

ONKYO SERVICE MANUAL

Integrated Stereo Amplifier MODEL A-8087

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

SAFETY-RELATED COMPONENT WARNING!!

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

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

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ONKYO
AUDIO COMPONENTS

SPECIFICATIONS

| | |
|----------------------------|---|
| Power Output: | 100 watts per channel, min. RMS, at 8 ohms, both channels driven, from 20Hz to 20kHz, with no more than 0.015% THD. |
| Total Harmonic Distortion: | 0.015% at rated power |
| IM Distortion: | 0.005% at rated power |
| Damping Factor: | 50 at 8 ohms |
| Frequency Response: | 2–50,000Hz \pm 1dB |
| RIAA Deviation (MM): | 2–20,000Hz \pm 0.3dB |
| Sensitivity and Impedance: | Phone (MM): 2.5mV/50 kohms Phone (MC): 160 μ V/100/220 ohms Tuner: 150mV/50 kohms Tape Play: 150mV/50 kohms Tape Rec: 150mV/1.5 kohms (phono) |
| Preout: | 1.0V/600 ohms |
| Phono Overload: | 200mV RMS at 1kHz, 0.015% THD |
| Bass Control: | \pm 8 dB at 70Hz |
| Treble Control: | \pm 8 dB at 20,000Hz |
| Signal to Noise Ratio: | Phono (MM): 80dB (IHF A-202, 5mV input, 1 watt output) Phono (MC): 72dB (IHF A-202, 0.5mV input, 1 watt output) Tuner & Tape: 84dB (IHF A-202, 0.5V input, 1 watt output) |
| Muting: | –20dB |
| Loudness Control: | +6dB at 70Hz, +5dB at 20kHz |
| Subsonic Filter: | 15Hz (6dB/Octave) |
| High Cut (TREBLE MIN): | 6kHz (6dB/Octave) |

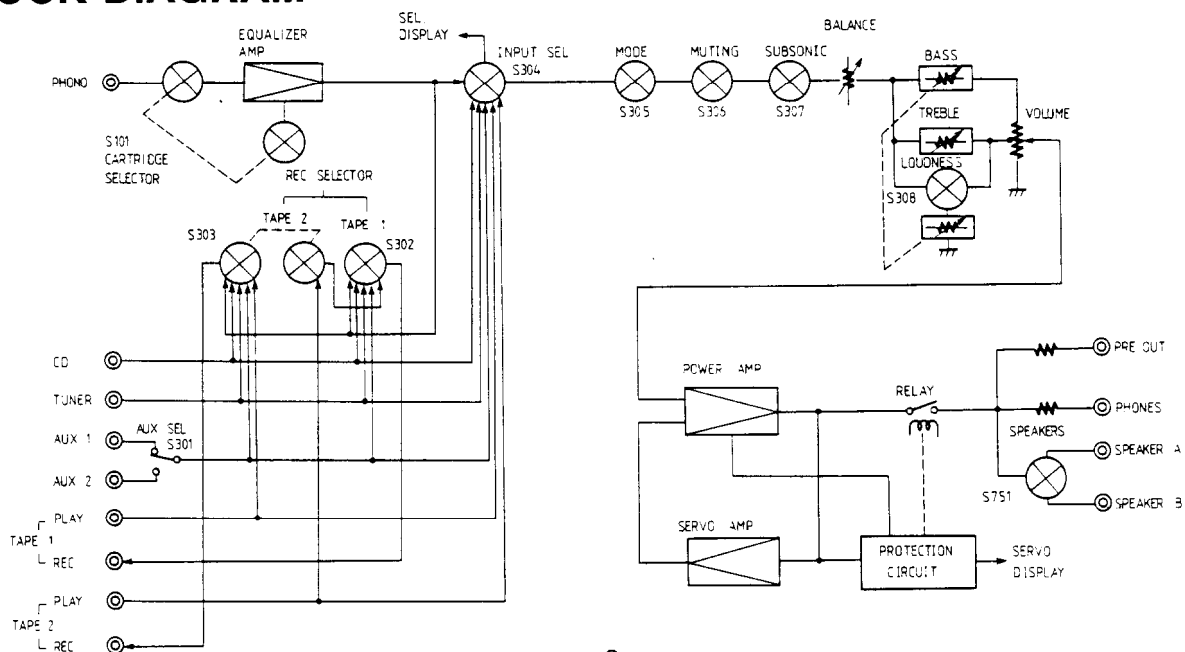
General

| | |
|-------------------|---|
| Power Supply: | AC120V, 60Hz [D model] AC220V, 50Hz [G model] AC120V or 220V, 50/60Hz [W model] |
| Semiconductors: | IC: 5 TR: 42 Diode: 46 |
| Dimensions: | 435(W) x 144(H) x 396(D)mm 17 1/8" x 5 5/8" x 15 1/2" |
| With side panels: | 467(W) x 146(H) x 396(D)mm 18 3/8" x 5 3/4" x 15 1/2" |
| Weight: | 12.9kg. 28.4lbs. |
| With side panels: | 14 kg. 30.9lbs. |

Only USA models are equipped with wood grain side panels.

Specifications and features are subject to change without notice.

BLOCK DIAGRAM



PRECAUTIONS

1. Replacing the fuses

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

| CIRCUIT NO. | PARTS NO. | DESCRIPTION |
|-------------|-----------|---|
| F901 | 252052 | 7A (ST-6), Primary fuse (120V model, 120V/220V model) |
| F901 | 252077 | 4A-SE-EAK, Primary fuse (220V model) |
| F902 | 252077 | 4A-SE-EAK, Primary fuse (120V model) |
| F701 | 252070 | 1A-SE-EAK, Secondary fuse (220V model) |

2. Replacing the lamp

This unit uses the lamp listed below.

