


# ONKYO® SERVICE MANUAL

## Integrated Stereo Amplifier MODEL A-8037

### Silver and Black models

|         |                          |
|---------|--------------------------|
| UDN, UD | 120V AC, 60Hz            |
| UG      | 220V AC, 50Hz            |
| UW      | 120V or 220V AC, 50/60Hz |

### SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  ON THE SCHEMATIC DIAGRAM AND IN THE PARTS LIST ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE THESE COMPONENTS WITH ONKYO PARTS WHOSE 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**

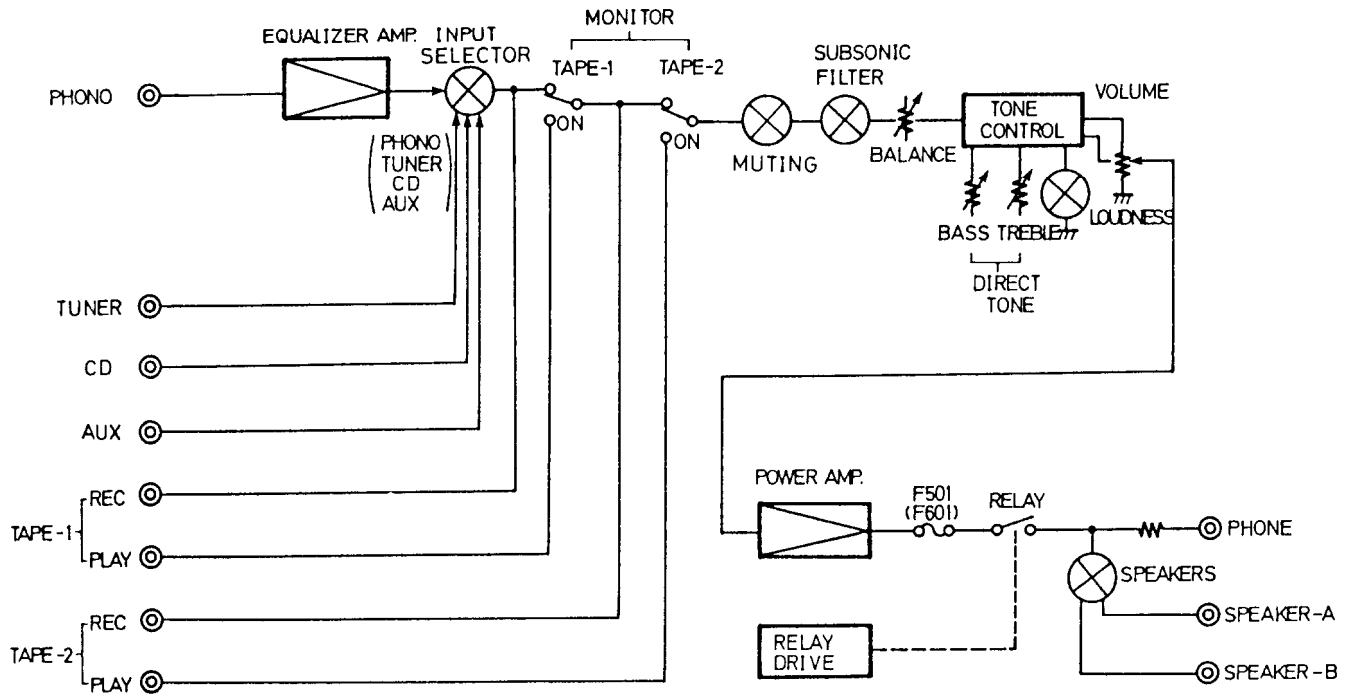
## SPECIFICATIONS

|                            |   |
|----------------------------|---|
| Power Output:              | 50 watts per channel, min. RMS, at 8 ohms, both channels driven, from 20Hz to 20kHz, with no more than 0.06% THD.       |
| Total Harmonic Distortion: | 0.06% at 50 watts   |
| IM Distortion:             | 0.06% at 50 watts   |
| Damping Factor:            | 40 at 8 ohms  |
| Frequency Response:        | 15 – 30,000Hz $\pm$ 1dB   |
| Sensitivity and Impedance: | Phono: 2.5mV/50 kohms<br>Tuner/CD/AUX: 150mV/50 kohms<br>Tape Play: 150mV/50 kohms<br>Tape Rec: 150mV/3.5 kohms (phono) |
| Phono Overload:            | 150mV RMS at 1kHz, 0.06% THD  |
| Bass Control:              | $\pm$ 7dB at 100Hz  |
| Treble Control:            | $\pm$ 8dB at 10,000Hz   |
| Signal to Noise Ratio:     | Phono: 75dB (IHF A-202, 5mV input, 1 watt output)<br>Tuner & Tape: 80dB (IHF A-202, 0.5V input, 1 watt output)          |
| Loudness Control:          | +6dB at 70Hz/+5dB at 10kHz  |
| Subsonic Filter:           | 15Hz (6dB/Octave)   |
| <b>General</b>             |   |
| Power Supply:              | AC 120V, 60Hz (D model)<br>AC 220V, 50Hz (G model)<br>AC 120V or 220V 50/60Hz (W model)                                 |
| Semiconductors:            | IC: 2 TR: 2 Diode: 13 LEDs: 6   |
| Dimensions:                | 435 (W) x 112 (H) x 278 (D)mm<br>17-1/8" x 4-7/16" x 10-15/16"  |
| Weight:                    | 6.6kg. (14.5lbs.)   |

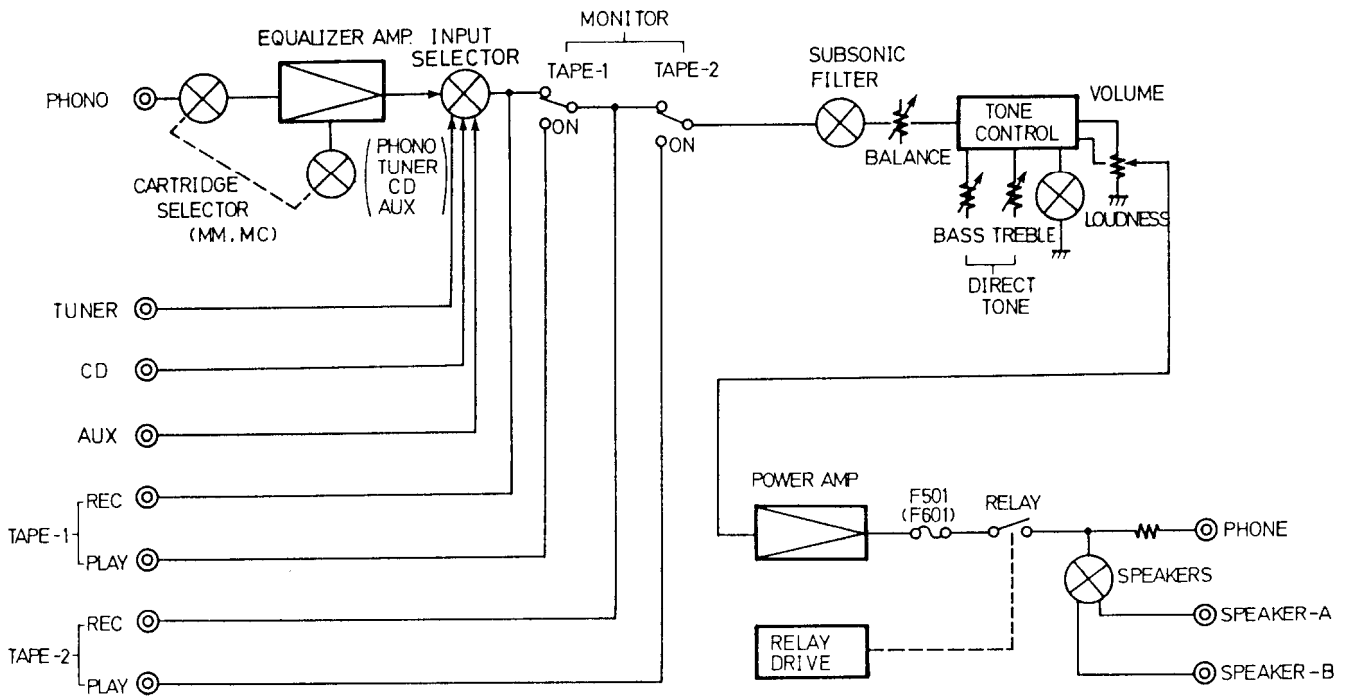
Specifications and features are subject to change without notice.

