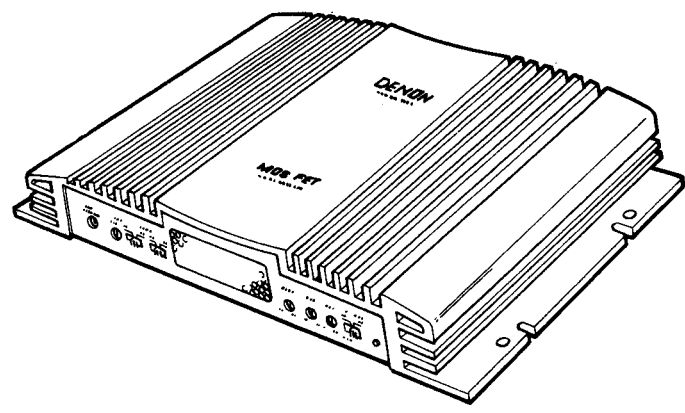


# DENON

Hi-Fi Component

## SERVICE MANUAL

# MODEL DCA-800



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# NIPPON COLUMBIA CO., LTD.

Please read carefully all safety and operating instructions before installation and use. It will help you to obtain the best performances from your new power amplifier.

**FEATURES**

- 1. **Changeable Multi-Channel Power Amplifier with Built-in Subwoofer Drive.**  
Maximum Power Output.  
6 Channel  
50W × 6 (1 kHz/4 ohms, 1% T.H.D.)  
45W × 6 (20 Hz~20 kHz/4 ohms, 0.1% T.H.D.)  
3 Channel  
100W × 3 (1 kHz/4 ohms, 1% T.H.D.)
- 2. **High-power Amplifier with MOS-FET.**  
With their high speed and favorable characteristics, MOS-FET devices are ideal for the powerstage of high-quality amplifiers.
- 3. **Variable Input Sensitivity.**
- 4. **Subwoofer Amplifier with Crossover Network.**
- 5. **Adjustable Subwoofer Level.**  
0 ~ +16 dB

- 6. **Ground Isolation Amplifier**  
Due to isolation of the ground in the amplifier, you can now enjoy hi-fi stereo in your car with a minimum of noise or distortion.
- 7. **Remote Power On/Off.**  
Now you can remotely control amplifier On/Off switching by just turning on the indash player. Since there is no longer any need to switch the amp individually, you may place it anywhere in the car, whether within or beyond reach.
- 8. **Pulse Regulated Power Supply.**
- 9. **DC-DC Converter with Soft-start Circuit.**
- 10. **Built-in Protector.**
- 11. **Convenient Power Indicator**
- 12. **Forced Cooling with Built-in Low-noise Fan.**
- 13. **Gold-Plated Connectors (RCA input, Speaker terminal, DC Power terminal)**

**INSTALLATION**

Due to the high power of this unit, DENON Power Amplifier needs adequate ventilation, so please find a safe position, on the floor or trunk, and install securely with self-tapping screws. (Fig. 1)

Avoid any locations in where the adequate ventilation and the highest performances could not be obtained as follows.

- 1) Near the vent of heater.
- 2) The location which allows the unit to be exposed to the sun.
- 3) Closed location such as inside the glove box or under the carpet.
- 4) The floor near doors or windows which would expose the unit to rain or moisture.
- 5) Near the pedals of driver which would interfere with operation of vehicle.
- 6) Weak and instable position which cannot support the heavy weight of the unit.

\*\* Remove the ground cable (-) from the battery before installation to prevent damage to unit or the automobile's electrical system by miss-connection.

If the unit cannot be installed securely by self-tapping screws, use bolts, washers and nuts. (Fig. 2)

**Accessories**

DCA-800	Q'ty
Tapping Screw (1) 4 × 16	4

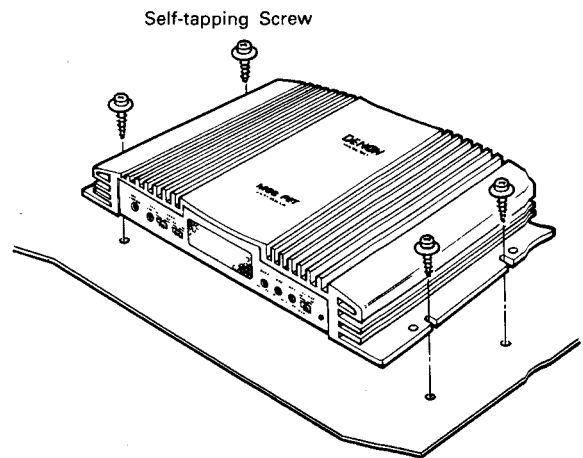


Fig. 1: On the floor or trunk

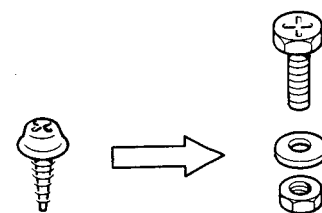
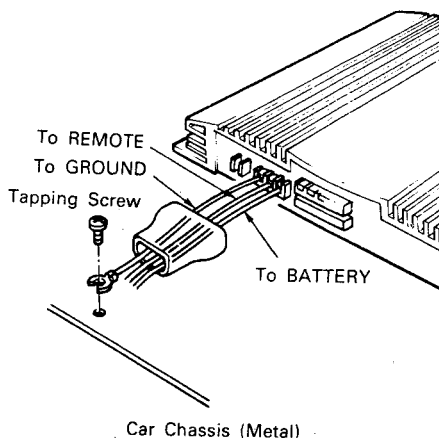


Fig. 2

## CONNECTIONS & OPERATION

After the DENON Power Amplifier DCA-800 is securely installed, make the connections as follows.

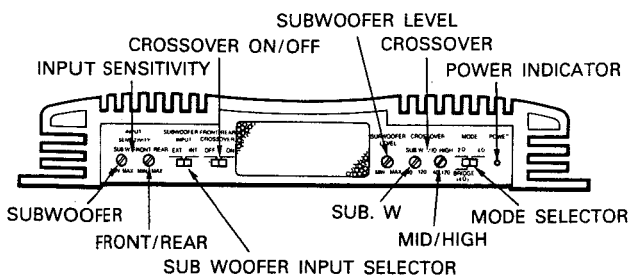
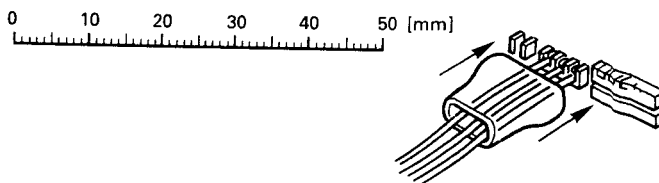
- 1) Connect the pre-out from your component to the input of DCA-800
  - 2) Connect the speaker wires to the speaker terminals of DCA-800.
    - \* Make sure the polarity of left and right speaker line is observed.
    - \* Never connect the speaker wirers of each speaker together.
    - \* Never make the plus and minus wire short-circuit.
    - \* Never connect the speaker wirers to the car chassis.
  - 3) Secure the ground wire to a clean bare metal spot on the car chassis. Make sure paint or coating is scraped away for best connection.  
(The wire gauge should be 10~12 AWG.)
  - 4) Connect the remote cord to the remote control terminal of your indash player.  
(The wire gauge should be 18 AWG.)
  - 5) Connect the battery cord directly to the positive (+) terminal of battery.  
(The wire gauge should be 10~12AWG.)
- \* Make all connections securely to prevent noise. Bind up the cords by tape after connection.
  - \* Confirm again that your connection follows this instruction manual, re-install the parts of your automobile as they were and re-connect the negative (-) cable to the negative (-) terminal of the battery.
  - \* If your indash player does not have a remote terminal, consult your DENON Dealer for alternate hook up.



Put the wire through the terminal cover, as shown on the diagram above. Allow about 10mm extra wire for attaching to the DC power terminal and speaker terminal block. (Refer to Page 9 for instructions on connecting the speakers.)

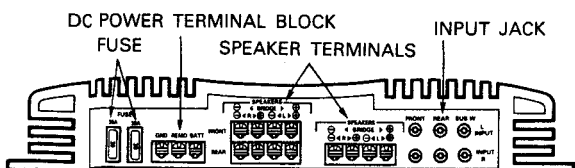


**NOTE:** Once the wire is connected to the speaker's DC power terminal block, press in the terminal cover as shown on the diagram below.

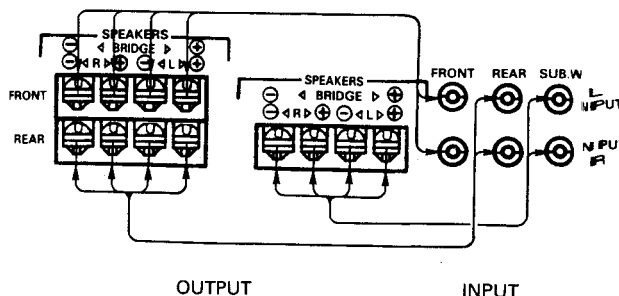


Please use the optional cord kit AK-110 or AK-140, available from your dealer.

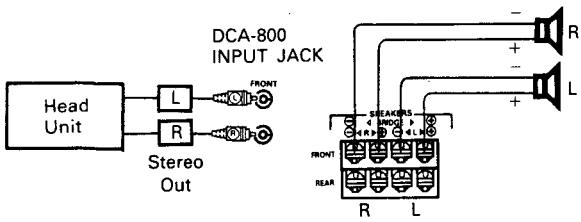
	AK-110	AK-140
2P RCA PIN-PIN CORD	1.5 m	5 m (GOLD PLATE)
BATTERY CORD	2 m	6 m
REMOTE CORD	1.5 m	5 m
Y TYPE REMOTE CORD	0.1 m	0.1 m



## CONFIGURATION OF INPUTS AND OUTPUTS



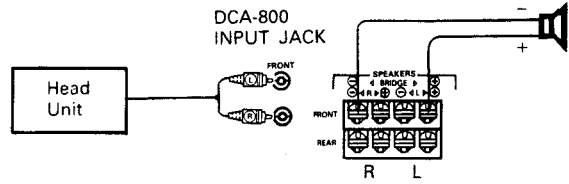
1. Stereo mode



- Connect the pre-out jacks on your component to the left and right input jacks on the DCA-800. Also, connect the left and right speaker wires, following the above notes.
- Set the mode selector to the 2 ohms or 4 ohms position, depending on the impedance of the speakers.

**NOTE:** If the mode selector is set to the 4 ohms position and a 2 ohms load is used (2 ohms speakers or 4 ohms speakers connected in parallel), the sound may be cut off when playing for long periods of time at high temperatures or with a high output. This is not a malfunction — the amplifier's high temperature protection circuit has been activated. If this happens, either turn the volume down or switch the mode selector to the 2 ohms position.

2. Mono mode



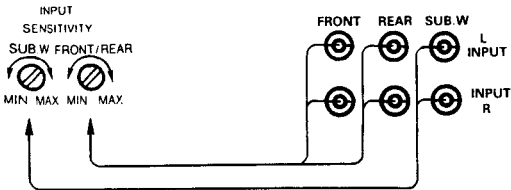
- Set the mode selector to the 2 ohms position.
- Use speakers with an impedance of 4 ohms or greater.

**NOTE:** The above procedure for using the stereo mode and mono mode applies to both the front and rear subwoofers.

If using the mono mode on even one of the six channels, set the mode selector to the 2-ohm position (bridge).

INPUT SENSITIVITY

The diagram below illustrates which inputs the INPUT SENSITIVITY act upon.



