

Service Manual

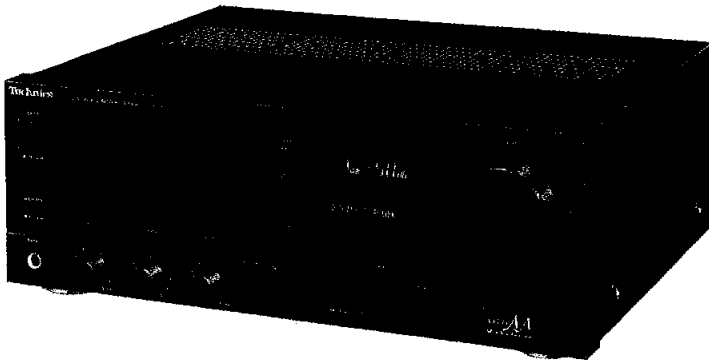
Digital Integrated Amplifier

Amplifier

SU-X999

Color

(K)...Black Type



Area

| Country Code | Area | Color |
|--------------|----------------------|-------|
| (E), (E5) | Continental Europe | (K) |
| (EB) | Great Britain | (K) |
| (EG) | F.R. Germany & Italy | (K) |

SPECIFICATIONS

(DIN 45 500)

■ AMPLIFIER SECTION

| | |
|---|--|
| DIN power output 1 kHz THD:1% | 2 x 100 W (8Ω) |
| Total harmonic distortion rated power at 1 kHz | 1% (8Ω) |
| Harmonic distortion half power at 1 kHz | 0.007% (8Ω) |
| Residual hum and noise | 0.2 mV |
| Damping factor | 30 (8Ω) |
| Input sensitivity and impedance | |
| PHONO | 3mV/47 kΩ |
| TUNER,AUX,TAPE 1,TAPE 2 | 150mV/22 kΩ |
| CD | 200mV/22 kΩ |
| Maximum input voltage (1 kHz,RMS) | |
| PHONO | 100 mV |
| S/N (rated power 8Ω) | |
| PHONO | 75 dB (IHF,A:79 dB) |
| TUNER,CD,AUX,TAPE 1,TAPE 2 | 82 dB (IHF,A:83 dB) |
| Frequency response | |
| PHONO | RIAA standard curve ± 0.8dB(30 Hz ~ 15 kHz) |
| TUNER,CD,AUX,TAPE 1,TAPE 2 | 10 Hz ~ 60 kHz (-3 dB) |
| CD,DAT (digital section) | 15 Hz ~ 20 kHz (-0.5 dB) |
| Tone controls | |
| BASS | 50 Hz, +10 dB ~ -10 dB |
| TREBLE | 20 kHz, +10 dB ~ -10 dB |

| | |
|---------------------------------------|---------------|
| Muting | -20 dB |
| Super bass | 70 Hz, +10 dB |
| Output voltage | |
| TAPE 1,TAPE 2,REC OUT | 150 mV |
| Channel balance,AUX 250 Hz ~ 6,300 Hz | ±1.0 dB |
| Channel separation, AUX 1 kHz | 60dB |
| Headphones output level and impedance | 660 mV/330 Ω |
| Load impedance | |
| A or B | 8 Ω ~ 16 Ω |
| SURROUND | 8 Ω ~ 16 Ω |

■ GENERAL

| | |
|------------------------|--|
| Power consumption | 460 W |
| Power supply | |
| For Great Britain | AC 50 Hz/60 Hz,240V |
| For others | AC 50 Hz/60 Hz,220V |
| Dimensions (W x H x D) | 360 x 128 x 300 mm (14-3/16" x 5-1/32" x 11-13/16") |
| Weight | 7.9 kg (17.4 lb.) |

Notes:

- Specifications are subject to change without notice.
Weight and dimensions are approximate.
- Total harmonic distortion is measured by the digital spectrum analyzer.

Technics

Matsushita Electric Industrial Co., Ltd.

Central P.O. Box 288, Osaka 530-91, Japan

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■ BEFORE REPAIR

- (1) Turn off the power supply. Using a 10 Ω , 5W resistor connect both ends of power supply capacitors(C701,C702,6800 μ F) in order to discharge the voltage.
- (2) Before turning the power supply on, after completion of repair, slowly apply the primary voltage by using a power supply voltage controller to make sure that the consumed current at 50Hz/60Hz in NO SIGNAL mode should be shown below with respect to supply voltage 220V/240V.

| Power supply voltage | AC220V | AC240V |
|-----------------------|-------------|-------------|
| Consumed current 50Hz | 165 ~ 495mA | 152 ~ 456mA |
| Consumed current 60Hz | 158 ~ 474mA | 146 ~ 437mA |

■ PROTECTION CIRCUITRY

The protection circuitry may have operated if either of the following conditions is noticed:

- * No sound is heard when the power is switched ON.
- * Sound stops during a performance.

The function of this circuitry is to prevent circuitry damage if, for example, the positive and negative speaker connection wires are "shorted", or if speaker systems with an impedance less than the indicated rated impedance of this unit are used.

If this occurs, follow the procedure outlined below:

1. Switch OFF the power.
2. Determine the cause of the problem and correct it.
3. Switch ON the power once again.

Note:

When the protection circuitry functions, the unit will not operate unless the power is first switched OFF and then ON again.

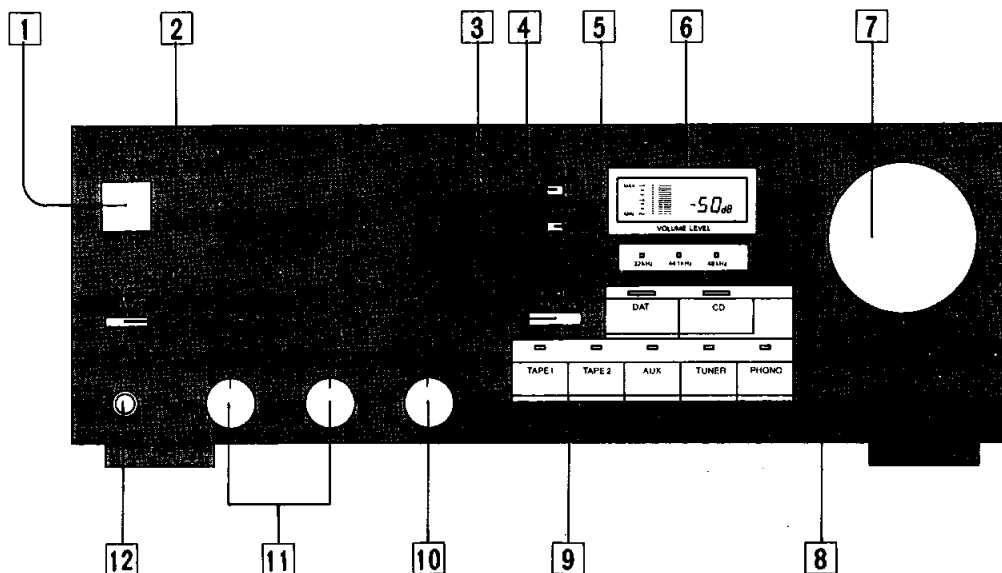
■ ACCESSORY

- AC power supply cord.....1
Configuration of AC power supply cord differs according to area.

SJA188 For (EB) area only.
SFDAC05E03 For Others.

LOCATION OF CONTROLS

Front panel



1 Power switch (POWER)

2 Speaker selector (SPEAKERS)

3 Audio muting switch/indicator (MUTING)

4 Surround-sound switch (SURROUND)

5 Super bass switch (SUPER BASS)

6 Volume-level indicator (VOLUME LEVEL)

7 Volume control (VOLUME)

8 Sampling frequency indicators

32 kHz: For digital signals with the 32-kHz mode sampling frequency

44.1 kHz: CD and others

48 kHz: For digital signals with the 48-kHz mode sampling frequency

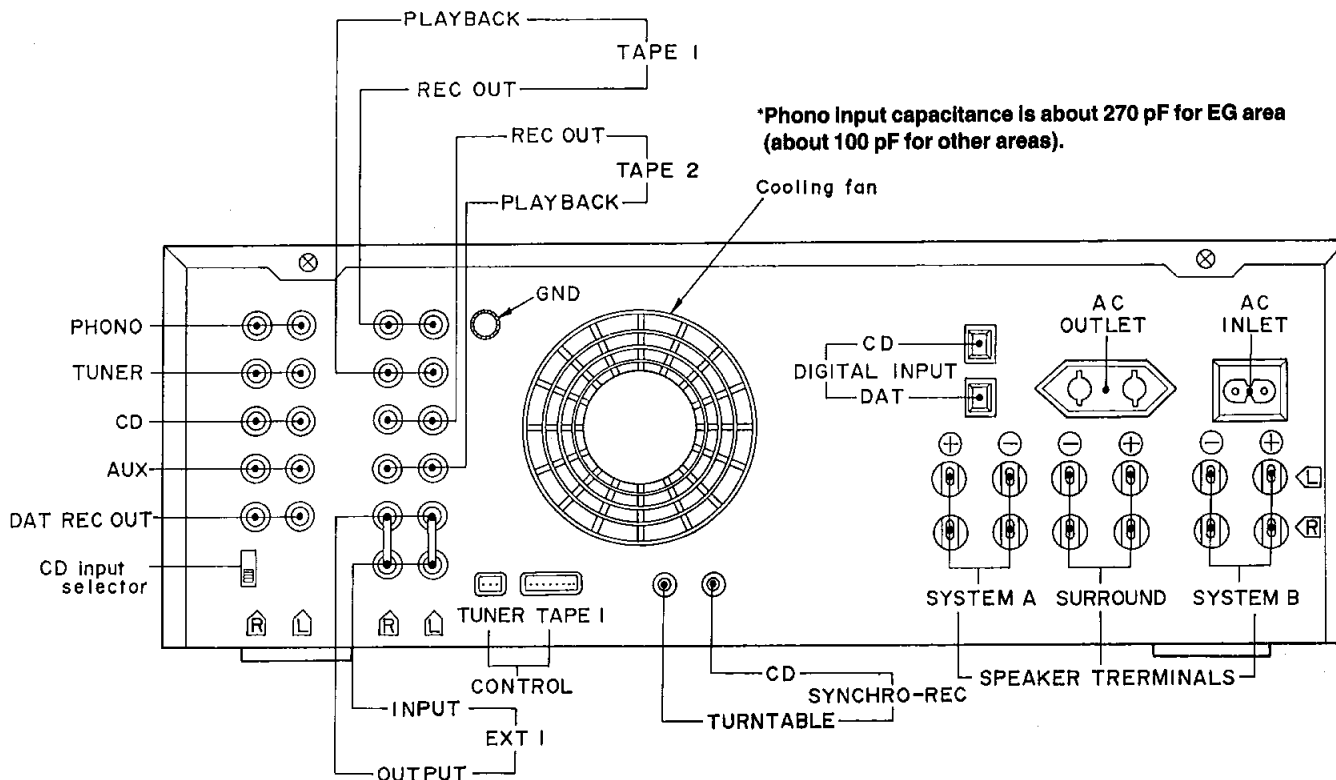
9 Input selectors/indicators (INPUT SELECTOR)

10 Balance control (BALANCE)

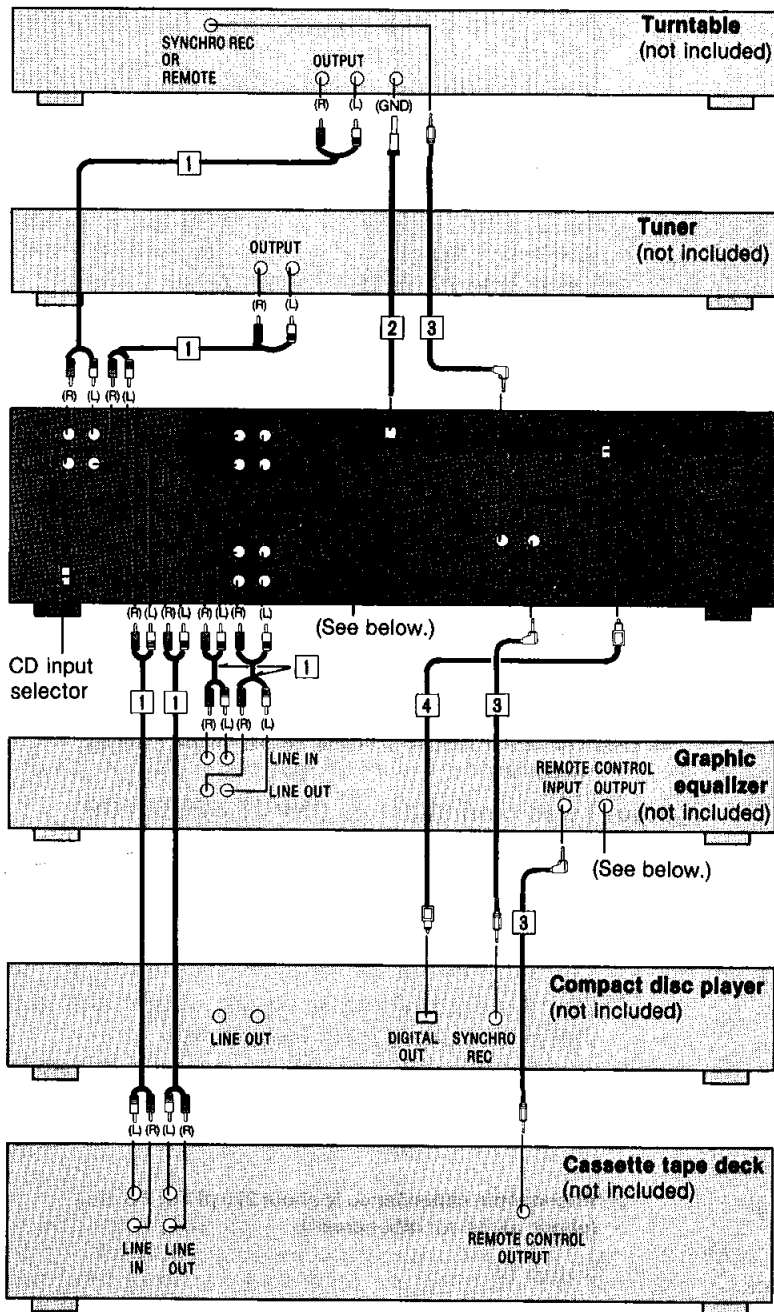
11 Tone controls (BASS/TREBLE)

12 Headphones jack (PHONES)

Rear panel

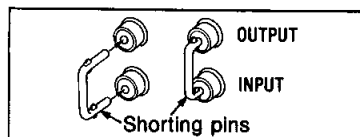


CONNECTIONS



“EXT” terminals of this unit

When these terminals are not in use, be sure to insert the shorting pins (included).



“REMOTE CONTROL OUTPUT” terminal of the graphic equalizer

This terminal is used to connect the compact disc player with the remote-control terminal.

Connection diagrams shown are for connections to a Technics hi-fi component system.

Make connections in the numbered sequential order.

- 1 **Connect the stereo connection cables** (included with the turntable, tuner, graphic equalizer, and cassette tape deck).
- 2 **Connect the ground wire** (included with the turntable).
- 3 **Connect the L-type cables** (included with the turntable, compact disc player, and graphic equalizer).
- 4 **Connect the optical-fiber cable** (included with the compact disc player).

Compact disc player connections

If your compact disc player does not have the “DIGITAL OUTPUT” terminal, use stereo connection cables (not included) to make the connections between the “CD” terminals of this unit and the “LINE OUT” terminals of the compact disc player. If this type of connection is made, this unit’s CD input selector should be set to “ANALOG”.

CD input selector of this unit

This selector is used for selection of the format (analog or digital) of the input signals from the compact disc player.

ANALOG: Set to this position if stereo connection cables are used.

DIGITAL: Set to this position if an optical-fiber cable is used.

Notes:

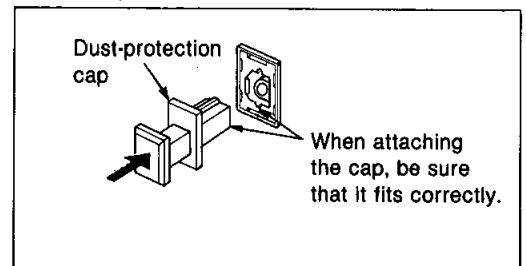
1. Be sure the power switch of this unit is switched OFF before changing the setting of this selector. (Interference noise may be emitted if the power switch is ON.)
2. The setting of this selector must be made correctly; if not, no sound will be emitted when the “CD” input selector of the front panel of this unit is selected.

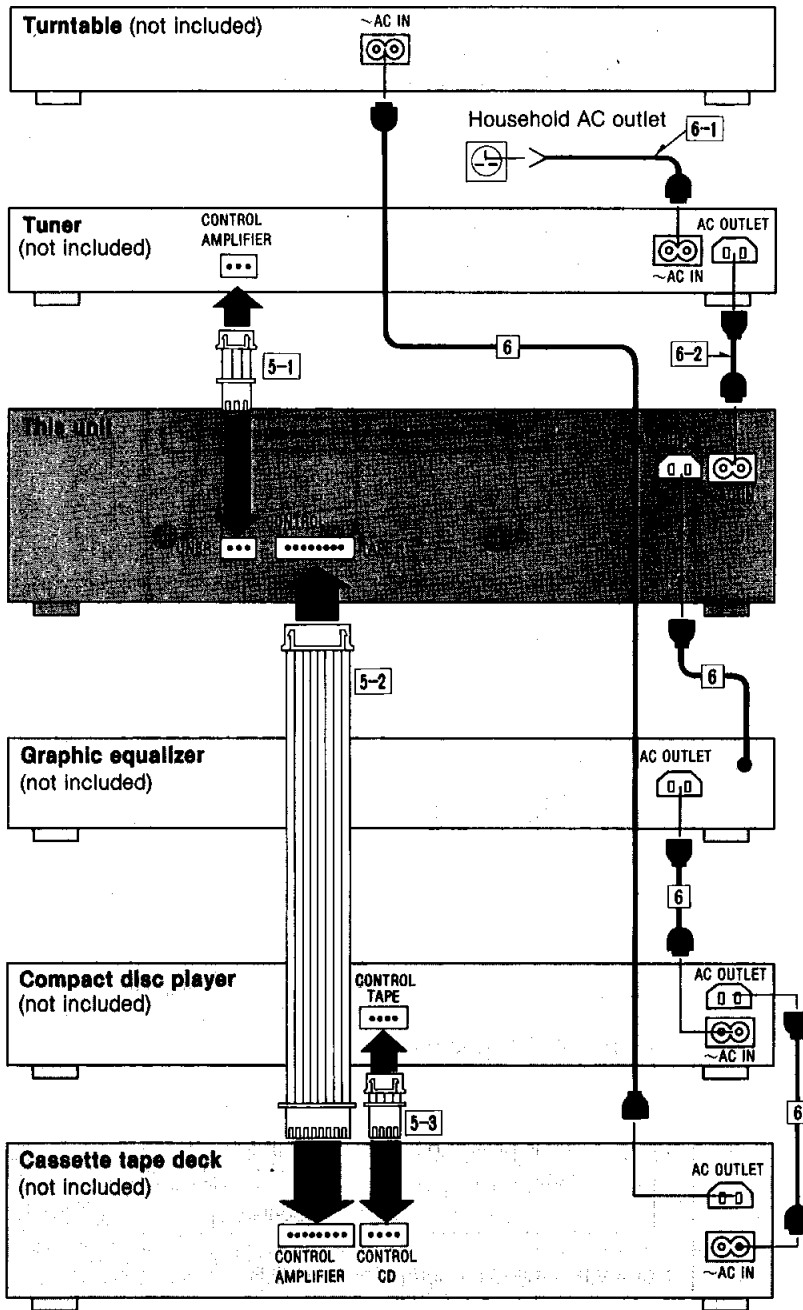
“DIGITAL INPUT” terminals of this unit

These terminals are protected by the dust-protection caps to avoid damage by the dust, etc.

Remove the caps only when the “DIGITAL INPUT” terminals are to be used.

When these terminals are not being used, attach the caps as shown in the illustration below.



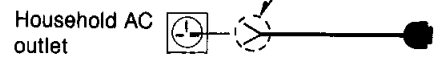


5 Connect the flat cables.

- 5-1** Connect the 3-core flat cable (included with the tuner).
- 5-2** Connect the 8-core flat cable (included with the cassette tape deck).
- 5-3** Connect the 4-core flat cable (included with the cassette tape deck).

6 Connect the AC power supply cords.

- 6-1**
 - ① Connect this cord only after all other cables and cords have been connected.
 - ② Fit a suitable plug to an AC power supply cord.



- 6-2** If the cord is to be connected to the household AC outlet, cut off and dispose of the plug and replace with a suitable plug.

Note:

If the graphic equalizer is not used in combination with these components, connect the AC power supply cord of the compact disc player to the AC outlet of the amplifier. If the compact disc player is not used in combination with these components, connect the AC power supply cord of the cassette tape deck to the AC outlet of the graphic equalizer.

■ About the AC outlets of the each components

Do not connect video-related equipment (such as a TV, etc.) to the AC outlets of these components. (These outlets are especially for audio equipment.) Also do not exceed the indicated power ratings when connecting to these outlets.

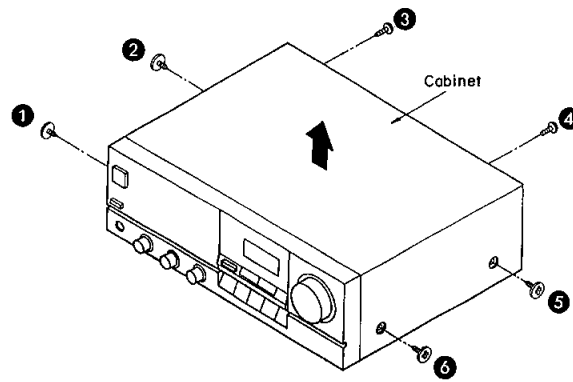
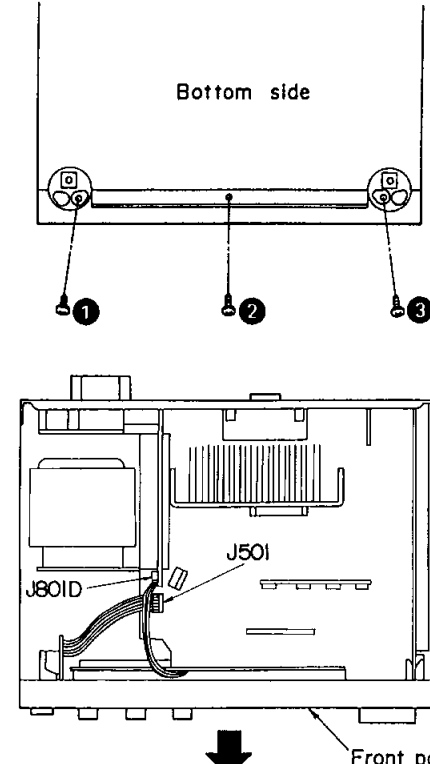
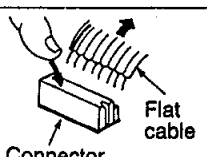
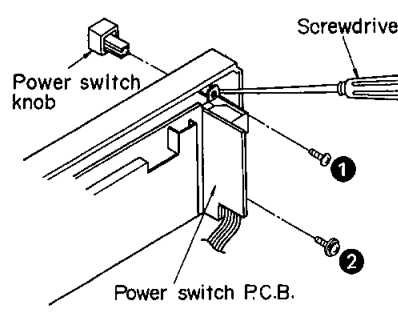
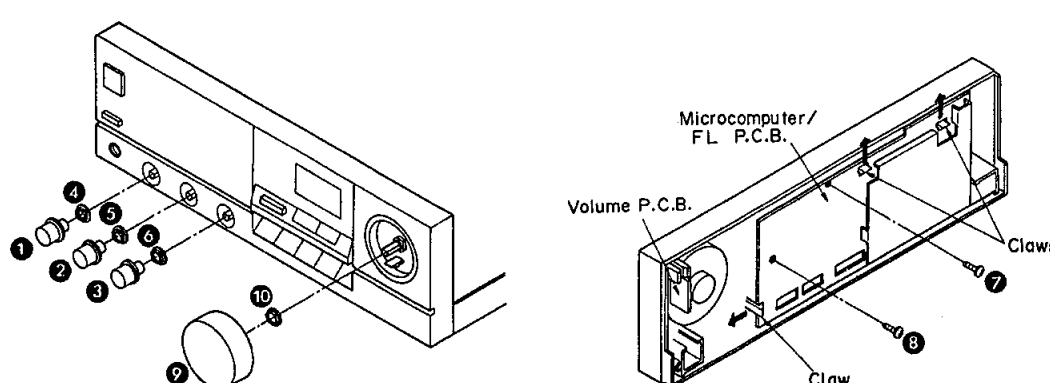
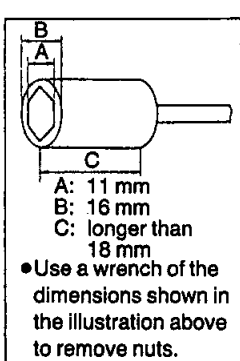
- **“SWITCHED” outlets** (For tuner, this unit, cassette tape deck)

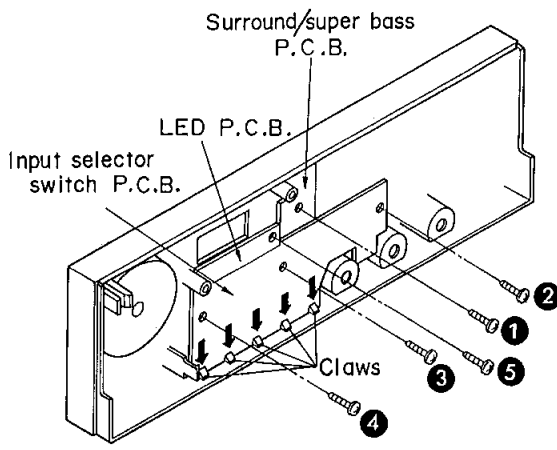
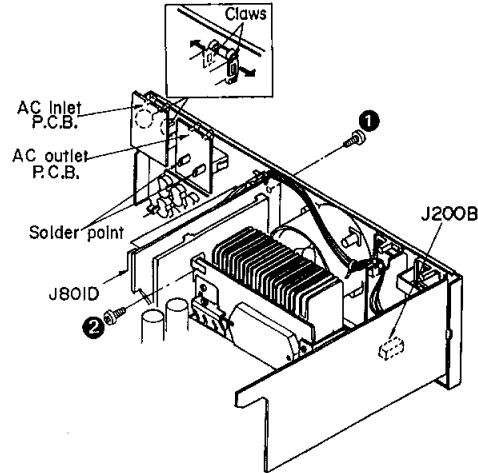
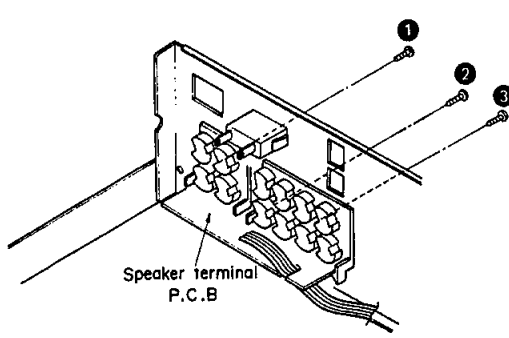
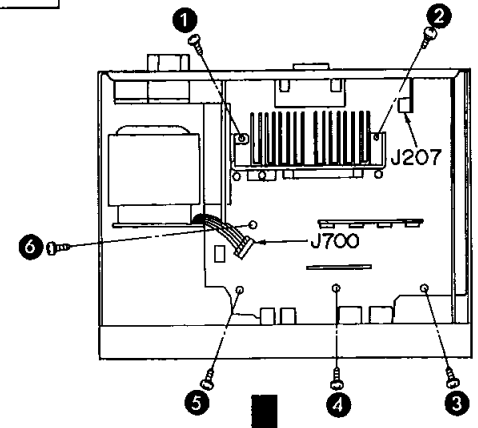
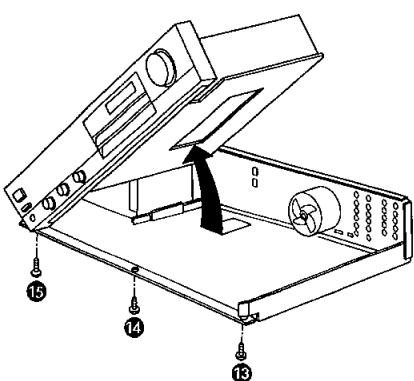
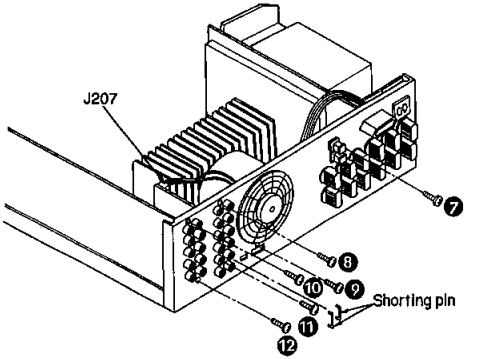
Power is controlled by the power switch of each unit.