# BLOCK DIAGRAM

120V, 120V/220V Model



220V Model



# 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   |
|-------------|----------|---|
| F901        | 252049   | 4A (ST-6), Primary fuse (120V model, 120V/220V model) |
| F902        | 252074   | 2A-SE-EAK, Primary fuse (220V model, 120V/220V model) |
| F905, F906  | 252078   | 5A-SE-EAK, Secondary fuse (220V model)                |
| F501, F601  | 252059   | 4A (SS-2), Speaker fuse (120V model, 120V/220V model) |
|             | 252077   | 4A-SE-EAK, Speaker fuse (220V model)                  |

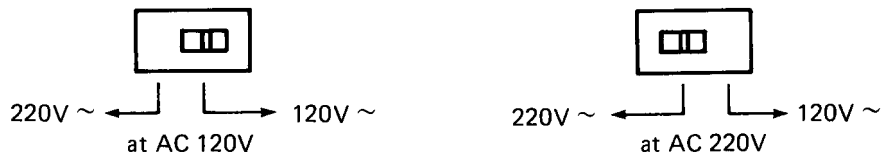
## 3. Insulation resistance measurement (Only U.S.A. model)

Connect the insulating-resistance tester between the plug of power supply cable and the terminal GND on the back panel.

Specification; More than 10MΩ at 500V

## 4. Voltage selector (rear panel)

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 turning the power switch on. Voltage is changed by sliding the groove in the switch with a screwdriver or similar instrument to the up or down position. Confirm that the switch has been moved all the way to the up or down before turning the power switch on. If there is no voltage selector switch on the unit you have purchased, it can only be used in areas where the power supply voltage is the same as that of the unit.