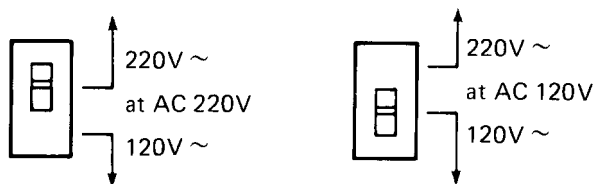
| CIRCUIT NO. | PARTS NO. | DESCRIPTION |
|-------------|-----------|-----------------|
| PL701 | 210183 | PL14V0.06AW-2.0 |

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. Specifications; More than $10M\Omega$ 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.



MAIN AMPLIFIER ADJUSTMENT

Set the all control knobs to standard position

Standard knob position

| | |
|--------------------|---------|
| INPUT SELECTOR | CD |
| CARTRIDGE SELECTOR | MM |
| REC. SELECTOR | OFF |
| MODE | STEREO |
| MUTING | OFF |
| SUBSONIC FILTER | OFF |
| BALANCE | Center |
| VOLUME | Minimum |
| LOUDNESS | OFF |
| BASS | DEFEAT |
| TREBLE | DEFEAT |
| SPEAKERS | A |

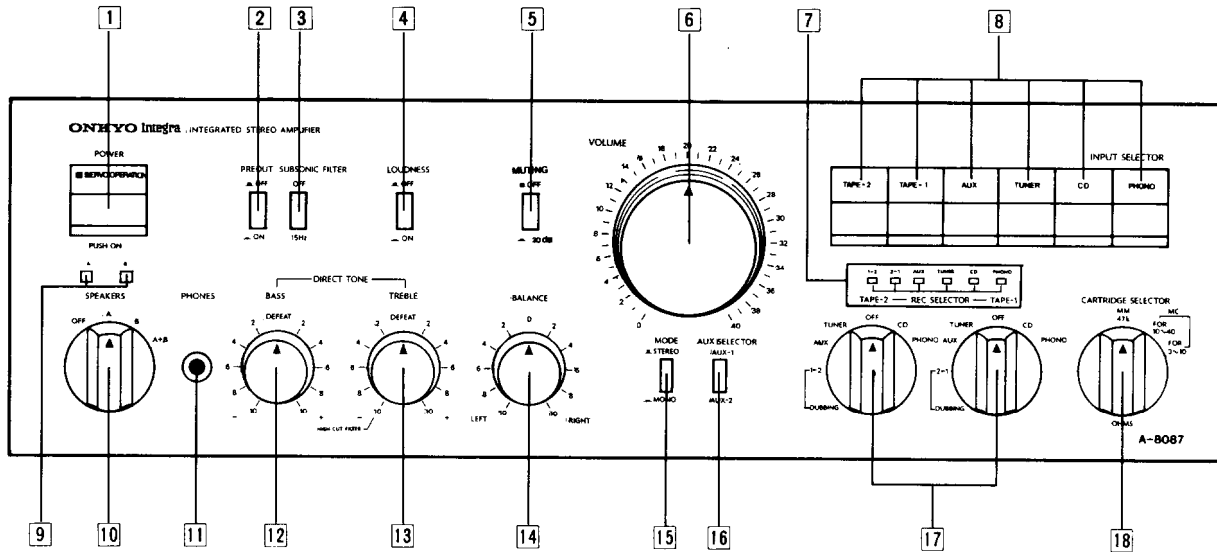
NOTES.

Adjust after switching on for 10 minutes.
 VOLUME Minimum
 LOAD Open

IDLING CURRENT ADJUSTMENT

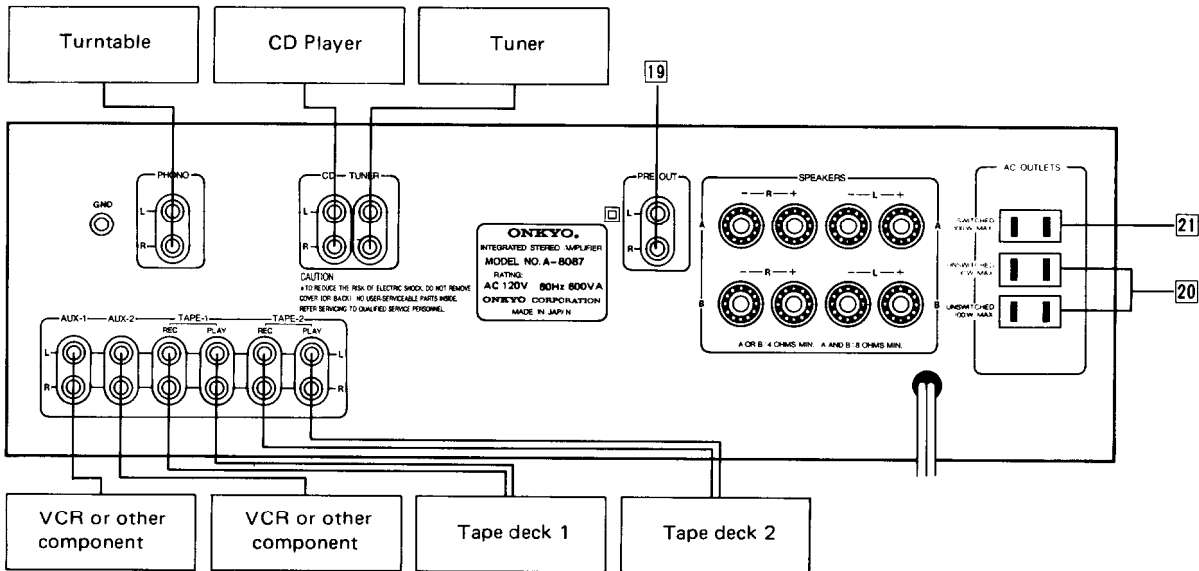
1. Connect the DC voltmeter between I_{ID} and V_{CT} terminals.
2. Adjust the voltage to $15V \pm 5mV$ with semi-fixed resistor of R531 and R532.

