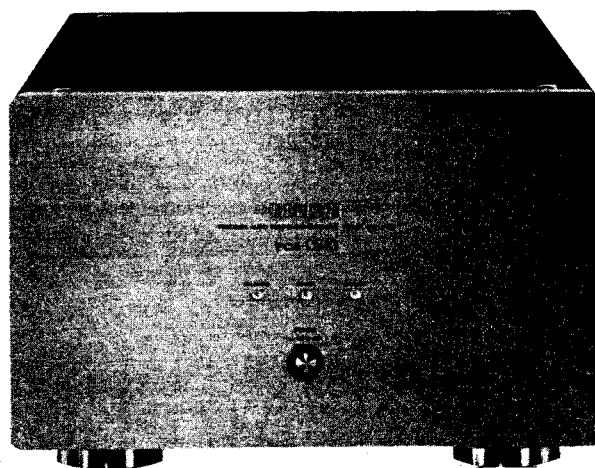


DENON

Hi-Fi Component

SERVICE MANUAL MODEL POA-S10 SOLID STATE MONAURAL POWER AMPLIFIER

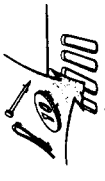



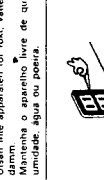
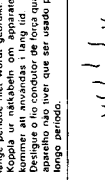
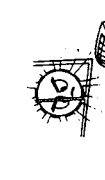

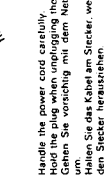


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**NOTE ON USE/HINWEISE ZUM GEBRAUCH/OBSERVATIONS RELATIVES A L'UTILISATION
NOTE SULL'USO/NOTAS SOBRE EL USO/ALVORENS TE GEBRUIKEN/OBSERVERA
OBSERVAÇÕES QUANTO AO USO**

 <ul style="list-style-type: none"> Do not set foreign objects in the set. Keine fremden Gegenstände in das Gerät kommen lassen. Ne pas mettre des objets étrangers dans l'appareil. E' importante que nessun oggetto è inserito nell'appareil. Kein fremde Gegenstände in das Gerät einlegen. Laat geen vreemde voorwerpen in dit apparaat. Señalar los elementos foráneos que se pongan en el aparato. Não deve objetos estranhos no aparelho. 	 <ul style="list-style-type: none"> Do not lit insecticides, benzene, and thinners. Verboten om insecticide, benzene en dunner te gebruiken. Lesen Sie das Gerät nicht mit Insektiziden, Benzin oder Verdünnungsmitteln in Betrieb. Verboten om insecticide, benzene en dunner te gebruiken. Assicurarsi che i liquidi non vengano in contatto con insetticidi, benzolo o solventi. Verboten om insecticide, benzene en dunner te gebruiken. Laat geen insecticidevloeistoffen, benzine of oplosmiddelen met dit apparaat in contact komen. Señalar los líquidos que se pongan en contacto con insecticidas, benceno o disolventes. Não permita que inseticidas, benzina e dissolventes entrem em contacto com o aparelho. 	 <ul style="list-style-type: none"> Never disassemble or modify the set in any way. Verboten om het apparaat te demonteer of te wijzig. Nein! Das Gerät nicht auseinanderbauen oder verändern. Verboten om het apparaat te demonteer of te wijzig. Non smontare mai, né modificare l'unità in nessun modo. Verboten om het apparaat te demonteer of te wijzig. Nood! Dit apparaat demonteeren of op andere wijze modifieren is niet toegestaan. Verboten om het apparaat te demonteer of te wijzig. Nunca desmonte ou modifique o aparelho de alguma forma.
 <ul style="list-style-type: none"> Keep the set free from moisture, water, and dust. Halten Sie das Gerät von Feuchtigkeit, Wasser und Staub fern. Ne pas laisser l'appareil en contact avec l'humidité, l'eau ou la poussière. Tenete l'unità lontana dall'umidità dall'acqua e dalla polvere. Laat geen vocht, water of stof in het apparaat binnenvallen. Señalar la humedad, el agua y el polvo que se pongan en contacto con el aparato. Mantenha o aparelho livre de qualquer umidade, água ou poeira. 	 <ul style="list-style-type: none"> Use only the power switch when not using the set for long periods of time. Wanneer het apparaat langere tijd niet gebruikt wordt, moet de stroomknop worden ingedrukt. Assicurarsi che il cordon d'alimentation non venga utilizzato per un lungo periodo di tempo. Wanneer het apparaat langere tijd niet gebruikt wordt, moet de stroomknop worden ingedrukt. Assicurarsi che il cordon d'alimentation non venga utilizzato per un lungo periodo di tempo. Wanneer het apparaat langere tijd niet gebruikt wordt, moet de stroomknop worden ingedrukt. Assicurarsi che il cordon d'alimentation non venga utilizzato per un lungo periodo di tempo. Wanneer het apparaat langere tijd niet gebruikt wordt, moet de stroomknop worden ingedrukt. 	 <ul style="list-style-type: none"> Do not obstruct the ventilation holes. De Ventilationsöffnungen dürfen nicht verstopft werden. Ne pas obstruer les trous de aération. Niet de ventilatiegaten van het apparaat afdekken. De ventilationsopeningen mogen niet worden blokkeerd. Não obstrua os orifícios de ventilação.
 <ul style="list-style-type: none"> Avoid high temperatures. Vermeden hoge temperaturen. Evitez les hautes températures. Vermeden hoge temperaturen. Evitez les hautes températures. Vermeden hoge temperaturen. Evitez les hautes températures. Vermeden hoge temperaturen. 	 <ul style="list-style-type: none"> Handle the power cord carefully. Behandel het stroomkabel voorzichtig. Halten Sie das Kabel am Stecker, wenn Sie den Stecker herausziehen. Behandel het stroomkabel voorzichtig. Halten Sie das Kabel am Stecker, wenn Sie den Stecker herausziehen. Behandel het stroomkabel voorzichtig. Halten Sie das Kabel am Stecker, wenn Sie den Stecker herausziehen. Behandel het stroomkabel voorzichtig. Halten Sie das Kabel am Stecker, wenn Sie den Stecker herausziehen. 	 <ul style="list-style-type: none"> Do not connect the power cord to a power outlet. Verboten om het stroomkabel te verbinden met een stopcontact. Ne pas brancher le cordon d'alimentation sur une prise. Verboten om het stroomkabel te verbinden met een stopcontact. Verboten om het stroomkabel te verbinden met een stopcontact. Verboten om het stroomkabel te verbinden met een stopcontact. Verboten om het stroomkabel te verbinden met een stopcontact. Verboten om het stroomkabel te verbinden met een stopcontact.

NOTE:

- Mantienga siempre activado el interruptor de alimentación (POWER) en la unidad principal.
- Conecte y desconecte la alimentación mediante la unidad de control pre-amplifier (PRA-S10, etc.).
- Cuando la unidad vaya a estar fuera de uso por un periodo prolongado de tiempo, desconecte el cable de alimentación.

PRECAUCION:
Cuando solo el indicador STANDBY (espera) está encendido, significará que la alimentación ha sido desconectada desde la unidad de control remoto. Conecte la alimentación mediante la unidad de control remoto del preamplificador (PRA-S10, etc.).

- OPMERKING:**
- Zorg er altijd voor dat de stroomschakelaar (POWER) van het hoofdelektroonnetwerk in de eenheid van de afstandsbediening van de voorversterker (PRA-S10, enz.) ingedrukt blijft.
 - Schakel de spanning in en uit met de afstandsbediening van de voorversterker (PRA-S10, enz.).
 - Trek het netkabel uit wanneer u denkt het toestel gedurende een lange periode niet te gebruiken.

WAARSCHUWING:
Als enkel de STANDBY-indicator brandt, betekent dit dat de spanning is uitgeschakeld met de afstandsbediening. Schakel de spanning weer in met de afstandsbediening van de voorversterker (PRA-S10, enz.).

- OBSERVAÇÃO:**
- Sempre manter o interruptor de corrente (POWER) na unidade principal.
 - Conecte e desligue a corrente a partir da unidade de controle remoto do pré-amplificador (PRA-S10, etc.).
 - Desconecte o fio de força quando intencionalmente não utilizar a unidade por longo tempo.

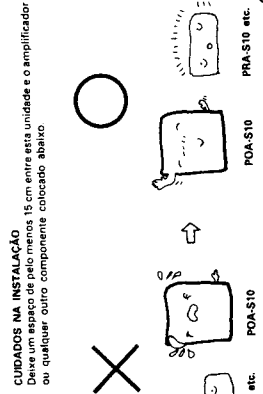
PRECAUCIÓN:
Se apenas estiver iluminado o indicador de aguardar (STANDBY), isto significa que a corrente está desligada a partir da unidade de controle remoto do pré-amplificador (PRA-S10, etc.).

- PRECAUCIONES PARA LA INSTALACION**
Deje al menos un espacio de 15 cm entre esta unidad y el amplificador de potencia o cualquier otro componente colocado abajo.

VOORZORGSMAATREGELEN
Laat tenminste 15 cm ruimte tussen de toestand van de vermogensversterker of een ander onderdeel dat zich eronder bevindt.

FORSIKTIGHETSÅTGÆRDER VID INSTALLATIONEN
Lad et utrymme på minst 15 cm mellem denne apparat og effektforstærker eller andre apparater, som stilles under apparaten.

CUIDADOS NA INSTALAÇÃO
Deixe um espaço de pelo menos 15 cm entre esta unidade e o amplificador ou qualquer outro componente colocado abaixo.



NOTE:

- Always keep the POWER switch on the main unit turned on.
- Turn the power on and off from the remote control unit of the pre-amplifier (PRA-S10, etc.).
- Unplug the power cord when you do not plan to use the unit for a long period of time.

CAUTION:
If only the STANDBY indicator is lit, this means that the power is turned off from the remote control unit of the pre-amplifier (PRA-S10, etc.).

- HINWEIS:**
- lassen Sie den Netzschalter (POWER) am Hauptgerät stets eingeschaltet.
 - Schalten Sie den Strom mit Hilfe des Fernbedienungsgerätes des Vorverstärkers (PRA-S10 o.ä.) ein und aus.
 - Trennen Sie das Netzkabel, wenn Sie das Gerät für einen längeren Zeitraum hinweg nicht zu benutzen.

VORSICHT:
Wenn die STANDBY-Anzeige leuchtet, bedeutet dies, dass der Strom von dem Fernbedienungsgerät des Vorverstärkers (PRA-S10 usw.) ein ist.

- REMARKS:**
- S'assurer que le commutateur d'alimentation (POWER) sur l'unité principale soit toujours dans la position activée.
 - Allumer et éteindre l'appareil avec la télécommande du préamplificateur (PRA-S10, etc.).
 - Scotchez le fil de force de l'alimentation lorsque l'appareil ne sera pas utilisé pendant une longue période.

ATTENTION:
Si solo l'indicatore STANDBY (attesa) è illuminato, cela signifie que l'appareil est éteint à l'aide de la télécommande. Allumer l'appareil avec la télécommande du préamplificateur (PRA-S10, etc.).

- NOTE:**
- Tenete sempre l'interruttore della corrente (POWER) dell'unità principale nella posizione di attivazione.
 - Accendere e spegnere usando il telecomando del preamplificatore (PRA-S10, etc.).
 - Scotchez le fil de force de l'alimentation lorsque l'appareil ne sera pas utilisé pendant une longue période.

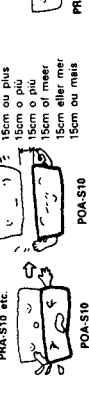
AVISO:
Se solo l'indicatore STANDBY (attesa) è illuminato, ciò significa che la corrente è stata spenta usando il telecomando. Riaccendere la corrente usando il telecomando del preamplificatore (PRA-S10, etc.).

PRECAUTIONS FOR INSTALLATION
Leave at least 15cm of space between this unit and power amplifier or any other component placed below.

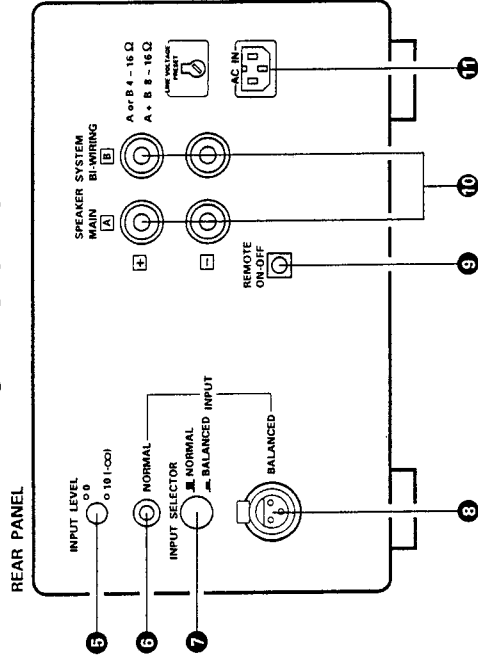
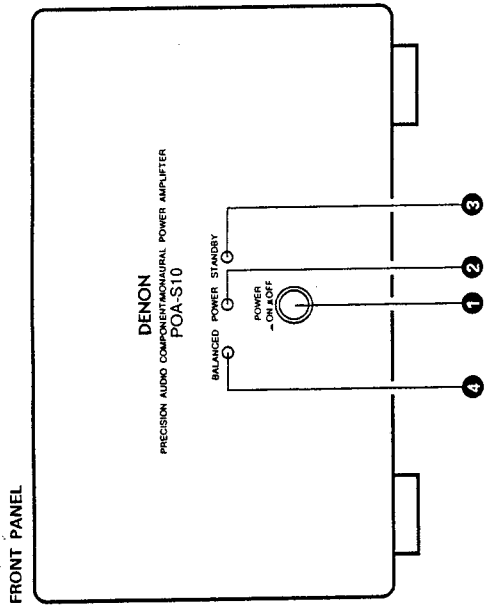
SICHERHEITSMASSNAHMEN BEIM EINBAU
Lassen Sie zwischen diesem Gerät und dem Leistungsverstärker bzw. einer anderen sich unter diesem Gerät befindlichen Komponente einen Zwischenraum von 15 cm.

