

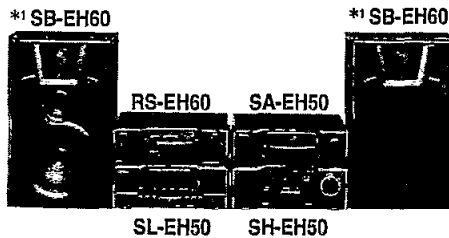
Service Manual

Tuner/Amplifier SA-EH50

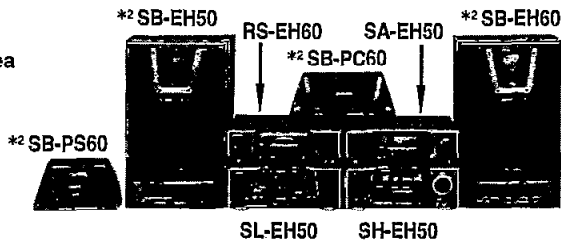
System: SC-EH50

Tuner/Amplifier

For
(E)/(EP), (EB) and
(EG) areas

Remote Control
Transmitter

For
(GC) area

Remote Control
Transmitter

Colour

(K) Black

Area

(E)/(EP) ... Europe, Russia.
(EB) Great Britain.
(EG) Germany and Italy.
(GC) Asia, Latin America,
Middle East and Africa.

Because of unique interconnecting cables,
when a component requires service, send
or bring in the entire system.

Specifications

Amplifier Section

Power output :

DIN 1 kHz, THD 1%, both channels driven	
For (E),(EB),(EG) and (EP) areas ;	2 X 50 W(6 ohm)
For (GC) area ;	2 X 35 W(6 ohm)
RMS 1 kHz, THD 10%, both channels driven	
For (E),(EB),(EG) and (EP) areas ;	2 X 70 W(6 ohm)
For (GC) area ;	2 X 50 W(6 ohm)

(GC) area only

PRO LOGIC mode :	
DIN 1 kHz, THD 1%	
MAIN (both channels driven) ;	2 X 30W(6 ohm)
CENTER ;	30 W(8 ohm)
SURROUND ;	30W(4 ohm + 4 ohm)
RMS 1 kHz, THD 10%	
MAIN (both channels driven) ;	2 X 40 W(6 ohm)
CENTER ;	40 W(8 ohm)
SURROUND ;	40 W(4 ohm + 4 ohm)
PMPO 1 kHz ;	1400 W
	(MAIN 6 ohm, CENT. 8 ohm, SURR. 4 ohm + 4 ohm)

Total harmonic distortion :

Rated power at 1 kHz ;	1 % (6 ohm)
Half power at 1 kHz ;	0.09 % (6 ohm)
Load impedance :	
MAIN ;	6 ohm - 8 ohm
CENTER ;	8 ohm
SURROUND ;	4 ohm - 8 ohm
S/N (rated power) :	
MAIN ;	80 dB
Frequency response ;	50 Hz-30 kHz (-3 dB)
Input sensitivity/impedance :	
EXTERNAL, AUX ;	250 mV/15 kohm
Output level :	
EXTERNAL RECOUT ;	250 mV/1.5 kohm

System/SC-EH50:

For (E),(EB),(EG) and (EP) areas

Sound processor: SH-EH50,

Front speakers: *1 SB-EH60

For (GC) area

Sound processor: SH-EH50,

Front speakers: *2 SB-EH50,

Tuner/Amplifier: SA-EH50,

Tuner/Amplifier: SA-EH50,

Center speaker: *2 SB-PC60,

Compact disc player: SL-EH50,

Compact disc player: SL-EH50,

Surround speakers: *2 SB-PS60

Cassette deck: RS-EH60,

Cassette deck: RS-EH60,

Note: *1 ...Made in PAES, *2...Made in MESA

V.BASS mode :

Center frequency ;	60 Hz
LEVEL (VOL -30 dB) ;	+8 dB

FM tuner section

Frequency range :	87.50-108.00 MHz (0.05 MHz steps)
Sensitivity :	1.8 μV (IHF usable)
S/N 26 dB ;	1.5 μV
S/N :	
MONO ;	70 dB (75 dB, IHF)
Stereo separation at 1 KHz ;	35 dB
Antenna terminal(s) ;	75 ohm (unbalanced)

AM tuner section

Frequency range :	522-1611 kHz (9 kHz steps)
	530-1620 kHz (10 kHz steps)
Sensitivity (S/N 20 dB) :	500 μV/m

Timer section

Clock :	Quartz-lock type
Function :	Play timer (1 time daily), REC timer (1 time daily), Sleep (120 min., 30 min. intervals)
Setting :	1 minute-23 hours 59 minutes (1 min intervals)

General

Power consumption :	120 W
Power supply :	
For (E),(EG),(EP) areas ;	AC 220 V, 50/60 Hz
For (EB),(GN) areas ;	AC 230-240 V, 50 Hz
For (GC) area ;	AC 110/127/220/230-240 V, 50/60 Hz
Dimensions :	287(W)/118.5(H)/343.5(D) mm
Weight :	4.4 kg

Note: Specifications are subject to change without notice.
Weight and dimensions are approximate.

⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Technics®

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Before Repair

- Turn off the power supply. Using a 10 Ω , 10 W resistor, connect both ends of power supply capacitors (C701, C703 and C702, C704) in order to discharge the voltage.
- 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 50/60 Hz in NO SIGNAL mode should be shown below with respect to supply voltage 110V/ 230V/ 240V.

Area	(E) (EG) (EP)	(EB)	(GC)	
Power supply voltage	AC 230 V	AC 240 V	AC 110 V	AC 240 V
Consumed current 50 Hz	70 ~ 250 mA	70 ~ 250 mA	240 ~ 600 mA	70 ~ 250 mA

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 functions 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:

- Switch OFF the power.
- Determine the cause of the problem and correct it.
- Switch ON the power once again.

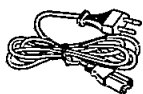
Note:

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

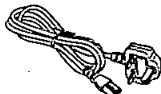
Accessories

AC power supply cord

- For (E)/(EP),(EG) and (GC) areas: (RJA0019-X) 1 pc.
For (EB) area: (RJA0053-1X) 1 pc.



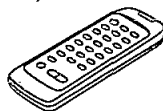
For (E)/(EP),(EG) and (GC) areas



For (EB) area

Remote control transmitter

- For (E)/(EP),(EB) and (EG) areas: (RAK-CH426WH) ... 1 pc.
For (GC) area: (RAK-CH220WH) 1 pc.



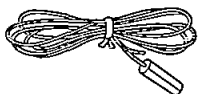
Speaker cords

- (REE0499) 2 pc.



FM indoor antenna

- For (E)/(EP),(EB) and (EG) areas: (RSA0007) .. 1 pc.
For (GC) area: (RSA0006) 1 pc.



For (E),(EG),(EG) and (EP) areas



For (GC) area

AM loop antenna

- (RSA0012) 1 pc.



Antenna holder

- (RMN0244) 1 pc.



Mounting screw

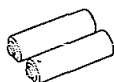
- (XTN3+12AFZ) 1 pc.



Batteries

- (UM-4, "AAA", R03) 2 pc.

Note: These are available on sales route.



Antenna plug adaptor

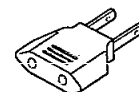
- (SJP9009) 1 pc.



(EB) area only

AC plug adaptor

- (SJP5213-1) 1 pc.



(GC) area only

■ Caution for AC Main Lead

("EB" area code model only)

For your safety, please read the following text carefully.

This appliance is supplied with a moulded three pin mains plug for your safety and convenience.

A 5-ampere fuse is fitted in this plug.

Should the fuse need to be replaced please ensure that the replacement fuse has a rating of 5-ampere and that it is approved by ASTA or BSI to BS1362.

Check for the ASTA mark  or the BSI mark  on the body of the fuse.

If the plug contains a removable fuse cover you must ensure that it is refitted when the fuse is replaced.

If you lose the fuse cover the plug must not be used until a replacement cover is obtained.

A replacement fuse cover can be purchased from your local dealer.

CAUTION!

IF THE FITTED MOULDED PLUG IS UNSUITABLE FOR THE SOCKET OUTLET IN YOUR HOME THEN THE FUSE SHOULD BE REMOVED AND THE PLUG CUT OFF AND DISPOSED OF SAFELY. THERE IS A DANGER OF SEVERE ELECTRICAL SHOCK IF THE CUT OFF PLUG IS INSERTED INTO ANY 13-AMPERE SOCKET.

If a new plug is to be fitted please observe the wiring code as shown below.

If in any doubt please consult a qualified electrician.

IMPORTANT

The wires in this mains lead are coloured in accordance with the following code:

Blue: Neutral, Brown: Live.

As these colours may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured Blue must be connected to the terminal which is marked with the letter N coloured Black or Blue.

The wire which is coloured Brown must be connected to the terminal which is marked with letter L or coloured Brown or Red.

WARNING: DO NOT CONNECT EITHER WIRE TO THE EARTH TERMINAL WHICH IS MARKED WITH LETTER E, BY THE EARTH SYMBOL \perp OR COLOURED GREEN OR GREEN/YELLOW.

THIS PLUG IS NOT WATERPROOF-KEEP DRY.

Before use

Removal the connector cover.

How to replace the fuse

The location of the fuse differ according to the type of AC mains plug (figures A and B). Confirm the AC mains plug fitted and follow the instructions below.

Illustrations may differ from actual AC mains plug.

1. Open the fuse cover with a screwdriver.

Figure A

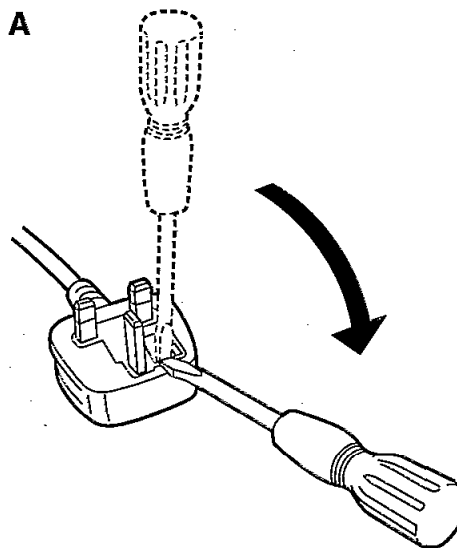
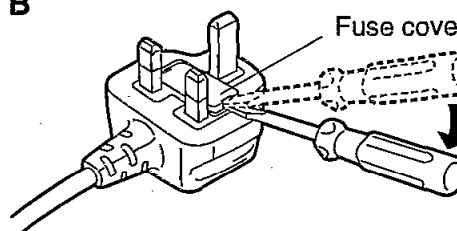


Figure B



2. Replace the fuse and close or attach the fuse cover.

Figure A

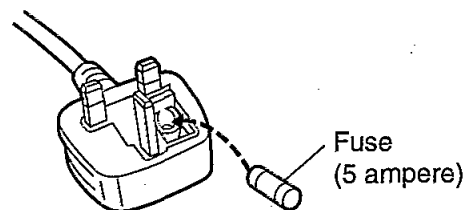
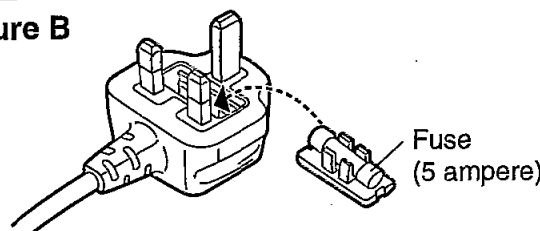


Figure B



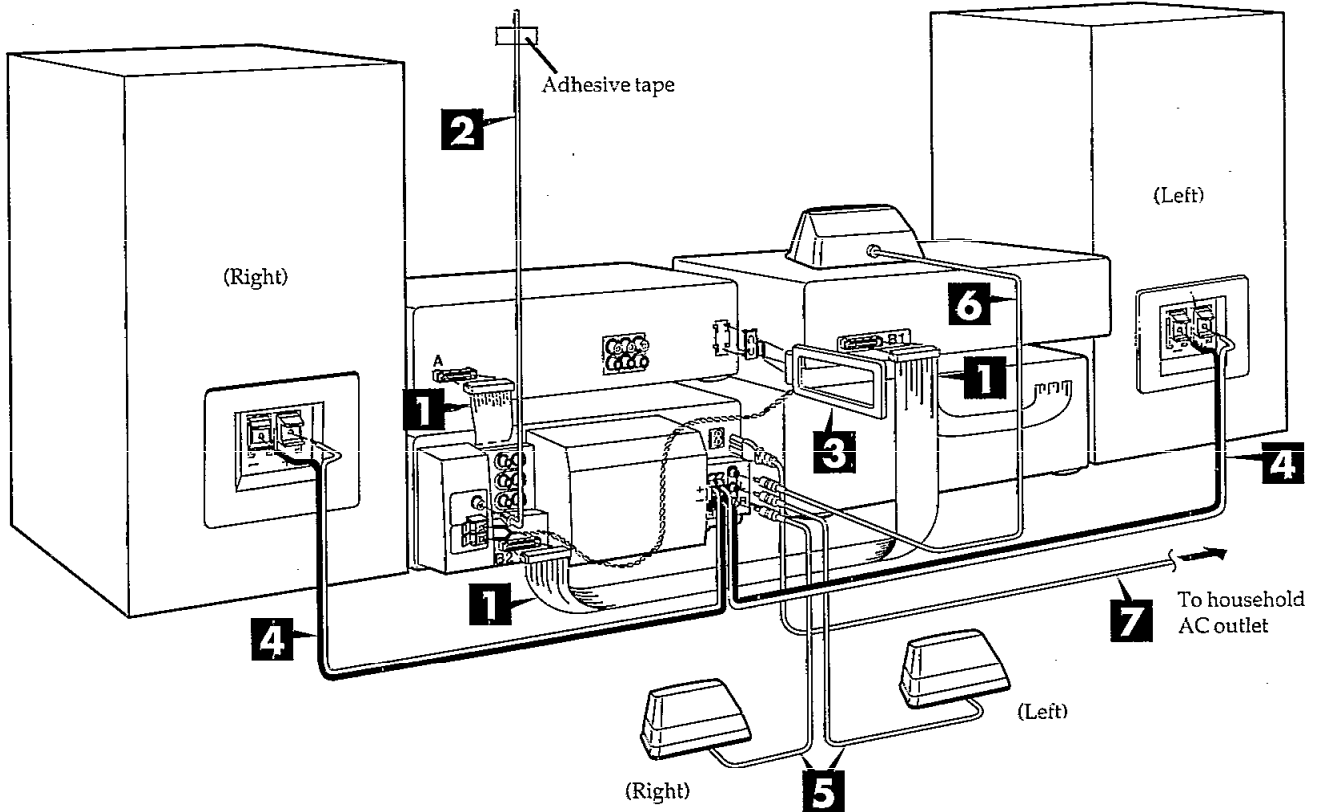
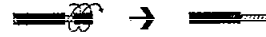
Connections

Connect the AC mains lead after you have connected all other cables.

(GC) area only

The configuration of the FM antenna terminal is different.

To prepare the AM loop antenna wire and speaker cords, twist the vinyl cover tip and pull off.



<p>1</p> <p>To connect cables To unplug cables</p> <p>Connector</p> <p>White line</p>	<p>3</p>	<p>5 For (GC) area only</p> <p>Bottom of the surround speaker</p>
<p>2 For (GC) area only</p> <p>Twist</p> <p>FM ANT 75Ω</p> <p>(For others)</p> <p>FM ANT 75Ω</p>	<p>4</p> <p>Tuner/amplifier side</p> <p>Red (+)</p> <p>Black (-)</p> <p>Speaker side</p> <p>Black (-)</p> <p>Red (+)</p>	<p>7 (Insertion of Connector)</p> <p>Appliance inlet</p> <p>Connector</p> <p>Approx. 6 mm</p>

1 Connect the flat cables.

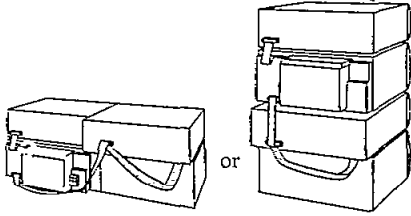
1. Connect the shorter flat cable from the tuner/amplifier to terminal A on the sound processor.
2. Connect the longer flat cable from the cassette deck to terminals B1 and B2.

Note

Do not try connecting or disconnecting the flat cables while the power is switched to ON.

After connection:

Keep cables as flat against the back of the unit as possible.

**2 Connect the FM indoor antenna.**

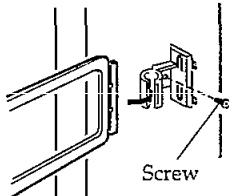
Tape the antenna to a wall or column, in a position where radio signals are received with the least amount of interference.

Note

When you cannot get good reception with this FM indoor antenna, we recommend you install an FM outdoor antenna (not included).

3 Connect the AM loop antenna.

- To install on the rear panel of the sound processor.
 1. Attach the antenna holder to the rear panel of the sound processor. Then clamp the antenna into the antenna holder.
 2. Connect the antenna terminal to the rear panel of the tuner/amplifier.
- To install on walls or pillars.

**Note**

To minimize noise pickup, bundle the loop antenna cord using tape or the like to keep the flat cables away from the AM loop antenna cord.

4 Connect the right (R) and left (L) front speaker cables.**Note**

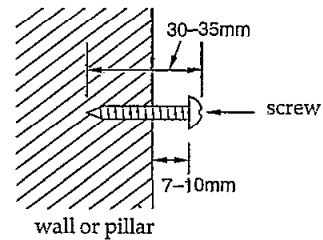
- To prevent damage to circuitry, never short-circuit positive (+) and negative (-) speaker wires.
- Be sure to connect only positive (red) wires to positive (+) terminals and negative (black) wires to negative (-) terminals.
- Left and right front speakers are exactly the same.

5 For (GC) area only**Connect the surround speaker cables.****Note**

- Connect the surround speakers after checking their bottom panels to see which one is for the left channel and which one is for the right channel.
- When the speakers are to be mounted on a wall, select screws which are suited for the type of wall concerned.
- It is recommended that the speaker cords be fitted into the hollows provided on the bottom panels of the surround speakers.

Speaker attachment to wall

Screw the wood screw into a thick and hard part of the wall, leaving 7-10 mm of the screw projecting from the wall surface. (The wall or pillar on which the speaker systems are to be attached should be capable of supporting a weight of 5 kilograms.)

**6 For (GC) area only****Connect the center speaker cables.****Note for front/center speakers**

These speakers are made so as to be able to be used in close proximity to the TV, but irregular coloring may result due to how the system is placed. If such distortion occurs, turn off the TV for sometime between 15 and 30 minutes. The demagnetizing function of the TV will eliminate the distortion. If the irregular coloring is still visible, then move the speaker further away from the TV.

Please note that if there is a magnetic object near the TV, irregular coloring may result due to the interaction between the TV and the speakers.

7 Connect the AC mains lead.**(United Kingdom only)**

BE SURE TO READ THE CAUTION FOR AC MAINS LEAD ON PAGE 3 BEFORE PROCEEDING TO STEP 7.