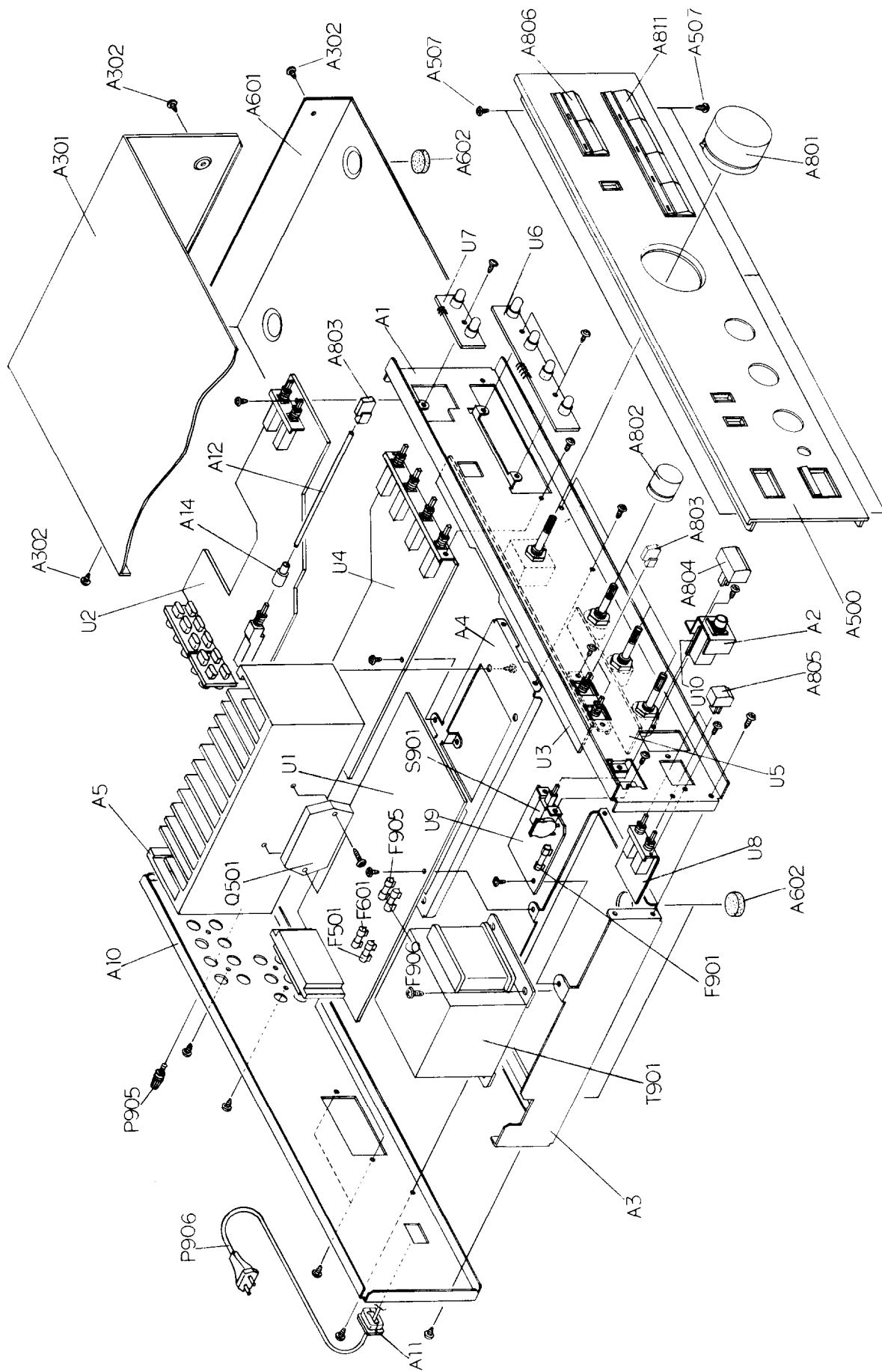
# CHASSIS-EXPLODED VIEW-PARTS LIST

| REF. NO.    | PART NO.  | DESCRIPTION                             | REF. NO.   | PART NO.   | DESCRIPTION   |
|-------------|-----------|---|------------|------------|---|
| A1          | 27110246A | Front bracket                           | F501, F601 | 252059     | 4A (SS-2), Speaker fuse [D] [W]                                   |
| A2          | 27140995A | Bracket, HP                             |            | 252077     | 4A-SE-EAK, Speaker fuse [G]                                       |
| A3          | 27130393  | Bracket, L                              | △ F901     | 252049     | 4A (ST-6), Primary fuse [D] [W]                                   |
| A4          | 27130394A | Bracket, H                              | △ F902     | 252074     | 2A-SE-EAK, Primary fuse [G] [W]                                   |
| A5          | 27160171  | Radiator                                | F905, F906 | 252078     | 5A-SE-EAK, Secondary fuse [G]                                     |
| A10         | 27120701A | Back panel [D]                          | U1         | 17948533   | NAAF-2333, Power amplifier pc board ass'y [D] [W]                 |
|             | 27120702A | Back panel [G]                          |            | 17952533B  | NAAF-2333B, Power amplifier pc board ass'y [G]                    |
|             | 27120704A | Back panel [W]                          | U2         | 17948534   | NAEQ-2334, Equalizer amplifier pc board ass'y [D] [W]             |
| △ A11       | 27300750  | Strainrelief                            |            | 179525334B | NAEQ-2334B, Equalizer amplifier pc board ass'y [G]                |
| A12         | 27260174A | Shaft [G]                               | U3         | 17948535   | NAVR-2335, Muting/Subsonic/Loudness switch pc board ass'y [D] [W] |
| A14         | 28320135  | Joint                                   |            | 17952535A  | NAVR-2335A, Subsonic/Loudness switch pc board ass'y [G]           |
| A301        | 28184279  | Top cover                               | U4         | 17948536   | NASW-2336, Input selector switch pc board ass'y [D] [W]           |
|             | 2818428D  | Top cover [Black]                       |            | 17954536A  | NASW-2336A, Input selector switch pc board ass'y [G]              |
| A302        | 834430068 | 3TTS+6B (BC), Tapping screw             | U5         | 17948537   | NATC-2337, Tone controle pc board ass'y                           |
| A500        | 17948121  | Front panel ass'y [D] [W]               | U6         | 17948538   | NALED-2338, LED display pc board ass'y                            |
|             | 17928121  | Front panel ass'y [D, Black] [W, Black] | U7         | 17948539   | NALED-2339, LED display pc board ass'y                            |
|             | 17954121  | Front panel ass'y [G]                   | U8         | 17948540   | NASW-2340, Speaker switch pc board ass'y                          |
|             | 17934121  | Front panel ass'y [G, Black]            | U9         | 17948541   | NASW-2341, Power switch pc board ass'y [D]                        |
| A507        | 834430068 | 3TTS+6B (BC), Tapping screw             |            | 17954541A  | NASW-2341A, Power switch pc board ass'y [G]                       |
| A601        | 27170202A | Bottom board                            |            | 17950541B  | NASW-2341B, Power switch pc board ass'y [W]                       |
| A602        | 27175039  | Bottom leg                              | U10        | 17948542   | NAHP-2342, Headphone jack pc board ass'y                          |
| A603        | 834430068 | 3TTS+6B (BC), Tapping screw             |            |            |   |
| A801        | 28322051A | Knob, VOL                               |            |            |   |
|             | 28322058A | Knob, VOL [Black]                       |            |            |   |
| A802        | 28322052  | Knob, TONE                              |            |            |   |
|             | 28322059  | Knob, TONE [Black]                      |            |            |   |
| A803        | 28322066A | Knob, PUSH                              |            |            |   |
|             | 28322067A | Knob, PUSH [Black]                      |            |            |   |
| A804        | 28321928  | Knob, POWER                             |            |            |   |
|             | 28321905A | Knob, POWER [Black]                     |            |            |   |
| A805        | 28322053A | Knob, SP                                |            |            |   |
|             | 28322060A | Knob, SP [Black]                        |            |            |   |
| A806        | 28322054A | Knob ass'y, TAPE                        |            |            |   |
|             | 28322061A | Knob ass'y, TAPE [Black]                |            |            |   |
| A811        | 28322056A | Knob ass'y, SEL                         |            |            |   |
|             | 28322063A | Knob ass'y, SEL [Black]                 |            |            |   |
| Q501 (Q601) | 22036     | STK-4893, IC                            |            |            |   |
| △ T901      | 230880    | NPT-878D, Power transformer [D]         |            |            |   |
|             | 230883    | NPT-878G, Power transformer [G]         |            |            |   |
|             | 230884    | NPT-878DG, Power transformer [W]        |            |            |   |
| △ S901      | 25035398  | NPS-111-L362P, Power switch             |            |            |   |
| △ S902      | 25065123  | NPS-1258P, Slide switch [W]             |            |            |   |
| P905        | 25060044  | Ground terminal                         |            |            |   |
| △ P906      | 253112    | AS US-4#18, Power supply cable [D]      |            |            |   |
|             | 253128    | AS-CEE, Power supply cable [G]          |            |            |   |
|             | 253092-1  | AS-CEE-2, Power supply cable [W]        |            |            |   |
| △ P907      | 25050139  | NSCT-6P38, AC outlet [D]                |            |            |   |

NOTE: [D]: Only 120V model  
[G]: Only 220V model  
[W]: Only 120V/220V model  
[BLACK]: Only Black model