FRONT PANEL FACILITIES



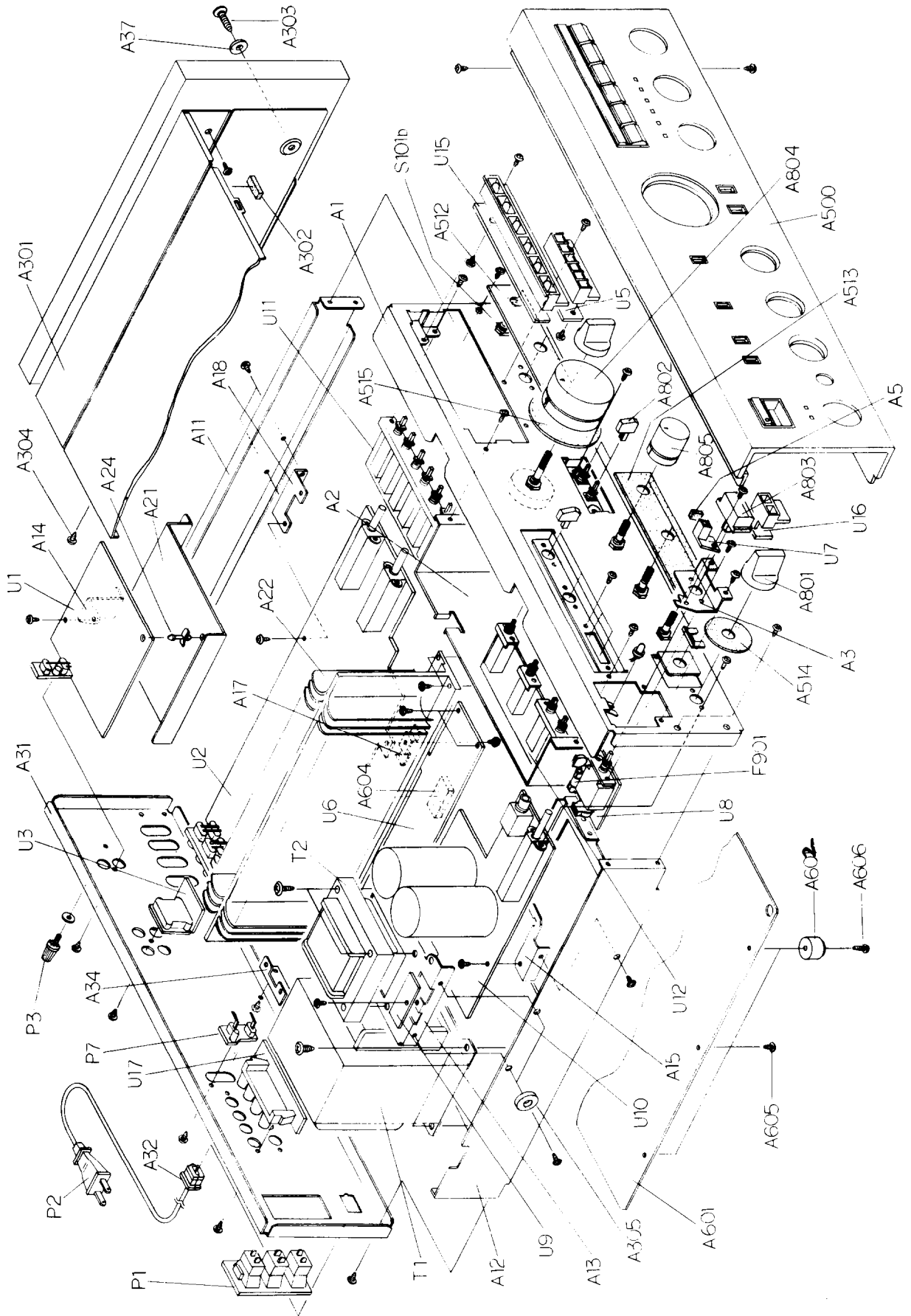
- | | |
|---|--|
| 1. Power Switch (POWER) | 10. Speaker Selector (SPEAKERS) |
| 2. Preout Switch (PREOUT) | 11. Headphone Jack (PHONES) |
| 3. Subsonic Filter (SUBSONIC FILTER) | 12. Bass Control (BASS) |
| 4. Loudness Control (LOUDNESS) | 13. Treble Control (TREBLE) |
| 5. Muting Switch (MUTING) | 14. Balance Control (BALANCE) |
| 6. Volume Control (VOLUME) | 15. Mode Selector (MODE) |
| 7. Recording Mode Indicator | 16. AUX Selector Switch (AUX SELECTOR) |
| 8. Input Selector Switches and Indicator (INPUT SELECTOR) | 17. Recording Source Selectors (REC. SELECTOR) |
| 9. Sepaker Selector Indicators | 18. Cartridge Selector (CARTRIDGE) |

SYSTEM CONNECTIONS



- | |
|---|
| 19. Preout |
| 20. AC Outlets (UNSWITCHED) [Only 120V model] |
| 21. AC Outlet (SWITCHED) [Only 120V model] |