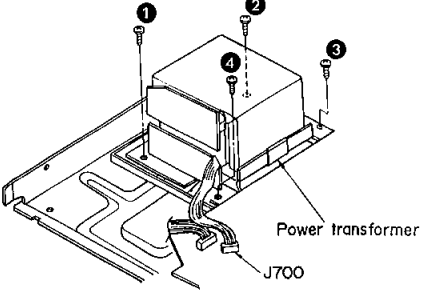
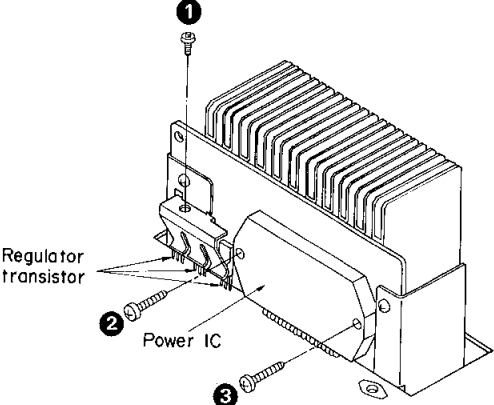
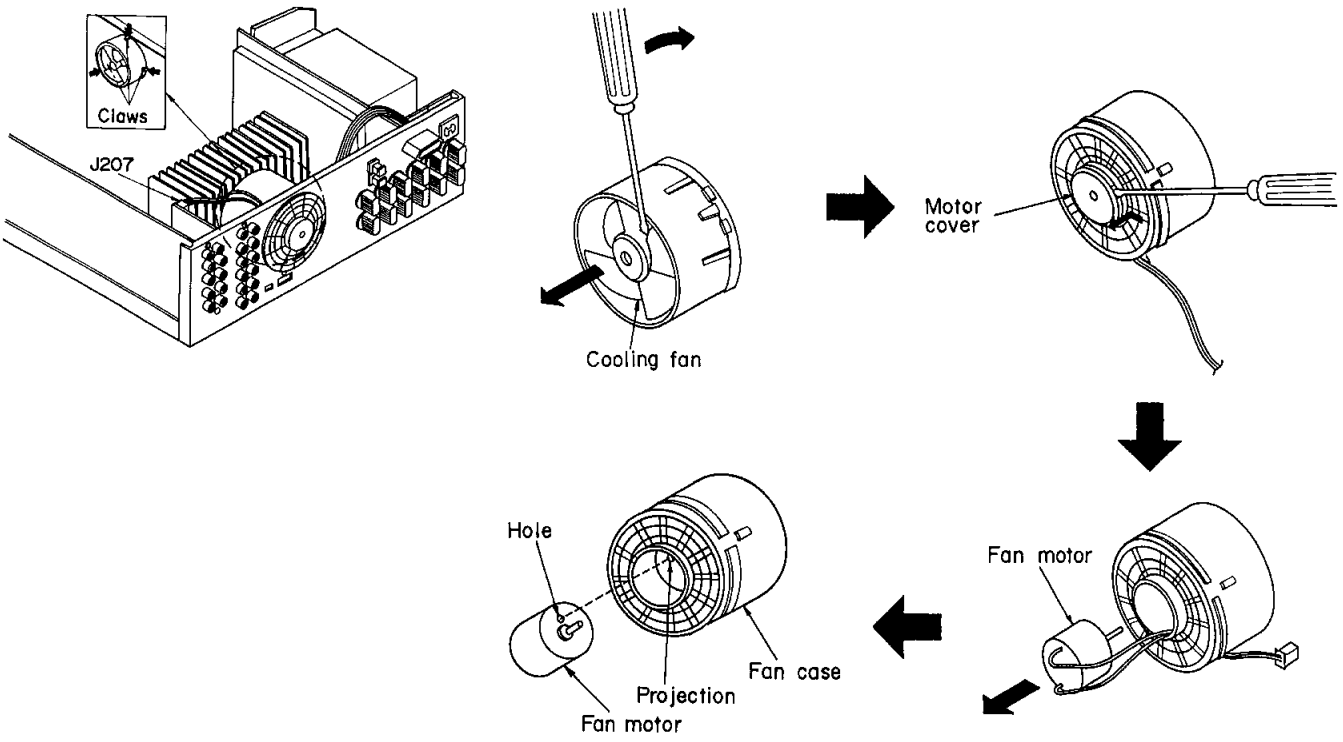
- **“UNSWITCHED” outlets** (For compact disc player, graphic equalizer)

Power is always available, regardless of power switch setting.

DISASSEMBLY INSTRUCTIONS

| | | | |
|--|--|---|---|
| Ref. No. 1 | Removal of the cabinet | Ref. No. 2 | Removal of the front panel |
| Procedure 1 | <ul style="list-style-type: none"> Remove the 6 screws (①~⑥). | Procedure 1→2 | <ol style="list-style-type: none"> Remove the 3 screws (①~③). Remove the flat cable (J501). Pull out the 1 connector (J801D). Remove the front panel in the direction of the arrow. |
|  | |  | |
| Ref. No. 3 | Removal of the power switch P.C.B. | Removal of the flat cable | |
| Procedure 1→2→3 | <ol style="list-style-type: none"> Remove the power switch knob by pushing it from behind the front panel. Remove the 2 screws (①, ②). | <p>Pull out the flat cable while pressing the connector.</p>  | |
|  | | Removal of the microcomputer/FL P.C.B. and volume P.C.B. | |
| Ref. No. 4 | Removal of the microcomputer/FL P.C.B. and volume P.C.B. | Removal of the microcomputer/FL P.C.B. | |
| Procedure 1→2→4 | Removal of the volume P.C.B. <ol style="list-style-type: none"> Remove the 1 knob (⑨). Remove the 1 nut (⑩). | <ol style="list-style-type: none"> Remove the 3 knobs (①~③). Remove the 3 nuts (④~⑥). Remove the 2 screws (⑦, ⑧). Push the 3 claws and remove the microcomputer/FL P.C.B. | |
|  | |  | |

| | | | |
|--|--|---|---|
| <p>Ref. No. 5</p> | <p>Removal of the surround/super bass P.C.B., input selector switch P.C.B. and LED P.C.B.</p> | <p>Ref. No. 6</p> | <p>Removal of the digital input P.C.B. AC outlet P.C.B. and AC Inlet P.C.B.</p> |
| <p>Procedure 1→2→4→5</p> <p>Removal of the surround/super bass P.C.B. ●Remove the 1 screw (①).</p> <p>Removal of the input selector switch P.C.B. 1. Remove the 3 screws (②~④). 2. Push the 5 claws and remove the input selector switch P.C.B.</p> <p>Removal of the LED P.C.B. ●Remove the 1 screw (⑤).</p> |  | <p>Procedure 1→6</p> <p>Removal of the digital input P.C.B. 1. Pull out the 2 connectors (J200B, J801D). 2. Remove the 2 screws (①, ②).</p> <p>Removal of the AC inlet P.C.B. ●Pull out the 2 claws in the direction of the arrow.</p> <p>Removal of the AC outlet P.C.B. ●Unsolder the 2 terminals.</p> |  |
| <p>Ref. No. 7</p> | <p>Removal of the speaker terminal P.C.B.</p> | <p>Ref. No. 8</p> | <p>Checking of the main P.C.B.</p> |
| <p>Procedure 1→6→7</p> <p>●Remove the 3 screws (①~③).</p> |  | <p>Procedure 1→6→8</p> <p>1. Remove the 6 screws (①~⑥). 2. Remove the flat cable (J207, J700).</p> |  |
|  <p>6. Remove the 3 screws (⑬~⑮).</p> | | |  <p>3. Remove the 6 screws (⑦~⑫). 4. Remove the shorting pin. 5. Pull out the 1 connector (J207).</p> |

| | | | |
|--|---|---|--|
| Ref. No. 9 | Removal of the power transformer | Ref. No. 10 | Removal of the power IC and regulator transistor |
| Procedure 1→6→8→9 | <ol style="list-style-type: none"> 1. Remove the 4 screws (①~④). 2. Remove the flat cable (J700). | Procedure 1→8→10 | <ol style="list-style-type: none"> 1. Unsolder the power IC or regulator transistor. 2. Remove the 3 screws (①~③). |
|  | |  <p> •When mounting the power IC or regulator transistor. Apply silicone compound (SZZOL15) to the rear side of power IC or regulator transistor. </p> | |
| Ref. No. 11 | Removal of the fan motor | <ol style="list-style-type: none"> 3. Insert a screwdriver at the root of the cooling fan. Force it out of the motor shaft. 4. Remove the motor cover by used ⊖ screwdriver. 5. Remove the motor from the fan casing. 6. When mounting the motor fan, align the fan casing's projection with the hole of the fan motor. | |
| Procedure 1→11 | <ol style="list-style-type: none"> 1. Pull out the 1 connector (J207). 2. Release the 3 claws. | | |
|  | | | |

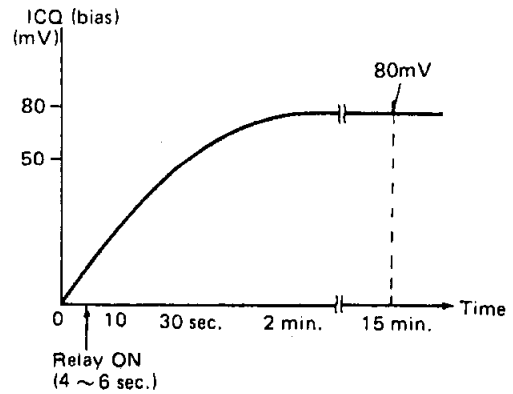
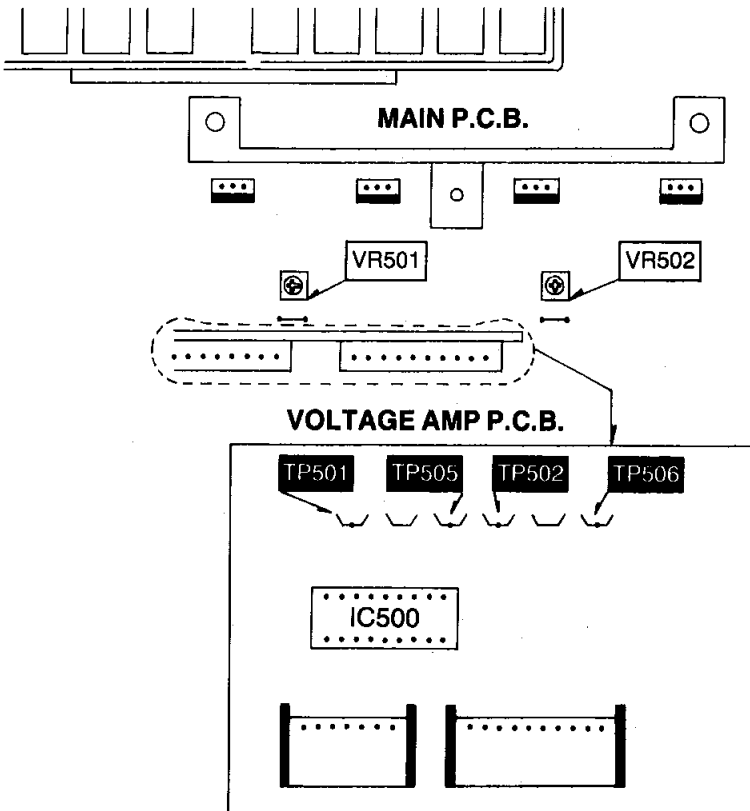
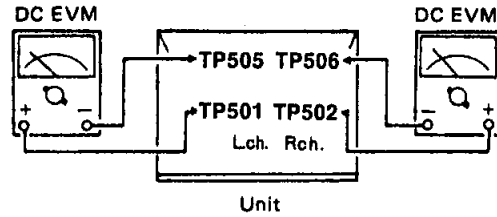
■ MEASUREMENTS AND ADJUSTMENTS

Control positions and equipment used.

- Volume knob.....∞ (Minimum)
- Main speaker selector.....off
- Remote speaker selector.....off
- DC electronic voltmeter(EVM)

VOLTAGE CONTROL(V)AMP.IDLING(ICQ) ADJUSTMENT

1. Test equipment connection is shown in figure. (Connect the DC EVM on both channels.)
2. Completely turn the (V) amp. adjusting volumes (VR501, VR502) counter-clockwise.
3. Turn ON the set when it is cold, and 15 sec. later, adjust VR501 and VR502 so that the voltage is 50mV. Also, check that the voltage is 60 ~ 85mV (standard : 80mV) after lapse of 10 - 15 minutes. (Below 85mV after lapse of 60 min.)



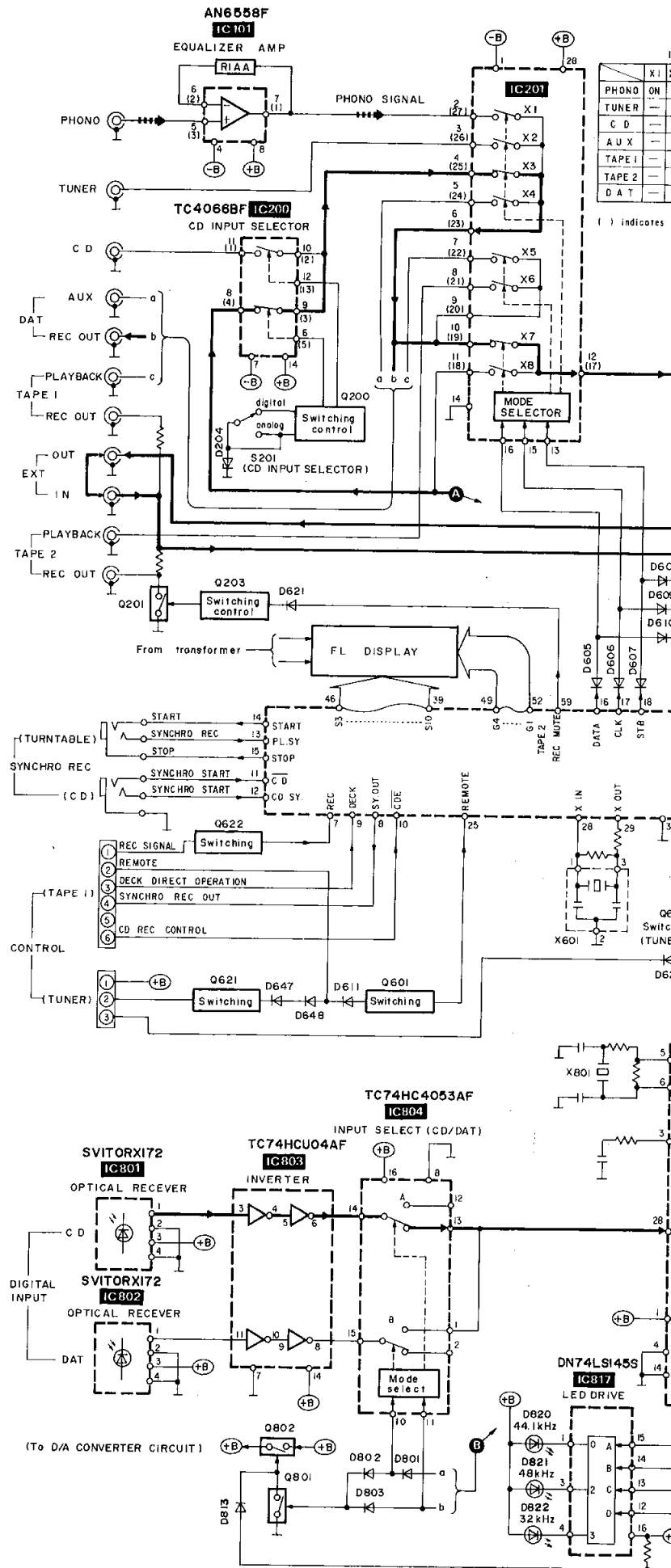
●Test point

- TP501...L ch ⊕ Voltage control amp I_{cc} adj.
- TP505...L ch ⊖ Voltage control amp I_{cc} adj.
- TP502...R ch ⊕ Voltage control amp I_{cc} adj.
- TP506...R ch ⊖ Voltage control amp I_{cc} adj.

●Adjustment VR

- VR501...L ch Voltage control amp I_{cc} adj.
- VR502...R ch Voltage control amp I_{cc} adj.

■ BLOCK DIAGRAM



| | | | | | | | | |
|----------|----|----|----|----|----|----|----|----|
| 4N | 11 | | | | | | | |
| SELECTOR | | | | | | | | |
| X4 | X5 | X6 | X7 | X8 | ON | ON | ON | ON |
| ON | ON | ON | ON | ON | ON | ON | ON | ON |
| ON | ON | ON | ON | ON | ON | ON | ON | ON |
| ON | ON | ON | ON | ON | ON | ON | ON | ON |
| ON | ON | ON | ON | ON | ON | ON | ON | ON |
| ON | ON | ON | ON | ON | ON | ON | ON | ON |

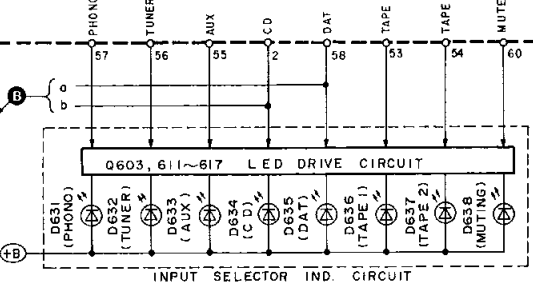
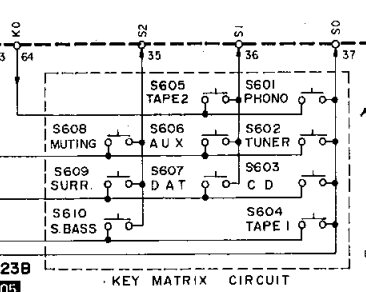
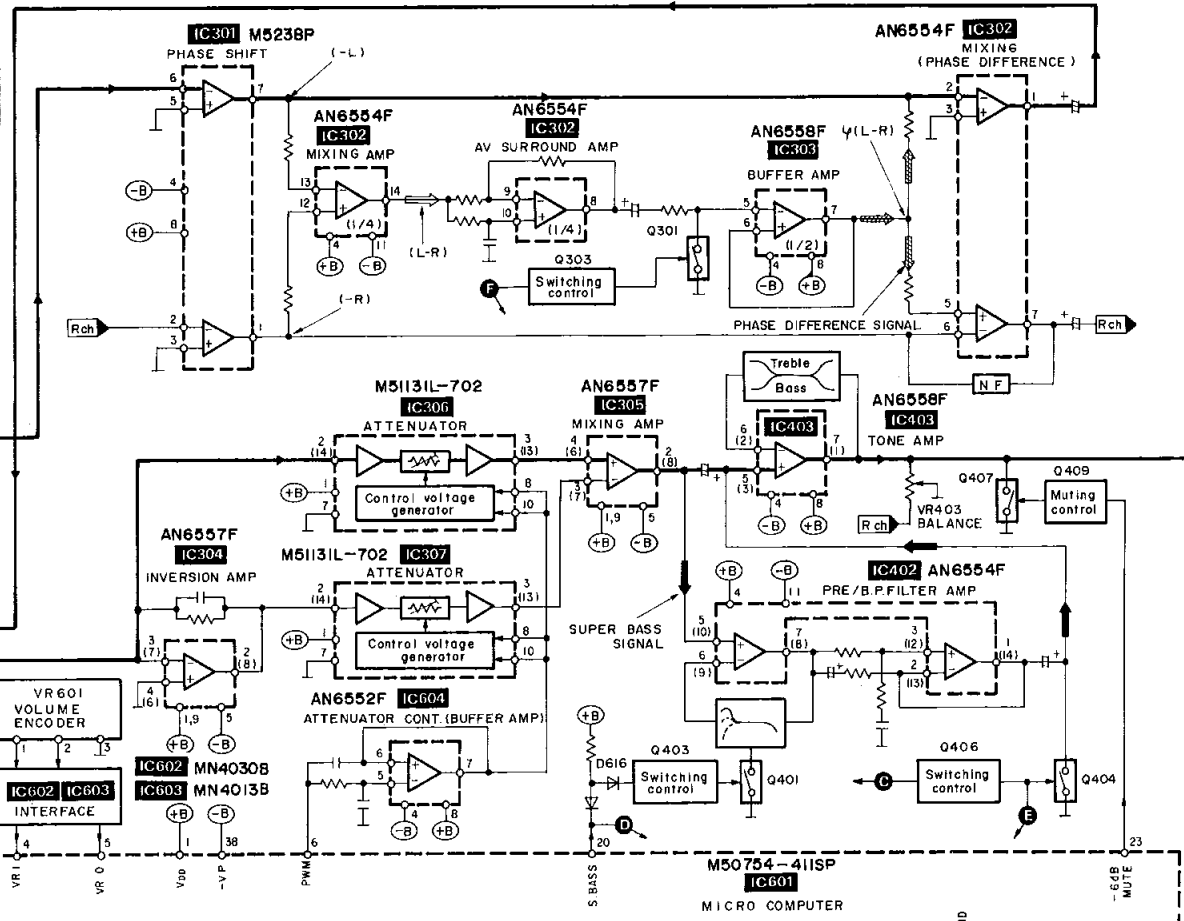
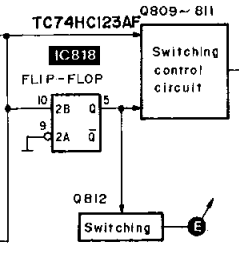
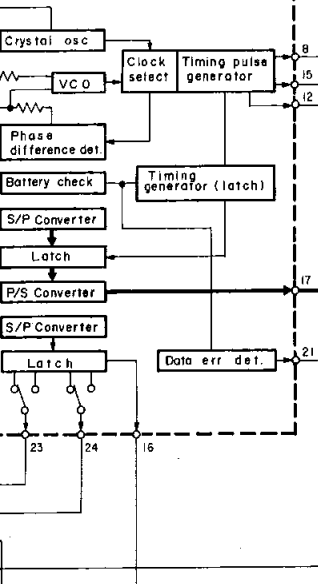
of right channel.

