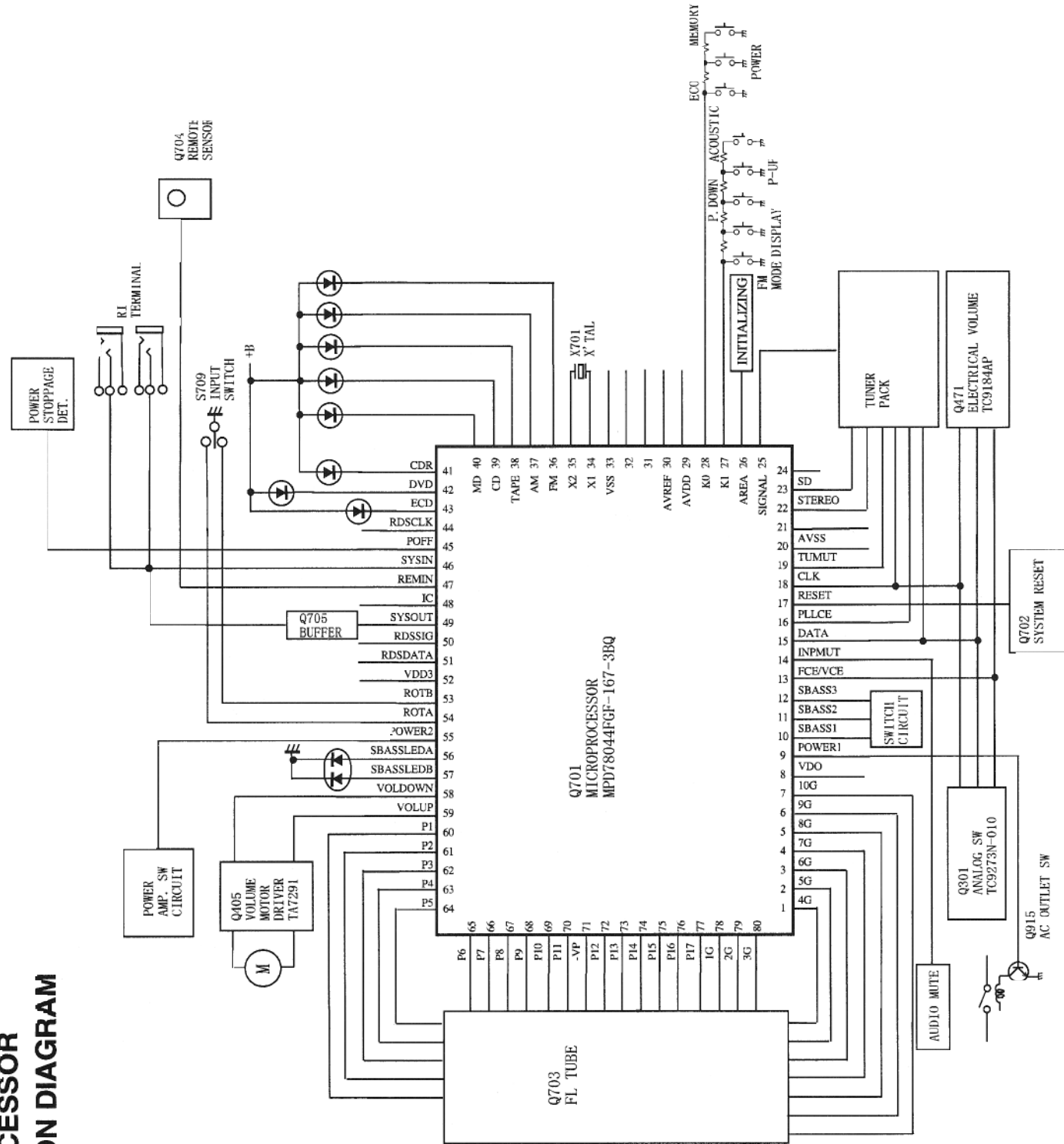


	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	—	a	a	a	a	a	a	a	a	—
P2	W.DAY	j	j	j	j	j	j	j	j	MUTING
P3	W.END	h	h	h	h	h	h	h	h	MIN
P4	MEMORY	k	k	k	k	k	k	k	k	S.BASS
P5	—	b	b	b	b	b	b	b	b	—
P6	—	f	f	f	f	f	f	f	f	—
P7	—	g	g	g	g	g	g	g	g	—
P8	REC	m	m	m	m	m	m	m	m	MHz
P9	—	c	c	c	c	c	c	c	c	—
P10	—	e	e	e	e	e	e	e	e	—
P11	REPEAT	n	n	n	n	n	n	n	n	kHz
P12	RANDOM	r	r	r	r	r	r	r	r	DIRECT
P13	—	p	p	p	p	p	p	p	p	—
P14	—	d	d	d	d	d	d	d	d	—
P15	TIMER	▷	TRACK	AUTO	MONO	AM	PM	RDS	S	▷ ○ ◁
P16	CD	▢▢	—	—	—	—	Col	—	T	STEREO
P17	SLEEP	—	—	—	—	—	Dp	—	—	○