CHASSIS-EXPLODED VIEW



CHASSIS-EXPLODED VIEW-PARTS LIST

| REF. NO. | PARTS NO. | DESCRIPTION | REF. NO. | PARTS NO. | DESCRIPTION | REF. NO. | PARTS NO. | DESCRIPTION |
|------------|-------------------------------|--|------------|--|---|----------|-------------|--|
| A1 | 27110227E | Front bracket | Q611, Q612 | 2201523 or 2201524 | 2SA1186 (O) or 2SA1186 (Y) or 2SA1186 (P), Transistors | U6 | 17848514-1 | NAMA-2514-1, Main pc board ass'y [U] [D] [W] |
| A2 | 27130370A | Bracket (Shield) | Q613, Q614 | 2201525 or 2201533 or 2201534 or 2201535 | 2SA1186 (Y) or 2SC2837 (O) or 2SC2837 (Y) or 2SC2837 (P), Transistors | | 17844514-1A | NAMA-2514-1a, Main pc board ass'y [G] |
| A3 | 27140944B | Bracket (POW) | Q615, Q616 | 2201523 or 2201524 or 2201525 | 2SA1186 (O) or 2SA1186 (Y) or 2SA1186 (P), Transistors | U7 | 17848513-1 | NADIS-2513-1, Servo display pc board ass'y |
| A5 | 28140457 | Cushion | △ T1 | 2300045 | NPT-856D, Power transformer [U] [D] | U8 | 17848515-1 | NAFU-2515-1, Fuse circuit pc board ass'y [U] [D] |
| A11 | 27115132C | Side bracket (R) | | | | | | |
| A12 | 27130371C | Bracket (L) | | | | | | |
| A13 | 27130415 | Bracket (TP) | | | | | | |
| A14 | 27140819 | Bracket (PC) | | | | | | |
| A15 | 27140945 | Bracket (K) | | | | | | |
| A17 | 27140948 | Bracket (TR) | | | | | | |
| A18 | 27140693 | Bracket (Terminal) | | | | | | |
| A21 | 27150207 | Shield plate (B) | | | | | | |
| A22 | 27160181 | Radiator | | | | | | |
| A24 | 27190011 | LCBS-6NS, Holder | △ T2 | 231072 | NCH-4121, Choke coil | U9 | 17848516-1 | NAWT-2516-1, Chock coil pc board ass'y |
| A31 | 27120787A | Back panel [U] [D] | S101b | 25030262 | NRSM-103-30BU, Cartridge selector, operation section | U10 | 17848518-1 | NAPS-2518-1, Speaker switch pc board ass'y |
| | 27120790A | Back panel [G] | | | | | | |
| | 27120791A | Back panel [W] | △ P1 | 25050139 | NSCT-6P38, AC outlet [U] [D] | U11 | 17848519-1 | NASW-2519-1, Input selector switch pc board ass'y |
| A32 | 27300750 | Bushing (Cable) | | 25108010 | LG-2C, Lug terminal [G] [W] | | | |
| A34 | 27141040 | Bracket (HT) | | 25065123 | NSS-1258P, Slide switch [W] | | | |
| A37 | 87644010 | W4x10F (BC), Washer | △ P2 | 253112 | AS-UC-4 #18, Power supply cable [U] [D] | | 17844519-1A | NASW-2519-1a, Input selector switch pc board ass'y [G] |
| A301 | 28184304 | Top cover [D] [G] [W] | | | | | | |
| | 28184310 | Top cover [U] | | 253129 or 253127 | AS-CEE, or AS-CEE, Power supply cable [G] | U12 | 17848520-1 | NASW-2520-1, Switch circuit pc board ass'y |
| | 28185248 | Side board, Right [U] | | 253092-1 | AS-CEE-2, Power supply cable [W] | U13 | 17848521-1 | NATC-2521-1, Tone control circuit pc board ass'y |
| | 28185249 | Side board, Left [U] | P3 | 25060044 | Ground terminal | U14 | 17848522-1 | NAV-2522-1, Volume control circuit pc board ass'y |
| | 85143113 | M3.1+13F(BC), Wood screw [U] | △ P6 | 25050211 | H0445, Fuse holder [W] | U15 | 17848523-1 | NADIS-2523-1, Input display pc board ass'y |
| A302 | 87515015 | M5-AB, Toothed washer [U] | △ P7 | 25045086 | NPJ-2PRBL43, Output pin terminal | U16 | 17848524-1 | NADIS-2524-1, Speaker display pc board ass'y |
| A303 | 28140020 | 4t x 10 x 40, Cushion | | | | | | |
| | 838440089 | 4TTB+8C(BC), Wood screw [U] | △ F901 | 252052 | ST-6, 7A, Primary fuse [U] [D] [W] | U17 | 17848525-1 | NAST-2525-1, Speaker terminal pc board ass'y [U] [D] [W] |
| | 836440303 | 4STV+30CQ (BC), Tapping screw [U] | | | | | | |
| A304 | 870086 | W4x12 (BC), Washer [U] | | 252077 | 4A-SE-EAK, Primary fuse [G] | U18 | 17848526-1 | NAST-2526-1, Speaker terminal pc board ass'y [U] [D] [W] |
| A305 | 27175011C | 3TTS+6B (BC), Tapping screw | △ F902 | 252077 | 4A-SE-EAK, Primary fuse [W] | | | |
| A500 | 17848121 | Cushion | F701 | 252070 | 1A-SE-EAK, Secondary fuse [G] | | | |
| A512 | 28140532A | Front panel ass'y | C1 | 379121035 | 0.01µF, 50V, Film capacitor [G] | | 17844525-1A | NAST-2525-1a, Speaker terminal pc board ass'y [G] |
| A513 | 28140205A | Cushion (Tone) | U1 | 17848554-3 | NAEQ-2154-3, Equalizer amplifier pc board ass'y [U] [D] [W] | | | |
| A514 | 28140185 | Cushion | | | | | | |
| A515 | 28140206B | Cushion | | 17844554-3A | NAEQ-2154-3a, Equalizer amplifier pc board ass'y [G] | | | |
| A601 | 27170215 | Bottom board | U2 | 17848507-1 | NADA-2507-1, Power amplifier pc board ass'y [U] [D] [W] | | | |
| A602 | 27175044 | Bottom leg | | | | | | |
| A604 | 28140265 | Cushion | | 17844507-1A | NADA-2507-1a, Power amplifier pc board ass'y [G] | | | |
| A605 | 831430088 | 3TTW+8B(BC), Tapping screw | U3 | 17848510-1 | NAPJ-2510-1, CD/Tuner input terminal pc board ass'y [U] [D] [W] | | | |
| A606 | 834430168 | 3TTS+16B(BC), Tapping screw | | | | | | |
| A801 | 28321908 | Knob (SP) | | | | | | |
| A802 | 28321909 | Knob (PUSH) | | | | | | |
| A803 | 28321905B | Knob (POW) | | | | | | |
| A804 | 28321906A | Knob (VOL) | | 17844510-1A | NAPJ-2510-1a, Input selector switch pc board ass'y [G] | | | |
| A805 | 28322011 | Knob (BAL) | U4 | 17848511-1 | NASW-2511-1, AUX/MODE switch pc board ass'y | | | |
| Q609, Q610 | 2201533 or 2201534 or 2201535 | 2SC2837 (O) or 2SC2837 (Y) or 2SC2837 (P), Transistors | U5 | 17848509-1 | NADIS-2509-1, REC. display pc board ass'y | | | |