040 switching

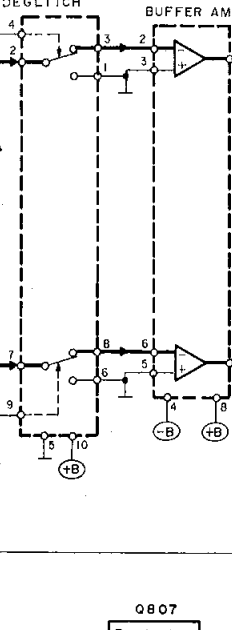
MUTE

K3 K2 K1 K0 S2 S1 S0

DIGITAL SIGNAL PROCESSING

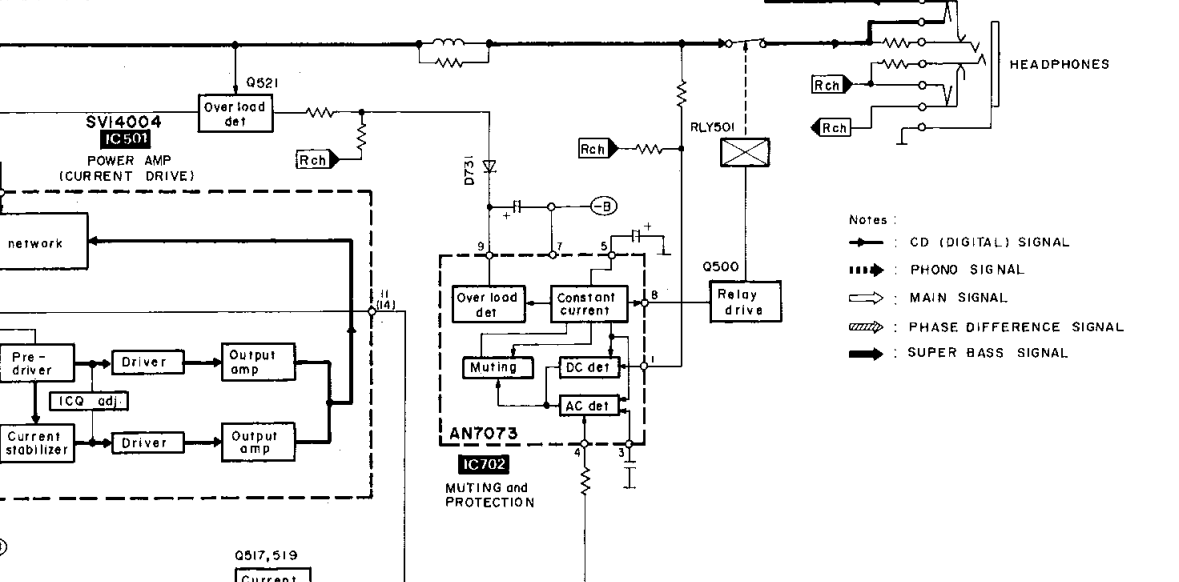
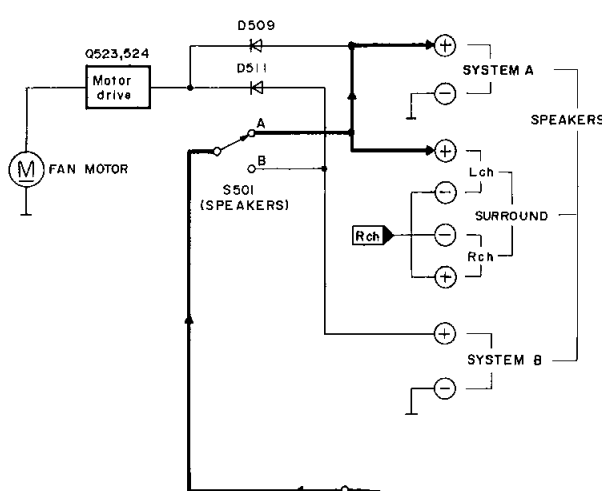
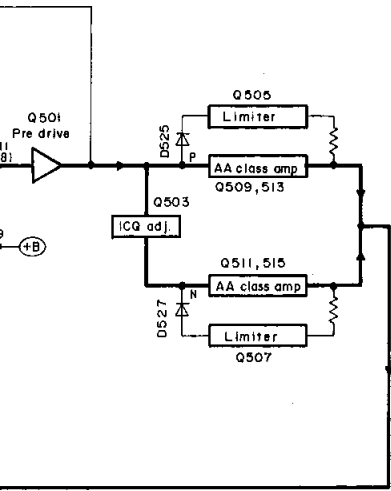


DEGLITCH BUFFER AMP

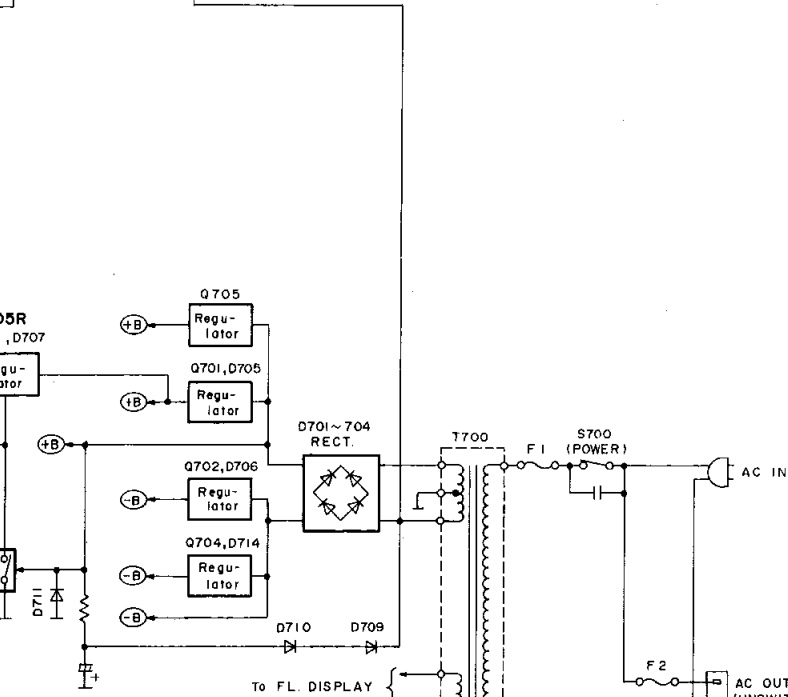
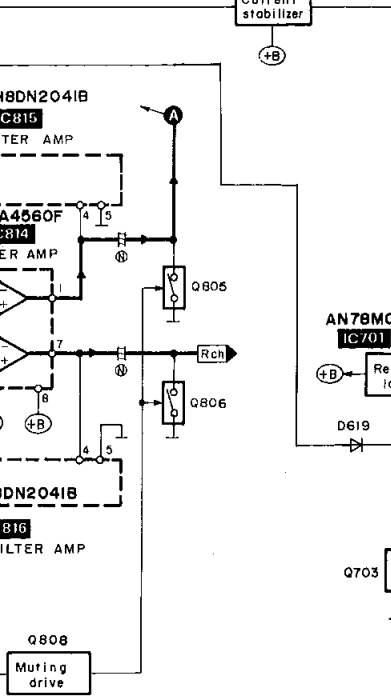


Q807 Emphasis drive

voltage control amplifier



- Notes :
- CD (DIGITAL) SIGNAL
 - ▬ PHONO SIGNAL
 - ⇨ MAIN SIGNAL
 - ▨ PHASE DIFFERENCE SIGNAL
 - ➔ SUPER BASS SIGNAL

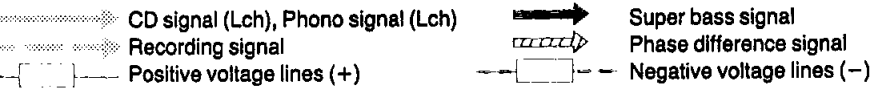


SCHEMATIC DIAGRAM

(Parts list on page 29~34)

This schematic diagram may be modified at any time with the development of new technology.)

- Notes:
- S201 : CD input selector switch in "digital" position
 - S501 : Speaker selector switch in "A" position.
 - S601~S608 : Input selector switches
 [S601: Phono, S602: Tuner, S603: CD, S604: Tape 1]
 [S605: Tape 2, S606: Aux, S607: Dat, S608: Muting]
 - S609 : Surround-sound switch
 - S610 : Super bass switch
 - S700 : Power switch in "on" position



Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard. Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.

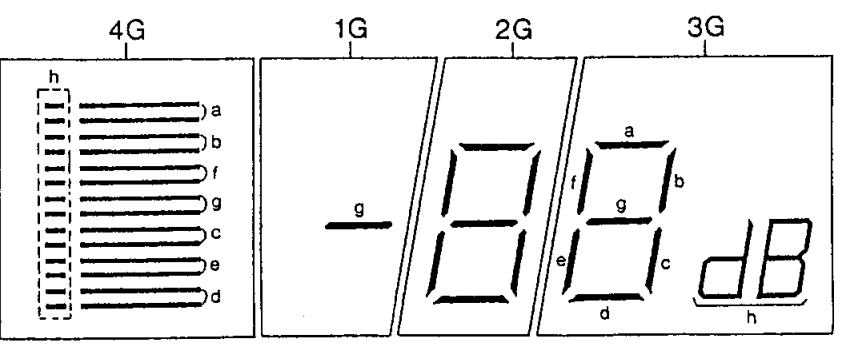
Important safety notice:
 Components identified by Δ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.

Caution!

- ICs and LSI are sensitive to static electricity.
- Secondary trouble can be prevented by taking care during repair.
- Cover the parts boxes made of plastics with aluminum foil.
- Ground the soldering iron.
- Put a conductive mat on the work table.
- Do not touch the legs of IC or LSI with the fingers directly.

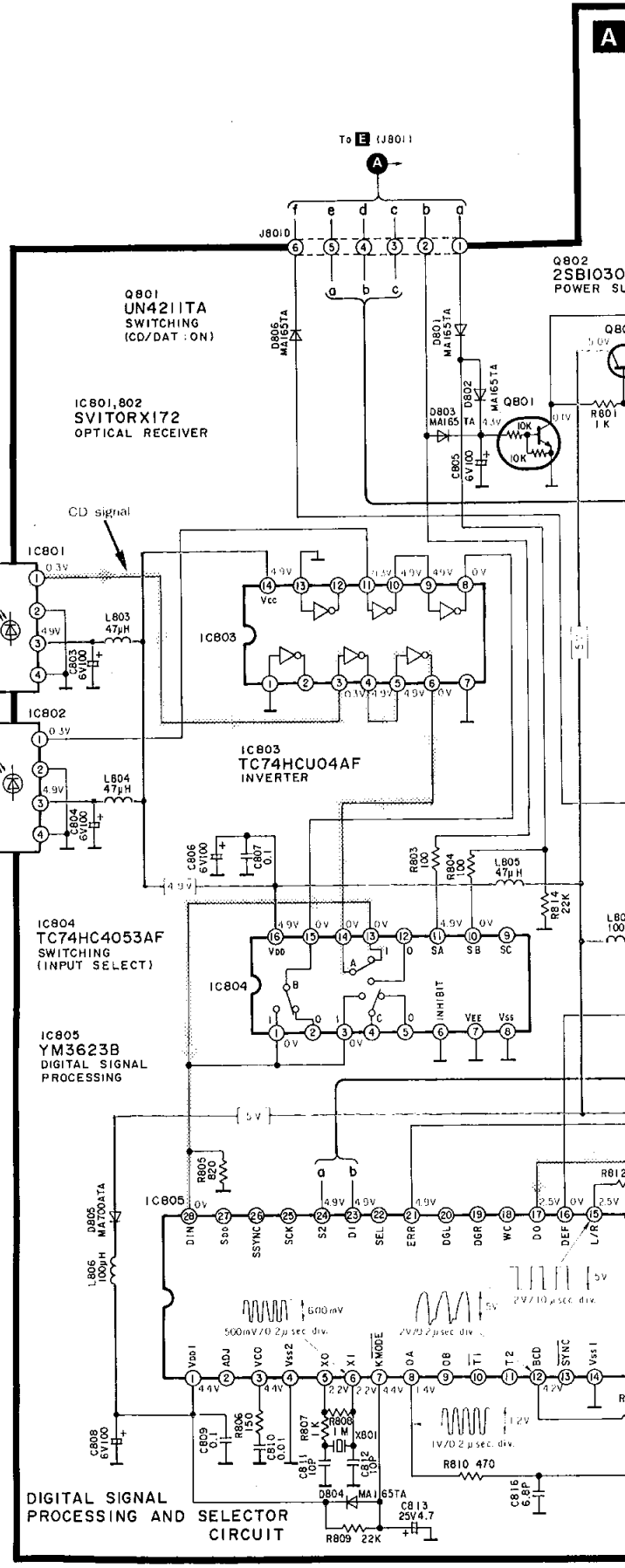
DESCRIPTION OF FL PANEL

GRID ASSIGNMENT



PIN CONNECTION

| Pin No. | 20 | 19 | 18 | 17 | 16 | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
|------------|----|----|----|----|----|----|----|----|----|----|----|----|---|----|----|---|----|----|----|----|
| Connection | F2 | F2 | NP | a | 4G | b | c | d | 1G | e | f | 2G | g | 3G | NP | h | 3G | NP | F1 | F1 |



R CIRCUIT

DEGLITCH/BUFFER AMP CIRCUIT

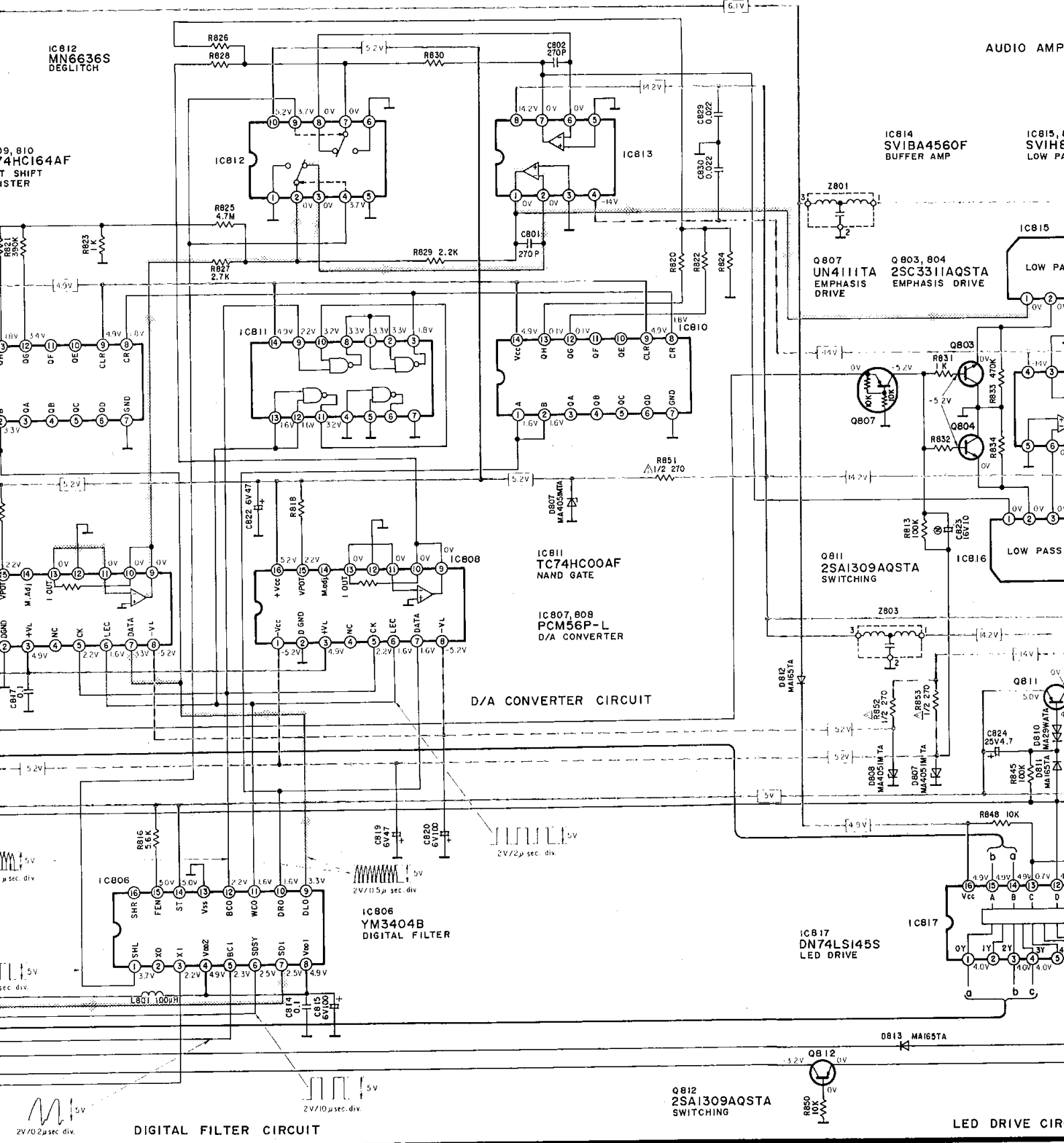
IC813
LM833M63
BUFFER AMP

AUDIO AMP

IC812
MN6636S
DEGLITCH

IC814
SVIBA4560F
BUFFER AMP

IC815, 8
SVIH8
LOW PA



D/A CONVERTER CIRCUIT

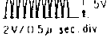
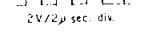
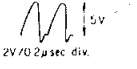
IC807, 808
2SA1309AQSTA
SWITCHING

IC806
YM3404B
DIGITAL FILTER

DIGITAL FILTER CIRCUIT

Q812
2SA1309AQSTA
SWITCHING

LED DRIVE CIRCUIT



CIRCUIT

N2041B
FILTER

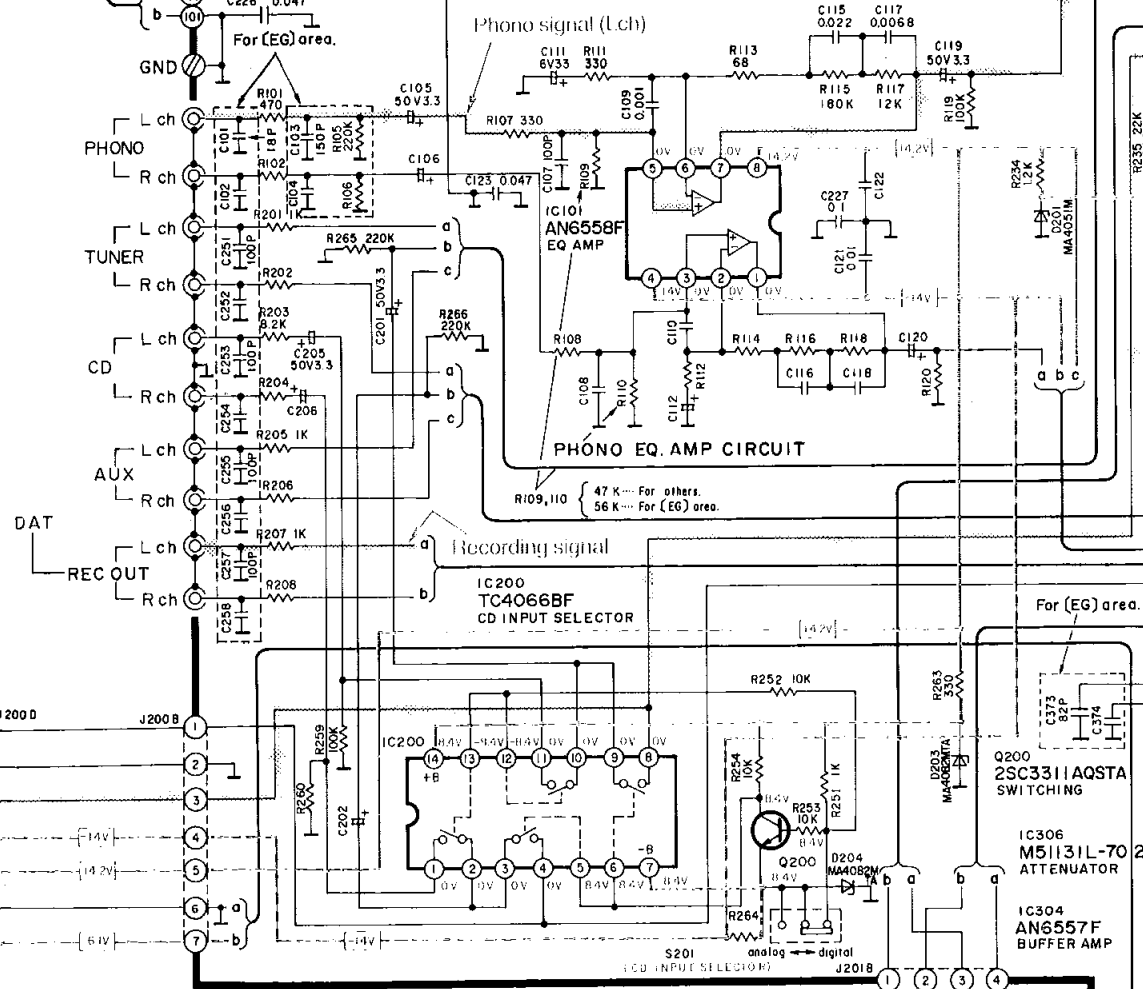
Q805, 806
2SD145ORSTTA
MUTING

Q808
UN4111TA
MUTING CONT.