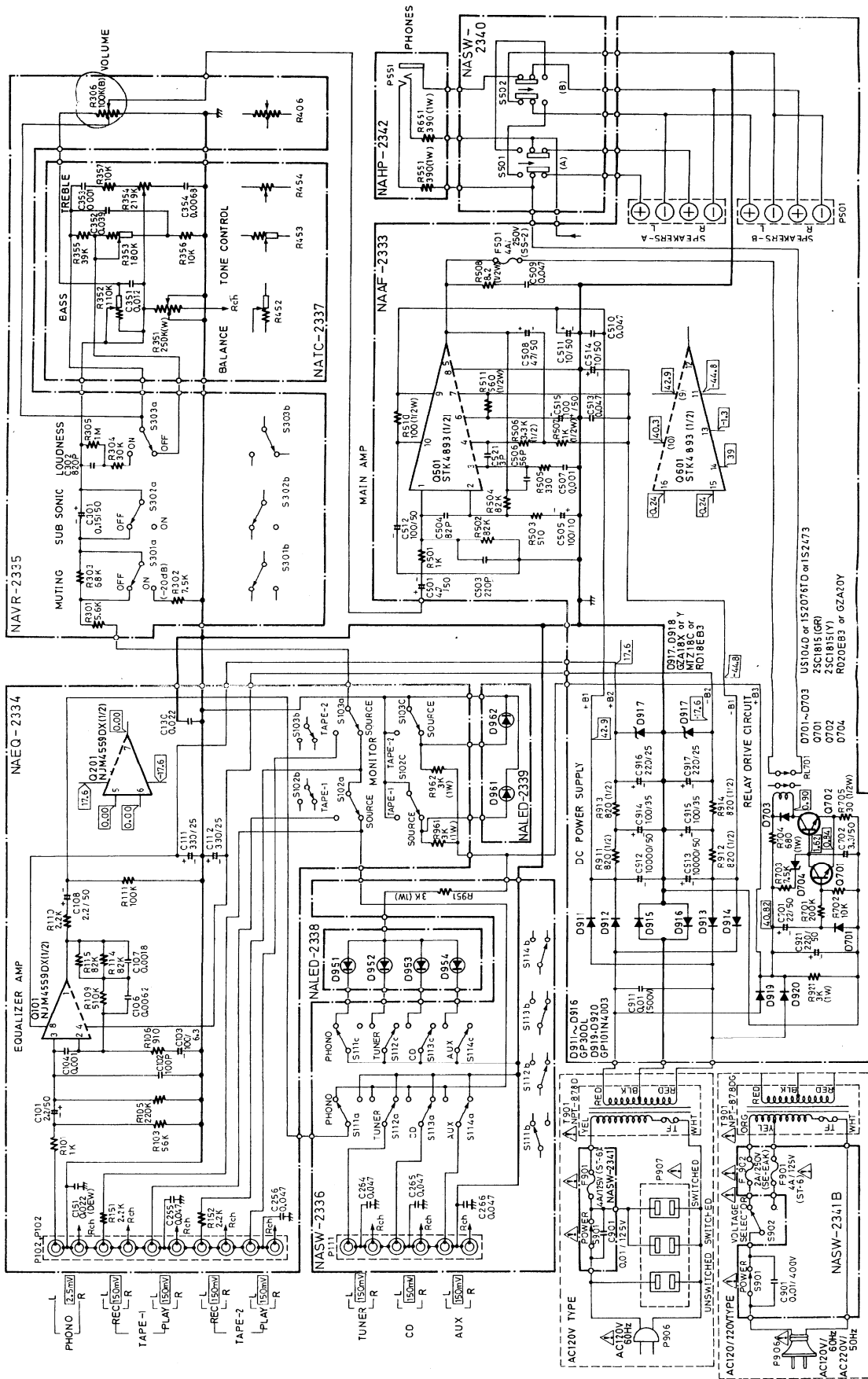
NOTE: THE COMPONENTS IDENTIFIED BY MARK △ ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE ONLY WITH PARTS NUMBER SPECIFIED.

**CHASSIS-EXPLODED VIEW**



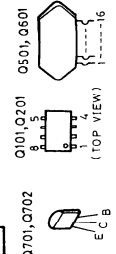
# SCHEMATIC DIAGRAM

(120V Model, 120V/220V Model)



**NOTES**

- ALL RESISTORS ARE IN OHMS 1/4 WATT or 1/8 WATT UNLESS OTHERWISE NOTED.
- ELECTROLYTIC CAPACITORS ARE IN MICRO-FARADS UNLESS OTHERWISE NOTED.
- ALL DIODES ARE 1N2473 or 1N2076 or 1N5706 or 1N5404 UNLESS OTHERWISE NOTED.
- WITH MINIMUM VOLTAGE IS DC VOLTAGE STOP MODE.
- THE COMPONENTS IDENTIFIED BY MARK ARE CRITICAL FOR SAFETY. REPLACE ONLY WITH PART NUMBER SPECIFIED.



| NO.  | FUNCTION | POSITION | NO.  | FUNCTION | POSITION        |
|------|----------|----------|------|----------|-----------------|
| S901 | POWER    | OFF      | S103 | LOUDNESS | OFF ON          |
| S902 | MONITOR  | OFF      | S501 | SPEAKERS | A OFF B         |
| S903 | MUTING   | OFF      | S502 | SPEAKERS | OFF ON          |
| S904 | SUBSONIC | OFF      | S114 | SELECTOR | PHI THIN CD AUX |