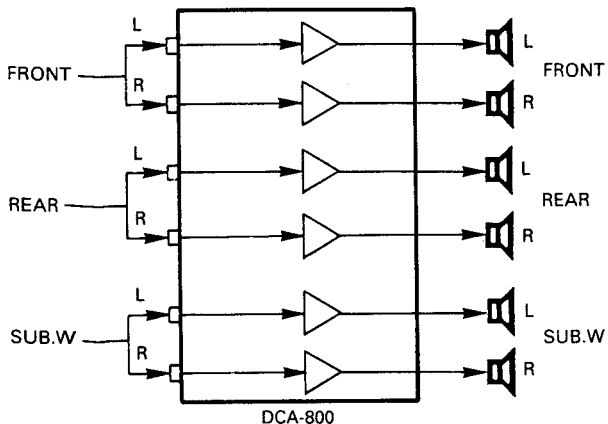
The sensitivity increases as the control is turned clockwise.

SUBWOOFER INPUT SELECTOR

This selector switches between the EXT and INT signals which are input to the subwoofer channel.

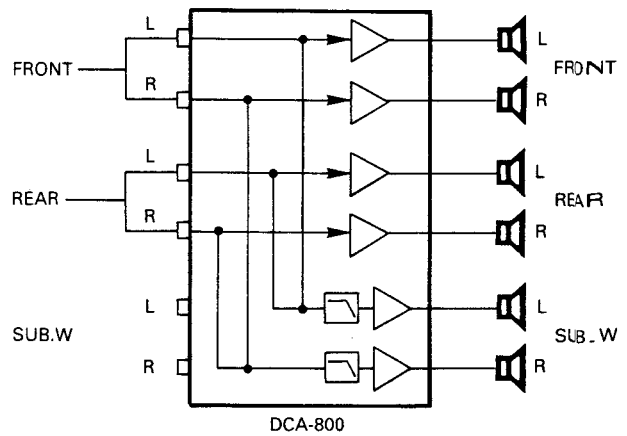
• When EXT is Selected

When the selector has been set to EXT, the signal connected to the DCA-800 subwoofer input terminals is input as the subwoofer signal.

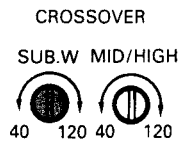


• When INT is Selected

When the selector has been set to INT, the left channel signal, which is input to the front and rear channels of the DCA-800, is input to the left channel of the subwoofer. Similarly, the right channel signal, which is input to the front and rear channels of the DCA-800, is input to the right channel of the subwoofer.

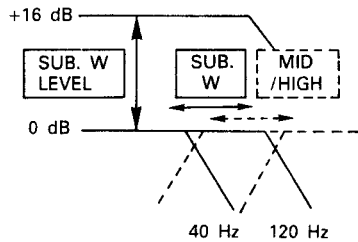


As shown on the diagram above, the internal subwoofer filter (low-pass filter) acts on the subwoofer signal. The cut-off for this filter is adjusted with the variable resistor shown on the following diagram.



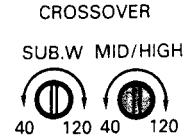
Turning the SUB.W control all the way in the counterclockwise direction provides a cut off of 40 Hz. Turning the control all the way in the clockwise direction set the cut off to 120 Hz. Any setting between these values can be set.

In addition, this signal can be boosted with the subwoofer level control. When turned fully clockwise the signal is boosted +16dB, and when turned fully counterclockwise the signal is boosted 0dB.



**CROSSOVER ON/OFF**

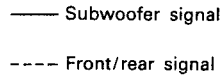
This switch applies the crossover filter (HIGH PASS) to the signals which are output from the 4 channels of the front and rear.



Turning the MID/HIGH control all the way in the counterclockwise direction provides a cut off of 40 Hz. Turning the control all the way in the clockwise direction set the cut off to 120 Hz. Any setting between these values can be set.

**CAUTION:**

The crossover can be turned on and off regardless of the position of the subwoofer input selector (INT or EXT).



**Representative examples using 6 to 3 channels**

**Example 1 with 6 channels**

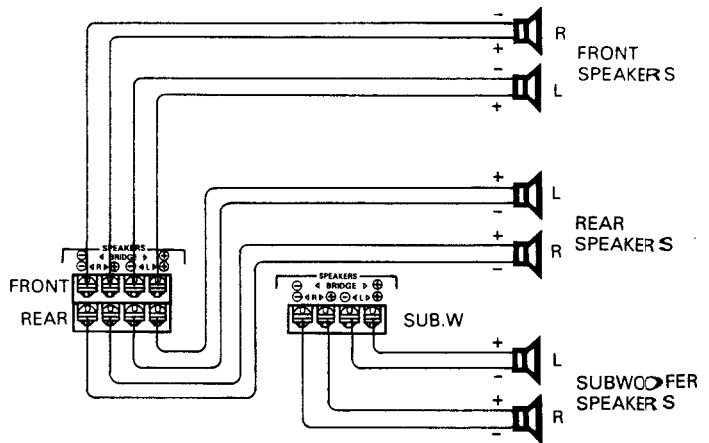
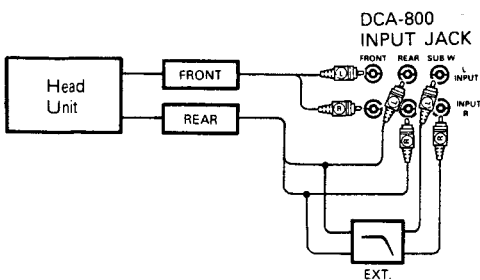
(FRONT × 2 + REAR × 2 + SUB.W × 2)

SWITCHES

INPUT SELECTOR

SUB.W ..... EXT

CROSSOVER..... ON



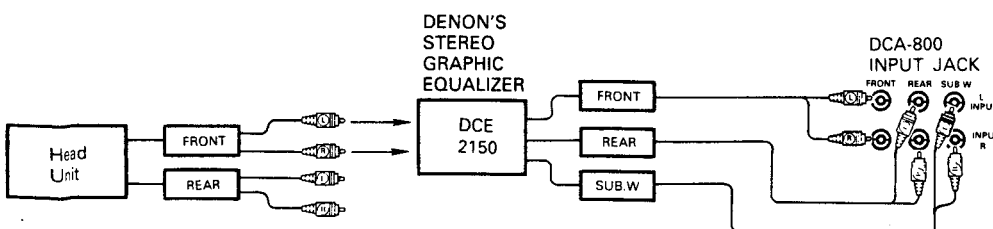
**Example 2 with 6 channels**

SWITCHES

INPUT SELECTOR

SUB.W ..... EXT

CROSSOVER..... OFF



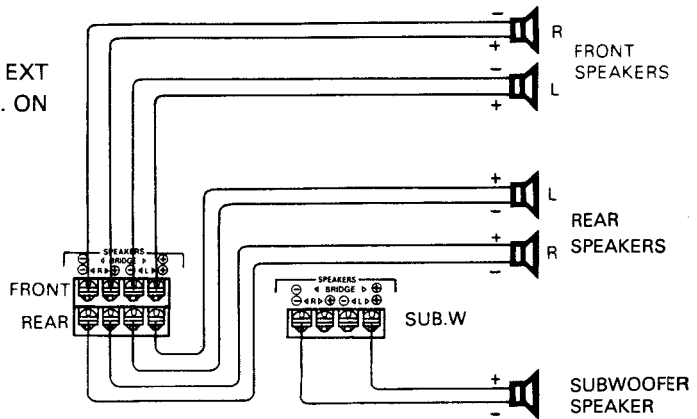
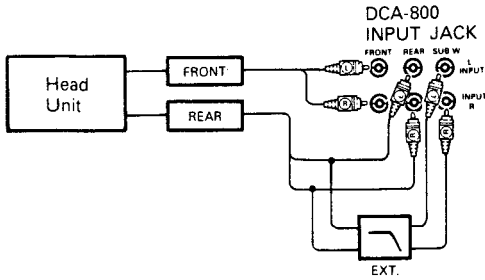
**5 Channel (FRONT × 2 + REAR × 2 + SUB.W × 1)**

SWITCHES

INPUT SELECTOR

SUB. W ..... EXT

CROSSOVER ..... ON



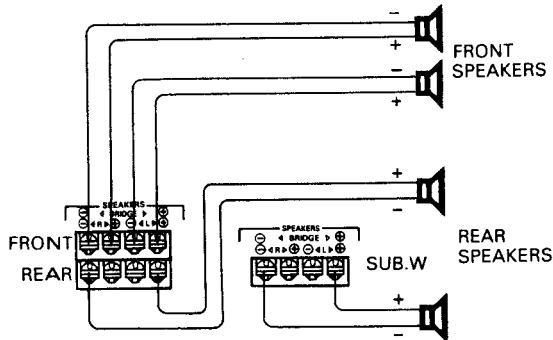
**4 Channel (FRONT × 2 + REAR × 2)**

SWITCHES

INPUT SELECTOR

SUB. W ..... EXT

CROSSOVER ..... OFF



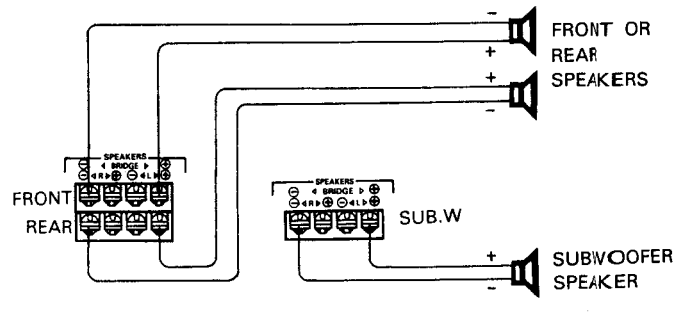
**3 Channel (FRONT OR REAR × 2 + SUB.W × 1)**

SWITCHES

INPUT SELECTOR

SUB. W ..... INT

CROSSOVER ..... ON



**SPECIFICATIONS**

• Power Output

**6 Channel**

50 W × 6  
(1 kHz/4 ohms, 1% T.H.D.)

45 W × 6  
(20 Hz ~ 20 kHz/4 ohms, 0.1% T.H.D.)

**3 Channel**

100 W × 3  
(1 kHz/4 ohms, 1% T.H.D.)

• Frequency Response

5 Hz ~ 100 kHz (-3 dB)

• Signal to Noise Ratio

100 dB (IHF A weighted)

• Input Sensitivity/

**Impedance**

100 mV ~ 2 V (Variable)/

10 k ohms

• Speaker Impedance

4/2 ohms

• Dimensions (W × H × D)

360 mm × 60 mm × 290 mm  
(14-11/64" × 2-23/64" × 11-27/64")

• Weight

5.7 kg (12 lbs 9 oz)

**PRECAUTIONS**

1. DENON Power Amplifier DCA-800 is only available for use in negative (-) ground automobiles. It cannot be used on positive (+) ground automobiles.
2. DENON Power Amplifier DCA-800 will operate properly with 14.4 V (11 V ~ 16 V) car batteries. You cannot use it on 24 V or other types of car batteries.
3. To reduce the risk of electric shock, do not remove the cover. No user serviceable parts inside. Refer servicing to qualified service personnel.
4. Do not allow any liquid or small objects to get inside the unit.
5. Please keep the warranty and the instruction manual for your further reference.

**FOR YOUR RECORDS**

Please record the serial number of your unit in the space provided below and keep it as a permanent record. The serial number is indicated on the bottom of the unit.

You will need the serial number, if the need for service should arise.