PRECAUTIONS D'INSTALLATION
Laissez un espace d'au moins 15 cm entre cet appareil placé et l'amplificateur de puissance ou n'importe quel autre appareil placé en-dessous.

PRECAUZIONI PER L'INSTALLAZIONE
Lasciate uno spazio di almeno 15 cm tra quest'unità e l'amplificatore di potenza oppure l'altro componente installato sotto la stessa.



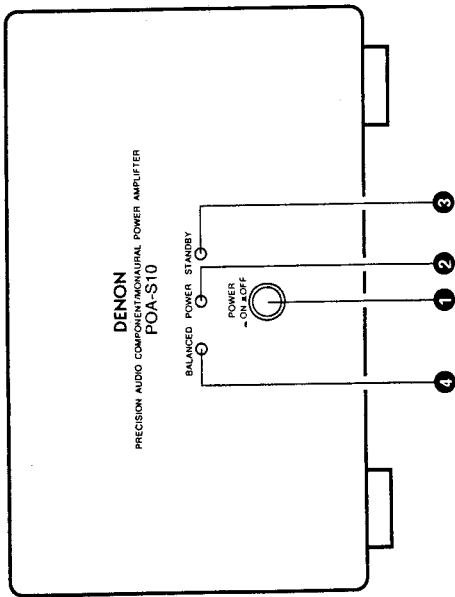
[Asia Model Only]



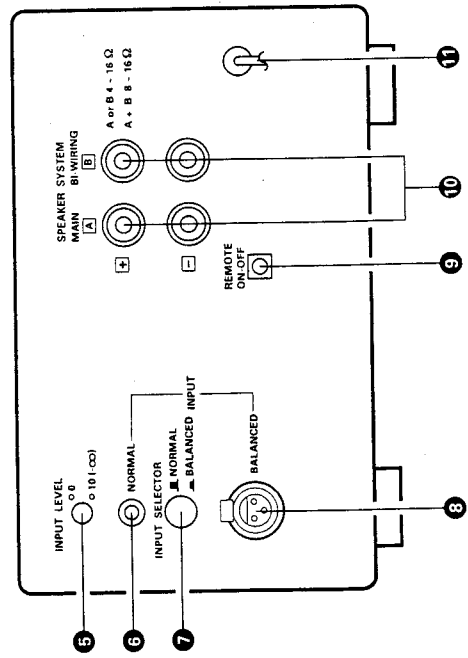
LINE VOLTAGE (Voltage select switch)

- The desired voltage may be set with the VOLTAGE SELECTOR KNOB on the rear panel using a screw driver.
- Do not twist the VOLTAGE SELECTOR KNOB with excessive force. It may be damaged.
- If the voltage select switch does not turn smoothly, see qualified serviceman.

FRONT PANEL
FRONTPLATTE
PANNEAU AVANT
PANNELLO ANTERIORE



REAR PANEL
RÜCKWAND
PANNEAU ARRIERE
PANNELLO POSTERIORE



NAMES AND FUNCTIONS OF PARTS

- 1 **POWER switch**
When this switch is pressed, the power is turned on, the POWER indicator 2 flashes for some seconds and then lights steadily, and stable operation condition is reached. When this switch is pressed again, the power is turned off.
- 2 **POWER indicator**
- 3 **STANDBY indicator**
The set will not operate when this indicator is "on".
(1) When one end of a remote power cord is connected to the power amplifier and the other end is connected to the pre-amplifier (such as PRA-S10), and the pre-amplifier's power switch is "off".
Note: If the pre-amplifier power switch is turned "on" under the above conditions, after the STAND BY indicator 3 has gone off, the POWER indicator will blink for a few seconds until the amplifier has stabilized, then the unit will be in the normal state.
(2) When one end of a remote power cord is inserted in the DC input on the back panel and the other end is open (not connected).
- 4 **BALANCED indicator**
This lights when the INPUT SELECTOR switch 7 on the rear panel (refer to page 5) is set to BALANCED, indicating that a balanced input (XLR connector) is selected.
- 5 **INPUT LEVEL**
Adjust the input level with this knob.
- 6 **NORMAL INPUT terminal**
This is a normal input terminal (RCA connector). Connect it to the pre-amplifier's normal pre-out terminal.
- 7 **INPUT SELECTOR**
This switch selects between the balanced input and the normal input (RCA pin jack).
BALANCED indicator 4 lights when the balanced input is selected.
- 8 **BALANCED INPUT terminal**
This is an XLR input terminal. Connect it to the pre-amplifier's XLR PRE-OUT terminal.
The polarities of the pins are as follows:
Pin 1: Ground (GND) Pin 2: Cold (-) Pin 3: Hot (+)
- 9 **REMOTE ON-OFF terminal**
This terminal is used for remote control of the pre-amplifier. A low-voltage DC current is emitted from the terminal to turn on the power of a DENON pre-amplifier (model PRA-S10, etc.).
- 10 **SPEAKER SYSTEM terminals**
Connect the speaker systems here.
- 11 **AC power cord**
Plug this cord into a wall power outlet.
- 12 **AC IN**
Connect this to a power outlet using the included AC power cord. (Asia Model Only)

PROTECTOR

Various protector circuits are included in this unit. POWER indicator 2 blinks when these circuits are operating.

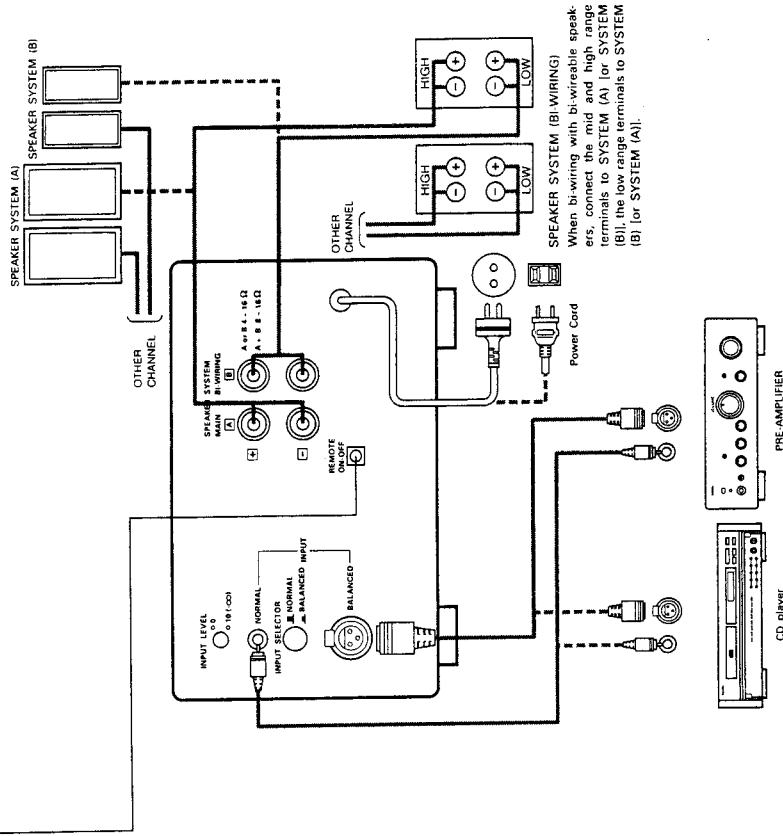
- (1) Muting time, which lasts for several seconds after the power is turned "on".
- (2) When the offset voltage of the power amplifier has drifted outside the prescribed range.
- (3) When the temperature of the power amplifier is abnormally high.
- (4) When a speaker terminal is shorted or a speaker's impedance is extremely low.

For cancellation of the operation of these protector circuits, set the POWER switch to OFF. When the POWER indicator still flashes several seconds after the POWER switch has been switched on, refer to the section TROUBLESHOOTING and check for the cause.

CONNECTIONS

- **Notes on Connection**
- Do not plug the power supply cord into the wall socket, until all the connections are complete.
- Plug the pins in securely. An incomplete connection will cause noise generation.
- Binding the pin plug to the power supply cord, or setting the pin cord close to the power supply transformer will cause humming or noise, and should be avoided.

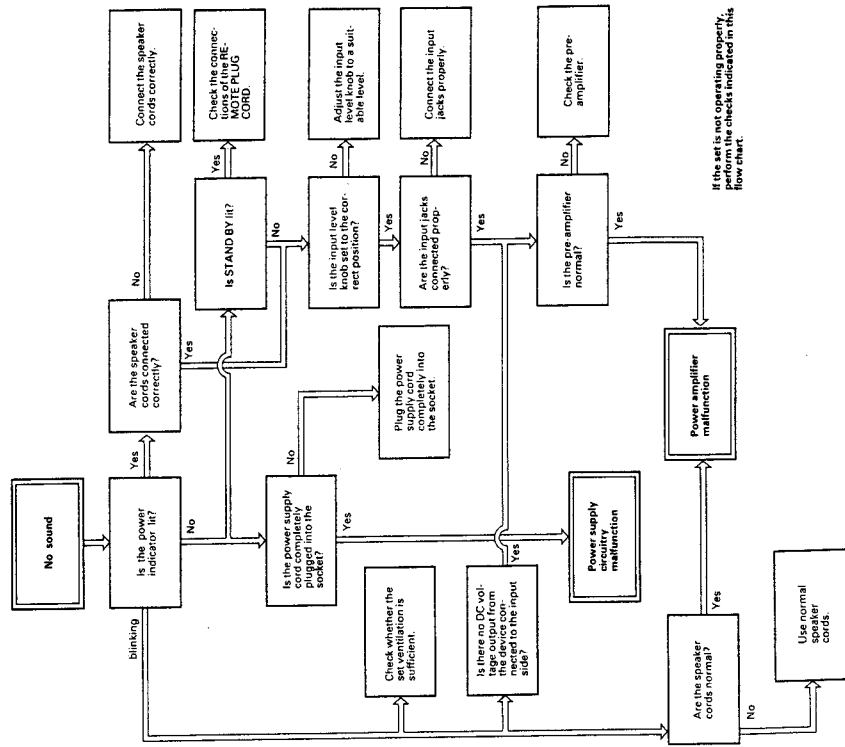
This terminal is for the remote power switch. The power amplifier's power can be turned "on" and "off" by connecting the remote power cord to the DC output terminal of the pre-amplifier (PRA-S10, etc.) and using the power switch on the pre-amplifier.



TROUBLESHOOTING

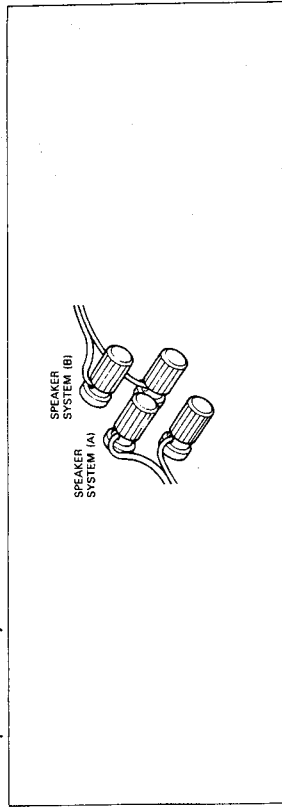
Before troubleshooting, be sure to check whether your audio system is really the source of the problem. If you think the amplifier is out of order, first check the following one more time:

1. Are all the connections correctly made?
 2. Is the set being operated properly in accordance with the Operating Manual?
 3. Are the speakers and pre-amplifier being operated correctly?
- If the set does not operate properly, perform the checks indicated in the flow chart below. If none of the items listed apply to the difficulty, the amplifier is probably out of order. Turn off the power immediately, and contact the outlet where you purchased the amplifier or your nearest DENON dealer.



- **Connection to the speaker system**
- When connecting the speaker terminals to the speaker systems, make certain to connect the polarities correctly (+ to + and - to -). If the polarities are incorrect when the two are connected, the center area of the sound will be lacking, the positions of the musical instruments will not be clear, and the stereo directional sensitivity will be impaired.
- During connection, be careful that the center wires in the speaker cords do not protrude from the terminals to contact any other terminal, and that the central wires in the separate speaker cords do not contact each other.
- If only one speaker system is to be used, connect it to the SYSTEM (A) terminals.
- **Speaker impedance**
- When only one of the A or B terminals is used, the speakers that are to be connected should have a nominal impedance of 4 to 16 Ω/ohm.
- When the two sets (A + B) are to be used at the same time, use of speakers whose impedance is outside the range from 8 to 16 Ω/ohm will result in malfunction. Be careful not to let this happen.
- Speakers with a lower impedance may cause the protective circuitry to operate.

For Europe model only.



For U.S.A. and Canada model only. (Case of UL standardized articles)

WARNING!
This amplifier produces a large power output at the speaker terminals, which means that a dangerous amount of energy is generated and that there is the danger of electric shock. Please perform the speaker cord connections correctly as follows.
(Making connections that differ from the specified method may give rise to a shock hazard.)
1) For the speaker connection cord, use a cord made with non-combustible insulation material with a VW-1 rating or a cord of the SPT-1 type or one with higher flexibility.
2) Use a screwdriver to take the screws holding the speaker terminal cover out.
3) Connect the speaker cord specified in 1) to the speaker terminals.
4) Tie the speaker cord, then pass it through the cutout hole in the speaker terminal cover.
5) Install the speaker terminal cover removed in 2).