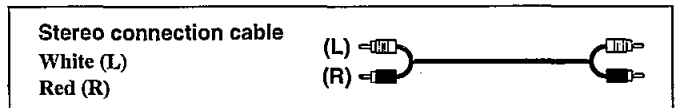
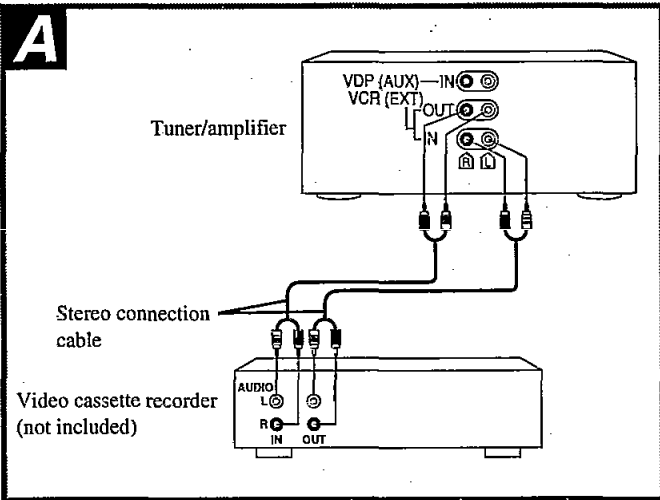
Insertion of Connector

Even when the connector is perfectly inserted, depending on the type of inlet used, the front part of the connector may jut out as shown in the drawing.

However there is no problem using the unit.

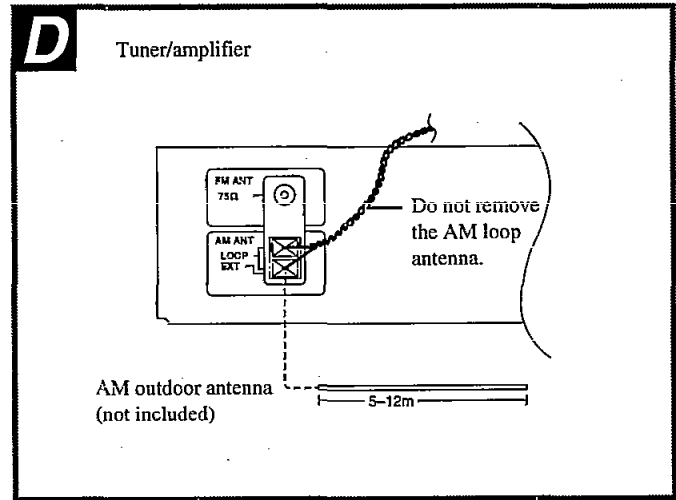
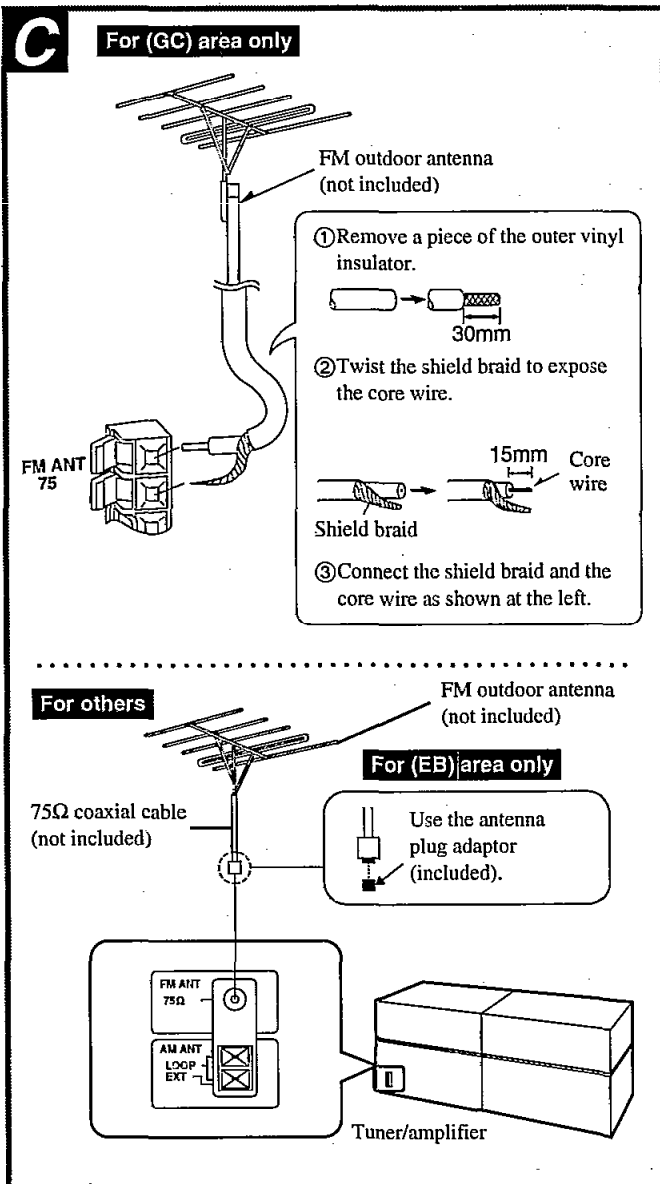
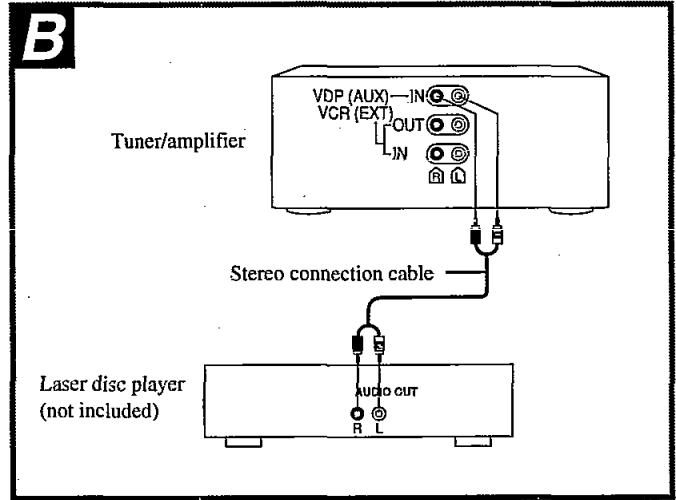
External unit connections

- Make sure that the power supply for all components has been turned off before making any connections.
- For details, refer to the operating instructions of the units which are to be connected.
- All peripheral components and cables sold separately.



A Video Cassette recorder

B Laser disc player



Optional antenna connections

You may need an outdoor antenna if you use this system in a mountainous region or inside a reinforced-concrete building, etc.

FM outdoor antenna (not included) C

Note

An outdoor antenna should be installed by a qualified technician only.

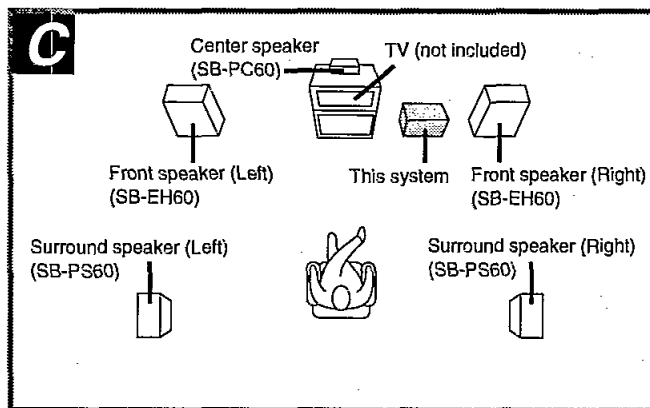
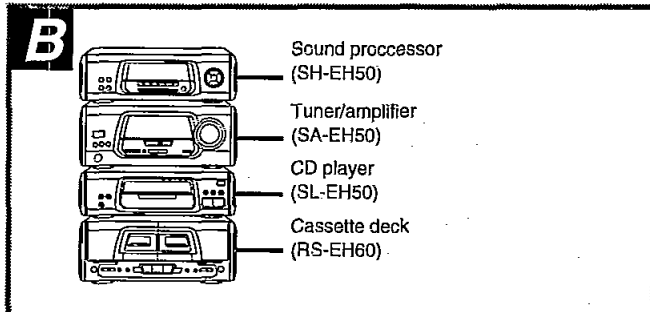
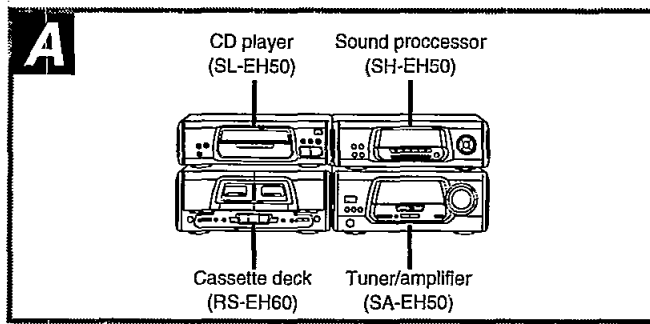
AM outdoor antenna (not included) D

Connect the outdoor antenna without removing the AM loop antenna. Run 5 to 12 m of vinyl-covered wire horizontally along a window or other convenient location.

Note

When the unit is not in use, disconnect the outdoor antenna to prevent possible damage that may be caused by lightning. Never use an outdoor antenna during an electrical storm.

Installation



Locating the components

Side-by-side set-up **A**

Stacking **B**

Placement of speakers **C**

(GC) area only

As well as enjoying normal stereo reproduction with the left and right front speakers, a center speaker and surround speakers can also be connected to the unit in order to enjoy the sound performance of DOLBY PRO LOGIC Systems.

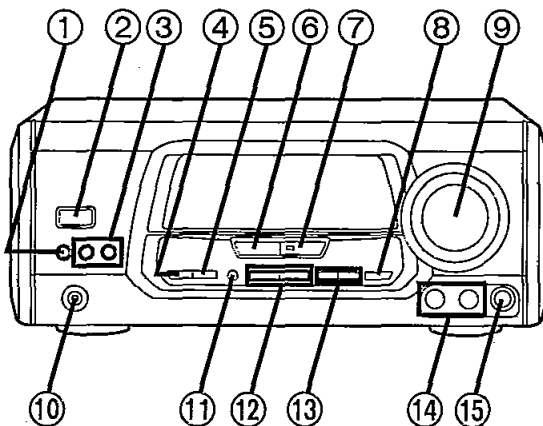
We recommend that surround speakers be placed on the side of or slightly behind the listener, and about one meter higher than ear level.

However the position should be adjusted to your personal preference, because the effect varies to some degree depending upon the type of music and the music source.

Caution

Use the speakers only with the recommended system. Failure to do so may lead to damage to the amplifier and/or the speaker, and may result in the risk of fire. Consult a qualified service person if damage has occurred or if you experience a sudden change in performance.

Location of Controls



- ① Clock/timer button (CLOCK/TIMER)
- ② Power "STANDBY \odot /ON" switch (POWER, STANDBY \odot /ON)
- ③ Timer on/off buttons (\oplus PLAY, \ominus REC)
- ④ Tuning mode select button (TUNING MODE)
- ⑤ Set button (SET)
- ⑥ Source input select button (INPUT SELECTOR)
- ⑦ Tuner/band select button and indicator (TUNER/BAND)
- ⑧ V.bass button (V.BASS)
- ⑨ Volume control (VOLUME)
- ⑩ Headphones jack (PHONES)
- ⑪ FM mode select button (FM AUTO/MONO)
- ⑫ Tuning buttons (\vee , \wedge , TUNING)

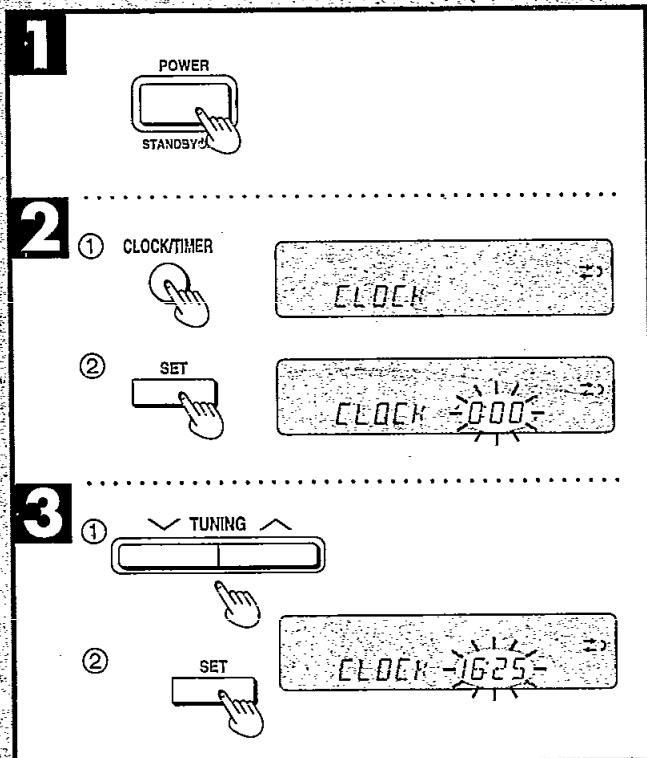
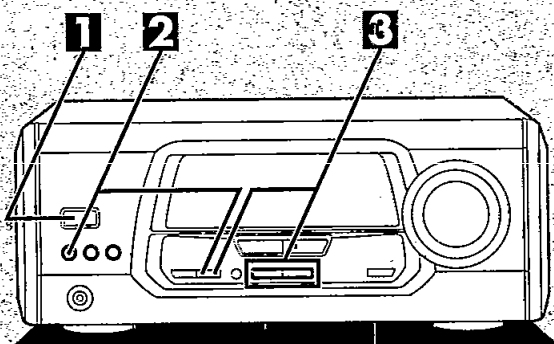
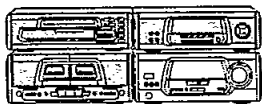
For (EG) and (EP) areas

- ⑬ RDS display mode select buttons

For (GC) area

- ⑬ KARAOKE and Echo buttons (KARAOKE, ECHO)
- ⑭ Microphone jacks (MIC, 1, 2)
- ⑮ Microphone volume control (MIC VOL)

Setting the Time



The tuner/amplifier displays the time, frequency and other information on CDs and tapes.

This is a 24-hour display clock.

These instructions explain how to set the timer for 16:25.

1 Switch on the power.

2 **1** Press **CLOCK/TIMER** to show "CLOCK".
Every time you press the button, the indication changes in the order of CLOCK → \odot PLAY → \odot REC → Original display.

Within 5 seconds:

2 Press **SET**.

3 **1** Press **TUNING** (\vee or \wedge) to set the present time on the display.

The time display can be changed in one minute units by tapping the buttons, and quickly by holding down the buttons.

2 Press **SET**.

The display will return to the previous display after about 3 seconds.

When "---" appears:

It appears when you connect the AC power supply cord for the first time or if there has been a power failure. Reset the time as explained above.

If the minutes setting is off:

1. Press **CLOCK/TIMER**.
2. Press **SET**.
3. Press **TUNING** (\vee or \wedge) to set the minutes, and then press **SET**.

To display the clock again:

Press **CLOCK/TIMER**.

The clock display will appear for about 5 seconds.

For your reference:

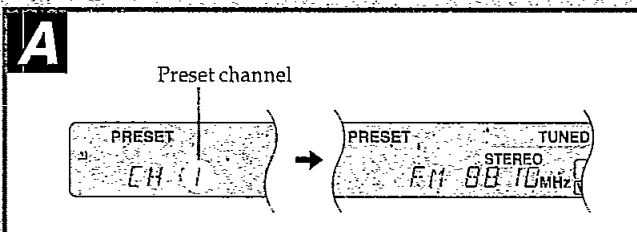
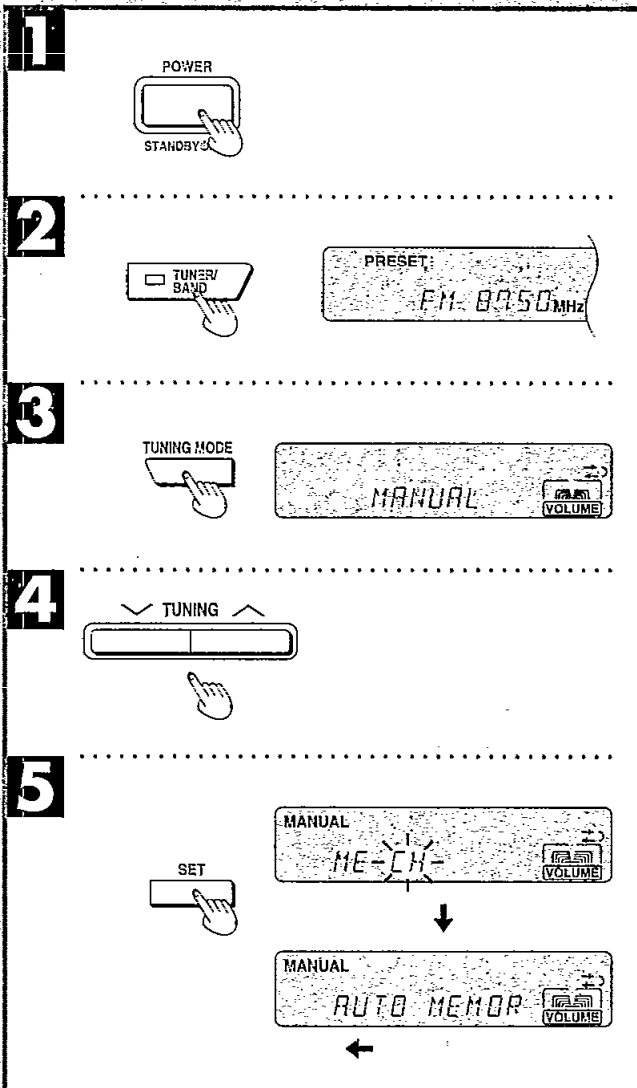
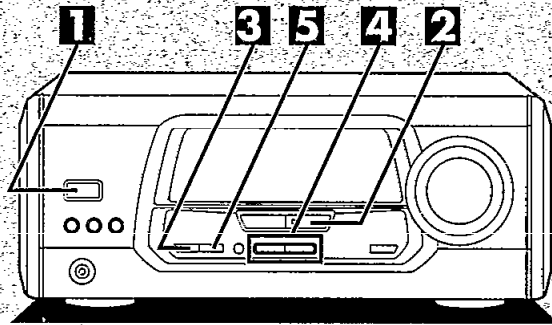
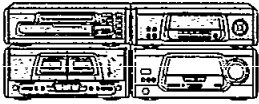
When you turn OFF the system from the **POWER** button, the system goes on standby.

Demo function while the power is on:

When the input source is set to "CD" or "TAPE", the demo function will run automatically after about 2 minutes or more in the stop mode.

You can cancel the demo function by pressing and holding **DISP MODE/-DEMO** for about 2 seconds or more while the automatic demo function is activated.

Memory Presetting



- Once stations have been preset, you can easily select them from the tuner/amplifier or the remote control.
- You can preset a total of 39 stations between the FM and AM bands.
- Stations can be set automatically or manually.

Automatic memory presetting

The frequencies are automatically preset (in sequence from lower to higher frequencies) into the memory: "channels" 1 to 39 are available for the presetting of FM stations and "channels" 21 to 39 are available for AM stations.

This example in the figure shows how to preset FM stations.

- 1 Switch on the power.**
- 2 Press TUNER/BAND to select the desired band.**
Each time you press this button, "FM" and "AM" will appear alternately.
- 3 Press TUNING MODE to select "MANUAL".**
Each time you press this button, "MANUAL" and "PRESET" will appear alternately.
- 4 Press and hold TUNING (∨ or ∧) until the display shows the frequency from which you want to begin automatic memory presetting.**
Press TUNING (∨ or ∧) momentarily to stop scrolling when the displayed frequency approaches the desired frequency. Tap TUNING (∨ or ∧) a few times until the desired frequency is reached.
- 5 Hold down SET.**
Release your finger when the words "AUTO MEMORY" scroll across the display.

The "ME" in the display will then flash while the tuner/amplifier is storing the received frequency in memory. When storing is complete, "SET OK" will be displayed.

