

ONKYO® SERVICE MANUAL

Integrated Stereo Amplifier MODEL A-8051



UPV

230V AC, 50Hz

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK Δ ON THE SCHEMATIC DIAGRAM AND IN THE PARTS LIST ARE CRITICAL FOR RISK OF 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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ONKYO

AUDIO COMPONENTS

SPECIFICATIONS

| | |
|----------------------------------|---|
| Power Output : | 60 watts per channel, min. RMS, at 8 ohms, both channels driven from 20 Hz to 20 kHz, with no more than 0.06% THD. 2 × 100 watt an 4 Ohm, 1 kHz (DIN) 2 × 70 watt an 8 Ohm, 1 kHz (DIN) |
| Total Harmonic Distortion : | 0.06% at rated power |
| Intermodulation Distortion : | 0.06% at rated power |
| Damping Factor : | 150 at 8 ohms (1 kHz) |
| Input Sensitivity / Impedance: | Phono (MM): 2.5 mV / 50 kohms Phono (MC): 350 μ V / 220 ohms CD/Tuner/Line: 150 mV / 25 kohms Tape Play: 150 mV / 25 kohms |
| Output Sensitivity / Impedance : | Tape Rec: 150 mV / 3 kohms (Phono) |
| Phono Overload : | Phono (MM) : 135 mV RMS. at 1 kHz, 0.1% THD. |
| Tone Control : | BASS: ± 8 dB at 100 Hz TREBLE: ± 8 dB at 10 kHz Loudness Control: + 8 dB at 100 Hz + 8 dB at 10 kHz |
| Frequency Response : | CD, Tuner : 15 Hz ~ 50 kHz ± 1 dB |
| Signal to Noise Ratio (IHF-A) : | Phono (MM): 84 dB (5.0 mV input) Phono (MC): 74 dB (0.5 mV input) CD (DIRECT): 104 dB (0.5V input) |
| Power Supply : | AC 230V, 50 Hz |
| Dimensions (W×H×D) : | 455×150×348 mm 17-15/16"×5-7/8"×13-11/16" |
| Weight : | 8.3 kg, (18.3 lbs.) |

Specifications and features are subject to change without notice

ADJUSTMENT PROCEDURES

Adjustments and Checking the Protection Circuitry

1. Preparations

- 1) Place the unit on the workbench. (There should be about 15 mm of space between the base plate of the unit and the work surface.)
- 2) Set up the unit as follows.
 - (1) No load
 - (2) No signal
 - (3) Volume turned all the way down
 - (4) Speaker switch OFF
 - (5) Power switch OFF

Note) Check the following points before making adjustments

- (1) The power switch should be OFF.
- (2) The interior of the unit should not be warm.

2. Idling current adjustment

- 1) Turn the power switch ON and allow the unit to warm up for about 10 minutes.

- (1) Adjust R531 (R532) so that the voltage at test point VCT-ID on the NAAF-4838 circuit board is $9.5\text{mV} \pm 3.5\text{mV}$

NOTE) Semi-fixed resistors enclosed in parentheses () are for the right channel.

3. Check of operation of protection circuitry

- 1) Check of operation of protection relay .

- (1) Confirm that the relay turns ON approximately 5 seconds after the power switch is turned ON.
- (2) The relay should turn OFF approximately 0.5 seconds after the power switch is turned OFF.

- 2) Check of DC detection

- (1) Turn the power on with no load.
- (2) After the speaker relay turns ON, apply DC +1 ~ 1.5V to the CD input terminals. Confirm that the relay turns OFF.
- (3) Confirm that operation is the same as (2) above when an input of DC -1 ~ -1.5V is applied.

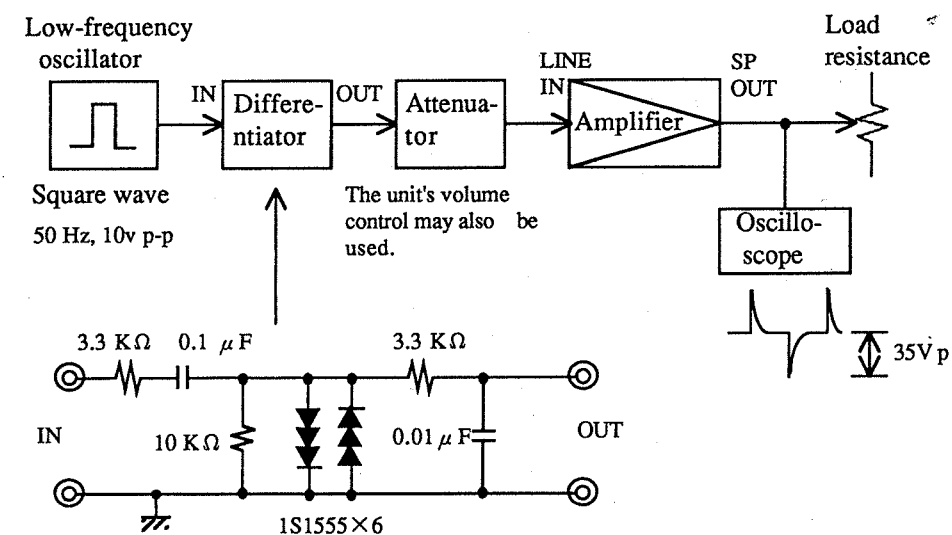
Note) Under no circumstances connect a load or short the speaker terminals when performing the above test.

- 3) Confirmation of current detection operation

- (1) Signal input from the circuit illustrated below with no load.
- (2) Confirm that the speaker relay does not turn OFF even when a 2 ohm load is connected when a peak value of 35Vp is output.
- (3) Next, confirm that when a 1 ohm load is connected the speaker relay switches OFF and ON a couple of times and then stays OFF.

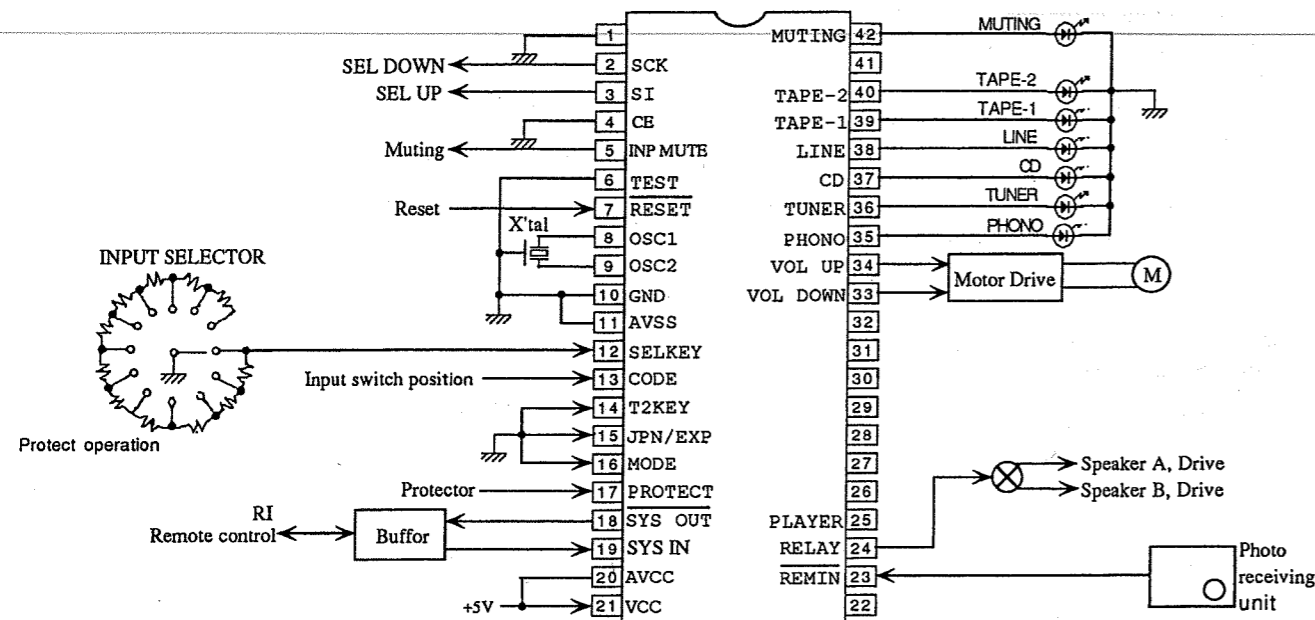
Note) The period before that relay stays OFF should not last for more than 10 second.

Relay OFF status can be canceled by switching the power OFF.