Technical Data (typical value)	Technische Daten (typische werte)	Caractéristiques techniques (valeur caractéristique)	
<p>● POWER AMPLIFIER SECTION Rated Output Power: *1 (8 Ω/ohm Load) 20 Hz to 20 kHz, T.H.D. 0.02% (4 Ω/ohm Load) DIN, 1 kHz, T.H.D. 0.7%</p> <p>*2Continuous 150W per channel min into 8 Ω/ohms from 20 Hz to 20 kHz with no more than 0.02% total harmonic distortion</p> <p>Total Harmonic Distortion: (-3 dB at rated output, 8 Ω/ohms) (1 kHz)</p> <p>Intermodulation Distortion: (60 Hz/7 kHz: 4/1 at rated output, 8 Ω/ohms)</p> <p>Power Band Width: (8 Ω/ohms, THD 0.05%)</p> <p>Frequency Response: +0, -3 dB (at 1 W)</p> <p>Input Sensitivity: Normal in: Balance in:</p> <p>Input Impedance: Normal in: Balance in:</p> <p>Output Impedance:</p> <p>S/N Ratio: (IHF, A-weighting)(Normal)</p> <p>Output Terminals: Speakers A or B 4 Ω/ohm~16 Ω/ohm A + B 8 Ω/ohm~16 Ω/ohm</p> <p>Power Supply: Europe model: U.S.A. and Canada models: Asia</p> <p>Power Consumption: U.S.A. and Canada: IEC: Asia</p> <p>Dimensions: (Including control knobs and feet)</p> <p>Weight:</p>	<p>● LEISTUNGSENDVERSTÄRKER Nenn-Ausgangsleistung: *1 (an 8 Ω/Ohm) 20 Hz bis 20 kHz, T.H.D. 0,02% (an 4 Ω/Ohm) DIN, 1 kHz, T.H.D. 0,7%</p> <p>*2Fortlaufend 150W pro Kanal min. zu 8 Ω/Ohm von 20 Hz bis 20 kHz mit einem Gesamtklirrfaktor von nicht mehr als 0,02%.</p> <p>Gesamtklirrfaktor: (-3 dB bei Nennausgang, 8 Ω/Ohm) (1 kHz)</p> <p>Intermodulationsverzerrung: (60 Hz/7 kHz: 4/1 bei Nennausgang, 8 Ω/Ohm)</p> <p>Netzbandbreite: (8 Ω/Ohm, Klirrfaktor 0,05%)</p> <p>Frequenzgang: +0, -3 dB (bei 1 W)</p> <p>Eingangsempfindlichkeit: Normaleingang: Symmetrischer Eingang:</p> <p>Eingangsimpedanz: Normaleingang: Symmetrischer Eingang:</p> <p>Ausgangsimpedanz:</p> <p>Rauschabstand: (IHF, A-bewertet)(Normal)</p> <p>Ausgangsklemmen: Lautsprecher A oder B 4 Ω/Ohm~16 Ω/Ohm A + B 8 Ω/Ohm~16 Ω/Ohm</p> <p>Netzteil: Europäisches Modell: Modell für USA und Kanada: Asien</p> <p>Stromaufnahme: USA und Kanada: IEC: Asien</p> <p>Abmessungen: (einschließlich Reglern und Füßen)</p> <p>Gewicht:</p>	<p>● PARTIE AMPLIFICATEUR DE PUISSANCE Puissance nominale: *1 (charge 8 Ω/ohms) 20 Hz à 20 kHz, D.H.T. 0,02% (charge 4 Ω/ohms) DIN, 1 kHz, D.H.T. 0,7%</p> <p>*2150W en continu par canal sur min. 8 Ω/ohms de 20 Hz à 20 kHz avec une distorsion harmonique totale de 0,02% ou moins.</p> <p>Distorsion harmonique totale: (-3 dB à la sortie nominale, 8 Ω/ohms) (1 kHz)</p> <p>Distorsion d'intermodulation: (60 Hz/7 kHz: 4/1 sortie nominale, sur 8 Ω/ohms)</p> <p>Bande passante: (8 Ω/ohms, DHT 0,05%)</p> <p>Réponse en fréquence: +0, -3 dB (à 1 W)</p> <p>Sensibilité d'entrée: Normal: Symétrique:</p> <p>Impédance d'entrée: Normal: Symétrique:</p> <p>Impédance de sortie:</p> <p>Rapport S/B: (IHF, pondéré A)(Normal)</p> <p>Bornes de sortie: Enceintes A ou B 4 Ω/ohms~16 Ω/ohms A + B 8 Ω/ohms~16 Ω/ohms</p> <p>Alimentation: Modèle pour l'Europe: Modèles pour les U.S.A. et le Canada: Asie</p> <p>Consommation: U.S.A. et Canada: IEC: Asie</p> <p>Dimensions: (avec les commandes et les pieds)</p> <p>Poids:</p>	<p>150W</p> <p>300W</p> <p>150W</p> <p>0.002%</p> <p>0.002%</p> <p>5 Hz~50 kHz</p> <p>1 Hz ~ 150 kHz</p> <p>1 V 1 V</p> <p>47 kΩ/kohms 10 kΩ/kohms</p> <p>0.1 Ω/ohm (1 kHz)</p> <p>120 dB</p> <p>AC 230 V/50 Hz AC 120 V/60 Hz</p> <p>AC110/220/230V,50/60 Hz</p> <p>2.7 A 270 W 220 W</p> <p>310 (W) × 207 (H) × 426 (D) mm (12-7/32" × 8-9/64" × 16-49/64")</p> <p>15.7 kg (36 lbs 1 oz)</p>

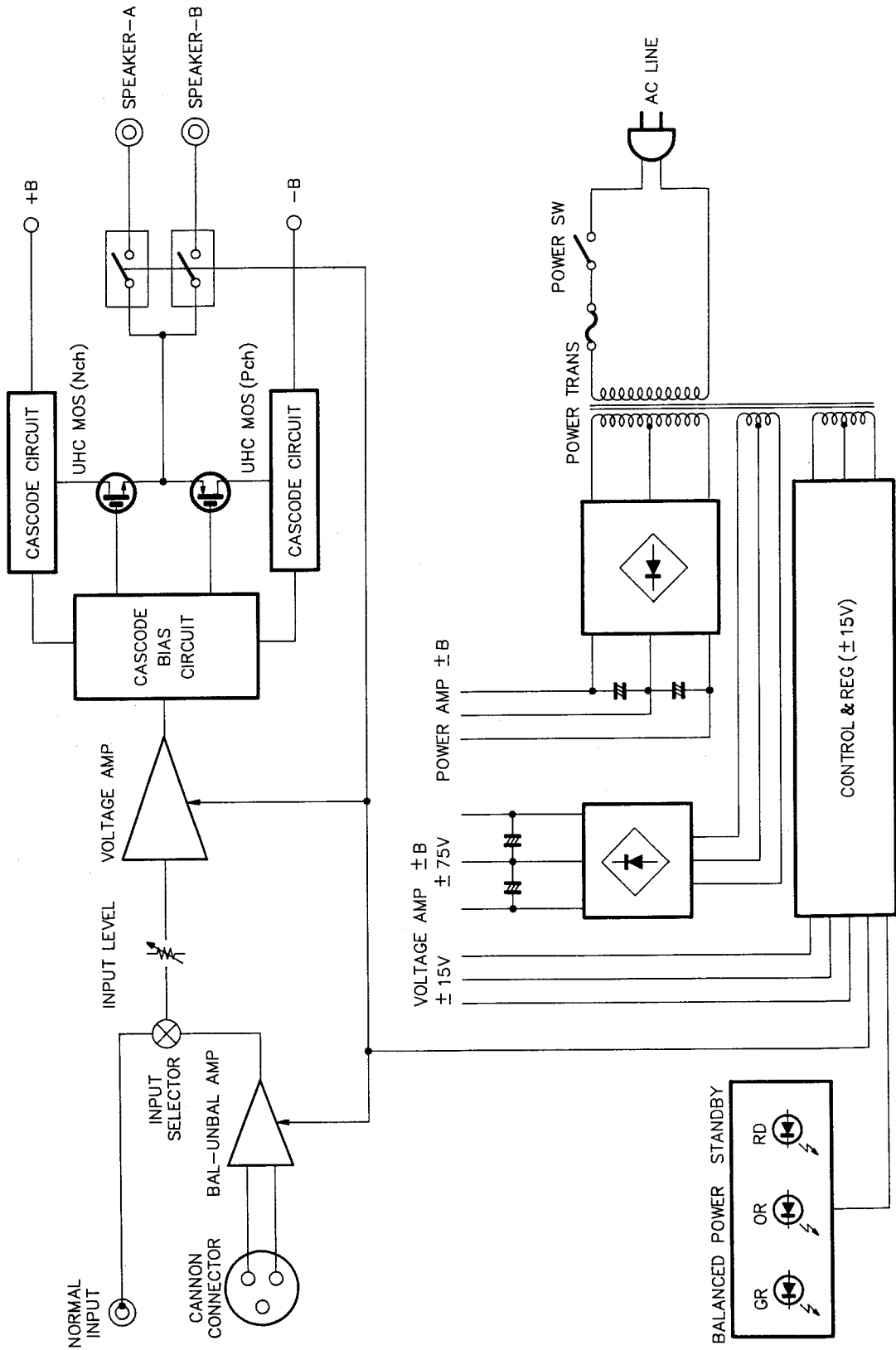
Note: *1 For Europe and Asia
 *2 For U.S.A. and Canada

Hinweis: *1 Für Europa und Asien
 *2 Für die USA und Kanada

Note: *1 Pour les Europe et le Asie
 *2 Pour les U.S.A. et le Canada

- Specifications and contents are subject to change without notice for purposes of improvement.
- Änderungen des Inhalts und der technischen Daten zum Zwecke der Verbesserung vorbehalten.
- Spécifications et contenu sont sujets à modification sans préavis.

BLOCK DIAGRAM

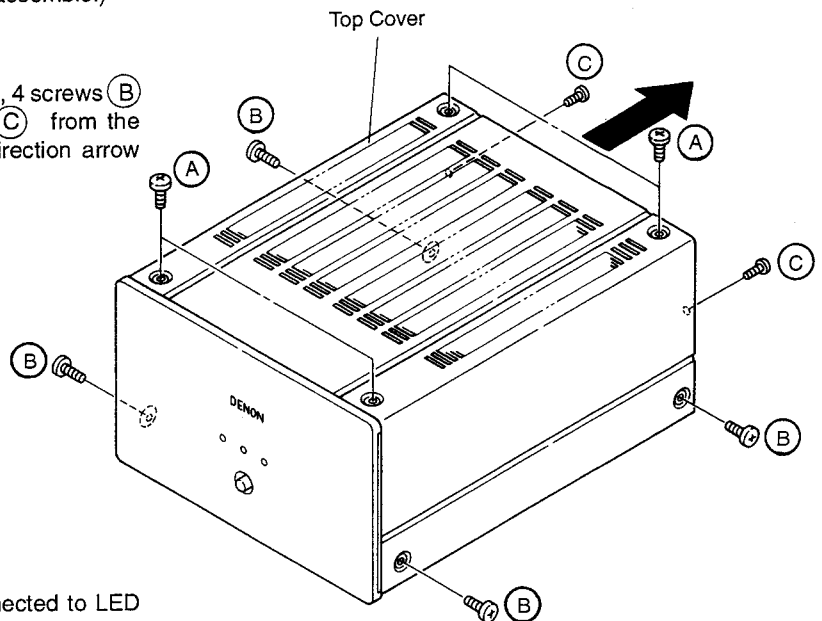


DISASSEMBLY INSTRUCTIONS

(For reassembling, do reverse manner as to disassemble.)

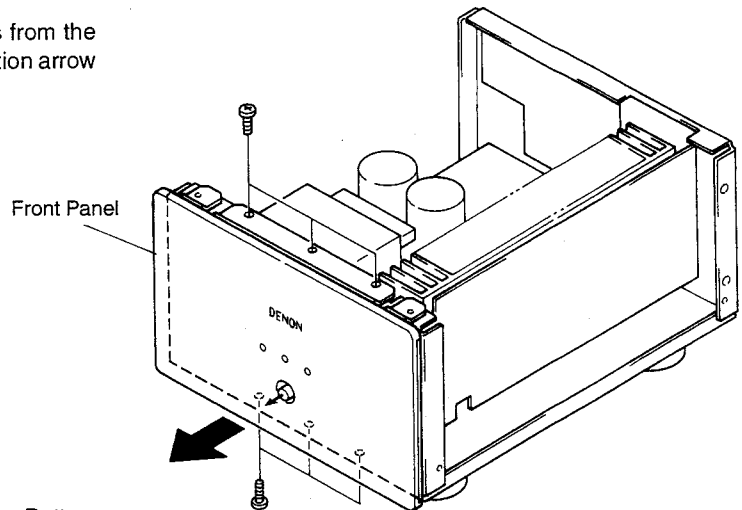
1. Top Cover

- (1) Remove 4 screws (A) from the upper side, 4 screws (B) from left and right side and 2 screws (C) from the backside, detach the top cover in the direction arrow shows.