To confirm the preset stations: **A**

1. Press TUNING MODE to select "PRESET".
2. Press TUNING (∨ or ∧).

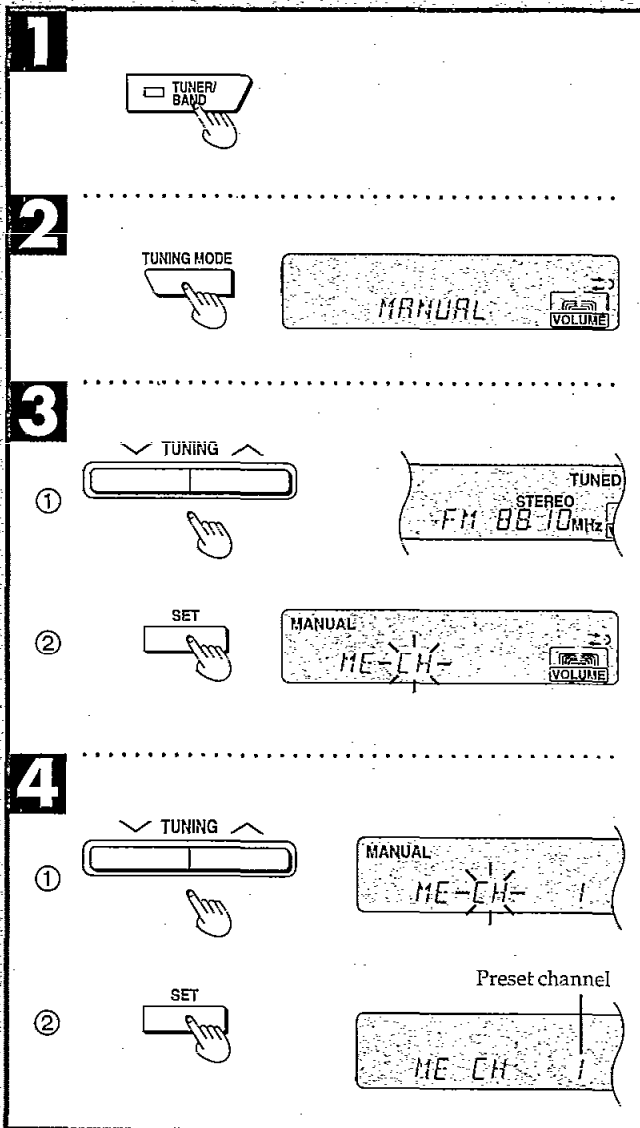
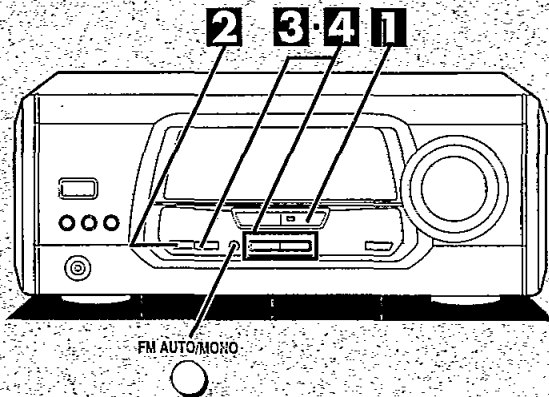
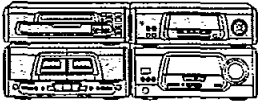
"STEREO" lights when an FM stereo broadcast is being received.
"TUNED" lights when you precisely tune in a broadcast station.

When "ERROR" appears:

Automatic memory presetting does not work when radio waves from the broadcasting station are too strong or too weak.
In such case, carry out presetting manually.

Note

When you preset a broadcast station to a channel that has already been preset, the previous presetting will be erased. So if, for example, FM frequencies are preset from channel 1 to 39 and then AM frequencies are preset, the first AM frequency will be preset to channel 21 (thus erasing the FM presetting to channel 21), the second AM frequency will be preset to 22 (erasing FM 22), and so on.



Manual memory presetting

This example in the figure shows how to store FM 88.10 MHz into preset channel 1.

- 1** Press TUNER/BAND to select the desired band.
Each time you press this button, "FM" and "AM" will appear alternately.
- 2** Press TUNING MODE to select "MANUAL".
Each time you press this button, "MANUAL" and "PRESET" will appear alternately.
- 3** **①** Press TUNING (∨ or ∧) to tune in the desired broadcast.
"STEREO" lights when an FM stereo broadcast is being received.
"TUNED" lights when you precisely tune in a broadcast station.

Automatic scanning:

Press and hold TUNING (∨ or ∧) until the displayed frequency starts to scroll.

- The scrolling of the displayed frequency will automatically stop if a broadcast station frequency is located during the tuning process.

- When there is excessive interference, the automatic scanning may not function.

To cancel the automatic scanning, press TUNING (∨ or ∧) once again.

- ②** Press SET momentarily.
"CH" flashes.

- 4** **①** Press TUNING (∨ or ∧) to select the desired preset channel
- ②** Press SET momentarily.
"CH" lights and the display returns to the frequency after about two seconds.

To continue presetting:

Repeat steps **1** through **4**.

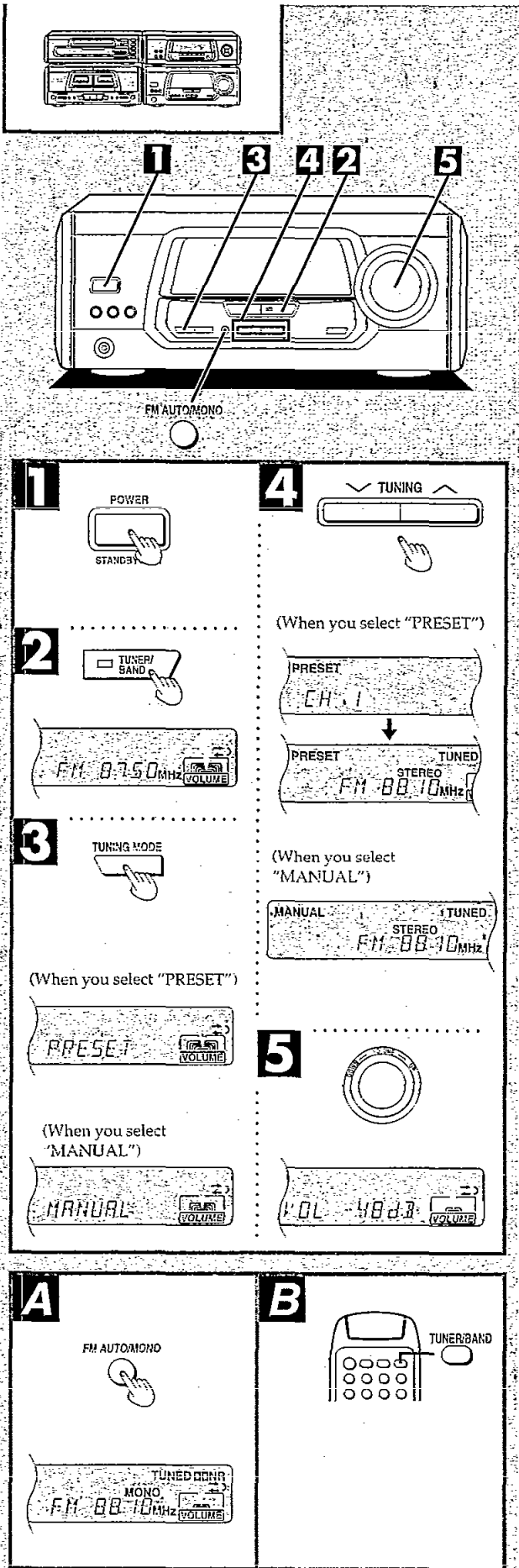
To preset FM stations in monaural position:

1. Select the desired frequency.
2. Press FM AUTO/MONO.
"MONO" will light.
3. Follow steps **3-②** and **4** above.

For your reference:

Even if the power cord is disconnected from the household AC outlet, the memory will retain its contents for approximately 2 weeks.

■ Listening to Radio Broadcasts



Listening to radio broadcasts

This example in the figure shows how to tune in FM stations.

- 1** Switch on the power.
- 2** Press TUNER/BAND to select the desired band.
Each time you press this button, "FM" and "AM" will appear alternately.
- 3** Press TUNING MODE to select "PRESET" or "MANUAL".
Each time you press this button, "MANUAL" and "PRESET" will appear alternately.
 - Select "PRESET" when stations are preset.
 - Select "MANUAL" when stations are not preset.

- 4** Press TUNING (∨ or ∧) to tune in the desired broadcast.

"STEREO" lights when an FM stereo broadcast is being received.

"TUNED" lights when you precisely tune in a broadcast station.

Automatic scanning (when you select "MANUAL" in step 3):

Press and hold TUNING (∨ or ∧) until the displayed frequency starts to scroll.

- The scrolling of the displayed frequency will automatically stop if a broadcast station frequency is located during the tuning process.

- When there is excessive interference, the automatic scanning may not function.

To cancel the automatic scanning, press TUNING (∨ or ∧) once again.

- 5** Adjust the volume level as you like.

For tuning by remote control (when you select "PRESET" in step 3 above):

Specify the channel you want with the numeric buttons.

To select a two-digit channel:

Press ≥10 and then the two numbers you want within 10 seconds or so.

Note

When the FM station is preset to "MONO", the "STEREO" indicator will not light up even if a stereo broadcast is being received.

If noise is excessive in the FM stereo mode:

Press FM AUTO/MONO.

The sound reception mode switches to "MONO" (monaural) and "MONO" lights.

The sound will then be heard in monaural. If the broadcast signal is weak, or if there is a large amount of interference, you will get a clearer sound using MONO function.

To cancel the "MONO" mode, press the button again.

When "MONO" indicator goes off:

Use this setting for normal listening. Both stereo and monaural sounds can be heard as they are.

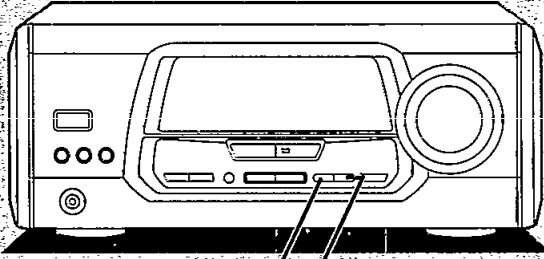
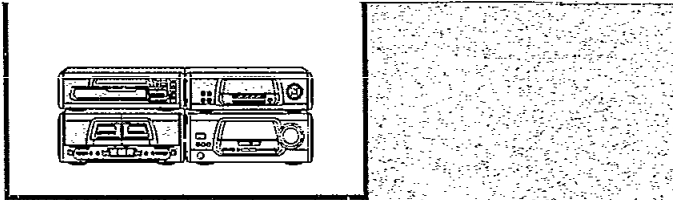
Note

If you change frequencies in the "MONO" mode, the "MONO" mode will be cancelled.

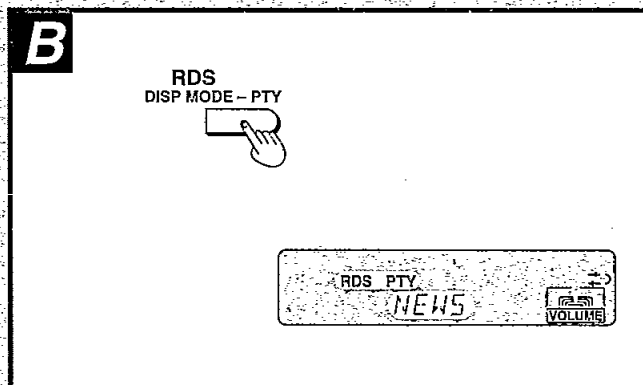
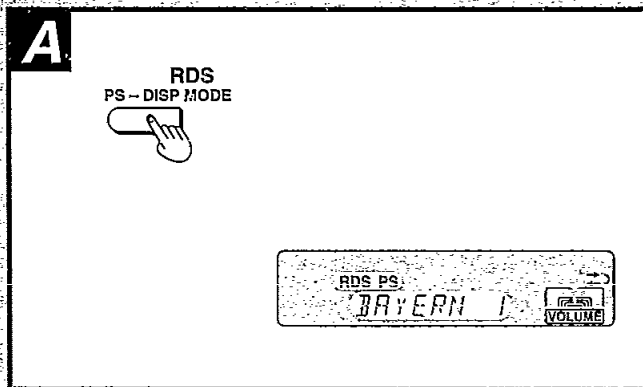
One-touch play

When the system is OFF, you can receive the station last tuned in when you press TUNER/BAND on the remote control. Play will start with volume increasing gradually.

■ Enjoying RDS Broadcasts [For (EG) and (EP) areas]



RDS
PS - DISP MODE - PTY



This unit lets you take advantage of the Radio Data System (RDS) in areas where RDS broadcast services are received. This advanced system provides useful information, utilizing a 57 kHz subcarrier above the audible range, in addition to the main FM signal.

Types of RDS and functions

To display the name of a broadcast station (PS display):

When this system receives a PS signal in an RDS broadcast, the name of the broadcast station is shown on the display.

To display the type of a program (PTY display):

While the PTY signal is being received, the name of the type of program currently being broadcast can be shown on the display.

Notes

- Even if an FM broadcast station is transmitting RDS signals, the functions of this system may not be able to utilize these signals if the signal quality is too poor.
- "PTY" may not be available in some areas. (Future function)

To display the name of a broadcasting station A

(When the FM station is received)

Press PS-DISP MODE.

If the FM broadcast being received provides the RDS service ("RDS" indicator will light), the name of the broadcast station and "PS" indicator will be shown on the display of this system.

Each time you press the button, frequency display and PS display will appear alternately.

To display the type of a program B

(When the FM station is received)

Press DISP MODE-PTY.

If the FM broadcast being received provides the RDS service ("RDS" indicator will light), the type of the program and "PTY" indicator will be shown on the display of this system.

Each time you press the button, frequency display and PTY display will appear alternately.

When "NO RDS" is displayed

If the FM broadcast being received does not provide RDS service, "NO RDS" will be displayed when the PS display mode or PTY display mode is selected.

Note

When receiving a broadcast station, in PTY mode, which does not transmit PTY, the display will not show "NO PTY" automatically. The same also applies to "NO RDS" when RDS is not transmitted.

About the PTY display

There are a total of 15 PTY displays on this unit. The table gives an explanation of each display.

Display	Explanation
NEWS	Short accounts of facts, events and publicly expressed views, reportage and actuality.
AFFAIRS	Topical program expanding or enlarging upon the news, generally in different presentation style or concept, including documentary debate, or analysis.
INFO	Program whose purpose is to impart advice in the widest sense, including meteorological reports and forecasts, consumer affairs, medical help, etc.
SPORT	Program concerned with any aspect of sport.
EDUCATE	Program intended primarily to educate.
DRAMA	All radio plays and serials.
CULTURE	Programs concerned with any aspect of national or regional culture, including religious affairs, philosophy, social science, language, theatre, etc.
SCIENCE	Programs about the natural sciences and technology.
VARIED	Used for mainly speech-based programs, usually of a light-entertainment nature not covered by above categories. Examples are: quizzes, panel games, personality interviews, comedy and satire.
POP M	Commercial music which would generally be considered to be of current popular appeal, often featuring in current or recent record sales charts.
ROCK M	Contemporary modern music, usually written and performed by young musicians.
M.O.R.M	(Middle of the Road Music). Common term to describe music considered to be "easy-listening", as opposed to Pop, Rock or Classical. Music in this category is often, but not always, vocal, and usually of short duration (<5 min.).
LIGHT M	Classical Musical for general, rather than specialist, appreciation. Examples of music in this category are instrumental music and vocal or choral works.
CLASSICS	Performances of major orchestral works, symphonies, chamber music etc., and including Grand Opera.
OTHER M	Musical styles not fitting into any of the above categories. Particularly used for specialist music, of which Jazz, Rhythm & Blues, Folk, Country, and Reggae are examples.

■ Operation Checks and Main Component Replacement Procedures

NOTE

1. This section describes procedures for checking the operation of the major printed circuit boards and replacing the main components.
2. For reassembly after operation checks or replacement, reverse the respective procedures. Special reassembly procedures are described only when required.
3. Select items from the following index when checks or replacement are required.
4. Refer the parts No. on the page of "Main Component Replacement Procedures", if necessary.

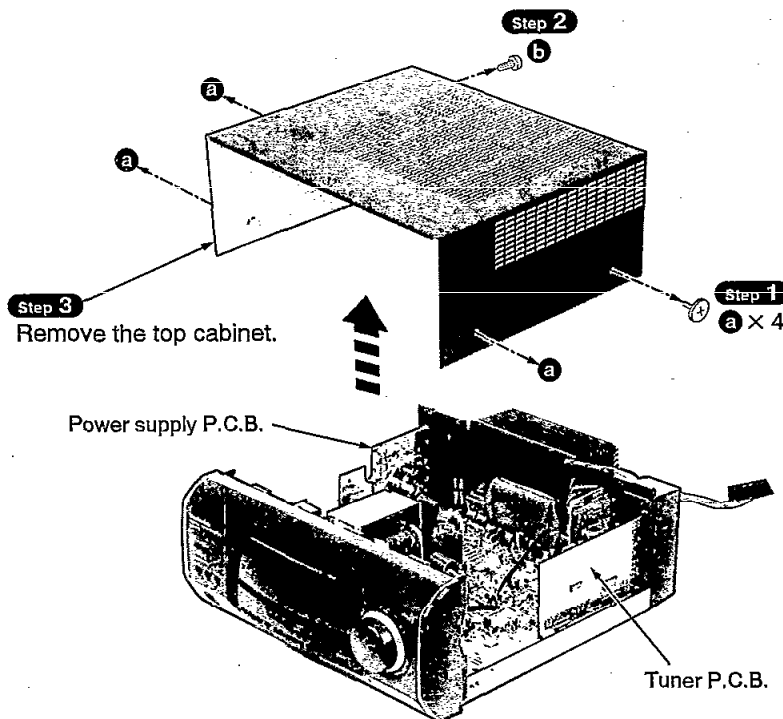
● Contents

● Checking procedures for each P.C.B.	Page.
1. Checking for the tuner P.C.B. and power supply P.C.B.	14.
2. Checking for the operation P.C.B.	15.
3. Checking for the main P.C.B.	15,16.
● Main Component Replacement Procedures	
1. Replacement for the power IC and regulator transistor.	17.

■ Checking procedures for each P.C.B.

1. Checking for the tuner P.C.B. and power supply P.C.B.

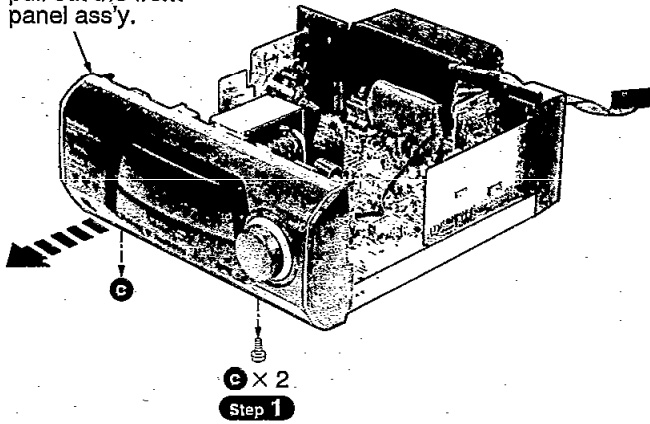
• Check the tuner P.C.B. and power supply P.C.B. as shown below.



2. Checking for the operation P.C.B.

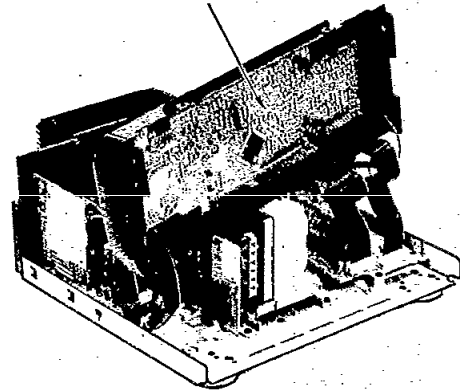
• Follow the **Step 1** ~ **Step 3** of the item 1 in checking procedure for each P.C.B. on page 14.

