

XM-SD14X

SERVICE MANUAL

Ver. 1.0 2005. 02

AEP Model
UK Model



SPECIFICATIONS

| | |
|--|--|
| Circuit system | OTL (output transformerless) circuit |
| Inputs | Pulse power supply RCA pin jacks High level input connector |
| Input level adjustment range | 0.3 – 6 V (RCA pin jacks), 1.2 – 12 V (High level input) |
| Outputs | Speaker terminals |
| Speaker impedance | 2 – 8 Ω (stereo) 4 – 8 Ω (when used as a bridging amplifier) |
| Maximum outputs | Four speakers: 100 W × 4 (at 4 Ω) Three speakers: 100 W × 2 + 250 W × 1 (at 4 Ω) |
| Rated outputs (supply voltage at 14.4 V) | 55 W RMS × 4 (DIN 45500, 4 Ω) Four speakers: 50 W RMS × 4 (20 Hz – 20 kHz, 0.04% THD, at 4 Ω) 60 W RMS × 4 (20 Hz – 20 kHz, 0.1% THD, at 2 Ω) |
| SN Ratio | 100 dBA (reference: Rated output) |
| Frequency response | 5 Hz – 50 kHz (+0 dB) |
| Harmonic distortion | 0.005% or less (at 1 kHz, 4 Ω, 10 W) |
| Low-pass filter | 80 Hz, -18 dB/oct |
| High-pass filter | 80 Hz, -12 dB/oct |
| Power requirements | 12 V DC car battery (negative ground) |
| Power supply voltage | 10.5 – 16 V |
| Current drain | 30 A (at 4 Ω, 50 W × 4) Remote input : 1 mA |
| Dimensions | Approx. 350 × 55 × 238 mm (w/h/d) not incl. projecting parts and controls |
| Mass | Approx. 3.1 kg not incl. accessories |
| Supplied accessories | Mounting screws (4) High level input cord (1) Protection cap (1) |

Design and specifications are subject to change without notice.

STEREO POWER AMPLIFIER

9-879-509-01
2005B04-1
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Sony Corporation
e Vehicle Group
Published by Sony Engineering Corporation

SONY®

Notes on Chip Component Replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

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5. ELECTRICAL PARTS LIST 13**SAFETY-RELATED COMPONENT WARNING!!**

COMPONENTS IDENTIFIED BY MARK ▲ OR DOTTED LINE WITH MARK ▲ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

SECTION 1 GENERAL

This section is extracted
from instruction manual.

Connections

Precautions

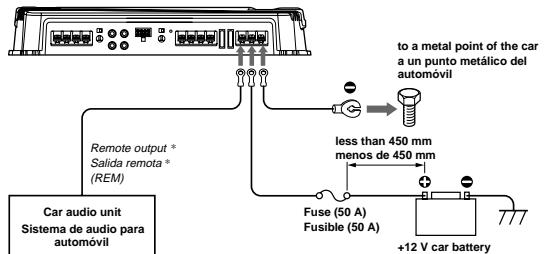
- This unit is designed for negative ground 12 V DC operation only.
- Use speakers with suitable impedance.
— 2 – 8 Ω (stereo), 4 – 8 Ω (when used as a bridging amplifier).
- Do not connect any active speakers (with built-in amplifiers) to the speaker terminals of the unit. Doing so may damage the amplifier and active speakers.
- Avoid installing the unit in areas subject to:
— high temperatures such as from direct sunlight or hot air from the heater
— rain or moisture
— dust or dirt
- If your car is parked in direct sunlight and there is a considerable rise in temperature inside the car, allow the unit to cool down before use.
- When installing the unit horizontally, be sure not to cover the fins with the floor carpet etc.
- If this unit is placed too close to the car audio unit or aerial, interference may occur. In this case, relocate the amplifier away from the car audio unit or aerial.
- If no power is being supplied to the car audio unit, check the connections.
- This power amplifier employs a protection circuit to protect the transistors and speakers if the amplifier malfunctions. Do not attempt to test the protection circuits by covering the heat sink or connecting improper loads.
- Do not use the unit on a weak battery as its optimum performance depends on a good power supply.
- For safety reasons, keep your car audio volume moderate so that you can still hear sounds outside your car.

If you have any questions or problems concerning your unit that are not covered in this manual, please consult your nearest Sony dealer.

Caution

- Before making any connections, disconnect the ground terminal of the car battery to avoid short circuits.
- Be sure to use speakers with an adequate power rating. If you use small capacity speakers, they may be damaged.
- Do not connect the \ominus terminal of the speaker system to the car chassis, and do not connect the \ominus terminal of the right speaker with that of the left speaker.
- Install the input and output cords away from the power supply wire as running them close together can generate some interference noise.
- This unit is a high powered amplifier. Therefore, it may not perform to its full potential if used with the speaker cords supplied with the car.
- If your car is equipped with a computer system for navigation or some other purpose, do not remove the ground wire from the car battery. If you disconnect the wire, the computer memory may be erased. To avoid short circuits when making connections, disconnect the +12 V power supply wire until all the other wires have been connected.

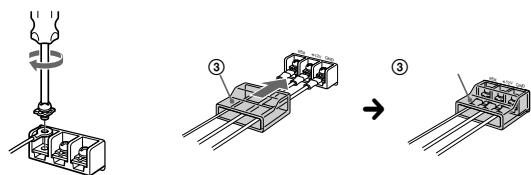
Power Connection Wires (not supplied) Cables de conexión de alimentación (no suministrados)



* If you have the factory original or some other car audio unit without a remote output for the amplifier, connect the remote input terminal (REMOTE) to the accessory power supply.

* Si dispone del sistema de audio para automóvil original de fábrica o de otro sistema de audio para automóvil sin una salida remota para el amplificador, conecte el terminal de entrada remota (REMOTE) a la fuente de alimentación auxiliar.

Make the terminal connections as illustrated below.
Realice las conexiones de terminal como se ilustra a continuación.



Pass the wires through the cap, connect the wires, then cover the terminals with the cap.

Note

When you tighten the screw, be careful not to apply too much torque * as doing so may damage the screw.

* The torque value should be less than 1 N·m.

Pase los cables a través de la cubierta, conectélos y cubra los terminales con dicha cubierta.

Nota
Al apretar el tornillo, tenga cuidado de no aplicar demasiada fuerza de torsión *, ya que puede dañarlo.

* El valor de fuerza de torsión debe ser inferior a 1 N·m.

Notes on the power supply

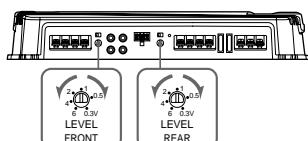
- Connect the +12 V power supply wire only after all the other wires have been connected.
- Be sure to connect the ground wire of the unit securely to a metal point of the car. A loose connection may cause a malfunction of the amplifier.
- Be sure to connect the remote control wire of the car audio unit to the remote terminal.
- When using a car audio unit without a remote output on the amplifier, connect the remote input terminal (REMOTE) to the accessory power supply.
- Use the power supply wire with a fuse attached (50 A).
- All power wires connected to the positive battery post should be fused within 450 mm of the battery post, and before they pass through any metal.
- Make sure that the wires to be connected to the +12 V and GND terminals of this unit are at least 10-Gauge (AWG-10) or have a sectional area of more than 5.5 mm².

Notas sobre la fuente de alimentación

- Conecte el cable de suministro de alimentación de +12 V sólo después de haber conectado los otros cables.
- Asegúrese de conectar firmemente el cable de toma a tierra de la unidad a un punto metálico del automóvil. Una conexión floja puede causar fallos de funcionamiento del amplificador.
- Asegúrese de conectar el cable de control remoto del sistema de audio para automóvil al terminal remoto.
- Si utiliza un sistema de audio para automóvil sin una salida remota en el amplificador, conecte el terminal de entrada remota (REMOTE) a la fuente de alimentación auxiliar.
- Emplee el cable de suministro de alimentación con fusible fijo (50 A).
- Todos los cables de alimentación conectados al polo positivo de la batería deben conectarse a un fusible situado a menos de 450 mm del polo de la batería antes de pasar por ninguna pieza metálica.
- Asegúrese que los cables que se van a conectar a los terminales +12 V y GND de esta unidad sean de calibre 10 (AWG-10) como mínimo o tengan una área de sección de más de 5.5 mm².

Level Adjustment Control

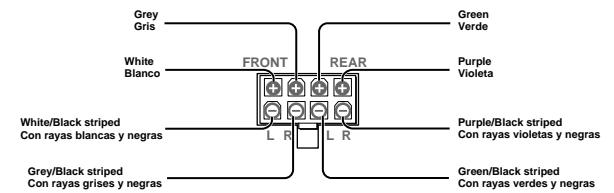
The input level can be adjusted with this control. Turn it in the clockwise direction when the output level of the car audio unit seems low.



Control de ajuste de nivel

Es posible ajustar el nivel de entrada con este control. Girelo en el sentido de las agujas del reloj si el nivel de salida del sistema de audio para automóvil parece bajo.

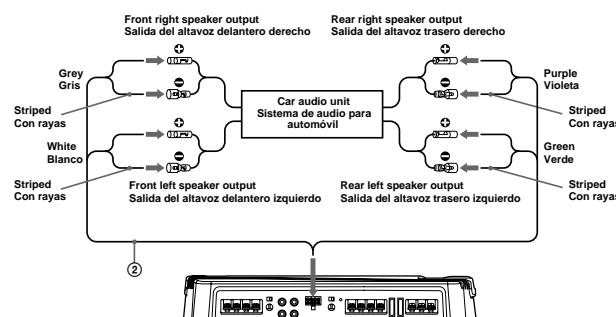
High Level Input Connector Conector de entrada de alto nivel



Input Connections

A

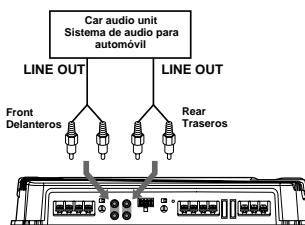
High Level Input Connection (with Speaker Connection 1, 2 or 3)
Conexión de entrada de alto nivel (con conexión de altavoces 1, 2 o 3)



Conecciones de entrada

B

Line Input Connection (with Speaker Connection 1, 2 or 3)
Conexión de entrada de línea (con conexión de altavoces 1, 2 o 3)

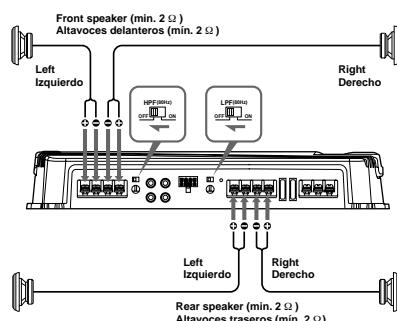


Speaker Connections

Turn on or off the LPF and HPF switch at the unit rear as illustrated below.

1

4-Speaker System (with Input Connection A or B)
Sistema de 4 altavoces (con conexión de entrada A o B)

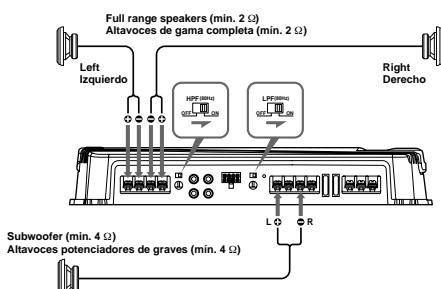


Conecciones de los altavoces

Encienda o apague los interruptores LPF (filtro de paso bajo) y HPF (filtro de paso alto) situados en la parte posterior de la unidad, como se muestra a continuación.