NOTE: [U] : Only U.S.A. model
 [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.

PRINTED CIRCUIT BOARD PARTS LIST

EQUALIZER AMPLIFIER PC BOARD (NAEQ-2154-3/ NAEQ-2154-3a) PARTS LIST

| CIRCUIT NO. | PART NO. | DESCRIPTION |
|-------------|-----------------------|------------------------------------|
| | ICs | |
| Q105, Q106 | 222570 | NJM4560DX |
| | Transistors | |
| Q101 ~ 104 | 2211783 or 2211782 | 2SA991 (E) or 2SA991 (F) |
| | Diodes | |
| D101 ~ D104 | 223145 | 1S2076TD |
| | Capacitors | |
| C101 | 379122234 | 0.022 μ F, 50V, Film (DEW) |
| C101 | 379121035 | 0.01 μ F, 50V, Film (DEW) [G] |
| C103, C104 | 372121014 | 100pF, 50V, Styrene [G] |
| C105, C106 | 372122204 | 22pF, 50V, Styrene [G] |
| C107, C108 | 379128225 | 0.0082 μ F, 50V, Film (DEW)[G] |
| C109, C110 | 379128225 | 0.0082 μ F, 50V, Film (DEW)[G] |
| C111, C112 | 392841007 | 10 μ F, 16V, Elect. (LL) |
| C115, C116 | 372122214 | 220pF, 50V, Styrene |
| C119, C120 | 379124725 | 0.0047 μ F, 50V, Film (DEW) |
| C121, C122 | 379122234 | 0.022 μ F, 50V, Film (DEW) |
| C123, C124 | 379121834 | 0.018 μ F, 50V, Film (DEW) |
| C125, C126 | 379124734 | 0.047 μ F, 50V, Film (DEW) |
| C127, C128 | 3500084 | 2200 μ F, 6.3V, Elect. |
| C129, C130 | 392880227 | 2.2 μ F, 50V, Elect. (LL) |
| C131, C132 | 379121225 | 0.0012 μ F, 50V, Film (DEW) |
| C141, C142 | 352752219 | 220 μ F, 25V, Elect. |
| | Coils | |
| L101, L102 | 231030 | NCH-1070, Coil [G] |
| | Switch | |
| S101a | 25065229 | NSS-63100, Remote switch |
| | Terminal | |
| | 25045182 | NPJ-2PDBL72, Input terminal |

POWER AMPLIFIER PC BOARD (NADA-2507-1/ NADA-2507-1a) PARTS LIST

| CIRCUIT NO. | PART NO. | DESCRIPTION |
|-------------|-------------------------------------|--|
| | ICs | |
| Q519, Q520 | 222502 | NJM4558DX |
| | Transistors | |
| Q501, Q502 | 2212805 or 2212806 or 2212807 | 2SK389 (GR) or 2SK389 (BL) or 2SK389 (V) |
| Q503 ~ Q506 | 2211733 or 2211732 | 2SC1845 (E) or 2SC1845 (F) |
| Q507, Q508 | 2211515 or 2211516 | 2SA995 (F) or 2SA995 (G) |
| Q511, Q512 | 2211455 or 2210803 | 2SA1015 (GR) or 2SA733 (P) |
| Q513, Q514 | 2211354 or 2211353 | 2SA949 (Y) or 2SA949 (O) |
| Q515, Q516 | 2211634 or 2211633 | 2SC2229 (Y) or 2SC2229 (O) |
| Q517, Q518 | 2211255 | 2SC1815 (GR) |
| Q901 | 2201512 or 2201513 | 2SD1200 (Q) or 2SD1200 (R) |
| Q902 | 2201502 or 2201503 | 2SB889 (Q) or 2SB889 (R) |