Step 2
pull out the front panel ass'y.



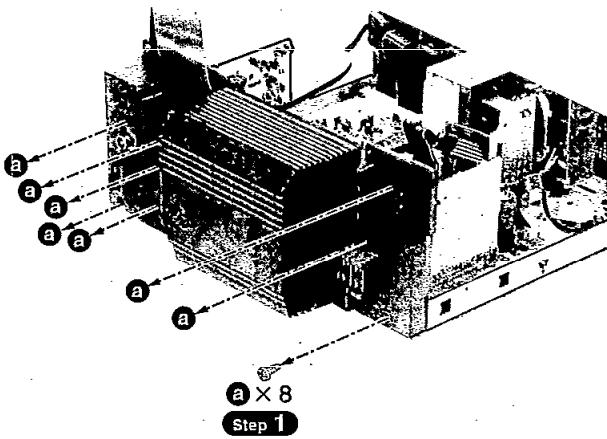
• Check the operation P.C.B. as shown below.

Operation P.C.B.

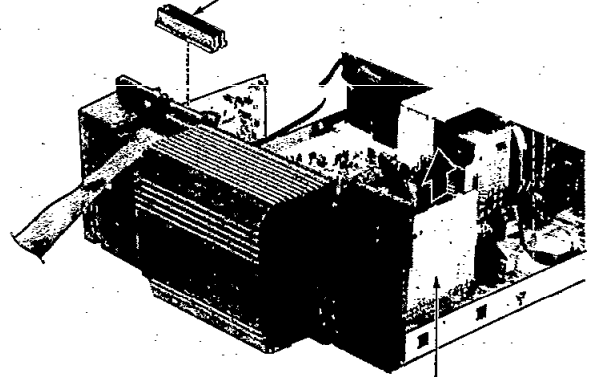


3. Checking for the main P.C.B.

• Follow the **Step 1** ~ **Step 3** of the item 1 in checking procedure for each P.C.B. on page 14.

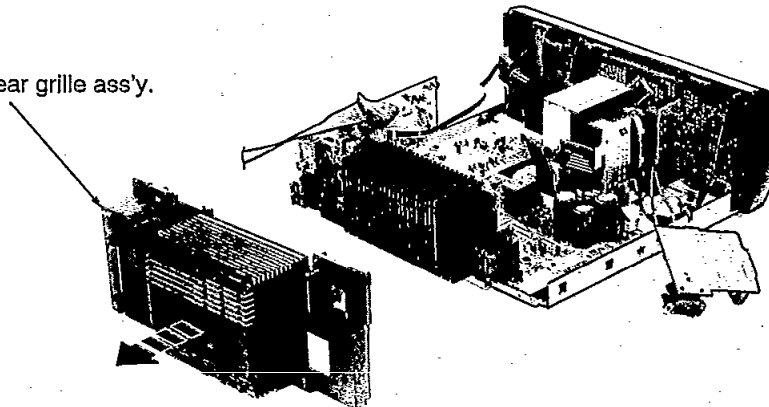


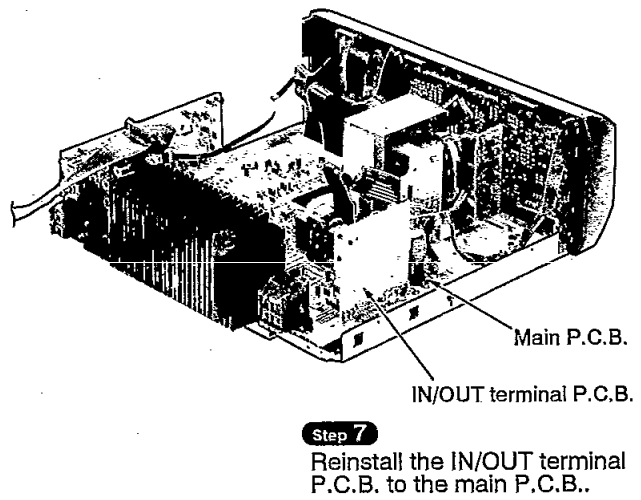
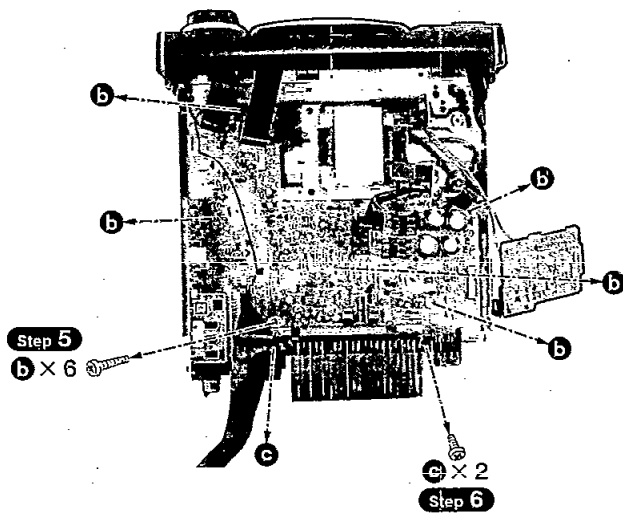
Step 2
Remove the cable holder.



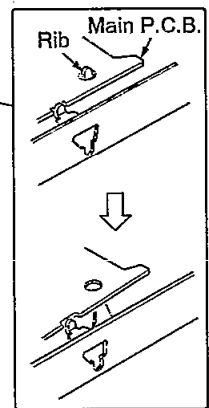
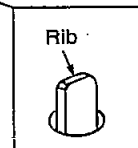
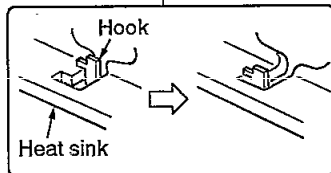
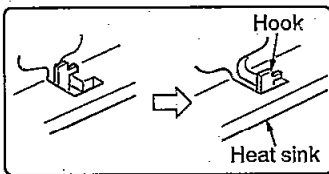
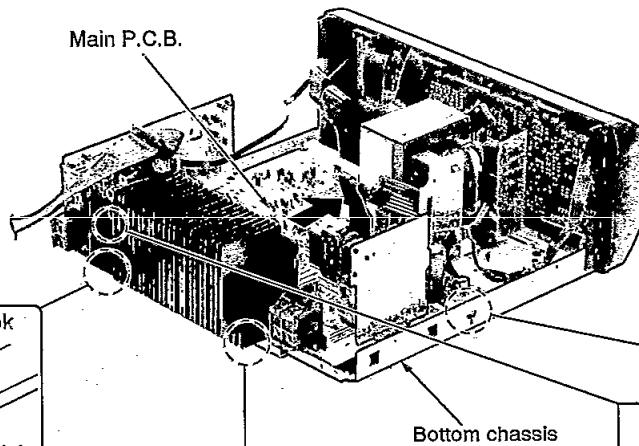
Step 3
Pull out the IN/OUT terminal P.C.B. in the direction of arrow.

Step 4
Remove the rear grille ass'y.

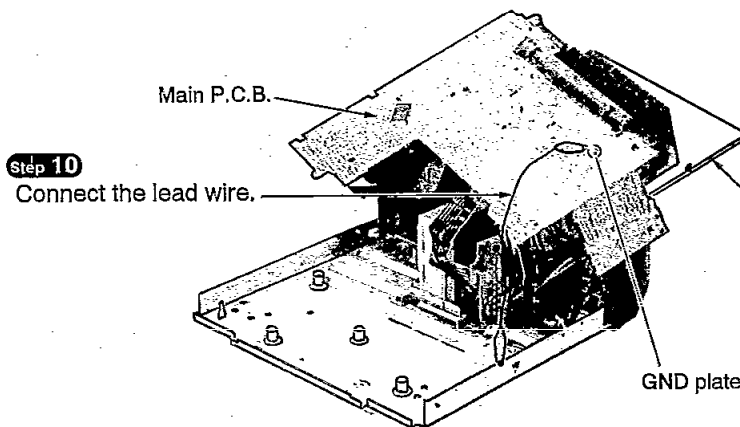




Step 9
Slide the main P.C.B. in the direction of arrow, and then release the hook of bottom chassis.



• Check the main P.C.B. as shown below.



NOTE

Insulate main P.C.B. with insulation material to avoid short-circuit.

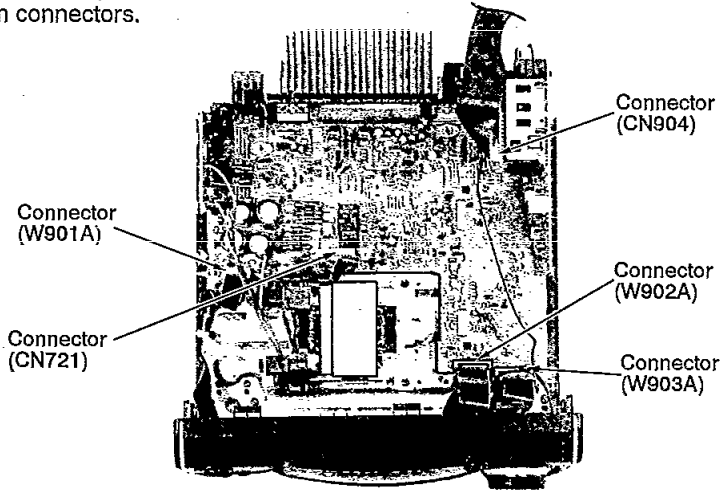
Main Component Replacement procedures

1. Replacement for the power IC and regulator transistor

- Follow the **Step 1** ~ **Step 3** of the item 1 in checking procedure for each P.C.B. on page 14.
- Follow the **Step 1** ~ **Step 9** of the item 3 in checking procedure for each P.C.B. on pages 15 and 16.

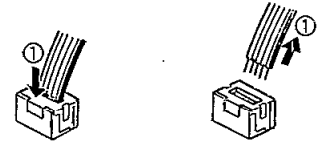
Step 1

Remove the flat cables from connectors.

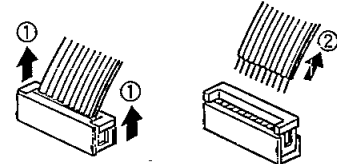


Removal of the connector

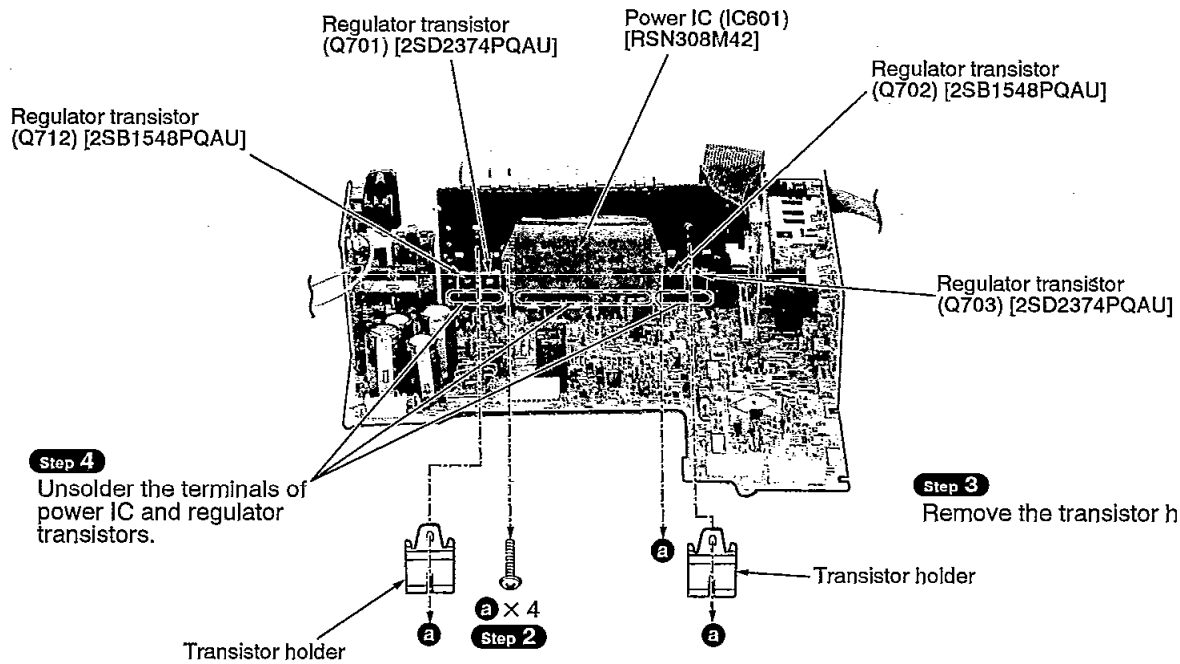
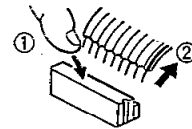
- Connector (CN904)



- Connectors (W901A, W902A, W903A)



- Connector (CN721)



Step 4

Unsolder the terminals of power IC and regulator transistors.

Step 3

Remove the transistor holder.

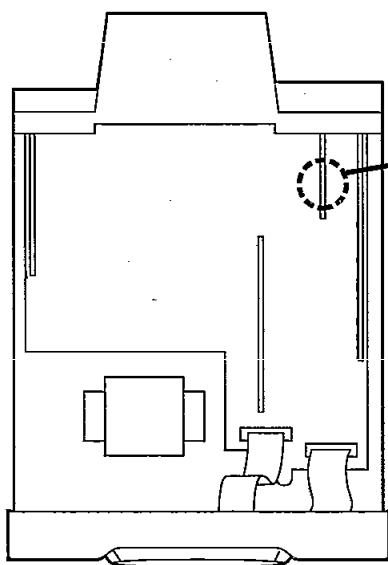
NOTE

When mounting the power IC or regulator transistor apply silicone compound (RFKX0002) to the rear side of power IC or regulator transistors.

■ To Supply Power Source

Power Supply to This Unit Alone

1. Short the section between 7 pin and 10 pin of the connector W202 in Fig. 1.
2. Connect this unit to an AC Power Cord.
(This unit come to stand-by mode.)
3. Turn the unit ON.



Short-circuit the section W202-7 pin and W202-10 pin.

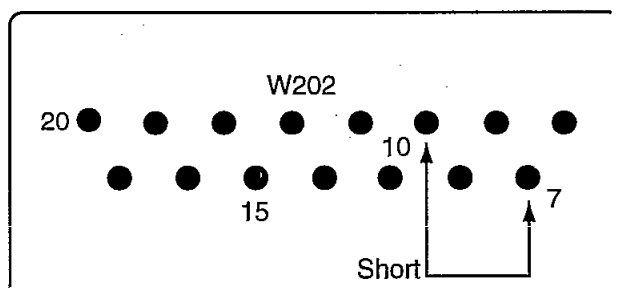


Fig. 1

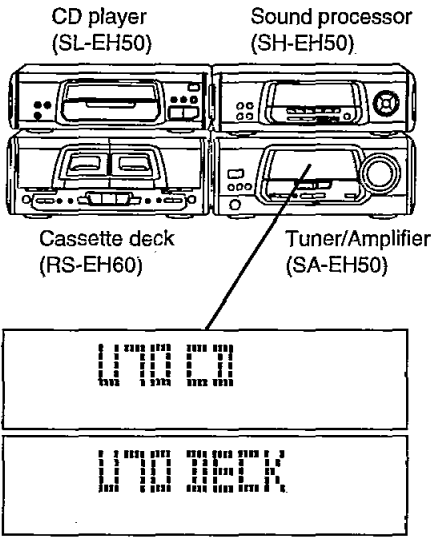
To check Operation

1. Set this unit to Power ON mode.
2. Input a signal and confirm it to be outputted from the speaker terminal.

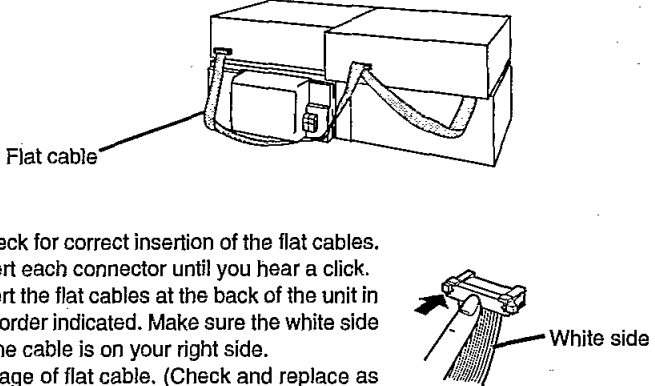
	INPUT	OUTPUT
L-ch	VDP(AUX) or VCR(EXT)	L-ch speaker terminal
R-ch	VDP(AUX) or VCR(EXT)	L-ch speaker terminal
Surround	VDP(AUX) or VCR(EXT)	Surround speaker terminal
Center	VDP(AUX) or VCR(EXT)	Center speaker terminal

■ About the Self-Diagnostic Mode

This unit is equipped with a self-diagnostic function which, in the event of a malfunction, automatically displays a code indicating the nature of the malfunction. Use this self-diagnostic function when servicing the unit.

Display method	Display location
<p>To display the malfunction code</p> <p>U-70 CD: U-70 DECK: Automatically displays on the tuner/sound processor when a malfunction occurs. F-61 Automatically displays on the tuner/sound processor when a malfunction occurs.</p> <p>To return to the normal display</p> <p>1. For U-70 CD/U-70 DECK:</p> <ul style="list-style-type: none"> ● Press any operation button on the tuner/amplifier. ● To re-display the code, switch the power off (POWER STANDBY button), and then switch power back on again. <p>2. For F-61:</p> <ul style="list-style-type: none"> ● If "F-61" is displayed, the power will automatically be switched off and the standby indicator will light up. ● "F-61" will be displayed for 3 seconds, and then the clock will be displayed. ● To re-display the code, switch the power on. "F-61" will be re-displayed, and then after 3 seconds the clock will be displayed and the power will automatically switch off. 	

Display contents

Display code	Problem or condition	Correction procedure
<p>U-70 CD U-70 DECK (displayed automatically)</p>	<p>A bus-line communications error has occurred as a result of the flat cables being inserted incorrectly, thus preventing the system from operating.</p> <p>1. If "U-70" is displayed on the tuner/amplifier, the tape deck or CD Changer cannot be operated by remote control.</p>	 <p>1. To check for correct insertion of the flat cables.</p> <ol style="list-style-type: none"> ① Insert each connector until you hear a click. ② Insert the flat cables at the back of the unit in the order indicated. Make sure the white side of the cable is on your right side. <p>2. Breakage of flat cable. (Check and replace as necessary.)</p> <p>3. If the problem is not corrected by items (1.) and (2.) above, this indicates a faulty IC.</p> <p>SA-EH50: IC901 (M38199MF100K)</p> <p>SL-EH50: IC403 (LC66356B4J28)</p> <p>RS-EH60: IC701 (M37471M4660F)</p> <p>Check these IC's and replace as necessary.</p>
<p>F-61</p>	<p>When the power switch is switched on, it automatically switches back off, making it impossible to switch power on.</p>	<p>● Faulty Tuner/Amplifier (SA-EH50) output IC (IC601). (When a DC voltage is applied to the speaker terminals.)</p>

■ Schematic Diagram

	Page
B OPERATION CIRCUIT	21 ~ 23
A TUNER CIRCUIT	24 ~ 31
E IN/OUT TERMINAL CIRCUIT	32
F MAIN CIRCUIT	32 ~ 38
G POWER SUPPLY CIRCUIT	38
H POWER TRANSFORMER (A) CIRCUIT	38
I POWER TRANSFORMER (B) CIRCUIT	38

	Page
C MIC JACK CIRCUIT	23
D DOLBY PROLOGIC CIRCUIT	30, 31
G POWER SUPPLY CIRCUIT	39
H POWER TRANSFORMER (A) CIRCUIT	39
I POWER TRANSFORMER (B) CIRCUIT	39
For (EG) and (EP) areas	
J RDS CIRCUIT	40

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

Notes:

- **S901** : Power "STANDBY ϕ /ON" switch (POWER STANDBY ϕ /ON)
- **S902** : Clock/timer switch (CLOCK/TIMER)
- **S903** : Record timer switch (\ominus REC)
- **S904** : Play timer switch (\oplus PLAY)
- **S905** : Tuning mode select switch (TUNING MODE)
- **S906** : Set switch (SET)
- **S907** : FM mode select switch (FM AUTO/MONO)
- **S908** : Source input select switch (INPUT SELECTOR)
- **S909** : Tuning down switch (TUNING \vee)
- **S910** : Tuning up switch (TUNING \wedge)
- **S911** : Tuner/band select switch (TUNER/BAND)
- **S912** : V.bass switch (V.BASS)
- **VR901** : Volume control (VOLUME)

For (EG) and (EP) areas

- **S913** : RDS display mode select switch (PS)
- **S914** : RDS display mode select switch (PTY)

For (GC) area

- **S701** : Voltage adjust switch
- **S913** : Karaoke switch (KARAOKE)
- **S914** : Echo switch (ECHO)
- **VR401** : Microphone volume control (MIC VOL)

- 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.
No mark: FM (): AM

• Important safety notice:

Components identified by \triangle mark have special characteristics important for safety.

Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

• Caution!

IC 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.

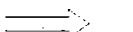
Ground the soldering iron.

Put a conductive mat on the work table.

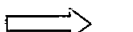
Do not touch the legs of IC or LSI with the fingers directly.

• Voltage and signal line

 : Positive voltage line


 : AM signal Line


 : AM OSC signal line

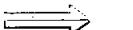
 : FM signal line

 : FM OSC signal line

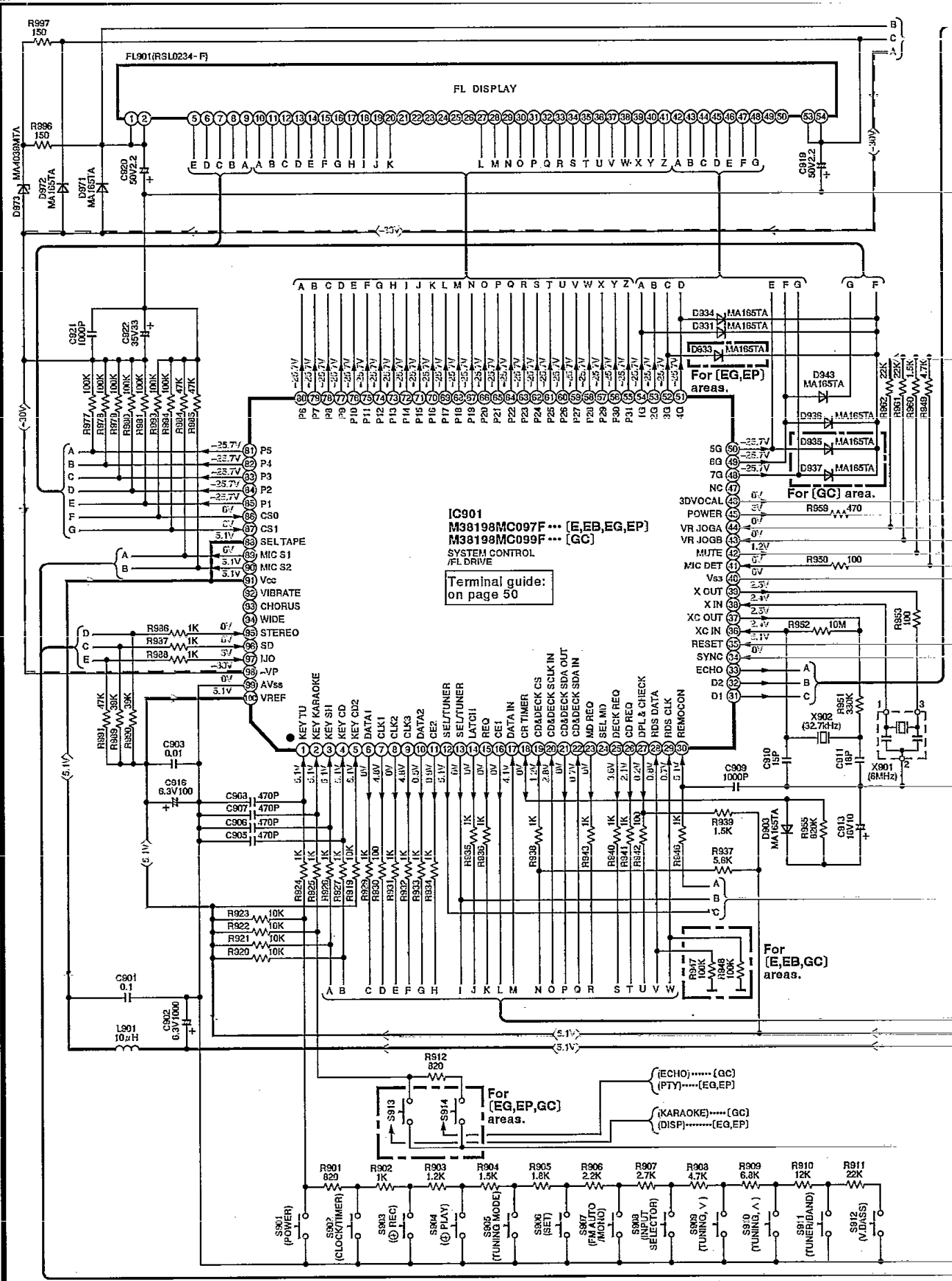
 : Negative voltage line

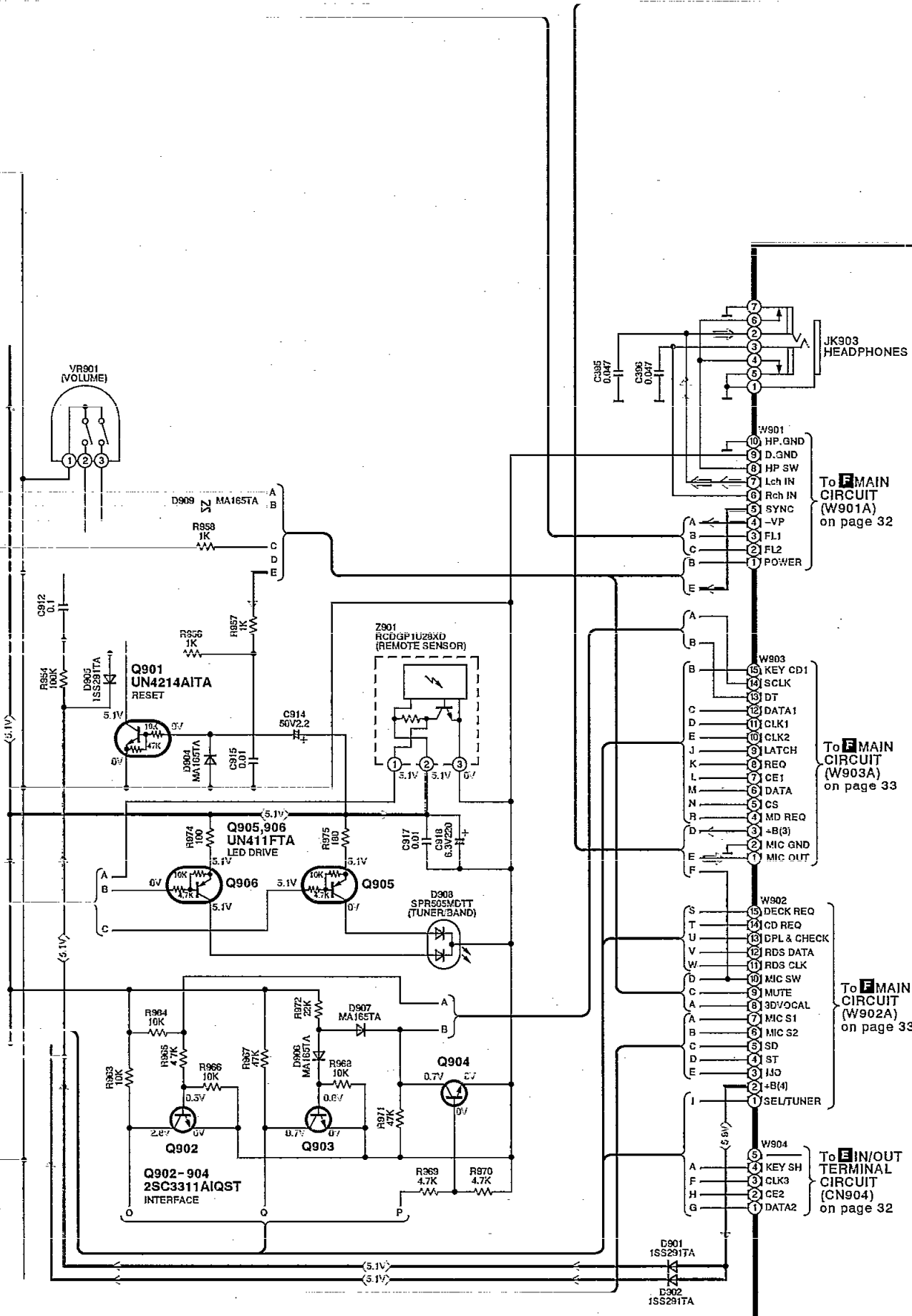
 : Mic signal Line

 : Surround Speaker Drive signal line

 : Center Speaker Drive signal line

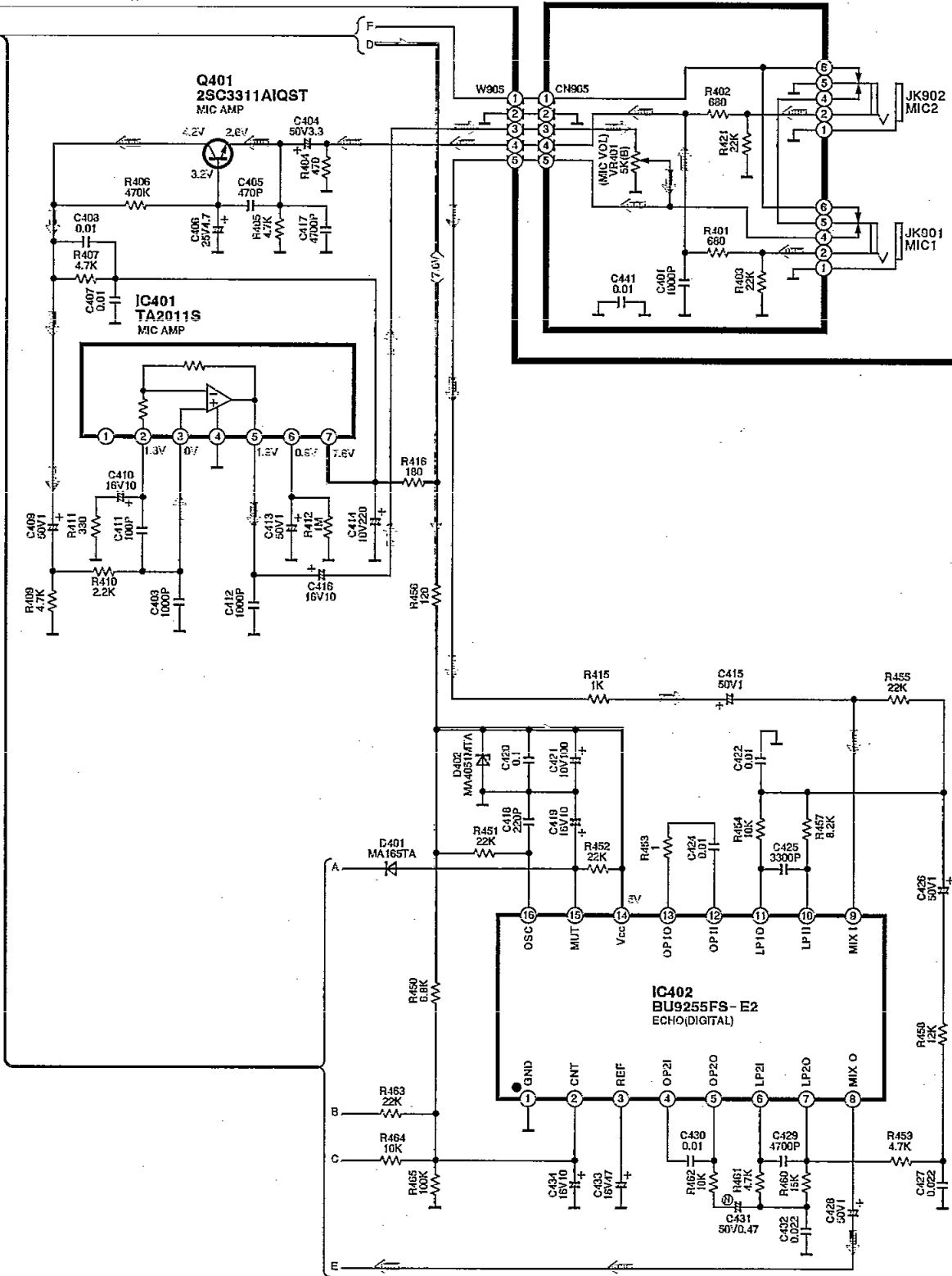
B OPERATION CIRCUIT (P.C.Board: on page 43)









B OPERATION CIRCUIT (P.C.Board: on page 43)

C MIC JACK CIRCUIT (P.C.Board: on page 44)

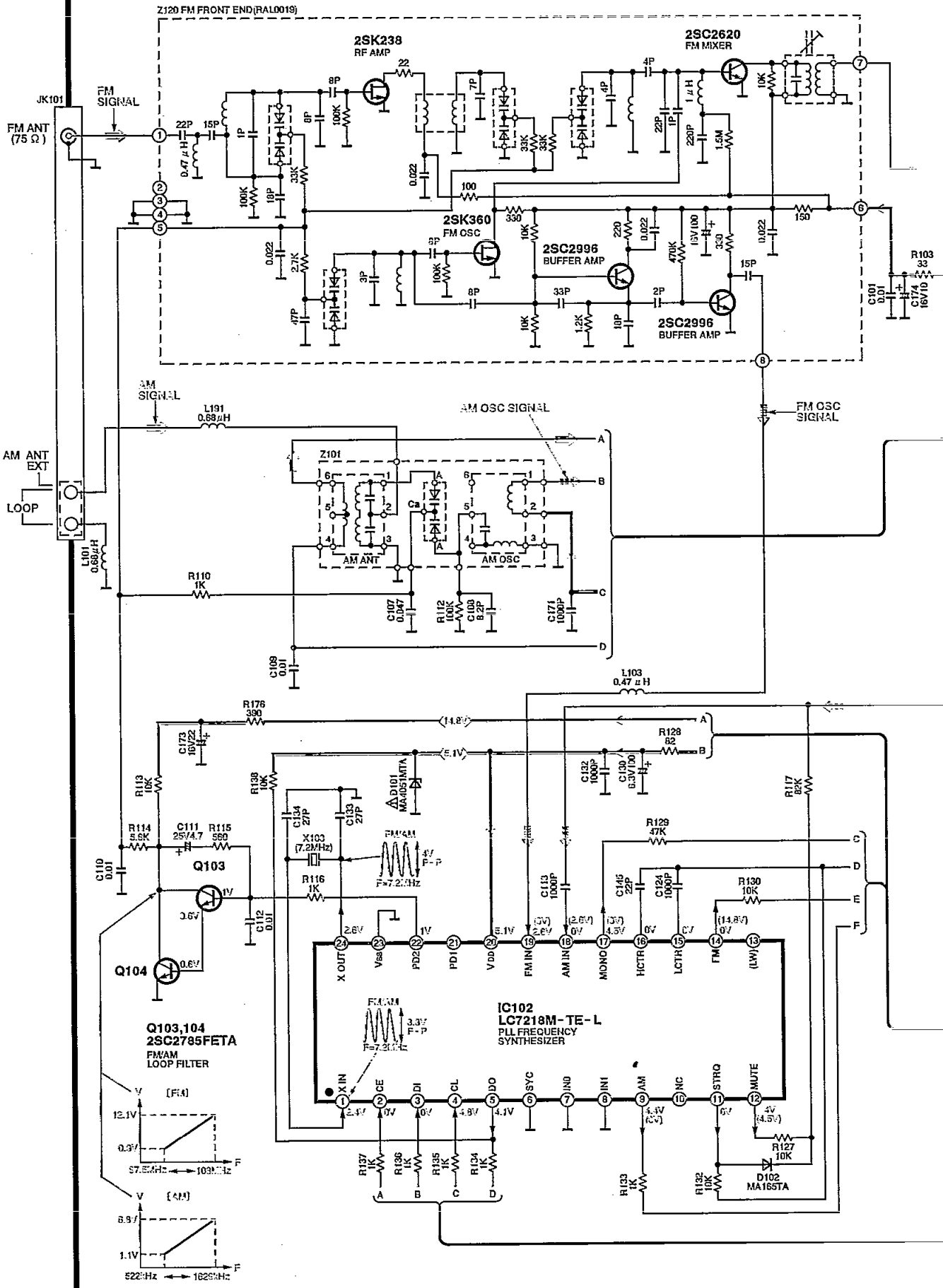


For [GC] area.