2

3-Speaker System (with Input Connection A or B)
Sistema de 3 altavoces (con conexión de entrada A o B)



Notes

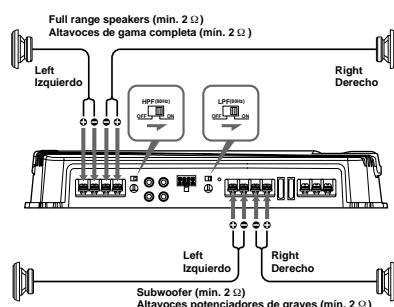
- In this system, the volume of the subwoofer will be controlled by the car audio unit fader control.
- In this system, the output signals to the subwoofer will be the combination of both the REAR L and R INPUT jacks or the REAR high level input connector signals.

Notas

- En este sistema, el volumen del altavoz potenciador de graves se controla mediante el control de equilibrio entre altavoces del sistema de audio del automóvil.
- En este sistema, las señales de salida que recibe el altavoz potenciador de graves serán la combinación de las tomas REAR L y R INPUT o de las señales del conector de entrada de nivel alto REAR.

3

2-Way System (with Input Connection A or B)
Sistema de 2 vías (con conexión de entrada A o B)



Note

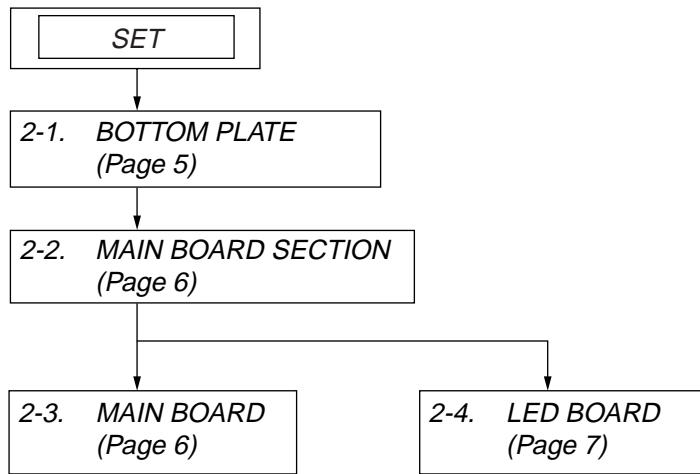
- In this system, the volume of the subwoofer will be controlled by the car audio unit fader control.

Nota

- En este sistema, el volumen de los altavoces potenciador de graves se controla mediante el control de equilibrio entre altavoces del sistema de audio del automóvil.

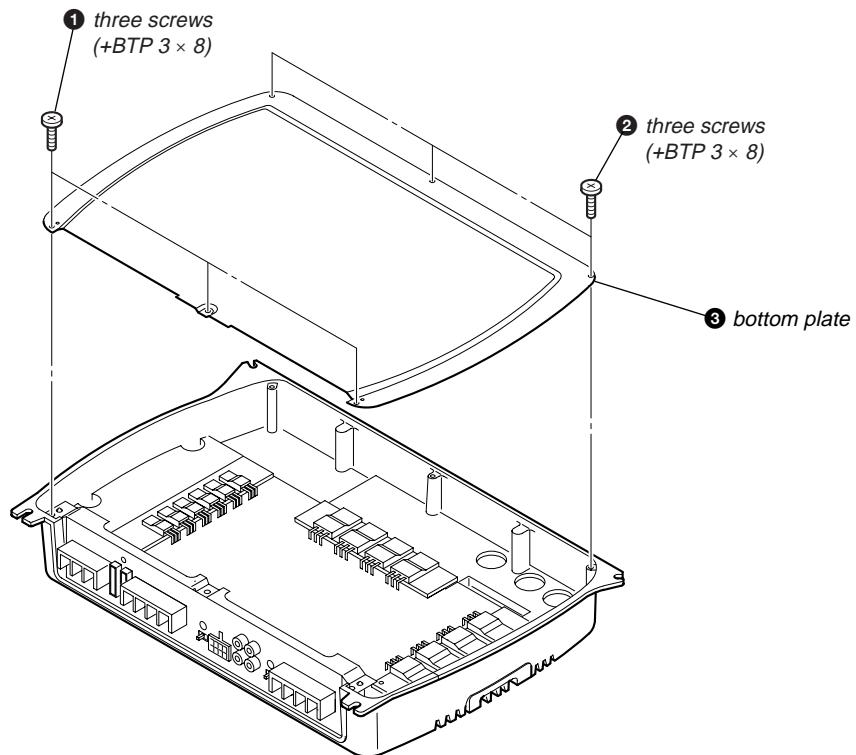
SECTION 2 DISASSEMBLY

Note : This set can be disassemble according to the following sequence.

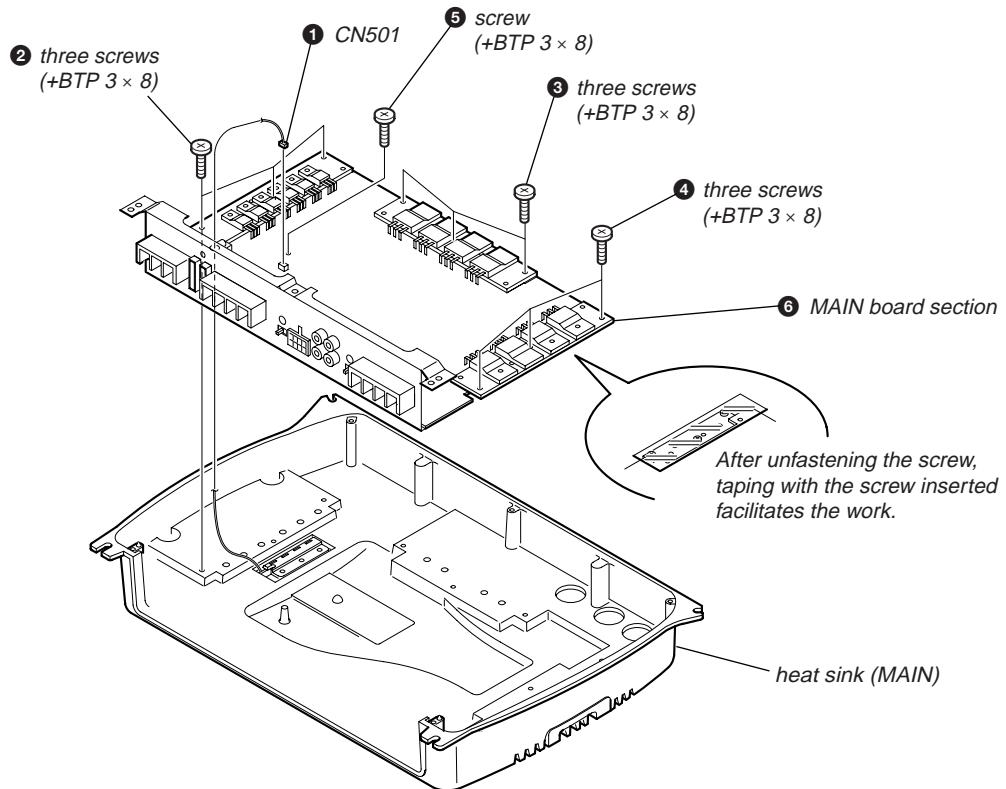


Note : Follow the disassembly procedure in the numerical order given.

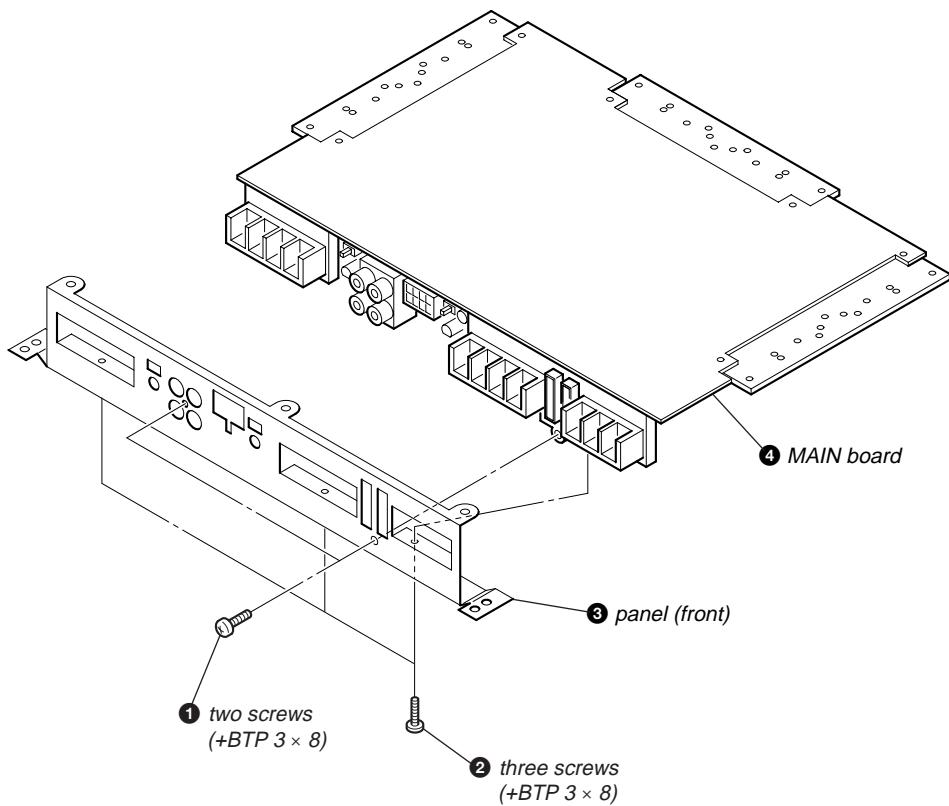
2-1. BOTTOM PLATE



2-2. MAIN BOARD SECTION

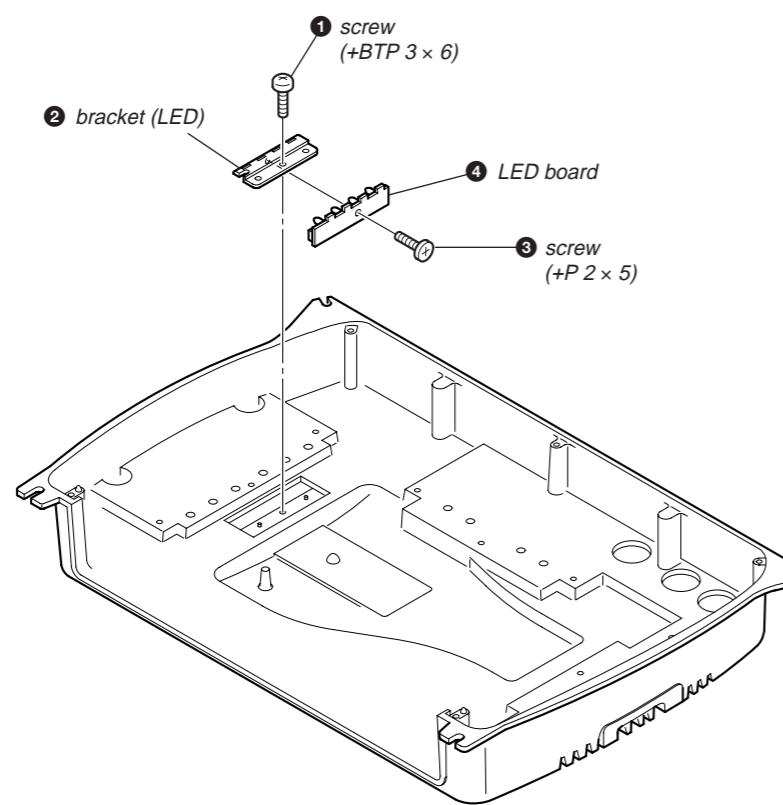


2-3. MAIN BOARD



SECTION 3 DIAGRAMS

2-4. LED BOARD



**THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.
(In addition to this, the necessary note is printed in each block.)**

for schematic diagram:

- All capacitors are in μF unless otherwise noted. (p: pF)
50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/4\text{W}$ or less unless otherwise specified.