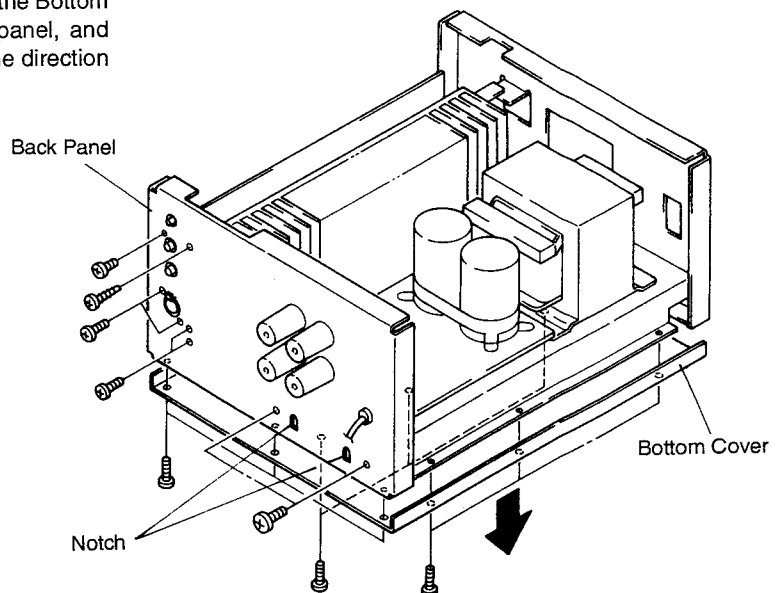
2. Front Panel

- (1) Remove connector of wire which is connected to LED P.W.B..
- (2) Unfasten 3 screws from the bottom, 3 screws from the top, and dismantle the Front Panel in the direction arrow shows.



3. Back Panel

Remove 9 screws from the bottom, and take out the Bottom Cover. Then remove 7 screws from the back panel, and detach the Back Panel out of the 2 notches in the direction as arrow shows.



ADJUSTMENT

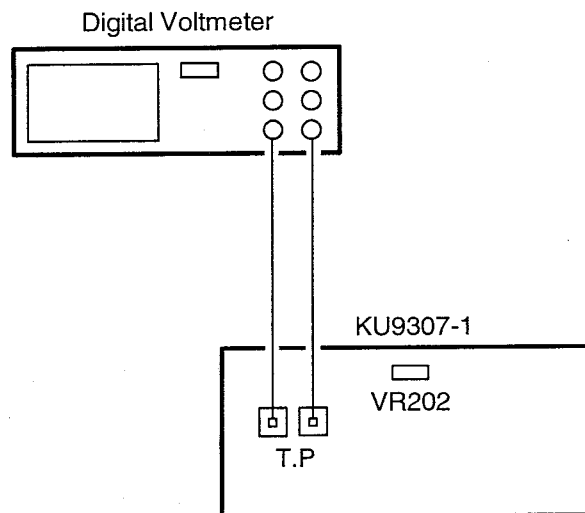
1. Adjustment of Idle Current (KU-9307-1)

- Setup

1. Keep the unit away from direct wind blown by an air-conditioner and an electric fan, and keep the under normal conditions.
Adjust range of ambient temperature to 15 – 30°C.
2. Set the following switches as follows:
 - POWER (Power switch) to off
 - INPUT LEVEL (level control) to 0 (↻)
 - SPEAKERS (Speaker Terminal) to no load (Speakers Disconnected)

- Adjustment

1. Connect DC Voltmeter to Test points (T.P) of KU9307-1.
2. Turn POWER Switch "ON".
3. Adjust VR202 so that the DC Voltmeter reads 40 ~ 50mV.
4. Then after 10 minutes warmup, readjust VR202 so that the DC Voltmeter reads $65 \pm 5\text{mV}$.



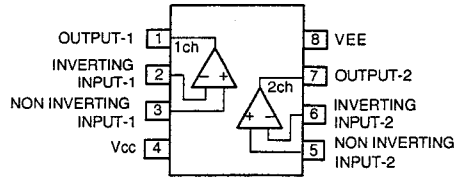
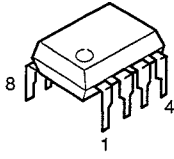
2. Adjustment of Neutral Point Voltage

- (1) Connect a digital voltmeter to the SPEAKER terminal.
- (2) Turn the unit power on.
- (3) Turn the LEVEL controls on the back panel fully clockwise (maximum).
- (4) Confirm the voltage on the meter indicates within $\pm 100\text{mV}$ value.

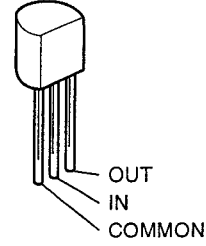
SEMICONDUCTORS

● IC

NJM2068ADA

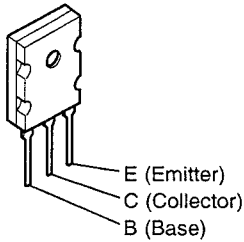


NJM79L15AT

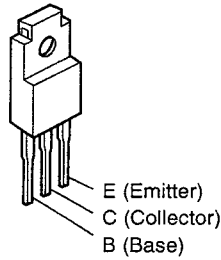


● TRANSISTORS

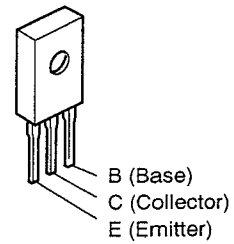
2SA1302 (R/O)
2SC3281 (R/O)



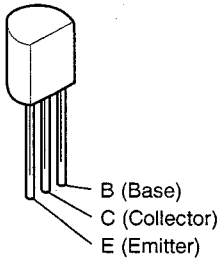
2SD1944
2SB1287



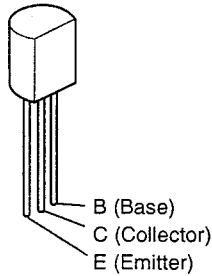
2SC4137



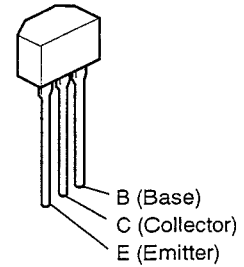
2SA988 (E/F)
2SC1841 (E/F)
2SC2878 (A/B)



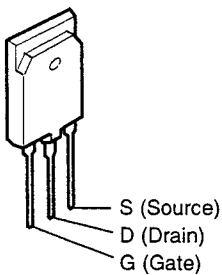
2SA1145
2SA1321
2SC3334



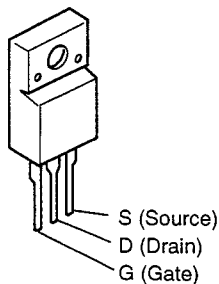
2SA1048 (GL)
2SC2458 (BL)



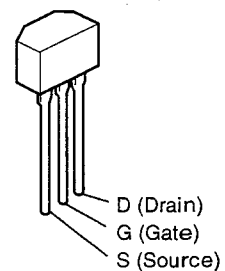
2SJ216



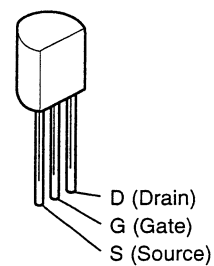
2SJ313
2SK2013



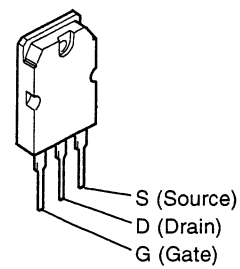
2SK381 (B/C)



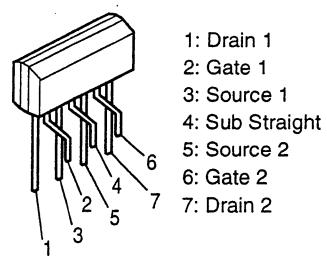
2SK373(Y)



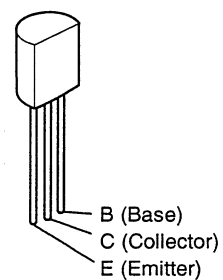
2SK1303



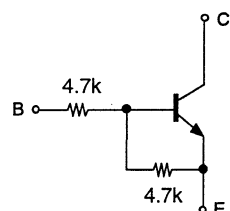
2SJ109



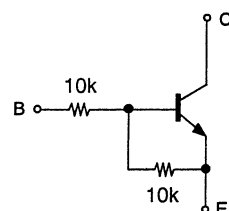
RN1201 (4.7K-4.7K)
RN1202 (10K-10K)
RN2202 (10K-10K)



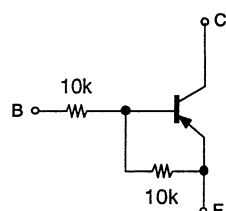
RN1201



RN1202

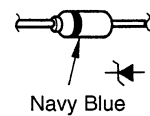


RN2202

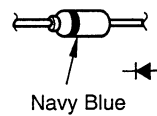


● DIODES

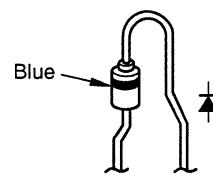
HZS3B-1
HZS7B-1
HZS16-1



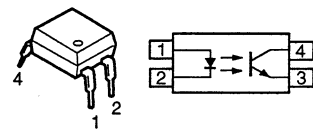
1SS270A



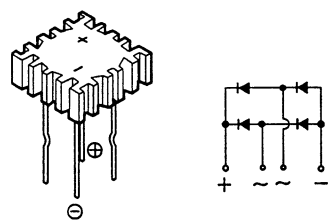
1SR35-200A



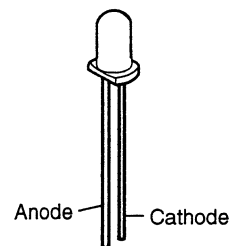
TLP521-1 (BL)



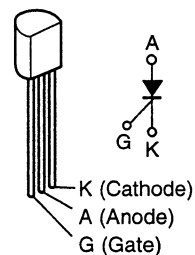
D5FB20 (4001)