| | | |
|-------------|-----------------------|--|
| | Diodes | |
| D501 ~ D504 | 223145 | 1S2076TD |
| D505, D506 | 225126 | GL-3PR1, LED |
| D507 ~ D510 | 223145 | 1S2076TD |
| D511, D512 | 225126 | GL-3PR1, LED |
| D513, D514 | 223145 | 1S2076TD |
| D515, D516 | 4000068 | VD1222, Varistor |
| D517 ~ D520 | 223145 | 1S2076TD |
| D901, D902 | 2239754 or 2243294 | RD22E-B4 or MTZ22-D |
| | Capacitors | |
| C305 ~ C312 | 372121014 | 100pF, 50V, Styrene [G] |
| C501, C502 | 372126804 | 68pF, 50V, Styrene |
| C503, C504 | 372121014 | 100pF, 50V, Styrene |
| C505, C506 | 379121235 | 0.012 μ F, 50V, Film (DEW) |
| C509, C510 | 379122235 | 0.022 μ F, 50V, Film (DEW) |
| C511, C512 | 372123304 | 33pF, 50V, Styrene |
| C513 ~ C516 | 352752209 | 22 μ F, 25V, Elect. |
| C519, C520 | 379123935 | 0.039 μ F, 50V, Film (DEW) |
| C901, C902 | 352772219 | 220 μ F, 50V, Elect. |
| C903, C904 | 352754709 | 47 μ F, 25V, Elect. |
| C905, C906 | 3500086 | 470 μ F, 25V, Elect. |
| | Resistors | |
| R523, R524 | 442520684 | 6.8 Ω , 1/2W, Metal oxide film |
| R525, R526 | 442525614 | 560 Ω , 1/2W, Metal oxide film |
| R527, R528 | 442524734 | 47k Ω , 1/2W, Metal oxide film |
| R531, R532 | 5225072 | N10HR4.7KBDM, Semi-fixed |
| R533, R534 | 442524724 | 4.7k Ω , 1/2W, Metal oxide film |
| R549, R550 | 442520474 | 4.7 Ω , 1/2W, Metal oxide film |
| R901, R902 | 441525114 | 510 Ω , 1/2W, Metal oxide film |
| R958 | 442527514 | 750 Ω , 1/2W, Metal oxide film |
| | Switches | |
| S302 | 25030195 | NRSM-146-30SS |
| S303 | 25030258 | NRSM-166-30SS |
| | Terminal | |
| | 25045137 | NPJ-6PDBL52, Input terminal |

CD/TUNER INPUT TERMINAL PC BOARD (NAPJ-2510-1/NAPJ-2510-1a) PARTS LIST

| CIRCUIT NO. | PART NO. | DESCRIPTION |
|-------------|-------------------|-----------------------------|
| | Capacitors | |
| C301 ~ C304 | 372121014 | 100pF, 50V, Styrene [G] |
| | Terminal | |
| | 25045171 | NPJ-4PDBL65, Input terminal |

AUX/MODE SWITCH PC BOARD (NASW-2511-1) PARTS LIST

| CIRCUIT NO. | PART NO. | DESCRIPTION |
|--------------|-----------------|--------------|
| | Switches | |
| S301, (S305) | 25035301 | NPS-222-L249 |
| | Socket | |
| JC311 | 25050270 | NSCT-6P98 |

REC. DISPLAY PC BOARD (NADIS-2509-1) PARTS LIST

| CIRCUIT NO. | PART NO. | DESCRIPTION |
|-------------|-------------------------|---|
| | Diodes | |
| D321 ~ D326 | 225167RB or 225167RC | GL-5HY10-RB, LED or GL-5HY10-RC, LED |
| | Holder | |
| | 27190317 | Holder, LED (6) |

**MAIN AMPLIFIER PC BOARD (NAMA-2514-1/
NAMA-2514-1a) PARTS LIST**

| CIRCUIT NO | PART NO. | DESCRIPTON |
|--------------|---|---|
| | IC | |
| Q701 | 222584 | TA7317P |
| | Transistors | |
| Q601, Q602 | 2211634 or 2211633 | 2SC2229 (Y) or 2SC2229 (O) |
| Q603, Q604 | 2211354 or 2211353 | 2SA949 (Y) or 2SA949 (O) |
| Q605, Q606 | 2201644 or 2201643 | 2SC3298 (Y) or 2SC3298 (O) |
| Q607, Q608 | 2201634 or 2201633 | 2SA1306 (Y) or 2SA1306 (O) |
| Q617, Q618 | 2211733 or 2211732 | 2SC1845 (E) or 2SC1845 (F) |
| | Diodes | |
| D701 | 223862 | WL-01 |
| D702, D704 | 223145 | 1S2076TD |
| D703 | 2239492 or 2243162 or 2239493 or 2243163 | RD6.2E-B2 or MTZ6.2-B or RD6.2E-B3 or MTZ6.2-C |
| | Coils | |
| L601, L602 | 231015 | S-0.8C |
| L603, L604 | 230904 | B-20L44 FR Coar [G] |
| | Capacitors | |
| C605, C606 | 379121045 | 0.1 μ F, 50V, Film (DEW) |
| C607, C608 | 379124735 | 0.047 μ F, 50V, Film (DEW) |
| C611~C614 | 379121045 | 0.1 μ F, 50V, Film (DEW) |
| C701 | 352722219 | 220 μ F, 6.3V, Elect |
| C703 | 352732209 | 22 μ F, 10V, Elect |
| C704 | 352784799 | 0.47 μ F, 50V, Elect. |
| C706 | 352743319 | 330 μ F, 16V, Elect. |
| C707 | 352744719 | 470 μ F, 16V, Elect. |
| C708 | 379122237 | 0.022 μ F, 50V, Film (DEW) |
| C710 | 379122235 | 0.022 μ F, 50V, Film (DEW) |
| | Resistors | |
| R601, C602 | 442521024 | 1k Ω , 1/2W, Metal oxide film |
| R603, R604 | 442521014 | 100 Ω , 1/2W, Metal oxide film |
| R605~R612 | 442520224 | 2.2 Ω , 1/2W, Metal oxide film |
| R613~R616 | 4000063 | 0.47 Ω , 2W, Metal oxide film |
| R617, R618 | 441620104 | 1 Ω , 1W, Metal oxide film |
| R619~R622 | 4000063 | 0.47 Ω , 2W, Metal plate |
| R623, R624 | 441620104 | 1 Ω , 1W, Metal oxide film |
| R629~R632 | 4000061 | 0.33 Ω , 2W, Metal plate |
| R639~R642 | 441621604 | 16 Ω , 1W, Metal oxide film |
| R713 | 442523304 | 33 Ω , 1/2W, Metal oxide film |
| | Lamp | |
| PL701 | 210183 | PL14V 0.06A W-2.0 |
| | Relay | |
| RL701 | 25065036 | NRL-4P3A-DC12-01 |
| | Sockets | |
| JC705, JC709 | 25050267 | NSCT-3P95 |
| JC706 | 25050272 | NSCT-8P100 |
| | Fuse holder | |
| | 25050065 | YSH503T [G] |