| NO.  | FUNCTION        | POSITION | NO.   | FUNCTION    | POSITION |
|------|-----------------|----------|-------|-------------|----------|
| D911 | DC POWER SUPPLY | +B1      | D917  | RELAY DRIVE | +B1      |
| D912 | DC POWER SUPPLY | +B2      | D918  | RELAY DRIVE | +B1      |
| D913 | DC POWER SUPPLY | +B1      | D919  | RELAY DRIVE | +B1      |
| D914 | DC POWER SUPPLY | +B1      | D920  | RELAY DRIVE | +B1      |
| D915 | DC POWER SUPPLY | +B1      | D921  | RELAY DRIVE | +B1      |
| D916 | DC POWER SUPPLY | +B1      | D922  | RELAY DRIVE | +B1      |
| D917 | DC POWER SUPPLY | +B1      | D923  | RELAY DRIVE | +B1      |
| D918 | DC POWER SUPPLY | +B1      | D924  | RELAY DRIVE | +B1      |
| D919 | DC POWER SUPPLY | +B1      | D925  | RELAY DRIVE | +B1      |
| D920 | DC POWER SUPPLY | +B1      | D926  | RELAY DRIVE | +B1      |
| D921 | DC POWER SUPPLY | +B1      | D927  | RELAY DRIVE | +B1      |
| D922 | DC POWER SUPPLY | +B1      | D928  | RELAY DRIVE | +B1      |
| D923 | DC POWER SUPPLY | +B1      | D929  | RELAY DRIVE | +B1      |
| D924 | DC POWER SUPPLY | +B1      | D930  | RELAY DRIVE | +B1      |
| D925 | DC POWER SUPPLY | +B1      | D931  | RELAY DRIVE | +B1      |
| D926 | DC POWER SUPPLY | +B1      | D932  | RELAY DRIVE | +B1      |
| D927 | DC POWER SUPPLY | +B1      | D933  | RELAY DRIVE | +B1      |
| D928 | DC POWER SUPPLY | +B1      | D934  | RELAY DRIVE | +B1      |
| D929 | DC POWER SUPPLY | +B1      | D935  | RELAY DRIVE | +B1      |
| D930 | DC POWER SUPPLY | +B1      | D936  | RELAY DRIVE | +B1      |
| D931 | DC POWER SUPPLY | +B1      | D937  | RELAY DRIVE | +B1      |
| D932 | DC POWER SUPPLY | +B1      | D938  | RELAY DRIVE | +B1      |
| D933 | DC POWER SUPPLY | +B1      | D939  | RELAY DRIVE | +B1      |
| D934 | DC POWER SUPPLY | +B1      | D940  | RELAY DRIVE | +B1      |
| D935 | DC POWER SUPPLY | +B1      | D941  | RELAY DRIVE | +B1      |
| D936 | DC POWER SUPPLY | +B1      | D942  | RELAY DRIVE | +B1      |
| D937 | DC POWER SUPPLY | +B1      | D943  | RELAY DRIVE | +B1      |
| D938 | DC POWER SUPPLY | +B1      | D944  | RELAY DRIVE | +B1      |
| D939 | DC POWER SUPPLY | +B1      | D945  | RELAY DRIVE | +B1      |
| D940 | DC POWER SUPPLY | +B1      | D946  | RELAY DRIVE | +B1      |
| D941 | DC POWER SUPPLY | +B1      | D947  | RELAY DRIVE | +B1      |
| D942 | DC POWER SUPPLY | +B1      | D948  | RELAY DRIVE | +B1      |
| D943 | DC POWER SUPPLY | +B1      | D949  | RELAY DRIVE | +B1      |
| D944 | DC POWER SUPPLY | +B1      | D950  | RELAY DRIVE | +B1      |
| D945 | DC POWER SUPPLY | +B1      | D951  | RELAY DRIVE | +B1      |
| D946 | DC POWER SUPPLY | +B1      | D952  | RELAY DRIVE | +B1      |
| D947 | DC POWER SUPPLY | +B1      | D953  | RELAY DRIVE | +B1      |
| D948 | DC POWER SUPPLY | +B1      | D954  | RELAY DRIVE | +B1      |
| D949 | DC POWER SUPPLY | +B1      | D955  | RELAY DRIVE | +B1      |
| D950 | DC POWER SUPPLY | +B1      | D956  | RELAY DRIVE | +B1      |
| D951 | DC POWER SUPPLY | +B1      | D957  | RELAY DRIVE | +B1      |
| D952 | DC POWER SUPPLY | +B1      | D958  | RELAY DRIVE | +B1      |
| D953 | DC POWER SUPPLY | +B1      | D959  | RELAY DRIVE | +B1      |
| D954 | DC POWER SUPPLY | +B1      | D960  | RELAY DRIVE | +B1      |
| D955 | DC POWER SUPPLY | +B1      | D961  | RELAY DRIVE | +B1      |
| D956 | DC POWER SUPPLY | +B1      | D962  | RELAY DRIVE | +B1      |
| D957 | DC POWER SUPPLY | +B1      | D963  | RELAY DRIVE | +B1      |
| D958 | DC POWER SUPPLY | +B1      | D964  | RELAY DRIVE | +B1      |
| D959 | DC POWER SUPPLY | +B1      | D965  | RELAY DRIVE | +B1      |
| D960 | DC POWER SUPPLY | +B1      | D966  | RELAY DRIVE | +B1      |
| D961 | DC POWER SUPPLY | +B1      | D967  | RELAY DRIVE | +B1      |
| D962 | DC POWER SUPPLY | +B1      | D968  | RELAY DRIVE | +B1      |
| D963 | DC POWER SUPPLY | +B1      | D969  | RELAY DRIVE | +B1      |
| D964 | DC POWER SUPPLY | +B1      | D970  | RELAY DRIVE | +B1      |
| D965 | DC POWER SUPPLY | +B1      | D971  | RELAY DRIVE | +B1      |
| D966 | DC POWER SUPPLY | +B1      | D972  | RELAY DRIVE | +B1      |
| D967 | DC POWER SUPPLY | +B1      | D973  | RELAY DRIVE | +B1      |
| D968 | DC POWER SUPPLY | +B1      | D974  | RELAY DRIVE | +B1      |
| D969 | DC POWER SUPPLY | +B1      | D975  | RELAY DRIVE | +B1      |
| D970 | DC POWER SUPPLY | +B1      | D976  | RELAY DRIVE | +B1      |
| D971 | DC POWER SUPPLY | +B1      | D977  | RELAY DRIVE | +B1      |
| D972 | DC POWER SUPPLY | +B1      | D978  | RELAY DRIVE | +B1      |
| D973 | DC POWER SUPPLY | +B1      | D979  | RELAY DRIVE | +B1      |
| D974 | DC POWER SUPPLY | +B1      | D980  | RELAY DRIVE | +B1      |
| D975 | DC POWER SUPPLY | +B1      | D981  | RELAY DRIVE | +B1      |
| D976 | DC POWER SUPPLY | +B1      | D982  | RELAY DRIVE | +B1      |
| D977 | DC POWER SUPPLY | +B1      | D983  | RELAY DRIVE | +B1      |
| D978 | DC POWER SUPPLY | +B1      | D984  | RELAY DRIVE | +B1      |
| D979 | DC POWER SUPPLY | +B1      | D985  | RELAY DRIVE | +B1      |
| D980 | DC POWER SUPPLY | +B1      | D986  | RELAY DRIVE | +B1      |
| D981 | DC POWER SUPPLY | +B1      | D987  | RELAY DRIVE | +B1      |
| D982 | DC POWER SUPPLY | +B1      | D988  | RELAY DRIVE | +B1      |
| D983 | DC POWER SUPPLY | +B1      | D989  | RELAY DRIVE | +B1      |
| D984 | DC POWER SUPPLY | +B1      | D990  | RELAY DRIVE | +B1      |
| D985 | DC POWER SUPPLY | +B1      | D991  | RELAY DRIVE | +B1      |
| D986 | DC POWER SUPPLY | +B1      | D992  | RELAY DRIVE | +B1      |
| D987 | DC POWER SUPPLY | +B1      | D993  | RELAY DRIVE | +B1      |
| D988 | DC POWER SUPPLY | +B1      | D994  | RELAY DRIVE | +B1      |
| D989 | DC POWER SUPPLY | +B1      | D995  | RELAY DRIVE | +B1      |
| D990 | DC POWER SUPPLY | +B1      | D996  | RELAY DRIVE | +B1      |
| D991 | DC POWER SUPPLY | +B1      | D997  | RELAY DRIVE | +B1      |
| D992 | DC POWER SUPPLY | +B1      | D998  | RELAY DRIVE | +B1      |
| D993 | DC POWER SUPPLY | +B1      | D999  | RELAY DRIVE | +B1      |
| D994 | DC POWER SUPPLY | +B1      | D1000 | RELAY DRIVE | +B1      |