Model DCA-800

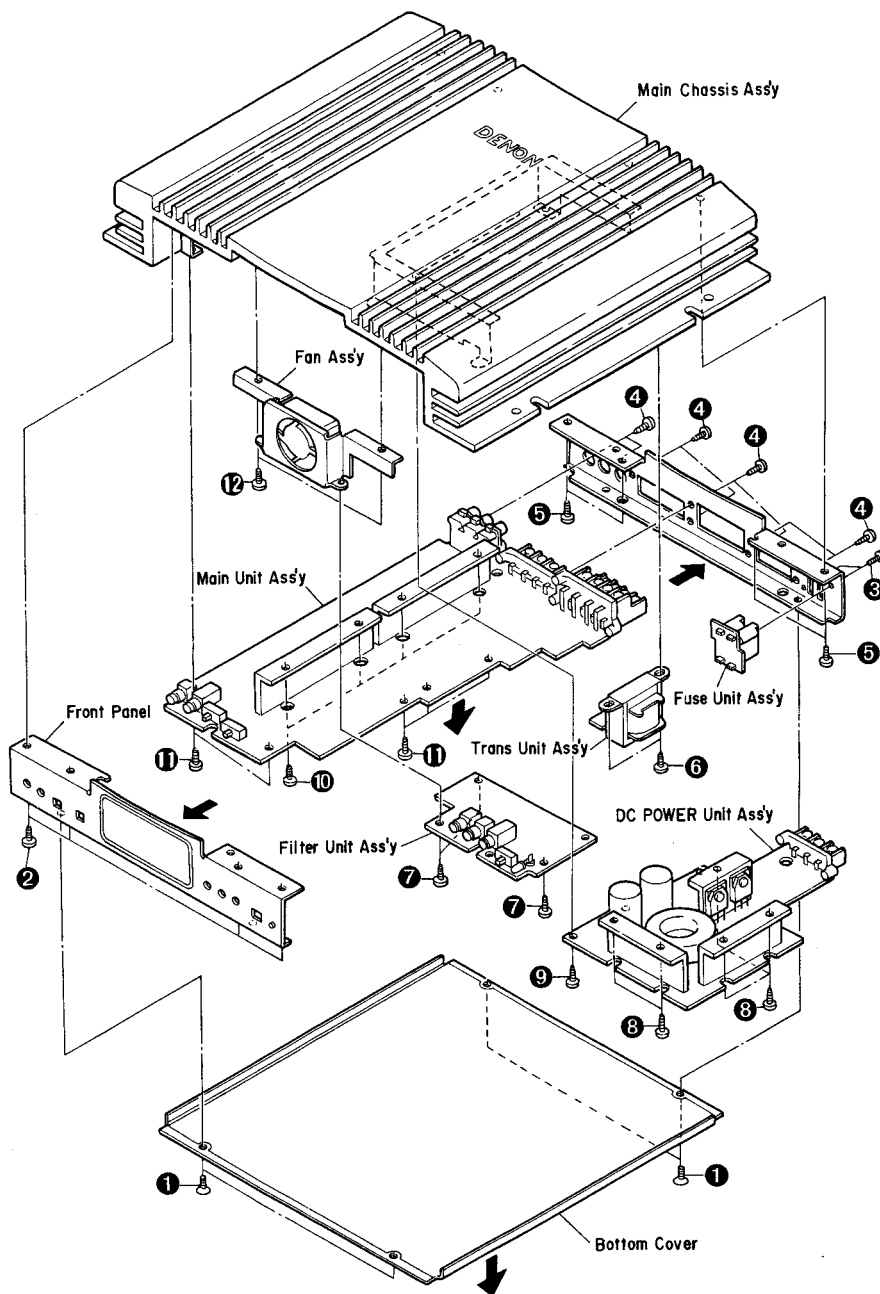
Serial Number \_\_\_\_\_

REMOVAL OF EACH SECTION

- (1) Remove 4 tapping screws ① out of Bottom Cover, and remove Bottom Cover as arrow shows.
- (2) Remove 4 bind screws ②, and remove Front Panel as arrow shows.
- (3) Remove 8 bind screws ④, and remove 4 bind screws ⑤.
- (4) Remove 2 pan screws ③, and remove Fuse Unit Ass'y, then remove Rear Panel as arrow shows.
- (5) Remove 2 bind screws ⑥, then remove Trans Unit Ass'y.

- (6) Remove 3 bind screws ⑦, then remove Filter Unit Ass'y.
- (7) Remove 5 bind screws ⑧ and 8 bind screws ⑨, then remove DC Power Unit Ass'y.
- (8) Remove 4 bind screws ⑩ and 7 bind screws ⑪, then remove Main Unit Ass'y.
- (9) Remove 2 bind screws ⑫, then remove Fan Ass'y.

Note:  
Assemble each unit in reverse order of the disassembly procedure.

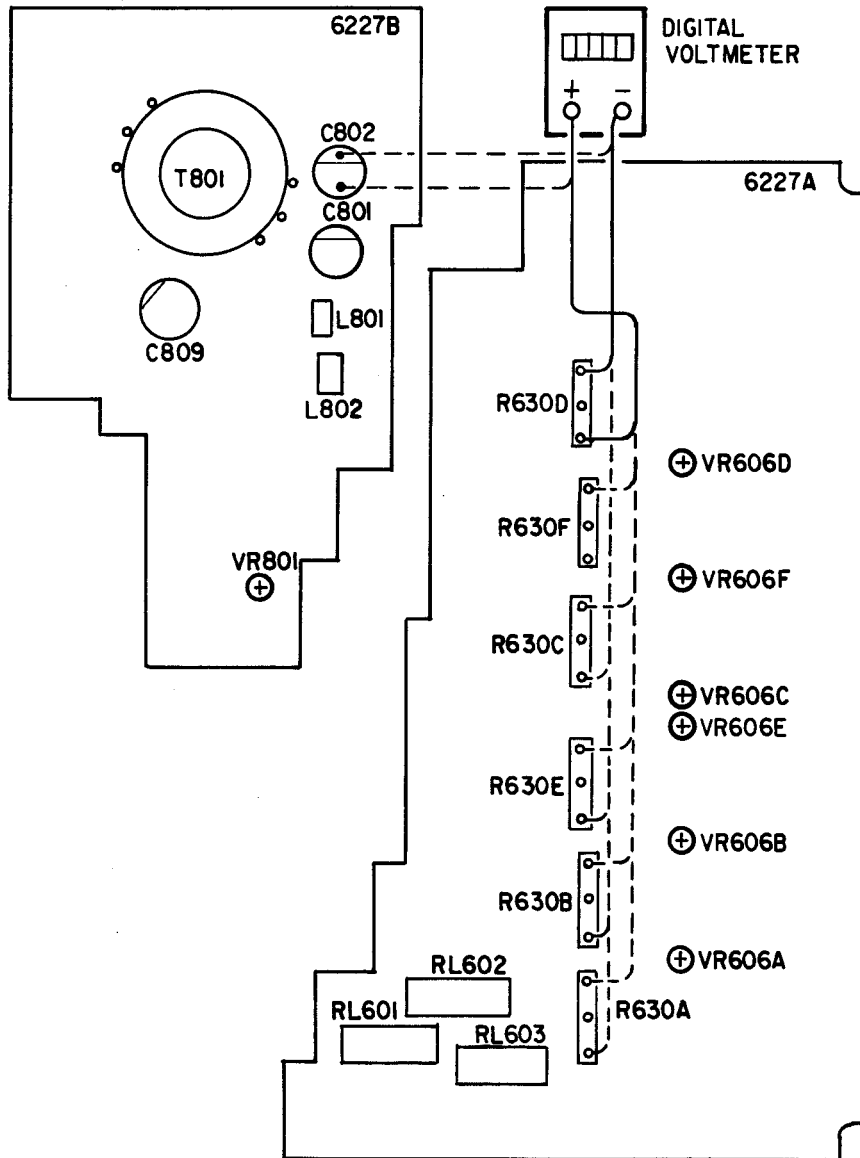


**METHOD OF ADJUSTMENT**

When making adjustments, be sure the power supply is at the rated voltage and the room air is in normal condition with respect to temperature and humidity.

**Secondary Voltage Adjustment**

Adjust VR801 so that the voltage across the both ends of C802 reads  $23.4 \pm 0.2$  V in case 4 ohms STEREO MODE, ACC 14.4 V, No-signal mode.



**Idling Current Adjustment**

Under the state of power voltage 14.4 V and no load, connect DIGITAL VOLTMETER to R630A, 630B, 630C, 630D, 630E, 630F (0.15Ω × 2) as per the above Figure, within 30 ~ 40 seconds after turning power on, adjust VR606A, B, C, D, E, F so that the voltage across the both ends of the resistor is read 3 mV ~ 15 mV (10 mA ~ 50 mA).



**CIRCUIT DESCRIPTION**

**1. AUDIO SECTION**

① FET Input, FET Output

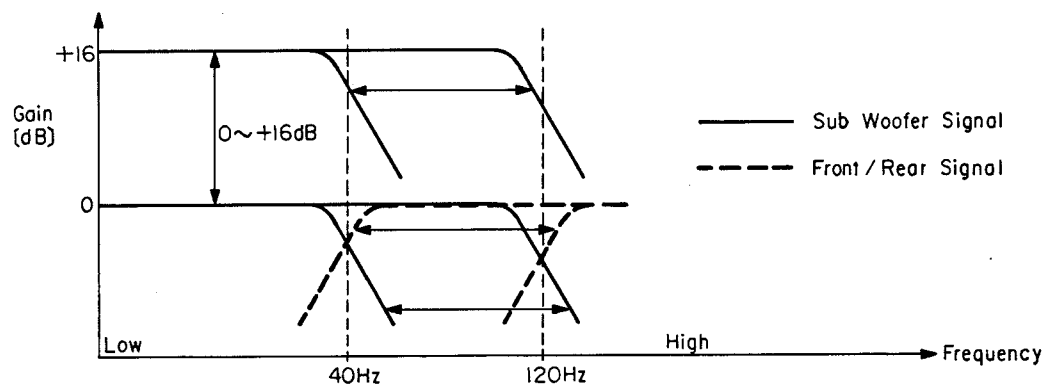
DCA-800 newly employs an operation amplifier which is a J-FET input type accommodating high-through rate digital source in the input first stage of IC601, 602, 603. Also, in the output stage, employs a durable, highly reliable MOS FET which permits high-output sound reproduction having a high-steepened, high-graded quality.

② Sub-woofer

A sub-woofer signal is feasible by using VR603 to boost within the range of 0 ~ +16 dB to make balancing with the other channels when sub-woofer input selector SW601 is set at INT. Also, this signal is processed with a -18 dB/Oct low-pass filter composed of IC606. The filter's cut-off frequency is continuously variable within the range of 40 Hz ~ 120 Hz by VR604. (Fig. 1)

③ Crossover Circuit

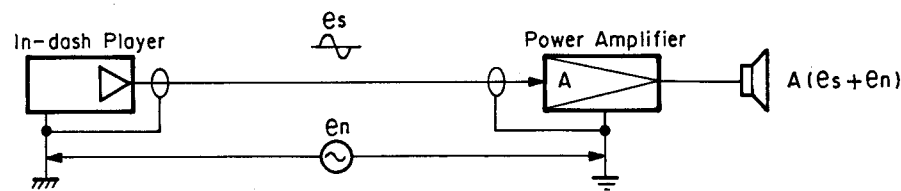
An input signal applied to the front and rear channels can be processed with a -12 dB/Oct high-pass filter which is composed of IC607, 608 by using SW602 at need. The filter's cut-off frequency is continuously variable within the range of 40Hz ~ 120 Hz by VR605. (Fig. 1)



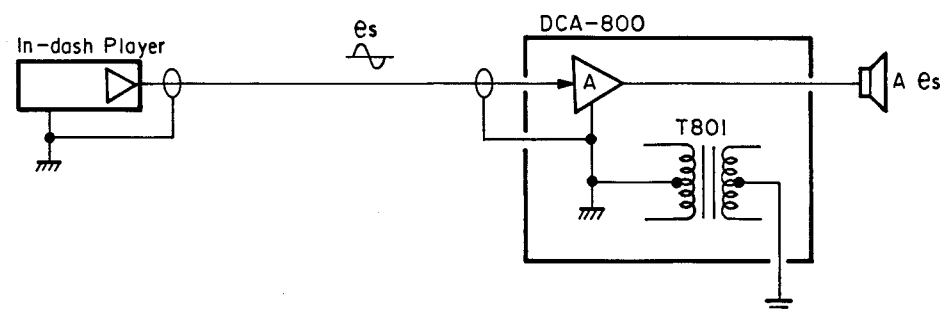
Also, the independence of SW601 and SW602 permits separate controlling of functions ② and ③.