IC BLOCK DIAGRAM

HD404314A12S

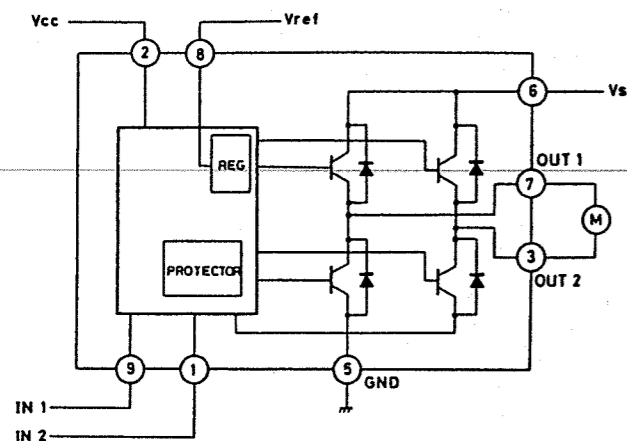


HD404314

| Pin No. | CODE | FUNCTION | I/O | DESCRIPTION | | | | | | | | | | | | |
|-----------|-----------|---------------|------|--|-----------|--------|----------|------|---|---|----|---|---|------|---|---|
| 1 | RA1/Vdisp | ----- | ---- | Not used, To be connected with GND. | | | | | | | | | | | | |
| 2 | R00/SCK | SEL DOWN / CL | OUT | <table border="1"> <thead> <tr> <th>OPERATION</th> <th>SEL UP</th> <th>SEL DOWN</th> </tr> </thead> <tbody> <tr> <td>STOP</td> <td>H</td> <td>H</td> </tr> <tr> <td>UP</td> <td>H</td> <td>L</td> </tr> <tr> <td>DOWN</td> <td>L</td> <td>H</td> </tr> </tbody> </table> | OPERATION | SEL UP | SEL DOWN | STOP | H | H | UP | H | L | DOWN | L | H |
| OPERATION | SEL UP | SEL DOWN | | | | | | | | | | | | | | |
| STOP | H | H | | | | | | | | | | | | | | |
| UP | H | L | | | | | | | | | | | | | | |
| DOWN | L | H | | | | | | | | | | | | | | |
| 3 | R01/SI | SEL UP / D1 | | | | | | | | | | | | | | |
| 4 | R02/SO | CE | ---- | | | | | | | | | | | | | |
| 5 | R03/TOC | INP MUT | OUT | Muting output terminal. Active "H". | | | | | | | | | | | | |
| 6 | TEST | TEST | ---- | Shipment Test. To be connected with GND. | | | | | | | | | | | | |
| 7 | RESET | RESET | IN | Input terminal for Reset signal. Active "L" | | | | | | | | | | | | |
| 8 | OSC1 | Xtal | ---- | Terminal for connecting with Ceramic oscillator (4MHz) | | | | | | | | | | | | |
| 9 | OSC2 | Xtal | ---- | | | | | | | | | | | | | |
| 10 | GND | GND | ---- | Ground terminal | | | | | | | | | | | | |
| 11 | AVss | AVss | ---- | Ground terminal of A/D converter | | | | | | | | | | | | |
| 12 | R30/AN0 | SELKEY | IN | Input terminal for when changing over Input Selector. Through A/D conversion, the selector will be detector on its right or left rotation. | | | | | | | | | | | | |
| 13 | R31/AN1 | CODE | IN | Code input terminal for detecting position of Rotary switch of Motor drive. | | | | | | | | | | | | |
| 14 | R32/AN2 | T-2KEY | IN | Tape-2 Key entry terminal. | | | | | | | | | | | | |
| 15 | R33/AN3 | JPN/EXP | IN | Input terminal for change-over between Japan model and Export model. | | | | | | | | | | | | |

| Pin No. | CODE | FUNCTION | I/O | DESCRIPTION | | | | | | | | | | | | | | | |
|-----------|----------|----------|------|--|-----------|--------|----------|------|---|---|--------|---|---|----------|---|---|-----------|---|---|
| 16 | R40/AN4 | MODE | IN | Input terminal for initialization to change over operation mode. | | | | | | | | | | | | | | | |
| 17 | R41/AN5 | PROTECT | IN | Input terminal for detecting protect operation. | | | | | | | | | | | | | | | |
| 18 | R42/AN6 | SYS OUT | OUT | Output terminal for System Code. | | | | | | | | | | | | | | | |
| 19 | R43/AN7 | SYS IN | IN | Input terminal for System Code. | | | | | | | | | | | | | | | |
| 20 | AVcc | AVcc | ---- | Analog reference voltage for A/D conversion. | | | | | | | | | | | | | | | |
| 21 | Vcc | +5V | ---- | Power(+5V) terminal . | | | | | | | | | | | | | | | |
| 22 | D0/INT0 | POFF | IN | Input terminal for Detecting Power suspension. However, "L" 100 μ S or under shall be ignored. | | | | | | | | | | | | | | | |
| 23 | D1/INT1 | REM IN | IN | Remote control signal input terminal | | | | | | | | | | | | | | | |
| 24 | D2/EVENB | RELAY | OUT | Output terminal for controlling relay. "H" when ON. | | | | | | | | | | | | | | | |
| 25 | D3/BUZZ | PLAYER | OUT | Output terminal for Player control. "H" will be output for 200mS if input PLAY/REJECT code for Remote control and set Input selector for PHONO. | | | | | | | | | | | | | | | |
| 26 | D4/STOPC | ----- | ---- | Not used | | | | | | | | | | | | | | | |
| 27 | D5 | | | | | | | | | | | | | | | | | | |
| 28 | D6 | | | | | | | | | | | | | | | | | | |
| 29 | D7 | | | | | | | | | | | | | | | | | | |
| 30 | D8 | | | | | | | | | | | | | | | | | | |
| 31 | R80 | | | | | | | | | | | | | | | | | | |
| 32 | R81 | | | | | | | | | | | | | | | | | | |
| 33 | R81 | VOL DOWN | OUT | UP /DOWN output terminal for Volume. Active "H". | | | | | | | | | | | | | | | |
| 34 | R83 | VOL UP | | | | | | | | | | | | | | | | | |
| | | | | <table border="1"> <thead> <tr> <th>OPERATION</th> <th>VOL UP</th> <th>VOL DOWN</th> </tr> </thead> <tbody> <tr> <td>STOP</td> <td>H</td> <td>H</td> </tr> <tr> <td>VOL UP</td> <td>H</td> <td>L</td> </tr> <tr> <td>VOL DOWN</td> <td>L</td> <td>H</td> </tr> <tr> <td>POWER OFF</td> <td>L</td> <td>L</td> </tr> </tbody> </table> | OPERATION | VOL UP | VOL DOWN | STOP | H | H | VOL UP | H | L | VOL DOWN | L | H | POWER OFF | L | L |
| OPERATION | VOL UP | VOL DOWN | | | | | | | | | | | | | | | | | |
| STOP | H | H | | | | | | | | | | | | | | | | | |
| VOL UP | H | L | | | | | | | | | | | | | | | | | |
| VOL DOWN | L | H | | | | | | | | | | | | | | | | | |
| POWER OFF | L | L | | | | | | | | | | | | | | | | | |
| 35 | R10 | PHONO | OUT | Output terminal for Input selector LED. Active "H". | | | | | | | | | | | | | | | |
| 36 | R11 | TUNER | | | | | | | | | | | | | | | | | |
| 37 | R12 | CD | | | | | | | | | | | | | | | | | |
| 38 | R13 | LINE | | | | | | | | | | | | | | | | | |
| 39 | R20 | TAPE-1 | | | | | | | | | | | | | | | | | |
| 40 | R21 | TAPE-2 | | | | | | | | | | | | | | | | | |
| 41 | R22 | ----- | ---- | Not used | | | | | | | | | | | | | | | |
| 42 | R23 | MUTING | OUT | Output terminal for Audio muting LED, Remote control | | | | | | | | | | | | | | | |

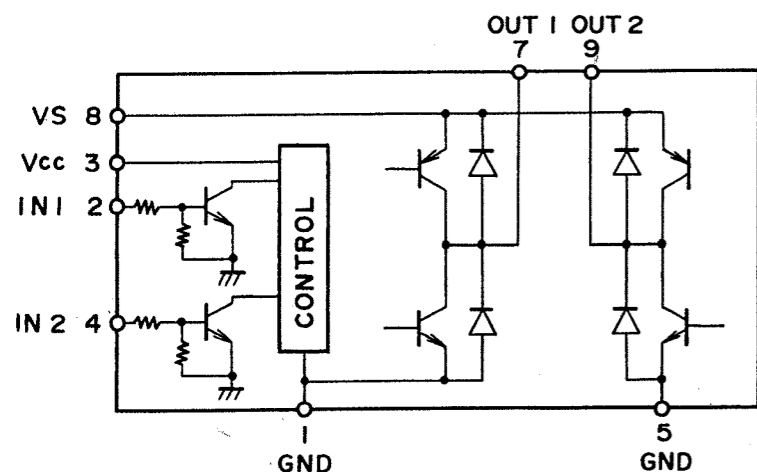
TA7291S (Volume Motor Drive)



| INPUT | | OUTPUT | | MODE |
|-------|------|--------|-------|--------|
| IN 1 | IN 2 | OUT 1 | OUT 2 | |
| 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