WIRING VIEW

MICROPROCESSOR CONNECTION DIAGRAM



TERMINAL DESCRIPTION

Pin No.	Symbol	Function	I/O	Description
1~7	P94/FIP6	4G~10G	O	Grid output pins for FL tube.
8	Vdd	+5V		Positive power supply pin
9	P27/SCK0	POWER1	O	Power supply control pin for AC outlet and FL tube.
10	P26/SO0/SB1	SBASS-3	O	Acoustic presence control output pin
11	P25/SI0/SB0	SBASS-2	O	Acoustic presence control output pin
12	P24/BUSY	SBASS-1	O	Acoustic presence control output pin
13	P23/STB	FCE/VCE	O	Latch output pin of the function switch and strobe output pin of the tone control
14	P22/SCK1	INPMUT	O	Audio muting control output pin
15	P21/SO1	DATA	O	Data output pin for function switch, tone control and PLL ICs.
16	P20/SI1	PLLCE	O	Chip enable output pin for PLL IC.
17	~RESET	~RESET	I	System reset input pin.
18	P74	CLK	O	Clock signal output pin for function switch, tone control and PLL ICs.
19	P73	TUMUT	O	Muting output pin for tuner section.
20	AVss	GND		Ground pin for A/D converter.
21	P17/ANI7	NC		Not used.
22	P16/ANI6	STEREO	I	Stereo broadcast detection pin.
23	P15/ANI5	SD	I	Broadcast detection input pin
24	P14/ANI4	NC		Not used.
25	P13/ANI3	SIGNAL	I	Signal strength input pin
26	P12/ANI2	AREA	I	Initializing input pin for region
27	P11/ANI1	K1	I	Operation key connection pin
28	P10/ANI0	K0	I	Operation key connection pin
29	AVdd	+5V		Analog power supply for A/D converter
30	AVref	+5V		Reference voltage input pin for A/D converter
31	P04/XT1	XT1		Oscillator connection pin for sub system. Not used.
32	XT2	XT2		Oscillator connection pin for sub system. Not used.
33	Vss	GND		Ground pin
34	X1	X1		Crystal oscillator connection pin for main system clock
35	X2	X2		Crystal oscillator connection pin for main system clock
36	P37	FM	O	FM indicator output pin
37	P36/BUZ	AM	O	AM indicator output pin
38	P35/PCL	TAPE	O	TAPE indicator output pin
39	P34/TI2	CD	O	CD indicator output pin
40	P33/TI1	MD	O	MD indicator output pin
41	P32/TO2	CDR	O	CDR indicator output pin
42	P31/TO0	LINE/DVD	O	LINE/DVD indicator output pin
43	P30/TO0	ENERGY	O	ENERGY SAVE indicator output pin
44	P03/INTP3/CI0	RDSSCK	I	Clock input pin from RDS decoder
45	PO2/INTP2	~POFF	I	Power failure detection pin
46	P01/INTP1	SYSIN	I	System code input pin
47	P00/INTP0/TI0	REMIN	I	Signal input from remote controller
48	IC(Vpp)	IC		Inner connection pin
49	P72	SYSOUT	O	System code output pin
50	P71	RDSSIG	I	Quality check signal from RDS decoder.
51	P70	RDSDATA	I	Data input pin from RDS decoder.
52	Vdd	+5V		Positive power supply pin
53	P127/FIP33	ROTB	I	Rotary encoder connection pin for Input selector
54	P126/FIP32	ROTA	I	Rotary encoder connection pin for Input selector
55	P125/FIP31	POWER2	O	Power supply control pin for Power amplifier
56	P124/FIP30	SBASS A	O	Acoustic presence indicator output pin
57	P123/FIP29	SBASS B	O	Acoustic presence indicator output pin
58	P122/FIP28	VOLDOWN	O	DOWN signal output pin for Master volume
59	P121/FIP27	VOL UP	O	UP signal output pin for Master volume
60~70	P120/FIP26	P1~P11	O	Segment output pin for FL tube
71	Vload	Vload		Pull down resistor connection pin for FL tube
72~77	P105/FIP15	P12~P17	O	Segment output pins for FL tube
78~80	P97/FIP9	1G~3G	O	Grid output pins for FL tube.

PRINTED CIRCUIT BOARD-PARTS LIST

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

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

MAIN CIRCUIT PC BOARD (NAAF-6801-1B)

CIRCUIT NO.	PART NO.	DESCRIPTION
	ICs	
Q301	22240881	TC9273N-010
Q405	22240239	TA7291S
Q913	222780565JRC	NJM78M56FA
	Transistors	
Q501-Q504	2211733	2SC1845-E
Q505-Q508	2213284	2SC1740S-R
Q509-Q514	2211455	2SA1015-GR
Q515-Q518	2211255	2SC1815-GR
Q519,Q520	2211183	2SC1740-R
Q521,Q522	2211654 or 2211653	2SC2235-Y or 2SC2235-O
Q523,Q524	2211644 or 2211643	2SA965-Y or 2SA965-O
Q525,Q526	2202064, 2202063 or 2202066	* 2SC4511-Y, * 2SC4511-O or * 2SC4511-P
Q527,Q528	2202054, 2202053 or 2202056	* 2SA1725-Y, * 2SA1725-O or * 2SA1725-P
Q540	2213284	2SC1740S-R
Q541	2213354	2SA933S-R
Q545	2213510 or 2214350	DTA114ES or RN2202
Q546	2213290	DTC114ES
Q911	2211644	2SA965-Y
Q914	2211256	2SC1815-BL
Q915	2213640	DTC123JS
Q916	2213510	DTA114ES
Q917,Q918	2211164	2SC2120-Y
	Diodes	
D501,D502	223163 or	1SS133 or
D570	223205	1SS270A
D576	22380035 or	GP104003E or
D933,D934	22380046	AM01Z
D911	22380022	RBV402
D912,D913	224471203	MTZJ12C
D914-D917	22380035 or	GP104003E or
D919-D922	22380046	AM01Z
D918	224471203	MTZJ12C
D923	224473004	MTZJ30D
D924	224470683	MTZJ6.8C
D931,D932	223163 or	1SS133 or
D935	223205	1SS270A
	Coils	
L501,L502	231176SY	S-1.3C
	Capacitors	
C325,C326	393341007	10 μF,16V,Elect.
C405	393321017	100 μF,6.3V,Elect.
C501,C502	393341007	10 μF,16V,Elect.
C503,C504	374721015	100pF±10%,50V,Plastic
C515,C516	393322217	220 μF,6.3V,Elect.
C529,C530	393344707	47 μF,16V,Elect.
C531-C534	393341007	10 μF,16V,Elect.
C535,C536	374724734	0.047 μF±5%,50V,Plastic
C538,C540	393361017	100 μF,35V,Elect.
C550	393361017	100 μF,35V,Elect.
C575	393380107	1 μF,50V,Elect.
C576	353744709	47 μF,16V,Elect.
C911	374722244	0.22 μF±5%,50V,Plastic
C912,C913	374721044	0.1 μF±5%,50V,Plastic
C914,C915	393363327	3300 μF,35V,Elect.
C916,C917	393343317	330 μF,16V,Elect.
C918	374721034	0.01 μF±5%,50V,Plastic
C919	393384707	47 μF,50V,Elect.
C920,C922	393381017	100 μF,50V,Elect.
C921	354771019	100 μF,63V,Elect.
C923	393380337	3.3 μF,50V,Elect.
C925	393352227	2200 μF,25V,Elect.
C929	393361017	100 μF,35V,Elect.