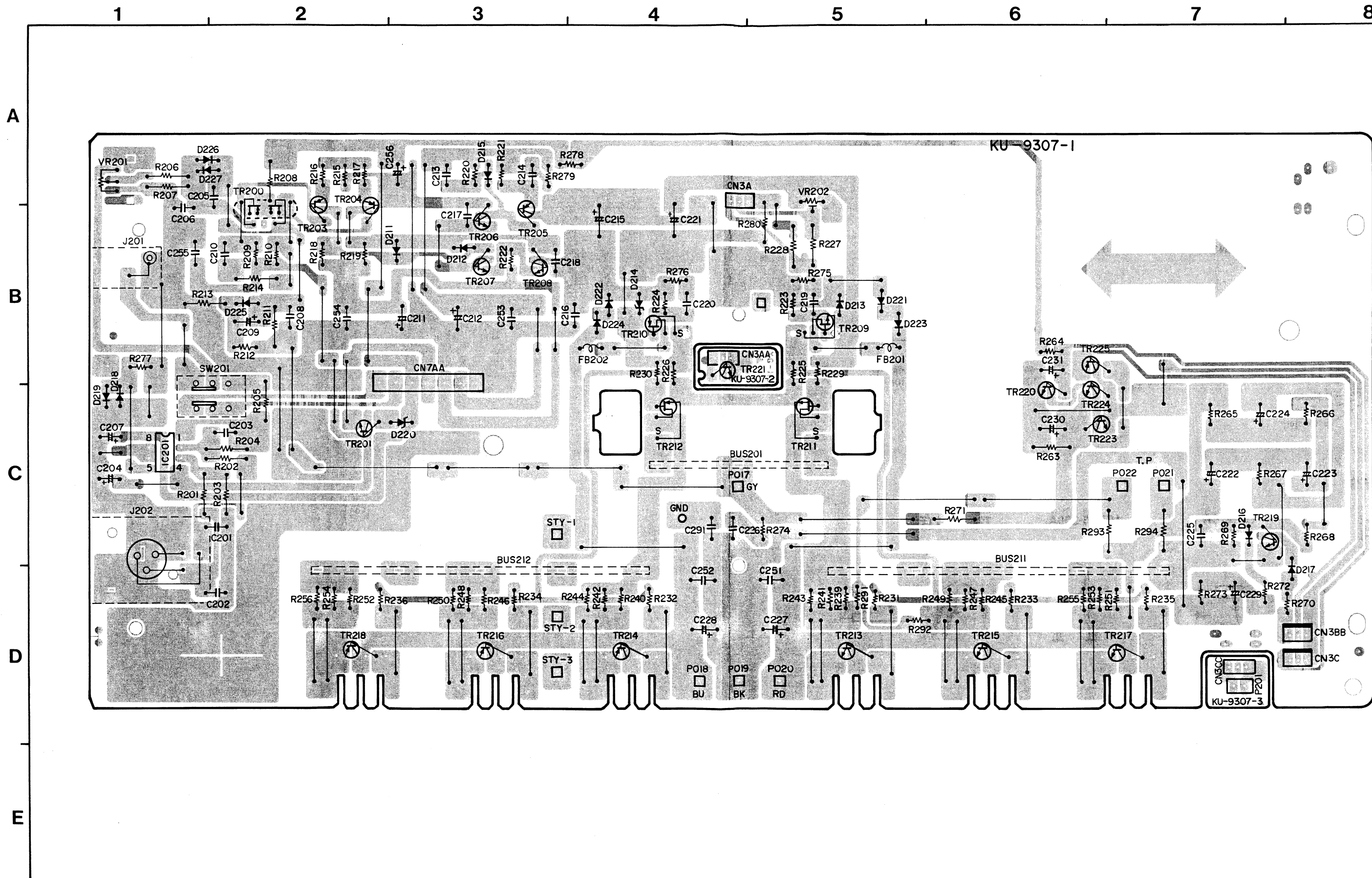
SEL-4214S
SEL-4414E
SEL-4914A



SFOR1A42
Thyristor

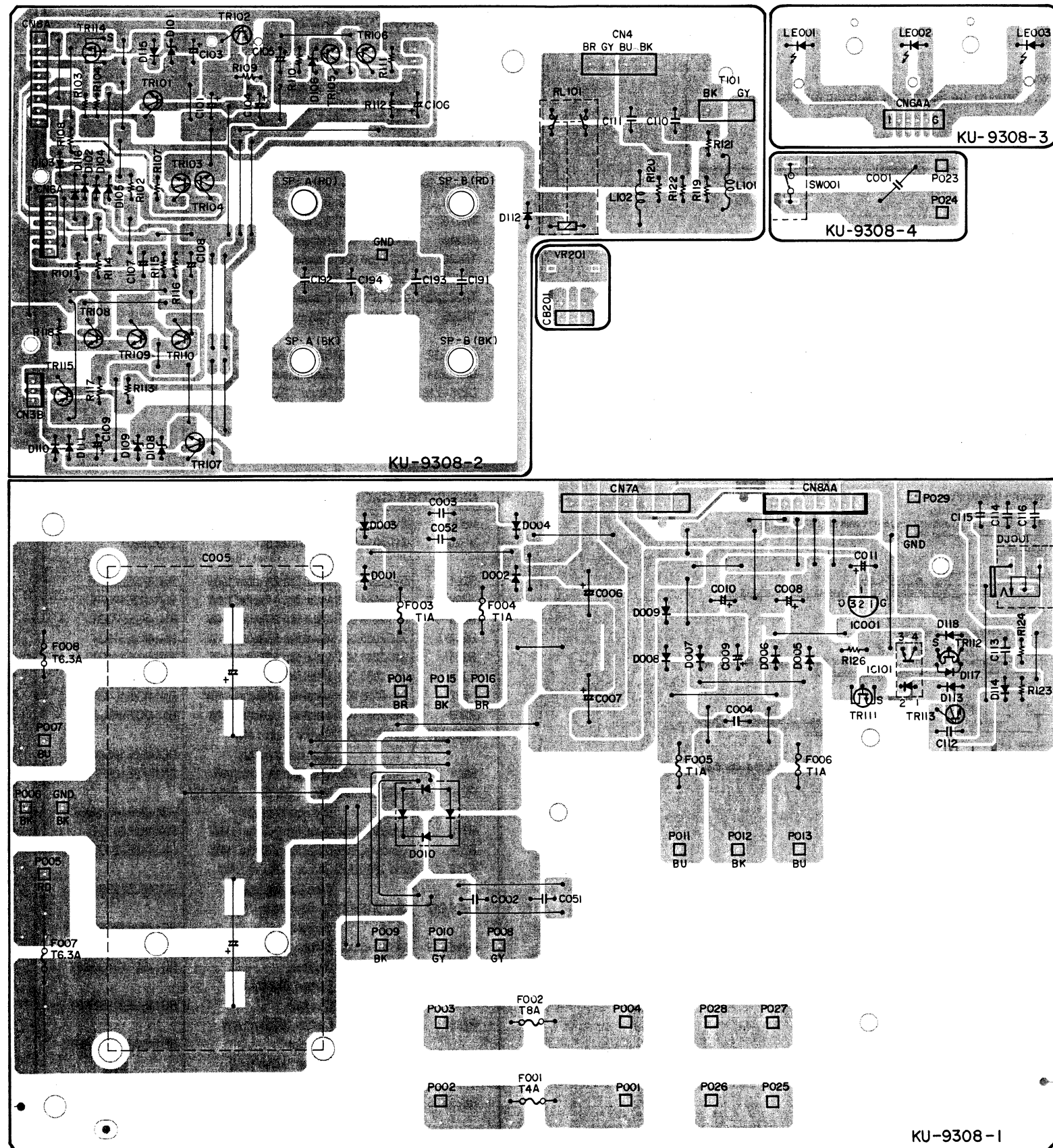


P. W. BOARD OF KU-9307 POWER AMPLIFIER UNIT



P. W. BOARD OF KU-9308 POWER SUPPLY & CONTROL UNIT

1 2 3 4 5 6 7 8



A
B
C
D
E

NOTE FOR PARTS LIST

- Part indicated with the mark "◎" are not always in stock and possibly to take a long period of time for supplying, or in some case supplying of part may be refused.
- When ordering of part, clearly indicate "1" and "I" (i) to avoid mis-supplying.
- Ordering part without stating its part number can not be supplied.
- Part indicated with the mark "★" is not illustrated in the exploded view.
- Not including Carbon Film ±5%, 1/4W Type in the P.W.Board parts list. (Refer to the Schematic Diagram for those parts.)

WARNING:

Parts marked with this symbol  have critical characteristics. Use ONLY replacement parts recommended by the manufacturer.

Resistors

Ex.:

RN	14K	2E	182	G	FR
Type	Shape and performance	Power	Resistance	Allowable error	Others

RD : Carbon	2B : 1/8W	F : ±1%	P : Pulse-resistant type
RC : Composition	2E : 1/4W	G : ±2%	NL : Low noise type
RS : Metal oxide film	2H : 1/2W	J : ±5%	NB : Non-burning type
RW : Winding	3A : 1W	K : ±10%	FR : Fuse-resistor
RN : Metal film	3D : 2W	M : ±20%	F : Lead wire forming
RK : Metal mixture	3F : 3W		
	3H : 5W		

Resistance

$1 \overline{8} 2 \Rightarrow 1800 \text{ ohm} = 1.8 \text{ kohm}$
 Indicates number of zeros after effective number.
 2-digit effective number.

• Units: ohm

$1 \overline{R} 2 \Rightarrow 1.2 \text{ ohm}$
 1-digit effective number.
 2-digit effective number, decimal point indicated by R.

• Units: ohm

Capacitors

Ex.:

CE	04W	1H	2R2	M	BP
Type	Shape and performance	Dielectric strength	Capacity	Allowable error	Others

CE : Aluminum foil electrolytic	0J : 6.3V	F : ±1%	HS : High stability type
CA : Aluminum solid electrolytic	1A : 10V	G : ±2%	BP : Non-polar type
CS : Tantalum electrolytic	1C : 16V	J : ±5%	HR : Ripple-resistant type
CO : Film	1E : 25V	K : ±10%	DL : For charge and discharge
CK : Ceramic	1V : 35V	M : ±20%	HF : For assuring high frequency
CC : Ceramic	1H : 50V	Z : +80%	U : UL part
CP : Oil	2A : 100V	-20%	C : CSA part
CM : Mica	2B : 125V	P : +100%	W : UL-CSA type
CF : Metallized	2C : 160V	-0%	F : Lead wire forming
CH : Metallized	2D : 200V	C : ±0.25pF	
	2E : 250V	D : ±0.5pF	
	2H : 500V	= : Others	
	2J : 630V		

Capacity (electrolyte only)

$2 \overline{2} 2 \Rightarrow 2200 \mu\text{F}$
 Indicates number of zeros after effective number.
 2-digit effective number.

• Units: μF.

$2 \overline{R} 2 \Rightarrow 2.2 \mu\text{F}$
 1-digit effective number.
 2-digit effective number, decimal point indicated by R.

• Units: μF.

Capacity (except electrolyte)

$2 \overline{2} 2 \Rightarrow 2200 \text{ pF} = 0.0022 \mu\text{F}$
 (More than 2) — Indicates number of zeros after effective number.
 2-digit effective number.

• Units: μF.

$2 \overline{2} 1 \Rightarrow 220 \text{ pF}$
 (0 or 1) — Indicates number of zeros after effective number.
 2-digit effective number.

• Units: pF.

• When the dielectric strength is indicated in AC, "AC" is included after the dielectric strength value.

P.W.B. ASS'Y PARTS LIST
KU-9307B/D/E POWER AMP UNIT

Ref. No.	Part No.	Part Name	Remarks	Ref. No.	Part No.	Part Name	Remarks
SEMICONDUCTORS GROUP							
IC201	263 0466 009	IC NJM2068ADA		R227	245 2081 905	Metal film 3.6kohm 1/4W	RN14K2E362GT
TR200	275 0086 000	Transistor 2SJ109		R228	245 2068 902	Metal film 1kohm 1/4W	RN14K2E102GT
TR201	269 0023 903	Transistor RN1201(4.7K-4.7K) Built in Resistor		R229,230	241 2315 912	Carbon 10ohm 1/4W (Fusible)	RD14B2E100GFRST
TR202	273 0317 906	Transistor 2SC2458(BL)		R231-277	241 2387 940	Carbon 4.7ohm 1/4W (Non-burning type)	RD14B2E4R7JNBST
TR203,204	271 0168 900	Transistor 2SA1145(O)(Y)		R239-256	244 2051 945	Metal oxide film 1ohm 1W (Non-burning type)	RS14B3A010JNBST
TR205	271 0201 906	Transistor 2SA1321		R263	245 2374 900	Metal film 1Mohm 1/4W	RN14K2E105FT
TR206-208	273 0332 907	Transistor 2SC3334		R265,266	241 2377 947	Carbon 100ohm 1/4W (Non-burning type)	RD14B2E101JNBST
TR209	275 0087 009	Transistor 2SK2013		R267	241 2376 977	Carbon 51ohm 1/4W (Non-burning type)	RD14B2E510JNBST
TR210	275 0088 008	Transistor 2SJ313		R268,269	241 2371 914	Carbon 1kohm 1/4W (Fusible)	RD14B2E102GFRST
TR219	273 0332 907	Transistor 2SC3334		R271	245 2104 905	Metal film 33kohm 1/4W	RN14K2E333GT
TR220	273 0360 908	Transistor 2SC2458(Y)		R272	244 2051 932	Metal oxide film 3.3kohm 1W (Non-burning type)	RS14B3A332JNBST
TR221	273 0436 007	Transistor 2SC4137		R274	244 2043 937	Metal oxide film 10ohm 1W (Non-burning type)	RS14B3A100JNBST
TR223,224	273 0317 906	Transistor 2SC2458(BL)		R293,294	245 2092 907	Metal film 10kohm 1/4W	RN14K2E103GT
TR225	271 0191 906	Transistor 2SA1048(GR)		R997	245 2044 900	Metal film 100ohm 1/4W	RN14K2E101GT
D211,212	276 0432 903	Diode 1SS270A TE		CAPACITORS GROUP			
D213,214	276 0453 908	Zener Diode HZS3B-1TD		C201-203	255 4217 907	Film 100pF/50V	CQ09P1H101JT
D215-218	276 0432 903	Diode 1SS270A TE		C204	254 4258 918	Electrolytic 10μF/35V	CE04W1V100MT SME
D219	276 0432 903	Diode 1SS270A TE		C205	255 4217 907	Film 100pF/50V	CQ09P1H101JT
D220	276 0478 909	Zener Diode HZS18-1TD		C206	255 4218 964	Film 470pF/50V	CQ09P1H471JT PDH
D221-225	276 0432 903	Diode 1SS270A TE		C207	254 4258 918	Electrolytic 10μF/35V	CE04W1V100MT SME
RESISTORS GROUP (not included Carbon Film ±5% 1/4W type)				C208	253 4470 900	Ceramic 10pF/500V	CC45SL2H100DT
VR201	211 6106 003	Variable 100kohm (Input)	V0920V20MB104	C209	254 3056 959	Electrolytic 10μF/50V (Bipolar)	CE04D1H100MBPT SME
VR202	211 6014 069	Adjust 200ohm	V09QB201	C210	255 1265 936	Film 0.01μF/50V	CQ93M1H103JT B
R201	245 2077 906	Metal film 2.4kohm 1/4W	RN14K2E242GT	C211,212	254 4473 900	Electrolytic 10μF/100V	CE04W2A100MT AVF
R202	245 2084 902	Metal film 4.7kohm 1/4W	RN14K2E472GT	C213	255 4199 973	Film 0.01μF/50V	CQ92M1H103JT MRZ
R203	245 2078 905	Metal film 2.7kohm 1/4W	RN14K2E272GT	C214	255 4218 964	Film 470pF/50V	CQ09P1H471JT PDH
R204	245 2085 901	Metal film 5.1kohm 1/4W	RN14K2E512GT	C215	254 4474 006	Electrolytic 470μF/50V	CE04W1H471M AVF
R205	245 2044 900	Metal film 100ohm 1/4W	RN14K2E101GT	C216	255 4232 924	Film 39pF/100V	CQ93P2A390JT NH
R206	245 2068 902	Metal film 1kohm 1/4W	RN14K2E102GT	C217,218	253 4470 900	Ceramic 10pF/500V	CC45SL2H100DT
R207	245 2116 906	Metal film 100kohm 1/4W	RN14K2E104GT	C219,220	255 4218 964	Film 470pF/50V	CQ09P1H471JT PDH
R208	245 2081 905	Metal film 3.6kohm 1/4W	RN14K2E362GT	C221	254 4474 006	Electrolytic 470μF/50V	CE04W1H471M AVF
R209,210	241 2379 987	Carbon 1kohm 1/4W (Non-burning type)	RD14B2E102JNBST	C222,223	254 4260 993	Electrolytic 22μF/50V	CE04W1H220MT SME
R211	245 2374 900	Metal film 1Mohm 1/4W	RN14K2E105FT	C224	254 4261 918	Electrolytic 47μF/50V	CE04W1H470MT SME
R212	244 2052 999	Metal oxide film 10kohm 1W (Non-burning type)	RS14B3A103JNBST	C225	255 1265 936	Film 0.01μF/50V	CQ93M1H103JT B
R213	245 2055 902	Metal film 300ohm 1/4W	RN14K2E301GT	C227,228	254 4473 900	Electrolytic 10μF/100V	CE04W2A100MT AVF
R214	245 2052 905	Metal film 220ohm 1/4W	RN14K2E221GT	C229	254 4260 980	Electrolytic 10μF/50V	CE04W1H100MT SME
R215	241 2380 905	Carbon 1.2kohm 1/4W (Non-burning type)	RD14B2E122JNBST	C230	254 4250 932	Electrolytic 220μF/6.3V	CE04W0J221MT SME
R216,217	241 2315 912	Carbon 47ohm 1/4W (Fusible)	RD14B2E470GFRST	C231	254 4258 918	Electrolytic 10μF/35V	CE04W1V100MT SME
R218,219	241 2315 983	Carbon 330ohm 1/4W (Fusible)	RD14B2E331GFRST	C251-254	255 4235 057	Film 0.1μF/100V	CQ93P2A104J NH
R220,221	241 2371 901	Carbon 200ohm 1/4W (Fusible)	RD14B2E201GFRST	C255	256 1034 979	Metallized 0.1μF/50V	CF93A1H104JT
R222	241 2313 901	Carbon 100ohm 1/4W (Fusible)	RD14B2E101GFRST	C256	254 4258 918	Electrolytic 10μF/35V	CE04W1V100MT SME
R223,224	241 2371 914	Carbon 1kohm 1/4W (Fusible)	RD14B2E102GFRST	OTHER PARTS			
R225,226	241 2378 962	Carbon 330ohm 1/4W (Non-burning type)	RD14B2E331JNBST	FB201,202	235 0049 900	Beads inductor	