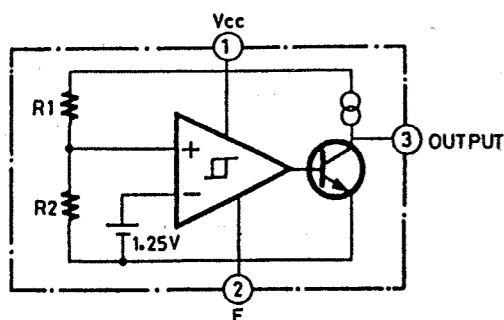
LB1631 (Motor Drive)



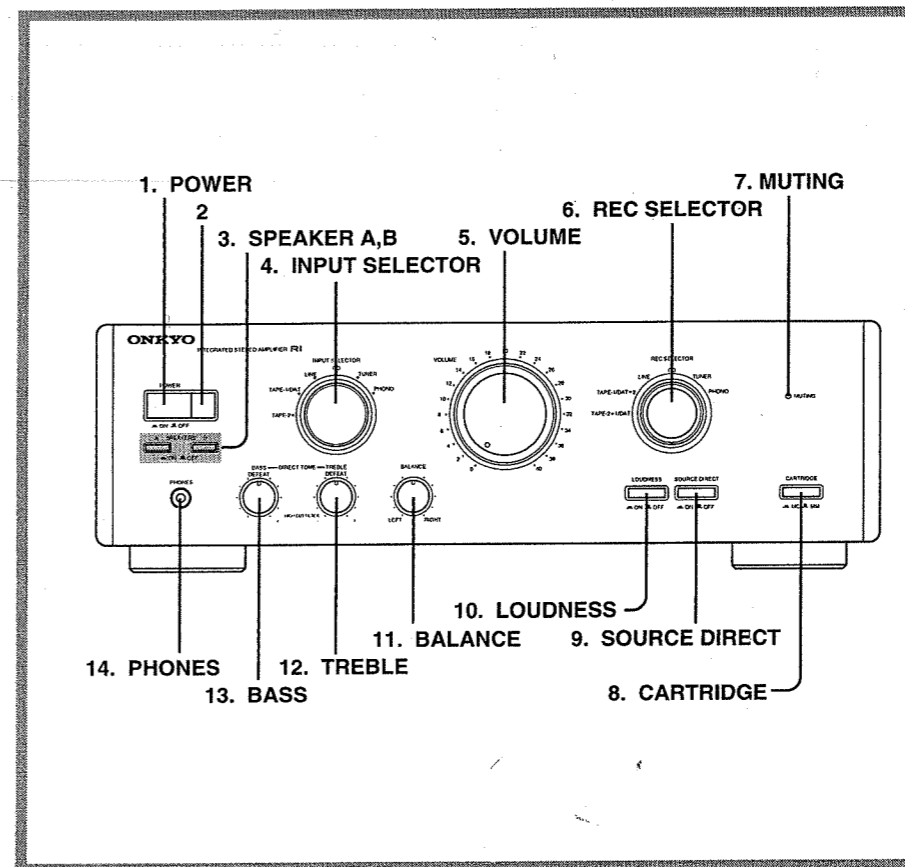
Truth Table

| IN 1 | IN 2 | OUT 1 | OUT 2 | モード |
|------|------|-------|-------|---------|
| H | L | H | L | NORMAL |
| L | H | L | H | REVERSE |
| H | H | L | L | BRAKE |
| L | L | OFF | OFF | WAIT |

M51943BS (System Reset)



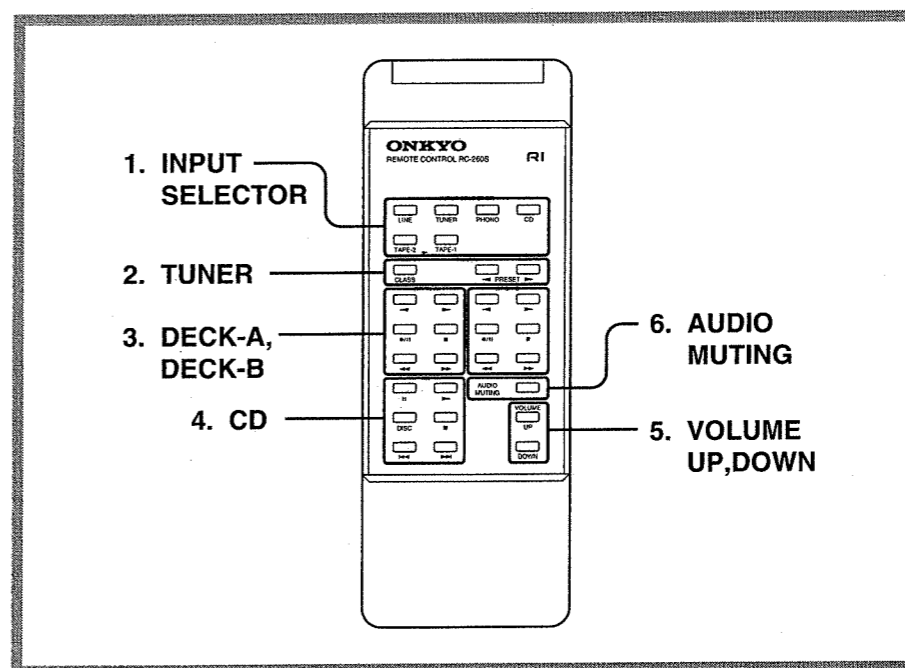
FRONT PANEL



Front panel

1. Power button
2. Remote control sensor
3. Speaker selector buttons
4. Input selector knob and indicator
5. Volume control knob
6. Recording selector knob
7. Muting indicator
8. Cartridge selector button
9. Source Direct button
10. Loudness button
11. Balance control knob
12. Treble control knob
13. Bass control knob
14. Headphone jack

REMOTE CONTROL



Remote control

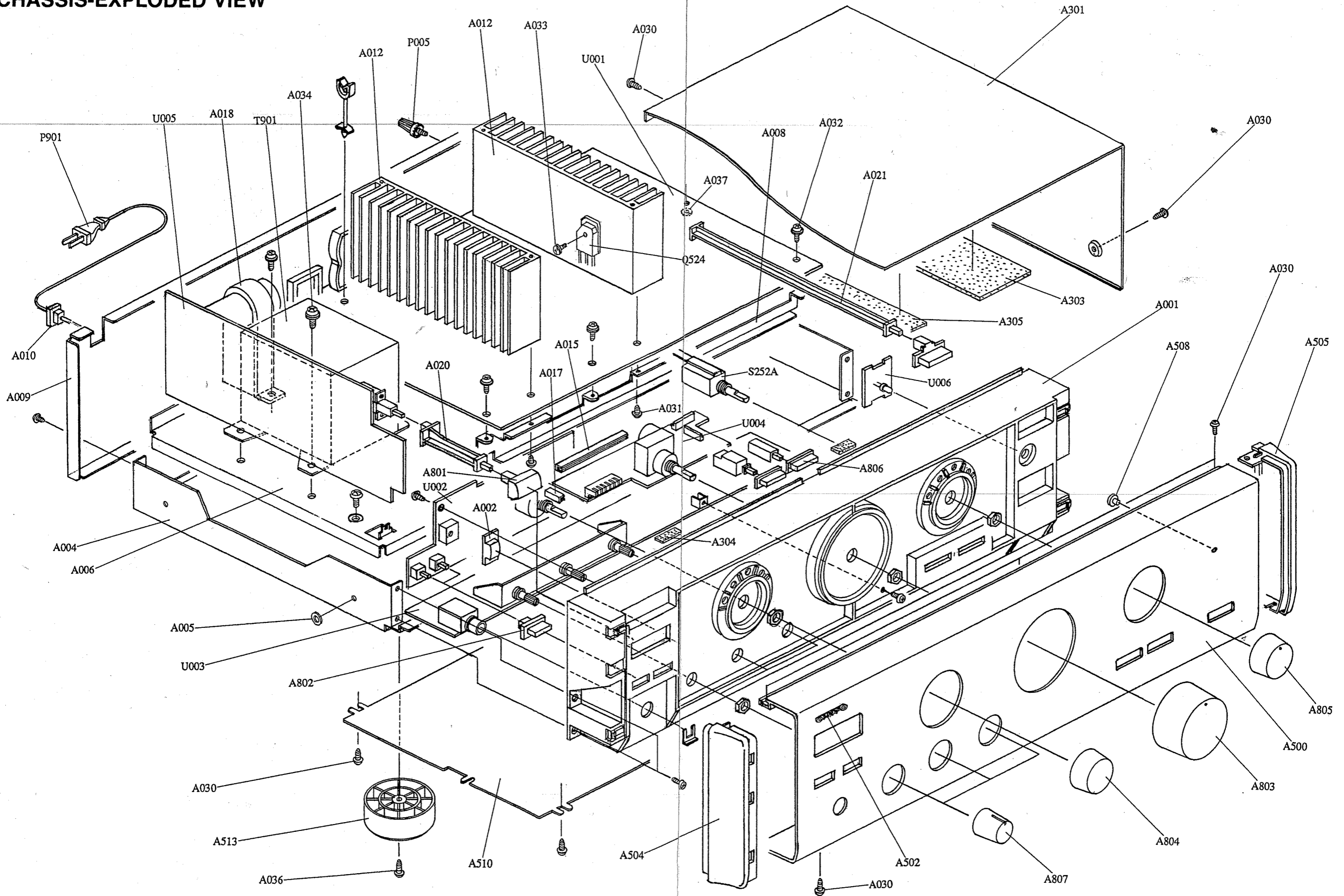
1. Input selector buttons
2. Tuner operation buttons
 CLASS : Class selector button
 PRESET : Preset memory down/up
3. Tape operation buttons
 ◀ : Reverse play button
 ▶ : Forward play button
 ⏪ : Fast rewind button
 ⏩ : Fast forward button
 ■ : Stop button
 ●/⏸ : Record/pause button
4. CD operation buttons
 ⏸ : Pause button
 ▶ : Play button
 DISC : Disc button for CD changer
 ⏴ : Down button
 ⏵ : Up button
5. Volume control buttons
6. Audio muting button