CIRCUIT NO.	PART NO.	DESCRIPTION
	Capacitors	
C930	393341007	10 μF,16V,Elect.
C932	393380107	1 μF,50V,Elect.
C933,C940	374722234	0.022 μF±5%,50V,Plastic
	Resistors	
R515-R522	443523904	39 Ω±5%,1/2W,Metal oxide
R519,R520	443523304	33 Ω±5%,1/2W,Metal oxide
R521,R522	443523904	39 Ω±5%,1/2W,Metal oxide
R559,R560	443521014	100 Ω±5%,1/2W,Metal oxide
R561,R562	4500027	0.22 Ω,2W,Metal plate
R563,R564	453530824	8.2 Ω±5%,1/2W,Metal
R565,R566	453530564	5.6 Ω±5%,1/2W,Metal
R569,R572	443522204	22 Ω±5%,1/2W,Metal oxide
R911	443525604	56 Ω±5%,1/2W,Metal oxide
R912,R915	441623914F	390 Ω±5%,1W,Metal oxide
R916	453534794	0.47 Ω±5%,1/2W,Metal
R918	443721024U	1k Ω±5%,2W,Metal oxide
R919	443522704	27 Ω±5%,1/2W,Metal oxide
R923	453530274	2.7 Ω±5%,1/2W,Metal
R924,R925	443622204HT	22 Ω±5%,1W,Metal oxide
R928	443722714	270 Ω±5%,2W,Metal oxide
R945	443622714HT	270 Ω±5%,1W,Metal oxide
	Relay	
RL911	25065537	NRL-2P5A-DC12-107
	Terminals	
P303	25045300	NPJ-6PDBL159
P309	25045307	NPJ-2PDBL166
	Sockets	
JL501B	25050269	NSCT-5P97
JL502B	25050268	NSCT-4P96
JL702B	25051095	NSCT-11P882
JL703B	25051093	NSCT-9P880
JL901B	25051087	NSCT-3P874
JL902B	25051107	NSCT-3P894
JL903B	25051108	NSCT-4P895
	Plugs	
JL701B	25055629	NPLG-8P591
P301A	25055704	NPLG-8P660
P302A	25055701	NPLG-5P657
P401A,P402A	25055708	NPLG-12P664
P403A	25055703	NPLG-7P659
P501,P502	25055038	NPLG-2P29
P951A,P952A	25055703	NPLG-7P659
	Heat sink	
Q913A	27160145-1	RAD-51

INPUT/OUTPUT TERMINAL PC BOARD (NAETC-6802-1B)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Terminals	
P306,P307	25045303	NPJ-4PDBL162
P308	25045330	NPJ-2PDBL184
	Sockets	
P301B	25051233	NSCT-8P1023
P302B	25051230	NSCT-5P1020

SECONDARY CIRCUIT PC BOARD (NAPS-6803-1B)

CIRCUIT NO.	PART NO.	DESCRIPTION
	IC	
Q951	222780125	78M12HF
	Transistors	
Q953	2213510	DTA114ES
Q955,Q956	2215024	2SD1468S-R
	Diode	
D951	223163 or 223205	1SS133 or 1SS270A
	Capacitors	
C951,C962	354780339	3.3 μF,50V,Elect.
C952	393384797	0.47 μF,50V,Elect.
C965	393361017	100 μF,35V,Elect.
C966	393341007	10 μF,16V,Elect.

CIRCUIT NO.	PART NO.	DESCRIPTION
	Resistors	
R965	453530824	8.2 Ω±5%,1/2W,Metal
R966	443621204	12 Ω±5%,1W,Metal oxide
	Sockets	
P951B,P952B	25051232	NSCT-7P1022
P953A	25052248	NSCT-15P2145
	Heat sink	
Q951A	27160145-1	RAD-51
	Screw	
Q951B	838430107	3TTB+10S(BC)

DISPLAY CIRCUIT PC BOARD (NADG-6804-1B)

CIRCUIT NO.	PART NO.	DESCRIPTION
	IC	
Q701	22241508NEC or 22241539NEC	MPD78044FGF-175-3B9 or MPD78044FGF-183-3B9
	FL tube	
Q703	212141	10BT-167GK
	Remote sensor	
Q704	241329	PIC-26043TH2
	Transistors	
Q702	221282 or 2213560	DTC144ES or RN1204
Q705	2212600 or 2213580	DTA124ES or RN2203
	Diodes	
D701-D706	223163 or 223205	1SS133 or 1SS270A
D707	224470562	MTZJ5.6B
D709	225339	SPR-39MVWF
D710	225338	SLR-332VR
D711-D717	225340	SLR-332DU
	Crystal	
X701	3010224	XTL-4.19M
	Capacitors	
C701	3000078	DX-5R5L104
C703	353780229	2.2 μF,50V,Elect.
C705	353741009	10 μF,16V,Elect.
C707	3060011	NTC-45P10,Trimmer
C708,C710	393384707	47 μF,50V,Elect.
C711	353721019	100 μF,6.3V,Elect.
C713	353741009	10 μF,16V,Elect.
	Resistor	
R801,R802	443523914	390 Ω±5%,1/2W,Metal oxide
	Switches	
S701-S708	25035652	NPS-111-S604
S709	25065534	REB161PVB
	Terminal	
P701	25045396	LGT1516-0101,Phones
	Plug	
TP701	25055038	NPLG-2P29
	Socket	
JL501A	25051109	NSCT-5P896
JL701A	25051092	NSCT-8P879
JL702A	25051095	NSCT-11P882
JL703A	25051093	NSCT-9P880
	Holder	
Q703A	27191093A	FL

TONE CIRCUIT PC BOARD (NAAF-6805-1B)

CIRCUIT NO.	PART NO.	DESCRIPTION
	ICs	
Q411	22240191	NJM4565D-D
Q413,Q414	22240250	NJM2068L-D
Q471	22241253	TC9184AP
	Transistors	
Q415-Q422	2211945	2SK246-GR
Q423-Q426	2213631 or 2213632	RN1241-A or RN1241-B
Q431-Q433	2212600	DTA124ES

CIRCUIT NO.	PART NO.	DESCRIPTION
	Diodes	
D411-D416	223163 or	1SS133
D419,D420	223205	1SS270A
	Capacitors	
C401	374722234	0.022 μF±5%,50V,Plastic
C413,C414	393381007	10 μF,50V,Elect.
C415,C416	374721024	1000pF±5%,50V,Plastic
C417,C418	374721044	0.1 μF±5%,50V,Plastic
C419,C420	353780229	2.2 μF,50V,Elect.
C421,C422	374722244	0.22 μF±5%,50V,Plastic
C423,C424	374723934	0.039 μF±5%,50V,Plastic
C425,C426	374721044	0.1 μF±5%,50V,Plastic
C427,C428	374724744	0.47 μF±5%,50V,Plastic
C429,C430	374728224	8200pF±5%,50V,Plastic
C431,C432	393381007	10 μF,50V,Elect.
C433-C437	393341007	10 μF,16V,Elect.
C471,C472	393380477	4.7 μF,50V,Elect.
C473,C474	374721844	0.18 μF±5%,50V,Plastic
C475,C476	374723334	0.033 μF±5%,50V,Plastic
C477,C478	393380107	1 μF,50V,Elect.
C479,C480	374725624	5600pF±5%,50V,Plastic
C481,C482	374723334	0.033 μF±5%,50V,Plastic
C483,C484	393341007	10 μF,16V,Elect.
	Resistor	
R401	5104383	N16RGL100KBT20F,Variable
	Socket	
P401B,P402B	25051237	NSCT-12P1027
P403B	25051232	NSCT-7P1022