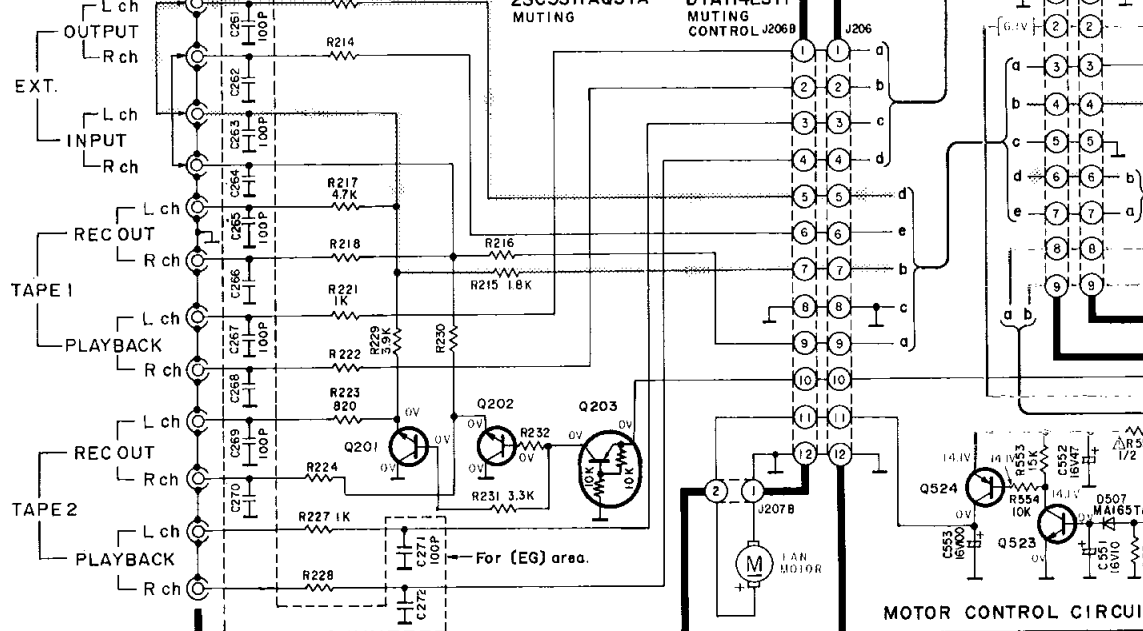
Q809, 810
UN4211TA
SWITCHING

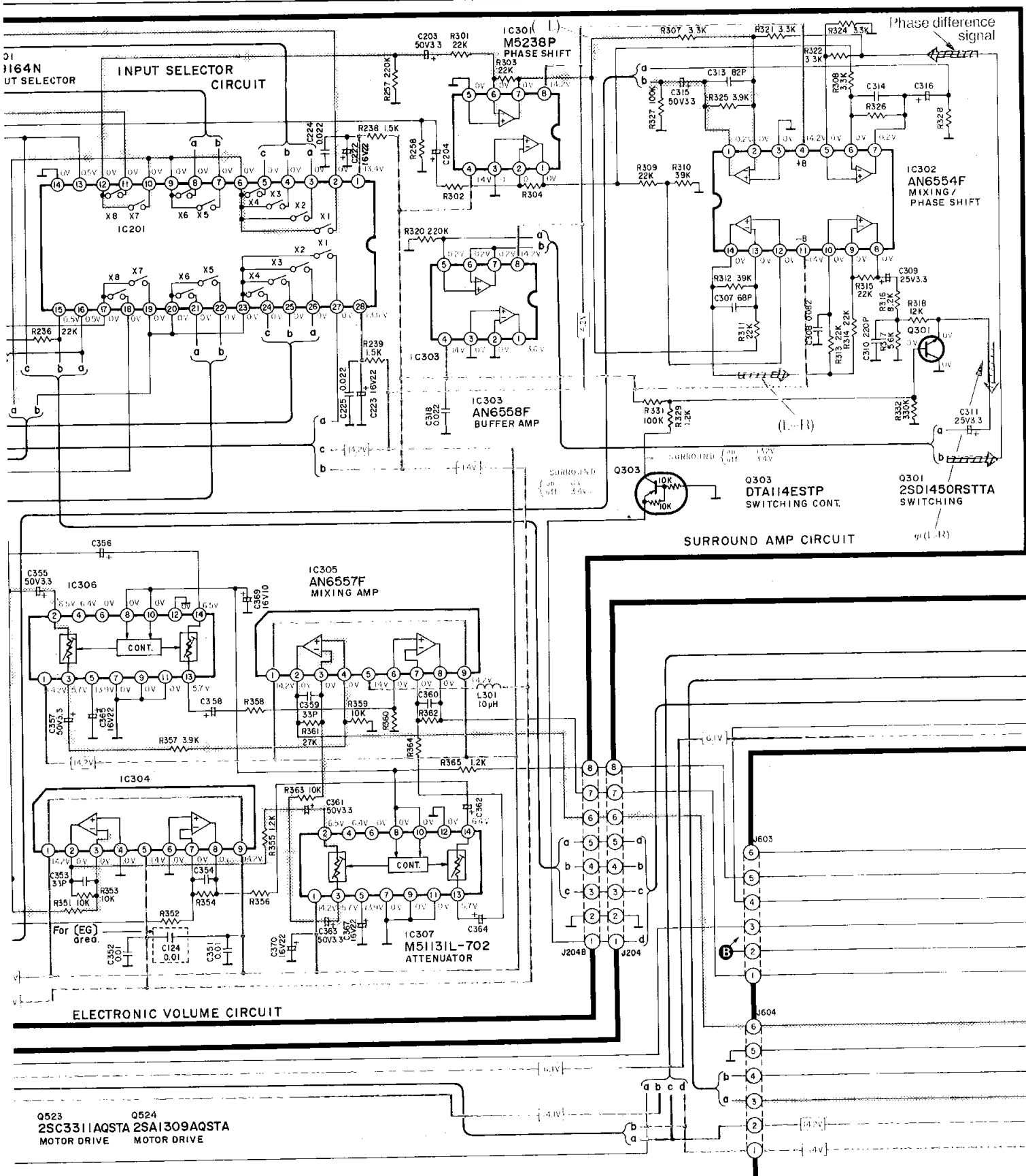
IT

B PHONO EQ. AMP/ATTENUATOR/SURROUND AMP/ INPUT SELECTOR CIRCUIT



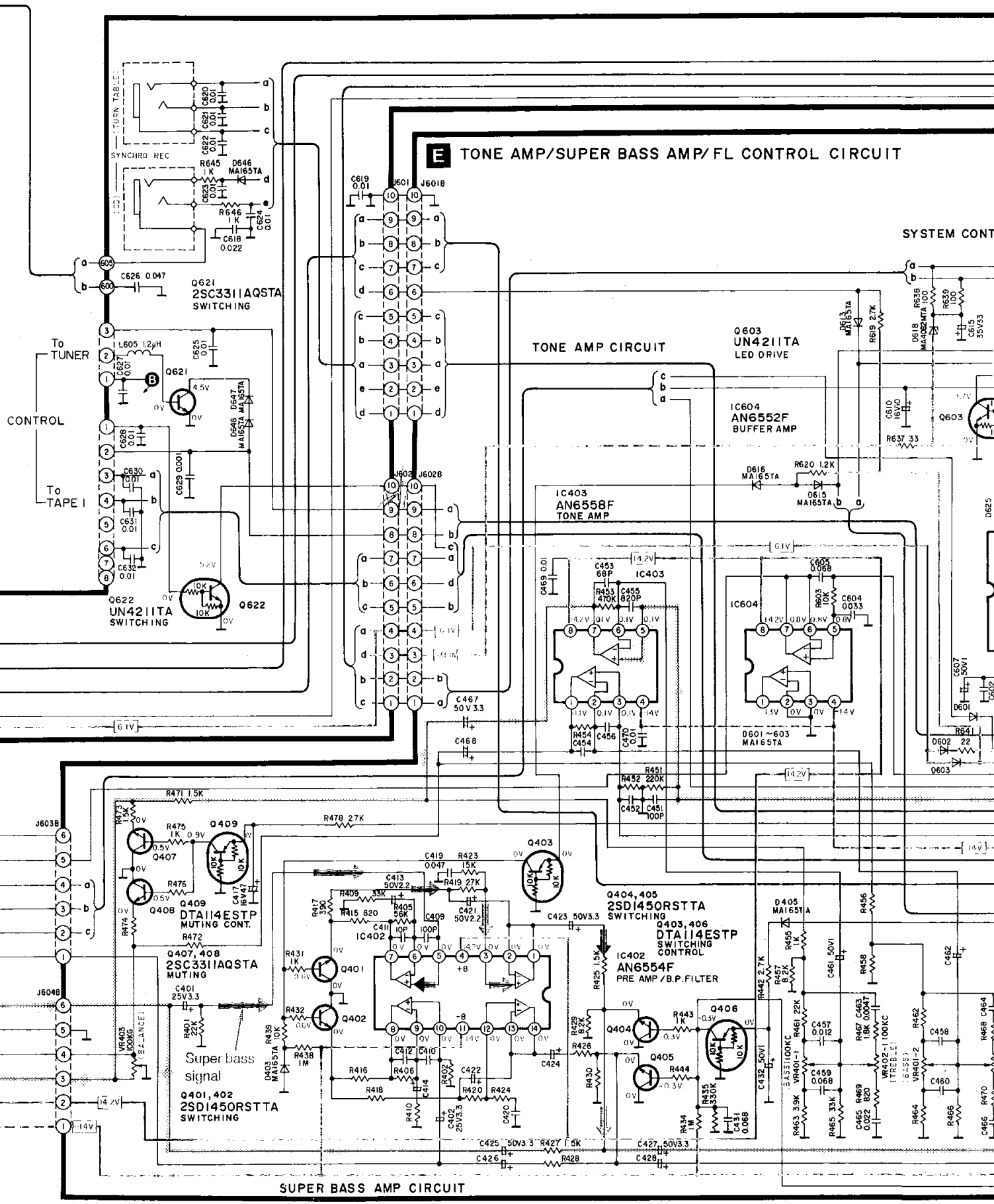
C INPUT/OUTPUT TERMINAL CIRCUIT

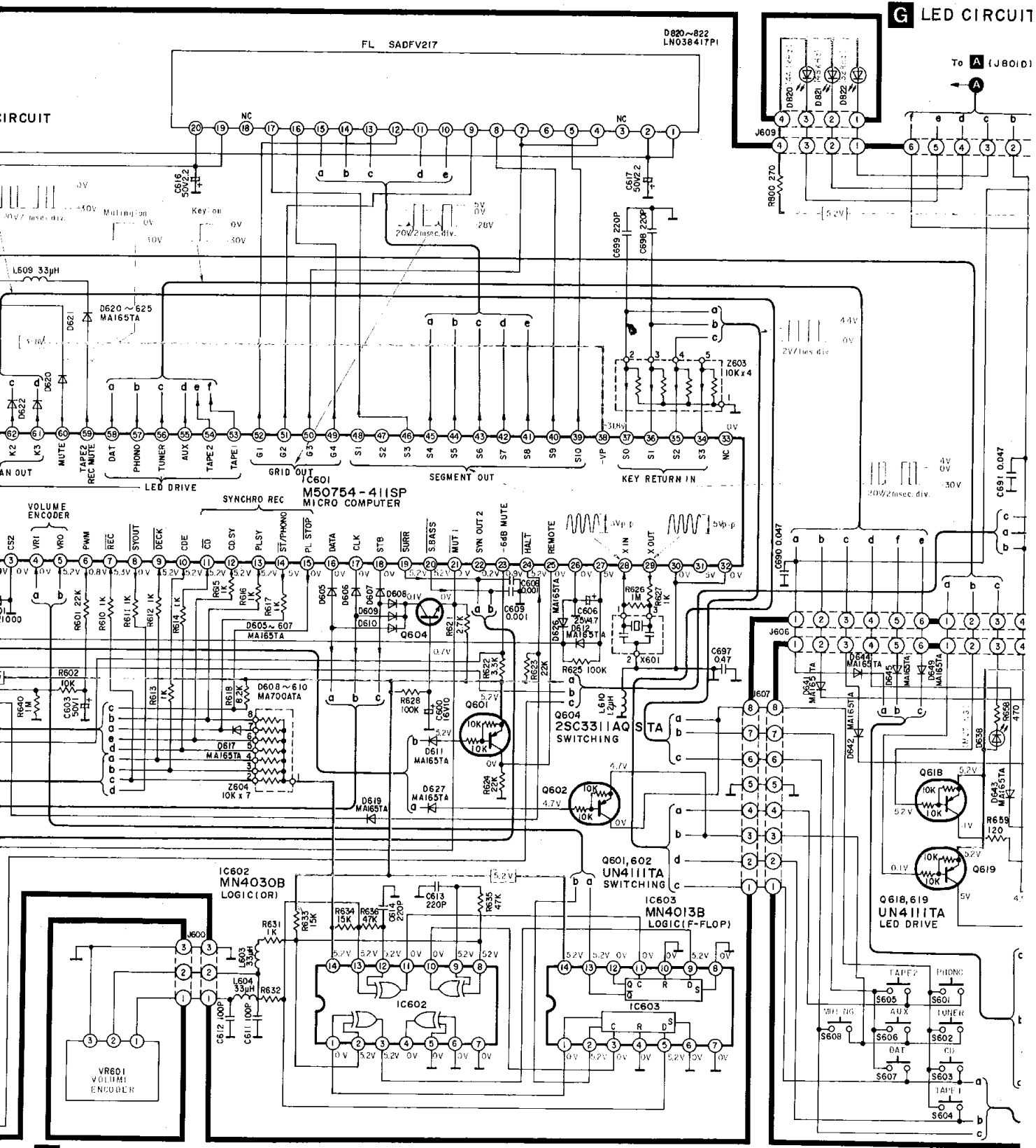




**D MOTOR CONTROL/VOLTAGE CONTROL AMP/POWER AMP/
CURRENT DRIVE AMP/MIXING/PROTECTION/POWER SOURCE CIRCUIT**

E TONE AMP/SUPER BASS AMP/FL CONTROL CIRCUIT

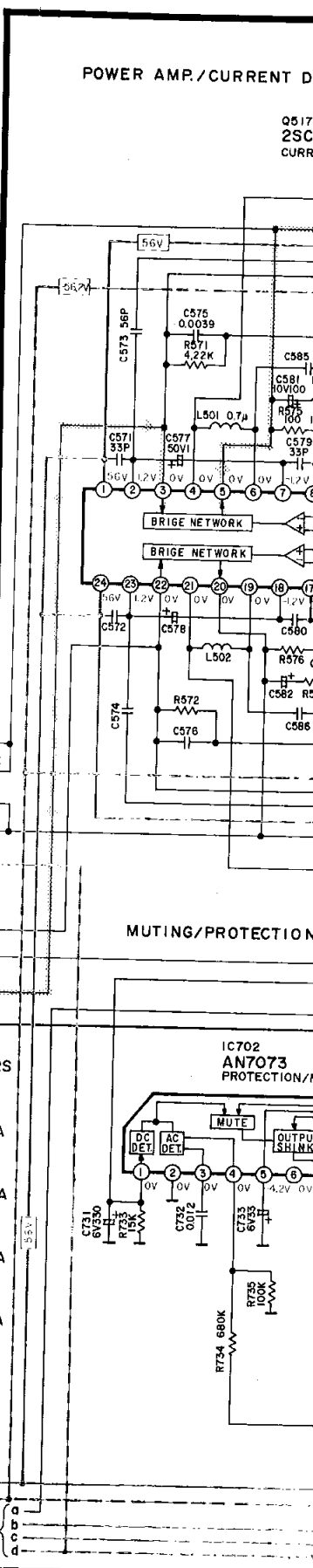
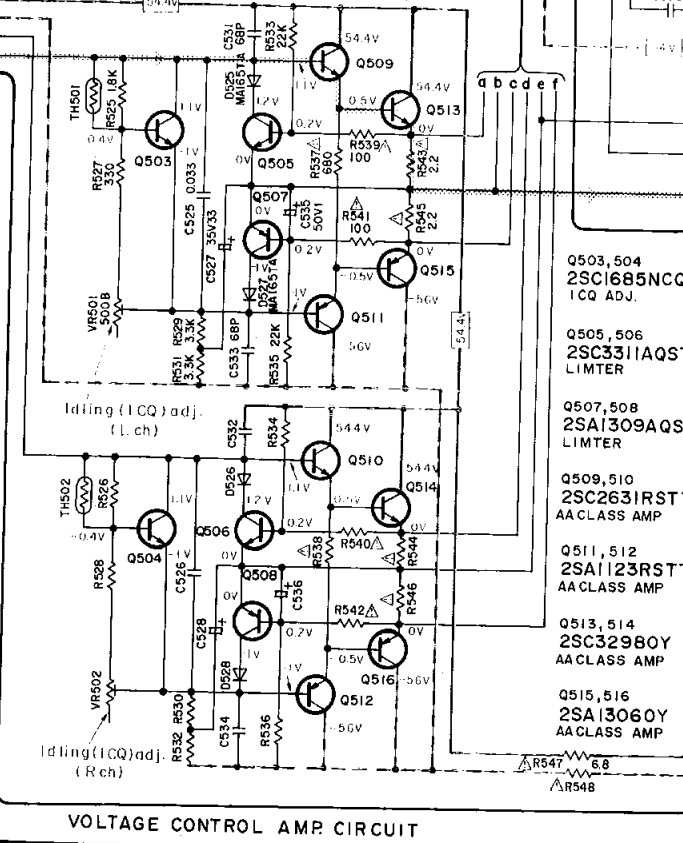
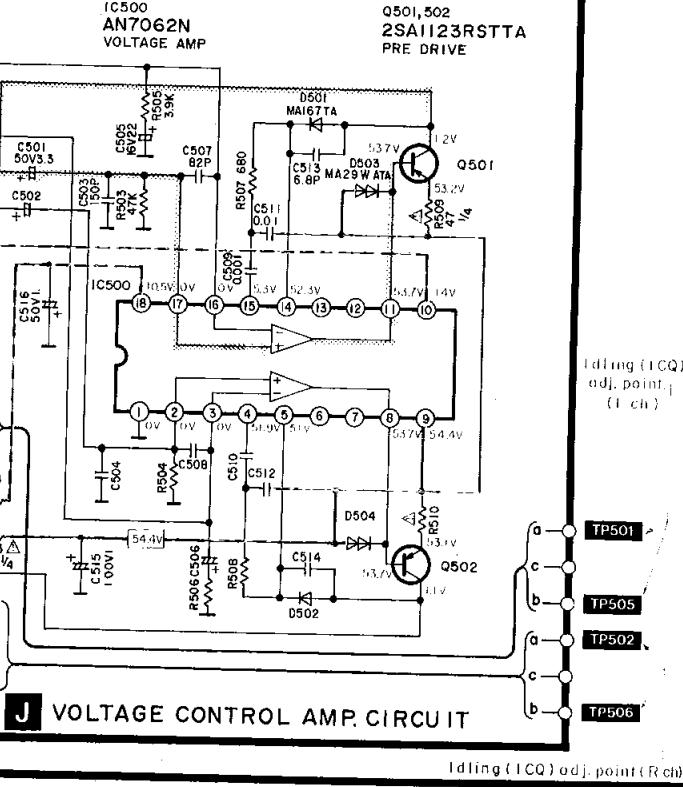
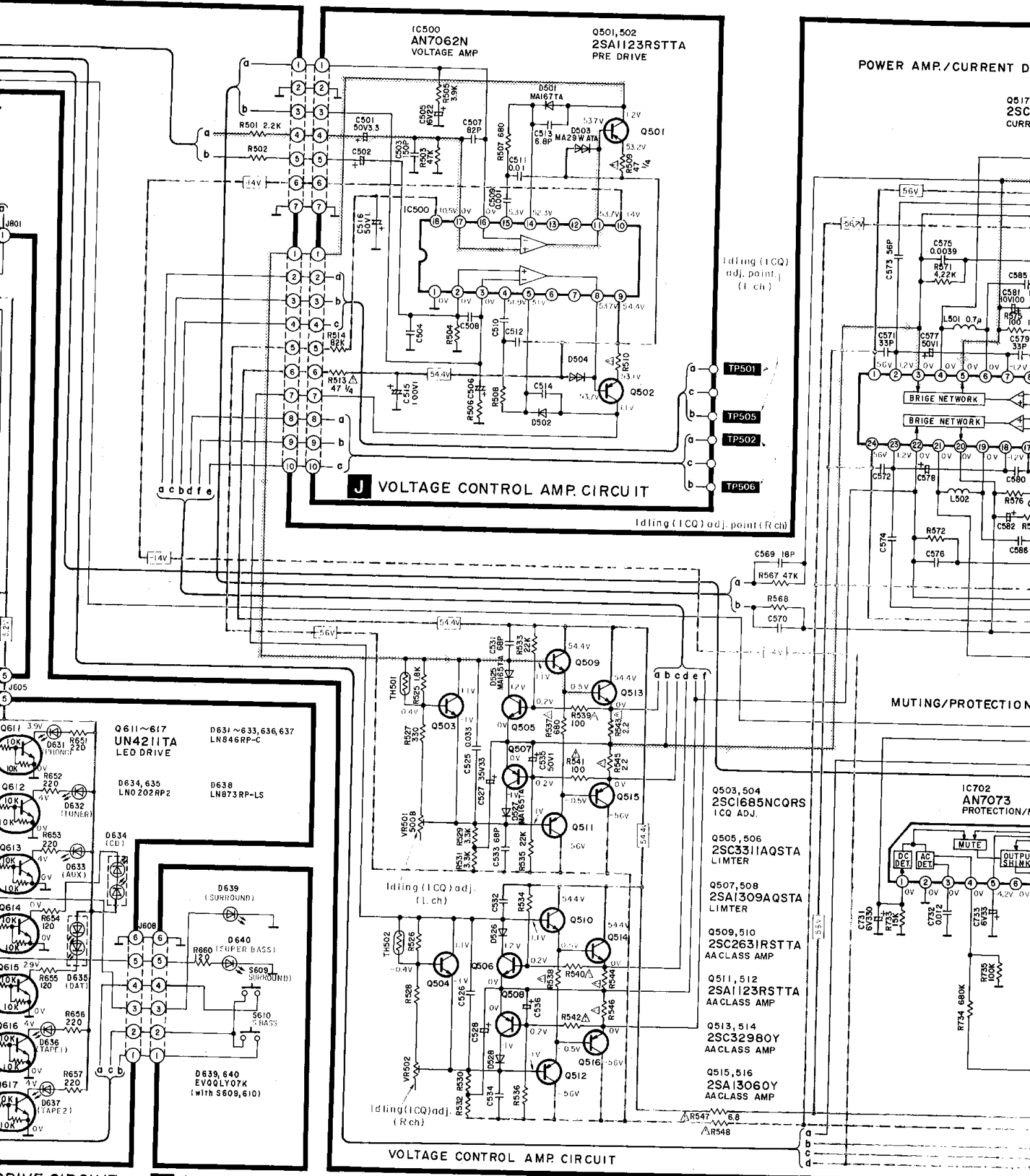




F VOLUME CIRCUIT

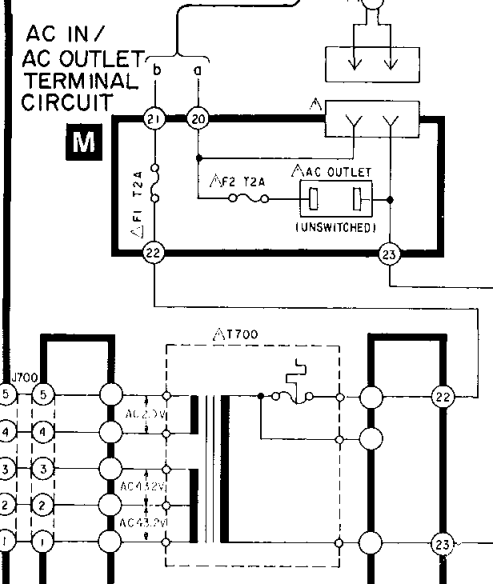
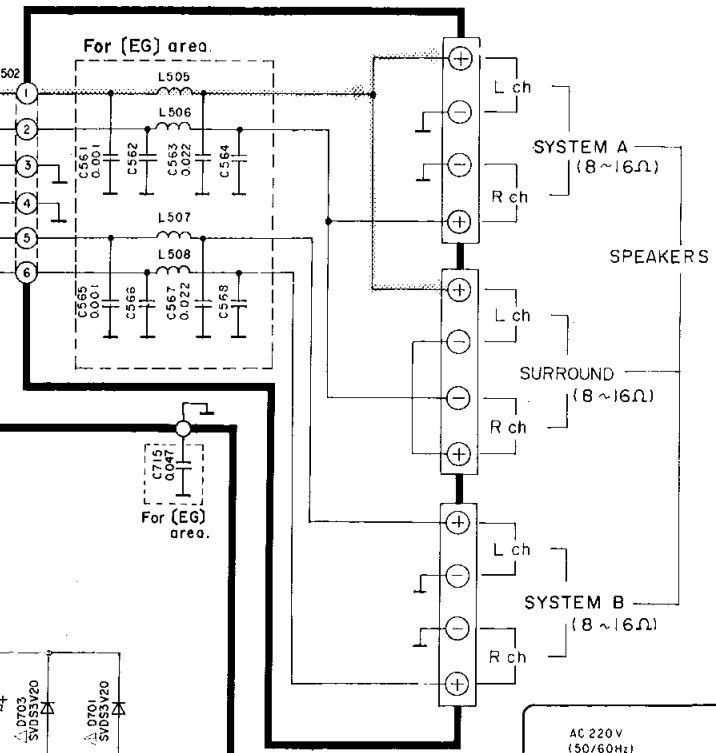
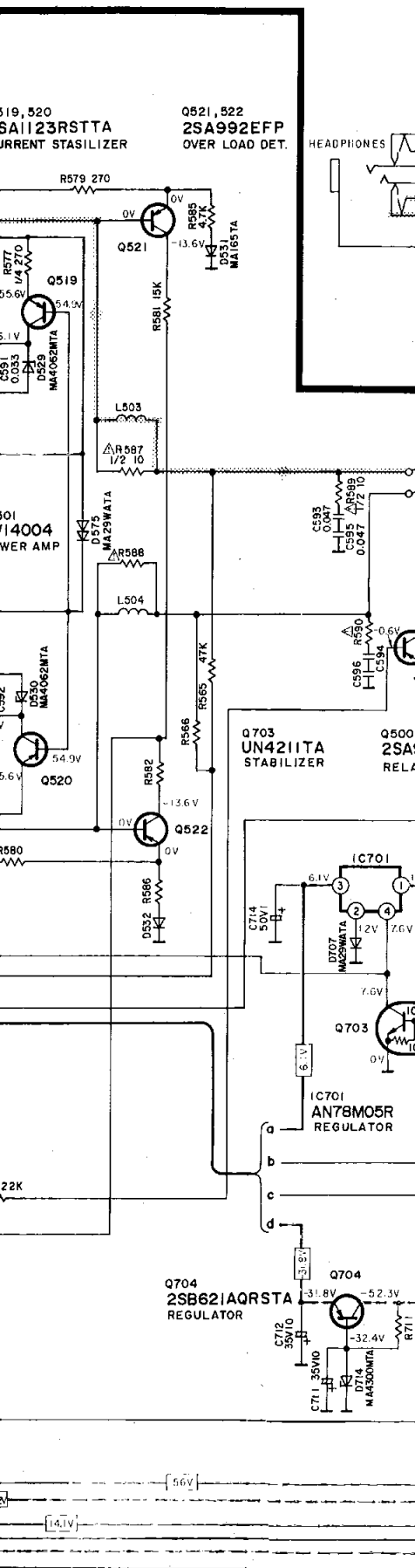
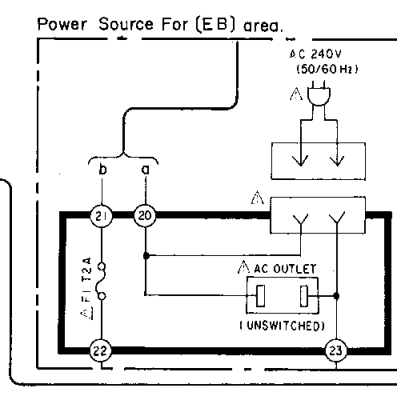
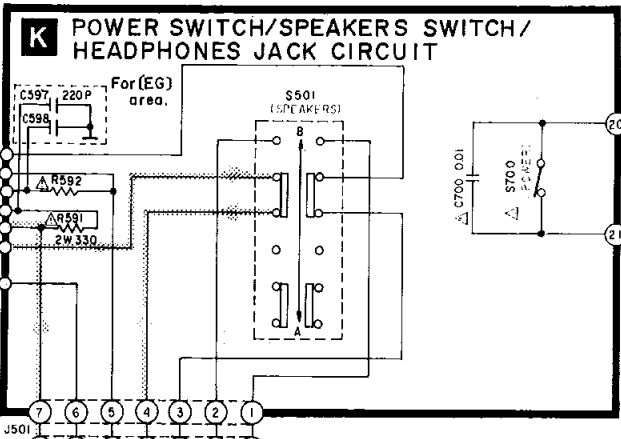
H INPUT SELECT SWITCH/LED

G LED CIRCUIT

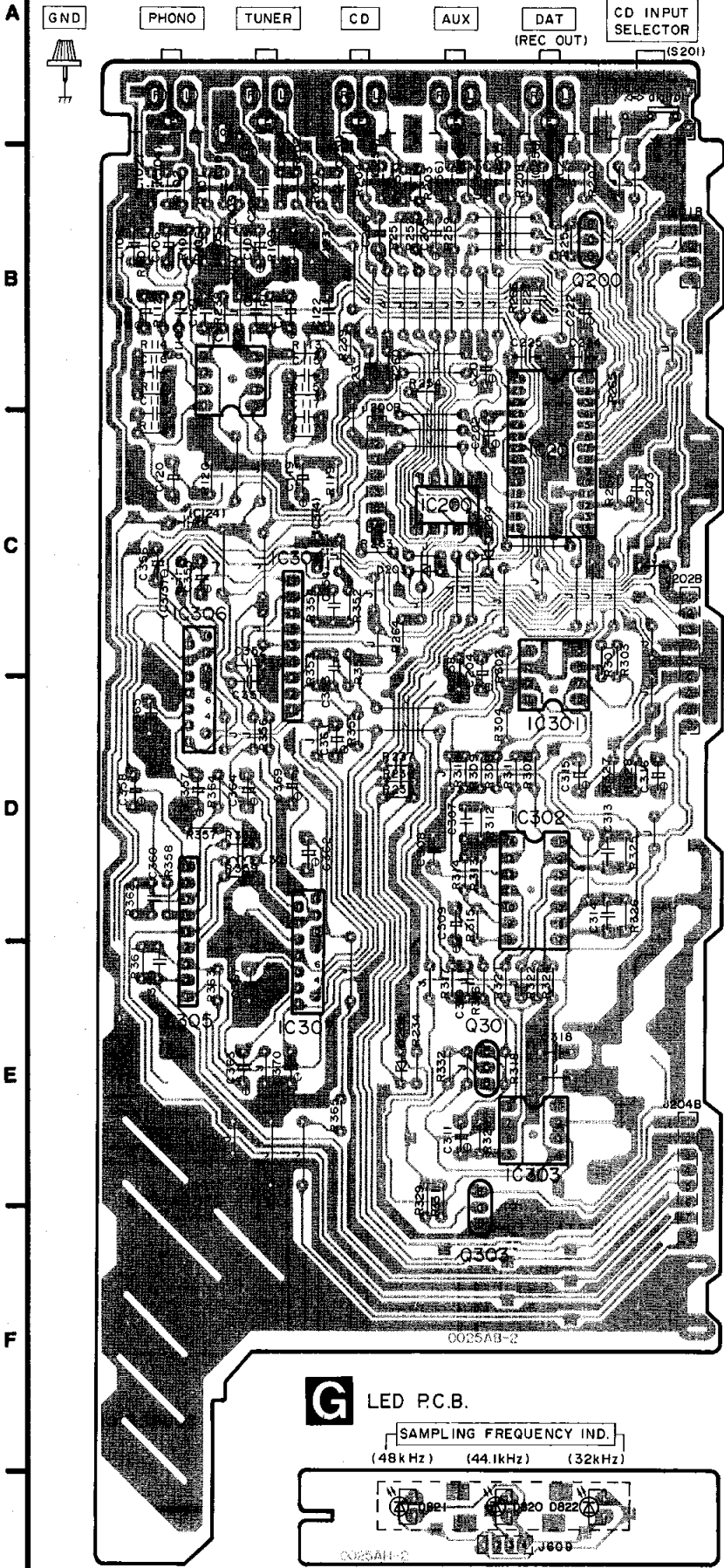


DRIVE CIRCUIT

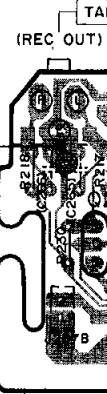
1 SURROUND/SUPER BASS SWITCH CIRCUIT



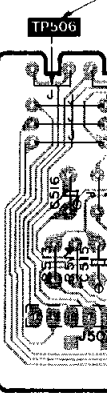
B PHONO EQ. AMP/ATTENUATOR /SRROUND AMP/ INPUT SELECTOR P.C.B.



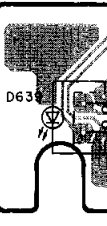
C INP



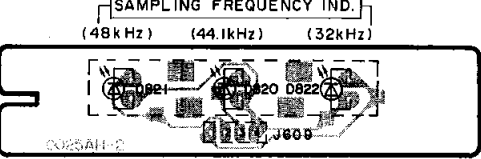
J VOL. Idling (IC)



I SURR BASS



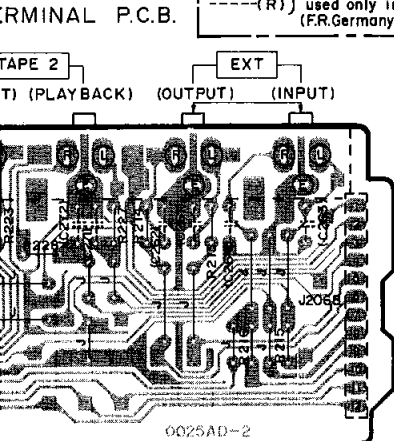
G LED P.C.B.