CHASSIS-EXPLODED VIEW – PARTS LIST

| REF.NO. | PART NO. | DESCRIPTION | REF.NO. | PART NO. | DESCRIPTION |
|-----------|-------------|--|---------|-------------------------|---|
| A001 | 27110785A | FRONT BRACKET | U004 | 1A457541-1 | NAETC-4841-1, VOLUME CONTROL CIRCUIT PC BOARD ASS'Y |
| A002 | 28191593-1 | CLEAR PLATE (RE) | U005 | 1A457542-1A | NAPS-4842-1A, POWER SUPPLY CIRCUIT PC BOARD ASS'Y |
| A004 | 27100274 | CHASSIS | U006 | 1A457543-1 | NAETC-4843-1, MUTING INDICATOR PC BOARD ASS'Y |
| A005 | 27270375 | 10.2 X ϕ 3.8 X ϕ 9, SPACER | | | |
| A006 | 27130723 | BRACKET (PT) | | | |
| A008 | 27130724 | BRACKET (C) | | | |
| A009 | 27121793A | REAR PANEL | | | |
| A010 | 27300750 | #2271, CORD BUSHING | NOTE: | [B L] : BL MODEL ONLY | |
| A012 | 27160328 | HEAT SINK | | | |
| A015 | 28170039 | CE-016, BUSHING | | | |
| A017 | 28170038 | BUSHING | | | |
| A018 | 27190934A | HOLDER (CH) | | | |
| A020 | 27273155 | JOINT (POW) | | | |
| A021 | 27273154A | JOINT (DIR) | | | |
| A030 | 834430088 | 3TTS+8B(BC), SCREW | | | |
| A031 | 834430108 | 3TTS+10B(BC), SCREW | | | |
| A032 | 831130088 | 3TTW+8B, SCREW | | | |
| A033 | 801433 | 3SMS8W.SW+14B(BC), SCREW | | | |
| A034 | 830440089 | 4TTC+8C(BC), SCREW | | | |
| A036 | 831430088 | 3TTW+8B(BC), SCREW | | | |
| A037 | 27270332 | 11.0 X ϕ 12 X ϕ 4, SPEACER | | | |
| A301 | 28184553A | COVER | | | |
| A303 | 28140898 | 11.5 X 70 X 140, CUSHION | | | |
| A304 | 28141288 | 3MS5-5832, CUSHION | | | |
| A305 | 28140782 | 11.5 X 25 X 170, CUSHION | | | |
| A500 | 1A458121 | FRONT PANEL ASS'Y | | | |
| (A502) | 28135199Y | BADGE | | | |
| (A503) | 8910301 | CS-3(SUS), CS RING | | | |
| (A504) | 28125255 A | END CAP (L) | | | |
| | 28125255-6 | END CAP (L) [B L] | | | |
| (A505) | 28125256 A | END CAP (R) | | | |
| | 28125256-6 | END CAP (R) [B L] | | | |
| (A506) | 28198798 | FACET(SEL) | | | |
| (A508) | 28198778 | FACET | | | |
| A510 | 28153118 | BOTTOM BOARD | | | |
| A513 | 27175251-1 | LEG ASS'Y | | | |
| A801 | 28324140 | KNOB (POW) | | | |
| A802 | 28324882 | KNOB (SP) | | | |
| A803 | 28324883 | KNOB (VOL) | | | |
| A804 | 28324884 | KNOB (SEL) | | | |
| A805 | 28324885 | KNOB (REC) | | | |
| A806 | 28324886 | KNOB (D) | | | |
| A807 | 28324887 | KNOB (TONE) | | | |
| S252A | 25030369A | NRSF-106-20BU, ROTARY SWITCH | | | |
| Q521,Q522 | 2201703 | 2SC3855-O OR | | | |
| | 2201704 | 2SC3855-Y OR | | | |
| | 2201706 | 2SC3855-P, TRANSISTOR | | | |
| Q523,Q524 | 2201693 | 2SA1491-O OR * | | | |
| | 2201694 | 2SA1491-Y OR | | | |
| | 2201696 | 2SA1491-P, TRANSISTOR | | | |
| △ T901 | 2300958A | NPT-1187P, POWER TRANSFORMER | | | |
| △ P901 | 253193HIT | AS-CEE, AC CORD | | | |
| △ F902 | 252075 | 2.5A-SE-EAK OR | | | |
| | 252075CC | 2.5A-SE-EAK, FUSE | | | |
| P005 | 25060044 | GROUND TERMINAL | | | |
| U001 | 1A457538-1A | NAAF-4838-1A, MAIN CIRCUIT PC BOARD ASS'Y | | | |
| U002 | 1A457539-1 | NADG-4839-1, MICROPROCESSOR PC BOARD ASS'Y | | | |
| U003 | 1A457540-1 | NASW-4840-1, TONE CONTROL CIRCUIT PC BOARD ASS'Y | | | |

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

CHASSIS-EXPLODED VIEW



PRINTED CIRCUIT BOARD PARTS LIST

MAIN CIRCUIT PC BOARD (NAAF-4838-1A)