PRIMARY CIRCUIT PC BOARD (NAPS-6806-1B)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Diode	
D901	223163 or 223205	1SS133 or 1SS270A
	Resistor	
R901	431533355	Δ 3.3M Ω,1/2W,Solid
	Relay	
RL901	25065594	Δ NRL-1P10A-DC12-146
	Capacitors	
C906	3500191	Δ DE7150F-103M
	Fuse holders	
F901A	25050065	Δ YSH403T
	Sockets	
JL901A	25051087	NSCT-3P874
JL902A	25051107	NSCT-3P894
JL903A	25051108	NSCT-4P895
P903	25051990	Δ NSCT-2P1777
	Plug	
P902	25055676	NPLG-2P632

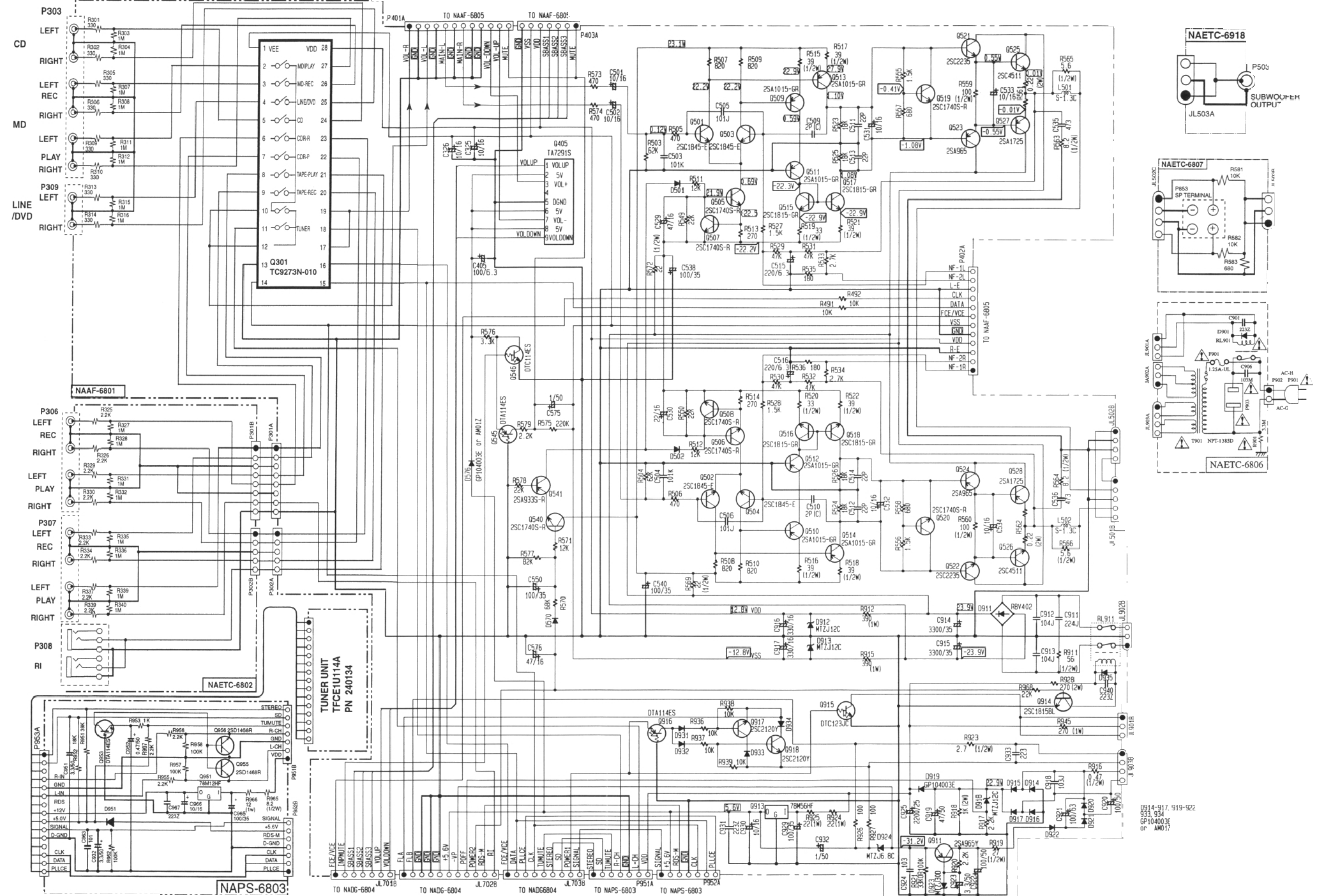
SPEAKER TERMINAL PC BOARD (NAETC-6807-1B)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Terminal	
P853	25060295	NTM-4PDMN226
	Socket	
JL502C	25051108	NSCT-4P895
JL503B	25051087	NSCT-3P874

SUBWOOFER PC BOARD (NAETC-6918-1B)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Terminal	
P503	25045302	NPJ-1PDBL161
	Socket	
JL503A	25051087	NSCT-3P874