④ Grounding Isolation

As a problem of amplifier to be used for car, the grounding position difference between the amplifier and the in-dash player to be connected invites engine noise(en) overlap in the input signal.



Upon this, for DCA-800, the primary side and secondary side of power supply ground are isolated and the secondary side ground i.e. audio ground to the in-dash player is connected to solve this problem. (Fig. 2)



**2. POWER SUPPLY SECTION**

① Switching Regulator Controlling Circuit

IC801 (μPC494C) is an IC for switching regulator for control of DC-DC converter circuit.

The pulse switching DC-DC converter circuit is output from No. 9 and No. 10 terminals, and is adopting the Fixed Frequency Pulse Width Modulation Method.

When REMOTE turns ON, causing TR818, 819 turn ON and the Pin ⑫ is supplied to the power. Upon the power supplied, the standard voltage (5V) which is built in IC801 emits from Pin ⑭ and impressed to Pin ④ through C808. After that, the voltage at Pin ④ gradually reduces voltage to ground level with the time constant of C808, R817, however, with this effects, the pulse width emitted from the Pins ⑨, ⑩ of IC801 gradually expands.

Accordingly, occurring of rush-current caused by the steep rise of power at REMOTE ON will be prevented. (Soft start)

This number of frequency is determined by C817 and R839.

Voltage fluctuation on the secondary side of DC-DC converter caused by changes of power voltage and load is captured as a current change of photo-coupler (IC802), and the pulse width is changed by feedback of current change to No. 10 terminal via VR801, thus the secondary voltage will be controlled.

② Toroidal Transformer

T801 of this unit is adopting a small, highly efficient toroidal transformer and therefore the stable power voltage can be supplied at the time the output power is high.

**3. COOLING FAN**

A cooling fan is newly employed to this unit. This fan starts running when the heat sink temperature becomes approx. 70°C to lower the temperature inside of the unit, thus each part of amplifier can perform stable functions.

**4. PROTECTOR CIRCUIT**

① Protection of Speaker

IC614 (μPC1237) searches various abnormalities and executes protective operations.

● Overload Censoring

When shortcircuit or overload of speaker terminals occurs, current at (R630A (B, C, D, E, F) increases causing voltage rise of this resistance, and TR606A (B, C, D, E, F) turns ON. After this, due to turning ON of TR608, voltage at No. 6 terminal of IC614 increases by approximately 24V, and relay (RL601) turns OFF and separates the speaker from the amplifier.

● DC Voltage Sensoring

Speaker terminal voltage is normally approximately 0V (DC). However, when DC voltage comes out due to some accident, the speaker is separated to prevent from breakage or burning damage.

If DC voltage appears on the speaker terminal, it will be added to No. 2 terminal of IC614, and the voltage at No. 6 terminal is raised up to approximately 24V, thus the relay (RL601, 602, 603) turns OFF.

● Acc OFF Sensoring

Acc voltage is sensorate via R643, ZD605 which are connected to No. 4 terminal of IC606, and the relay (RL601, 602, 603) rapidly turns OFF as soon as Acc becomes OFF.

② Thermal Protection

When temperature inside the unit rises, resistance of thermistor (TH802) is weakened and TR802 becomes ON, then IC801 stops. In case of abnormal high temperature, resonance of IC801 stops and then DC-DC converter circuit will be closed.

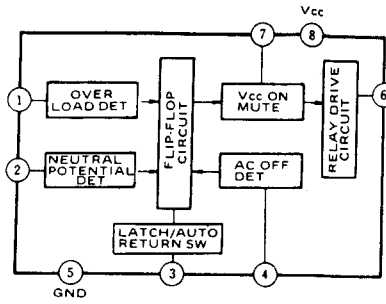
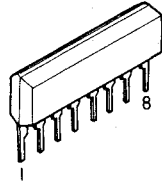
③ Protection Against at Excess of Primary Voltage

If a 16V or higher voltage applies to the battery terminal should happen, the voltage is impressed to TR817 via ZD801, R841 and TR817, 816 make conduct. Then, IC801 stops the output to protect against abnormal rise of the secondary side voltage and breakdown.

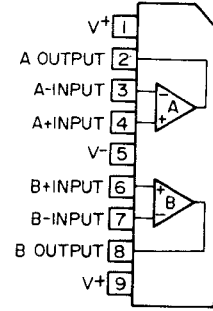
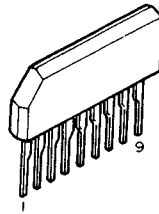
SEMICONDUCTORS

• IC's

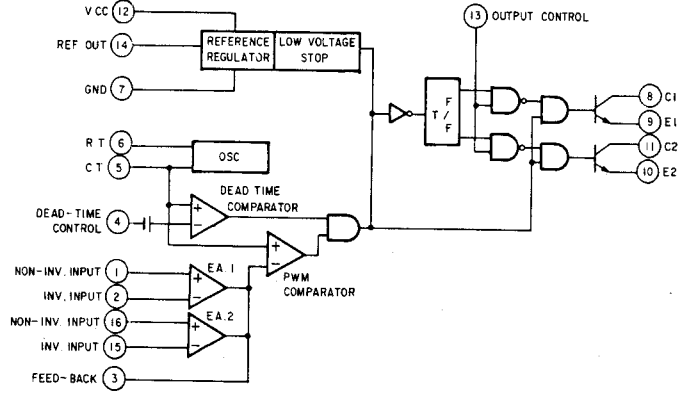
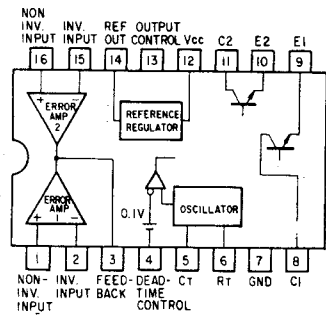
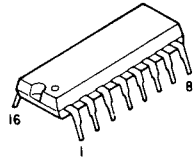
μPC1237H  
(IC614)



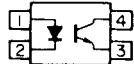
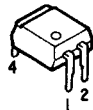
NJM072  
(IC601-603)  
NJM2068SD  
(IC604,606-613)



μPC494C  
(IC801)

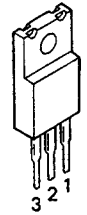


PC817  
(IC802)



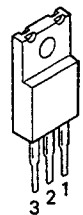
1 Anode  
2 Cathode  
3 Emitter  
4 Collector

MJM78M12  
(IC616)



1: Output  
2: Input  
3: GND

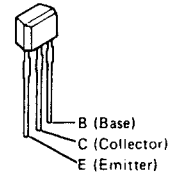
NJM79M12  
(IC615)



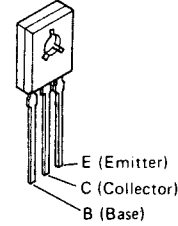
1: Output  
2: GND  
3: Input

• TRANSISTORS

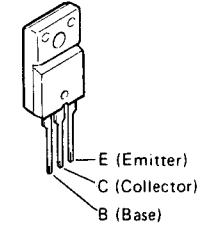
2SA1175 (E/F/K)  
2SC2785 (E/F/K)



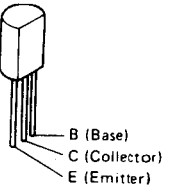
2SB1007 (Q/R)



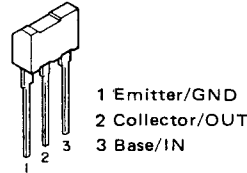
2SC4495



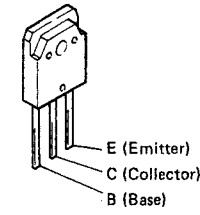
2SC1627A(O/Y)



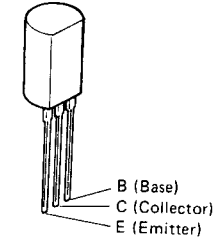
2SA1559  
2SC4037



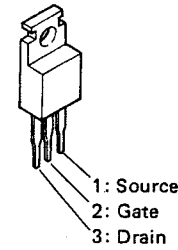
2SD1065 (R/S)



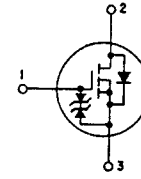
2SA817A (O/Y)



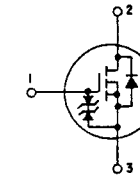
2SJ174  
2SK1296



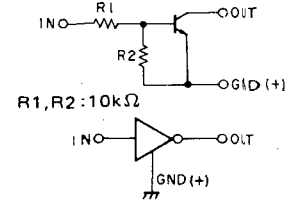
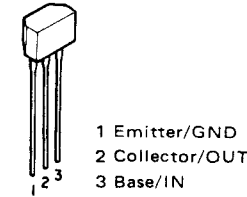
2SJ174



2SK1296

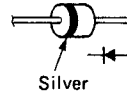


DTA114ES

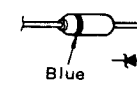


• DIODES (Including LED)

6A2



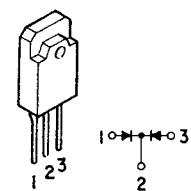
MTZ16B  
MTZ6.8B  
MTZ8.2B  
MTZ27B  
MTZ6.2B  
MTZ12B