| CIRCUIT. NO. | PART NO. | DESCRIPTION | CIRCUIT. NO. | PART NO. | DESCRIPTION |
|--------------|--------------------------------------|-----------------------------|---------------|-----------|--|
| Q105 | ICs 22240191 | NJM4565D-D | C101,C102 | 374721015 | Capacitors 100 pF, 50V, Film(TF) |
| | | | C103,C104 | 374722224 | 2200 pF, 50V, Film(TF) |
| | | | C105,C106 | 393380477 | 4.7 μ F, 50V, Elect.(VX) |
| Q101-Q104 | Transistors 2211782 or 2211783 | 2SA991-F 2SA991-E | C107,C108 | 374722215 | 220 pF, 50V, Film(TF) |
| Q501,Q503 | 2213677 or 2213678 | 2SC3067-G or 2SC3067-H | C109,C110 | 374723315 | 330 pF, 50V, Film(TF) |
| Q505-Q508 | 2211455 or 2214905 | 2SA1015-GR or 2PA1015-GR | C111,C112 | 374728224 | 8200 pF, 50V, Film(TF) |
| Q509,Q510 | 2211732 or 2211733 | 2SC1845-F or 2SC1845-E | C113,C114 | 393324717 | 470 μ F, 6.3V, Elect.(VX) |
| Q511,Q512 | 2211255 or 2214915 | 2SC1815-GR or 2PC1815-GR | C115,C116 | 374721134 | 0.011 μ F, 50V, Film(TF) |
| Q513,Q514 | 2211353 or 2211354 | 2SA949-O or 2SA949-Y | C117,C118 | 371123034 | 0.03 μ F, 50V, Mylar |
| Q515,Q516 | 2211633 or 2211634 | 2SC2229-O or 2SC2229-Y | C119,C120 | 393380477 | 4.7 μ F, 50V, Elect.(VX) |
| Q517,Q518 | 2212653 or 2212654 | 2SC3421-O or 2SC3421-Y | C121,C122 | 374721224 | 1200 pF, 50V, Film(TF) |
| Q519,Q520 | 2212643 or 2212644 | 2SA1358-O or 2SA1358-Y | C201-C206 | 374721015 | 100 pF, 50V, Film(TF) |
| Q525,Q526 | 2211732 or 2211733 | 2SC1845-F or 2SC1845-E | C213,C214 | | |
| Q527 | 2211792 or 2211793 | 2SA992-F or 2SA992-E | C215,C216 | | |
| Q528,Q529 | 2211732 or 2211733 | 2SC1845-F or 2SC1845-E | C501,C502 | 393380477 | 4.7 μ F, 50V, Elect.(VX) |
| Q531,Q532 | 2211183 or 2214915 | 2SC1740-R or 2PC1815-GR | C503,C504 | 374721015 | 100 pF, 50V, Film(TF) |
| Q601-Q603 | 2213650 | DTD113ZS | C505,C506 | 374721015 | 100 pF, 50V, Film(TF) |
| Q903 | 2211455 | 2SA1015-GR | C507,C508 | 374721024 | 1000 pF, 50V, Film(TF) |
| Q904 | 2211255 | 2SC1815-GR | C509,C510 | 393342217 | 220 μ F, 16V, Elect.(VX) |
| Q905,Q906 | 2211945 | 2SK246-GR | C511,C512 | 393381017 | 100 μ F, 50V, Elect.(VX) |
| | | | C517-C520 | 374722234 | 0.022 μ F, 50V, Film(TF) |
| | | | C525,C526 | 374724734 | 0.047 μ F, 50V, Film(TF) |
| | | | C529-C532 | 393381017 | 100 μ F, 50V, Elect.(VX) |
| | | | C533,C534 | 374724734 | 0.047 μ F, 50V, Film(TF) |
| | | | C541-C544 | 374721024 | 1000 pF, 50V, Film(TF) |
| | | | C554 | 393380477 | 4.7 μ F, 50V, Elect.(VX) |
| | | | C555 | 393322217 | 220 μ F, 6.3V, Elect.(VX) |
| | | | C926,C927 | 393341007 | 10 μ F, 16V, Elect.(VX) |
| | | | C920,C921 | 393342217 | 220 μ F, 16V, Elect.(VX) |
| | | | C918,C919 | 393351027 | 1000 μ F, 25V, Elect.(VX) |
| | | | | | Resistors |
| | | | R527,R528 | 443522704 | 27 Ω , 1/2W, Metal oxide film |
| | | | R529,R530 | 443529104 | 91 Ω , 1/2W, Metal oxide film |
| | | | R531,R532 | 5210261 | N06HR5KBC, Semi-fixed |
| | | | R535,R536 | 443522714 | 270 Ω , 1/2W, Metal oxide film |
| | | | R539,R542 | 4000076 | 0.22 Ω , 5W, Metal plate |
| | | | R543,R546 | 453530224 | 2.2 Ω , 1/2W, Metal |
| | | | R547,R548 | 453530824 | 8.2 Ω , 1/2W, Metal |
| | | | R549,R550 | 453530564 | 5.6 Ω , 1/2W, Metal |
| | | | R553-R556 | 443521014 | 100 Ω , 1/2W, Metal oxide film |
| | | | R571,R572 | 443623914 | 390 Ω , 1W, Metal oxide film |
| | | | R601,R602 | 443627514 | 750 Ω , 1W, Metal oxide film |
| | | | R603 | 443522724 | 2.7k Ω , 1/2W, Metal oxide film |
| | | | | | Switches |
| | | | S101 | 25035631 | NPS-142-L587 |
| | | | S201 | 25030370 | NRS-3311-BA, Rotary |
| | | | S252 | 25065079 | NSS-4643, Slide |
| | | | | | Relays |
| | | | RL601,RL602 | 25065339 | NRL-2P5A-DC24V-46 |
| | | | RL603 | 25065470 | NRL-2P1A-DC24V-079 |
| | | | | | Jumper sockets |
| | | | JL201b,JL571b | 25050267 | NSCT-3P95 |
| | | | JL502b,JL703b | | |
| | | | JL501b | 25050271 | NSCT-7P99 |
| | | | | | Plugs |
| | | | P503,P504 | 25055038 | NPLG-2P29 |
| | | | P512a | 25055167 | NPLG-4P151 |

MICROPROCESSOR PC BOARD (NADG-4839-1)

| CIRCUIT. NO. | PART NO. | DESCRIPTION |
|--------------|----------------------------------|-----------------------------------|
| P101 | 25045401 | Pin jacks NPJ-2PDBL226 |
| P201 | 25045403 | NPJ-2PDBL228 |
| P203,P251 | 25045354 | NPJ-4PDBL200 |
| P252 | | |
| P801 | 25045330 | Jack NPJ-2PDBL184 |
| P501 | 25060192 | Terminals NTM-4PDMN114 |
| P502 | 25060193 | NTM-4PDMN115 |
| | | Plate |
| | 27141059 | Ground |
| JL701a | 25051113 | Holder NSCT-9P900, Wire holder |
| | 27190540-1 | Clamp |
| | | Remote control sensor |
| Q751 | 24130007 | GP1U571X |
| | | ICs |
| Q351 | 22240239 | TA7291S |
| Q701 | 22240731 | HD40431A12S |
| Q704 | 222951 | M51943BS |
| Q711 | 22240358 | LB1638 |
| | | Transistors |
| Q702,Q703 | 2213510 | DTA114ES |
| | | Diodes |
| D351 | 22380046 or 22380035 | AM01Z or GP104003E |
| D703 | 223163 or 223205 or 223222 | 1SS133 or 1SS270A or WG713A |
| D704 | 224450562 | MTZ5.6B, Zener |
| D711-D716 | 225291D | SEL4910D-D, LED |
| | | Resonator |
| X701 | 3010150 | CST4.00MGW |
| | | Coils |
| L701,L702 | 230905 | BL02RN1-R62 |
| L703,L704 | | |
| | | Capacitors |
| C702 | 375524744 | 0.47 μ , 50V, Film(MMT) |
| C707 | 393380107 | 1 μ F, 50V, Elect.(VX) |
| C708 | 393341007 | 10 μ F, 16V, Elect.(VX) |
| | | Switches |
| S601,S602 | 25035653 | NPS-122-L605 |
| S701 | 25030359 | NRSF-112-20RM, Rotary |
| | | Plug |
| P701a | 25055660 | NPLG-13P616 |
| | | Wire holder |
| JL702a | 25051109 | NSCT-5P896 |
| JL706a | 25051107 | NSCT-3P894 |

TONE CONTROL CIRCUIT PC BOARD (NASW-4840-1)

| CIRCUIT. NO. | PART NO. | DESCRIPTION |
|---------------|-----------|------------------------------|
| | | Capacitors |
| C301-C304 | 374721634 | 0.016 μ F, 50V, Film(TF) |
| C305,C306 | 374721824 | 1800 pF, 50V, Film(TF) |
| C307,C308 | 374728234 | 0.082 μ F, 50V, Film(TF) |
| C311,C312 | 374722724 | 2700 pF, 50V, Film(TF) |
| | | Resistors |
| R301 | 5148107A | N16RGM250KMN25, Variable |
| R302 | 5142002 | N16RGM11C100K25, Variable |
| R303 | 5144011 | N16RQM11C70K88K25, Variable |
| | | Switches |
| S301 | 25035407 | NPS-122-L371 |
| S302 | 25035654A | NPS-162-L606 |
| | | Jack |
| P571 | 25045164 | HLJ4317-01-3020 |
| | | Wire holder |
| JL201a,JL571a | 25051107 | NSCT-3P894 |
| JL301a | 25051114 | NSCT-10P901 |
| JL501a | 25051111 | NSCT-7P898 |
| | | Plat |
| | 27150364 | Shield |

VOLUME CONTROL CIRCUIT PC BOARD (NAETC-4841-1)

| CIRCUIT. NO. | PART NO. | DESCRIPTION |
|--------------|-----------------------|--------------------------|
| | | Transistors |
| Q353,Q354 | 2213631 or 2213632 | RN1241-A or RN1241-B |
| | | Coils |
| L351,L352 | 230905 | BL02RN1-R62 |
| | | Resistors |
| R351(R352) | 5104329A | N16RGM50KBT25F, Variable |
| | | Socket |
| P701b | 25051047 | NSCT-13P834 |
| | | Jumper socket |
| JL301b | 25050274 | NSCT-10P102 |
| JL701b | 25050273 | NSCT-9P101 |

POWER SUPPLY CIRCUIT PC BOARD (NAPS-4842-1A)

| CIRCUIT. NO. | PART NO. | DESCRIPTION |
|--------------|-------------------------|-----------------------|
| | | ICs |
| Q901,Q902 | 222780055NEC | 78M05HF |
| | | Transistors |
| Q911 | 2201945 | 2SD1763-E |
| Q912 | 2201935 | 2SB1186-E |
| | | Diodes |
| D901 | 22380038 | RBV602 |
| D902,D903 | 223208 | 6A2 |
| D904-D907 | 22380046 or 22380035 | AM01Z or GP104003E |
| D913,D914 | 224452003 | MTZ220C, Zener |