SCHEMATIC DIAGRAM



1

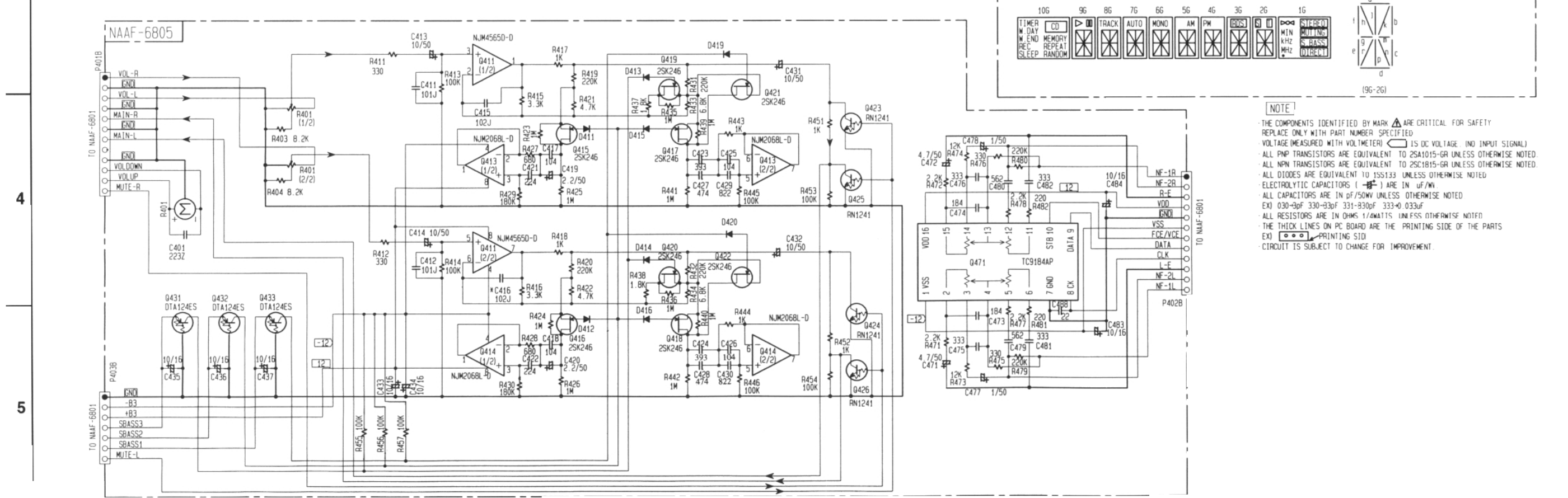
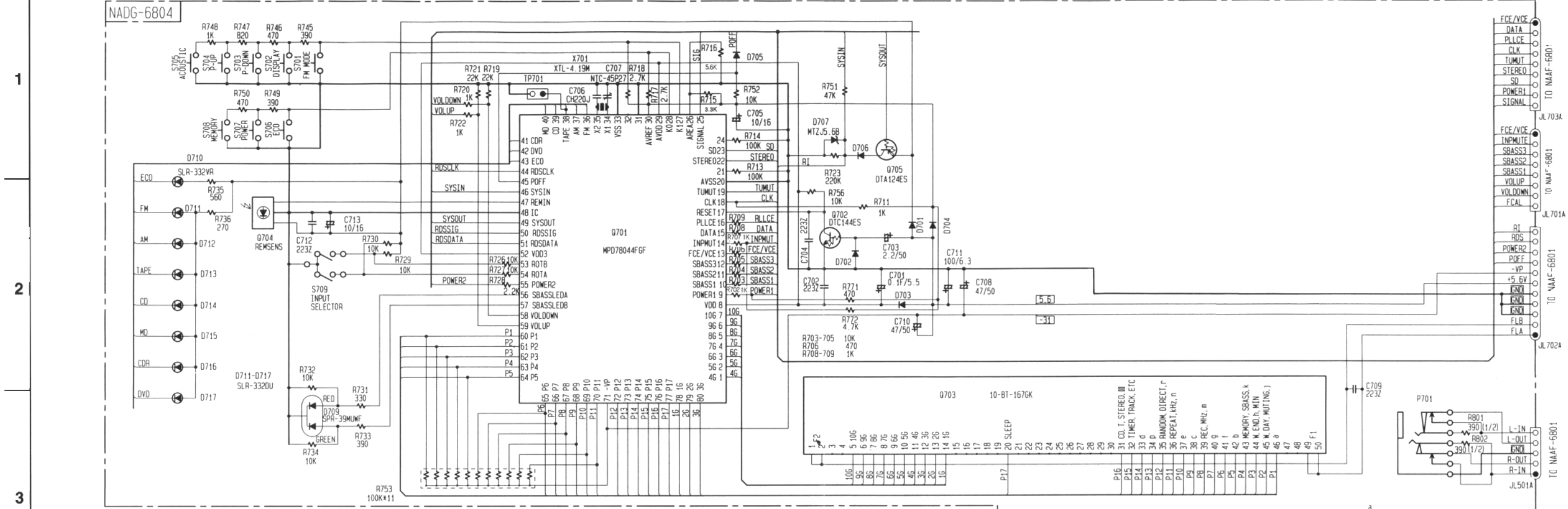
2

3

4

5

A B C D E F G
SCHEMATIC DIAGRAM



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).

ALL PNP TRANSISTORS ARE EQUIVALENT TO 2SA1015-GR UNLESS OTHERWISE NOTED.

ALL NPN TRANSISTORS ARE EQUIVALENT TO 2SC1815-GR UNLESS OTHERWISE NOTED.

ALL DIODES ARE EQUIVALENT TO 1SS133 UNLESS OTHERWISE NOTED.

ELECTROLYTIC CAPACITORS () ARE IN uF/MV.

ALL CAPACITORS ARE IN pF/50V UNLESS OTHERWISE NOTED.

EX) 030-30F 330-30pF 331-30pF 333-0.033uF

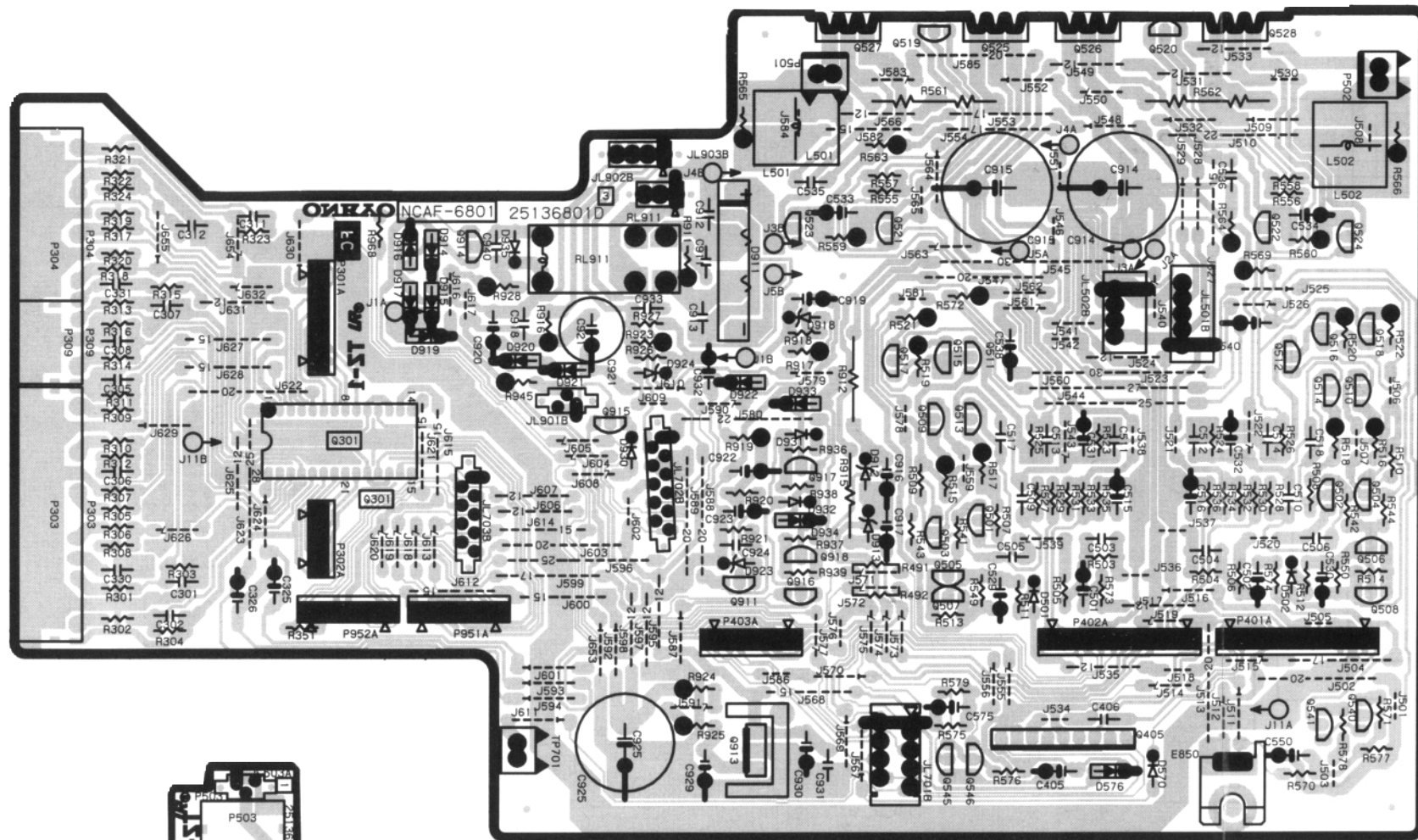
ALL RESISTORS ARE IN OHMS 1/4WATT 1% UNLESS OTHERWISE NOTED.