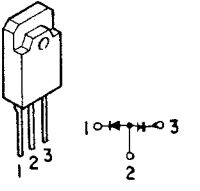
1SS136



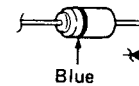
CTG33S



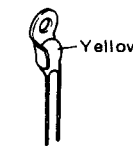
CTG33R



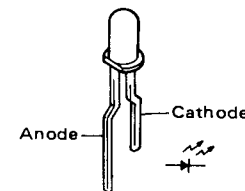
RD12F,B1



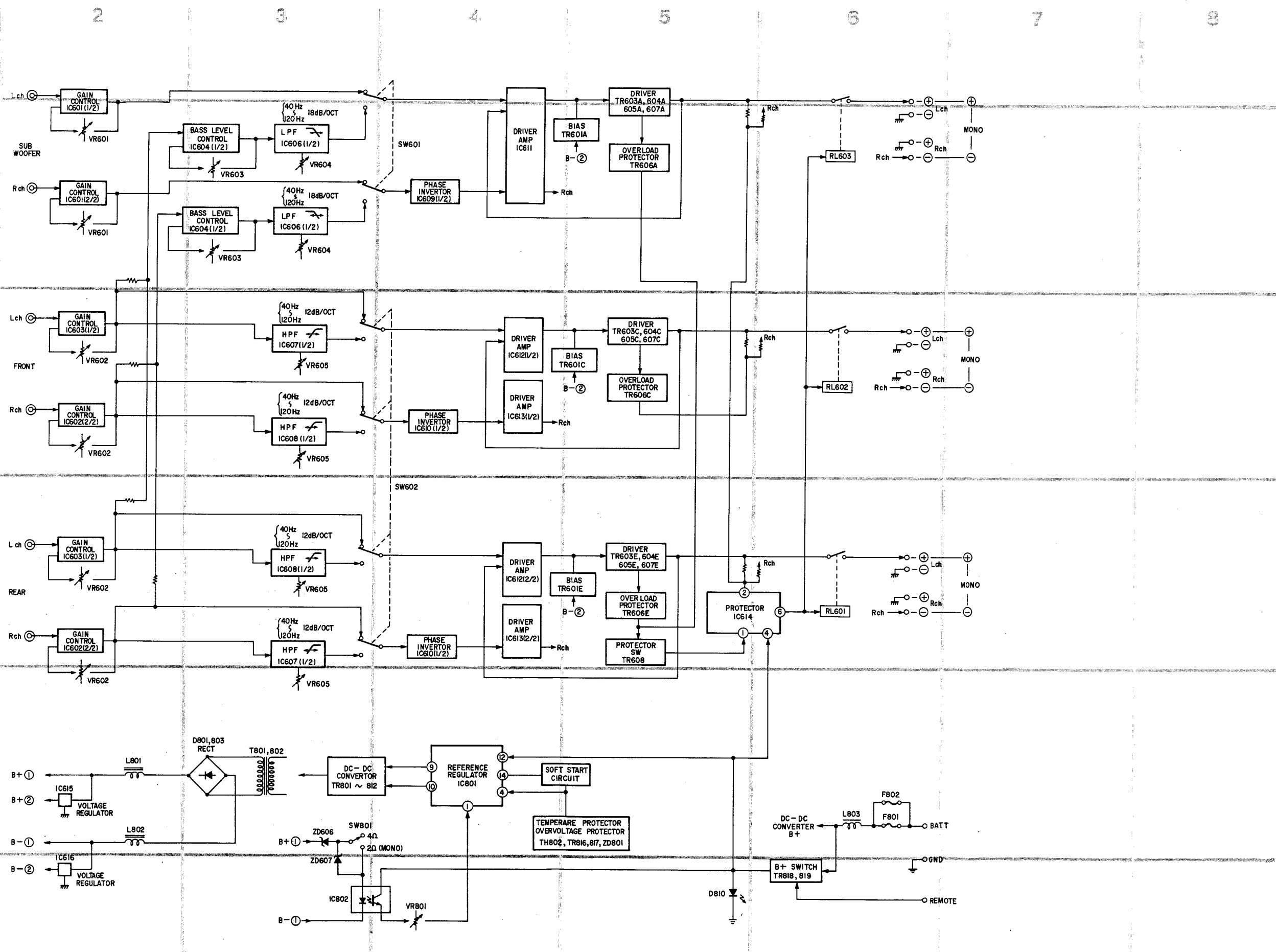
(Posistor)  
PTH487-471BD



(LED)  
GL-5PR8



BLOCK DIAGRAM



PRINTED WIRING BOARD AND PARTS LIST  
P.W.B. UNIT

Pattern Side

IC601-604,  
IC606-610

Pin	Voltage
1	0V
2	0V
3	0V
4	0V
5	1.9V
6	0V
7	0V
8	0V
9	0V

IC801

Pin	Voltage
1	2.6V
2	2.6V
3	3.4V
4	0V
5	1.9V
6	3.8V
7	0V
8	13.5V
9	0.9V
10	0.9V
11	13.5V
12	0V
13	5.0V
14	5.0V
15	5.0V
16	0V

IC611

Pin	Voltage
1	0V
2	3.4V
3	0V
4	0V
5	0V
6	0V
7	0V
8	0V
9	0V

IC802

Pin	Voltage
1	0V
2	0V
3	0V
4	0V

IC612

Pin	Voltage
1	0V
2	3.4V
3	0V
4	0V
5	0V
6	0V
7	0V
8	3.4V
9	0V

IC613

Pin	Voltage
1	0V
2	0V
3	0V
4	0V
5	0V
6	0V
7	0V
8	0V
9	0V

IC614

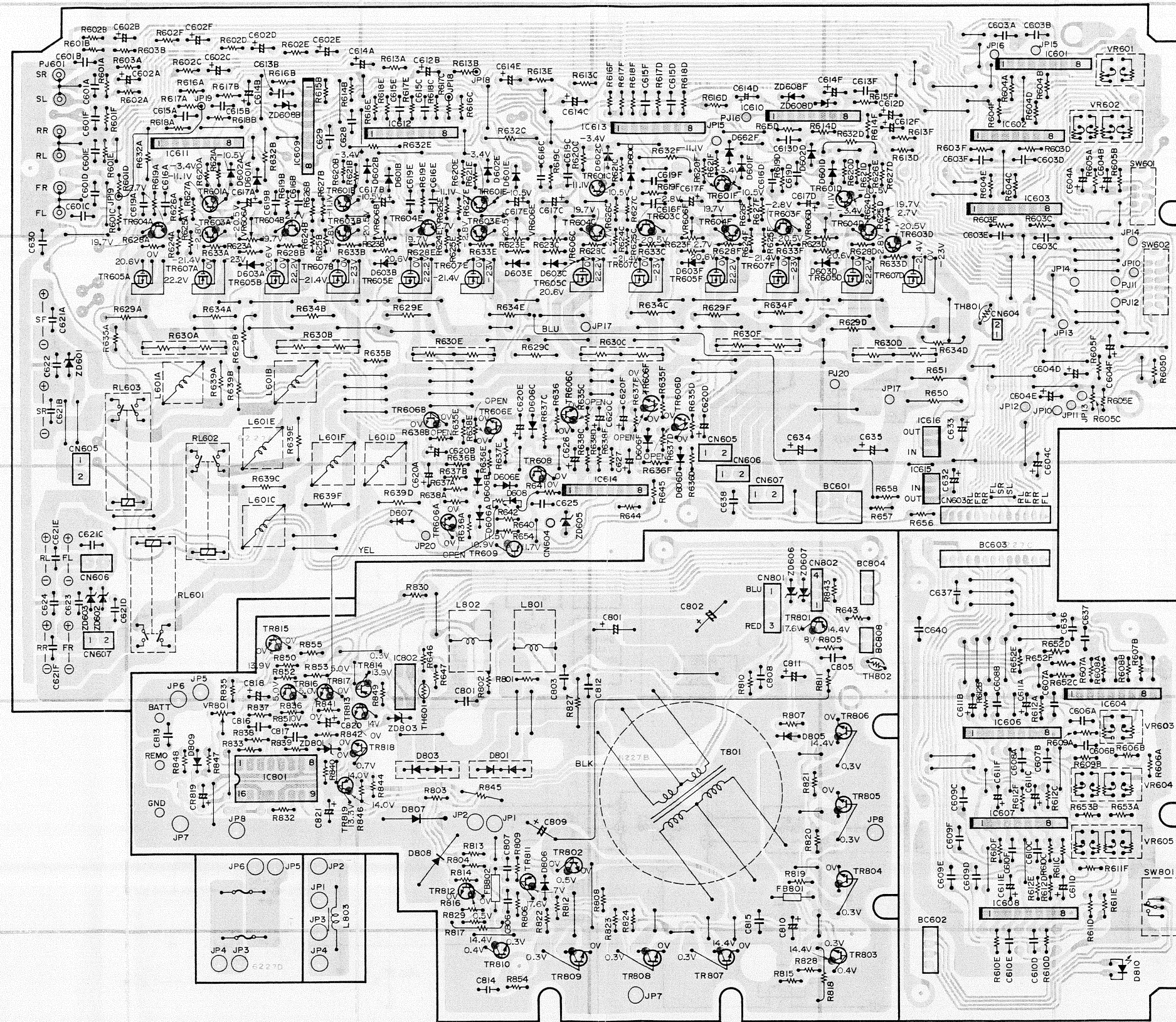
Pin	Voltage
1	0V
2	0V
3	0V
4	2.9V
5	0V
6	0.7V
7	2.1V
8	3.4V