**SERVO DISPLAY PC BOARD (NADIS-2513-1)
PARTS LIST**

| CIRCUIT NO. | PART NO. | DESCRIPTION |
|-------------|---------------------|--------------------------------|
| | Diodes | |
| D711 | 225174 or 225173 | SLR55MC3N or SLR55MC3M, LED |
| | Holder | |
| | 27190319 | Holder, LED (1) |

**FUSE CIRCUIT PC BOARD (NAFU-2515-1/
NAFU-2515-1a/NAFU-2515-1b) PART LIST**

| CIRCUIT NO. | PART NO. | DESCRIPTON |
|-------------|-----------|---|
| C911, C912 | 3500065A | 0.01 μ F, AC400/125V, Capacitor IS |
| S911 | 25035381 | NPS-121-L345P, Switch [D] |
| S911 | 25035015A | NPS-111LA3, Switch [G] [W] |
| F901a | 250113 | S-N5051, Fuse holder |
| | 29360486 | 7A/125V, Fuse lable |
| F901a | 25050065 | YSH403T, Fuse holder [G] |
| P911, P912 | 27300601 | SB-1925, Cover, capacitor |

**SPEAKER SWITCH PC BOARD (NAPS-2518-1)
PARTS LIST**

| CIRCUIT NO. | PART NO. | DESCRIPTION |
|-------------|-------------------|--|
| | Diodes | |
| D951 | 223898F | RB602 |
| D952, D953 | 223845F | GP-20DL |
| | Capacitors | |
| C951~C953 | 375104745 | 0.47 μ F, 125V, Film (ME) |
| C954, C955 | 3504176 | 20000 μ F, 69V, Elect. |
| | Resistors | |
| R753, R754 | 441623914F | 390 Ω , 1W, Metal oxide film |
| R951 | 442525104F | 51 Ω , 1/2W, Metal oxide film |
| R964, R965 | 441522294F | 0.22 Ω , 1/2W, Metal oxide film |
| | Switch | |
| S751 | 25030257 | NRSM-164-30SS |
| | Jack | |
| | 25045164 | HLJ4317-01-3020, Stereo |
| | Bass plate | |
| | 27300731 | Bass (C) |
| | 27300732 | Bass (P) |

**INPUT SELECTOR SWITCH PC BOARD
(NASW-2519-1/NASW-2519-1a) PARTS LIST**

| CIRCUIT NO. | PART NO. | DESCRIPTON |
|--------------|-------------------|-------------------------|
| | Capacitors | |
| C313, C314 | 372122214 | 220pF, 50V, Styrene [G] |
| | Switches | |
| S304 | 25035507 | NPS-642-L469 |
| | Sockets | |
| JC303C~JC305 | 25050273 | NSCT-9P101 |

**SWITCH CIRCUIT PC BOARD (NASW-2520-1)
PARTS LIST**

| CIRCUIT NO. | PART NO. | DESCRIPTION |
|-------------|-------------------|---------------------------|
| | Capacitors | |
| C315, C316 | 352781599 | 0.15 μ F, 50V, Elect. |
| | Switches | |
| S306, S308 | 25035266 | NPS-122-1230 |
| S307, S701 | 25035269 | NPS-222-L233 |
| | Plate | |
| | 27150208 | Shield plate |

**TONE CONTROL CIRCUIT PC BOARD (NATC-2521-1)
PARTS LIST**

| CIRCUIT NO. | PART NO. | DESCRIPTION |
|-------------------|-----------|---------------------------------|
| Capacitors | | |
| C317, C318 | 379121235 | 0.012 μ F, 50V, Film (DEW) |
| C319, C320 | 379125625 | 0.0056 μ F, 50V, Film (DEW) |
| C321, C322 | 379121025 | 0.001 μ F, 50V, Film (DEW) |
| C323, C324 | 379123335 | 0.033 μ F, 50V, Film (DEW) |
| C325, C326 | 372125614 | 560pF, 50V, Styrene |
| Resistors | | |
| R323 | 5148044 | N16RGMC250KMN30 |
| R327 | 5148046A | N16RGM11C219K30 |
| R329 | 5148045A | N16RQM11C110K180K30 |

**VOLUME CONTROLE PC BOARD (NAVR-2522-1)
PARTS LIST**

| CIRCUIT NO. | PART NO. | DESCRIPTION |
|-----------------|----------|-----------------|
| Resistor | | |
| R351 | 5172062 | N24RGL100KBTP30 |

**INPUT DISPLAY PC BOARD (NADIS-2523-1)
PART LIST**

| CIRCUIT NO. | PART NO. | DESCRIPTION |
|---------------|---------------------|-------------------------------------|
| Diodes | | |
| D301 ~ D306 | 225174 or 225173 | SLR55MC3N, LED or SLR55MC3M, LED |
| Holder | | |
| | 27190316A | Holder LED (12) |