 : Positive voltage line
 : FM signal line

 : AM signal Line
 : Mic signal Line

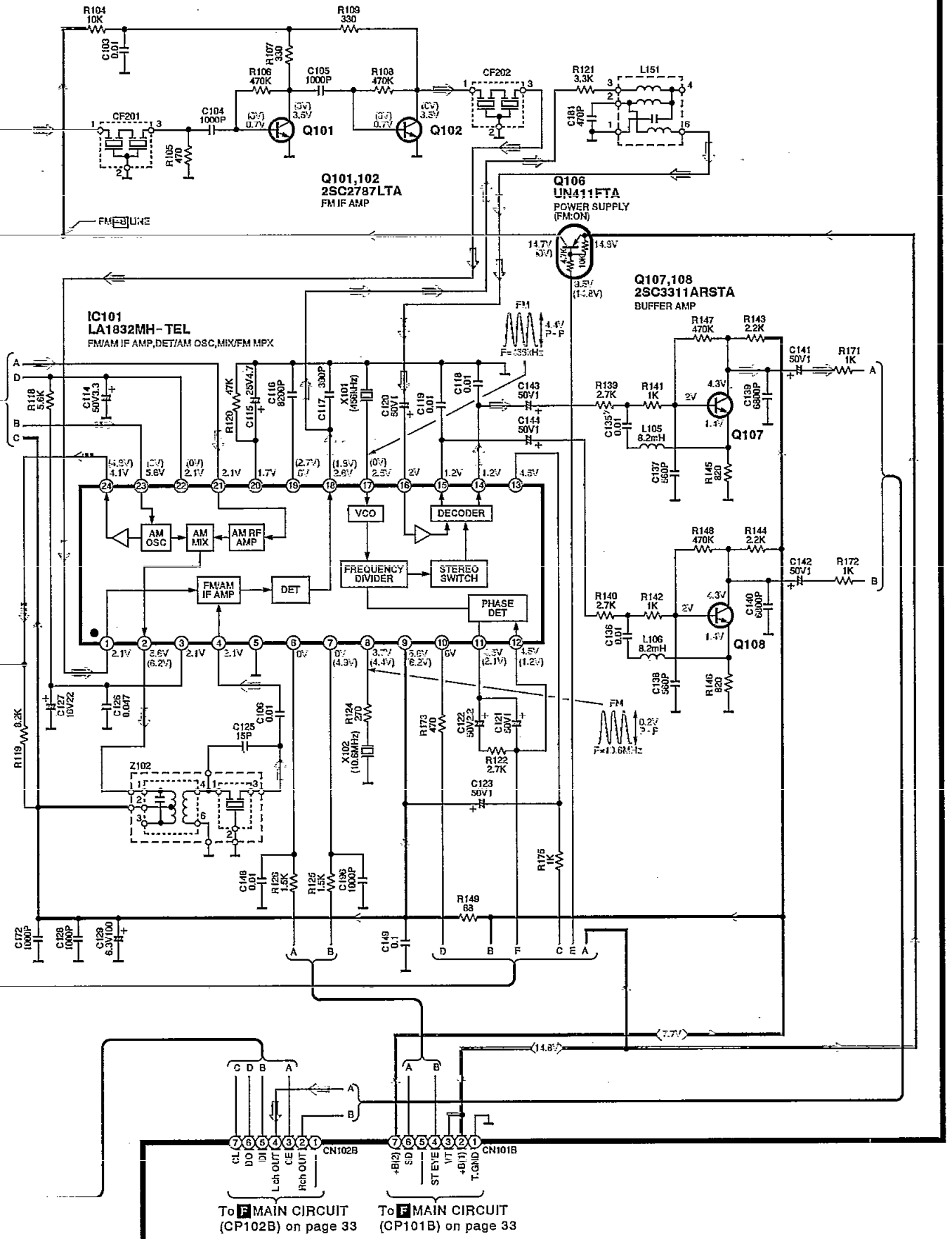
A TUNER CIRCUIT For [E,EB] areas. (P.C.Board on page 42)



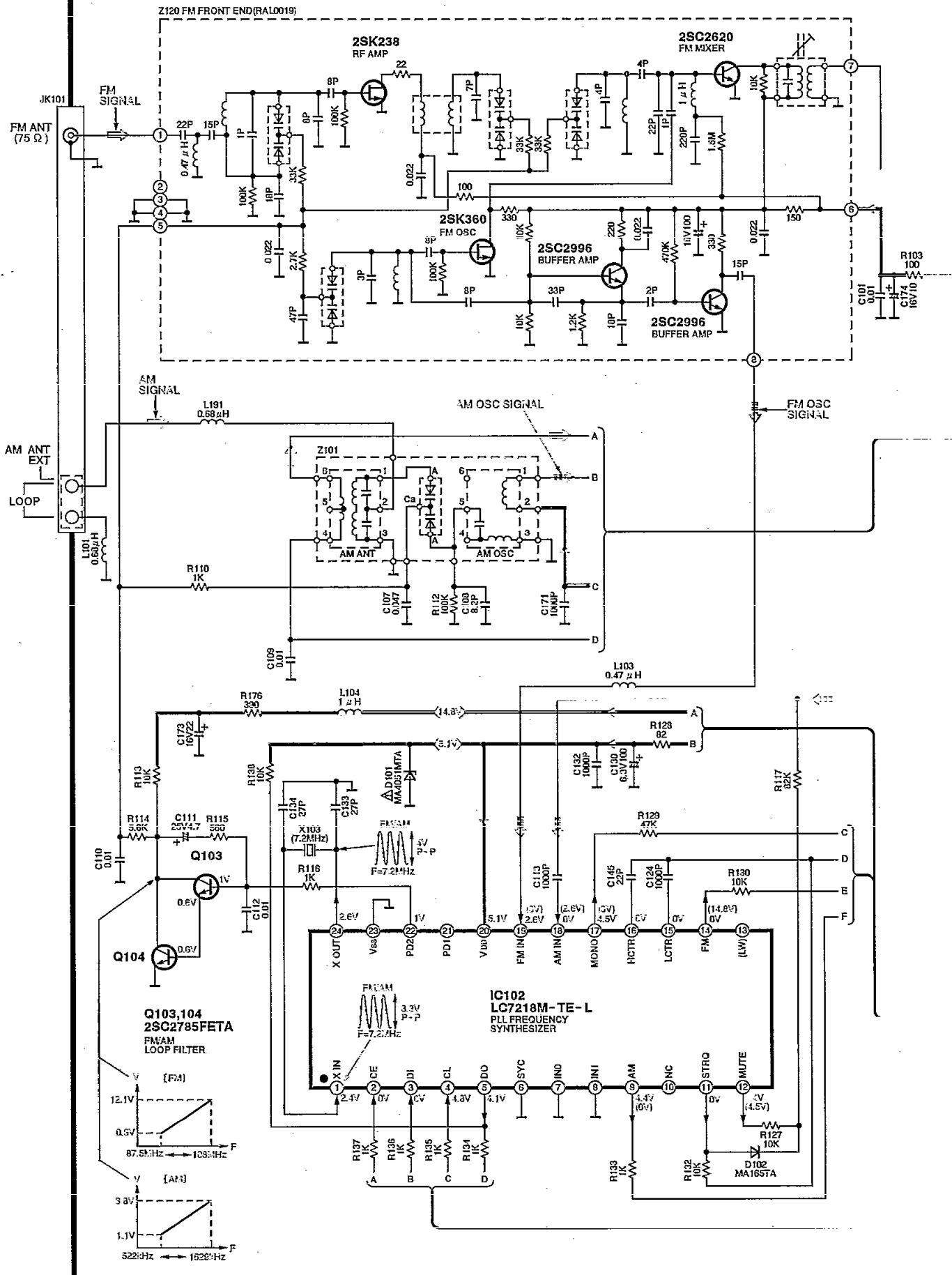
→ : Positive voltage line
 → : AM OSC signal line

→ : AM signal Line
 □□□→ : FM OSC signal line

→ : FM signal line



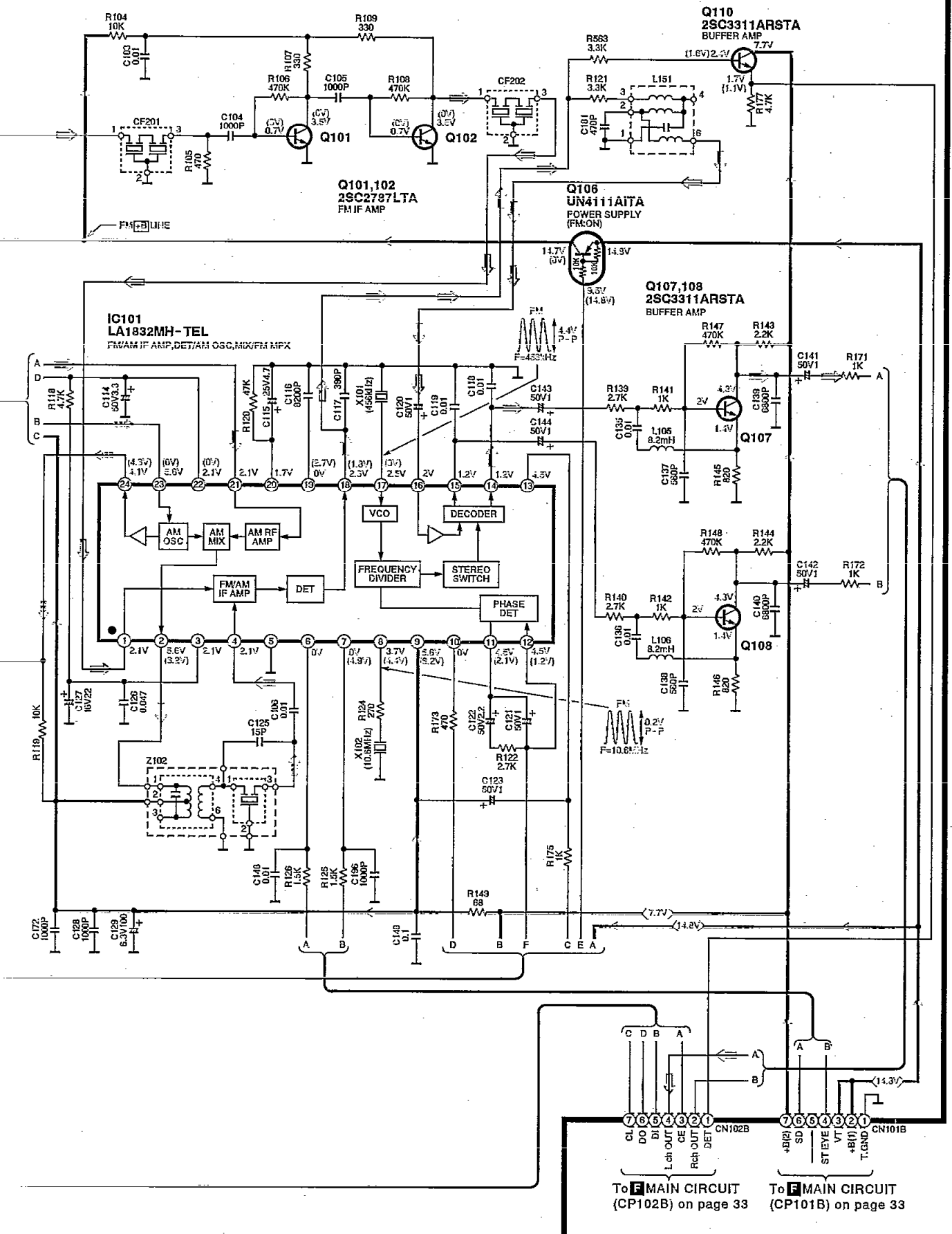
A TUNER CIRCUIT For [EG,EP] areas. (P.C.Board: on page 42)



— : Positive voltage line
 □□□ : AM OSC signal line

— : AM signal Line
 □□□ : FM OSC signal line

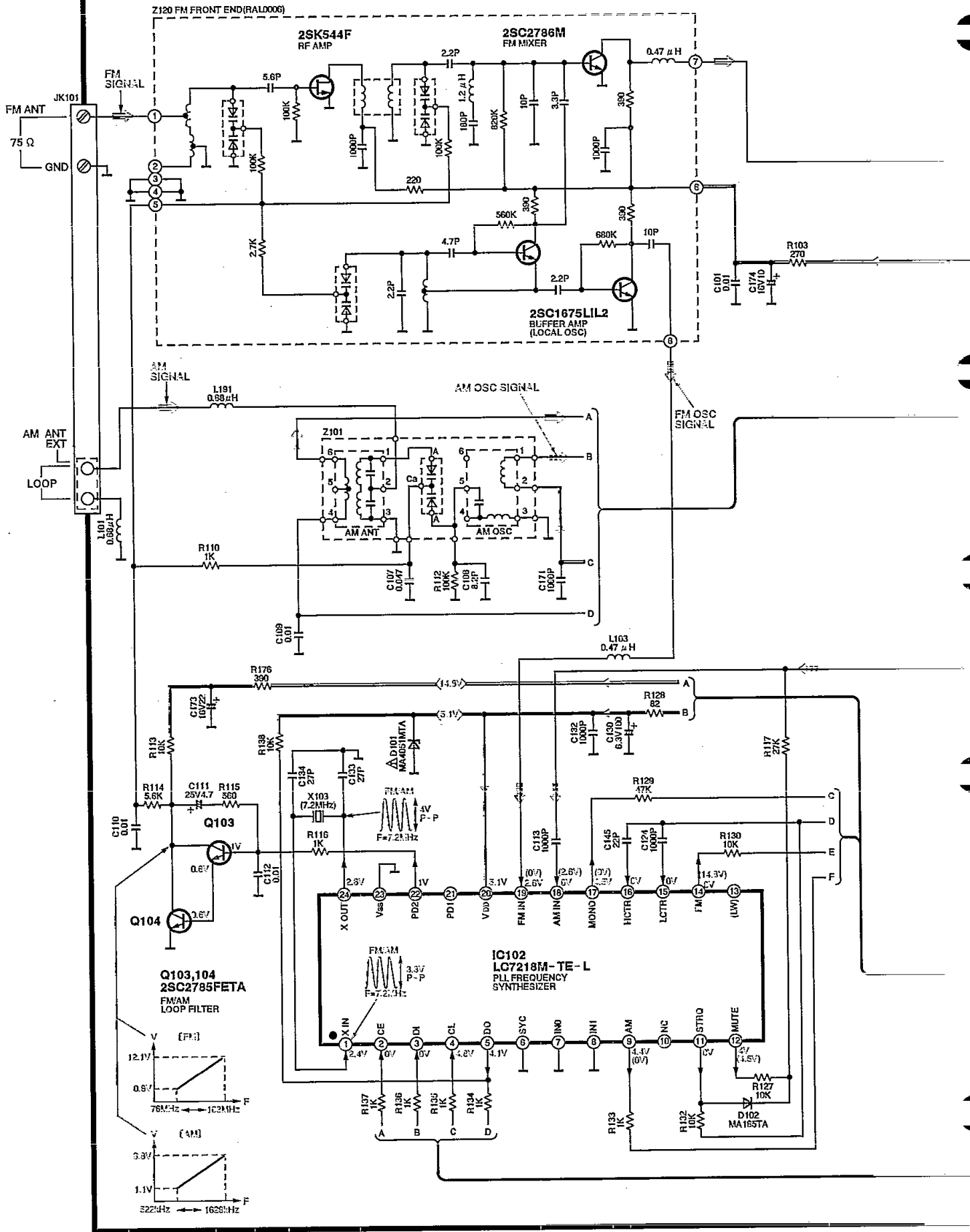
— : FM signal line

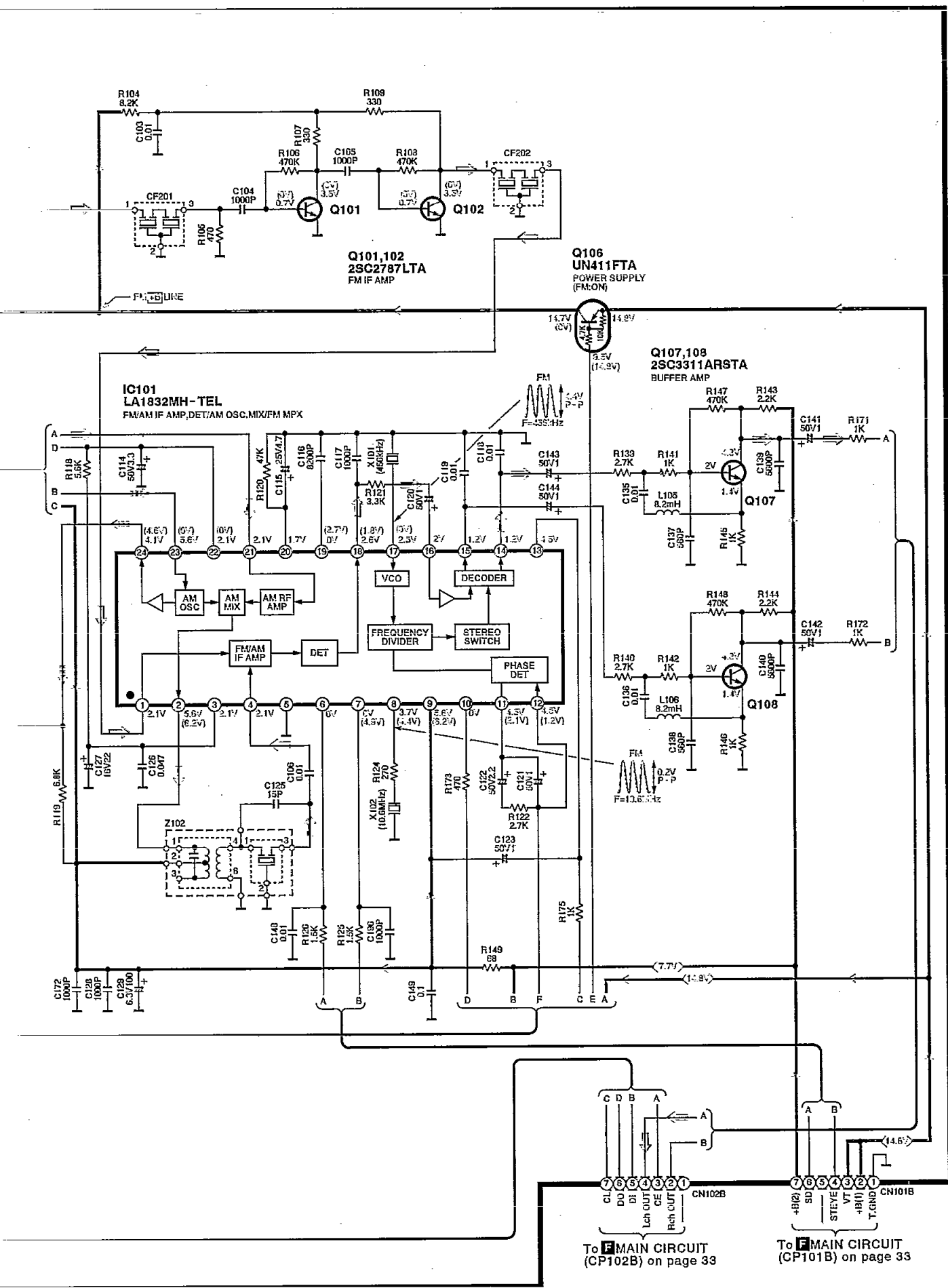
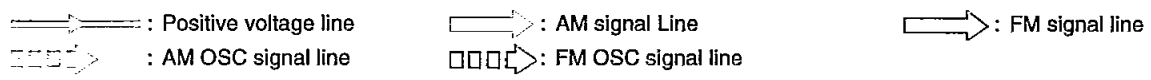


To MAIN CIRCUIT (CP102B) on page 33

To MAIN CIRCUIT (CP101B) on page 33

A TUNER CIRCUIT For [GC] area. (P.C.Board: on page 43)