Note: The components identified by mark \triangle or dotted line with mark \triangle are critical for safety.
Replace only with part number specified.

— : B+ Line.

- - - : B- Line.

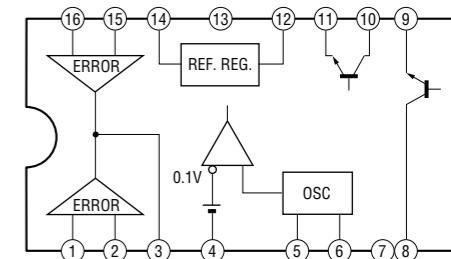
- Power voltage is dc 14.4V and fed with regulated dc power supply from +12V and REM terminals.
- Voltage is dc with respect to ground under no-signal condition.
- Voltages are taken with a VOM (Input impedance $10\text{ M}\Omega$). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
- ⇒ : AUDIO

for printed wiring boards:

- : Pattern from the side which enables seeing.

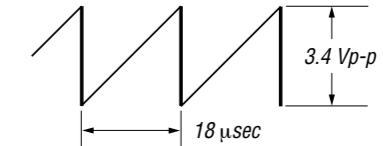
• IC Block Diagram

IC901 μPC494GS

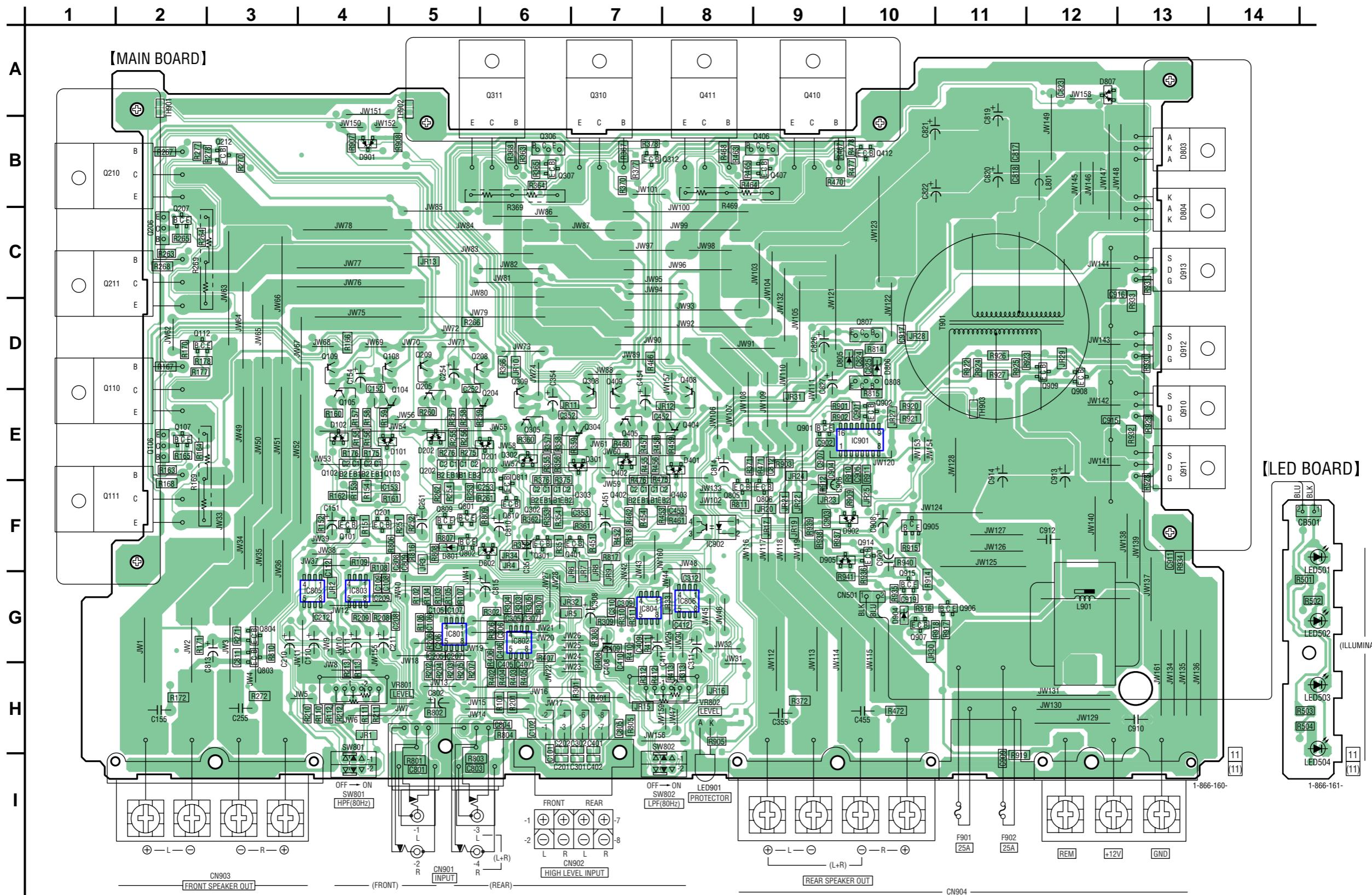


• Waveform

① IC901 ⑤ (CT)