# PRINTED CIRCUIT BOARD PARTS LIST

## POWER AMP. & POWER SUPPLY (NAAF-2333, NAAF-2333B) – PARTS LIST

| CIRCUIT NO. | PART NO.  | DESCRIPTION                                      |
|-------------|---|--|
|             | <b>Transistors</b>                                |  |
| Q701        | 2211255   | 2SC1815GR  |
| Q702        | 2211254   | 2SC1815Y   |
|             | <b>Diodes</b>                                     |  |
| D701, D703  | 223150 or<br>223145 or<br>223124                  | US1040 or<br>1S2076TD or<br>1S2473               |
| D704        | 2239733 or<br>2241212                             | RD20EB3 or<br>GZA20Y                             |
| D911 ~ D916 | 223863  | GP-30DL  |
| D917, D918  | 2243273 or<br>2241191 or<br>2241192 or<br>2239713 | MTZ18C or<br>GZA-18X or<br>GZA-18Y or<br>RD18EB3 |
| D919, D920  | 223880  | GP101N4003                                       |
|             | <b>Coils</b>                                      |  |
| L501, L601  | 231001  | S-1.3B [G]                                       |
|             | <b>Capacitors</b>                                 |  |
| C501, C601  | 352780479   | 4.7 $\mu$ F, 50V, Elect.                         |
| C505, C605  | 3500080   | 100 $\mu$ F, 10V, Elect.                         |
| C508, C608  | 352784709   | 47 $\mu$ F, 50V, Elect.                          |
| C509, C609  | 371124735   | 0.047 $\mu$ F, 50V, Mylar                        |
| C511, C514  | 352781009   | 10 $\mu$ F, 50V, Elect.                          |
| C512, C515  | 352781019   | 100 $\mu$ F, 50V, Elect.                         |
| C701        | 352782209   | 22 $\mu$ F, 50V, Elect.                          |
| C702        | 352780339   | 3.3 $\mu$ F, 50V, Elect.                         |
| C912, C913  | 3504178   | 10000 $\mu$ F, 50V, Elect.                       |
| C914, C915  | 352761019   | 100 $\mu$ F, 35V, Elect.                         |
| C916, C917  | 352752219   | 220 $\mu$ F, 25V, Elect.                         |
| C921        | 352782219   | 220 $\mu$ F, 50V, Elect.                         |
|             | <b>Resistors</b>                                  |  |
| R506, R606  | 441523324   | 3.3k $\Omega$ , 1/2W, Metal oxide film           |
| R507, R607  | 441521024   | 1k $\Omega$ , 1/2W, Metal oxide film             |
| R508, R608  | 441520824   | 8.2 $\Omega$ , 1/2W, Metal oxide film            |
| R509, R609  | 441520474   | 4.7 $\Omega$ , 1/2W, Metal oxide film [G]        |
| R510        | 441521014   | 100 $\Omega$ , 1/2W, Metal oxide film            |
| R511        | 441525614   | 560 $\Omega$ , 1/2W, Metal oxide film            |
| R704        | 441626814   | 680 $\Omega$ , 1W, Metal oxide film              |
| R705        | 441523004   | 30 $\Omega$ , 1/2W, Metal oxide film             |
| R911 ~ R914 | 441528214   | 820 $\Omega$ , 1/2W, Metal oxide film [D] [W]    |
| R911 ~ R914 | 441526214   | 620 $\Omega$ , 1/2W, Metal oxide film [G]        |
| R921        | 441623024   | 3k $\Omega$ , 1W, Metal oxide film               |
|             | <b>Relay</b>                                      |  |
| RL701       | 25065134  | NRL-2P5A-DC24-05                                 |
|             | <b>Terminal</b>                                   |  |
| P501        | 25060058  | NTM-8PDML25                                      |

## CIRCUIT NO. PART NO. DESCRIPTION

### Fuse holderes

|          |                |
|----------|----------------|
| 250113   | SN5051 [D] [W] |
| 25050065 | YSH403T [G]    |

## EQUALIZER AMPLIFIER PC BOARD (NAEQ-2334) – PARTS LIST

| CIRCUIT NO. | PART NO.               | DESCRIPTION                          |
|-------------|------------------------|--------------------------------------|
|             | <b>IC</b>              |                                      |
| Q101 (Q201) | 222534                 | NJM-4559DX                           |
|             | <b>Capacitors</b>      |                                      |
| C101, C201  | 352780229              | 2.2 $\mu$ F, 50V, Elect.             |
| C103, C203  | 352721019              | 100 $\mu$ F, 6.3V, Elect.            |
| C106, C206  | 371126224              | 6200pF, 50V, Mylar                   |
| C107, C207  | 371121824              | 1800pF, 50V, Mylar                   |
| C108, C208  | 352780229              | 2.2 $\mu$ F, 50V, Elect.             |
| C111, C112  | 352753319              | 330 $\mu$ F, 25V, Elect.             |
| C151        | 379122235              | 0.022 $\mu$ F, 50V, DEW              |
|             | <b>Resistors</b>       |                                      |
| R961, R962  | 441623024              | 3.0k $\Omega$ , 1W, Metal oxide film |
|             | <b>Switch</b>          |                                      |
| S102 (S103) | 25035478               | NPS-242-L440                         |
|             | <b>Input terminals</b> |                                      |
| P101        | 25045143               | NPI-6PDBL56, 6P                      |
| P102        | 25045142               | NPI-4PDBL55, 4P                      |
|             | <b>Socket</b>          |                                      |
|             | 25050140               | NJPS-3P-S                            |

## EQUALIZER AMPLIFIER PC BOARD (NAEQ-2334B) – PARTS LIST

| CIRCUIT NO. | PART NO.          | DESCRIPTION                          |
|-------------|-------------------|--------------------------------------|
|             | <b>IC</b>         |                                      |
| Q101 (Q201) | 222605            | TA-7322P                             |
|             | <b>Coils</b>      |                                      |
| L101, L201  | 231030            | NCH-1070                             |
|             | <b>Capacitors</b> |                                      |
| C101, C201  | 392850477         | 4.7 $\mu$ F, 25V, Elect.             |
| C103, C203  | 352723319         | 330 $\mu$ F, 6.3V, Elect.            |
| C106, C206  | 371126824         | 6800pF, 50V, Mylar                   |
| C107, C207  | 371122034         | 0.02 $\mu$ F, 50V, Mylar             |
| C108, C208  | 392880107         | 1 $\mu$ F, 50V, Elect.               |
| C111, C112  | 352751019         | 100 $\mu$ F, 25V, Elect.             |
| C151        | 379124735         | 0.047 $\mu$ F, 50V, DEW              |
| C209, C210  | 352780339         | 3.3 $\mu$ F, 50V, Elect.             |
|             | <b>Resistors</b>  |                                      |
| R961, R962  | 441623024         | 3.0k $\Omega$ , 1W, Metal oxide film |
|             | <b>Switches</b>   |                                      |
| S101        | 25035475          | NPS-162-L437                         |
| S102 (S103) | 25035478          | NPS-242-L440                         |

| CIRCUIT NO. | PART NO.              | DESCRIPTION     |
|-------------|-----------------------|-----------------|
|             | <b>Input terminal</b> |                 |
| P101        | 25045143              | NPJ-6PDBL56, 6P |
| P102        | 25045142              | NPJ-4PDBL55, 4P |
|             | <b>Socket</b>         |                 |
|             | 25050140              | NJPS-3P-S       |

#### MUTING SWITCH PC BOARD (NAVR-2335) – PARTS LIST

| CIRCUIT NO. | PART NO.  | DESCRIPTION                             |
|-------------|-----------|---|
| C301, C401  | 352781599 | 0.15 $\mu$ F, 50V, Capacitor Elect.     |
| R306 (R406) | 5148099   | N16RGM100KBTP35, Variable resistor      |
| S301        | 25035372  | NPS-122-L336, Muting switch             |
| S302 (S303) | 25035376  | NPS-222, L340, Subsonic/Loudness switch |