PARTS LIST OF PACKING

| CIRCUIT. NO. | PART NO. | DESCRIPTION |
|---------------|-----------------|---------------------------------------|
| L901 | Coil 231069A | NCH-1119 |
| | Capacitors | |
| △ C901 | 3500065A | 0.01 μ F, AC400V/125V, Film(IS) |
| △ C902 | 3500163 | WY2472MCMCF0K, Film(IS) |
| C903-C905 | 374503345 | 0.33 μ F, 125V, Film(ME) |
| C906,C907 | 3504261 | 10000 μ F, 50V, Elect. |
| C908 | 374721034 | 0.01 μ F, 50V, Film(TF) |
| C909 | 393342227 | 2200 μ F, 16V, Elect.(VX) |
| C914 | 374721034 | 0.01 μ F, 50V, Film(TF) |
| C915,C916 | 393382217 | 220 μ F, 50V, Elect.(VX) |
| C917,C918 | 393361007 | 10 μ F, 35V, Elect.(VX) |
| | Resistors | |
| R901,R902 | 353530224 | 2.2 Ω , 1/2W, Metal |
| R903 | 443521024 | 1 k Ω , 1/2W, Metal oxide film |
| R911,R912 | 443623924 | 3.9 k Ω , 1W, Metal oxide film |
| R913,R914 | 443621024 | 1 k Ω , 1W, Metal oxide film |
| | Switches | |
| △ S901 | 25035550 | NPS-111-L51P |
| | Fuse holders | |
| △ F902a | 25050065 | YSH403T ³ |
| | Plug | |
| △ P905 | 25055675 | NPLG-2P631 |
| | Wier holder | |
| JL502a,JL703a | 25051107 | NSCT-3P994 |
| | Jumper socket | |
| JL702b | 25050269 | NSCT-5P97 |
| | Socket ass'y | |
| P512 | 2009990301A | NSAS-4P0435 |
| | Bus bar | |
| | 27301781 | |

MUTING INDICATOR PC BOARD (NAETC-4843-1)

| CIRCUIT. NO. | PART NO. | DESCRIPTION |
|--------------|-------------------------|-----------------|
| D751 | Diode 225291D | SEL4910D-D, LED |
| JL706 | Wire holder 25051107 | NSCT-3P894 |

NOTE:

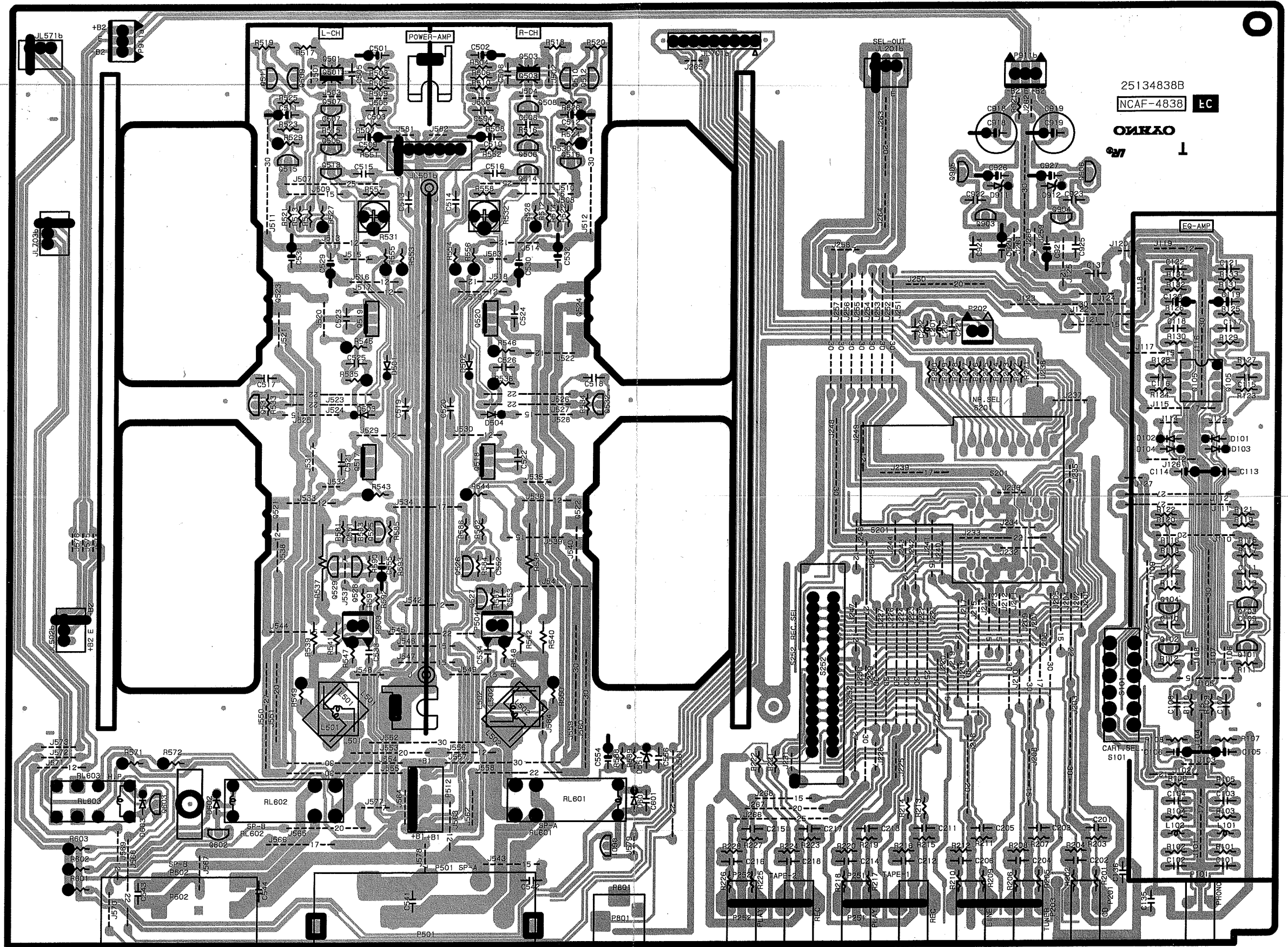
THE COMPONENTS IDENTIFIED BY MARK Δ ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE ONLY WITH PART NUMBER SPECIFIED.

| REF.NO. | PART NO. | DESCRIPTION |
|---------|-------------------------|-------------------------------------|
| A851 | 29052672 | CARTON BOX |
| | 29052672 -1 | CARTON BOX [BL] |
| A853 | 29091638 | PAD(L) |
| A854 | 29091639 | PAD(R) |
| A857 | 261504 | PAPER TAPE |
| A866 | 29100033A | POLY-VINYL BAG |
| A867 | 282311 or 282301 | STAPLE or STAPLE |
| A868 | 29110071 or 29110077 | PP TAPE or PP TAPE |
| | <ACCESSARY BAG ASS'Y> | |
| | 29341882 | INSTRUCTION MANUAL, -U6 |
| | 29365020H | WARRANTY CARD |
| | 29100094B | POLY-VINYL BAG |
| | 24140260 | RC-260S, REMOTE CONTROL TRANSMITTER |
| | 3010054 | UM-3, TWO BATTERIES |
| | 2010200 | CONNECTION CABLE (3.5 MINI PLUG) |
| | 29100097 | 320 \times 250, POLY-VINYL BAG |