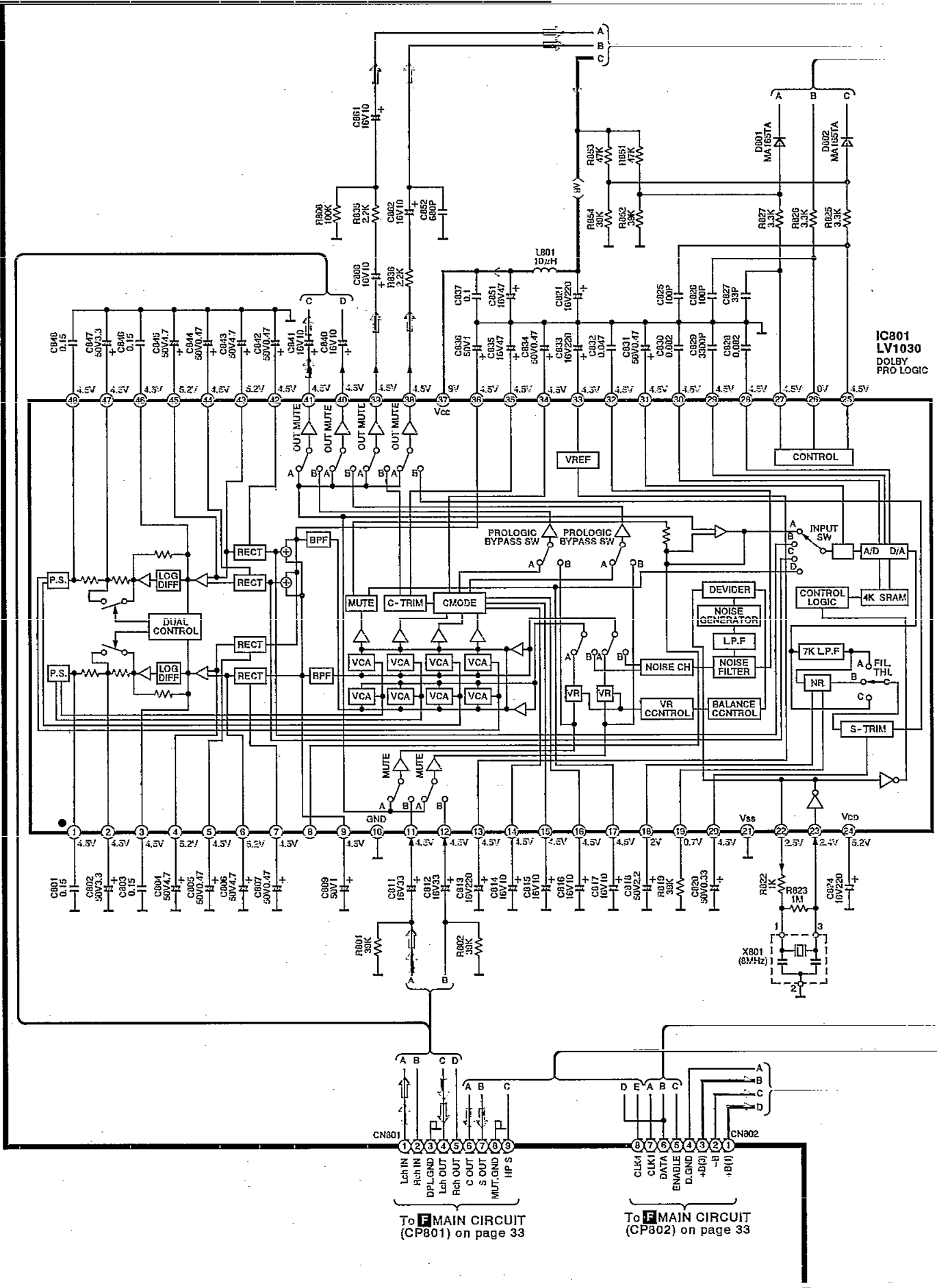




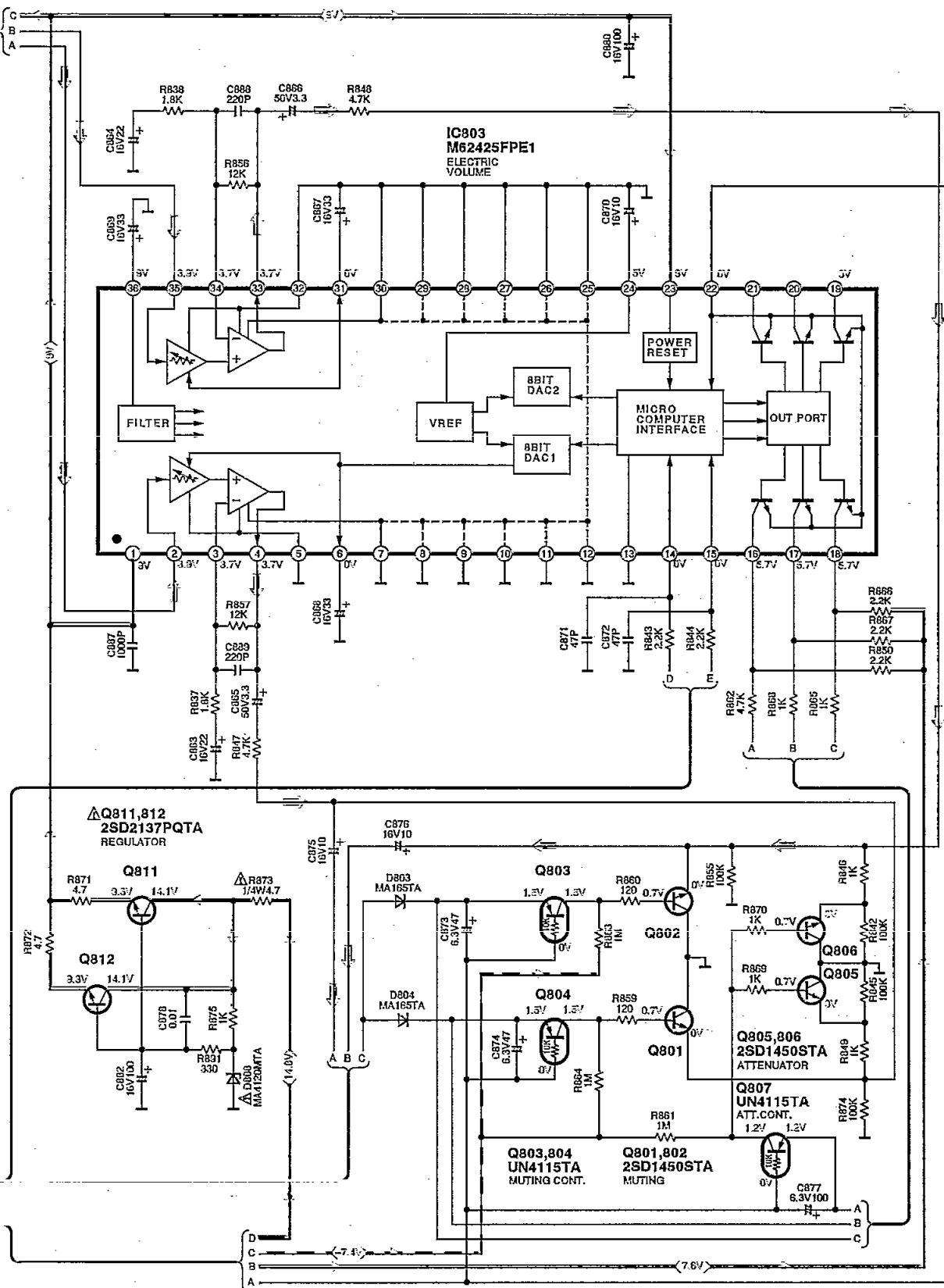
To MAIN CIRCUIT (CP102B) on page 33

To MAIN CIRCUIT (CP101B) on page 33

D DOLBY PROLOGIC CIRCUIT For[GC]area. (P.C.Board: on page 44)



- : Positive voltage line
- : Negative voltage line
- : AM signal Line
- : FM signal line
- : FM OSC signal line
- : Surround Speaker Drive signal line
- : Center Speaker Drive signal line

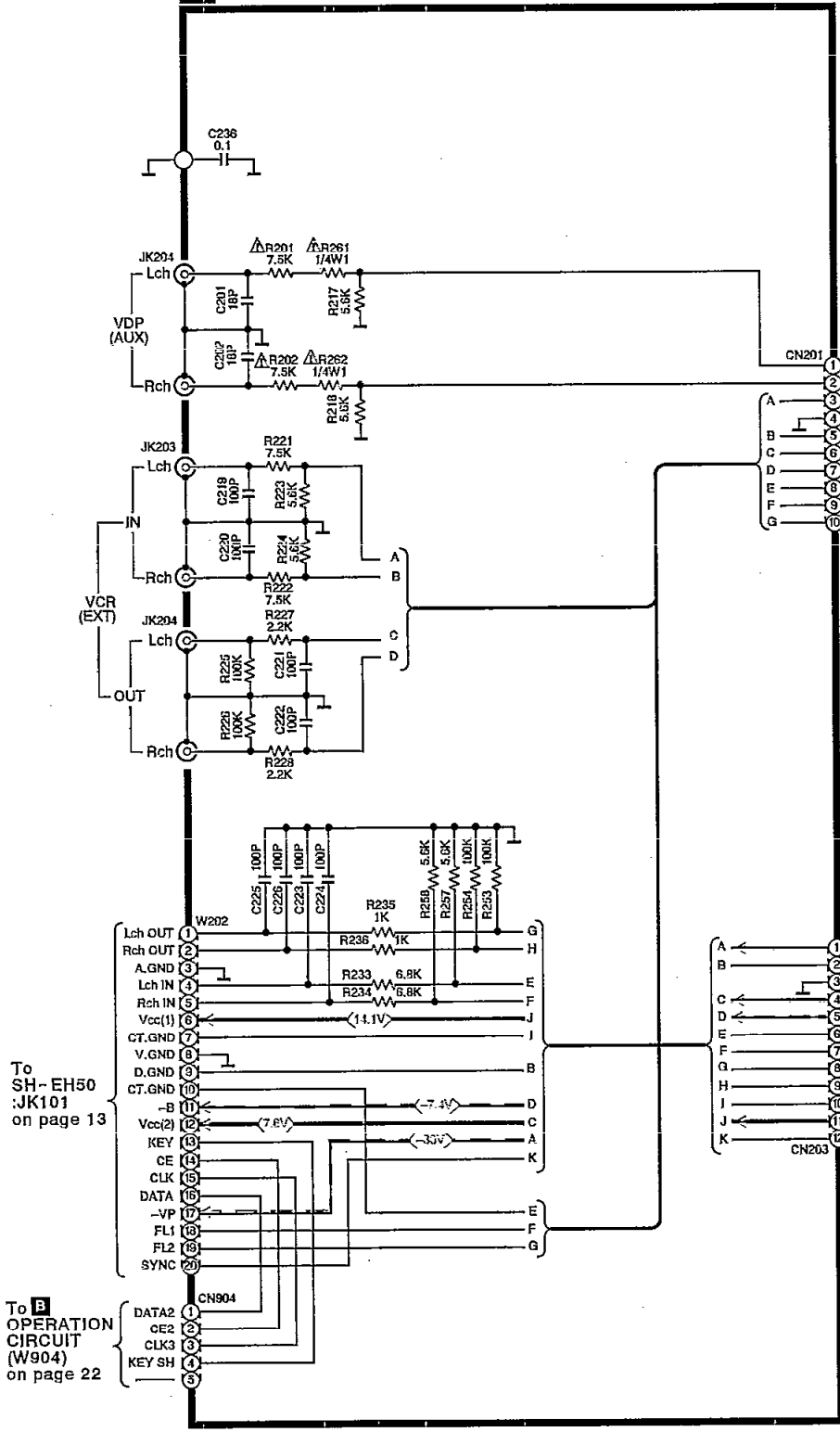


→ : Positive voltage line
 → : AM signal Line

--- : Negative voltage line
 → : FM signal line

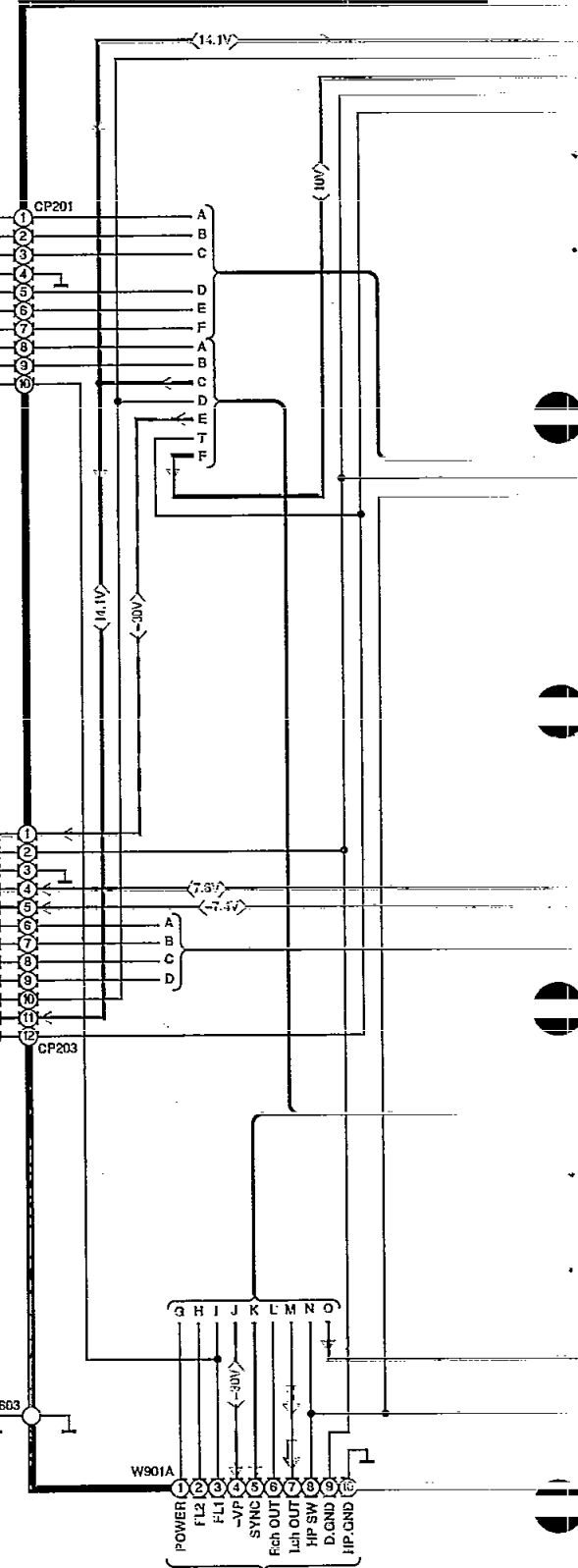
E IN/OUT TERMINAL CIRCUIT (P.C.Board: on page 44)

F MAIN CIRCUIT
 For [E, EB, EG, EP] areas.
 (P.C.Board: on pages 44 and 45)
 For [GC] area.
 (P.C.Board: on pages 46 and 47)





To SH-EH50 :JK101 on page 13

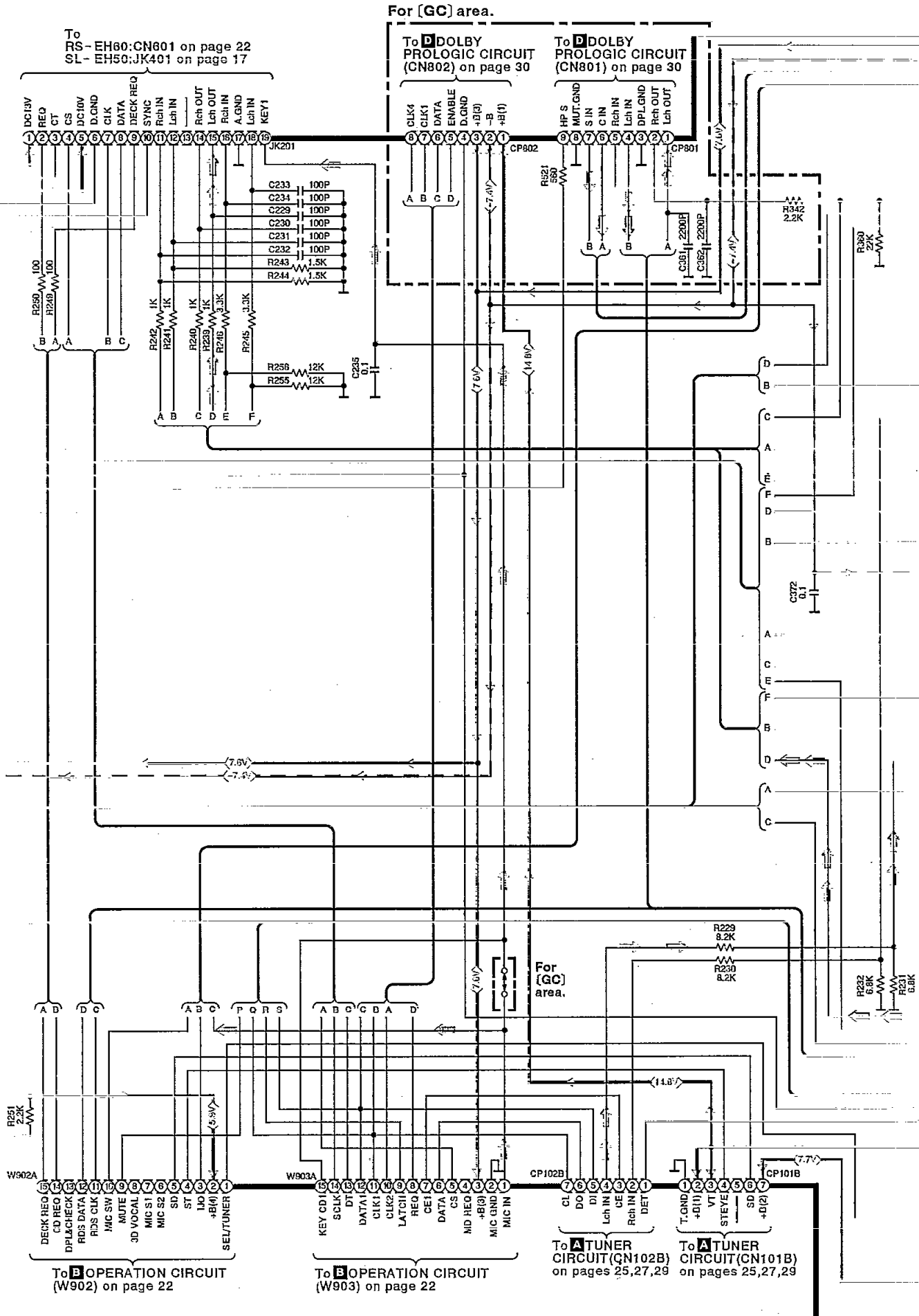
To OPERATION CIRCUIT (W904) on page 22



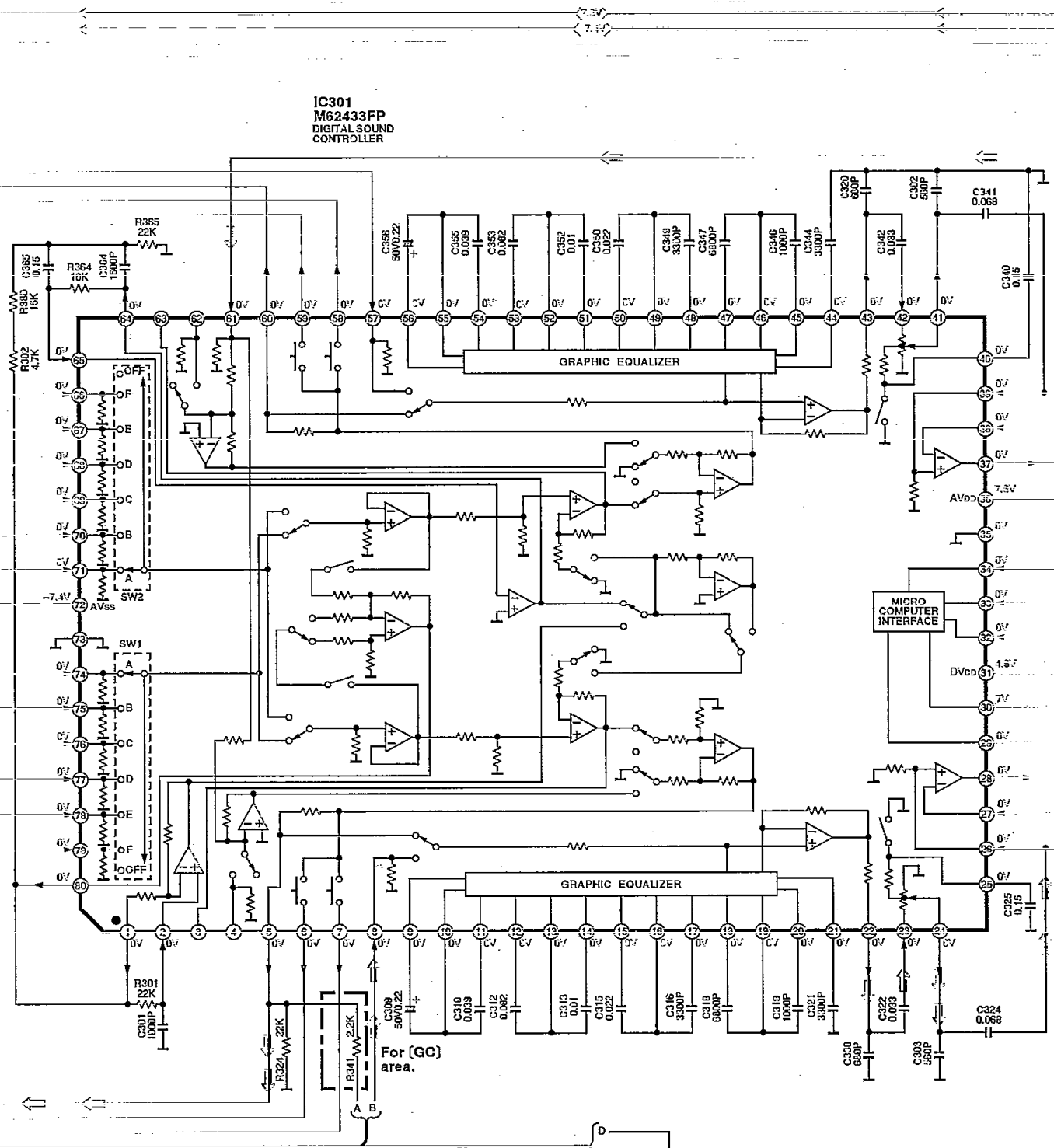
To OPERATION CIRCUIT (W901) on page 22

 : Surround Speaker Drive signal line
 : Mic signal Line

 : Center Speaker Drive signal line



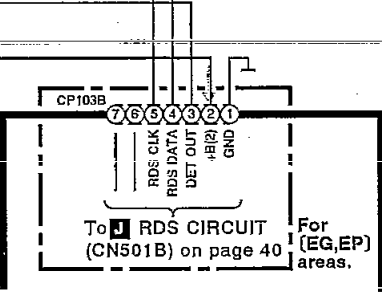
F MAIN CIRCUIT For [E,EB,EG,EP] areas. (P.C.Board: on pages 44 and 45)
For [GC] area. (P.C.Board: on pages 46 and 47)



Q724 UN4211AITA
POWER SUPPLY CONT.