#### MUTING SWITCH PC BOARD (NAVR-2335A) – PARTS LIST

| CIRCUIT NO. | PART NO.  | DESCRIPTION                            |
|-------------|-----------|--|
| C301, C401  | 352781599 | 0.15 $\mu$ F, 50V, Capacitor Elect.    |
| R306 (R406) | 5148099   | N16RGM100KBTP35, Variable resistor     |
| S302, S303  | 25035376  | NPS-222-L340, Subsonic/Loudness switch |

#### INPUT SELECTOR SWITCH PC BOARD (NASW-2336, NASW-2336A) – PARTS LIST

| CIRCUIT NO.             | PART NO. | DESCRIPTION                                   |
|-------------------------|----------|---|
| R951                    | 44163024 | 3.0k $\Omega$ , 1W, Metal oxide film resistor |
| S111 (S112, S113, S114) | 25035476 | NPS-442-L438, Selector switch                 |
| P111                    | 25045143 | NPJ-6PDBL56, Input terminal                   |

#### TONE CONTROL PC BOARD (NATC-2337) – PARTS LIST

| CIRCUIT NO.             | PART NO.          | DESCRIPTION                 |
|-------------------------|-------------------|-----------------------------|
|                         | <b>Capacitors</b> |                             |
| C351, C451              | 371121235         | 0.012 $\mu$ F, 50V, Mylar   |
| C352, C452              | 371123935         | 0.039 $\mu$ F, 50V, Mylar   |
| C353, C453              | 371121025         | 1000pF, 50V, Mylar          |
| C354, C454              | 371126825         | 6800pF, 50V, Mylar          |
|                         | <b>Resistors</b>  |                             |
| R351 (R451)             | 5146052           | N16RLC250KWTP35, Variable   |
| R352 (R353, R452, R453) | 5148104           | N16RQMC110K180K35, Variable |
| R354 (R454)             | 5148105           | N16RGMC219K35, Variable     |

#### LED DISPLAY PC BOARD (NALED-2338) – PARTS LIST

| CIRCUIT NO. | PART NO.         | DESCRIPTION            |
|-------------|------------------|------------------------|
|             | <b>LEDs</b>      |                        |
| D951 ~ D954 | 225174 or 225173 | SLR55MC3N or SLR55MC3M |
|             | <b>Etc.</b>      |                        |
|             | 27270071         | Spacer, LED            |







#### LED DISPLAY PC BOARD (NALED-2339) – PARTS LIST

| CIRCUIT NO. | PART NO.             | DESCRIPTION                |
|-------------|----------------------|----------------------------|
|             | <b>LEDs</b>          |                            |
| D961, D962  | 225167RB or 225167RC | GL-5HY10-RB or GL-5HY10-RC |
|             | <b>Etc.</b>          |                            |
|             | 27270071             | Spacer, LED                |

#### SPEAKER SWITCH PC BOARD (NASW-2340) – PARTS LIST

| CIRCUIT NO. | PART NO.      | DESCRIPTION  |
|-------------|---------------|--------------|
|             | <b>Switch</b> |              |
| S501 (S502) | 25035477      | NPS-222-L439 |


#### POWER SWITCH PC BOARD (NASW-2341, NASW-2341A, NASW-2341B) – PARTS LIST

| CIRCUIT NO.   | PART NO. | DESCRIPTION                     |
|---|----------|---------------------------------|
|  C901  | 3500065A | 0.01 $\mu$ F, AC400V, Capacitor |
|  C901a | 27300601 | SB-1925, Capacitor cover        |
|  S901  | 25035398 | NPS-111-L362P, Power switch     |
|        | 250113   | SN5051, Fuse holder [D] [W]     |
|        | 25050065 | YSH403T, Fuse holder [G] [W]    |
|        | 25060092 | NTM-1533, Terminal [G] [W]      |

#### HEADPHONE JACK PC BOARD (NAHP-2342) – PARTS LIST

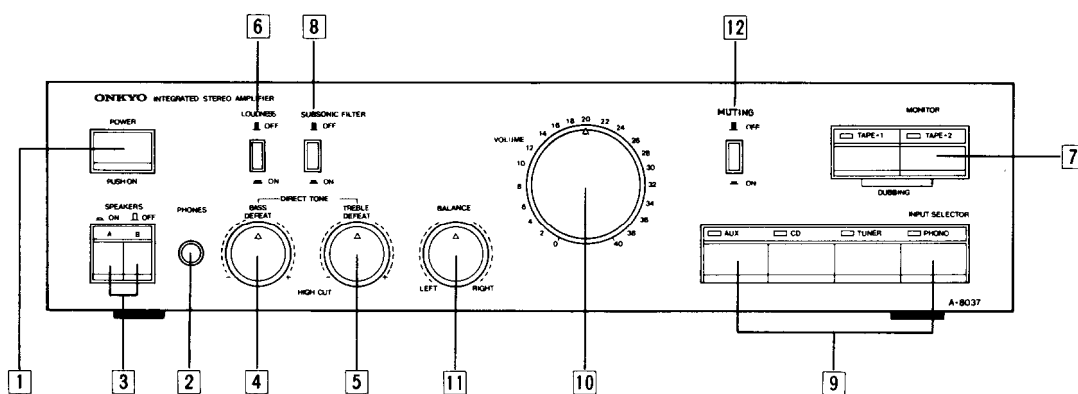
| CIRCUIT NO. | PART NO.  | DESCRIPTION                                  |
|-------------|-----------|--|
| R551, R651  | 441623914 | 390 $\Omega$ , 1W, Metal oxide film resistor |
| P551        | 25045139  | HLJ0540-01-010, Headphone jack               |