THE THICK LINES ON PC BOARD ARE THE PRINTING SIDE OF THE PARTS.

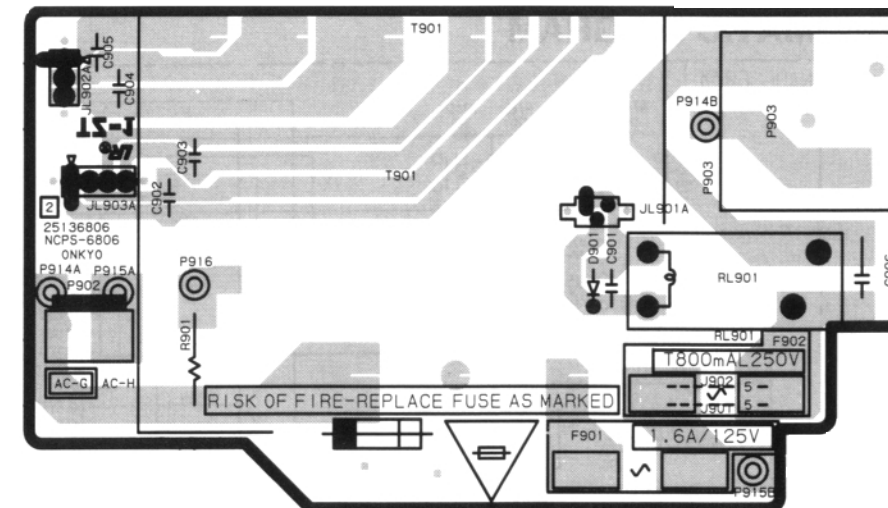
EX) PRINTING SIDE.

CIRCUIT IS SUBJECT TO CHANGE FOR IMPROVEMENT.

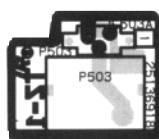
PRINTED CIRCUIT BOARD VIEW FROM SOLDERING SIDE