NOTE: [BL]: BL MODEL ONLY

PRINTED CIRCUIT BOARD VIEW FROM BOTTOM SIDE

NAAF-4838 Main circuit



25134838B
NCAF-4838 LC

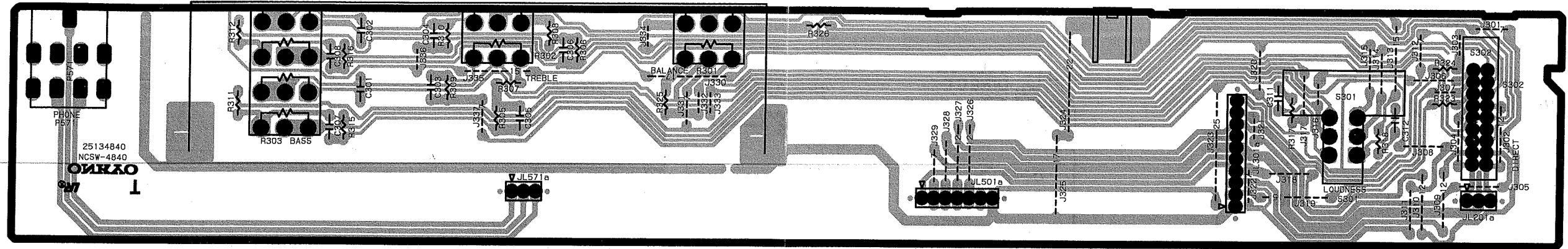
ONKYO

1

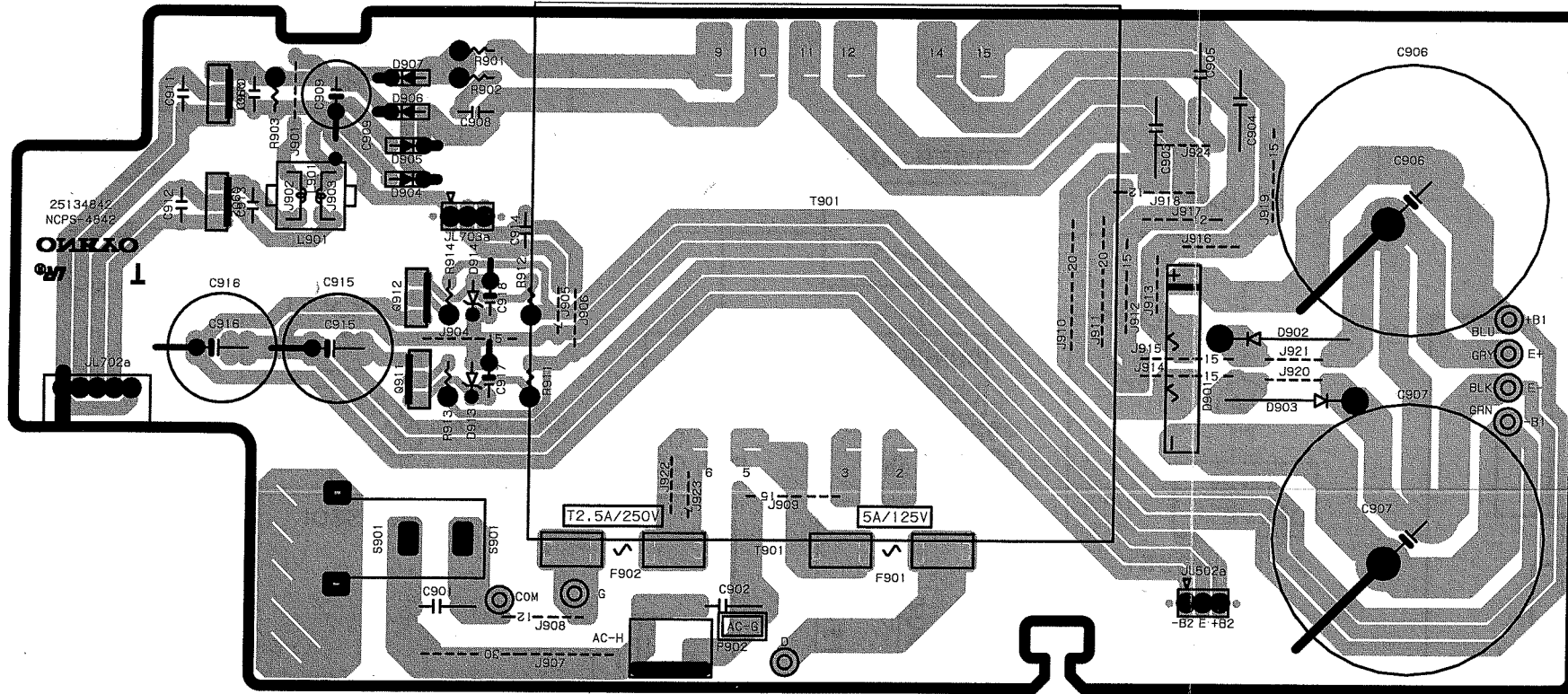
EQ-AMP

CART. SEL. 5101

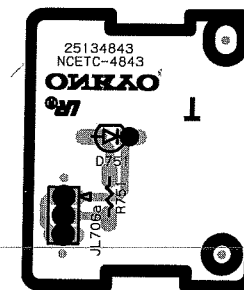
NASW-4840 Tone control circuit



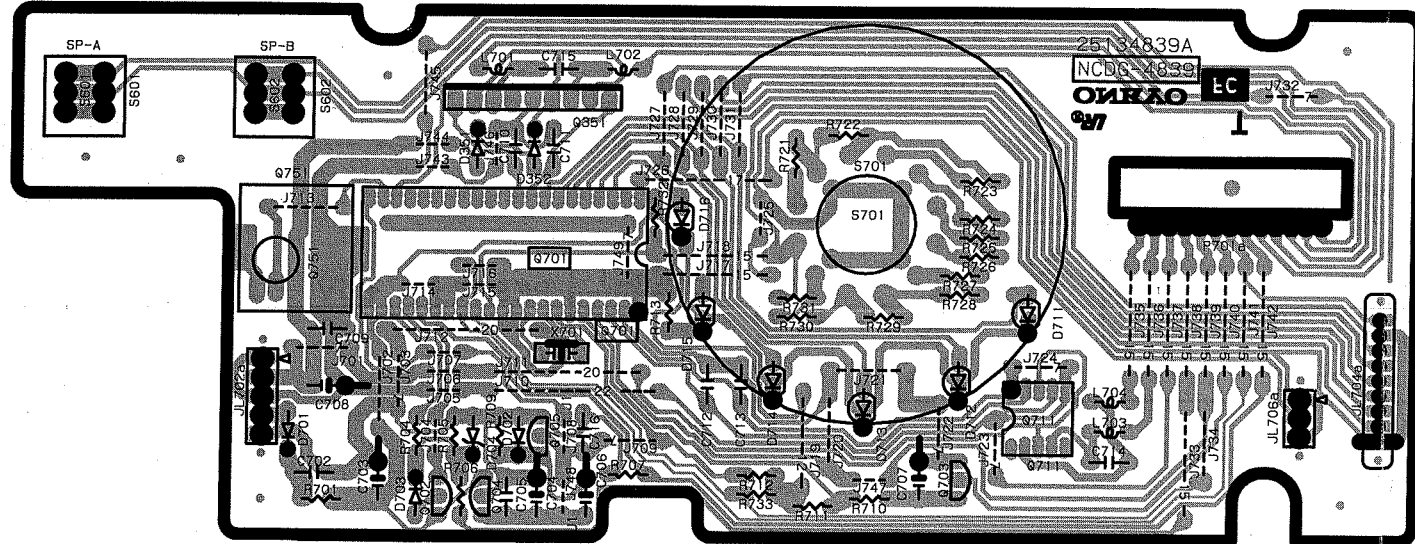
NAPS-4842 Power supply circuit



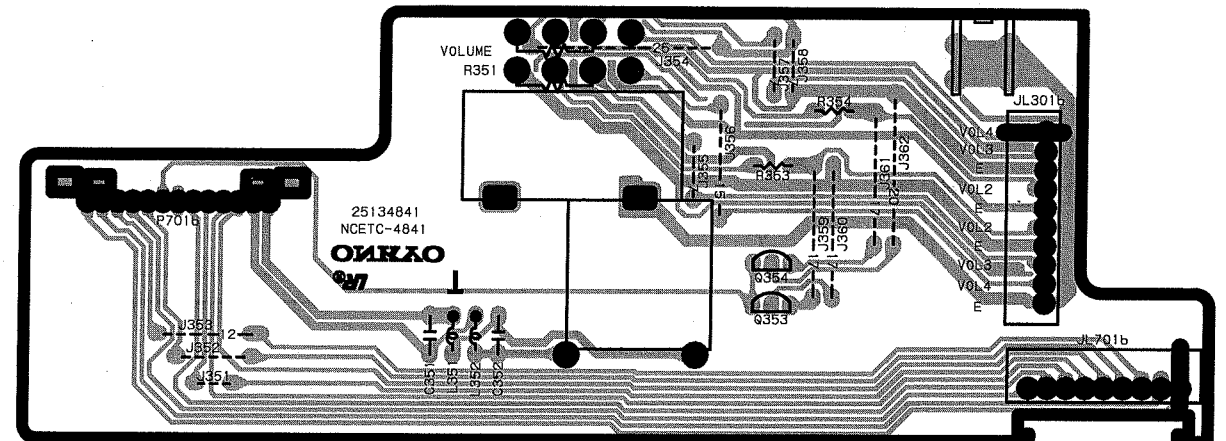
NAETC-4843 Muting Ind.