**NOTE:** [D]: Only 120V model  
[G]: Only 220V model  
[W]: Only 120V/220V model

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

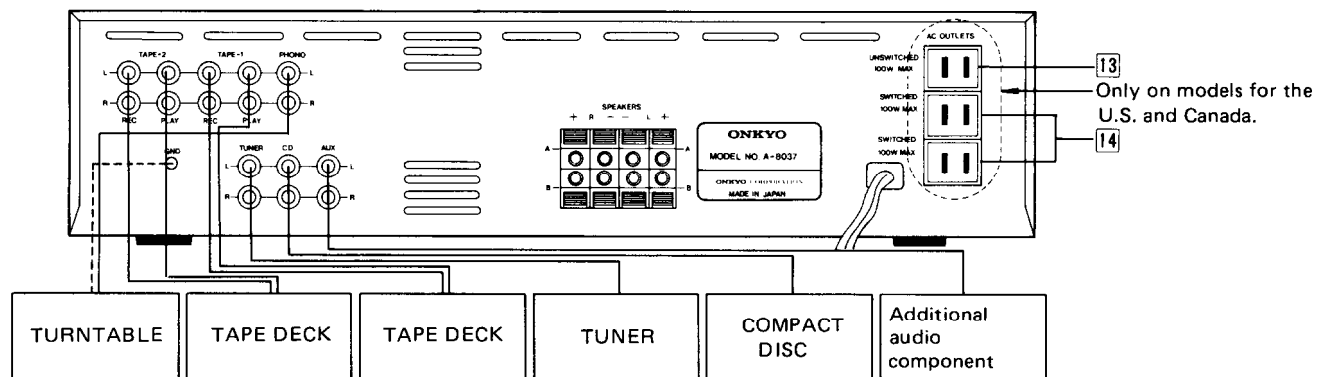


## FRONT PANEL FACILITIES



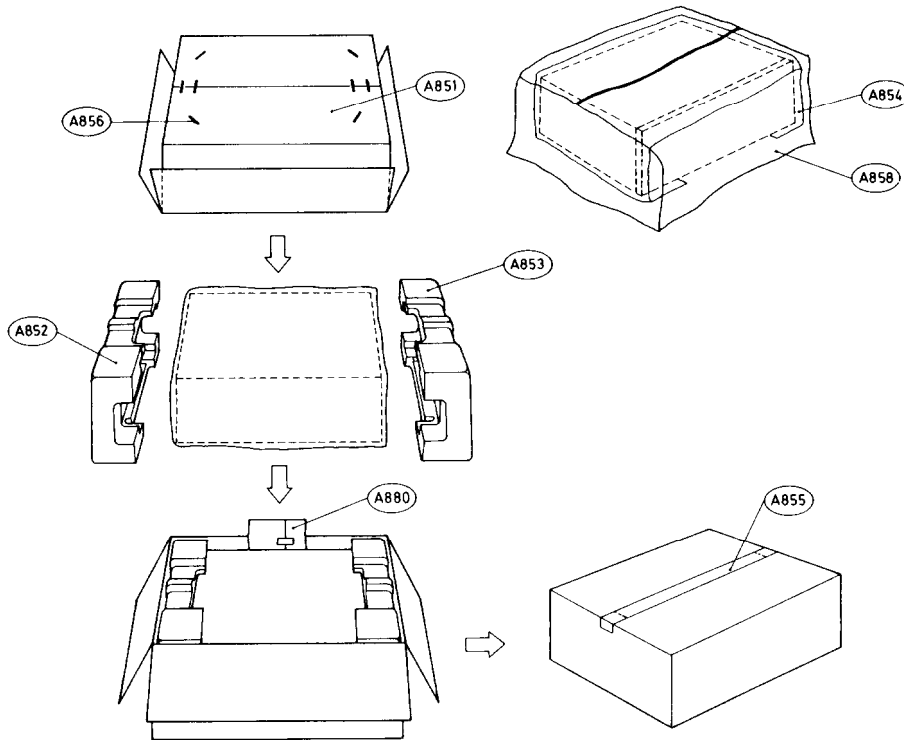
1. Power switch (POWER)
2. Headphone jack (PHONES)
3. Speaker selector (SPEAKERS)
4. Bass control (BASS)
5. Treble control (TREBLE)
6. Loudness control (LOUDNESS)
7. Tape monitor switch and indicator (MONITOR)
8. Subsonic filter (SUBSONIC FILTER)
9. Input selector switches and indicators (INPUT SELECTOR)
10. Volume control (VOLUME)
11. Balance control (BALANCE)
12. Audio muting (MUTING)  
(Only 120V, 120V/220V models)
12. Cartridge selector (CARTRIDGE) (Only 220V models)

## SYSTEM CONNECTIONS



13. AC outlet (UNSWITCHED) (Only 120V models)
14. AC outlet (SWITCHED) (Only 120V models)

# PACKING PROCEDURES

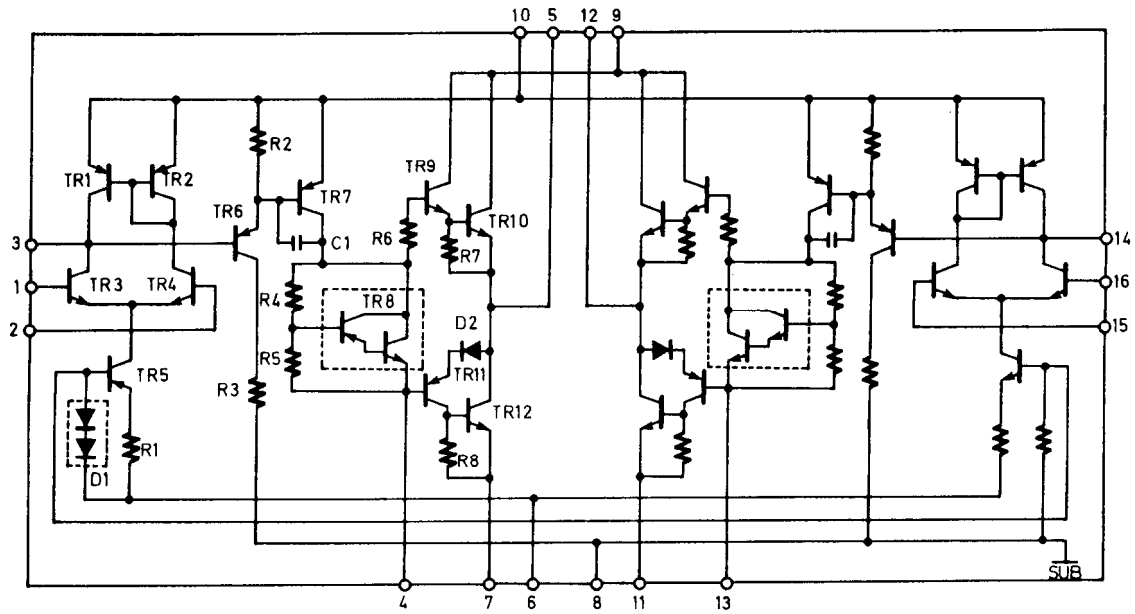


| REF. NO. | PART NO.            | DESCRIPTION                         |
|----------|---------------------|-------------------------------------|
| A851     | 29051106            | Master carton box                   |
|          | 29051107            | Master carton box [BLACK]           |
| A852     | 29090746A           | Pad, left                           |
| A853     | 29090747C           | Pad, right                          |
| A854     | 29095380            | 800 x 500, Protection sheet         |
|          | 29095012-1          | 800 x 500, Protection sheet [BLACK] |
| A855     | 260012              | Damplon tape                        |
| A856     | 282301              | Sealing hook                        |
| A858     | 29100063            | 750 x 580, Poly bag                 |
| A880     | Accessory bag ass'y |                                     |
|          | 29340872            | Instruction manual [D]              |
|          | 29340873            | Instruction manual [G] [W]          |
|          | 29365006-7          | Warranty card [U]                   |
|          | 29358002C           | Service station list [U]            |
|          | 29100006            | 350 x 250, Poly bag                 |
|          | 25055018            | CV-K-1, Conversion plug [W]         |

**NOTE:** [U]: Only U.S.A. model  
 [D]: Only 120V model  
 [G]: Only 220V model  
 [W]: Only 120V/220V model  
 [BLACK]: Black model

# IC BLOCK DIAGRAM

STK-4893



NJM-4559DX