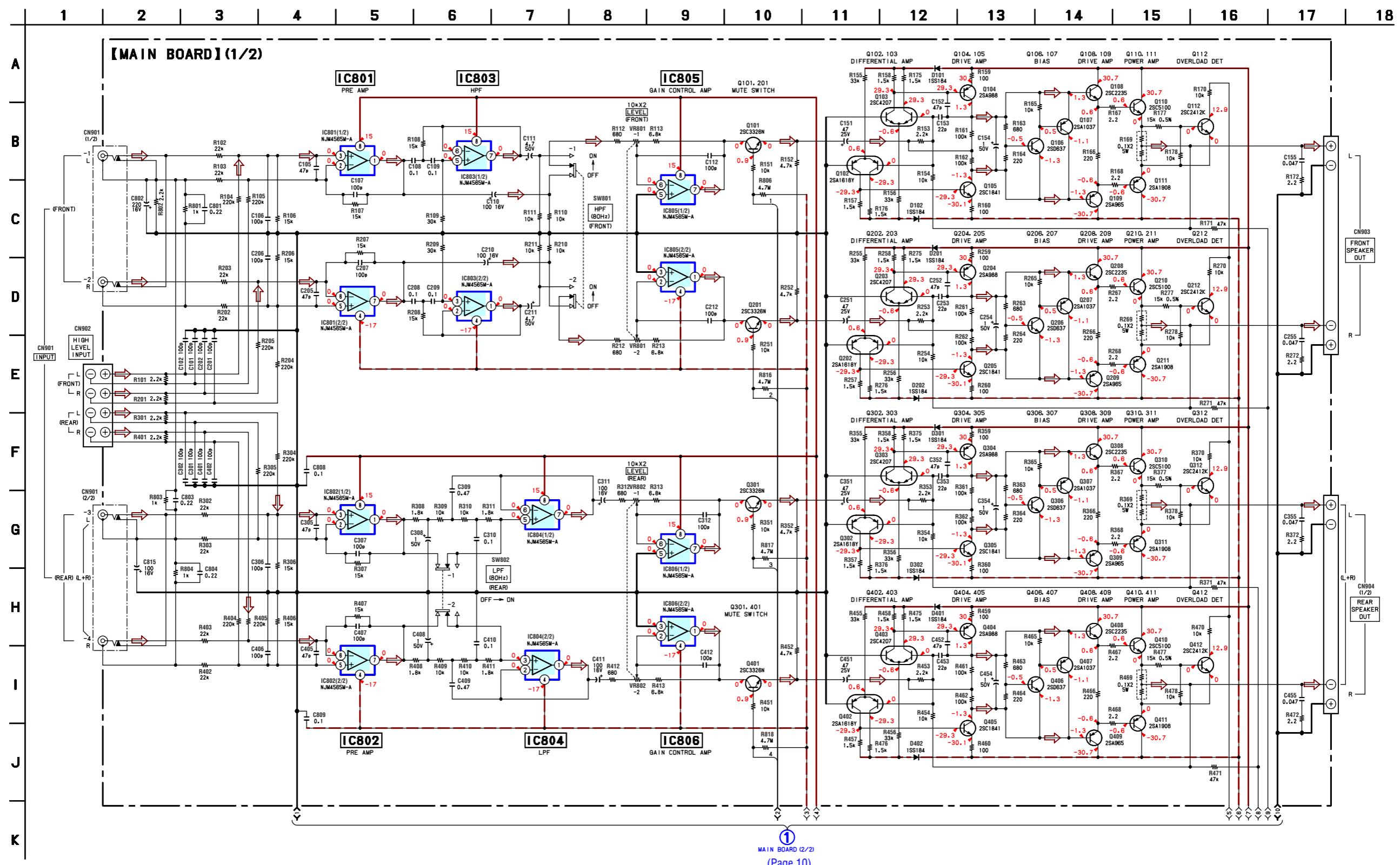
3-1. PRINTED WIRING BOARD



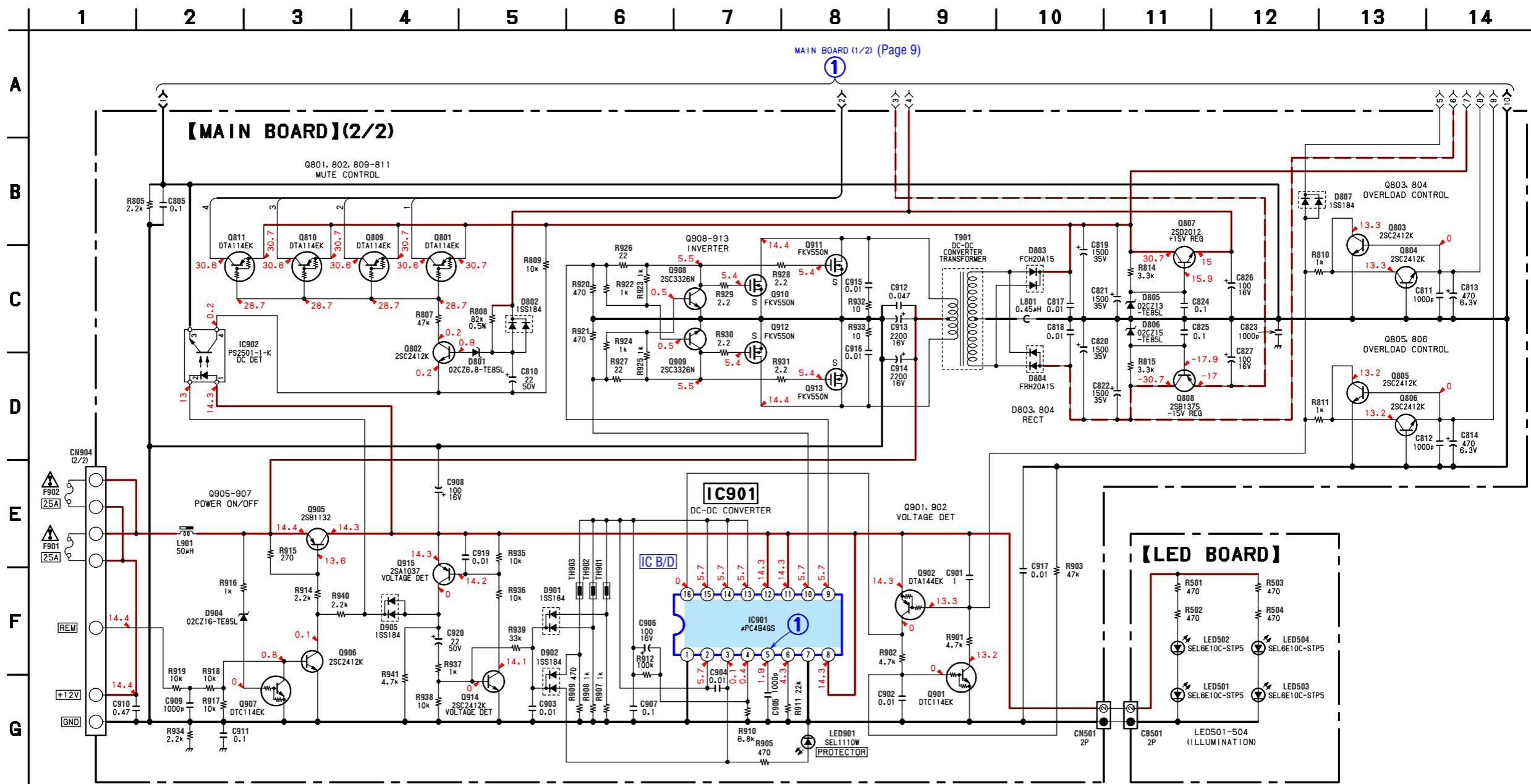
• Semiconductor Location

| Ref. No. | Location | Ref. No. | Location | Ref. No. | Location | Ref. No. | Location | Ref. No. | Location | Ref. No. | Location | Ref. No. | Location | Ref. No. | Location | Ref. No. | Location | Ref. No. | Location |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| D101 | E-5 | D804 | C-13 | IC803 | G-4 | LED901 | I-8 | Q110 | E-1 | Q209 | D-5 | Q407 | B-9 | Q806 | F-9 | Q908 | D-12 | | |
| D102 | E-4 | D805 | D-10 | IC804 | G-7 | | | Q111 | F-1 | Q210 | B-1 | Q408 | E-8 | Q807 | D-10 | Q909 | D-12 | | |
| D201 | E-6 | D806 | D-10 | IC805 | G-4 | Q101 | F-4 | Q112 | D-2 | Q211 | C-1 | Q409 | E-7 | Q808 | D-10 | Q910 | E-13 | | |
| D202 | E-5 | D807 | A-12 | IC806 | G-8 | Q102 | E-4 | Q201 | F-4 | Q212 | B-3 | Q311 | A-6 | Q410 | A-9 | Q809 | F-5 | | |
| D301 | E-7 | D901 | B-4 | IC901 | E-10 | Q103 | E-4 | Q202 | E-5 | Q301 | F-6 | Q312 | B-7 | Q411 | A-8 | Q810 | F-6 | | |
| D302 | E-6 | D902 | F-10 | IC902 | F-8 | Q104 | E-4 | Q203 | E-5 | Q302 | F-6 | Q412 | B-10 | Q811 | F-6 | Q911 | E-13 | | |
| D401 | E-8 | D904 | G-10 | | | Q105 | E-4 | Q204 | E-6 | Q303 | F-7 | Q402 | F-7 | Q801 | F-5 | Q912 | D-13 | | |
| D402 | E-7 | D905 | F-10 | LED501 | F-15 | Q106 | E-2 | Q205 | E-5 | Q304 | E-7 | Q403 | F-8 | Q802 | F-5 | Q913 | C-13 | | |
| D801 | F-5 | | | LED502 | G-15 | Q107 | E-2 | Q206 | C-2 | Q305 | E-6 | Q404 | E-8 | Q803 | H-3 | Q914 | F-10 | | |
| D802 | F-6 | | | LED503 | H-15 | Q108 | D-4 | Q207 | C-2 | Q306 | B-6 | Q405 | E-7 | Q804 | G-3 | Q915 | G-10 | | |
| D803 | B-13 | IC801 | G-5 | LED504 | H-15 | Q109 | D-4 | Q208 | D-6 | Q307 | B-6 | Q406 | B-9 | Q805 | F-8 | Q907 | G-10 | | |

3-2. SCHEMATIC DIAGRAM — AMP SECTION —



3-3. SCHEMATIC DIAGRAM — POWER SECTION — • Refer to page 7 for IC Block Diagram and Waveform



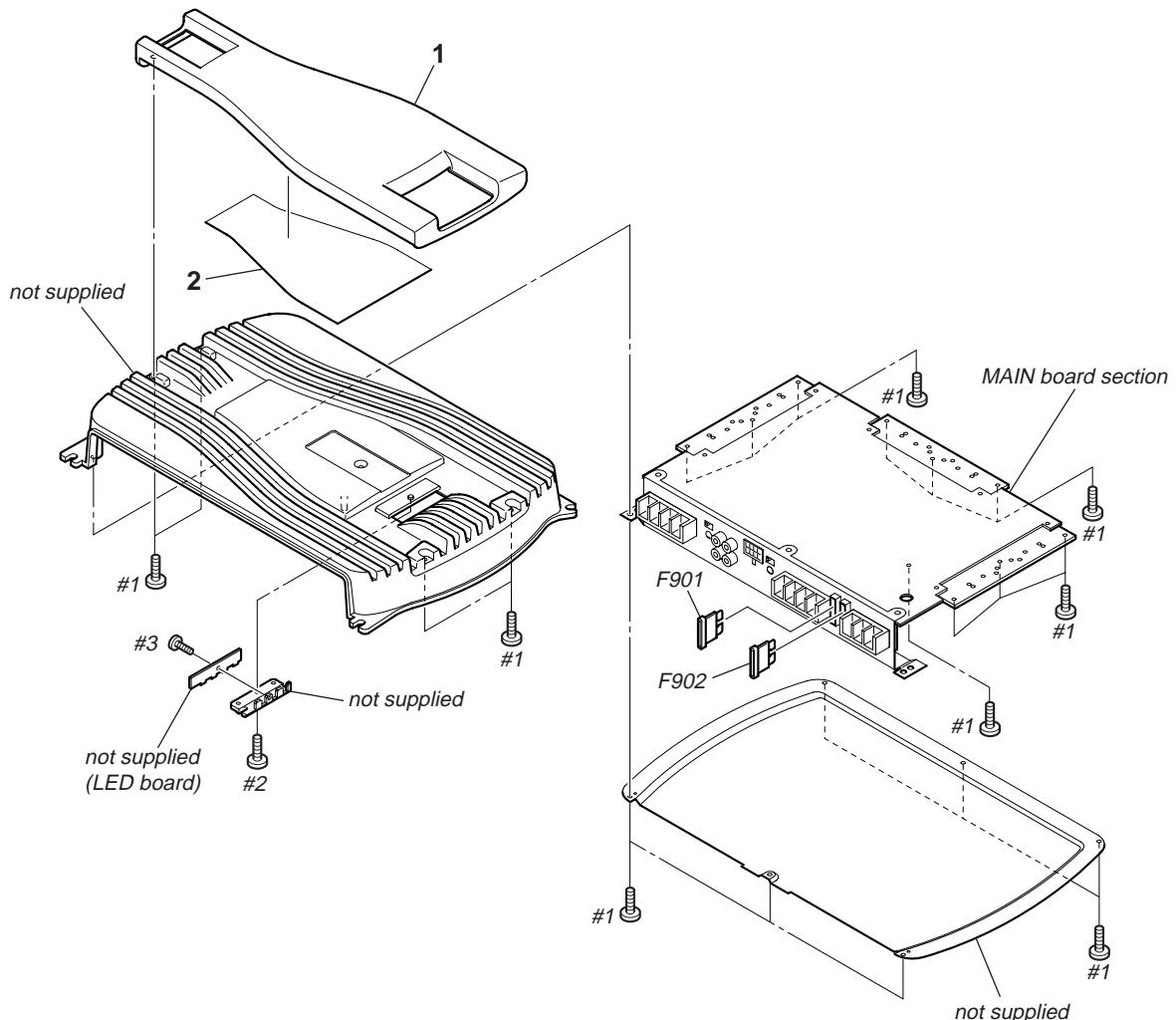
SECTION 4 EXPLODED VIEWS

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

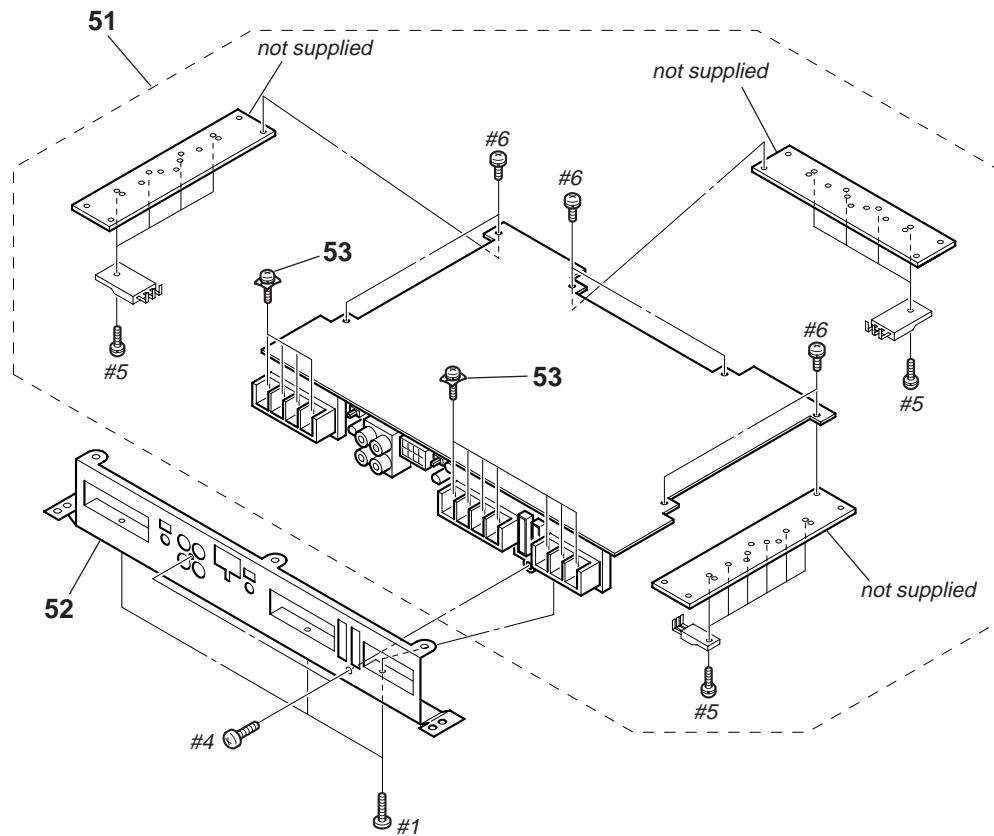
- Color Indication of Appearance Parts
Example :
KNOB, BALANCE (WHITE) ... (RED)
↑ ↑
Parts Color Cabinet's Color
- Accessories are given in the last of this parts list.

The components identified by mark \triangle or dotted line with mark \triangle are critical for safety.
Replace only with part number specified.