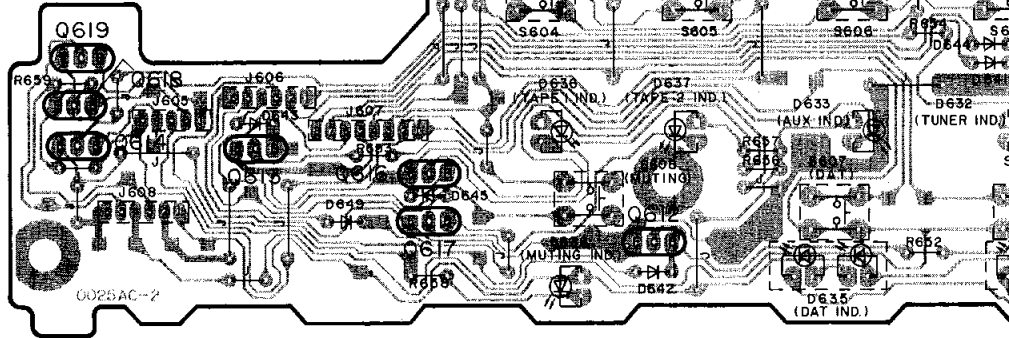
F v



Note
 ---(C) Capacitors and Resistors indicated by (C) or (R) area, used only in the EG (F.R.Germany/Italy) area.
 ---(R)

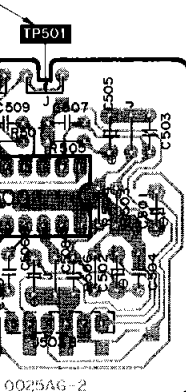


H INPUT SELECT SWITCH / LED DRIVE P.C.B.

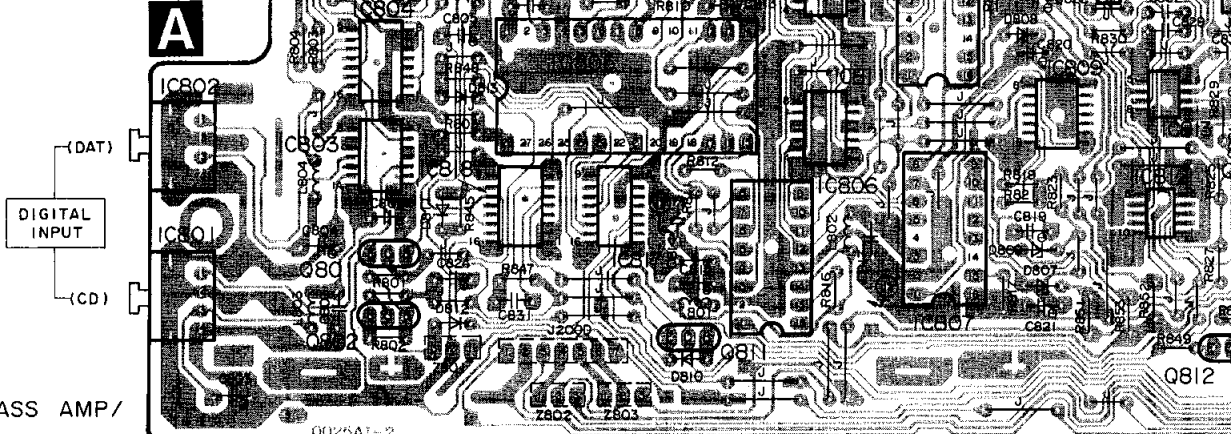


I AMP P.C.B.

(ICQ) adj. point (Lch)

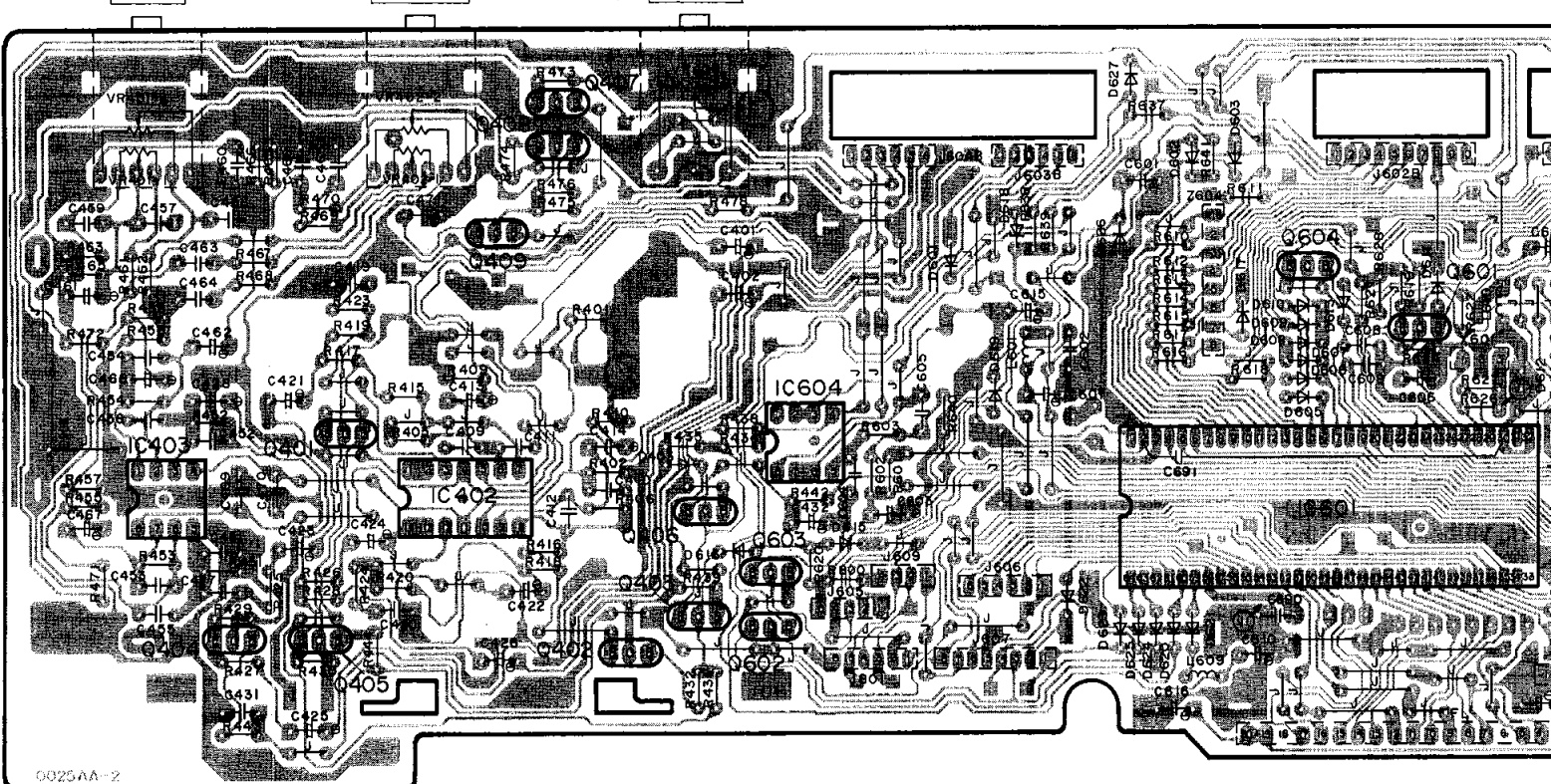


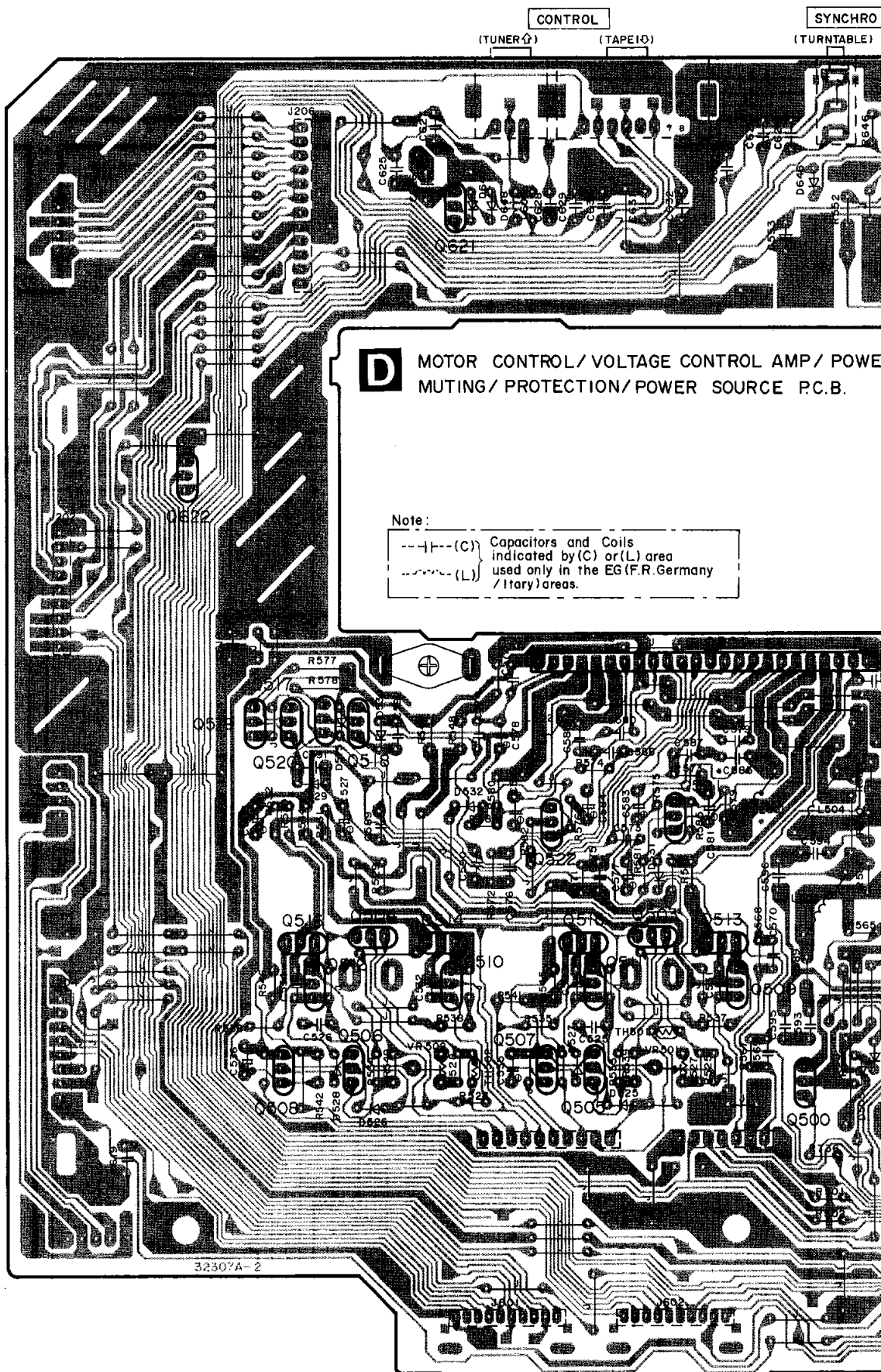
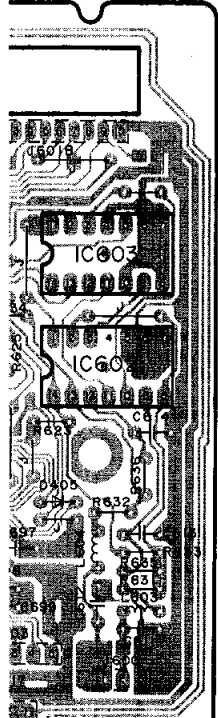
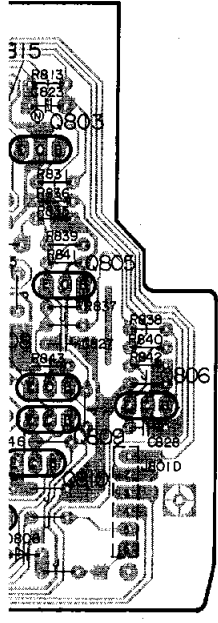
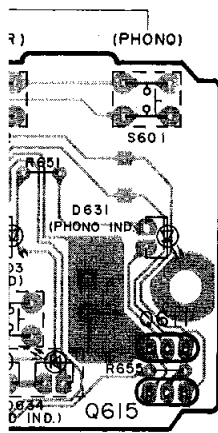
A D/A CONVERTER P.C.B.



E TONE AMP/SUPER BASS AMP / FL CONTROL P.C.B.

BASS TREBLE BALANCE



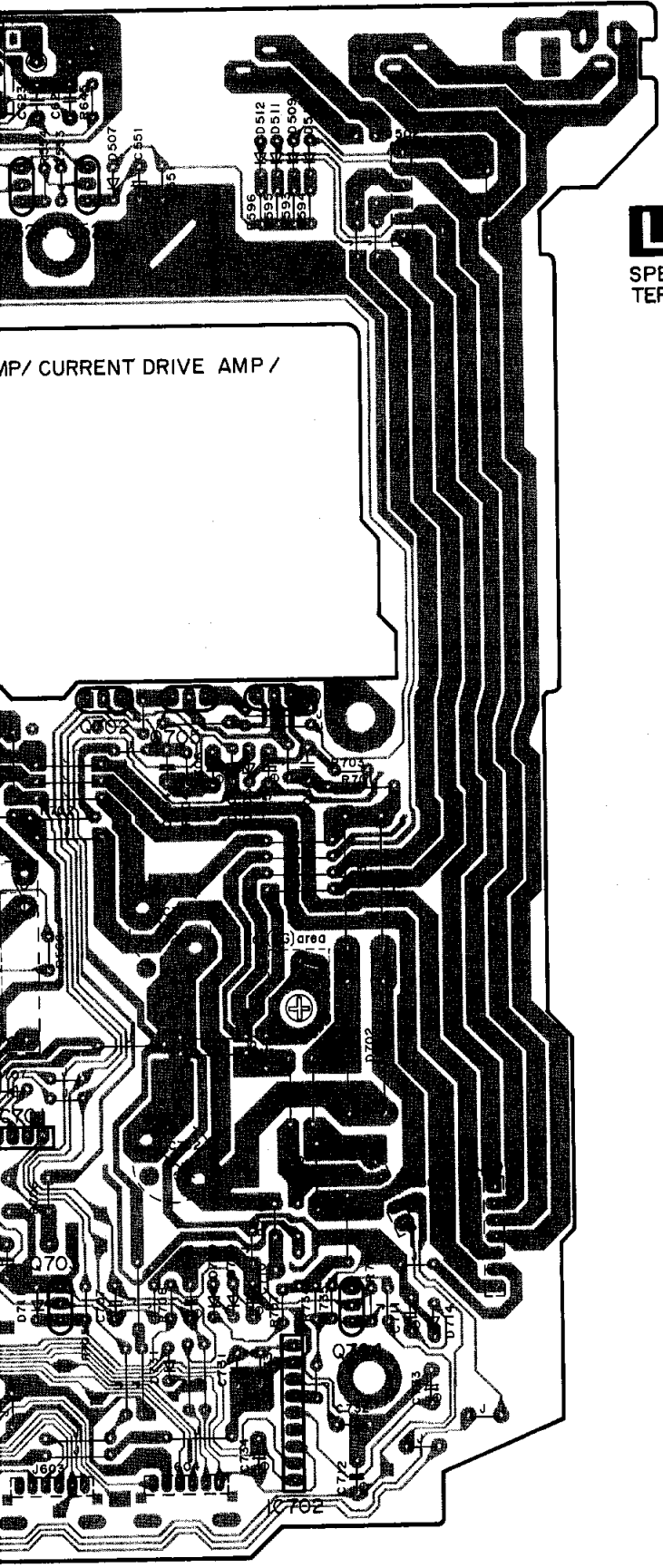


D MOTOR CONTROL / VOLTAGE CONTROL AMP / POWER MUTING / PROTECTION / POWER SOURCE P.C.B.

Note:

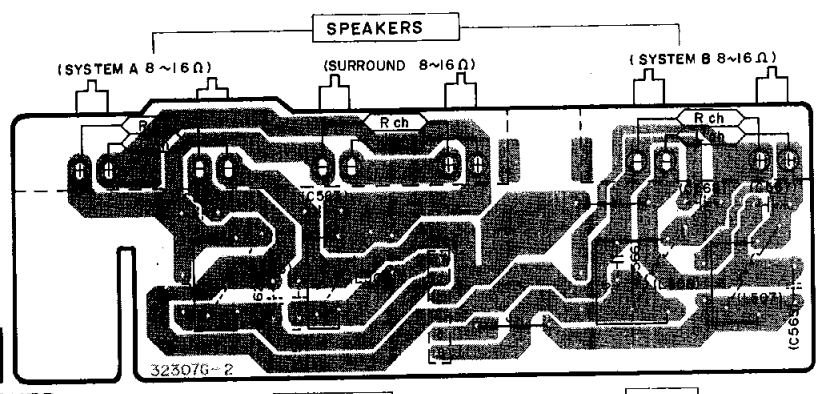
---||---(C) Capacitors and Coils indicated by (C) or (L) area used only in the EG (F.R. Germany / Italy) areas.

32307A-2



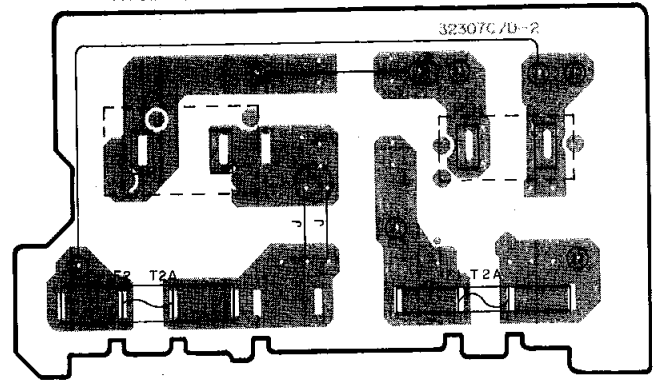
L

SPEAKER TERMINAL P.C.B.



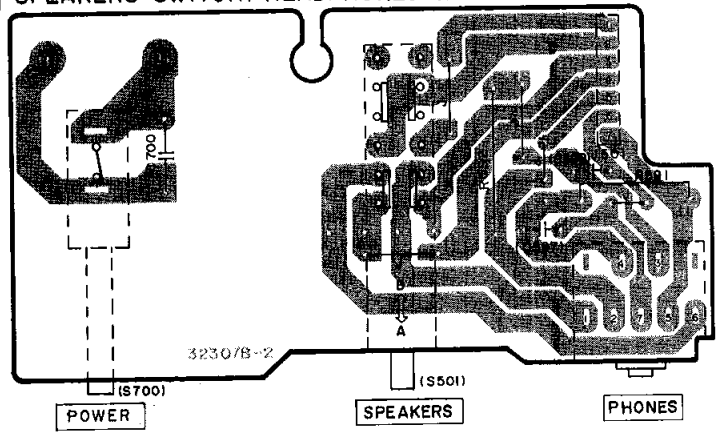
M

AC IN/AC OUTLET TERMINAL P.C.B.

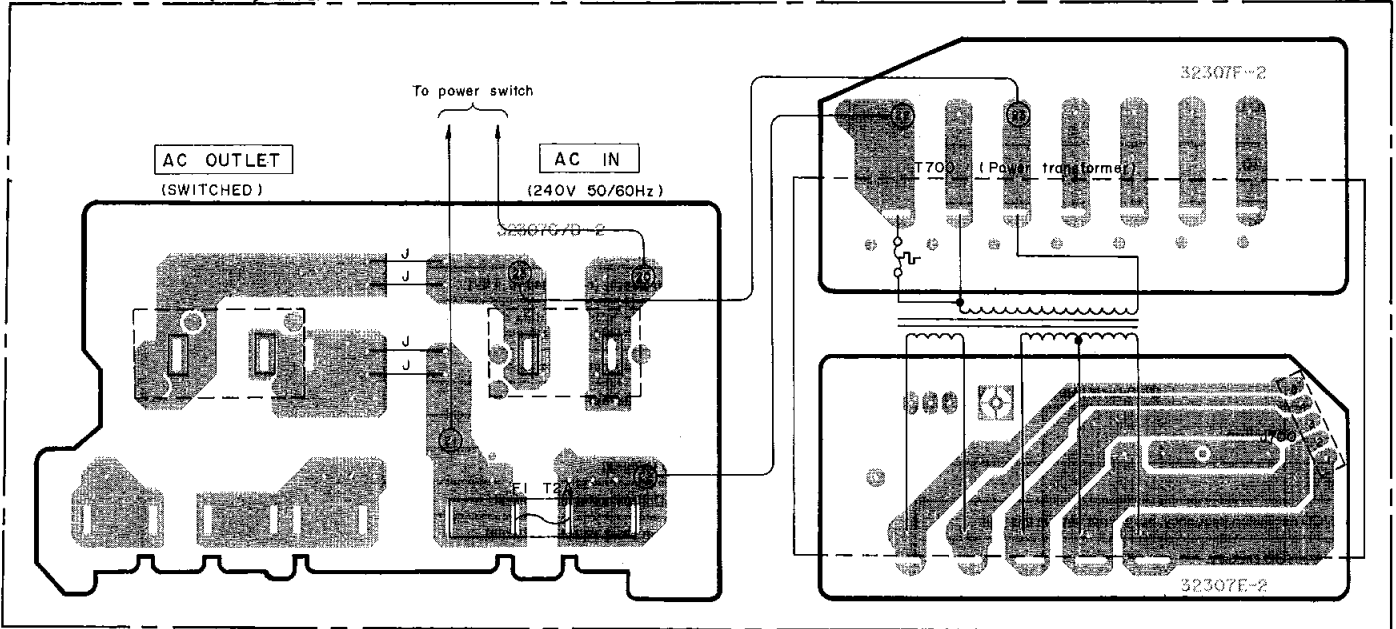


K

POWER SWITCH / SPEAKERS SWITCH / HEADPHONES JACK P.C.B.



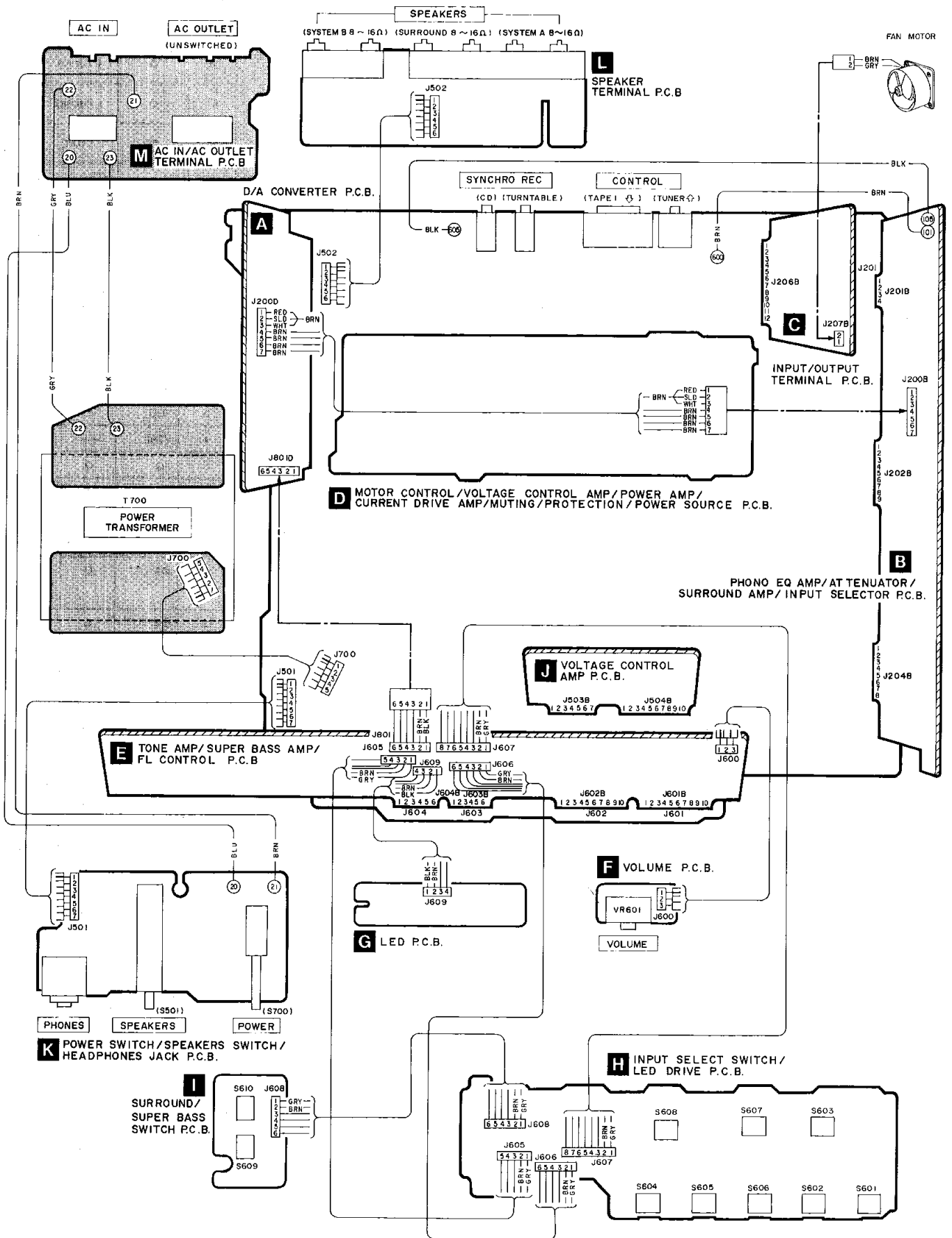
Power source for (EB) area



■ TERMINAL GUIDE OF IC'S, TRANSISTORS AND DIODES

| | | | | | | |
|---|--|--|---|---|-------------------------------|--|
| AN6552F AN6558F M5238P LM833M63 SVIBA4560F MN6636S AN6554F MN4030B MN4013B TC74HCU04AF TC4066BF | 8 pin 10 pin 14 pin | TC74HC164AF TC74HC00AF TC74HC4053AF TC74HC123AF DN74LS145S YM3404B PCM56P-L AN7062N TC9164N YM3623B M50754-411SP | 14 pin 16 pin 18 pin 28 pin 64 pin | No.1 | SVIH8DN2041B 1 2 3 4 5 | AN7073 AN6557F 1 2 3 4 5 6 7 8 |
| SVI4004 24PIN No.1 | AN78M05R 4 pin No. 1 | M51131L-702 No. | 2SC32980Y 2SA13060Y 2SD1265-P 2SB941PQR B C E | 2SC3311A-Q, UN4111 2SA1309AGS, UN4211 2SD1450R DTA114ESTP 2SB1030Q E C B | | |
| 2SA992E, 2SC2631-Q 2SB621A-R 2SA1123R 2SC1685NCQRS E C B | MA167 MA29WA MA165 MA700A Anode Cathode Ca → A | SVDS3V40 K → A | LN846RP-C LN873RP-LS LN038417P1 Anode Cathode Ca → A | LN0202RP2 40 → 33 20 → 1 | | |
| MA4051, MA4120 MA4082M, MA4062-M MA4140M, MA4300M Anode Cathode Ca → A | | | | | | |