**SPEAKER DISPLAY PC BOARD (NADIS-2524-1)
PARTS LIST**

| CIRCUIT NO. | PART NO. | DESCRIPTION |
|---------------|---------------------|-------------------------------------|
| Diodes | | |
| D751, D752 | 225174 or 225173 | SLR55MC3N, LED or SLR55MC3N, LED |
| Holder | | |
| | 27190318 | Holder LED (2) |

**SPEAKER TERMINAL PC BOARD (NAST-2525-1/
NAST-2525-1a) PARTS LIST**

| CIRCUIT NO. | PART NO. | DESCRIPTION |
|-------------------|-----------|------------------------------------|
| Capacitors | | |
| C751, C752 | 379121025 | 0.001 μ F, 50V, Film (DEW) [G] |
| Terminal | | |
| | 25060098 | NTM-4PDMN38, Speaker terminal |

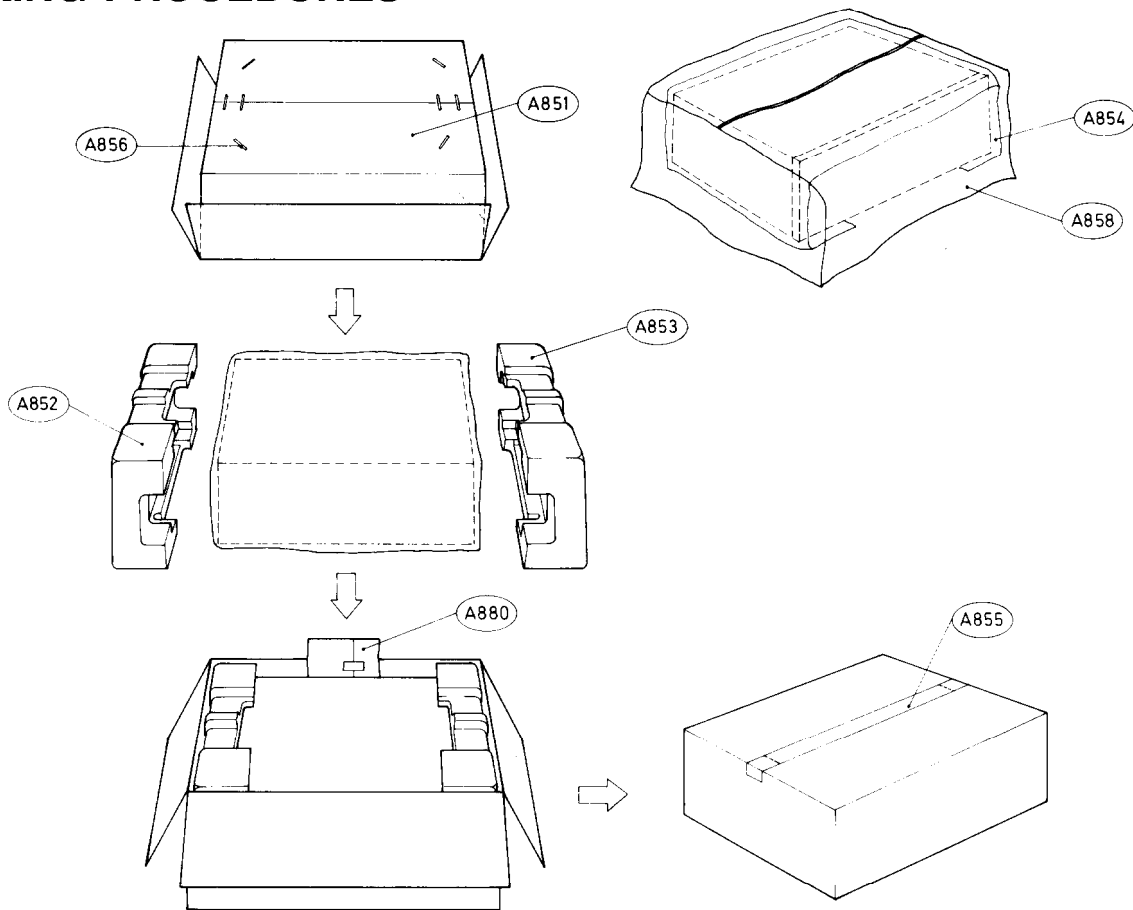
**SPEAKER TERMINAL PC BOARD (NAST-2526-1/
NAST-2526-1a)**

| CIRCUIT NO. | PART NO. | DESCRIPTION |
|-------------------|-----------|------------------------------------|
| Capacitors | | |
| C753, C754 | 379121025 | 0.001 μ F, 50V, Film (DEW) [G] |
| Terminal | | |
| | 25060098 | NTM-4PDMN38, Speaker terminal |

NOTE

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

PACKING PROCEDURES



| REF. NO. | PART NO. | DESCRIPTION | |
|----------|---------------------|------------------------------|-------------|
| A851 | 29051236 | Master carton box | [D] [G] [W] |
| | 29051239 | Master carton box | [U] |
| A852 | 29091053A | Pad, left | [D] [G] [W] |
| | 29090830A | Pad, left | [U] |
| A853 | 29090489B | Pad, right | [D] [G] [W] |
| | 29090831A | Pad, right | [U] |
| A854 | 29095012-1 | 800 x 500, Protection sheet | [D] [G] [W] |
| | 29095319 | 1000 x 500, Protection sheet | [U] |
| A855 | 260012 | Damplon tape | |
| A856 | 282301 | Sealing hook | |
| A858 | 29100038A | 729 x 950, Poly bag | |
| A859 | 29091071 | Pad, ass'y, bottom | [U] |
| A880 | Accessory bag ass'y | | |
| | 29340960 | Instruction manual | [D] [U] |
| | 29340961 | Instruction manual | [G] [W] |
| | 29365006-7 | Warranty card | [U] |
| | 29358002C | Service station list | [U] |
| | 29100006A | 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

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