4-1. HEAT SINK (MAIN) SECTION

| Ref. No. | Part No. | Description | Remark | Ref. No. | Part No. | Description | Remark |
|------------------|--------------|-------------------------------------|--------|----------|--------------|-----------------------------|--------|
| 1 | X-2050-301-1 | ORNAMENTAL PLATE ASSY | | #1 | 7-685-546-14 | SCREW +BTP 3X8 TYPE2 N-S | |
| 2 | 2-592-199-01 | SHEET, ADHESIVE | | #2 | 7-685-545-14 | SCREW +BTP 3X6 TYPE2 N-S | |
| \triangle F901 | 1-576-256-11 | FUSE (BLADE TYPE) (AUTO FUSE) (25A) | | #3 | 7-685-103-19 | SCREW +P 2X5 TYPE2 NON-SLIT | |
| \triangle F902 | 1-576-256-11 | FUSE (BLADE TYPE) (AUTO FUSE) (25A) | | | | | |

4-2. MAIN BOARD SECTION



| Ref. No. | Part No. | Description | Remark | Ref. No. | Part No. | Description | Remark |
|----------|--------------|--------------------------|--------|----------|--------------|-----------------------------|--------|
| 51 | A-1103-496-A | MAIN BOARD, COMPLETE | | #4 | 7-685-646-79 | SCREW +P 3X8 TYPE2 NON-SLIT | |
| 52 | 2-587-545-01 | PANEL (FRONT) | | #5 | 7-682-948-01 | SCREW +PSW 3X8 | |
| 53 | 3-912-431-01 | SCREW (+P) | | #6 | 7-682-648-09 | SCREW +PS 3X8 | |
| #1 | 7-685-546-14 | SCREW +BTP 3X8 TYPE2 N-S | | | | | |

SECTION 5

ELECTRICAL PARTS LIST

LED

MAIN

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.

• RESISTORS

All resistors are in ohms.

METAL: Metal-film resistor.

METAL OXIDE: Metal oxide-film resistor.

F: nonflammable

- Items marked “**” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

• SEMICONDUCTORS

In each case, u : μ, for example:

uA.. : μA.. uPA.. : μPA..

uPB.. : μPB.. uPC.. : μPC.. uPD.. : μPD..

• CAPACITORS

uF : μF

• COILS

uH : μH

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board.

| <u>Ref. No.</u> | <u>Part No.</u> | <u>Description</u> | <u>Remark</u> | | | <u>Ref. No.</u> | <u>Part No.</u> | <u>Description</u> | <u>Remark</u> | | |
|--|-----------------------------|----------------------------------|---------------|-----|-------|-----------------|-----------------|--------------------|---------------|-----|-----|
| | | LED BOARD ***** | | | | C208 | 1-164-004-11 | CERAMIC CHIP | 0.1uF | 10% | 25V |
| | | < DIODE > | | | | C209 | 1-164-004-11 | CERAMIC CHIP | 0.1uF | 10% | 25V |
| | | | | | | C210 | 1-126-933-11 | ELECT | 100uF | 20% | 16V |
| | | | | | | C211 | 1-126-963-11 | ELECT | 4.7uF | 20% | 50V |
| | | | | | | C212 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| LED501 | 6-501-118-01 | LED SEL6E10C-STP5 (ILLUMINATION) | | | | C251 | 1-126-947-11 | ELECT | 47uF | 20% | 35V |
| LED502 | 6-501-118-01 | LED SEL6E10C-STP5 (ILLUMINATION) | | | | C252 | 1-163-243-11 | CERAMIC CHIP | 47PF | 5% | 50V |
| LED503 | 6-501-118-01 | LED SEL6E10C-STP5 (ILLUMINATION) | | | | C253 | 1-163-235-11 | CERAMIC CHIP | 22PF | 5% | 50V |
| LED504 | 6-501-118-01 | LED SEL6E10C-STP5 (ILLUMINATION) | | | | C254 | 1-126-960-11 | ELECT | 1uF | 20% | 50V |
| | | < RESISTOR > | | | | C255 | 1-137-374-11 | MYLAR | 0.047uF | 5% | 50V |
| R501 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/10W | C301 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| R502 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/10W | C302 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| R503 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/10W | C305 | 1-163-243-11 | CERAMIC CHIP | 47PF | 5% | 50V |
| R504 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/10W | C306 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| ***** | | | | | | | | | | | |
| A-1103-496-A MAIN BOARD, COMPLETE (including LED BOARD) | | | | | | | | | | | |
| ***** | | | | | | | | | | | |
| 3-912-431-01 | SCREW (+P) | | | | | C308 | 1-126-960-11 | ELECT | 1uF | 20% | 50V |
| 7-682-648-09 | SCREW +PS 3X8 | | | | | C309 | 1-107-823-11 | CERAMIC CHIP | 0.47uF | 10% | 16V |
| 7-682-948-01 | SCREW +PSW 3X8 | | | | | C310 | 1-164-004-11 | CERAMIC CHIP | 0.1uF | 10% | 25V |
| 7-685-646-79 | SCREW +P 3X8 TYPE2 NON-SLIT | | | | | C311 | 1-126-933-11 | ELECT | 100uF | 20% | 16V |
| | | < CAPACITOR > | | | | C312 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C101 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V | C351 | 1-126-947-11 | ELECT | 47uF | 20% | 35V |
| C102 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V | C352 | 1-163-243-11 | CERAMIC CHIP | 47PF | 5% | 50V |
| C105 | 1-163-243-11 | CERAMIC CHIP | 47PF | 5% | 50V | C353 | 1-163-235-11 | CERAMIC CHIP | 22PF | 5% | 50V |
| C106 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V | C354 | 1-126-960-11 | ELECT | 1uF | 20% | 50V |
| C107 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V | C355 | 1-137-374-11 | MYLAR | 0.047uF | 5% | 50V |
| C108 | 1-164-004-11 | CERAMIC CHIP | 0.1uF | 10% | 25V | C401 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C109 | 1-164-004-11 | CERAMIC CHIP | 0.1uF | 10% | 25V | C402 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C110 | 1-126-933-11 | ELECT | 100uF | 20% | 16V | C405 | 1-163-243-11 | CERAMIC CHIP | 47PF | 5% | 50V |
| C111 | 1-126-963-11 | ELECT | 4.7uF | 20% | 50V | C406 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C112 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V | C407 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C151 | 1-126-947-11 | ELECT | 47uF | 20% | 35V | C408 | 1-126-960-11 | ELECT | 1uF | 20% | 50V |
| C152 | 1-163-243-11 | CERAMIC CHIP | 47PF | 5% | 50V | C409 | 1-107-823-11 | CERAMIC CHIP | 0.47uF | 10% | 16V |
| C153 | 1-163-235-11 | CERAMIC CHIP | 22PF | 5% | 50V | C410 | 1-164-004-11 | CERAMIC CHIP | 0.1uF | 10% | 25V |
| C154 | 1-126-960-11 | ELECT | 1uF | 20% | 50V | C411 | 1-126-933-11 | ELECT | 100uF | 20% | 16V |
| C155 | 1-137-374-11 | MYLAR | 0.047uF | 5% | 50V | C412 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C201 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V | C451 | 1-126-947-11 | ELECT | 47uF | 20% | 35V |
| C202 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V | C452 | 1-163-243-11 | CERAMIC CHIP | 47PF | 5% | 50V |
| C205 | 1-163-243-11 | CERAMIC CHIP | 47PF | 5% | 50V | C453 | 1-163-235-11 | CERAMIC CHIP | 22PF | 5% | 50V |
| C206 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V | C454 | 1-126-960-11 | ELECT | 1uF | 20% | 50V |
| C207 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V | C455 | 1-137-374-11 | MYLAR | 0.047uF | 5% | 50V |
| C801 | 1-115-340-11 | CERAMIC CHIP | 0.22uF | 10% | 25V | C802 | 1-126-934-11 | ELECT | 220uF | 20% | 16V |
| C803 | 1-115-340-11 | CERAMIC CHIP | 0.22uF | 10% | 25V | C804 | 1-115-340-11 | CERAMIC CHIP | 0.22uF | 10% | 25V |
| C805 | 1-164-004-11 | CERAMIC CHIP | 0.1uF | 10% | 25V | C806 | 1-115-340-11 | CERAMIC CHIP | 0.22uF | 10% | 25V |