KU-9308B/D/E POWER SUPPLY & CONTROL UNIT

Ref. No.	Part No.	Part Name	Remarks
P201	279 0034 041	Posistor(PTH9M04BD222TS2F333)	
SW201	212 1134 002	Push Switch	
J201	204 8248 000	1P Connector Base	
J202	203 5035 006	3P CANNON Connector	

Ref. No.	Part No.	Part Name	Remarks
SEMICONDUCTORS GROUP			
IC001	263 0987 902	IC NJM79L15AT	
IC101	262 0874 009	Photo Coupler TLP521-1 (BL)	
TR101	273 0253 918	Transistor 2SC2878(A/B)TPE2	
TR102	274 0138 007	Transistor 2SD1944	
TR103	269 0025 901	Transistor RN1202(10K-10K)T	Built in Resistor
TR104,105	273 0317 906	Transistor 2SC2458(BL)TPE4	
TR106	269 0026 900	Transistor RN2202(10K-10K)T	Built in Resistor
TR107	269 0025 901	Transistor RN1202(10K-10K)T	Built in Resistor
TR108,109	273 0317 906	Transistor 2SC2458(BL)TPE4	
TR110	269 0025 901	Transistor RN1202(10K-10K)T	Built in Resistor
TR111,112	275 0042 905	Transistor 2SK373(Y)TPE2	
TR113	273 0317 906	Transistor 2SC2458(BL)TPE4	
TR114	275 0043 946	Transistor 2SK381(C)T	
TR115	269 0026 900	Transistor RN2202(10K-10K)T	Built in Resistor
D001-009	276 0553 905	Diode 1SR35-200A(T93X)	
D010	276 0356 005	Diode D5FB20(4001)	
D101	276 0477 900	Diode HZS16-1TD	
D102-105	276 0432 903	Diode 1SS270A TE	
D106	276 0465 909	Zener Diode HZS7B-1TD	
D107	279 0016 904	Thyristor SFOR1A42 TPE2	
D108,109	276 0465 909	Zener Diode HZS7B-1TD	
D110-115	276 0432 903	Diode 1SS270A TE	
LE001	393 9408 916	LED SEL-4414E TP6	
IE002	393 9408 929	LED SEL-4914A TP6	
LE003	393 9408 916	LED SEL-4214S TP6	
RESISTORS GROUP (not included Carbon Film ±5% 1/4W type)			
△R101	244 2055 996	Metal oxide film 1.2kohm 1W (Non-burning type)	RS14B3A122JNBST S
△R102	244 2051 932	Metal oxide film 3.3kohm 1W (Non-burning type)	RS14B3A332JNBST S
△R111	244 2055 996	Metal oxide film 1.2kohm 1W (Non-burning type)	RS14B3A122JNBST S
△R114	244 2055 996	Metal oxide film 1.2kohm 1W (Non-burning type)	RS14B3A122JNBST S
△R117	244 2055 996	Metal oxide film 1.2kohm 1W (Non-burning type)	RS14B3A122JNBST S
△R119,120	241 2387 940	Carbon 4.7ohm 1/4W (Non-burning type)	RD14B2E4R7JNBST
△R121	244 2050 904	Metal oxide film 22ohm 1W (Non-burning type)	RS14B3A100JNBST S
△R122	244 2052 928	Metal oxide film 47ohm 1W (Non-burning type)	RS14B3A470JNBST S
CAPACITORS GROUP			
△C001	253 9093 713	Ceramic 0.0047µF/400VAC	CK45E2GAC472MC
C002-004	256 1042 903	Metalized 0.1µF/250V	CF93A2E104KT
C005	254 6191 002	Electrolytic 15000µF	CE68W==153M==153M
C006,007	254 4477 003	Electrolytic 1000µF/100V	CE04W2A102M AVF
C008	254 4475 005	Electrolytic 470µF/35V	CE04W1V471M AVF
C009	254 4260 948	Electrolytic 1µF/50V	CE04W1H010MT SME

Ref. No.	Part No.	Part Name	Remarks
C010	254 4475 005	Electrolytic 470µF/35V	CE04W1V471M AVF
C011	254 4258 918	Electrolytic 10µF/35V	CE04W1V100MT SME
C101	254 4258 918	Electrolytic 10µF/35V	CE04W1V100MT SME
C103	254 4258 905	Electrolytic 4.7µF/35V	CE04W1V4R7MT SME
C104	254 4258 918	Electrolytic 10µF/35V	CE04W1V100MT SME
C105	254 4254 925	Electrolytic 33µF/16V	CE04W1C330MT SME
C106	254 4254 912	Electrolytic 22µF/16V	CE04W1C220MT SME
C107,108	254 3056 733	Electrolytic 3.3µF/50V (Bipolar)	CE04D1H3R3MBPT SME
C109	254 4258 918	Electrolytic 10µF/35V	CE04W1V100MT SME
C110,111	255 4228 996	Film 0.022µF/100V	CQ92P2A223JT
C112	253 1181 904	Ceramic 0.01µF/50V	CK45F1H103ZT
C113-116	253 9031 920	Ceramic 0.1µF/25V	CK45=1E104KT
C226	255 4235 785	Film 0.033µF/100V	CQ93P2A333JC NH
OTHER PARTS			
DJ001	204 8289 001	DC Power Jack	
L101,102	235 0068 004	Inductor (1mH)	
RL101	214 9003 005	Relay	
△SW001	212 1031 008	Power Switch (TV-5)	
△F001	206 1015 057	Fuse (4.0A)	Europe
△	206 1061 031	Fuse (4A/250V)	Asia
△	206 1046 014	Fuse (8A/125V)	U.S.A. and Canada
△F002	206 1061 050	Fuse (8A/250V)	Asia only
△F003-006	206 1015 029	Fuse (1A T)	Europe
△	206 1053 007	Fuse (1A/250V)	Asia
△	206 1039 034	Fuse (1A/125V)	U.S.A. and Canada
	513 9374 000	Fuse level (125V-1A)	U.S.A. and Canada
△F007,008	206 1036 011	Fuse (6.3A)	Europe
△	206 1061 057	Fuse (6.3A/250V)	Asia
△	206 1046 001	Fuse (6.3A/125V)	U.S.A. and Canada
	513 9374 055	Fuse level (125V-6.3A)	U.S.A. and Canada

PARTS LIST OF EXPLODED VIEW (POA-S10)

Ref.No	Part No	Part Name	Remarks	Ref.No	Part No	Part Name	Remarks
1	KU- 9307 -B	Power Amp Unit Ass'y	Europe	40	205 0438 015	1P Terminal(RED)	
1-1	KU- 9307 -D	Power Amp Unit Ass'y	Asia(Multi-Voltage)	41	477 0096 007	Push Rivet	Europe Only
1-2	KU- 9307 -E	Power Amp Unit Ass'y	U.S.A., Canada	42	462 0036 007	Terminal Cap	Except U.S.A., Canada
1-3	—	Power Amp Unit		43	462 0036 010	Terminal Cap	Except U.S.A., Canada
2	211 6106 003	Variable Resistor	(VR201)INPUT LEVEL (V0920V20MB104)	44	105 9253 108	Rear Panel	Europe
3	204 8248 000	1P Connector Base	(J201)INPUT normal	44	105 9253 111	Rear Panel	Asia(Multi-Voltage)
4	212 1134 002	Push Switch	(SW201)INPUT SELECT	44	105 9253 124	Rear Panel	U.S.A., Canada
5	122 9032 007	Blind Sheet		45	206 2063 009	AC CordWith Plug	Europe
6	203 5035 006	CANNON Connector Base	(J202)INPUT balanced	45	206 2130 000	AC CordWith Conn.&Plug	Asia(Multi-Voltage)
7	415 9078 015	Cord Holder		45	206 2060 002	AC CordWith Plug	U.S.A., Canada
8	417 9086 003	Power Radiator		46	445 0020 005	Cord Bush(4K-4)	Except Asia
9	273 0391 003	Transistor(2SC3281)	(TR213,215,217)	47	105 9254 000	Bottom Cover	
10	271 0245 001	Transistor(2SA1302)	(TR214,216,218)	48	104 9044 000	Foot Ass'y	
12	412 9131 115	Radiator Bracket(B)		49	102 9047 001	Top Cover	
13	412 9130 213	Radiator Bracket(F)		50	122 9006 017	Spacer	
14	445 0048 003	Cord Holder(L76)		51	461 0334 007	Rubber Sheet	Except U.S.A., Canada
15	445 0048 003	Cord Holder(L76)		52	212 0363 007	Voltage Selector	Asia Only
16	417 9087 002	Radiator		53	203 3962 003	AC-Inlet	Asia Only
17	275 0081 005	Transistor(2SK1303)	(TR211)	54	461 9060 013	Rubber Sheet	
18	275 0080 006	Transistor(2SJ216)	(TR212)	55	461 9060 000	Rubber Sheet	U.S.A., Canada Only
19	KU- 9308 -B	P.S / Control Unit Ass'y	Europe	56	461 9060 000	Rubber Sheet	
19-1	KU- 9308 -D	P.S / Control Unit Ass'y	Asia(Multi-Voltage)	57	513 9362 038	Fuse Lavel	U.S.A., Canada Only
19-2	KU- 9308 -E	P.S / Control Unit Ass'y	U.S.A., Canada	58	513 9362 025	Fuse Lavel	U.S.A., Canada Only
19-3	—	Power Supply Unit		59	513 9376 008	Fuse Lavel	U.S.A., Canada Only
19-4	—	Control Unit		60	513 8266 009	Dangerous Mark	U.S.A., Canada Only
20	415 9078 002	Cord Holder		61	LL- 6442 6	CSA Label	U.S.A., Canada Only
21	204 8289 001	DC Power Jack	(DJ001)	62	146 9124 005	Protector	U.S.A., Canada Only
22	233 9671 001	Power Trasformer	Europe	63	515 8030 008	Preset Label	Asia Only
23	233 9672 000	Power Trasformer	Asia(Multi-Voltage)	64	415 9075 005	Rubber Sheet	
24	233 9675 007	Power Trasformer	U.S.A., Canada	65	122 0099 007	Spacer	
25	411 9133 204	Trasformer Chassis		66	122 9033 006	Spacer	
26	412 9059 006	Bracket		101	473 7508 017	Screw 3 x 10 CBTS(P)-B	
27	445 0048 016	Cord Holder(L50)		102	443 0900 158	P.W.B. Support	
28	203 0275 007	1P Contact Ass'y		103	473 7015 018	Screw 3 x 8 CBTS(S)-B	
29	215 9032 006	P.C.B. Holder(T)		104	473 8007 025	3 x 8 CUP Screw	
30	411 9131 109	Front Chassis		105	473 8007 038	3 x 14 CUP Screw	
31	412 9431 006	Bracket		106	470 0014 020	Screw 3x16 CPS SWW ZNP	
32	412 9432 005	Power Bracket		107	473 7007 000	Screw 4 x 8 CBTS(S)-B	
33	212 1031 008	Power Switch(TV-5)	(SW001)	108	475 6010 007	Nut 5 N ZN	
34	113 9303 101	Power Button Ass'y		109	475 2005 003	SpringWasher 5 SW ZN	
35	144 9207 007	Front Panel		110	475 1006 016	Washer 5W BKNI	
36	143 9174 001	Lens (P)		111	473 7002 034	Screw 3 x 6 CBTS(S)-B	U.S.A., Canada Only
37	203 6462 005	4P SDN-M5 Connector Cord		112	471 9043 008	Special Screw	
38	415 9078 015	Cord Holder					
39	412 2814 060	Card Spacer(L=16)					
	212 2814 015	Card Spacer(L=14)					
	205 0438 002	1P Terminal(BLK)					