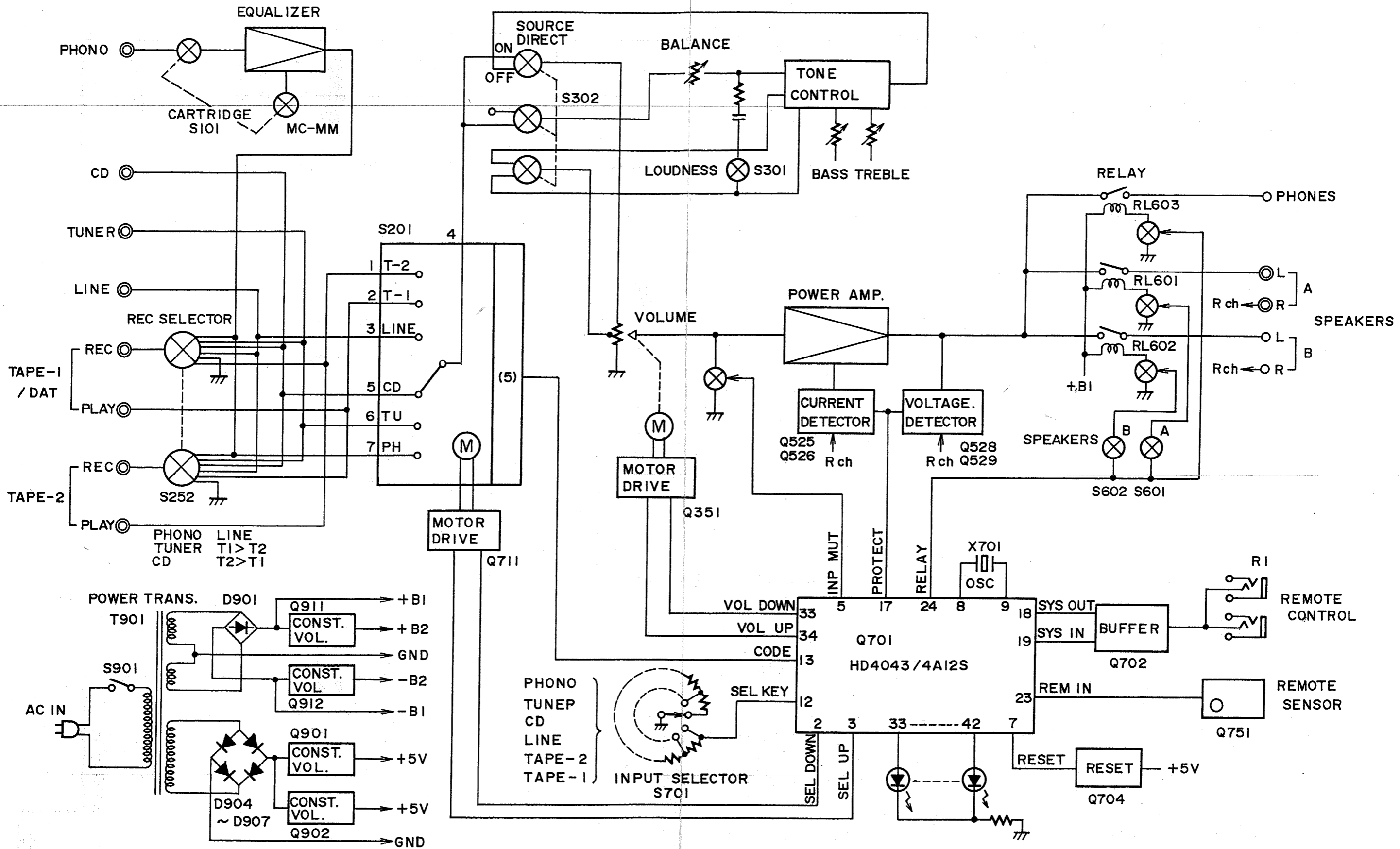
NADG-4839 Microprocessor circuit



NAETC-4841 Volume control circuit

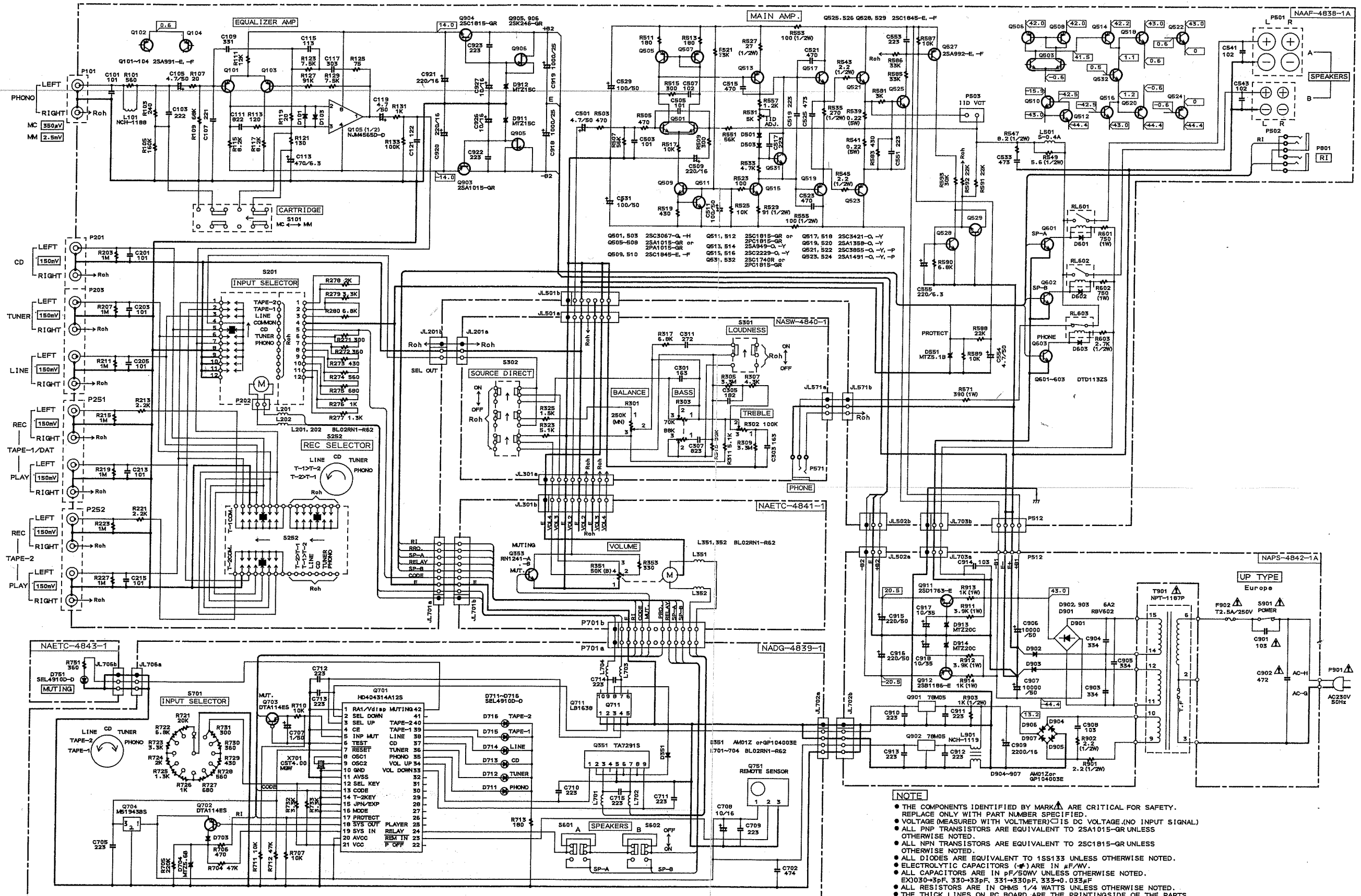


BLOCK DIAGRAM



SCHEMATIC DIAGRAM MODEL A-8051

1
2
3
4
5
6



NOTE

- THE COMPONENTS IDENTIFIED BY MARK Δ ARE CRITICAL FOR SAFETY. REPLACE ONLY WITH PART NUMBER SPECIFIED.
- VOLTAGE (MEASURED WITH VOLTMETER) \square 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 (E) ARE IN μ F/WV.
- ALL CAPACITORS ARE IN pF/50WV UNLESS OTHERWISE NOTED.
- EX) 030-3pF, 330-33pF, 331-330pF, 333-0.033 μ F.
- ALL RESISTORS ARE IN OHMS 1/4 WATTS UNLESS OTHERWISE NOTED.
- THE THICK LINES ON PC BOARD ARE THE PRINTINGSIDE OF THE PARTS.
- EX) \square PRINTING SIDE
- CIRCUIT IS SUBJECT TO CHANGE FOR IMPROVEMENT.

PRECAUTIONS

1. Replacing the fuses

For continued protection against risk fire, replace only with same type and same rating fuse.

| CIRCUIT NO. | PART NO. | DESCRIPTION |
|-------------|-----------------------|---|
| F902 | 252075 or 252075CC | 2.5A-SE-EAK or 2.5A-SE-EAK, Primary fuse |

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