WIRING CONNECTION DIAGRAM



FUNCTIONS OF IC TERMINALS

●IC601 (M50754-411SP)

| Pin No. | I/O | Terminal Name | Function | |
|----------|-----|-----------------|---|------------------------|
| 1 | I | V _{DD} | To be connected to a power supply. | |
| 2 | O | LCD | This is the output terminal for the LED selector indicator of the CD player. At a "HI" level the LED lights up. | |
| 3 | — | CS2 | For ground connection. | |
| 4 | I | VR1 | These are the terminals for the rotary encoder of the volume of VR601. | |
| 5 | | VR0 | | |
| 6 | O | PWM | This terminal outputs the signal for the control of the volume and balance | |
| 7 | I | REC | This is the terminal for the detection of recording on the deck. | |
| 8 | O | SY OUT | This is the terminal for synchro recording on the deck. | |
| 9 | I | DECK | This is the terminal for direct operations on the deck. | |
| 10 | I | CDE | Outputs the signal for the control of CD editing. | |
| 11 | I | CD | These are the terminals for the start of synchronization on the CD unit. | |
| 12 | | CD. SY. | | |
| 13 | I | PL. SY. | These are the terminals for sync recording on the player. | |
| 14 | O | PL. START | | |
| 15 | O | PL. STOP | | |
| 16 | O | DATA | CLK: This terminal outputs the clock signal for reading serial data. DATA: This terminal outputs the serial data. STB: This terminal outputs the pulse for the control of the setting of the analog switch. | |
| 17 | | CLK | | |
| 18 | | STB | The serial data inputted into IC201 is latched by the STB pulse and the switch is set to ON according to data. | |
| 19 | O | SURR | Outputs the signal for the control of SURROUND. At a "LOW" level SURROUND is ON. | |
| 20 | O | S. LOUD | Outputs the signal for the control of SUPER DYNAMIC SOUND. At a "LOW" level SUPER DYNAMIC SOUND is ON. | |
| 21 | O | MUT 1 | Outputs the signal for the control of muting. | |
| 22 | — | SYN OUT 2 | Unused. | |
| 23 | O | MUTE | Outputs the -6 dB signal for the control of attenuated muting. | |
| 24 | I | HALT | This is the terminal for the detection of power supply. | |
| 25 | I | REMOTE | Inputs data from the remote controller. | |
| 26 | — | CN VSS | For ground connection. | |
| 27 | I | RESET | This terminal inputs the reset signal. | |
| 28 | I | X IN | These are the I/O terminals for the oscillating clock signal. | |
| 29 | O | X OUT | | |
| 30 | — | Xc IN | Unused. | |
| 31 | | Xc OUT | | |
| 32 | — | V _{SS} | For ground connection. | |
| 33 | — | NC | Unused. | |
| 35 37 | O | S0 S2 | These are the key matrix terminals for input selection. | |
| 61 | I | K0 | | 61 SUPER DYNAMIC SOUND |
| 64 | | K3 | | 62 SURROUND DAT |
| | | | | 63 MUTING VD |
| | | | 64 VTR PHONO | |
| 38 | I | V ₊ | The signal which pulls down the voltage is inputted into this terminal. | |
| 39 46 | O | S3 | These terminals output the signals for the control of the multi-digit display. | |
| 49 | | S10 | | |
| 52 | | G0 | | |
| | | G3 | | |
| 53 | O | L TAPE | Outputs the signal for the control of the TAPE LED. At a "HI" level the LED lights up. | |
| 54 | O | L VTR | Outputs the signal for the control of the VTR LED. At a "HI" level the LED lights up. | |
| 55 | O | L VD | Outputs the signal for the control of the VD LED. At a "HI" level the LED lights up. | |

| Pin No. | I/O | Terminal Name | Function |
|---------|-----|---------------|---------------------------------|
| 56 | O | L TUNER | Outputs the sig At a "HI" level |
| 57 | O | L PHONO | Outputs the sig At a "HI" level |
| 58 | O | L DAT | Outputs the sig At a "HI" level |
| 59 | O | VTR REC MUTE | Outputs the sig |
| 60 | O | L MUTE | Outputs the sig At a "HI" level |

●IC805 (YM3623B) DIGITAL INTERFA

| Pin No. | Terminal Name | I/O | Function |
|---------|---------------|--------|--|
| 1 | VDD1 | — | This is the power cor |
| 2 | ADJ | I | This terminal is for th |
| 3 | VCO | I/O | This is the external c |
| 4 | VSS2 | — | This is the ground cc |
| 5 | XO | O | This is the output ter |
| 6 | XI | I | This is the input terr |
| 7 | KMODE | I (PU) | At a high level... the I Oth At a low level... the c |
| 8 | ØA | O | This terminal output circuitry is activated, (fs=about 16.9344 f |
| 9 | ØB | O | The frequency of the functions. When the of the DIN terminal (|
| 10 | T1 | I (PU) | This is the input tern |
| 11 | T2 | I (PU) | This is the input tern |
| 12 | BCO | O | Used to output the ti |
| 13 | SYNC | O | Used to output the s |
| 14 | VSS1 | O | This is the ground c |
| 15 | L/R | O | At a high level... dat At a low level... data |
| 16 | DEF | O | At a high level... inp At a low level... inpu |
| 17 | DO | O | Outputs 16-bit data. |
| 18 | WC | O | This is the terminal |
| 19 | DIGR | O | This terminal output |
| 20 | DIGL | O | This terminal output |
| 21 | ERR | O | Error detection term |
| 22 | SEL | I (PU) | Input SEL S1 Output L R Copying |
| 23 | S1 | O | L R Copying |
| 24 | S2 | O | L R |
| 25 | SCK | O | Terminal for the clo |
| 26 | SSYNC | O | For the signal of the |
| 27 | SDO | O | For the output of su |
| 28 | DIN | I (PU) | For the input of dat |

| Function |
|--|
| nal for the control of the TUNER LED. the LED lights up. |
| nal for the control of the PHONO LED. the LED lights up. |
| nal for the control of the DAT LED. the LED lights up. |
| nal for muting the VTR recording. |
| nal for the control of the MUTING LED. the LED lights up. |

CE RECEPTION

(PU) terminals are "pulled up".

| Function | | | | | | | | | | | | | | | | |
|--|---|--------|----------|----|-----------------|-------------------|------------|-------|--|---|--|----------|--|----------|--|-------|
| nection terminal (+5 V). | | | | | | | | | | | | | | | | |
| ie adjustment of the VCO oscillation frequency, but it is not used in this unit. | | | | | | | | | | | | | | | | |
| ondenser terminal for the VCO circuitry. | | | | | | | | | | | | | | | | |
| nection terminal of the system. | | | | | | | | | | | | | | | | |
| terminal for the crystal vibrator (16.9344 MHz). | | | | | | | | | | | | | | | | |
| terminal for the crystal vibrator. | | | | | | | | | | | | | | | | |
| PLL circuitry is activated when the DIN terminal receives an input signal. erwise, the crystal vibrator is activated. ystal vibrator is activated, regardless of the DIN terminal input. | | | | | | | | | | | | | | | | |
| s a 16.9344-MHz frequency when the crystal vibrator functions. When the PLL the frequency varies according to the speed of input data of the DIN terminal 4Hz when it is 44.2 kHz). | | | | | | | | | | | | | | | | |
| s terminal is divided into a third of that of terminal \emptyset A when the crystal vibrator PLL circuitry is activated, the frequency varies according to the speed of input data s=about 16.9344 when it is 44.2 kHz). | | | | | | | | | | | | | | | | |
| terminal for checking the internal circuitry. | | | | | | | | | | | | | | | | |
| terminal for checking the internal circuitry. | | | | | | | | | | | | | | | | |
| ime-clock signal from the DO terminal. | | | | | | | | | | | | | | | | |
| ynchronization signal. | | | | | | | | | | | | | | | | |
| onnection terminal of the system (+0 V). | | | | | | | | | | | | | | | | |
| a on the left channel is output from the DO terminal. on the right channel is output from the DO terminal. | | | | | | | | | | | | | | | | |
| ut data is emphasized. l data is not emphasized. | | | | | | | | | | | | | | | | |
| for checking data output to the DO terminal. | | | | | | | | | | | | | | | | |
| ts the signal for the right channel. | | | | | | | | | | | | | | | | |
| ts the signal for the left channel. | | | | | | | | | | | | | | | | |
| inal. H=Error is found during parity check L=No errors | | | | | | | | | | | | | | | | |
| <table border="1"> <thead> <tr> <th>Function</th> <th>Output</th> </tr> </thead> <tbody> <tr> <td>Function</td> <td>BZ</td> </tr> <tr> <td>3 not (2)usable</td> <td>L OC (except DAT)</td> </tr> <tr> <td>3 portable</td> <td>H DAT</td> </tr> <tr> <td></td> <td>L The sampling frequency of the DIN input signal is 44.1 kHz.</td> </tr> <tr> <td></td> <td>H 48 kHz</td> </tr> <tr> <td></td> <td>H 32 kHz</td> </tr> <tr> <td></td> <td>L ---</td> </tr> </tbody> </table> | Function | Output | Function | BZ | 3 not (2)usable | L OC (except DAT) | 3 portable | H DAT | | L The sampling frequency of the DIN input signal is 44.1 kHz. | | H 48 kHz | | H 32 kHz | | L --- |
| Function | Output | | | | | | | | | | | | | | | |
| Function | BZ | | | | | | | | | | | | | | | |
| 3 not (2)usable | L OC (except DAT) | | | | | | | | | | | | | | | |
| 3 portable | H DAT | | | | | | | | | | | | | | | |
| | L The sampling frequency of the DIN input signal is 44.1 kHz. | | | | | | | | | | | | | | | |
| | H 48 kHz | | | | | | | | | | | | | | | |
| | H 32 kHz | | | | | | | | | | | | | | | |
| | L --- | | | | | | | | | | | | | | | |
| ck-signal of the sub code output. | | | | | | | | | | | | | | | | |
| sub code. | | | | | | | | | | | | | | | | |
| b code data. | | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | |

•IC806 (YM3404B) Digital filter

| Pin No. | Mark | I/O | Function |
|---------|------|-----|--|
| 1 | SHL | O | 1DAC(ST="L"): Lch Deglitcher signal 2DAC(ST="H"): L/Rch Deglitcher signal |
| 2 | X0 | O | Clock output |
| 3 | X1 | I | Clock input |
| 4 | VDD2 | I | Power supply (connected to +5V) |
| 5 | BCI | I | Bit clock input (input data) |
| 6 | SDSY | I | R/L signal |
| 7 | SDI | I | Data input |
| 8 | VDD1 | I | Power supply (connected to +5V) |
| 9 | DLO | O | 1DAC(ST="L"): L/Rch data output terminal 2DAC(ST="H"): Lch data output terminal |
| 10 | RDO | O | Rch data output (not connected) |
| 11 | WCO | O | Output data word clock |
| 12 | BCO | O | Bit clock output (output data) |
| 13 | VSS | I | GND terminal |
| 14 | ST | I | 1DAC/2DAC selector terminal |
| 15 | FEN | I | System clock selector terminal |
| 16 | SHR | O | 1DAC(SP="L"): Rch deglitch signal |

RESISTORS AND CAPACITORS

Notes : * Important safety notice :

Components identified by Δ mark have special characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.

* Bracketed indications in Ref. No. columns specify the area. (Refer to the first page for area.)

Parts without these indications can be used for all areas.

Numbering System For Resistors

Example:

| | | | | |
|------|-------------------|-------|-----------|--------------------------|
| ERD | 25 | F | J | 102 |
| Type | Wattage (1/4W) | Shape | Tolerance | Value (1K Ω) |
| ERX | 2 | AN | J | 471 |
| Type | Wattage (2W) | Shape | Tolerance | Value (470 Ω) |

Numbering System For Capacitors

Example:

| | | | | |
|------|------------------|--------------------------|-----------|-----------------------|
| ECKD | 1H | 102 | Z | F |
| Type | Voltage (50V) | Value (0.001 μ F) | Tolerance | Unique |
| ECEA | 50 | M | | 330 |
| Type | Voltage (50V) | Characteristics | | Value (33 μ F) |

● Capacity values are in microfarads (μ F) unless specified otherwise, P= Pico-farads (pF) F= Farads (F).

● Resistance values are in ohms (Ω), unless specified otherwise, 1K= 1,000 Ω , 1M= 1,000k Ω

| Resistor Type | Wattage | | Tolerance |
|-----------------------------------|------------|-----------|---------------|
| ERD : Carbon | 10 : 1/8W | 12 : 1/2W | J : \pm 5% |
| ERG : Metal Oxide | 14 : 1/4W | 25 : 1/4W | F : \pm 1% |
| ERQ : Fuse Type Metal | 1A : 1W | 18 : 1/8W | G : \pm 2% |
| ERX : Metal Film | S2 : 1/4W | S1 : 1/2W | J : \pm 5% |
| ERD L : Carbon (chip) | 2F : 1/4W | 50 : 1/2W | K : \pm 10% |
| ERO K : Metal Film (chip) | 2A : 2W | 3A : 3W | M : \pm 20% |
| ERC : Solid | 6G : 1/10W | 8G : 1/8W | |
| ERF : Incombustible Box-Shaped | | | |
| ERM : Wire-Wound | | | |
| RRJ : Chip Resistor | | | |
| ERJ : Chip Resistor | | | |

| Capacitor Type | Voltage | | Tolerance |
|---|--------------|-----------|------------------|
| ECE : Electrolytic | 0J : 6.3V | 1A : 10V | K : \pm 10% |
| ECOD : Ceramic | 1C : 16V | 1E : 25V | M : \pm 20% |
| ECKD : Ceramic Capacitor | 1H : 50V | 1V : 35V | Z : +80 % -20 |
| ECQM : Polyester | 50 : 50V | 05 : 50V | J : \pm 5% |
| ECOP : Polypropylene | 2H : 500V | 2A : 100V | G : \pm 2% |
| ECG : Ceramic | 1 : 100V | 1J : 63V | F : \pm 1% |
| ECEA N : Non Polar Electrolytic | KC : 400V AC | | C : \pm 0.25pF |
| OCU : Ceramic (Chip Type) | KC : 125V AC | | D : \pm 0.5pF |
| ECUX : Ceramic (Chip Type) | (UL) | | |
| ECF : Semiconductor | | | |
| EECW : Liquid electrolyte double layer capacitor | | | |

| Ref. No. | Part No. | Value. | Ref. No. | Part No. | Value. | Ref. No. | Part No. | Value. |
|--------------------------|------------|----------|----------|------------|----------|----------|------------|----------|
| RESISTORS(VALUE,WATTAGE) | | | | | | | | |
| R101 | ERDS2TJ471 | 470 1/4 | R221 | ERDS2TJ102 | 1K 1/4 | R317 | ERDS2TJ562 | 5.6K 1/4 |
| R102 | ERDS2TJ471 | 470 1/4 | R222 | ERDS2TJ102 | 1K 1/4 | R318 | ERDS2TJ123 | 12K 1/4 |
| R105 | ERDS2TJ224 | 220K 1/4 | R223 | ERDS2TJ821 | 820 1/4 | R320 | ERDS2TJ224 | 220K 1/4 |
| (EG) | | | R224 | ERDS2TJ821 | 820 1/4 | R321 | ERDS2TJ332 | 3.3K 1/4 |
| R106 | ERDS2TJ224 | 220K 1/4 | R227 | ERDS2TJ102 | 1K 1/4 | R322 | ERDS2TJ332 | 3.3K 1/4 |
| (EG) | | | R228 | ERDS2TJ102 | 1K 1/4 | R324 | ERDS2TJ332 | 3.3K 1/4 |
| R107 | ERDS2TJ331 | 330 1/4 | R229 | ERDS2TJ392 | 3.9K 1/4 | R325 | ERDS2TJ392 | 3.9K 1/4 |
| R108 | ERDS2TJ331 | 330 1/4 | R230 | ERDS2TJ392 | 3.9K 1/4 | R326 | ERDS2TJ392 | 3.9K 1/4 |
| R109 | ERDS2TJ473 | 47K 1/4 | R231 | ERDS2TJ332 | 3.3K 1/4 | R327 | ERDS2TJ104 | 100K 1/4 |
| (E, E5, EB) | | | R232 | ERDS2TJ332 | 3.3K 1/4 | R328 | ERDS2TJ104 | 100K 1/4 |
| R109 | ERDS2TJ563 | 56K 1/4 | R234 | ERDS2TJ122 | 1.2K 1/4 | R329 | ERDS2TJ122 | 1.2K 1/4 |
| (EG) | | | R235 | ERDS2TJ223 | 22K 1/4 | R331 | ERDS2TJ105 | 1M 1/4 |
| R110 | ERDS2TJ473 | 47K 1/4 | R236 | ERDS2TJ223 | 22K 1/4 | R332 | ERDS2TJ334 | 330K 1/4 |
| (E, E5, EB) | | | R237 | ERDS2TJ223 | 22K 1/4 | R351 | ERDS2TJ103 | 10K 1/4 |
| R110 | ERDS2TJ563 | 56K 1/4 | R238 | ERDS2TJ152 | 1.5K 1/4 | R352 | ERDS2TJ103 | 10K 1/4 |
| (EG) | | | R239 | ERDS2TJ152 | 1.5K 1/4 | R353 | ERDS2TJ103 | 10K 1/4 |
| R111 | ERDS2TJ331 | 330 1/4 | R251 | ERDS2TJ102 | 1K 1/4 | R354 | ERDS2TJ103 | 10K 1/4 |
| R112 | ERDS2TJ331 | 330 1/4 | R252 | ERDS2TJ103 | 10K 1/4 | R355 | ERDS2TJ122 | 1.2K 1/4 |
| R113 | ERDS2TJ680 | 68 1/4 | R253 | ERDS2TJ103 | 10K 1/4 | R356 | ERDS2TJ122 | 1.2K 1/4 |
| R114 | ERDS2TJ680 | 68 1/4 | R254 | ERDS2TJ103 | 10K 1/4 | R357 | ERDS2TJ392 | 3.9K 1/4 |
| R115 | ERDS2TJ184 | 180K 1/4 | R257 | ERDS2TJ224 | 220K 1/4 | R358 | ERDS2TJ392 | 3.9K 1/4 |
| R116 | ERDS2TJ184 | 180K 1/4 | R258 | ERDS2TJ224 | 220K 1/4 | R359 | ERDS2TJ103 | 10K 1/4 |
| R117 | ERDS2TJ123 | 12K 1/4 | R259 | ERDS2TJ104 | 100K 1/4 | R360 | ERDS2TJ103 | 10K 1/4 |
| R118 | ERDS2TJ123 | 12K 1/4 | R260 | ERDS2TJ104 | 100K 1/4 | R361 | ERDS2TJ273 | 27K 1/4 |
| R119 | ERDS2TJ104 | 100K 1/4 | R263 | ERDS2TJ331 | 330 1/4 | R362 | ERDS2TJ273 | 27K 1/4 |
| R120 | ERDS2TJ104 | 100K 1/4 | R264 | ERDS2TJ331 | 330 1/4 | R363 | ERDS2TJ103 | 10K 1/4 |
| R201 | ERDS2TJ102 | 1K 1/4 | R265 | ERDS2TJ224 | 220K 1/4 | R364 | ERDS2TJ103 | 10K 1/4 |
| R202 | ERDS2TJ102 | 1K 1/4 | R266 | ERDS2TJ224 | 220K 1/4 | R365 | ERDS2TJ122 | 1.2K 1/4 |
| R203 | ERDS2TJ822 | 8.2K 1/4 | R301 | ERDS2TJ223 | 22K 1/4 | R401 | ERDS2TJ223 | 22K 1/4 |
| R204 | ERDS2TJ822 | 8.2K 1/4 | R302 | ERDS2TJ223 | 22K 1/4 | R402 | ERDS2TJ223 | 22K 1/4 |
| R205 | ERDS2TJ102 | 1K 1/4 | R303 | ERDS2TJ223 | 22K 1/4 | R405 | ERDS2TJ563 | 56K 1/4 |
| R206 | ERDS2TJ102 | 1K 1/4 | R304 | ERDS2TJ223 | 22K 1/4 | R406 | ERDS2TJ563 | 56K 1/4 |
| R207 | ERDS2TJ102 | 1K 1/4 | R307 | ERDS2TJ332 | 3.3K 1/4 | R409 | ERDS2TJ333 | 33K 1/4 |
| R208 | ERDS2TJ102 | 1K 1/4 | R308 | ERDS2TJ332 | 3.3K 1/4 | R410 | ERDS2TJ333 | 33K 1/4 |
| R213 | ERDS2TJ471 | 470 1/4 | R309 | ERDS2TJ223 | 22K 1/4 | R415 | ERDS2TJ821 | 820 1/4 |
| R214 | ERDS2TJ471 | 470 1/4 | R310 | ERDS2TJ393 | 39K 1/4 | R416 | ERDS2TJ821 | 820 1/4 |
| R215 | ERDS2TJ182 | 1.8K 1/4 | R311 | ERDS2TJ223 | 22K 1/4 | R417 | ERDS2TJ391 | 390 1/4 |
| R216 | ERDS2TJ182 | 1.8K 1/4 | R312 | ERDS2TJ393 | 39K 1/4 | R418 | ERDS2TJ391 | 390 1/4 |
| R217 | ERDS2TJ472 | 4.7K 1/4 | R313 | ERDS2TJ223 | 22K 1/4 | R419 | ERDS2TJ273 | 27K 1/4 |
| R218 | ERDS2TJ472 | 4.7K 1/4 | R314 | ERDS2TJ223 | 22K 1/4 | R420 | ERDS2TJ273 | 27K 1/4 |
| | | | R315 | ERDS2TJ223 | 22K 1/4 | R423 | ERDS2TJ153 | 15K 1/4 |
| | | | R316 | ERDS2TJ822 | 8.2K 1/4 | R424 | ERDS2TJ153 | 15K 1/4 |