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MAIN

| Ref. No. | Part No. | Description | | | Remark | Ref. No. | Part No. | Description | | | Remark |
|--------------------|--------------|---|---------|-----|--------|---------------------|--------------|---------------|---------------|--|--------|
| C808 | 1-164-004-11 | CERAMIC CHIP | 0.1uF | 10% | 25V | D302 | 8-719-801-78 | DIODE | 1SS184 | | |
| C809 | 1-164-004-11 | CERAMIC CHIP | 0.1uF | 10% | 25V | D401 | 8-719-801-78 | DIODE | 1SS184 | | |
| C810 | 1-126-965-11 | ELECT | 22uF | 20% | 50V | D402 | 8-719-801-78 | DIODE | 1SS184 | | |
| C811 | 1-163-009-11 | CERAMIC CHIP | 0.001uF | 10% | 50V | D801 | 8-719-025-34 | DIODE | 02CZ6.8-TE85L | | |
| C812 | 1-163-009-11 | CERAMIC CHIP | 0.001uF | 10% | 50V | D802 | 8-719-801-78 | DIODE | 1SS184 | | |
| C813 | 1-104-655-11 | ELECT | 470uF | 20% | 6.3V | D803 | 8-719-076-60 | DIODE | FCH20A15 | | |
| C814 | 1-104-655-11 | ELECT | 470uF | 20% | 6.3V | D804 | 8-719-076-61 | DIODE | FRH20A15 | | |
| C815 | 1-126-933-11 | ELECT | 100uF | 20% | 16V | D805 | 8-719-025-48 | DIODE | 02CZ13-TE85L | | |
| C817 | 1-163-021-11 | CERAMIC CHIP | 0.01uF | 10% | 50V | D806 | 8-719-025-49 | DIODE | 02CZ15-TE85L | | |
| C818 | 1-163-021-11 | CERAMIC CHIP | 0.01uF | 10% | 50V | D807 | 8-719-801-78 | DIODE | 1SS184 | | |
| C819 | 1-165-949-11 | ELECT | 1500uF | 20% | 35V | D901 | 8-719-801-78 | DIODE | 1SS184 | | |
| C820 | 1-165-949-11 | ELECT | 1500uF | 20% | 35V | D902 | 8-719-801-78 | DIODE | 1SS184 | | |
| C821 | 1-165-949-11 | ELECT | 1500uF | 20% | 35V | D904 | 8-719-025-50 | DIODE | 02CZ16-TE85L | | |
| C822 | 1-165-949-11 | ELECT | 1500uF | 20% | 35V | D905 | 8-719-801-78 | DIODE | 1SS184 | | |
| C823 | 1-163-009-11 | CERAMIC CHIP | 0.001uF | 10% | 50V | < IC > | | | | | |
| C824 | 1-164-004-11 | CERAMIC CHIP | 0.1uF | 10% | 25V | IC801 | 8-759-710-28 | IC | NJM4565M-A | | |
| C825 | 1-164-004-11 | CERAMIC CHIP | 0.1uF | 10% | 25V | IC802 | 8-759-710-28 | IC | NJM4565M-A | | |
| C826 | 1-126-933-11 | ELECT | 100uF | 20% | 16V | IC803 | 8-759-710-28 | IC | NJM4565M-A | | |
| C827 | 1-126-933-11 | ELECT | 100uF | 20% | 16V | IC804 | 8-759-710-28 | IC | NJM4565M-A | | |
| C901 | 1-127-573-11 | CERAMIC CHIP | 1uF | 10% | 16V | IC805 | 8-759-710-28 | IC | NJM4565M-A | | |
| C902 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V | IC806 | 8-759-710-28 | IC | NJM4565M-A | | |
| C903 | 1-163-021-11 | CERAMIC CHIP | 0.01uF | 10% | 50V | IC901 | 8-759-144-88 | IC | uPC494GS | | |
| C904 | 1-163-021-11 | CERAMIC CHIP | 0.01uF | 10% | 50V | < PHOTO COUPLER > | | | | | |
| C905 | 1-163-009-11 | CERAMIC CHIP | 0.001uF | 10% | 50V | IC902 | 8-719-156-72 | PHOTO COUPLER | PS2501-1-K | | |
| C906 | 1-126-933-11 | ELECT | 100uF | 20% | 16V | < JUMPER RESISTOR > | | | | | |
| C907 | 1-164-004-11 | CERAMIC CHIP | 0.1uF | 10% | 25V | JR1 | 1-216-296-11 | SHORT CHIP | 0 | | |
| C908 | 1-107-882-11 | ELECT | 100uF | 20% | 16V | JR2 | 1-216-296-11 | SHORT CHIP | 0 | | |
| C909 | 1-163-009-11 | CERAMIC CHIP | 0.001uF | 10% | 50V | JR3 | 1-216-864-11 | SHORT CHIP | 0 | | |
| C910 | 1-137-380-11 | MYLAR | 0.47uF | 5% | 50V | JR4 | 1-216-864-11 | SHORT CHIP | 0 | | |
| C911 | 1-164-004-11 | CERAMIC CHIP | 0.1uF | 10% | 25V | JR5 | 1-216-296-11 | SHORT CHIP | 0 | | |
| C912 | 1-137-374-11 | MYLAR | 0.047uF | 5% | 50V | JR6 | 1-216-296-11 | SHORT CHIP | 0 | | |
| C913 | 1-131-731-11 | ELECT | 2200uF | 20% | 16V | JR7 | 1-216-296-11 | SHORT CHIP | 0 | | |
| C914 | 1-131-731-11 | ELECT | 2200uF | 20% | 16V | JR8 | 1-216-296-11 | SHORT CHIP | 0 | | |
| C915 | 1-163-021-11 | CERAMIC CHIP | 0.01uF | 10% | 50V | JR9 | 1-216-296-11 | SHORT CHIP | 0 | | |
| C916 | 1-163-021-11 | CERAMIC CHIP | 0.01uF | 10% | 50V | JR10 | 1-216-296-11 | SHORT CHIP | 0 | | |
| C917 | 1-163-021-11 | CERAMIC CHIP | 0.01uF | 10% | 50V | JR11 | 1-216-864-11 | SHORT CHIP | 0 | | |
| C919 | 1-163-021-11 | CERAMIC CHIP | 0.01uF | 10% | 50V | JR12 | 1-216-864-11 | SHORT CHIP | 0 | | |
| C920 | 1-126-965-11 | ELECT | 22uF | 20% | 50V | JR13 | 1-216-296-11 | SHORT CHIP | 0 | | |
| < CONNECTOR > | | | | | | JR15 | 1-216-296-11 | SHORT CHIP | 0 | | |
| CN501 | 1-564-704-11 | PIN, CONNECTOR (SMALL TYPE) 2P | | | | JR16 | 1-216-296-11 | SHORT CHIP | 0 | | |
| CN902 | 1-580-283-11 | PIN, CONNECTOR (PC BOARD) 8P (HIGH LEVEL INPUT (FRONT/REAR)) | | | | JR17 | 1-216-296-11 | SHORT CHIP | 0 | | |
| < JACK > | | | | | | JR19 | 1-216-296-11 | SHORT CHIP | 0 | | |
| CN901 | 1-779-078-21 | JACK, PIN 4P (INPUT (FRONT/REAR)) | | | | JR20 | 1-216-296-11 | SHORT CHIP | 0 | | |
| < TERMINAL BOARD > | | | | | | JR21 | 1-216-296-11 | SHORT CHIP | 0 | | |
| CN903 | 1-780-132-11 | TERMINAL BOARD (FRONT SPEAKER OUT) | | | | JR22 | 1-216-296-11 | SHORT CHIP | 0 | | |
| CN904 | 1-780-134-11 | TERMINAL BOARD (4P+3P+2FUSE) (REAR SPEAKER OUT,REM,+12V,GND,25A,25A) | | | | JR23 | 1-216-296-11 | SHORT CHIP | 0 | | |
| < DIODE > | | | | | | JR24 | 1-216-296-11 | SHORT CHIP | 0 | | |
| D101 | 8-719-801-78 | DIODE | 1SS184 | | | JR25 | 1-216-296-11 | SHORT CHIP | 0 | | |
| D102 | 8-719-801-78 | DIODE | 1SS184 | | | JR27 | 1-216-296-11 | SHORT CHIP | 0 | | |
| D201 | 8-719-801-78 | DIODE | 1SS184 | | | JR28 | 1-216-296-11 | SHORT CHIP | 0 | | |
| D202 | 8-719-801-78 | DIODE | 1SS184 | | | JR29 | 1-216-296-11 | SHORT CHIP | 0 | | |
| D301 | 8-719-801-78 | DIODE | 1SS184 | | | JR30 | 1-216-296-11 | SHORT CHIP | 0 | | |
| | | | | | | JR31 | 1-216-296-11 | SHORT CHIP | 0 | | |
| | | | | | | JR32 | 1-216-296-11 | SHORT CHIP | 0 | | |
| | | | | | | JR33 | 1-216-296-11 | SHORT CHIP | 0 | | |

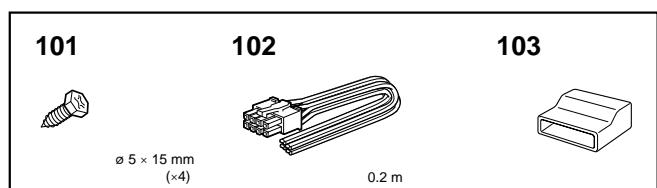
| Ref. No. | Part No. | Description | Remark | Ref. No. | Part No. | Description | Remark |
|----------|--------------|--------------------------|-------------------|----------|--------------|-------------|-------------------|
| JR34 | 1-216-864-11 | SHORT CHIP | 0 | Q412 | 8-729-120-28 | TRANSISTOR | 2SC1623-L5L6 |
| | | < COIL > | | Q801 | 8-729-901-04 | TRANSISTOR | DTA114EK |
| L801 | 1-410-396-41 | FERRITE | 0.45uH | Q802 | 8-729-120-28 | TRANSISTOR | 2SC1623-L5L6 |
| L901 | 1-411-756-11 | INDUCTOR | 50uH | Q803 | 8-729-120-28 | TRANSISTOR | 2SC1623-L5L6 |
| | | < DIODE > | | Q804 | 8-729-120-28 | TRANSISTOR | 2SC1623-L5L6 |
| LED901 | 6-501-217-01 | LED SEL1110W (PROTECTOR) | | Q805 | 8-729-120-28 | TRANSISTOR | 2SC1623-L5L6 |
| | | < TRANSISTOR > | | Q806 | 8-729-120-28 | TRANSISTOR | 2SC1623-L5L6 |
| Q101 | 8-729-202-38 | TRANSISTOR | 2SC3326N-A | Q807 | 8-729-209-15 | TRANSISTOR | 2SD2012 |
| Q102 | 8-729-232-66 | TRANSISTOR | 2SA1618Y | Q808 | 8-729-209-60 | TRANSISTOR | 2SB1375 |
| Q103 | 8-729-014-86 | TRANSISTOR | 2SC4207-YGRTE85L | Q809 | 8-729-901-04 | TRANSISTOR | DTA114EK |
| Q104 | 8-729-140-82 | TRANSISTOR | 2SA988-PAFAEA | Q810 | 8-729-901-04 | TRANSISTOR | DTA114EK |
| Q105 | 8-729-140-84 | TRANSISTOR | 2SC1841-PAFAEA | Q811 | 8-729-901-04 | TRANSISTOR | DTA114EK |
| Q106 | 8-729-902-11 | TRANSISTOR | 2SC2021-Q | Q901 | 8-729-027-43 | TRANSISTOR | DTC114EKA-T146 |
| Q107 | 8-729-026-49 | TRANSISTOR | 2SA1037AK-T146-QR | Q902 | 8-729-027-38 | TRANSISTOR | DTA144EKA-T146 |
| Q108 | 8-729-020-80 | TRANSISTOR | 2SC2235-0/Y(TPE6) | Q905 | 8-729-903-46 | TRANSISTOR | 2SB1132-P |
| Q109 | 8-729-232-32 | TRANSISTOR | 2SA965 | Q906 | 8-729-120-28 | TRANSISTOR | 2SC1623-L5L6 |
| Q110 | 8-729-024-79 | TRANSISTOR | 2SC5100-P | Q907 | 8-729-027-43 | TRANSISTOR | DTC114EKA-T146 |
| Q111 | 8-729-024-76 | TRANSISTOR | 2SA1908-P | Q908 | 8-729-202-38 | TRANSISTOR | 2SC3326N-A |
| Q112 | 8-729-120-28 | TRANSISTOR | 2SC1623-L5L6 | Q909 | 8-729-202-38 | TRANSISTOR | 2SC3326N-A |
| Q201 | 8-729-202-38 | TRANSISTOR | 2SC3326N-A | Q910 | 6-550-341-01 | FET FKV550N | |
| Q202 | 8-729-232-66 | TRANSISTOR | 2SA1618Y | Q911 | 6-550-341-01 | FET FKV550N | |
| Q203 | 8-729-014-86 | TRANSISTOR | 2SC4207-YGRTE85L | Q912 | 6-550-341-01 | FET FKV550N | |
| Q204 | 8-729-140-82 | TRANSISTOR | 2SA988-PAFAEA | Q913 | 6-550-341-01 | FET FKV550N | |
| Q205 | 8-729-140-84 | TRANSISTOR | 2SC1841-PAFAEA | Q914 | 8-729-120-28 | TRANSISTOR | 2SC1623-L5L6 |
| Q206 | 8-729-902-11 | TRANSISTOR | 2SC2021-Q | Q915 | 8-729-026-49 | TRANSISTOR | 2SA1037AK-T146-QR |
| Q207 | 8-729-026-49 | TRANSISTOR | 2SA1037AK-T146-QR | | | | |
| Q208 | 8-729-020-80 | TRANSISTOR | 2SC2235-0/Y(TPE6) | | | | |
| Q209 | 8-729-232-32 | TRANSISTOR | 2SA965 | | | | |
| Q210 | 8-729-024-79 | TRANSISTOR | 2SC5100-P | | | | |
| Q211 | 8-729-024-76 | TRANSISTOR | 2SA1908-P | | | | |
| Q212 | 8-729-120-28 | TRANSISTOR | 2SC1623-L5L6 | | | | |
| Q301 | 8-729-202-38 | TRANSISTOR | 2SC3326N-A | | | | |
| Q302 | 8-729-232-66 | TRANSISTOR | 2SA1618Y | | | | |
| Q303 | 8-729-014-86 | TRANSISTOR | 2SC4207-YGRTE85L | | | | |
| Q304 | 8-729-140-82 | TRANSISTOR | 2SA988-PAFAEA | | | | |
| Q305 | 8-729-140-84 | TRANSISTOR | 2SC1841-PAFAEA | | | | |
| Q306 | 8-729-902-11 | TRANSISTOR | 2SC2021-Q | | | | |
| Q307 | 8-729-026-49 | TRANSISTOR | 2SA1037AK-T146-QR | | | | |
| Q308 | 8-729-020-80 | TRANSISTOR | 2SC2235-0/Y(TPE6) | | | | |
| Q309 | 8-729-232-32 | TRANSISTOR | 2SA965 | | | | |
| Q310 | 8-729-024-79 | TRANSISTOR | 2SC5100-P | | | | |
| Q311 | 8-729-024-76 | TRANSISTOR | 2SA1908-P | | | | |
| Q312 | 8-729-120-28 | TRANSISTOR | 2SC1623-L5L6 | | | | |
| Q401 | 8-729-202-38 | TRANSISTOR | 2SC3326N-A | | | | |
| Q402 | 8-729-232-66 | TRANSISTOR | 2SA1618Y | | | | |
| Q403 | 8-729-014-86 | TRANSISTOR | 2SC4207-YGRTE85L | | | | |
| Q404 | 8-729-140-82 | TRANSISTOR | 2SA988-PAFAEA | | | | |
| Q405 | 8-729-140-84 | TRANSISTOR | 2SC1841-PAFAEA | | | | |
| Q406 | 8-729-902-11 | TRANSISTOR | 2SC2021-Q | | | | |
| Q407 | 8-729-026-49 | TRANSISTOR | 2SA1037AK-T146-QR | | | | |
| Q408 | 8-729-020-80 | TRANSISTOR | 2SC2235-0/Y(TPE6) | | | | |
| Q409 | 8-729-232-32 | TRANSISTOR | 2SA965 | | | | |
| Q410 | 8-729-024-79 | TRANSISTOR | 2SC5100-P | | | | |
| Q411 | 8-729-024-76 | TRANSISTOR | 2SA1908-P | | | | |
| | | | | R101 | 1-216-206-00 | RES-CHIP | 2.2K 5% 1/8W |
| | | | | R102 | 1-216-081-00 | RES-CHIP | 22K 5% 1/10W |
| | | | | R103 | 1-216-081-00 | RES-CHIP | 22K 5% 1/10W |
| | | | | R104 | 1-216-849-11 | METAL CHIP | 220K 5% 1/10W |
| | | | | R105 | 1-216-849-11 | METAL CHIP | 220K 5% 1/10W |
| | | | | R106 | 1-216-077-11 | RES-CHIP | 15K 5% 1/10W |
| | | | | R107 | 1-216-077-11 | RES-CHIP | 15K 5% 1/10W |
| | | | | R108 | 1-216-077-11 | RES-CHIP | 15K 5% 1/10W |
| | | | | R109 | 1-216-084-00 | RES-CHIP | 30K 5% 1/10W |
| | | | | R110 | 1-216-073-00 | RES-CHIP | 10K 5% 1/10W |
| | | | | R111 | 1-216-073-00 | RES-CHIP | 10K 5% 1/10W |
| | | | | R112 | 1-216-045-00 | RES-CHIP | 680 5% 1/10W |
| | | | | R113 | 1-216-069-00 | RES-CHIP | 6.8K 5% 1/10W |
| | | | | R115 | 1-216-222-00 | RES-CHIP | 10K 5% 1/8W |
| | | | | R152 | 1-216-065-11 | RES-CHIP | 4.7K 5% 1/10W |
| | | | | R153 | 1-216-057-00 | RES-CHIP | 2.2K 5% 1/10W |
| | | | | R154 | 1-216-222-00 | RES-CHIP | 10K 5% 1/8W |
| | | | | R155 | 1-216-085-11 | RES-CHIP | 33K 5% 1/10W |
| | | | | R156 | 1-216-085-11 | RES-CHIP | 33K 5% 1/10W |
| | | | | R157 | 1-216-053-00 | RES-CHIP | 1.5K 5% 1/10W |
| | | | | R158 | 1-216-053-00 | RES-CHIP | 1.5K 5% 1/10W |
| | | | | R159 | 1-216-025-11 | RES-CHIP | 100 5% 1/10W |
| | | | | R160 | 1-216-025-11 | RES-CHIP | 100 5% 1/10W |
| | | | | R161 | 1-216-097-11 | RES-CHIP | 100K 5% 1/10W |
| | | | | R162 | 1-216-097-11 | RES-CHIP | 100K 5% 1/10W |
| | | | | R163 | 1-216-045-00 | RES-CHIP | 680 5% 1/10W |
| | | | | R164 | 1-216-033-00 | RES-CHIP | 220 5% 1/10W |
| | | | | R165 | 1-216-073-00 | RES-CHIP | 10K 5% 1/10W |
| | | | | R166 | 1-216-182-00 | RES-CHIP | 220 5% 1/8W |
| | | | | R167 | 1-216-134-00 | RES-CHIP | 2.2 5% 1/8W |
| | | | | R168 | 1-216-134-00 | RES-CHIP | 2.2 5% 1/8W |