IC615

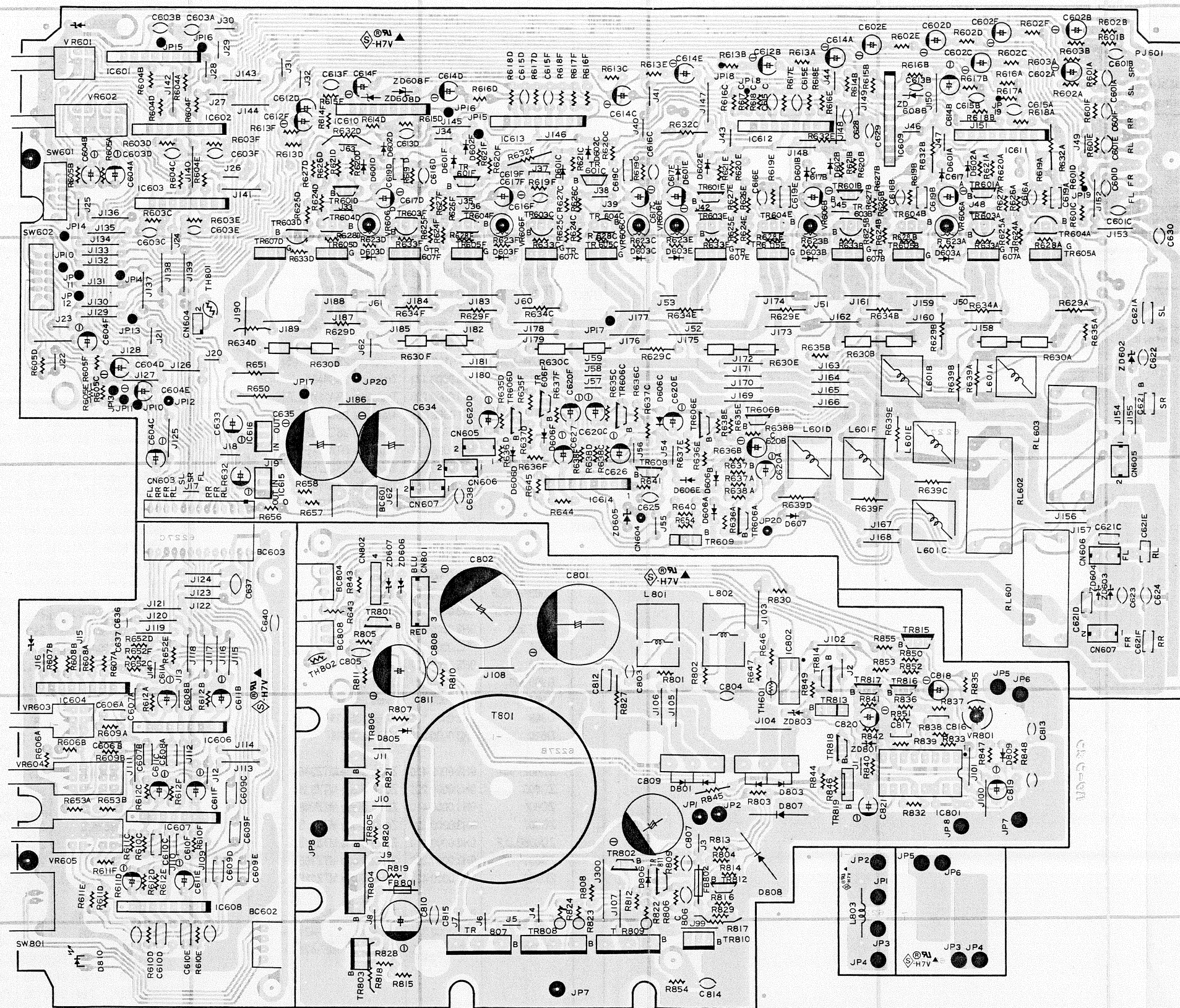
Pin	Voltage
1	-11.8V
2	-22.5V
3	0V

IC616

Pin	Voltage
1	11.7V
2	0V
3	20.6V



Component Side



PRINTED WIRING BOARD PARTS LIST

Ref. No.	Part No.	Part Name	Remarks	Ref. No.	Part No.	Part Name	Remarks	
<b>SEMICONDUCTORS GROUP</b>				<b>RESISTORS GROUP</b>				
IC601-603	9H3 0000 329	IC NJM072SD	Regulator Regulator	R601A-601F	241 2401 017	Carbon Film 12kohm, 1/6W	RD14B-123J	
IC604	9H3 0000 179	IC NJM2068SD		R602A-602F	241 2398 052	Carbon Film 1kohm, 1/6W	RD14B-102J	
IC606-613	9H3 0000 179	IC NJM2068SD		R603A-603F	241 2403 031	Carbon Film 100kohm, 1/6W	RD14B-104J	
IC614	263 0209 004	IC $\mu$ PC1237HA		R604A-604F	241 2397 079	Carbon Film 470ohm, 1/6W	RD14B-471J	
IC615	263 0539 004	IC NJM79M12FA		R605A-605F	241 2403 031	Carbon Film 100kohm, 1/6W	RD14B-104J	
IC616	263 0571 004	IC NJM78M12FA		R606A,606B	241 2400 092	Carbon Film 10kohm, 1/6W	RD14B-103J	
IC801	262 0832 009	IC $\mu$ PC494C		R607A,607B	241 2399 006	Carbon Film 1.6kohm, 1/6W	RD14B-162J	
IC802	9H3 0000 178	PHC PC817B		R608A,608B	241 2403 031	Carbon Film 100kohm, 1/6W	RD14B-104J	
					R609A,609B	241 2401 017	Carbon Film 12kohm, 1/6W	RD14B-123J
					R610C-610F	241 2400 017	Carbon Film 12kohm, 1/6W	RD14B-123J
TR601A-601F	273 0366 009	Transistor 2SC2785(E/F/K)	R611C-611F	241 2401 017	Carbon Film 12kohm, 1/6W	RD14B-123J		
TR603A-603F	9H3 0000 222	Transistor 2SA817A(O/Y)	R612A-612F	241 2403 031	Carbon Film 100kohm, 1/6W	RD14B-104J		
TR604A-604F	9H3 0000 225	Transistor 2SC1627A(O/Y)	R613A-613F	241 2403 031	Carbon Film 100kohm, 1/6W	RD14B-104J		
TR605A-605F	9H3 0000 324	FET 2SJ174	R614B,D,F	241 2400 092	Carbon Film 10kohm, 1/6W	RD14B-103J		
TR606A-606F	273 0366 099	Transistor 2SC2785(E/F/K)	R615B,D,F	241 2400 092	Carbon Film 10kohm, 1/6W	RD14B-103J		
TR607A-607F	9H3 0000 325	FET 2SK1296	R616A-616F	241 2398 010	Carbon Film 680ohm, 1/6W	RD14B-681J		
TR608	269 0046 003	Transistor DTA114ES	R617A-617F	241 2400 018	Carbon Film 4.7kohm, 1/6W	RD14B-472J		
TR609	9H3 0000 406	Transistor 2SA1559	R618A-618F	241 2398 010	Carbon Film 680ohm, 1/6W	RD14B-681J		
TR801	9H3 0000 223	Transistor 2SA1175(E/F/K)	R619A-619F	241 2400 018	Carbon Film 4.7kohm, 1/6W	RD14B-472J		
TR802	273 0366 009	Transistor 2SC2785(E/F/K)	R620A-620F	241 2398 052	Carbon Film 1kohm, 1/6W	RD14B-102J		
TR803	9H3 0000 171	Transistor 2SC4495	R621A-621F	241 2400 018	Carbon Film 4.7kohm, 1/6W	RD14B-472J		
TR804-809	274 0139 006	Transistor 2SD1065(R/S)	R623A-623F	241 2400 018	Carbon Film 4.7kohm, 1/6W	RD14B-472J		
TR810	9H3 0000 171	Transistor 2SC4495	R624A-624F	241 2396 067	Carbon Film 150ohm, 1/6W	RD14B-151J		
TR811	9H3 0000 223	Transistor 2SA1175(E/F/K)	R625A-625F	241 2396 067	Carbon Film 150ohm, 1/6W	RD14B-151J		
TR812	273 0366 009	Transistor 2SC2785(E/F/K)	R626A-626F	241 2396 067	Carbon Film 150ohm, 1/6W	RD14B-151J		
TR813	9H3 0000 407	Transistor 2SC4037	R627A-627F	241 2396 067	Carbon Film 150ohm, 1/6W	RD14B-151J		
TR814	269 0046 003	Transistor DTA114ES	R628A-628F	241 2396 025	Carbon Film 100ohm, 1/6W	RD14B-101J		
TR815	273 0366 009	Transistor 2SC2785(E/F/K)	R629A-629F	241 2370 009	Carbon Film 180ohm, 1/4W	RD14B2E181J		
TR816	269 0046 003	Transistor DTA114ES	R630A-630F	9H3 0000 167	Plater 0.15ohm, 2W			
TR817,818	273 0366 009	Transistor 2SC2785(E/F/K)	R632A-632F	9H3 0000 165	Carbon Film 10ohm, 1/2W	RD14B2H10J		
TR819	9H3 0000 322	Transistor 2SB1007(Q/R)	R633A-633F	241 2396 025	Carbon Film 100ohm, 1/6W	RD14B-101J		
D601A-601F	9H3 0000 101	Diode 1SS136	R634A-634F	241 2370 009	Carbon Film 180ohm, 1/4W	RD14B2E181J		
D602A-602F	9H3 0000 101	Diode 1SS136	R635A-635F	241 2397 079	Carbon Film 470ohm, 1/6W	RD14B-471J		
D603A-603F	9H3 0000 101	Diode 1SS136	R636A-636F	241 2399 064	Carbon Film 3.3kohm, 1/6W	RD14B-332J		
D606A-606F	9H3 0000 101	Diode 1SS136	R637A-637F	241 2400 092	Carbon Film 10kohm, 1/6W	RD14B-103J		
D607,608	9H3 0000 101	Diode 1SS136	R638A-638F	241 2403 031	Carbon Film 100kohm, 1/6W	RD14B-104J		
D801	9H3 0000 326	Diode CTG33S	R639A-639F	241 2314 049	Carbon Film 10ohm, 1/4W	RD14B2E10J		
D803	9H3 0000 327	Diode CTG33R	R640	241 2399 035	Carbon Film 2.2kohm, 1/6W	RD14B-222J		
D805,806	9H3 0000 101	Diode 1SS136	R641	241 2402 058	Carbon Film 47kohm, 1/6W	RD14B-473J		
D807,808	9H3 0000 174	Diode 6A2	R642	241 2400 092	Carbon Film 10kohm, 1/6W	RD14B-103J		
D809	9H3 0000 101	Diode 1SS136	R643	241 2400 018	Carbon Film 4.7kohm, 1/6W	RD14B-472J		
D810	9H3 0000 328	LED GL-5PR8	R644	241 2402 058	Carbon Film 47kohm, 1/6W	RD14B-473J		
			R645	241 2400 018	Carbon Film 4.7kohm, 1/6W	RD14B-472J		
ZD602-604	9H3 0000 410	Zener Diode MTZ24B	R646,647	241 2399 077	Carbon Film 3.3kohm, 1/6W	RD14B-332J		
ZD605	9H3 0000 227	Zener Diode MTZ6.2B	R650,651	9H3 0000 165	Carbon Film 10ohm, 1/2W	RD14B2H10J		
ZD606	9H3 0000 410	Zener Diode MTZ24B	R652C,D,E,F	241 2400 092	Carbon Film 10kohm, 1/6W	RD14B-103J		
ZD607	9H3 0000 229	Zener Diode MTZ11B	R653A,B	241 2400 092	Carbon Film 10kohm, 1/6W	RD14B-103J		
ZD608B,D,F	9H3 0000 410	Zener Diode MTZ24B	R654	241 2398 010	Carbon Film 680ohm, 1/6W	RD14B-681J		
ZD801	9H3 0000 230	Zener Diode MTZ16B	R656	241 2407 008	Carbon Film 1ohm 1/6W	RD14B-010J		
ZD803	9H3 0000 409	Zener Diode MTZ12B	R657,658	241 2400 018	Carbon Film 4.7kohm, 1/6W	RD14B2E47J		
			R801,802	241 2397 008	Carbon Film 220ohm, 1/6W	RD14B-221J		
TH601	9H3 0000 168	Thermistor TD5-C320	R803,804	241 2403 031	Carbon Film 100kohm, 1/6W	RD14B-104J		
TH801	9H3 0000 321	Posistor PTH487-471BG	R805,806	241 2402 058	Carbon Film 47kohm, 1/6W	RD14B-473J		
TH802	276 0416 026	Posistor PTH487-471BD	R807,808	241 2400 092	Carbon Film 10kohm, 1/6W	RD14B-103J		
			R809,810	241 2402 058	Carbon Film 47kohm, 1/6W	RD14B-473J		
			R811,812	241 2400 092	Carbon Film 10kohm, 1/6W	RD14B-103J		

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 "1" (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  $\pm 5\%$ , 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: 1/4W	F: $\pm 1\%$	P: Pulse-resistant type		
RC: Fixed	2E: 1/4W	G: $\pm 2\%$	NL: Low noise type		
RS: Metallic film	2H: 1/2W	J: $\pm 5\%$	NB: Non-burning type		
RW: Winding	3A: 1W	K: $\pm 10\%$	FR: Fuse resistor		
RN: Metal film	3D: 2W	M: $\pm 20\%$	F: Lead wire forming		
RK: Metal mixture	3F: 3W				
	3H: 5W				

**Resistance**  
1 8 2  $\Rightarrow$  1800 $\Omega$  = 1.8k $\Omega$   
Indicates number of zeros after effective number  
2-digit effective number, decimal point indicated by R.  
Units:  $\Omega$

Capacitors

Ex.: CE 04W 1H 2R2 M BP

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

**Capacity**  
2 R 2  $\Rightarrow$  2.2 $\mu F$   
1-digit effective number, decimal point indicated by R.  
2-digit effective number, decimal point indicated by R.  
Units:  $\mu F$ , (for P, pF ( $\mu\mu F$ ))  
When the dielectric strength is indicated in AC, "AC" is included after the dielectric strength value.

Ref. No.	Part No.	Part Name	Remarks
R813-816	241 2397 040	Carbon Film 330ohm, 1/6W	RD14B-331J
▲ R817,818	244 2051 945	Metal Oxide 10ohm, 1W	RS14B3A100JNB
R819-824	241 2369 010	Carbon Film 1ohm, 1/4W	RD14B2E010J
R827	9H3 0000 166	Carbon Film 180ohm, 1/2W	RD14B2H181JS
R828,829	241 2397 008	Carbon Film 220ohm, 1/6W	RD14B-221J
R830	241 2399 035	Carbon Film 2.2kohm, 1/6W	RD14B-222J
R832	241 2397 008	Carbon Film 220ohm, 1/6W	RD14B-221J
R833	241 2400 018	Carbon Film 4.7kohm, 1/6W	RD14B-472J
R835	241 2398 052	Carbon Film 1kohm, 1/6W	RD14B-102J
R836	241 2400 018	Carbon Film 4.7kohm, 1/6W	RD14B-472J
R837	241 2401 059	Carbon Film 18kohm, 1/6W	RD14B-183J
R838	241 2403 031	Carbon Film 100kohm, 1/6W	RD14B-104J
R839	241 2401 059	Carbon Film 18kohm, 1/6W	RD14B-183J
R840	241 2397 008	Carbon Film 220ohm, 1/6W	RD14B-221J
R841	241 2400 092	Carbon Film 10kohm, 1/6W	RD14B-103J
R842	241 2400 018	Carbon Film 4.7kohm, 1/6W	RD14B-472J
R843,844	241 2399 035	Carbon Film 2.2kohm, 1/6W	RD14B-222J
R845	241 2314 049	Carbon Film 10ohm, 1/4W	RD14B2E100JS
R846	241 2398 010	Carbon Film 680ohm, 1/6W	RD14B-681J
R847	241 2401 059	Carbon Film 18kohm, 1/6W	RD14B-183J
R848	241 2400 092	Carbon Film 10kohm, 1/6W	RD14B-103J
R849	241 2398 010	Carbon Film 680ohm, 1/6W	RD14B-681J
R850	241 2399 077	Carbon Film 3.3kohm, 1/6W	RD14B-332J
R851,852	241 2400 018	Carbon Film 4.7kohm, 1/6W	RD14B-472J
R853,854	241 2400 092	Carbon Film 10kohm, 1/6W	RD14B-103J
R855	241 2399 035	Carbon Film 2.2kohm, 1/6W	RD14B-222J
VR601	9H3 0000 180	Variable Resistor 10kohm×2	
VR602	9H3 0000 330	Variable Resistor 10kohm×4	
VR603	9H3 0000 180	Variable Resistor 10kohm×2	
VR604	9H3 0000 331	Variable Resistor 20kohm×4	
VR605	9H3 0000 331	Variable Resistor 20kohm×4	
VR606A-606F	9H3 0000 241	Semi Fixed Resistor 10kohm-B	
VR801	9H3 0000 182	Semi Fixed Resistor 10kohm-B	
<b>CAPACITORS GROUP</b>			
C601A-601F	253 1001 000	Ceramic 330pF/50V	CK45B1H331K
C602A-602F	9H3 0000 292	Electrolytic 10μF/35V (KME)	CE04W1V100M
C603A-603F	253 1055 069	Ceramic 100pF/50V	CK45B1H101K
C604A-604F	9H3 0000 292	Electrolytic 10μF/35V (KME)	CE04W1V100M
C606A,B	236 1035 004	Metalized 0.18μF/50V	CF93A1H184K
C607A,B	256 1035 046	Metalized 0.39μF/50V	CF93A1H394K
C608A,B	256 1034 005	Metalized 0.027μF/50V	CF93A1H273K
C609C-609F	256 1035 004	Metalized 0.18μF/50V	CF93A1H184K
C610C-610F	256 1035 004	Metalized 0.18μF/50V	CF93A1H184K
C611A-611F	9H3 0000 292	Electrolytic 10μF/35V (KME)	CE04W1V100M
C612B,D,F	9H3 0000 292	Electrolytic 10μF/35V (KME)	CE04W1V100M
C613B,D,F	253 4536 080	Ceramic 22pF/50V	CC45SL1H220K
C614A-614F	9H3 0000 292	Electrolytic 10μF/35V (KME)	CE04W1V100M
C615A-615F	253 1001 000	Ceramic 330pF/50V	CK45B1H331K
C616A-616F	253 1055 069	Ceramic 100pF/50V	CK45B1H101K
C617A-617F	9H3 0000 296	Electrolytic 2.2μF/50V (KME)	CE04W1H2R2M