PARTS LIST OF PACKING & ACCESSORIES

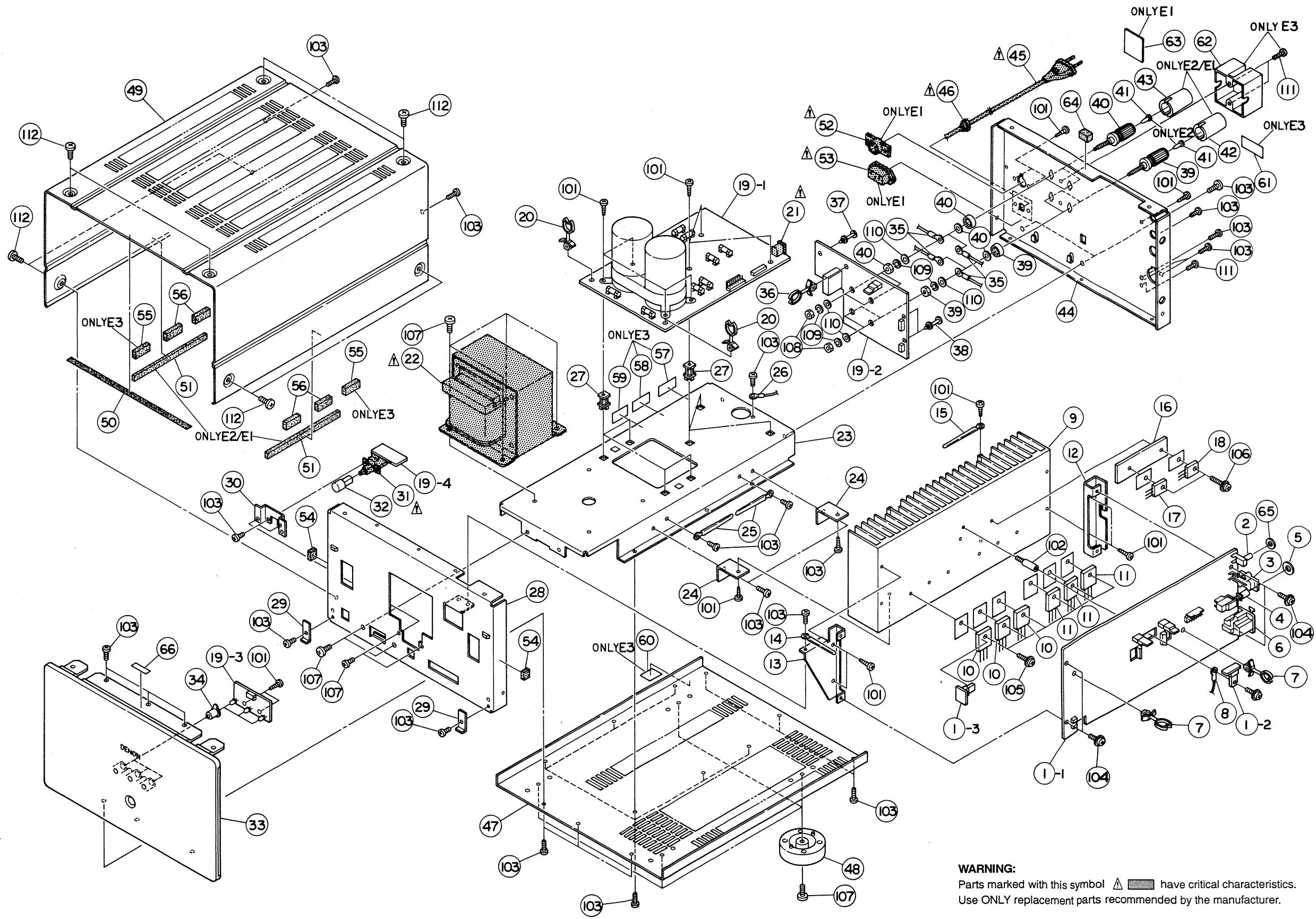
Ref. No.	Part No.	Part Name	Remarks	Q'ty
	504 9102 003	Styrene Paper		1
	505 0075 051	Cabinet Cover		1
	503 9274 103	Cushion Ass'y		1
	501 9265 006	Carton Case		1
	505 8006 019	Envelope		1
	511 9384 007	Operating Instructions	Europe,U.S.A., Canada	1
	511 9403 001	Operating Instructions	Asia (Multi-Voltage)	1
	515 0671 106	Service Station List		1
	203 4442 001	Remote Plug Cord		1
	203 4451 005	3P Cannon Plug Cord		1
	206 2130 000	AC Cord	Asia (Multi-Voltage)	1
	202 0044 002	Plug Adaptor	Asia (Multi-Voltage)	1

WARNING:

- Parts marked with " △ " and/or shading have special characteristics important to safety.
Be sure to use the specified parts for replacement.
- Part indicated with the mark " ● " are not always in stock and possibly to take a long period of time for supplying, or in some case supplying of part may be refused.

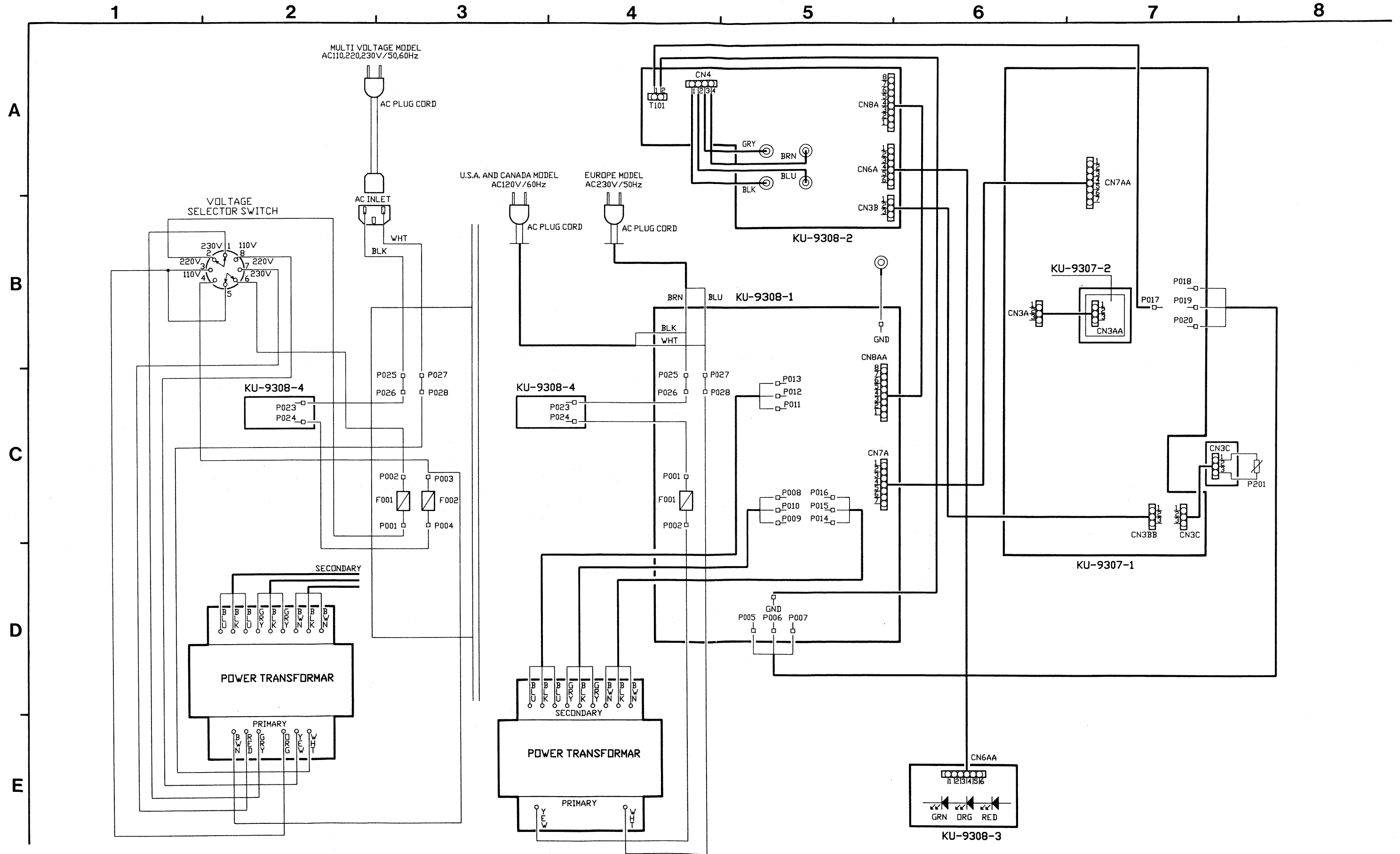
EXPLODED VIEW

1 2 3 4 5 6 7 8



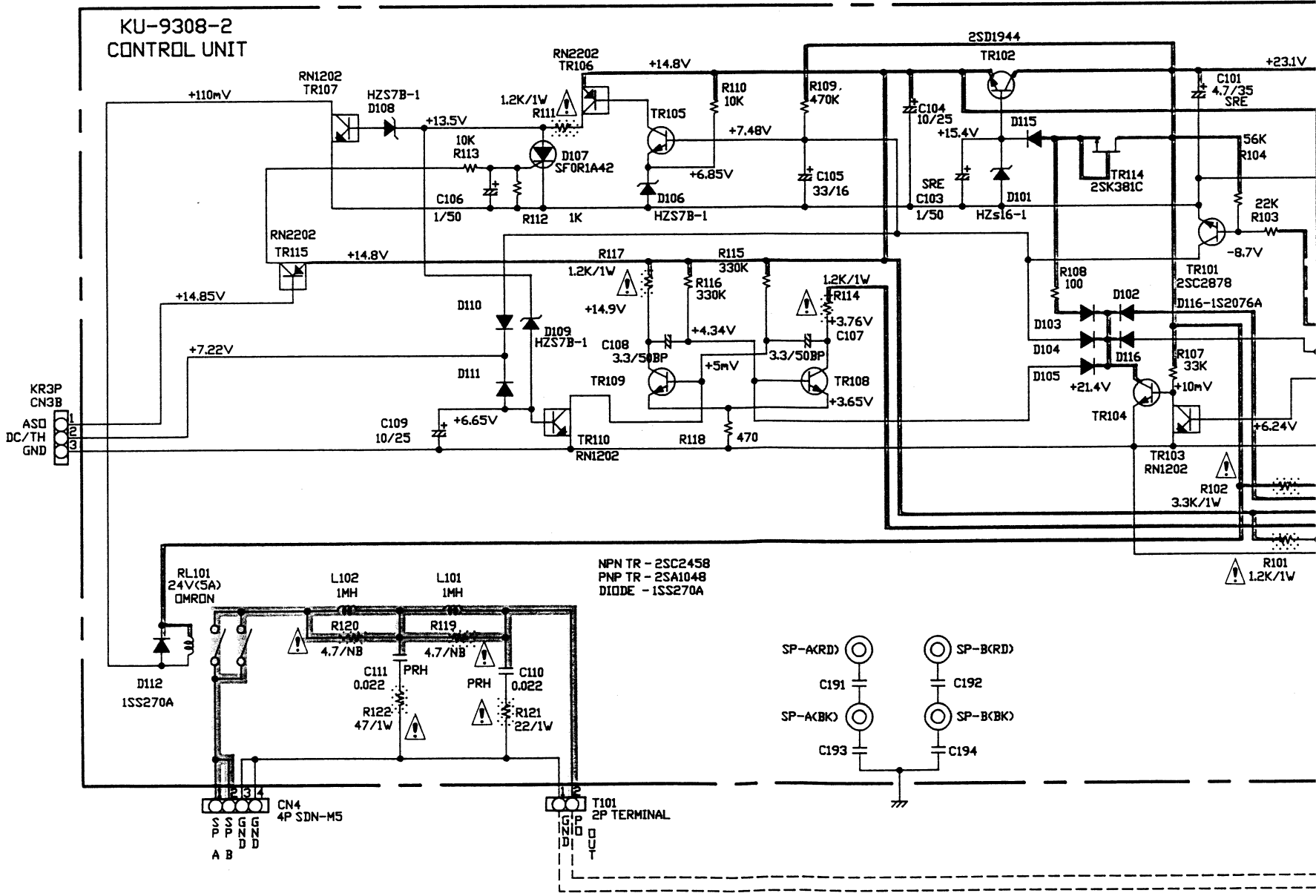
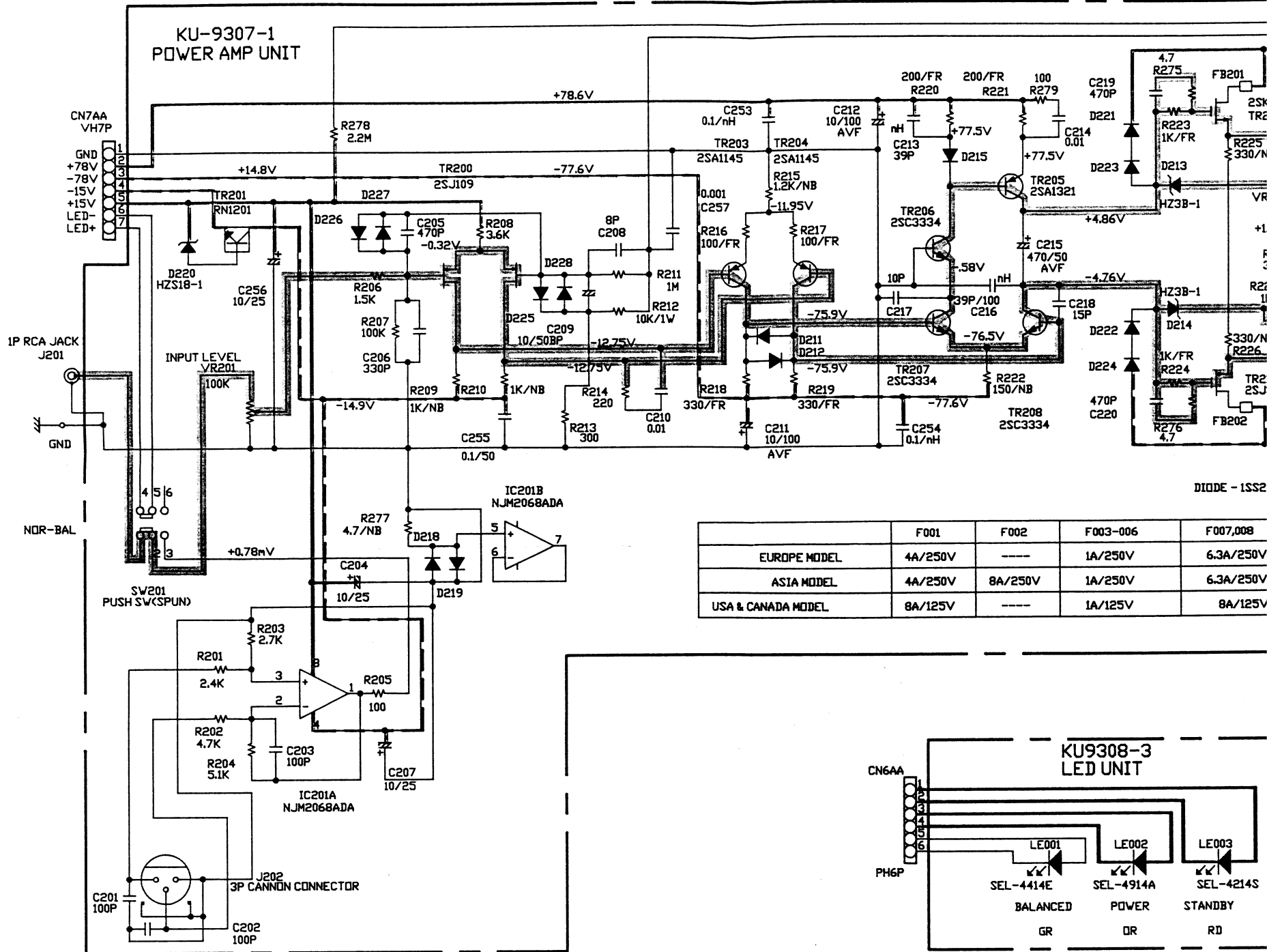
WARNING:
 Parts marked with this symbol  have critical characteristics.
 Use ONLY replacement parts recommended by the manufacturer.