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MAIN

| Ref. No. | Part No. | Description | | Remark | Ref. No. | Part No. | Description | | Remark | |
|----------|--------------|-------------|-------|--------|----------|----------|--------------|------------|--------|------------|
| R169 | 1-205-991-11 | METAL | 0.1X2 | 10% | 5W F | R312 | 1-216-045-00 | RES-CHIP | 680 | 5% 1/10W |
| R170 | 1-216-073-00 | RES-CHIP | 10K | 5% | 1/10W | R313 | 1-216-069-00 | RES-CHIP | 6.8K | 5% 1/10W |
| R171 | 1-216-089-11 | RES-CHIP | 47K | 5% | 1/10W | R351 | 1-216-222-00 | RES-CHIP | 10K | 5% 1/8W |
| R172 | 1-216-134-00 | RES-CHIP | 2.2 | 5% | 1/8W | R352 | 1-216-065-11 | RES-CHIP | 4.7K | 5% 1/10W |
| R175 | 1-216-053-00 | RES-CHIP | 1.5K | 5% | 1/10W | R353 | 1-216-057-00 | RES-CHIP | 2.2K | 5% 1/10W |
| R176 | 1-216-053-00 | RES-CHIP | 1.5K | 5% | 1/10W | R354 | 1-216-222-00 | RES-CHIP | 10K | 5% 1/8W |
| R177 | 1-218-875-11 | METAL CHIP | 15K | 0.5% | 1/10W | R355 | 1-216-085-11 | RES-CHIP | 33K | 5% 1/10W |
| R178 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | R356 | 1-216-085-11 | RES-CHIP | 33K | 5% 1/10W |
| R201 | 1-216-206-00 | RES-CHIP | 2.2K | 5% | 1/8W | R357 | 1-216-053-00 | RES-CHIP | 1.5K | 5% 1/10W |
| R202 | 1-216-081-00 | RES-CHIP | 22K | 5% | 1/10W | R358 | 1-216-053-00 | RES-CHIP | 1.5K | 5% 1/10W |
| R203 | 1-216-081-00 | RES-CHIP | 22K | 5% | 1/10W | R359 | 1-216-025-11 | RES-CHIP | 100 | 5% 1/10W |
| R204 | 1-216-849-11 | METAL CHIP | 220K | 5% | 1/10W | R360 | 1-216-025-11 | RES-CHIP | 100 | 5% 1/10W |
| R205 | 1-216-849-11 | METAL CHIP | 220K | 5% | 1/10W | R361 | 1-216-097-11 | RES-CHIP | 100K | 5% 1/10W |
| R206 | 1-216-077-11 | RES-CHIP | 15K | 5% | 1/10W | R362 | 1-216-097-11 | RES-CHIP | 100K | 5% 1/10W |
| R207 | 1-216-077-11 | RES-CHIP | 15K | 5% | 1/10W | R363 | 1-216-045-00 | RES-CHIP | 680 | 5% 1/10W |
| R208 | 1-216-077-11 | RES-CHIP | 15K | 5% | 1/10W | R364 | 1-216-033-00 | RES-CHIP | 220 | 5% 1/10W |
| R209 | 1-216-084-00 | RES-CHIP | 30K | 5% | 1/10W | R365 | 1-216-073-00 | RES-CHIP | 10K | 5% 1/10W |
| R210 | 1-216-073-00 | RES-CHIP | 10K | 5% | 1/10W | R366 | 1-216-182-00 | RES-CHIP | 220 | 5% 1/8W |
| R211 | 1-216-073-00 | RES-CHIP | 10K | 5% | 1/10W | R367 | 1-216-134-00 | RES-CHIP | 2.2 | 5% 1/8W |
| R212 | 1-216-045-00 | RES-CHIP | 680 | 5% | 1/10W | R368 | 1-216-134-00 | RES-CHIP | 2.2 | 5% 1/8W |
| R213 | 1-216-069-00 | RES-CHIP | 6.8K | 5% | 1/10W | R369 | 1-205-991-11 | METAL | 0.1X2 | 10% 5W F |
| R251 | 1-216-222-00 | RES-CHIP | 10K | 5% | 1/8W | R370 | 1-216-073-00 | RES-CHIP | 10K | 5% 1/10W |
| R252 | 1-216-065-11 | RES-CHIP | 4.7K | 5% | 1/10W | R371 | 1-216-089-11 | RES-CHIP | 47K | 5% 1/10W |
| R253 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W | R372 | 1-216-134-00 | RES-CHIP | 2.2 | 5% 1/8W |
| R254 | 1-216-222-00 | RES-CHIP | 10K | 5% | 1/8W | R375 | 1-216-053-00 | RES-CHIP | 1.5K | 5% 1/10W |
| R255 | 1-216-085-11 | RES-CHIP | 33K | 5% | 1/10W | R376 | 1-216-053-00 | RES-CHIP | 1.5K | 5% 1/10W |
| R256 | 1-216-085-11 | RES-CHIP | 33K | 5% | 1/10W | R377 | 1-218-875-11 | METAL CHIP | 15K | 0.5% 1/10W |
| R257 | 1-216-053-00 | RES-CHIP | 1.5K | 5% | 1/10W | R378 | 1-216-833-11 | METAL CHIP | 10K | 5% 1/10W |
| R258 | 1-216-053-00 | RES-CHIP | 1.5K | 5% | 1/10W | R401 | 1-216-206-00 | RES-CHIP | 2.2K | 5% 1/8W |
| R259 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W | R402 | 1-216-081-00 | RES-CHIP | 22K | 5% 1/10W |
| R260 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W | R403 | 1-216-081-00 | RES-CHIP | 22K | 5% 1/10W |
| R261 | 1-216-097-11 | RES-CHIP | 100K | 5% | 1/10W | R404 | 1-216-849-11 | METAL CHIP | 220K | 5% 1/10W |
| R262 | 1-216-097-11 | RES-CHIP | 100K | 5% | 1/10W | R405 | 1-216-849-11 | METAL CHIP | 220K | 5% 1/10W |
| R263 | 1-216-045-00 | RES-CHIP | 680 | 5% | 1/10W | R406 | 1-216-077-11 | RES-CHIP | 15K | 5% 1/10W |
| R264 | 1-216-033-00 | RES-CHIP | 220 | 5% | 1/10W | R407 | 1-216-077-11 | RES-CHIP | 15K | 5% 1/10W |
| R265 | 1-216-073-00 | RES-CHIP | 10K | 5% | 1/10W | R408 | 1-216-055-00 | RES-CHIP | 1.8K | 5% 1/10W |
| R266 | 1-216-182-00 | RES-CHIP | 220 | 5% | 1/8W | R409 | 1-216-833-11 | METAL CHIP | 10K | 5% 1/10W |
| R267 | 1-216-134-00 | RES-CHIP | 2.2 | 5% | 1/8W | R410 | 1-216-073-00 | RES-CHIP | 10K | 5% 1/10W |
| R268 | 1-216-134-00 | RES-CHIP | 2.2 | 5% | 1/8W | R411 | 1-216-055-00 | RES-CHIP | 1.8K | 5% 1/10W |
| R269 | 1-205-991-11 | METAL | 0.1X2 | 10% | 5W F | R412 | 1-216-045-00 | RES-CHIP | 680 | 5% 1/10W |
| R270 | 1-216-073-00 | RES-CHIP | 10K | 5% | 1/10W | R413 | 1-216-069-00 | RES-CHIP | 6.8K | 5% 1/10W |
| R271 | 1-216-089-11 | RES-CHIP | 47K | 5% | 1/10W | R451 | 1-216-222-00 | RES-CHIP | 10K | 5% 1/8W |
| R272 | 1-216-134-00 | RES-CHIP | 2.2 | 5% | 1/8W | R452 | 1-216-065-11 | RES-CHIP | 4.7K | 5% 1/10W |
| R275 | 1-216-053-00 | RES-CHIP | 1.5K | 5% | 1/10W | R453 | 1-216-057-00 | RES-CHIP | 2.2K | 5% 1/10W |
| R276 | 1-216-053-00 | RES-CHIP | 1.5K | 5% | 1/10W | R454 | 1-216-222-00 | RES-CHIP | 10K | 5% 1/8W |
| R277 | 1-218-875-11 | METAL CHIP | 15K | 0.5% | 1/10W | R455 | 1-216-085-11 | RES-CHIP | 33K | 5% 1/10W |
| R278 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | R456 | 1-216-085-11 | RES-CHIP | 33K | 5% 1/10W |
| R301 | 1-216-206-00 | RES-CHIP | 2.2K | 5% | 1/8W | R457 | 1-216-053-00 | RES-CHIP | 1.5K | 5% 1/10W |
| R302 | 1-216-081-00 | RES-CHIP | 22K | 5% | 1/10W | R458 | 1-216-053-00 | RES-CHIP | 1.5K | 5% 1/10W |
| R303 | 1-216-081-00 | RES-CHIP | 22K | 5% | 1/10W | R459 | 1-216-025-11 | RES-CHIP | 100 | 5% 1/10W |
| R304 | 1-216-849-11 | METAL CHIP | 220K | 5% | 1/10W | R460 | 1-216-025-11 | RES-CHIP | 100 | 5% 1/10W |
| R305 | 1-216-849-11 | METAL CHIP | 220K | 5% | 1/10W | R461 | 1-216-097-11 | RES-CHIP | 100K | 5% 1/10W |
| R306 | 1-216-077-11 | RES-CHIP | 15K | 5% | 1/10W | R462 | 1-216-097-11 | RES-CHIP | 100K | 5% 1/10W |
| R307 | 1-216-077-11 | RES-CHIP | 15K | 5% | 1/10W | R463 | 1-216-045-00 | RES-CHIP | 680 | 5% 1/10W |
| R308 | 1-216-055-00 | RES-CHIP | 1.8K | 5% | 1/10W | R464 | 1-216-033-00 | RES-CHIP | 220 | 5% 1/10W |
| R309 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | R465 | 1-216-073-00 | RES-CHIP | 10K | 5% 1/10W |
| R310 | 1-216-073-00 | RES-CHIP | 10K | 5% | 1/10W | R466 | 1-216-182-00 | RES-CHIP | 220 | 5% 1/8W |
| R311 | 1-216-055-00 | RES-CHIP | 1.8K | 5% | 1/10W | R467 | 1-216-134-00 | RES-CHIP | 2.2 | 5% 1/8W |