Ref. No.	Part No.	Part Name	Remarks
C619A-619F	255 1013 007	Film 0.1μF/50V	CQ93M1H104K
C620A-620F	9H3 0000 296	Electrolytic 2.2μF/50V (KME)	CE04W1H2R2M
C621A-621F	253 1140 006	Film 0.001μF/50V	CQ93M1H102K
C622-625	253 9037 005	Ceramic 0.1μF/25V	CK45F1E104Z
C626	9H3 0000 293	Electrolytic 100μF/6.3V (KME)	CE04W0J101M
C627	9H3 0000 405	Electrolytic 47μF/10V (KME)	CE04W1A470M
C628,629	253 9037 005	Ceramic 0.1μF/25V	CK45F1E104Z
C630	253 3627 000	Ceramic 100pF/50V	CC45SL1H101J
C632,633	9H3 0000 403	Electrolytic 100μF/16V (KME)	CE04W1C101M
C634,635	9H3 0000 314	Electrolytic 3300μF/25V (KMG)	CE04W1E332M
C636-638	253 9037 005	Ceramic 0.1μF/25V	CK45F1E104Z
C801,802	9H3 0000 319	Electrolytic 6800μF/25V (KMT)	CE04W1E682M
C803,804	253 1001 000	Ceramic 330pF/50V	CK45B1H331K
C805,806	253 1004 007	Ceramic 1000pF/50V	CK45B1H102K
C807,808	253 3627 000	Ceramic 100pF/50V	CC45SL1H101K
C809	9H3 0000 318	Electrolytic 3900μF/16V (SXE)	CE04W1C392M
C810	9H3 0000 320	Electrolytic 82μF/16V (SXE)	CE04W1C820M
C811	9H3 0000 317	Electrolytic 2200μF/16V (SXE)	CE04W1C222M
C812	255 1001 006	Film 0.001μF/50V	CQ93M1H102K
C813,814	253 1024 003	Ceramic 0.01μF/50V	CK45F1H103Z
C815	253 9037 005	Ceramic 0.1μF/25V	CK45F1E104Z
C816	255 1013 007	Film 0.01μF/50V	CQ93M1H103K
C817	255 1001 006	Film 0.001μF/50V	CQ93M1H102K
C818	254 4258 015	Electrolytic 100μF/6.3V (KME)	CE04W0J101M
C819	9H3 0000 292	Electrolytic 10μF/35V (KME)	CE04W1V100M
C820	254 4261 073	Electrolytic 2.2μF/50V (KME)	CE04W1H2R2M
C821	9H3 0000 403	Electrolytic 100μF/16V (KME)	CE04W1C101M
<b>OTHER PARTS</b>			
			<b>Q'ty</b>
			(P.W.BOARD)
L601A-601F	9H3 0000 339	Choke Coil 1μH	(1)
L801,802	9H3 0000 338	Choke Coil 1μH	6
FB801,802	9H3 0000 336	Ferrite Core FBA04HAF	2
BC601	9H3 0000 360	3P VH Connector	1
BC602	205 0234 044	4P EH Connector	1
BC603	9H3 0000 363	13P PH Connector	1
BC804	205 0234 057	5P EH Connector	1
BC808	9H3 0000 359	2P XH Connector	1
CN603	9H3 0000 348	13P DA-KR Connector Cord	1
CN604	9H3 0000 349	2P SCN-EH Connector Cord	1
CN605	9H3 0000 346	2P JE-JE Connector Cord	1
CN606	9H3 0000 346	2P JE-JE Connector Cord	1
CN607	9H3 0000 346	2P JE-JE Connector Cord	1
CN801	9H3 0000 347	3P VH-JE Connector Cord	1
CN802	9H3 0000 345	4P SCN-EH Connector Cord	1
JP1,2		1P SIN-SIN Cord	Black l=80 2
JP3,4		1P SIN-SIN Cord	Black l=95 2
JP5,6		1P SIN-SIN Cord	Black l=80 2
JP7	9H3 0000 350	1P SIN-SIN Cord	Black l=160 1
JP8	9H3 0000 353	1P SIN-SIN Cord	Black l=260 1

EXPLODED VIEW PARTS LIST

Ref. No.	Part No.	Part Name	Remarks	Q'ty
1	9H3 0000 310	Heat Sink (A) Ass'y		2
2	9H3 0000 311	Heat Sink (B) Ass'y		1
3	9H3 0000 312	Heat Sink (C) Ass'y		2
★ 4	9H3 0000 184	UL Tube φ1×30 (Black)		4
△ 5	9H3 0000 186	Fuse Socket		2
6	9H3 0000 343	3P Terminal		1
7	9H3 0000 192	4P Speaker Terminal		1
8	9H3 0000 344	8P Terminal		1
9	9H3 0000 354	Insulating Sheet (B)		1
10	9H3 0000 355	Insulating Cool (A)		2
11	9H3 0000 356	Insulating Mica (C)		2
12	9H3 0000 357	LED Mold		1
★ 13	9H3 0000 199	Mold Blinder		4
14	9H3 0000 268	RCA Jack		1
★ 15	214 0086 005	Relay G5R-2232P (DC-12V)		3
16	9H3 0000 334	Slide Switch 2-2	(SW601)	1
17	9H3 0000 333	Slide Switch 4-2	(SW602)	1
18	9H3 0000 335	Switch 1-2	(SW801)	1
△ 19	9H3 0000 341	Power Trans		1
20	9H3 0000 180	Variable Resistor 10kohm×2	(VR601)	1
21	9H3 0000 330	Variable Resistor 10kohm×4	(VR602)	1
22	9H3 0000 180	Variable Resistor 10kohm×2	(VR603)	1
23	9H3 0000 331	Variable Resistor 20kohm×4	(VR604)	1
24	9H3 0000 331	Variable Resistor 20kohm×4	(VR605)	1
25	9H3 0000 313	Heat Sink IC	(IC616)	1
⊙ 26	9H3 0000 364	Main Chassis		1
27	9H3 0000 365	Bottom Plate		1
28	9H3 0000 366	Punching Metal		1
29	9H3 0000 367	Front Panel		1
30	9H3 0000 368	Rear Panel		1
31	9H3 0000 370	Coil Choke	(L803)	1
△ 32	9H3 0000 371	Fuse (30A)		2
33	9H3 0000 377	P.W.B. Bracket		2
34	9H3 0000 378	Fan Bracket		1
35	9H3 0000 379	P.W.B. Bracket		1
36	9H3 0000 381	Insulating Sheet (A)		1
37	9H3 0000 382	Fan Motor		1
38	9H3 0000 383	LED Lens		1
★ 39	9H3 0000 358	Mold Blinder		3
★ 40	9H3 0000 380	Cushion		1
⊙ 41	9H3 0000 411	P.W.B. Unit Ass'y		1 <sup>S</sup>
41-1	—	Main Amp Unit		(1)
41-2	—	DC Power Unit		(1)
41-3	—	Filter Unit		(1)
41-4	—	Trans Unit		(1)
41-5	—	Fuse Unit		(1)

Ref. No.	Part No.	Part Name	Remarks	Q'ty
<b>SCREWS</b>				
51	9H3 0000 372	Pan Screw 2×8	Black	2
52	9H3 0000 205	Tapping Screw (with Flange) 3×6	Black	4
53	9H3 0000 206	Bind Screw 3×8	Black	8
54	9H3 0000 374	Bind Screw 3×6		10
55	9H3 0000 375	Bind Screw 3×8		30
56	9H3 0000 376	Bind Screw 3×20	Black	2
57	9H3 0000 273	Hex. Screw M3×12		22
58	9H3 0000 373	Bind Screw 3×6	Black	8
<b>PACKING ACCESSORIES (not included EXPLODED VIEW)</b>				
⊙ 71	—	Envelope Sub Ass'y-1		1 <sup>S</sup>
71-1	9H3 0000 385	Envelope (140×75)		1
71-2	9H3 0000 212	Pan Screw (with Flange) 4×16	Black	4
⊙ 72	—	Envelope Sub Ass'y-2		1 <sup>S</sup>
72-1	9H3 0000 215	Envelope (245×160)		1
72-2	511 2196 001	Inst. Manual		1
72-3	9H3 0000 287	S.T. Card		1
72-4	515 0337 204	Custom Card	U.S.A only	1
72-5	515 0333 305	DAI Warranty Card	U.S.A only	1
⊙ 73	9H3 0000 392	Carton Case		1
⊙ 74	9H3 0000 393	Master Carton		1/2
⊙ 75	9H3 0000 394	Packing		2
⊙ 76	9H3 0000 395	Label Name Plate		1
⊙ 77	513 1338 015	Control Card Base		2
78	513 1349 004	Thermal Carbon-Film		1
⊙ 79	9H3 0000 387	Envelope (440×420)		1
80	9H3 0000 250	Label CE	Europe only	1
⊙ 81	—	Envelope Sub Ass'y-3		1 <sup>S</sup>
81-1	9H3 0000 388	Envelope (150×110)		1
81-2	9H3 0000 389	3P Terminal Cover		1
81-3	9H3 0000 391	4P Terminal Cover		1
81-4	9H3 0000 390	8P Terminal Cover		1
82	9H3 0000 386	Poly Cover	140×75	1