| Ref. No. | Part No. | Value. | Ref. No. | Part No. | Value. | Ref. No. | Part No. | Value. |
|----------|----------------|----------|----------|----------------|----------|---------------------------|---------------|----------|
| R425 | ERDS2T J152 | 1.5K 1/4 | R552 | △ ERDS1FJ331 | 330 1/2 | R701 | △ ERDS1FJ2R2 | 2.2 1/2 |
| R426 | ERDS2T J152 | 1.5K 1/4 | R553 | ERDS2T J153 | 15K 1/4 | R702 | △ ERD25FJ3R3 | 3.3 1/4 |
| R427 | ERDS2T J152 | 1.5K 1/4 | R554 | ERDS2T J103 | 10K 1/4 | R703 | ERDS2T J682 | 6.8K 1/4 |
| R428 | ERDS2T J152 | 1.5K 1/4 | R565 | ERDS2T J473 | 47K 1/4 | R704 | ERDS2T J822 | 8.2K 1/4 |
| R429 | ERDS2T J822 | 8.2K 1/4 | R566 | ERDS2T J473 | 47K 1/4 | R705 | ERDS2T J333 | 33K 1/4 |
| R430 | ERDS2T J822 | 8.2K 1/4 | R567 | ERDS2T J473 | 47K 1/4 | R706 | △ ERDS1FJ100 | 10 1/2 |
| R431 | ERDS2T J102 | 1K 1/4 | R568 | ERDS2T J473 | 47K 1/4 | R707 | △ ERDS2T J222 | 2.2K 1/4 |
| R432 | ERDS2T J102 | 1K 1/4 | R570 | △ ERG3ANJ102 | 1K 3 | R708 | ERDS2T J682 | 6.8K 1/4 |
| R434 | ERDS2T J105 | 1M 1/4 | R571 | ERDS2TKF4220 | 422 1/4 | R710 | △ ERDS1FJ331 | 330 1/2 |
| R435 | ERDS2T J334 | 330K 1/4 | R572 | ERDS2TKF4220 | 422 1/4 | R711 | ERDS2T J272 | 2.7K 1/4 |
| R438 | ERDS2T J105 | 1M 1/4 | R573 | ERDS2TKF1000 | 100 1/4 | R733 | ERDS2T J153 | 15K 1/4 |
| R439 | ERDS2T J103 | 10K 1/4 | R574 | ERDS2TKF1000 | 100 1/4 | R734 | ERDS2T J684 | 680K 1/4 |
| R442 | ERDS2T J272 | 2.7K 1/4 | R575 | ERDS2TKF1000 | 100 1/4 | R735 | ERDS2T J104 | 100K 1/4 |
| R443 | ERDS2T J102 | 1K 1/4 | R576 | ERDS2TKF1000 | 100 1/4 | R736 | ERDS2T J223 | 22K 1/4 |
| R444 | ERDS2T J102 | 1K 1/4 | R577 | ERD2FCG271 | 270 1/4 | R800 | ERDS2T J221 | 220 1/4 |
| R451 | ERDS2T J224 | 220K 1/4 | R578 | ERD2FCG271 | 270 1/4 | R801 | ERDS2T J102 | 1K 1/4 |
| R452 | ERDS2T J224 | 220K 1/4 | R579 | ERDS2T J271 | 270 1/4 | R802 | ERDS2T J103 | 10K 1/4 |
| R453 | ERDS2T J474 | 470K 1/4 | R580 | ERDS2T J271 | 270 1/4 | R803 | ERDS2T J101 | 100 1/4 |
| R454 | ERDS2T J474 | 470K 1/4 | R581 | ERDS2T J153 | 15K 1/4 | R804 | ERDS2T J101 | 100 1/4 |
| R455 | ERDS2T J102 | 1K 1/4 | R582 | ERDS2T J153 | 15K 1/4 | R805 | ERDS2T J821 | 820 1/4 |
| R456 | ERDS2T J102 | 1K 1/4 | R585 | ERDS2T J472 | 4.7K 1/4 | R806 | ERDS2T J151 | 150 1/4 |
| R457 | ERDS2T J822 | 8.2K 1/4 | R586 | ERDS2T J472 | 4.7K 1/4 | R807 | ERDS2T J102 | 1K 1/4 |
| R458 | ERDS2T J822 | 8.2K 1/4 | R587 | △ ERDS1FJ100 | 10 1/2 | R808 | ERDS2T J105 | 1M 1/4 |
| R461 | ERDS2T J223 | 22K 1/4 | R588 | △ ERDS1FJ100 | 10 1/2 | R809 | ERDS2T J223 | 22K 1/4 |
| R462 | ERDS2T J223 | 22K 1/4 | R589 | △ ERDS1FJ100 | 10 1/2 | R810 | ERDS2T J471 | 470 1/4 |
| R463 | ERDS2T J392 | 3.9K 1/4 | R590 | △ ERDS1FJ100 | 10 1/2 | R811 | ERDS2T J101 | 100 1/4 |
| R464 | ERDS2T J392 | 3.9K 1/4 | R591 | △ ERG2ANJP331S | 330 2 | R812 | ERDS2T J103 | 10K 1/4 |
| R465 | ERDS2T J333 | 33K 1/4 | R592 | △ ERG2ANJP331S | 330 2 | R813 | ERDS2T J104 | 100K 1/4 |
| R466 | ERDS2T J333 | 33K 1/4 | R593 | ERDS2T J223 | 22K 1/4 | R814 | ERDS2T J223 | 22K 1/4 |
| R467 | ERDS2T J182 | 1.8K 1/4 | R594 | ERDS2T J223 | 22K 1/4 | R816 | ERDS2T J562 | 5.6K 1/4 |
| R468 | ERDS2T J182 | 1.8K 1/4 | R595 | ERDS2T J223 | 22K 1/4 | R817 | ERDS2T J564 | 560K 1/4 |
| R469 | ERDS2T J821 | 820 1/4 | R596 | ERDS2T J223 | 22K 1/4 | R818 | ERDS2T J564 | 560K 1/4 |
| R470 | ERDS2T J821 | 820 1/4 | R601 | ERDS2T J223 | 22K 1/4 | R819 | ERDS2T J184 | 180K 1/4 |
| R471 | ERDS2T J152 | 1.5K 1/4 | R602 | ERDS2T J103 | 10K 1/4 | R820 | ERDS2T J184 | 180K 1/4 |
| R472 | ERDS2T J152 | 1.5K 1/4 | R603 | ERDS2T J103 | 10K 1/4 | R821 | ERDS2T J394 | 390K 1/4 |
| R473 | ERDS2T J152 | 1.5K 1/4 | R610 | ERDS2T J102 | 1K 1/4 | R822 | ERDS2T J394 | 390K 1/4 |
| R474 | ERDS2T J152 | 1.5K 1/4 | R611 | ERDS2T J102 | 1K 1/4 | R823 | ERDS2T J102 | 1K 1/4 |
| R475 | ERDS2T J102 | 1K 1/4 | R612 | ERDS2T J102 | 1K 1/4 | R824 | ERDS2T J102 | 1K 1/4 |
| R476 | ERDS2T J102 | 1K 1/4 | R613 | ERDS2T J102 | 1K 1/4 | R825 | ERDS2T J475T | |
| R478 | ERDS2T J272 | 2.7K 1/4 | R614 | ERDS2T J102 | 1K 1/4 | R826 | ERDS2T J475T | |
| R501 | ERDS2T J222 | 2.2K 1/4 | R615 | ERDS2T J102 | 1K 1/4 | R827 | ERDS2T J272 | 2.7K 1/4 |
| R502 | ERDS2T J222 | 2.2K 1/4 | R616 | ERDS2T J102 | 1K 1/4 | R828 | ERDS2T J272 | 2.7K 1/4 |
| R503 | ERDS2T J473 | 47K 1/4 | R617 | ERDS2T J102 | 1K 1/4 | R829 | ERDS2T J222 | 2.2K 1/4 |
| R504 | ERDS2T J473 | 47K 1/4 | R618 | ERDS2T J822 | 8.2K 1/4 | R830 | ERDS2T J222 | 2.2K 1/4 |
| R505 | ERDS2T J392 | 3.9K 1/4 | R619 | ERDS2T J272 | 2.7K 1/4 | R831 | ERDS2T J102 | 1K 1/4 |
| R506 | ERDS2T J392 | 3.9K 1/4 | R620 | ERDS2T J122 | 1.2K 1/4 | R832 | ERDS2T J102 | 1K 1/4 |
| R507 | ERDS2T J681 | 680 1/4 | R621 | ERDS2T J272 | 2.7K 1/4 | R833 | ERDS2T J474 | 470K 1/4 |
| R508 | △ ERDS2T J681 | 680 1/4 | R622 | ERDS2T J332 | 3.3K 1/4 | R834 | ERDS2T J474 | 470K 1/4 |
| R509 | △ ERD25FJ470 | 47 1/4 | R623 | ERDS2T J223 | 22K 1/4 | R835 | ERDS2T J473 | 47K 1/4 |
| R510 | △ ERD25FJ470 | 47 1/4 | R624 | ERDS2T J223 | 22K 1/4 | R836 | ERDS2T J473 | 47K 1/4 |
| R513 | △ ERD25FJ470 | 47 1/4 | R625 | ERDS2T J104 | 100K 1/4 | R837 | ERDS2T J102 | 1K 1/4 |
| R514 | ERDS2T J823 | 82K 1/4 | R626 | ERDS2T J105 | 1M 1/4 | R838 | ERDS2T J102 | 1K 1/4 |
| R525 | ERDS2T J182 | 1.8K 1/4 | R627 | ERDS2T J102 | 1K 1/4 | R839 | ERDS2T J102 | 1K 1/4 |
| R526 | ERDS2T J182 | 1.8K 1/4 | R628 | ERDS2T J104 | 100K 1/4 | R840 | ERDS2T J102 | 1K 1/4 |
| R527 | ERDS2T J331 | 330 1/4 | R631 | ERDS2T J102 | 1K 1/4 | R841 | ERDS2T J822 | 8.2K 1/4 |
| R528 | ERDS2T J331 | 330 1/4 | R632 | ERDS2T J102 | 1K 1/4 | R842 | ERDS2T J822 | 8.2K 1/4 |
| R529 | ERDS2T J332 | 3.3K 1/4 | R633 | ERDS2T J153 | 15K 1/4 | R843 | ERDS2T J474 | 470K 1/4 |
| R530 | ERDS2T J332 | 3.3K 1/4 | R634 | ERDS2T J153 | 15K 1/4 | R844 | ERDS2T J272 | 2.7K 1/4 |
| R531 | ERDS2T J332 | 3.3K 1/4 | R635 | ERDS2T J473 | 47K 1/4 | R845 | ERDS2T J104 | 100K 1/4 |
| R532 | ERDS2T J332 | 3.3K 1/4 | R636 | ERDS2T J473 | 47K 1/4 | R846 | ERDS2T J332 | 3.3K 1/4 |
| R533 | ERDS2T J223 | 22K 1/4 | R637 | ERDS2T J330 | 33 1/4 | R847 | ERDS2T J224 | 220K 1/4 |
| R534 | ERDS2T J223 | 22K 1/4 | R638 | ERDS2T J101 | 100 1/4 | R848 | ERDS2T J103 | 10K 1/4 |
| R535 | ERDS2T J223 | 22K 1/4 | R639 | ERDS2T J101 | 100 1/4 | R849 | ERDS2T J272 | 2.7K 1/4 |
| R536 | ERDS2T J223 | 22K 1/4 | R640 | ERDS2T J105 | 1M 1/4 | R850 | ERDS2T J103 | 10K 1/4 |
| R537 | △ ERD25FVJ681T | | R641 | ERDS2T J220 | 22 1/4 | R851 | △ ERDS1FJ331 | 330 1/2 |
| R538 | △ ERD25FVJ681T | | R645 | ERDS2T J102 | 1K 1/4 | R852 | △ ERDS1FJ331 | 330 1/2 |
| R539 | △ ERD25FJ101 | 100 1/4 | R646 | ERDS2T J102 | 1K 1/4 | R853 | △ ERDS1FJ331 | 330 1/2 |
| R540 | △ ERD25FJ101 | 100 1/4 | R651 | ERDS2T J221 | 220 1/4 | | | |
| R541 | △ ERD25FJ101 | 100 1/4 | R652 | ERDS2T J221 | 220 1/4 | CAPACITORS(VALUE,VOLTAGE) | | |
| R542 | △ ERD25FJ101 | 100 1/4 | R653 | ERDS2T J221 | 220 1/4 | C101, C102 [EG] | RCBC1H180JLY | 18P 50 |
| R543 | △ ERD25FJ2R2 | 2.2 1/4 | R654 | ERDS2T J121 | 120 1/4 | C103 | RCBC1H151KBY | 150P 50 |
| R544 | △ ERD25FJ2R2 | 2.2 1/4 | R655 | ERDS2T J121 | 120 1/4 | [EG] | | |
| R545 | △ ERD25FJ2R2 | 2.2 1/4 | R656 | ERDS2T J221 | 220 1/4 | C104 | RCBC1H151KBY | 150P 50 |
| R546 | △ ERD25FJ2R2 | 2.2 1/4 | R657 | ERDS2T J221 | 220 1/4 | [EG] | | |
| R547 | △ ERD25FJ6R8 | 6.8 1/4 | R658 | ERDS2T J471 | 470 1/4 | C105 | ECEA1HPS3R3 | 3.3 50 |
| R548 | △ ERD25FJ6R8 | 6.8 1/4 | R659 | ERDS2T J121 | 120 1/4 | C106 | ECEA1HPS3R3 | 3.3 50 |
| R551 | ERDS2T J103 | 10K 1/4 | R660 | ERDS2T J121 | 120 1/4 | C107 | RCBC1H101KBY | 100P 50 |
| | | | | | | C108 | RCBC1H101KBY | 100P 50 |

| Ref. No. | Part No. | Value. | Ref. No. | Part No. | Value. | Ref. No. | Part No. | Value. |
|----------|--------------|-----------|----------|--------------|----------|----------|--------------|-----------|
| C109 | ECBT1H102KB5 | 0.001 50 | C318 | ECKD1H223PF | 0.022 50 | C514 | RCBS1H6R8KLY | 6.8P 50 |
| C110 | ECBT1H102KB5 | 0.001 50 | C351 | ECEA1E103ZF | 0.01 25 | C515 | ECEA2AU010 | 1 100 |
| C111 | ECEA0JPS330 | 33 6.3 | C352 | ECBT1E103ZF | 0.01 25 | C516 | ECEA1HK010 | 1 50 |
| C112 | ECEA0JPS330 | 33 6.3 | C353 | RCBS1H330JLY | 33P 50 | C525 | ECKD1H333PF | 0.033 50 |
| C115 | ECFTD223KXL | 0.022 25 | C354 | RCBS1H330JLY | 33P 50 | C526 | ECKD1H333PF | 0.033 50 |
| C116 | ECFTD223KXL | 0.022 25 | C355 | ECEA1HPS3R3 | 3.3 50 | C527 | ECEA1VU330 | 33 35 |
| C117 | ECFTD682KXL | 0.0068 25 | C356 | ECEA1HPS3R3 | 3.3 50 | C528 | ECEA1VU330 | 33 35 |
| C118 | ECFTD682KXL | 0.0068 25 | C357 | ECEA1HPS3R3 | 3.3 50 | C531 | RCBC1H680JLY | 68P 50 |
| C119 | ECEA1HPS3R3 | 3.3 50 | C358 | ECEA1HPS3R3 | 3.3 50 | C532 | RCBC1H680JLY | 68P 50 |
| C120 | ECEA1HPS3R3 | 3.3 50 | C359 | RCBS1H330JLY | 33P 50 | C533 | RCBC1H680JLY | 68P 50 |
| C121 | ECFTD103KXL | 0.01 25 | C360 | RCBS1H330JLY | 33P 50 | C534 | RCBC1H680JLY | 68P 50 |
| C122 | ECFTD103KXL | 0.01 25 | C361 | ECEA1HPS3R3 | 3.3 50 | C535 | ECEA1HK010 | 1 50 |
| C123 | ECKD1H473ZF | 0.047 50 | C362 | ECEA1HPS3R3 | 3.3 50 | C536 | ECEA1HK010 | 1 50 |
| C124 | ECFTD103KXL | 0.01 25 | C363 | ECEA1HPS3R3 | 3.3 50 | C551 | ECEA1CK5100 | 10 16 |
| (EG) | | | C364 | ECEA1HPS3R3 | 3.3 50 | C552 | ECEA1CK470 | 47 16 |
| C201 | ECEA1HPS3R3 | 3.3 50 | C365 | ECEA1CK220 | 22 16 | C553 | ECEA1CK101 | 100 16 |
| C202 | ECEA1HPS3R3 | 3.3 50 | C367 | ECEA1CK220 | 22 16 | C561 | ECKD1H102KB | 1000P 50 |
| C203 | ECEA1HPS3R3 | 3.3 50 | C369 | ECEA1CKS100 | 10 16 | (EG) | | |
| C204 | ECEA1HPS3R3 | 3.3 50 | C370 | ECEA1CKS100 | 10 16 | C562 | ECKD1H102KB | 1000P 50 |
| C205 | ECEA1HPS3R3 | 3.3 50 | C373 | RCBS1H820KBY | 82P 50 | (EG) | | |
| C206 | ECEA1HPS3R3 | 3.3 50 | (EG) | | | C563 | ECKD1H223PF | 0.022 50 |
| C220 | ECKD1H473ZF | 0.047 50 | C374 | RCBS1H820KBY | 82P 50 | (EG) | | |
| C222 | ECEA1CK220 | 22 16 | (EG) | | | C564 | ECKD1H223PF | 0.022 50 |
| C223 | ECEA1CK220 | 22 16 | C401 | ECEA1EK3R3B | 3.3 25 | (EG) | | |
| C224 | ECKD1H223PF | 0.022 50 | C402 | ECEA1EK3R3B | 3.3 25 | C565 | ECKD1H102KB | 1000P 50 |
| C225 | ECKD1H223PF | 0.022 50 | C409 | RCBC1H101KBY | 100P 50 | (EG) | | |
| C226 | ECKD1H473ZF | 0.047 50 | C410 | RCBC1H101KBY | 100P 50 | C566 | ECKD1H102KB | 1000P 50 |
| C227 | ECQM1H104JZP | 0.1 50 | C411 | RCBS1H100JLY | 10P 50 | (EG) | | |
| C251 | RCBC1H101KBY | 100P 50 | C412 | RCBS1H100JLY | 10P 50 | C567 | ECKD1H223PF | 0.022 50 |
| (EG) | | | C413 | ECEA1HK2R2B | 2.2 50 | (EG) | | |
| C252 | RCBC1H101KBY | 100P 50 | C414 | ECEA1HK2R2B | 2.2 50 | C568 | ECKD1H223PF | 0.022 50 |
| (EG) | | | C419 | ECFTD473KXL | 0.047 25 | (EG) | | |
| C253 | RCBC1H101KBY | 100P 50 | C420 | ECFTD473KXL | 0.047 25 | C569 | RCBC1H180JLY | 18P 50 |
| (EG) | | | C421 | ECEA1HK2R2B | 2.2 50 | C570 | RCBC1H180JLY | 18P 50 |
| C254 | RCBC1H101KBY | 100P 50 | C422 | ECEA1HK2R2B | 2.2 50 | C571 | RCBS1H330JLY | 33P 50 |
| (EG) | | | C423 | ECEA1HPS3R3 | 3.3 50 | C572 | RCBS1H330JLY | 33P 50 |
| C255 | RCBC1H101KBY | 100P 50 | C424 | ECEA1HPS3R3 | 3.3 50 | C573 | RCBC1H560JLY | 56P 50 |
| (EG) | | | C425 | ECEA1HPS3R3 | 3.3 50 | C574 | RCBC1H560JLY | 56P 50 |
| C256 | RCBC1H101KBY | 100P 50 | C426 | ECEA1HPS3R3 | 3.3 50 | C575 | ECKD1H392KB | 0.0039 50 |
| (EG) | | | C427 | ECEA1HPS3R3 | 3.3 50 | C576 | ECKD1H392KB | 0.0039 50 |
| C257 | RCBC1H101KBY | 100P 50 | C428 | ECEA1HPS3R3 | 3.3 50 | C577 | ECEA1HK010 | 1 50 |
| (EG) | | | C431 | ECFTD683KXL | 0.068 25 | C578 | ECEA1HK010 | 1 50 |
| C258 | RCBC1H101KBY | 100P 50 | C432 | ECEA1HK010 | 1 50 | C579 | RCBS1H330JLY | 33P 50 |
| (EG) | | | C451 | RCBC1H101KBY | 100P 50 | C580 | RCBS1H330JLY | 33P 50 |
| C261 | RCBC1H101KBY | 100P 50 | C452 | RCBC1H101KBY | 100P 50 | C581 | ECEA1AU101 | 100 10 |
| (EG) | | | C453 | RCBC1H680JLY | 68P 50 | C582 | ECEA1AU101 | 100 10 |
| C262 | RCBC1H101KBY | 100P 50 | C454 | RCBC1H680JLY | 68P 50 | C583 | ECEA1AU101 | 100 10 |
| (EG) | | | C455 | ECBT1H821KB5 | 820P 50 | C584 | ECEA1AU101 | 100 10 |
| C263 | RCBC1H101KBY | 100P 50 | C456 | ECBT1H821KB5 | 820P 50 | C585 | ECBT1H821KB5 | 820P 50 |
| (EG) | | | C457 | ECFTD123KXL | 0.012 25 | C586 | ECBT1H821KB5 | 820P 50 |
| C264 | RCBC1H101KBY | 100P 50 | C458 | ECFTD123KXL | 0.012 25 | C587 | ECKD1H472ZF | 0.0047 50 |
| (EG) | | | C459 | ECFTD683KXL | 0.068 25 | C588 | ECKD1H472ZF | 0.0047 50 |
| C265 | RCBC1H101KBY | 100P 50 | C460 | ECFTD683KXL | 0.068 25 | C589 | ECKD1H333PF | 0.033 50 |
| (EG) | | | C461 | ECEA1HPS010 | 1 50 | C590 | ECKD1H333PF | 0.033 50 |
| C266 | RCBC1H101KBY | 100P 50 | C462 | ECEA1HPS010 | 1 50 | C591 | ECKD1H333PF | 0.033 50 |
| (EG) | | | C463 | ECFTD472KXL | 4700P 25 | C592 | ECKD1H333PF | 0.033 50 |
| C267 | RCBC1H101KBY | 100P 50 | C464 | ECFTD472KXL | 4700P 25 | C593 | ECFTD473KXL | 0.047 25 |
| (EG) | | | C465 | ECFTD223KXL | 0.022 25 | C594 | ECFTD473KXL | 0.047 25 |
| C268 | RCBC1H101KBY | 100P 50 | C466 | ECFTD223KXL | 0.022 25 | C595 | ECFTD473KXL | 0.047 25 |
| (EG) | | | C467 | ECEA1HPS3R3 | 3.3 50 | C596 | ECFTD473KXL | 0.047 25 |
| C269 | RCBC1H101KBY | 100P 50 | C468 | ECEA1HPS3R3 | 3.3 50 | C597 | ECKD1H221KB | 220P 50 |
| (EG) | | | C469 | ECFTD103KXL | 0.01 25 | (EG) | | |
| C270 | RCBC1H101KBY | 100P 50 | C470 | ECFTD103KXL | 0.01 25 | C598 | ECKD1H221KB | 220P 50 |
| (EG) | | | C471 | ECEA1CK470 | 47 16 | (EG) | | |
| C271 | RCBC1H101KBY | 100P 50 | C501 | ECEA1HPS3R3 | 3.3 50 | C600 | ECEA1CKS100 | 10 16 |
| (EG) | | | C502 | ECEA1HPS3R3 | 3.3 50 | C601 | ECEA0JS102 | 1000 6.3 |
| C272 | RCBC1H101KBY | 100P 50 | C503 | RCBC1H151KBY | 150P 50 | C602 | ECKD1H223PF | 0.022 50 |
| (EG) | | | C504 | RCBC1H151KBY | 150P 50 | C603 | ECEA1HK010 | 1 50 |
| C307 | RCBC1H680JLY | 68P 50 | C505 | ECEA1CK220 | 22 16 | C604 | ECFTD333KXL | 0.033 25 |
| C308 | ECFTD682KXL | 0.068 25 | C506 | ECEA1CK220 | 22 16 | C605 | ECFTD683KXL | 0.068 25 |
| C309 | ECEA1EK3R3B | 3.3 25 | C507 | RCBS1H820KBY | 82P 50 | C606 | ECEA1EK4R7 | 4.7 25 |
| C310 | RCBS1H221KBY | 220P 50 | C508 | RCBS1H820KBY | 82P 50 | C607 | ECEA1HK010 | 1 50 |
| C311 | ECEA1EK3R3B | 3.3 25 | C509 | ECBT1H102KB5 | 0.001 50 | C608 | ECBT1H102KB5 | 0.001 50 |
| C313 | RCBS1H820KBY | 82P 50 | C510 | ECBT1H102KB5 | 0.001 50 | C609 | ECBT1H102KB5 | 0.001 50 |
| C314 | RCBS1H820KBY | 82P 50 | C511 | ECFTD103KXL | 0.01 25 | C610 | ECEA1CKS100 | 10 16 |
| C315 | ECEA1HPS3R3 | 3.3 50 | C512 | ECFTD103KXL | 0.01 25 | C611 | RCBC1H101KBY | 100P 50 |
| C316 | ECEA1HPS3R3 | 3.3 50 | C513 | RCBS1H6R8KLY | 6.8P 50 | C612 | RCBC1H101KBY | 100P 50 |

| Ref. No. | Part No. | Value. | Ref. No. | Part No. | Value. | Ref. No. | Part No. | Value. |
|----------|--------------|----------|----------|----------------|----------|----------|--------------|----------|
| C613 | RCBS1H221KBY | 220P 50 | C700 | △ ECKDKC103PF2 | 0.01 125 | C806 | ECEA0JK101 | 100 6.3 |
| C614 | RCBS1H221KBY | 220P 50 | C701 | ECE1JU682U | 6800 63 | C807 | ECFD1H104ZF | 0.1 50 |
| C615 | ECEA1VKA330 | 33 35 | C702 | ECES1JU682U | 6800 63 | C808 | ECEA0JK101 | 100 6.3 |
| C616 | ECEA1HK2R2B | 2.2 50 | C703 | ECFTD103KXL | 0.01 25 | C809 | ECFD1H104ZF | 0.1 50 |
| C617 | ECEA1HK2R2B | 2.2 50 | C704 | ECFTD103KXL | 0.01 25 | C810 | ECQAM1H103JZ | 0.01 50 |
| C618 | ECKD1H223PF | 0.022 50 | C705 | ECEA1CU470 | 47 16 | C811 | RCBS1H100JLY | 10P 50 |
| C619 | ECFTD103KXL | 0.01 25 | C706 | ECEA1CU470 | 47 16 | C812 | RCBS1H100JLY | 10P 50 |
| C620 | ECKF1H103ZF | 0.01 50 | C707 | ECEA1CK220 | 22 16 | C813 | ECEA1EK4R7 | 4.7 25 |
| C621 | ECKF1H103ZF | 0.01 50 | C708 | ECEA1CK220 | 22 16 | C814 | ECFD1H104ZF | 0.1 50 |
| C622 | ECKF1H103ZF | 0.01 50 | C709 | ECQE2104KS | 0.1 250 | C815 | ECEA0JK101 | 100 6.3 |
| C623 | ECKF1H103ZF | 0.01 50 | C710 | ECEA1HK4R7 | 4.7 50 | C816 | RCBS1H6R8KLY | 6.8P 50 |
| C624 | ECKF1H103ZF | 0.01 50 | C711 | ECEA1VK100B | 10 35 | C817 | ECFD1H104ZF | 0.1 50 |
| C625 | ECKF1H103ZF | 0.01 50 | C712 | ECEA1VK100B | 10 35 | C819 | ECEA0JK470 | 47 6.3 |
| C626 | ECKD1H473ZF | 0.047 50 | C714 | ECEA1HK010 | 1 50 | C820 | ECEA0JK101 | 100 6.3 |
| C627 | ECKF1H103ZF | 0.01 50 | C715 | ECFTD473KXL | 0.047 25 | C821 | ECEA0JK470 | 47 6.3 |
| C628 | ECKF1H103ZF | 0.01 50 | (EG) | | | C822 | ECEA0JK470 | 47 6.3 |
| C629 | ECKD1H102KB | 1000P 50 | C731 | ECEA0JS331 | 330 6.3 | C823 | ECEA1CKN100B | 10 16 |
| C630 | ECKF1H103ZF | 0.01 50 | C732 | ECFTD123KXL | 0.012 25 | C824 | ECEA1EK4R7 | 4.7 25 |
| C631 | ECKF1H103ZF | 0.01 50 | C733 | ECEA0JK330 | 33 6.3 | C825 | ECEA1EKN4R7 | |
| C632 | ECKF1H103ZF | 0.01 50 | C734 | ECEA1CKS100 | 10 16 | C826 | ECEA1EKN4R7 | |
| C630 | ECKD1H473ZF | 0.047 50 | C801 | RCBS1H271KBY | 270P 50 | C827 | ECBT1H102KB5 | 0.001 50 |
| C631 | ECKD1H473ZF | 0.047 50 | C802 | RCBS1H271KBY | 270P 50 | C828 | ECBT1H102KB5 | 0.001 50 |
| C637 | ECQV1H474JZ3 | 0.47 50 | C803 | ECEA0JK101 | 100 6.3 | C829 | ECBT1E223ZF | 0.022 25 |
| C638 | RCBS1H221KBY | 220P 50 | C804 | ECEA0JK101 | 100 6.3 | C830 | ECBT1E223ZF | 0.022 25 |
| C639 | RCBS1H221KBY | 220P 50 | C805 | ECEA0JK101 | 100 6.3 | C831 | ECFD1H104ZF | 0.1 50 |

REPLACEMENT PARTS LIST

Notes : * Important safety notice :

Components identified by Δ mark have special characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.