WIRING DIAGRAM



SCHEMATIC DIAGRAM

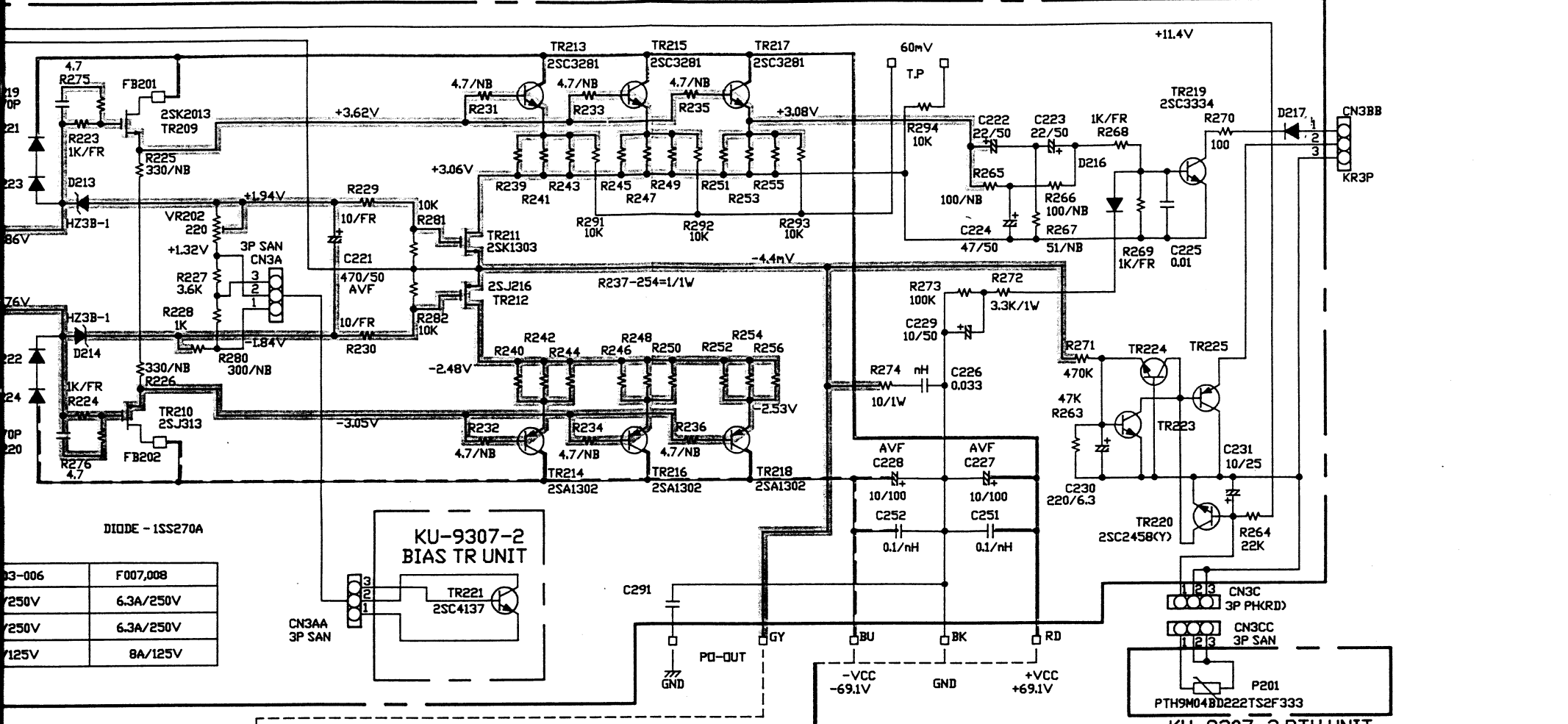
1 2 3 4 5 6



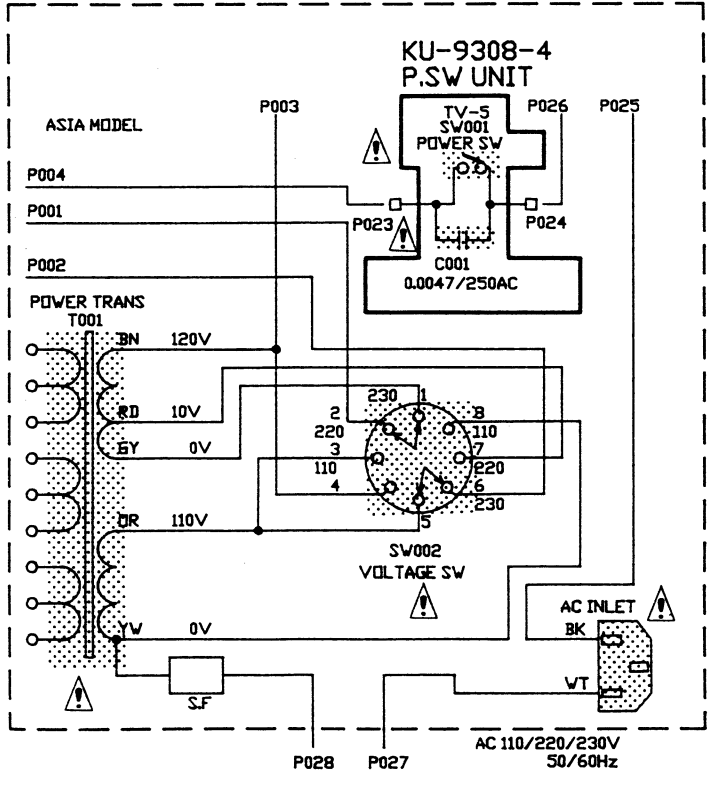
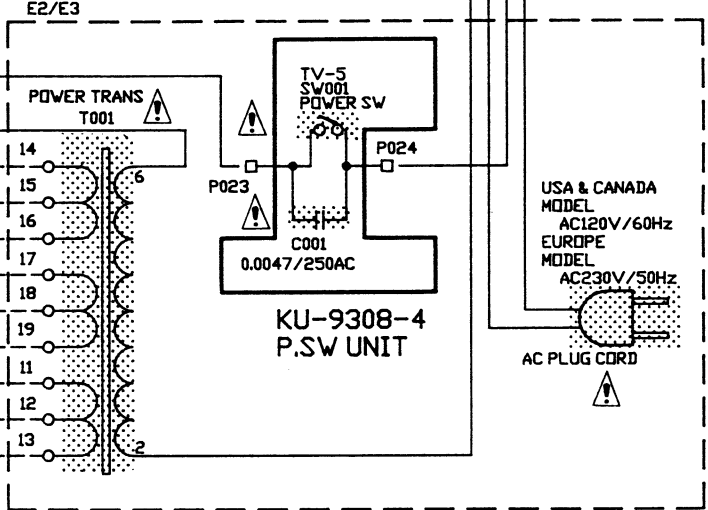
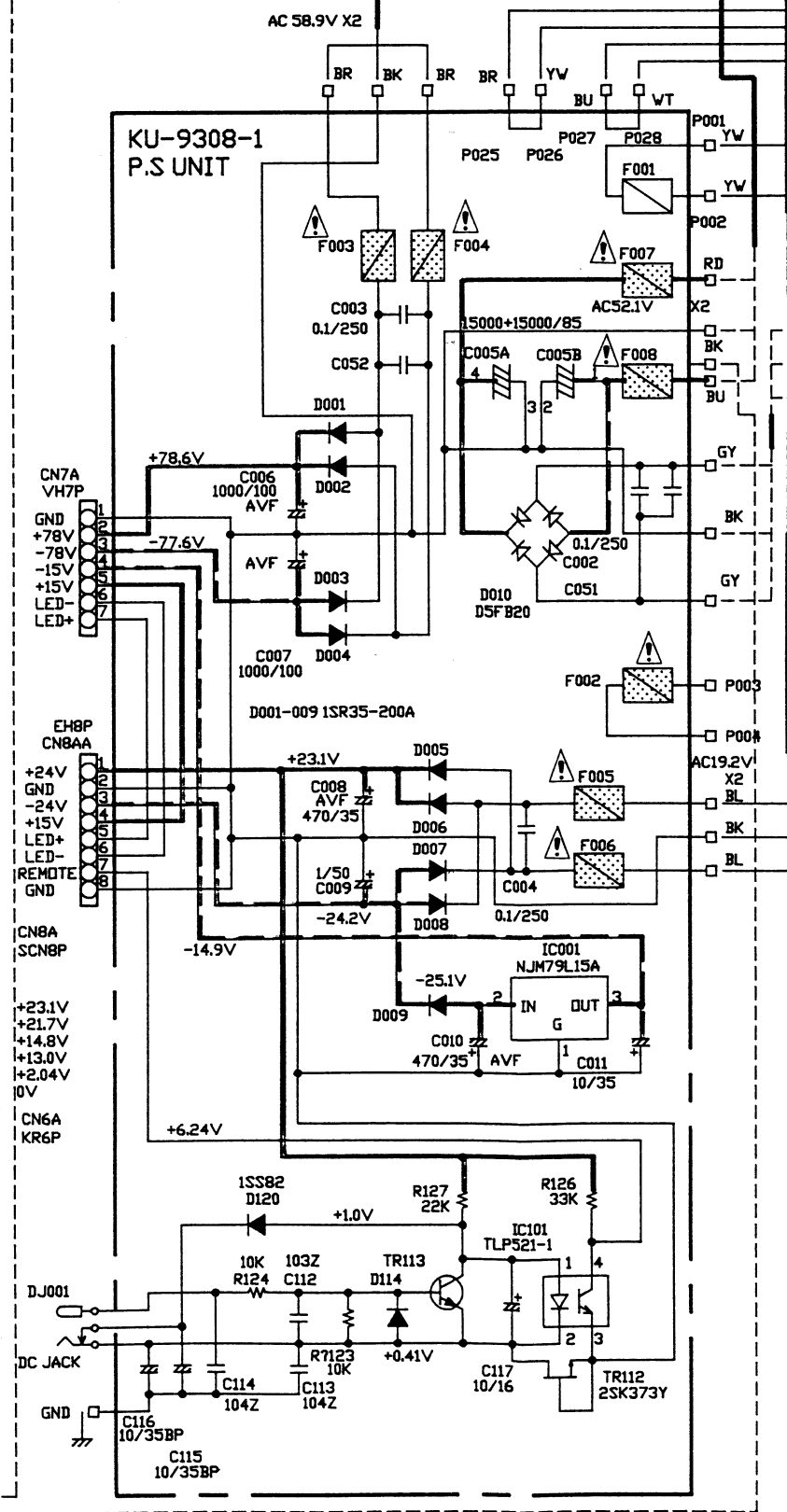
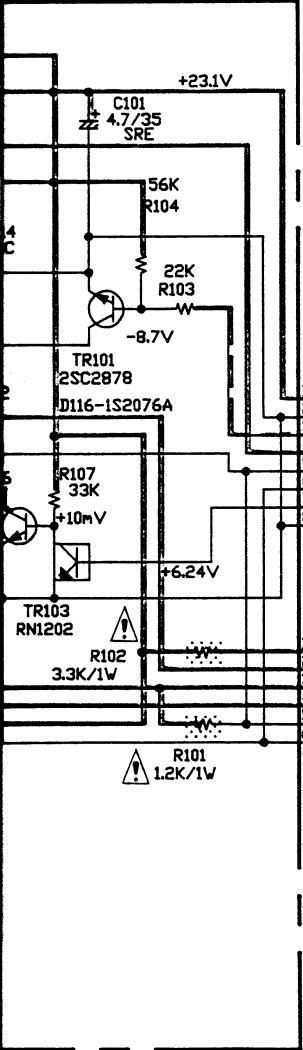
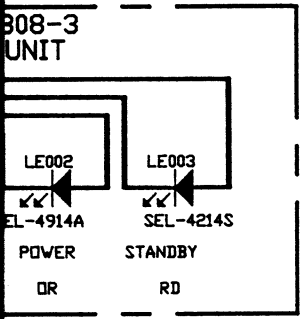
NOTES:
ALL RE...
ALL CA...
EACH...
COND...
CIRCU...
NOTIC...

6 7 8 9 10 11

A
B
C
D
E
F
G
H



3-006	F007,008
250V	6.3A/250V
250V	6.3A/250V
125V	8A/125V



NOTES
 ALL RESISTANCE VALUES IN OHM. k=1,000 OHM, M=1,000,000 OHM
 ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD
 EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION.
 CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

WARNING:
 Parts marked with this symbol have critical characteristics. Use ONLY replacement parts recommended by the manufacturer.

CAUTION:
 Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 240 kohms, the unit is defective.

WARNING:
 DO NOT return the unit to the customer until the problem is located and corrected.