NOTE FOR PARTS LIST

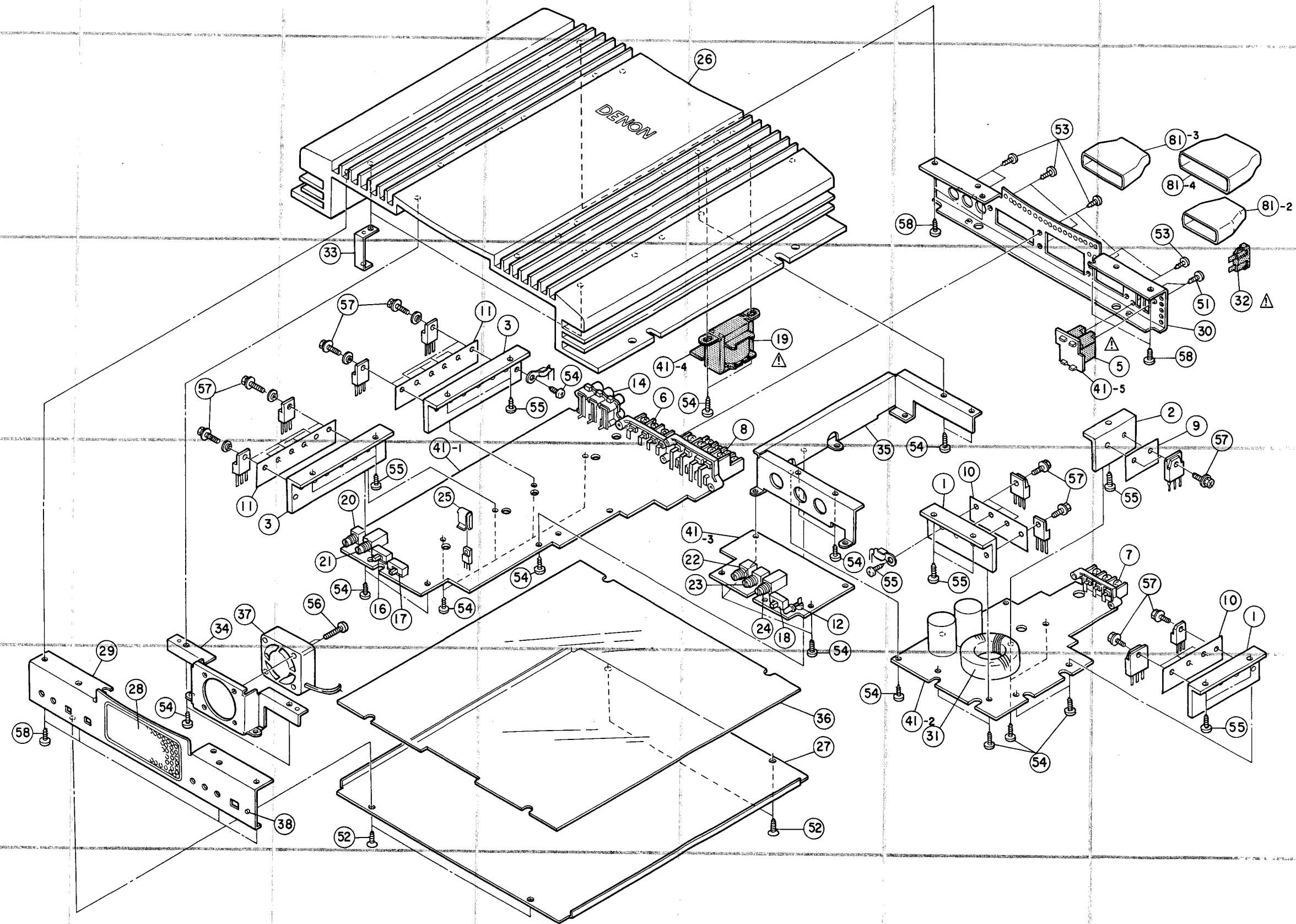
- Part indicated with the mark " ⊙ " are not always in stock and possibly to take a long period of time for supplying, or in some case supplying of part may be refused.
- When ordering of part, clearly indicate "1" and "1" (i) to avoid mis-supplying.
- Ordering part without stating its part number can not be supplied.
- Part indicated with the mark "★" is not illustrated in the exploded view.

WARNING:

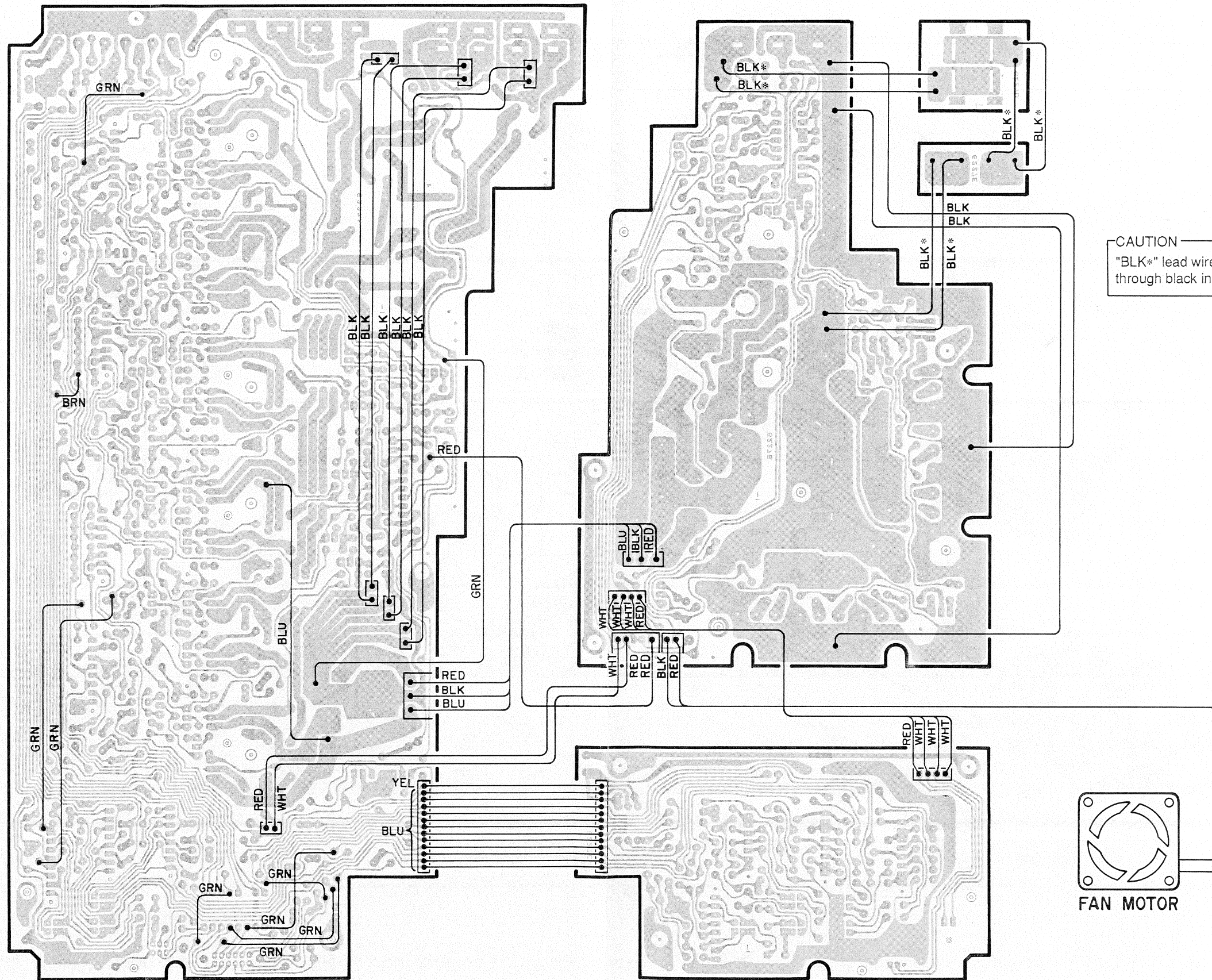
Parts marked with this symbol △ have critical characteristics.  
Use ONLY replacement parts recommended by the manufacturer.



EXPLODED VIEW OF CHASSIS AND CABINET

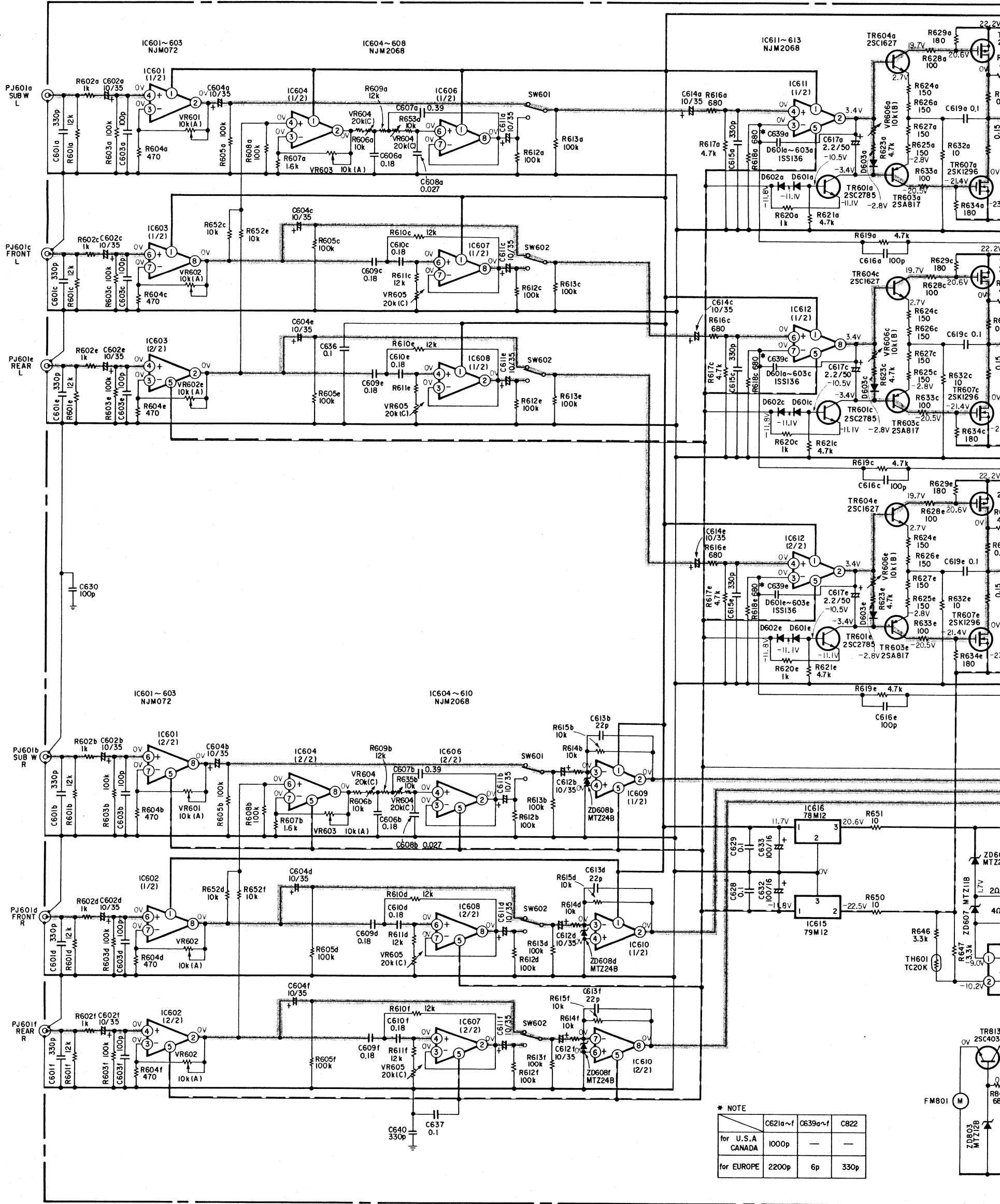


WIRING DIAGRAM



**SCHEMATIC DIAGRAM**

IC	IC601(1/2) IC602(1/2) IC603(1/2) IC601(2/2) IC602(2/2) IC603(2/2)	IC604(1/2) IC604(2/2)	IC606(1/2) IC607(1/2) IC608(1/2) IC606(2/2) IC607(2/2) IC608(2/2)	IC609(1/2) IC610(1/2) IC610(1/2)	IC611(1/2) IC612(1/2) IC612(2/2)	IC616 IC615	TR601a TR603a TR601c TR604c TR603c TR601e TR604e TR603e	TR605a TR607a TR605c TR607c TR605e TR607e TR613	IC613
Transistor									
Diode (Including LED)				ZD806b ZD806d ZD806f		D602a D601a D602c D601c D603a D603c D602e D601e D603e			ZD606 ZD607



\* NOTE

	C621a~f	C639a~f	C822
for U.S.A CANADA	1000p	—	—
for EUROPE	2200p	6p	330p





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# DENON

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