| Ref. No. | Part No. | Description | | Remark | Ref. No. | Part No. | Description | | Remark | | |
|----------|--------------|-------------|-------|--------|----------|--------------|---|---|--------|----|-------|
| R468 | 1-216-134-00 | RES-CHIP | 2.2 | 5% | 1/8W | R937 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R469 | 1-205-991-11 | METAL | 0.1X2 | 10% | 5W F | R938 | 1-216-073-00 | RES-CHIP | 10K | 5% | 1/10W |
| R470 | 1-216-073-00 | RES-CHIP | 10K | 5% | 1/10W | R939 | 1-216-085-11 | RES-CHIP | 33K | 5% | 1/10W |
| R471 | 1-216-089-11 | RES-CHIP | 47K | 5% | 1/10W | R940 | 1-216-206-00 | RES-CHIP | 2.2K | 5% | 1/8W |
| R472 | 1-216-134-00 | RES-CHIP | 2.2 | 5% | 1/8W | R941 | 1-216-065-11 | RES-CHIP | 4.7K | 5% | 1/10W |
| R475 | 1-216-053-00 | RES-CHIP | 1.5K | 5% | 1/10W | | | < SWITCH > | | | |
| R476 | 1-216-053-00 | RES-CHIP | 1.5K | 5% | 1/10W | | | | | | |
| R477 | 1-218-875-11 | METAL CHIP | 15K | 0.5% | 1/10W | SW801 | 1-571-478-11 | SWITCH, SLIDE (HPF(80Hz) (FRONT)) | | | |
| R478 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/10W | SW802 | 1-571-478-11 | SWITCH, SLIDE (LPF(80Hz) (REAR)) | | | |
| R801 | 1-216-198-11 | RES-CHIP | 1K | 5% | 1/8W | | | < TRANSFORMER > | | | |
| R802 | 1-216-206-00 | RES-CHIP | 2.2K | 5% | 1/8W | T901 | 1-443-277-11 | TRANSFORMER, DC-DC CONVERTER | | | |
| R803 | 1-216-198-11 | RES-CHIP | 1K | 5% | 1/8W | | | | | | |
| R804 | 1-216-198-11 | RES-CHIP | 1K | 5% | 1/8W | | | < THERMISTOR > | | | |
| R805 | 1-216-206-00 | RES-CHIP | 2.2K | 5% | 1/8W | | | | | | |
| R806 | 1-208-291-11 | RES-CHIP | 4.7M | 5% | 1/10W | TH901 | 1-810-506-11 | THERMISTOR NTH5G39B223K01 | | | |
| R807 | 1-216-089-11 | RES-CHIP | 47K | 5% | 1/10W | TH902 | 1-810-506-11 | THERMISTOR NTH5G39B223K01 | | | |
| R808 | 1-218-893-11 | METAL CHIP | 82K | 0.5% | 1/10W | TH903 | 1-810-506-11 | THERMISTOR NTH5G39B223K01 | | | |
| R809 | 1-216-222-00 | RES-CHIP | 10K | 5% | 1/8W | | | < VARIABLE RESISTOR > | | | |
| R810 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W | | | | | | |
| R811 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W | VR801 | 1-225-459-11 | RES, VAR, CARBON 10KX2 (LEVEL (FRONT)) | | | |
| R814 | 1-216-210-00 | RES-CHIP | 3.3K | 5% | 1/8W | VR802 | 1-225-459-11 | RES, VAR, CARBON 10KX2 (LEVEL (REAR)) | | | |
| R815 | 1-216-210-00 | RES-CHIP | 3.3K | 5% | 1/8W | | | | | | |
| R816 | 1-208-291-11 | RES-CHIP | 4.7M | 5% | 1/10W | | | MISCELLANEOUS | | | |
| R817 | 1-208-291-11 | RES-CHIP | 4.7M | 5% | 1/10W | | | | | | |
| R818 | 1-208-291-11 | RES-CHIP | 4.7M | 5% | 1/10W | | | | | | |
| R901 | 1-216-065-11 | RES-CHIP | 4.7K | 5% | 1/10W | ▲ F901 | 1-576-256-11 | FUSE (BLADE TYPE) (AUTO FUSE) (25A) | | | |
| R902 | 1-216-065-11 | RES-CHIP | 4.7K | 5% | 1/10W | ▲ F902 | 1-576-256-11 | FUSE (BLADE TYPE) (AUTO FUSE) (25A) | | | |
| R903 | 1-216-089-11 | RES-CHIP | 47K | 5% | 1/10W | | | | | | |
| R905 | 1-216-041-00 | RES-CHIP | 470 | 5% | 1/10W | | | | | | |
| R907 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W | | | ACCESSORIES | | | |
| R908 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W | | | | | | |
| R909 | 1-216-041-00 | RES-CHIP | 470 | 5% | 1/10W | | | | | | |
| R910 | 1-216-069-00 | RES-CHIP | 6.8K | 5% | 1/10W | 2-586-737-11 | MANUAL, INSTRUCTION (ENGLISH,SPANISH) | | | | |
| R911 | 1-216-081-00 | RES-CHIP | 22K | 5% | 1/10W | 2-586-737-21 | MANUAL, INSTRUCTION (GERMAN,FRENCH,ITALIAN) | | | | |
| R912 | 1-216-097-11 | RES-CHIP | 100K | 5% | 1/10W | 2-586-737-31 | MANUAL, INSTRUCTION (DUTCH,RUSSIAN,SWEDISH) | | | | |
| R914 | 1-216-206-00 | RES-CHIP | 2.2K | 5% | 1/8W | 2-586-737-41 | MANUAL, INSTRUCTION (GREEK,POLISH,PORTUGUESE) | | | | |
| R915 | 1-216-035-00 | RES-CHIP | 270 | 5% | 1/10W | | | | | | |
| R916 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W | | | | | | |
| R917 | 1-216-073-00 | RES-CHIP | 10K | 5% | 1/10W | | | | | | |
| R918 | 1-216-073-00 | RES-CHIP | 10K | 5% | 1/10W | | | PARTS FOR INSTALLATION AND CONNECTIONS | | | |
| R919 | 1-216-222-00 | RES-CHIP | 10K | 5% | 1/8W | | | | | | |
| R920 | 1-216-190-00 | RES-CHIP | 470 | 5% | 1/8W | 101 | 3-367-410-21 | SCREW (DIA. 5X15), TAPPING (MOUNTING SCREW) | | | |
| R921 | 1-216-190-00 | RES-CHIP | 470 | 5% | 1/8W | 102 | 1-823-952-11 | CORD (WITH CONNECTOR) (0.2m) | | | |
| R922 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W | 103 | 3-263-276-01 | COVER (POWER) | | | |
| R923 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W | | | | | | |
| R924 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W | | | | | | |
| R925 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W | | | | | | |
| R926 | 1-216-158-00 | RES-CHIP | 22 | 5% | 1/8W | | | | | | |
| R927 | 1-216-158-00 | RES-CHIP | 22 | 5% | 1/8W | | | | | | |
| R928 | 1-216-134-00 | RES-CHIP | 2.2 | 5% | 1/8W | | | | | | |
| R929 | 1-216-134-00 | RES-CHIP | 2.2 | 5% | 1/8W | | | | | | |
| R930 | 1-216-134-00 | RES-CHIP | 2.2 | 5% | 1/8W | | | | | | |
| R931 | 1-216-134-00 | RES-CHIP | 2.2 | 5% | 1/8W | | | | | | |
| R932 | 1-216-150-11 | RES-CHIP | 10 | 5% | 1/8W | | | | | | |
| R933 | 1-216-150-11 | RES-CHIP | 10 | 5% | 1/8W | | | | | | |
| R934 | 1-216-206-00 | RES-CHIP | 2.2K | 5% | 1/8W | | | | | | |
| R935 | 1-216-073-00 | RES-CHIP | 10K | 5% | 1/10W | | | | | | |
| R936 | 1-216-073-00 | RES-CHIP | 10K | 5% | 1/10W | | | | | | |



The components identified by mark \triangle or dotted line with mark \triangle are critical for safety.
Replace only with part number specified.

REVISION HISTORY

Clicking the version allows you to jump to the revised page.

Also, clicking the version at the upper right on the revised page allows you to jump to the next revised page.