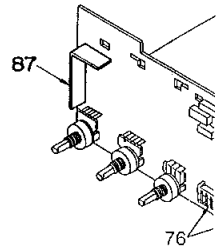
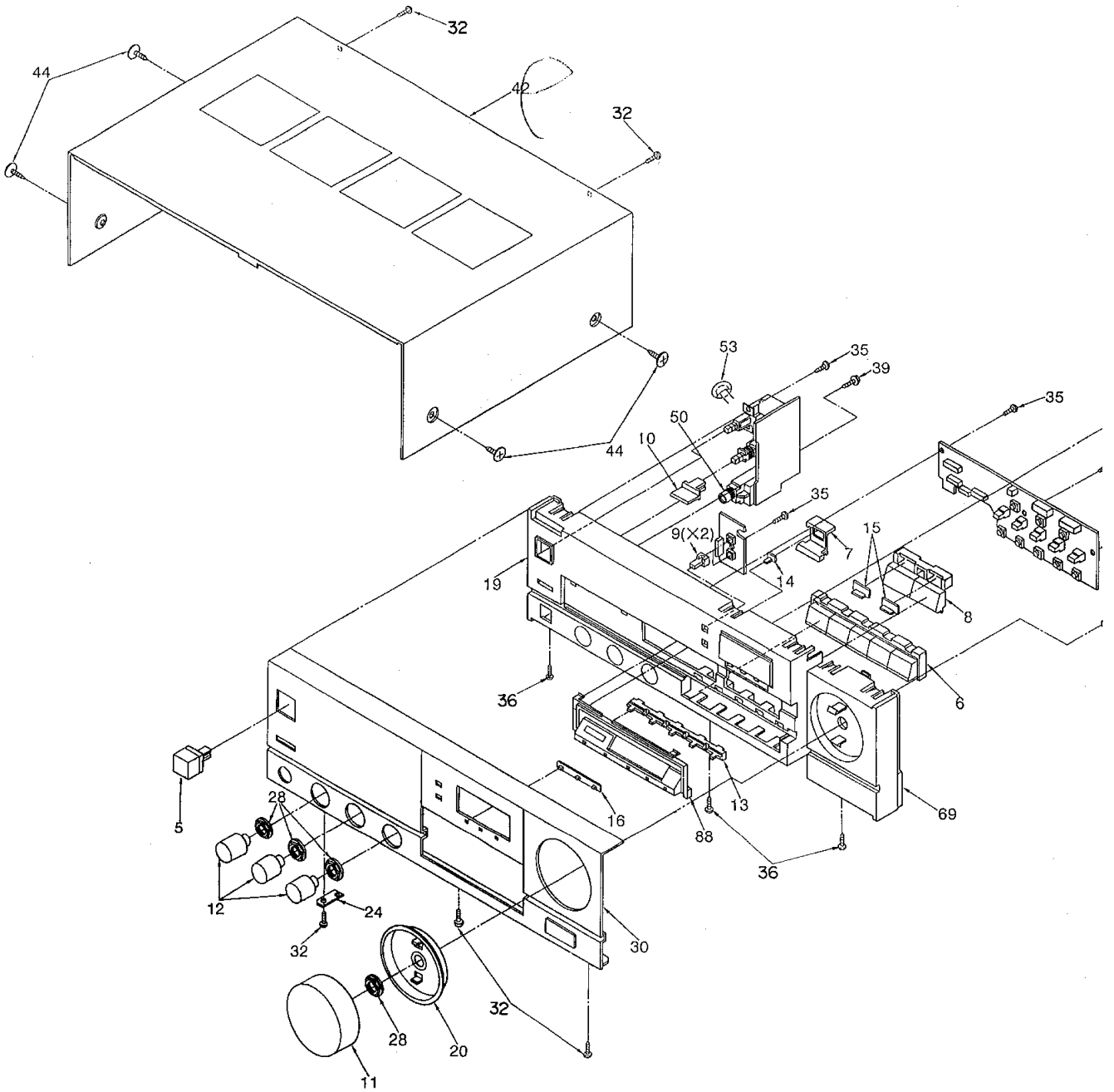
* Bracketed indications in Ref. No. columns specify the area. (Refer to the first page for area.)
Parts without these indications can be used for all areas.

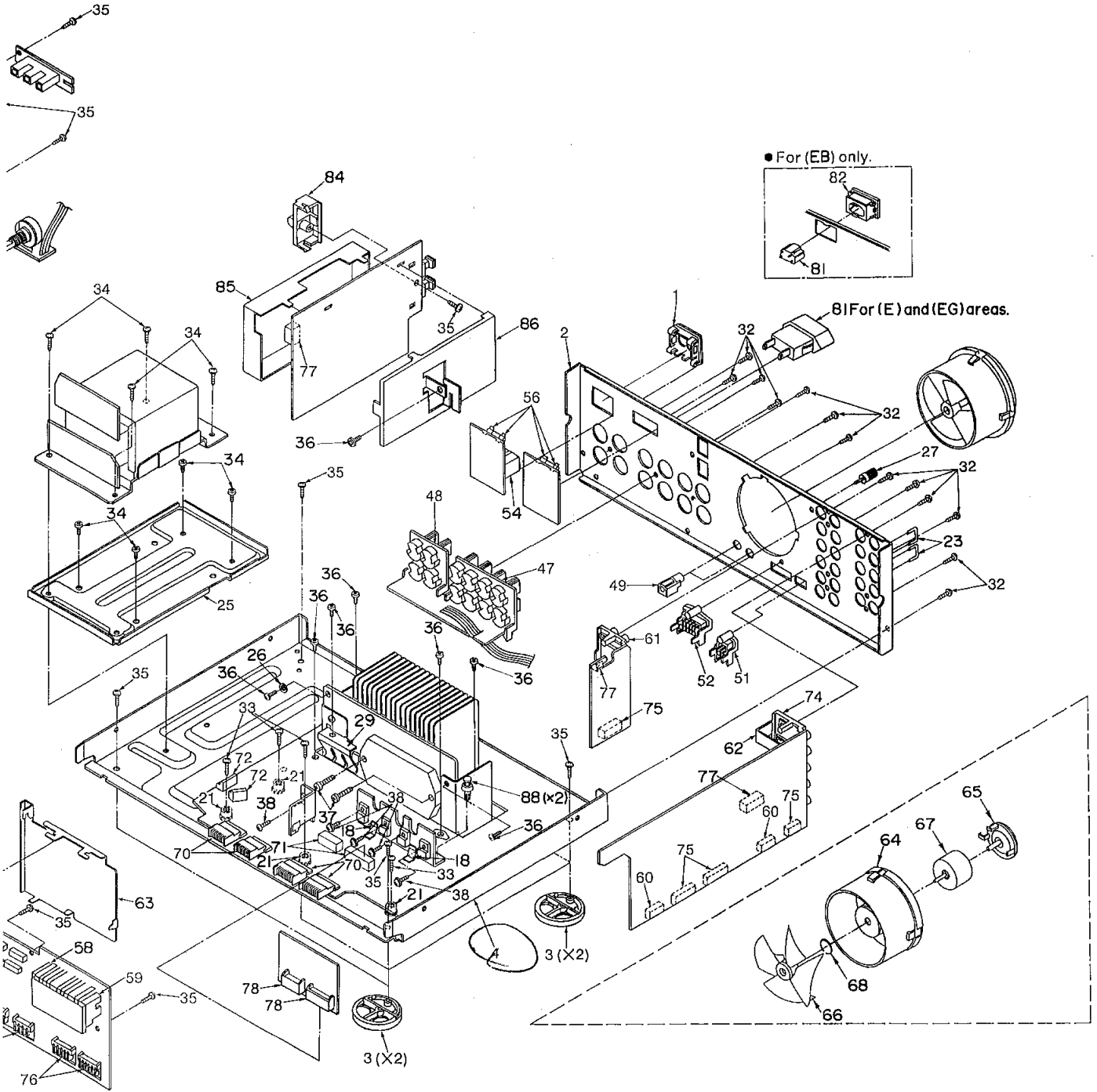
| Ref. No. | Part No. | Description | Ref. No. | Part No. | Description |
|----------------------------|--------------|--------------------------|---------------|------------|-------------|
| INTEGRATED CIRCUITS | | | Q514 | 2SC32980Y | TRANSISTOR |
| IC101 | AN6558F | I.C. PHONO EQ AMP | Q515 | 2SA13060Y | TRANSISTOR |
| IC200 | TC4066BF | I.C. CD INPUT SELECTOR | Q516 | 2SA13060Y | TRANSISTOR |
| IC201 | TC9164N | I.C. INPUT SELECTOR | Q517 | 2SC2631-Q | TRANSISTOR |
| IC301 | M5238P | I.C. PHASE SHIFT | Q518 | 2SC2631-Q | TRANSISTOR |
| IC302 | AN6554F | I.C. MIXING AMP | Q519 | 2SA1123R | TRANSISTOR |
| IC303 | AN6558F | I.C. BUFFER AMP | Q520 | 2SA1123R | TRANSISTOR |
| IC304 | AN6557F | I.C. BUFFER AMP | Q521 | 2SA992E | TRANSISTOR |
| IC305 | AN6557F | I.C. MIXING AMP | Q522 | 2SA992E | TRANSISTOR |
| IC306 | M51131L-702 | I.C. ATTENUATOR | Q523 | 2SC3311A-Q | TRANSISTOR |
| IC307 | M51131L-702 | I.C. ATTENUATOR | Q524 | 2SA1309AQS | TRANSISTOR |
| IC402 | AN6554F | I.C. PRE AMP | Q601 | UN4111 | TRANSISTOR |
| IC403 | AN6558F | I.C. TONE AMP | Q602 | UN4111 | TRANSISTOR |
| IC500 | AN7062N | I.C. VOLTAGE AMP | Q603 | UN4211 | TRANSISTOR |
| IC501 | SV14004 | I.C., POWER AMP | Q604 | 2SC3311A-Q | TRANSISTOR |
| IC601 | M5075A-411SP | I.C. MICRO COMPUTER | Q611 | UN4211 | TRANSISTOR |
| IC602 | MN4030B | I.C., LOGIC | Q612 | UN4211 | TRANSISTOR |
| IC603 | MN4013B | I.C. LOGIC | Q613 | UN4211 | TRANSISTOR |
| IC604 | AN6552F | I.C. BUFFER AMP | Q614 | UN4211 | TRANSISTOR |
| IC701 | AN78M05R | I.C. REGULATOR | Q615 | UN4211 | TRANSISTOR |
| IC702 | AN7073 | I.C. PROTECTION/MUT | Q616 | UN4211 | TRANSISTOR |
| IC801 | SV1TORX172 | I.C. OPTICAL REC. | Q617 | UN4211 | TRANSISTOR |
| IC802 | SV1TORX172 | I.C. OPTICAL REC. | Q618 | UN4111 | TRANSISTOR |
| IC803 | TC74HC004AF | I.C. INVERTER | Q619 | UN4111 | TRANSISTOR |
| IC804 | TC74HC4053AF | I.C. DIGITAL INPUT | Q621 | 2SC3311A-Q | TRANSISTOR |
| IC805 | YM3623B | I.C. DIGITAL SIGNAL | Q622 | UN4211 | TRANSISTOR |
| IC806 | YM3404B | I.C. DIGITAL FILTER | Q701 | 2SD1265-P | TRANSISTOR |
| IC807 | PCM56P-L | I.C. D/A CONVERTER | Q702 | 2SB941PQR | TRANSISTOR |
| IC808 | PCM56P-L | I.C. D/A CONVERTER | Q703 | UN4211 | TRANSISTOR |
| IC809 | TC74HC164AF | I.C. 8 BIT SIFT RESISTOR | Q704 | 2SB621A-R | TRANSISTOR |
| IC810 | TC74HC164AF | I.C. 8 BIT SIFT RESISTOR | Q705 | 2SD1265-P | TRANSISTOR |
| IC811 | TC74HC00AF | I.C. NAND GATE | Q801 | UN4211 | TRANSISTOR |
| IC812 | MN6636S | I.C. ANALOG SWITCH | Q802 | 2SB1030Q | TRANSISTOR |
| IC813 | LM833M63 | I.C., BUFFER AMP | Q803 | 2SC3311A-Q | TRANSISTOR |
| IC814 | SV1BA4560F | I.C. BUFFER AMP | Q804 | 2SC3311A-Q | TRANSISTOR |
| IC815 | SV1H8DN2041B | I.C. LOW PASS FILTER | Q805 | 2SD1450R | TRANSISTOR |
| IC816 | SV1H8DN2041B | I.C. LOW PASS FILTER | Q806 | 2SD1450R | TRANSISTOR |
| IC817 | DN74LS145S | I.C. LED DRIVE | Q807 | UN4111 | TRANSISTOR |
| IC818 | TC74HC123AF | I.C. MULTIVIBRATOR | Q808 | UN4111 | TRANSISTOR |
| TRANSISTORS | | | Q809 | UN4211 | TRANSISTOR |
| Q200 | 2SC3311A-Q | TRANSISTOR | Q810 | UN4211 | TRANSISTOR |
| Q201 | 2SC3311A-Q | TRANSISTOR | Q811 | 2SA1309A-R | TRANSISTOR |
| Q202 | 2SC3311A-Q | TRANSISTOR | Q812 | 2SA1309AQS | TRANSISTOR |
| Q203 | DTA114ESTP | TRANSISTOR | DIODES | | |
| Q301 | 2SD1450R | TRANSISTOR | D201 | MA4051-M | DIODE |
| Q303 | DTA114ESTP | TRANSISTOR | D203 | MA4082 | DIODE |
| Q401 | 2SD1450R | TRANSISTOR | D204 | MA4082 | DIODE |
| Q402 | 2SD1450R | TRANSISTOR | D403 | MA165 | DIODE |
| Q403 | DTA114ESTP | TRANSISTOR | D405 | MA165 | DIODE |
| Q404 | 2SD1450R | TRANSISTOR | D501 | MA167 | DIODE |
| Q405 | 2SD1450R | TRANSISTOR | D502 | MA167 | DIODE |
| Q406 | DTA114ESTP | TRANSISTOR | D503 | MA29WA | DIODE |
| Q407 | 2SC3311A-Q | TRANSISTOR | D504 | MA29WA | DIODE |
| Q408 | 2SC3311A-Q | TRANSISTOR | D505 | MA4120 | DIODE |
| Q409 | DTA114ESTP | TRANSISTOR | D506 | MA4120 | DIODE |
| Q500 | 2SA992E | TRANSISTOR | D507 | MA165 | DIODE |
| Q501 | 2SA1123R | TRANSISTOR | D509 | MA167 | DIODE |
| Q502 | 2SA1123R | TRANSISTOR | D510 | MA167 | DIODE |
| Q503 | 2SC1685NCQRS | TRANSISTOR | D511 | MA167 | DIODE |
| Q504 | 2SC1685NCQRS | TRANSISTOR | D512 | MA167 | DIODE |
| Q505 | 2SC3311A-Q | TRANSISTOR | D525 | MA165 | DIODE |
| Q506 | 2SC3311A-Q | TRANSISTOR | D526 | MA165 | DIODE |
| Q507 | 2SA1309AQS | TRANSISTOR | D527 | MA165 | DIODE |
| Q508 | 2SA1309AQS | TRANSISTOR | D528 | MA165 | DIODE |
| Q509 | 2SC2631-Q | TRANSISTOR | D529 | MA4062-M | DIODE |
| Q510 | 2SC2631-Q | TRANSISTOR | D530 | MA4062-M | DIODE |
| Q511 | 2SA1123R | TRANSISTOR | D531 | MA165 | DIODE |
| Q512 | 2SA1123R | TRANSISTOR | D532 | MA165 | DIODE |
| Q513 | 2SC32980Y | TRANSISTOR | D575 | MA29WA | DIODE |
| | | | D601 | MA165 | DIODE |

| Ref. No. | Part No. | Description | Ref. No. | Part No. | Description |
|----------|--------------|-------------|---------------------------|--------------|-----------------------|
| D602 | MA165 | DIODE | VR403 | EWHFDAF20G15 | V.R. BALANCE |
| D603 | MA165 | DIODE | VR501 | EVND4AA00B52 | V.R. IDLING ADJ.(LCH) |
| D605 | MA165 | DIODE | VR502 | EVND4AA00B52 | V.R. IDLING ADJ.(RCH) |
| D606 | MA165 | DIODE | VR601 | EVQWX2F2045B | V.R., VOLUME ENCODER |
| D607 | MA165 | DIODE | THERMISTORS AND VARISTORS | | |
| D608 | MA700A | DIODE | TH501 | ERTD2ZHK104S | TERMISTOR |
| D609 | MA700A | DIODE | TH502 | ERTD2ZHK104S | TERMISTOR |
| D610 | MA700A | DIODE | COILS AND TRANSFORMERS | | |
| D611 | MA165 | DIODE | L301 | RLQZP100KT-Y | COIL |
| D612 | MA165 | DIODE | L501 | SLQY07G-40 | CHOKE COIL |
| D613 | MA165 | DIODE | L502 | SLQY07G-40 | CHOKE COIL |
| D615 | MA165 | DIODE | L503 | SLQY07G-40 | CHOKE COIL |
| D616 | MA165 | DIODE | L504 | SLQY07G-40 | CHOKE COIL |
| D617 | MA165 | DIODE | L505 | SLQY07G-40 | CHOKE COIL |
| D618 | MA4082 | DIODE | (EG) | | |
| D619 | MA165 | DIODE | L506 | SLQY07G-40 | CHOKE COIL |
| D620 | MA165 | DIODE | (EG) | | |
| D621 | MA165 | DIODE | L507 | SLQY07G-40 | CHOKE COIL |
| D622 | MA165 | DIODE | (EG) | | |
| D623 | MA165 | DIODE | L508 | SLQY07G-40 | CHOKE COIL |
| D624 | MA165 | DIODE | (EG) | | |
| D625 | MA165 | DIODE | L601 | RLQZP101KT-Y | COIL |
| D626 | MA165 | DIODE | L603 | ELEXT330KA9 | COIL |
| D627 | MA165 | DIODE | L604 | ELEXT330KA9 | COIL |
| D631 | LN846RP-C | L.E.D | L605 | ELEPK1R2MA | COIL |
| D632 | LN846RP-C | L.E.D | L609 | ELEXT330KA9 | COIL |
| D633 | LN846RP-C | L.E.D | L610 | RLQZP1R2KT-Y | CHOKE COIL |
| D634 | LN0202RP2 | DIODE | L801 | RLQZP101KT-Y | COIL |
| D635 | LN0202RP2 | DIODE | L802 | RLQZP101KT-Y | COIL |
| D636 | LN846RP-C | L.E.D | L803 | ELEXT470KA9 | COIL |
| D637 | LN846RP-C | L.E.D | L804 | ELEXT470KA9 | COIL |
| D638 | LN873RP-LS | DIODE | L805 | ELEXT470KA9 | COIL |
| D641 | MA165 | DIODE | L806 | RLQZP101KT-Y | COIL |
| D642 | MA165 | DIODE | T700 | △ SLT5P288-W | POWER TRANSFORMER |
| D643 | MA165 | DIODE | (EB) | | |
| D644 | MA165 | DIODE | T700 | △ SLT5P289-W | POWER TRANSFORMER |
| D645 | MA165 | DIODE | (E, E5, EG) | | |
| D646 | MA165 | DIODE | COMPONENT COMBINATIONS | | |
| D647 | MA165 | DIODE | Z603 | EXBF5E103J | COMBINATION PART |
| D648 | MA165 | DIODE | Z604 | EXBF8E103J | COMBINATION PART |
| D649 | MA165 | DIODE | Z801 | EXCEMT103DC | COMBINATION COM |
| D701 | △ SVDS3V40 | DIODE | Z802 | EXCEMT103DC | COMBINATION COM |
| D702 | △ SVDS3V40 | DIODE | Z803 | EXCEMT103DC | COMBINATION COM |
| D703 | △ SVDS3V40 | DIODE | DISPLAYS | | |
| D704 | △ SVDS3V40 | DIODE | FL1 | SADVF217 | DISPLAY TUBE |
| D705 | MA4140-M | DIODE | FUSES | | |
| D706 | MA4140-M | DIODE | F1 | △ XBA2C20TB0 | FUSE 250V, T2A |
| D707 | MA29WA | DIODE | (E, E5, EG) | | |
| D709 | MA167 | DIODE | F2 | △ XBA2C20TB0 | FUSE 250V, T2A |
| D710 | MA167 | DIODE | SWITCHES | | |
| D711 | MA165 | DIODE | S201 | SSS153 | SW. CD INPUT SELECTOR |
| D714 | MA4300M | DIODE | S501 | SSH1073 | SW. SPEAKER |
| D731 | MA165 | DIODE | S601 | EVQQB005R | SW. PHONO |
| D801 | MA165 | DIODE | S602 | EVQQB005R | SW. TUNER |
| D802 | MA165 | DIODE | S603 | EVQQB005R | SW. CD |
| D803 | MA165 | DIODE | S604 | EVQQB005R | SW. TAPE 1 |
| D804 | MA165 | DIODE | S605 | EVQQB005R | SW. TAPE 2 |
| D805 | MA700 | DIODE | S606 | EVQQB005R | SW. AUX |
| D806 | MA165 | DIODE | S607 | EVQQB005R | SW. DAT |
| D807 | MA4051-M | DIODE | S608 | EVQQB005R | SW. MUTING |
| D808 | MA4051-M | DIODE | S609 | EVQQLY07K | SW. SURROUND |
| D809 | MA4051-M | DIODE | S610 | EVQQLY07K | SW. S.BASS |
| D810 | MA29WA | DIODE | S700 | △ SSH1071 | SW. POWER |
| D811 | MA165 | DIODE | RELAYS | | |
| D812 | MA165 | DIODE | RL501 | SSY134 | RELAY |
| D813 | MA165 | DIODE | OTHERS | | |
| D820 | LN038417P1 | DIODE | X601 | EF0FC4004A4 | CERAMIC FILTER |
| D821 | LN038417P1 | DIODE | X801 | SVQAT1923-S | CRYSTAL OSCILLATOR |
| D822 | LN038417P1 | DIODE | VARIABLE RESISTORS | | |
| VR401 | EWC2XAF20C15 | V.R. BASS | | | |
| VR402 | EWC2XAF20C15 | V.R. TREBLE | | | |

EXPLODED VIEW

(Parts list on page 37)





| Ref. No. | Part No. | Description | Ref. No. | Part No. | Description |
|---------------------|--------------|-----------------------|-------------|--------------|------------------------------|
| CABINET AND CHASSIS | | | 49 | SJJ141 | M3 JACK |
| 1 | SJS9231A | AC INLET COVER | 50 | SJJ71E | JACK, HEADPHONE |
| 2 | SGP7170-12E | REAR PANEL | 51 | SJS306 | SOCKET(3P), TUNER |
| (E) | | | 52 | SJS804 | SOCKET(8P), DECK |
| 2 | SGP7170-12F | REAR PANEL | 53 | SMX897 | COVER(CAPACITOR) |
| (EG) | | | 54 | △ SJS9231-1B | AC INLET |
| 2 | SGP7170-12J | REAR PANEL | 56 | △ SJT388 | FUSE HOLDER |
| (E5) | | | 58 | SMN2056-1 | BRACKET |
| 2 | SGP7170-13C | REAR PANEL | 59 | SMN2056 | BRACKET |
| (EB) | | | 60 | SMN2043 | ANGLE |
| 3 | SKL307 | FOOT | 61 | SJF3062-13N | TERMINAL BOARD |
| 4 | SKU11650-3 | BOTTOM BOARD | 62 | SMC6453 | SHIELD PLATE |
| 5 | SBC666-1 | BUTTON, POWER | 63 | SMC6441 | SHIELD PLATE |
| 6 | SBC983B | BUTTON, SELECTOR | 64 | SHE233 | FAN CASE |
| 7 | SBC1023 | BUTTON, MUTING | 65 | SHE234 | CAP |
| 8 | SBC1024-1A | BUTTON, DIGITAL | 66 | SHE232 | FAN |
| 9 | SBC1025 | BUTTON, BASS | 67 | MDN-4RB4MXA | MOTOR |
| 10 | SBC928 | BUTTON, SPEAKER | 68 | SUS271 | SPRING |
| 11 | SBN1224 | KNOB, VOLUME | 69 | SGXUX950-KE2 | FRONT GRILLE |
| 12 | RGW0016 | KNOB, TONE | 70 | SJS50680WL | SOCKET(6P), J603, J604 |
| 13 | SDL97 | SMOKE PLATE | 70 | SJS51080WL | SOCKET(10P), J601, J602 |
| 14 | SDL98 | SMOKE PLATE | 71 | SJS50778JQ | SOCKET(7P), J503 |
| 15 | SDL99 | SMOKE PLATE | 71 | SJS51078JQ | CONNECTOR(10P), J504 |
| 16 | SDL100 | SMOKE SLATE | 72 | SJT30543-V | CONNECTOR(5P), J700 |
| 18 | SUS227 | SPRING | 72 | SJT30740LX-V | CONNECTOR(7P), J501 |
| 19 | SGXUX950-KE1 | FRONT GRILLE | 74 | SJF3062-22N | TERMINAL BOARD |
| 20 | SGX9036 | ORNAMENT | 75 | SJT30439MB | CONNECTOR(4P), J201B |
| 21 | SHE187-2 | HOLDER | 75 | SJT30839MB | CONNECTOR(8P), J204B |
| 23 | SJP9205-2Y | SHORTING PIN | 75 | SJT30939MB | CONNECTOR(9P), J202B |
| 24 | SMC1274 | BRACKET | 75 | SJT31239MB | CONNECTOR(12P), J206B |
| 25 | SMN2078-2 | BRACKET | 76 | SJT30647WL | CONNECTOR(6P), J603B, J604B |
| 26 | XWE3E13 | WASHER | 76 | SJT31047WL | CONNECTOR(10P), J601B, J602B |
| 27 | SNE2123 | SCREW | 77 | SJT3213 | CONNECTOR(2P), J207B |
| 28 | SNE4021-1 | NUT | 77 | SJT3613 | CONNECTOR(6P), J801D |
| 29 | SUS832 | SPRING | 77 | SJT3709 | CONNECTOR(7P), J200B |
| 30 | RYP0069 | FRONT PANEL | 78 | SJT30745JQ | CONNECTOR(7P), J503B |
| 32 | XTBS3+8JFZ1 | SCREW | 78 | SJT31045JQ | CONNECTOR(10P), J504B |
| 33 | XTB3+20J | SCREW | 81 | △ SJS9225 | AC OUTLET |
| 34 | XTB3+6FFZ | SCREW | (E, E5, EG) | | |
| 35 | XTB3+8G | SCREW | 81 | △ SJS9322B | AC OUTLET |
| 36 | XTB3+8J | SCREW | (EB) | | |
| 37 | XTB3+16J | SCREW | 82 | SJS9322A | AC OUTLET COVER |
| 38 | XTW3+8T | SCREW | (EB) | | |
| 39 | XTWS3+8T | SCREW | 83 | SGX7977-1A | ORNAMENT |
| 42 | SKC2071K163 | CABINET | 84 | SGX7967 | ORNAMENT |
| 44 | SNE2129-1 | SCREW | 85 | RSC0033 | COVER |
| 47 | SJF4818-1 | TERMINAL BOARD, SP. A | 86 | RSC0034 | COVER |
| 48 | SJF4442-1 | TERMINAL BOARD, SP. B | 87 | SMC1297 | SHIELD COVER |
| | | | 88 | SHR9094 | LATCH |

| Ref. No. | Part No. | Description | Ref. No. | Part No. | Description |
|------------------|-------------|------------------|-------------|--------------|--------------------|
| PACKING MATERIAL | | | A1 | RQF0071 | INSTRUCTION MANUAL |
| P1 | RUB50RK05W | PROTECTION BAG | (E, E5) | | |
| P2 | RP00101 | PACKING CASE | A1 | RQF0072 | INSTRUCTION MANUAL |
| P3 | SPS5182 | PAD | (EB) | | |
| P4 | SPS5183 | PAD | A1 | RQF0074 | INSTRUCTION MANUAL |
| P5 | SPS5184 | PAD | (EG) | | |
| P6 | XZB10X30A02 | PROTECTION COVER | A2 | △ SFDAC05E03 | POWER CORD |
| ACCESSORIES | | | (E, E5, EG) | | |
| | | | A2 | △ SJA188 | POWER CORD |
| | | | (EB) | | |