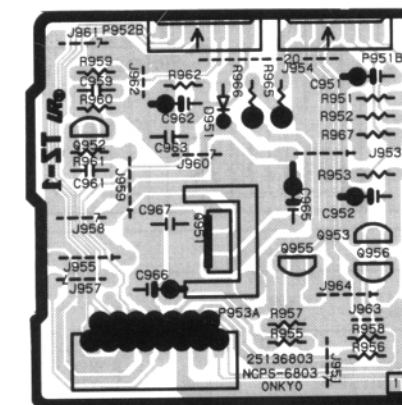
MAIN CIRCUIT PC BOARD



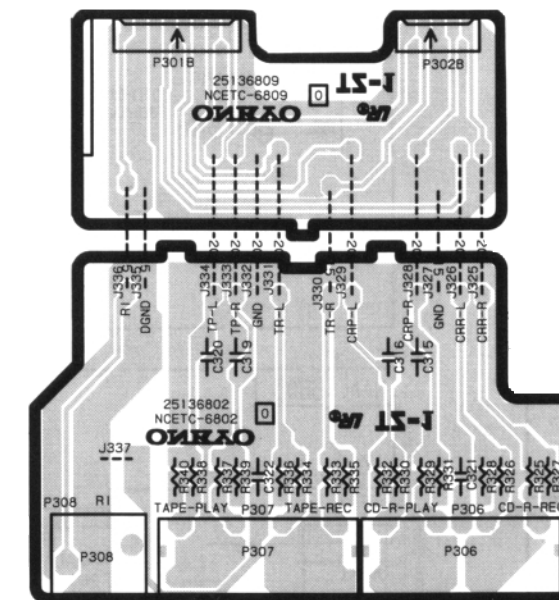
PRIMARY CIRCUIT PC BOARD



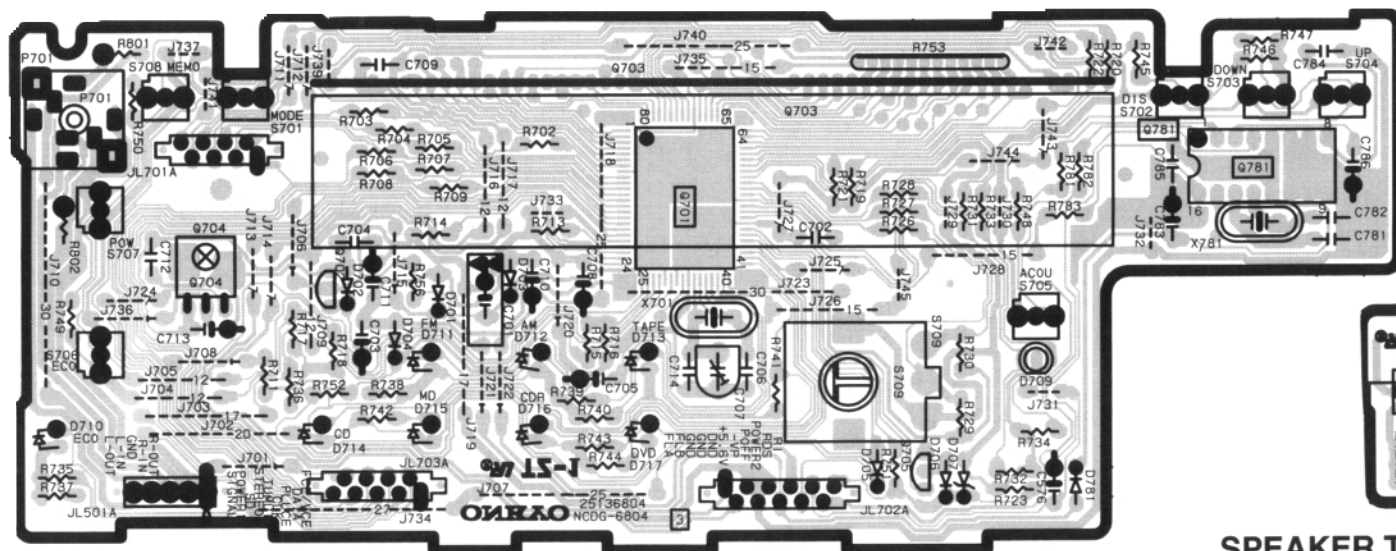
SUBWOOFER PC BOARD



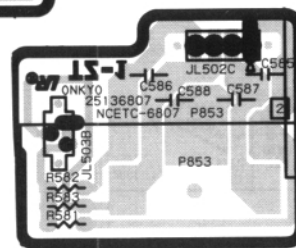
POWER SUPPLY PC BOARD



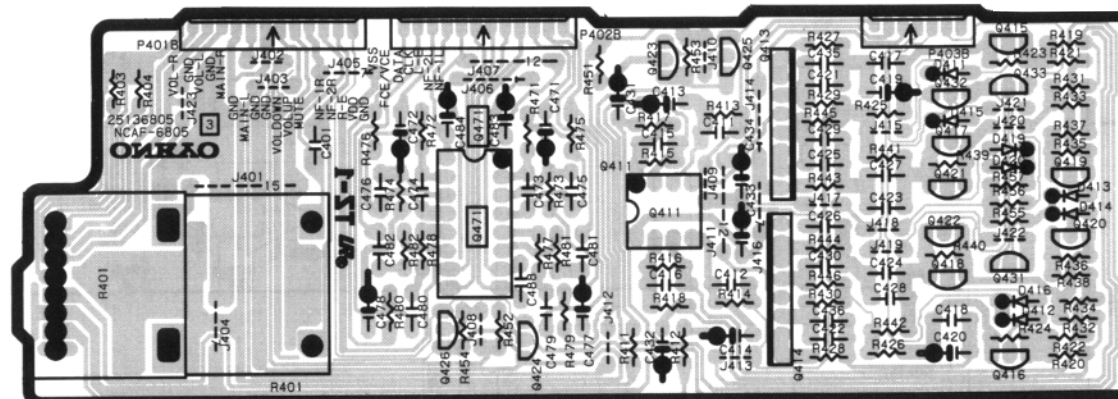
INPUT/OUTPUT PC BOARD



DISPLAY CIRCUIT PC BOARD



SPEAKER TERMINAL PC BOARD

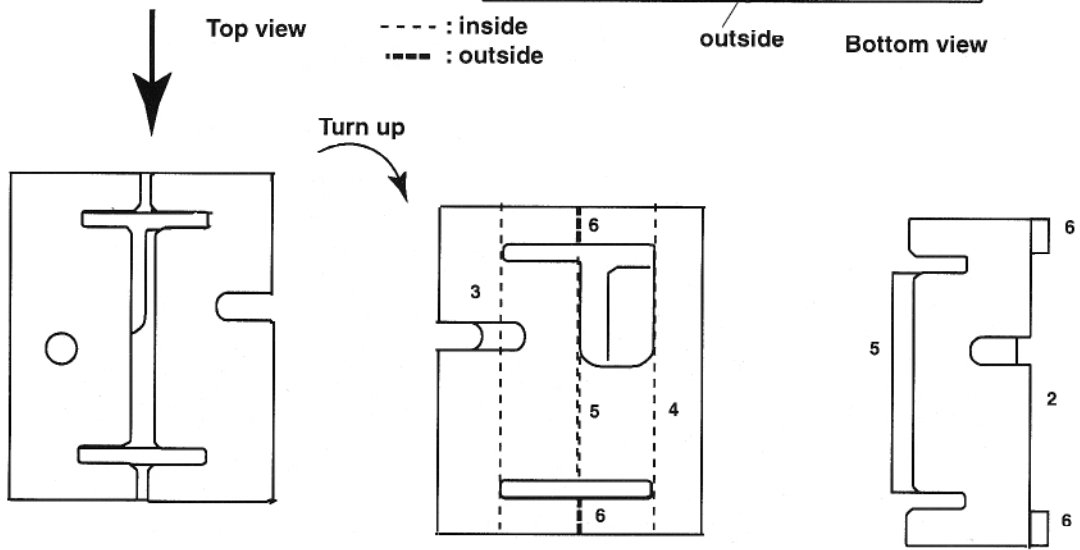
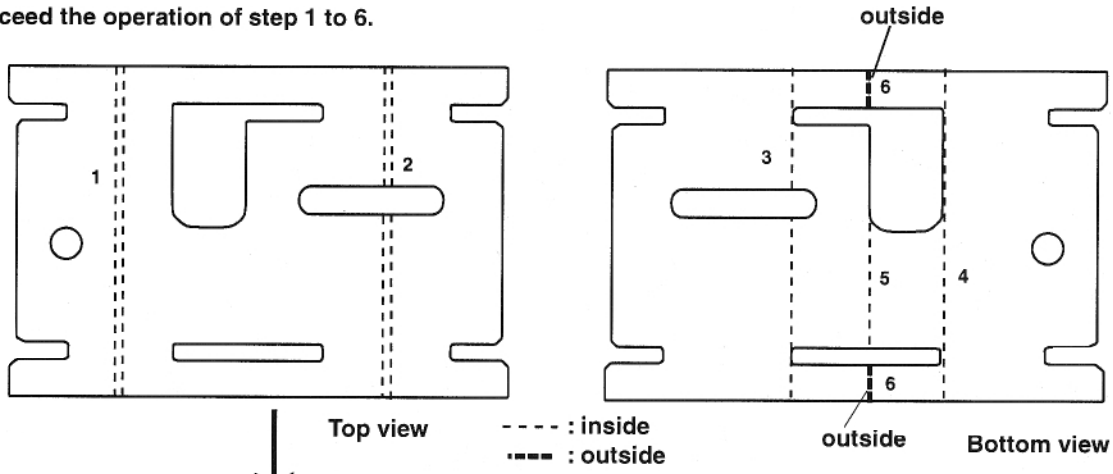


TONE CIRCUIT PC BOARD

PACKING PROCEDURES

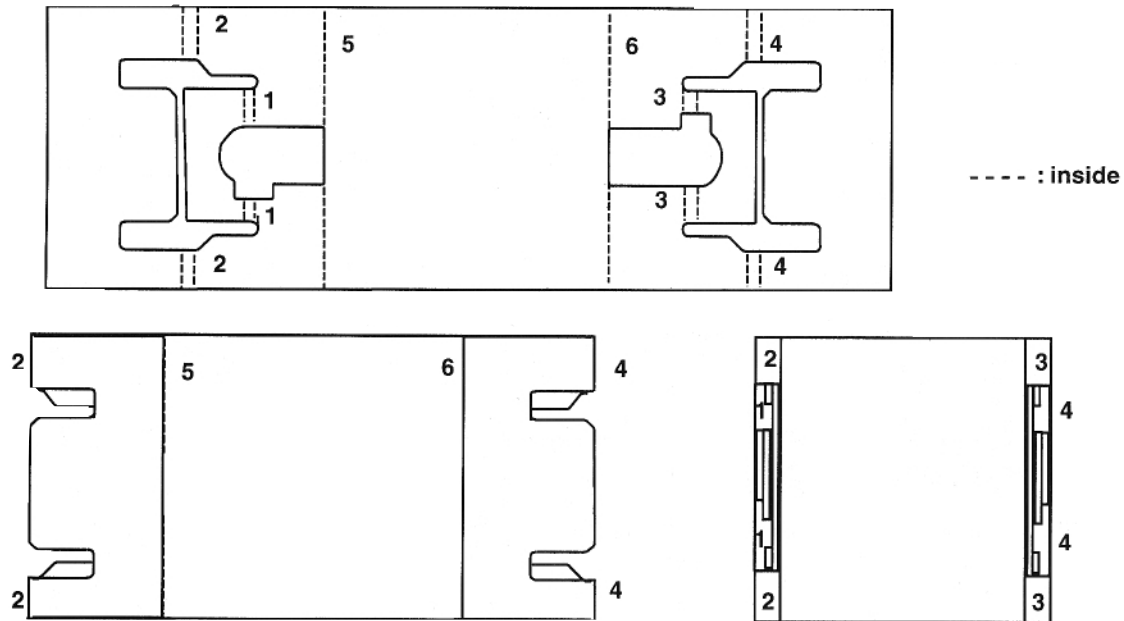
1. Pad A

Proceed the operation of step 1 to 6.

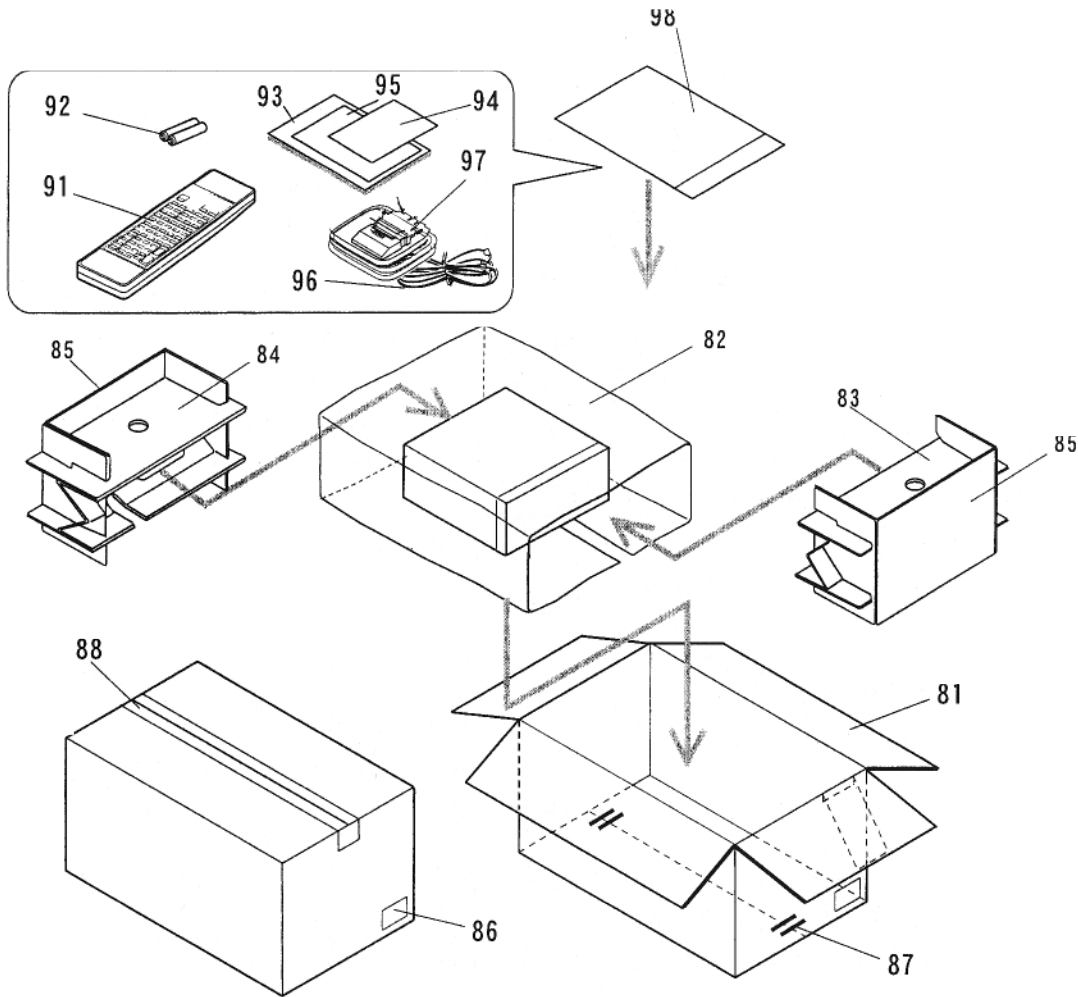


2. Pad B

Proceed the operation of step 1 to 6.



PACKING VIEW



PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
81	29053616	Carton box	92	3010054	UM-3,Battery
82	29095835	0.515*650*550,Protection sheet	93	29342838A	Instruction manual
83	29091901B	Pad A	94	29365083A	Warranty card
84	29091886	Pad A	95	29095866	Sheet for warranty
85	29091887	Pad B	96	292142	FM antenna
86	29362685	Label UPC	97	232140	NMA-3057,AM loop antenna
87	282301	Staple	98	29100097-1A	350*250,Poly bag
88	29110071	PP tape			
91	24140414	RC-414S,Remote controller			

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