Q723 2SC3940AQSTA
REGULATOR



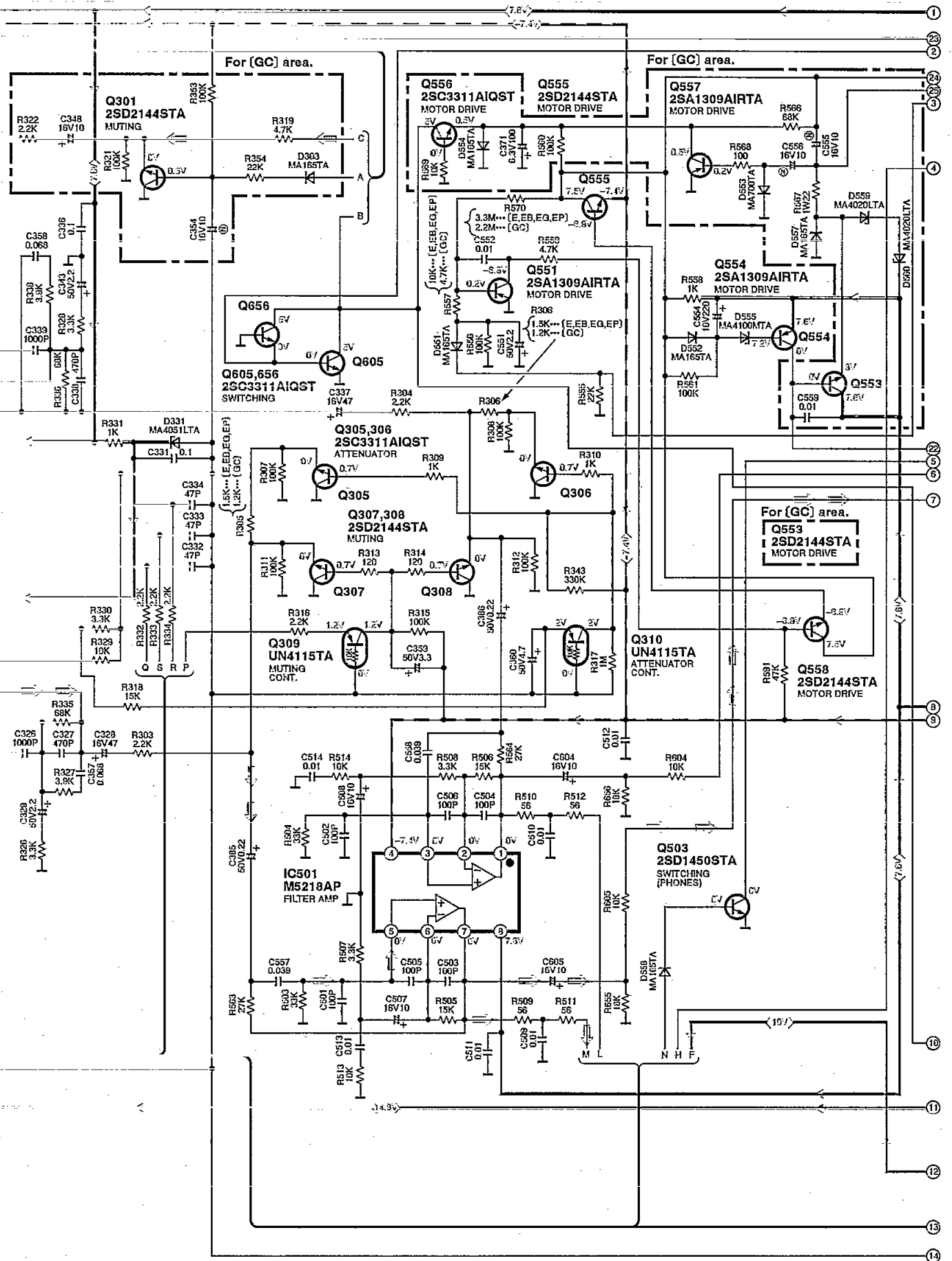
————— : Positive voltage line

- - - - - : Negative voltage line

⇨ : AM signal Line

⇨ : FM signal line

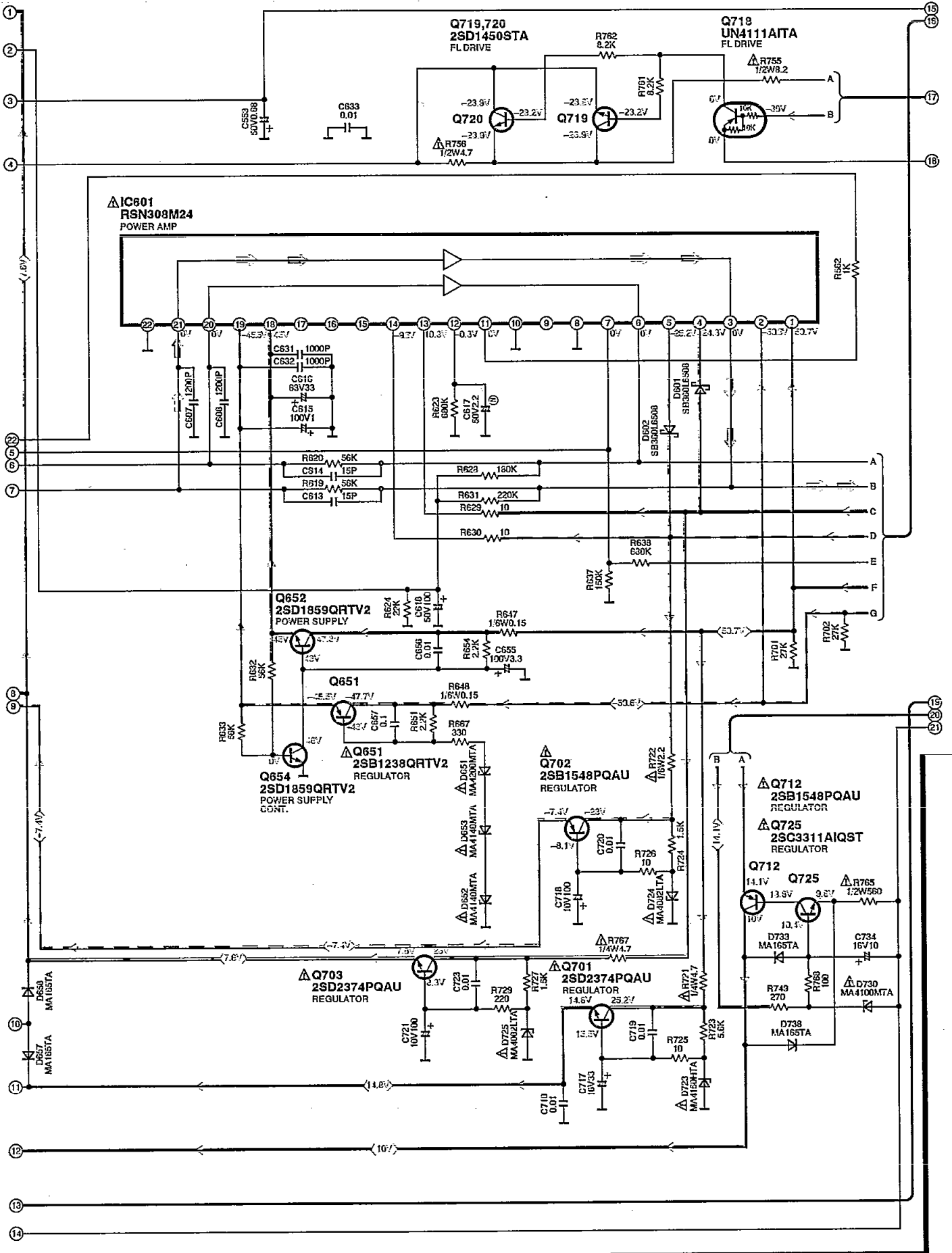
▮▮▮▮▮ : Mic signal Line



— : Positive voltage line
 — : AM signal Line

- - - : Negative voltage line
 — : FM signal line

F MAIN CIRCUIT For (E,EB,EG,EP) areas. (P.C.Board on pages 44 and 45)





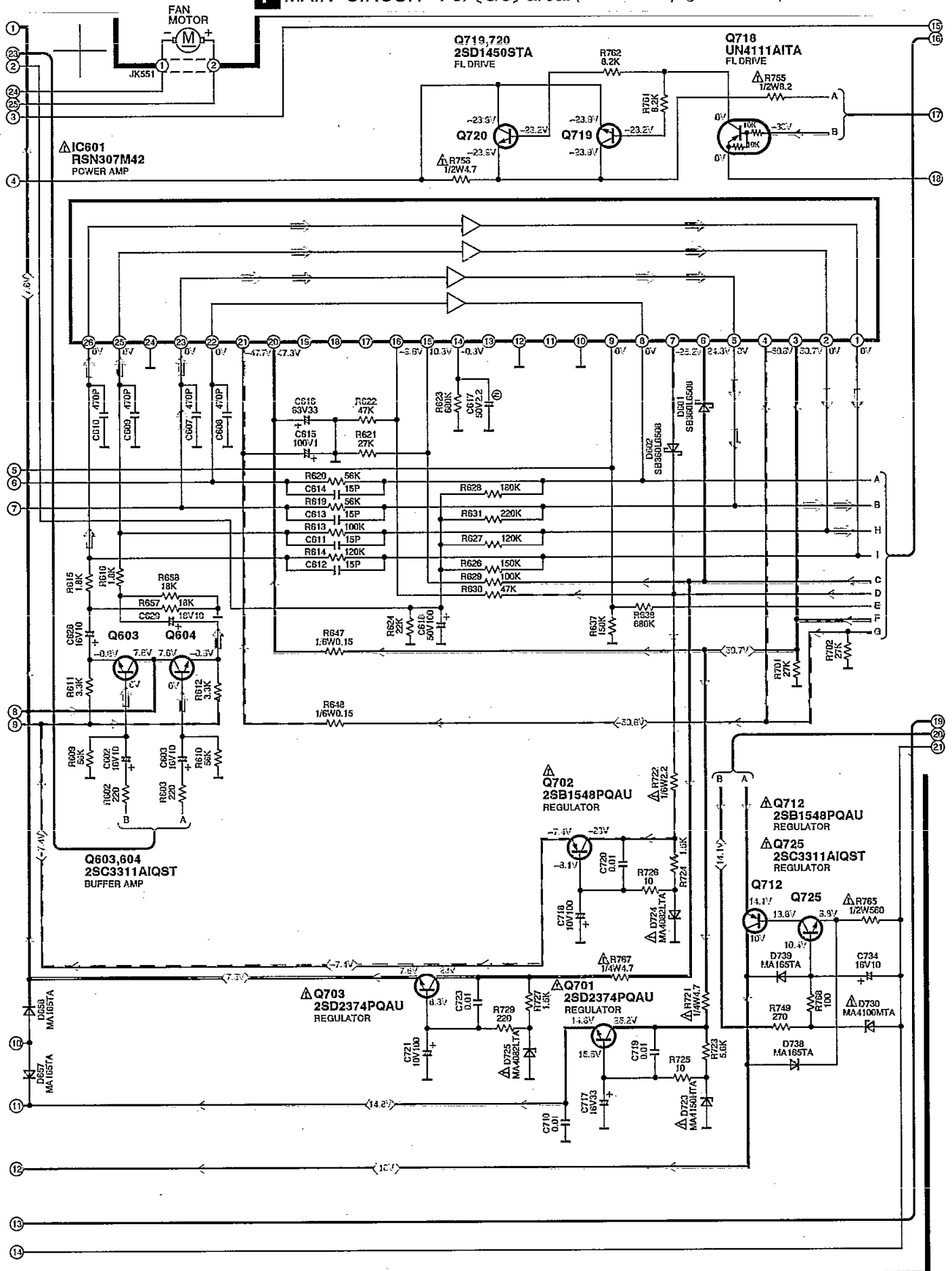
: Surround Speaker Drive signal line



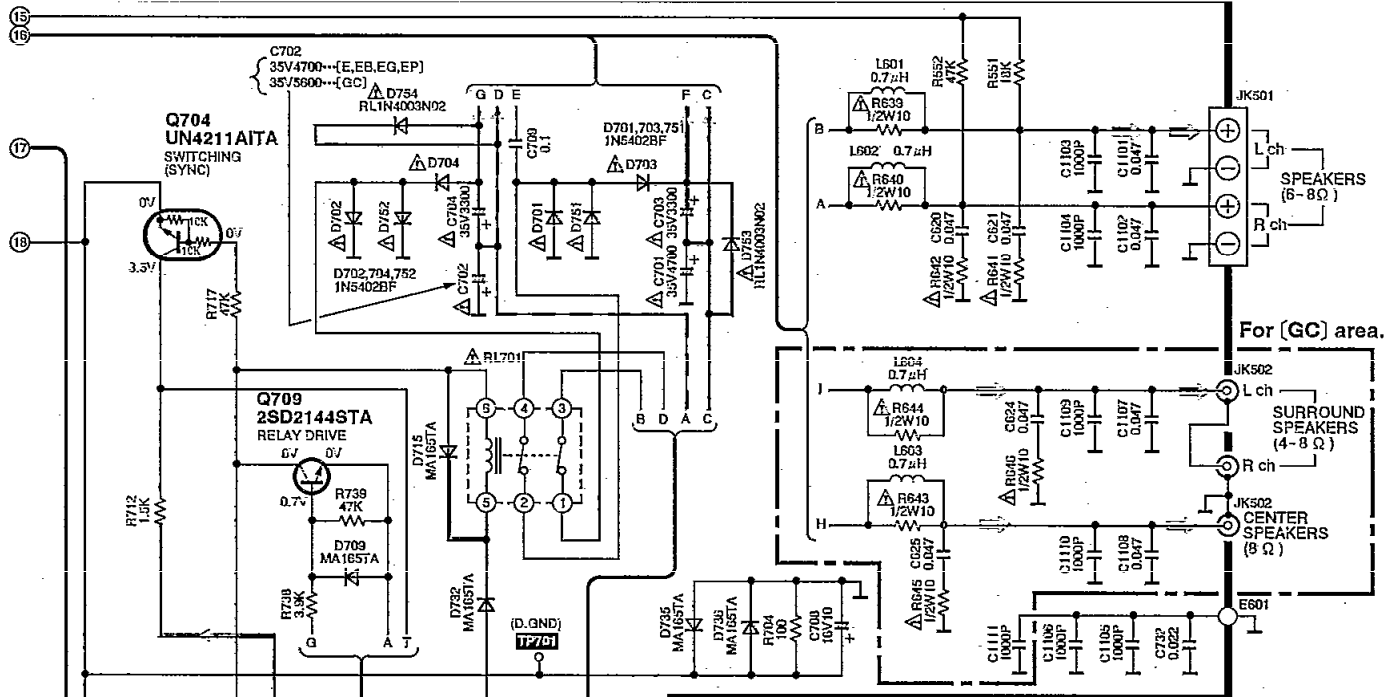
: Center Speaker Drive signal line

: Mic signal Line

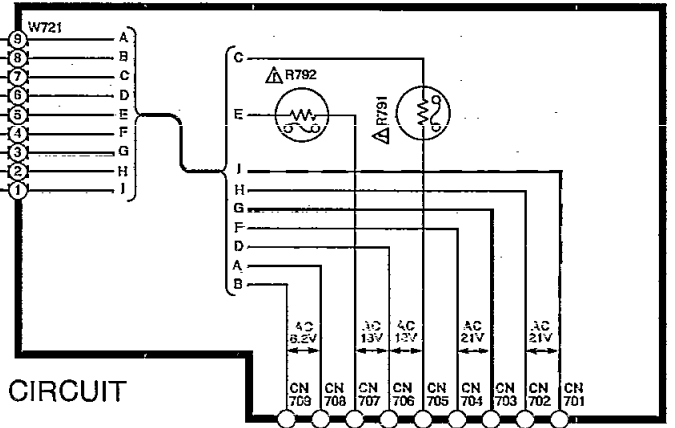
F MAIN CIRCUIT For [GC] area. (P.C.Board: on pages 46 and 47)



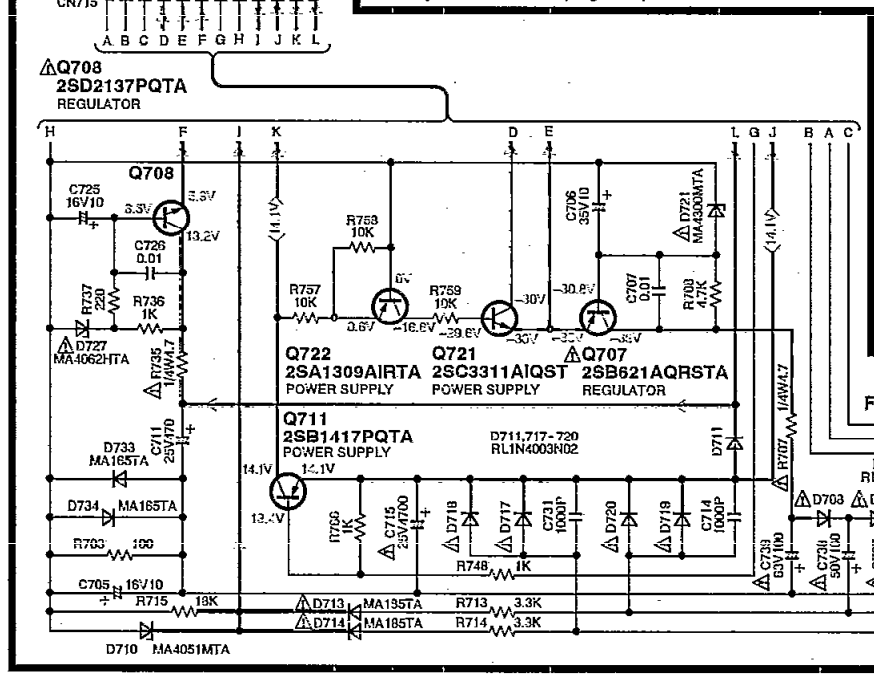
F MAIN CIRCUIT For [E,EB,EG,EP] areas. (P.C.Board: on pages 44 and 45)
 For [GC] area. (P.C.Board: on pages 46 and 47)



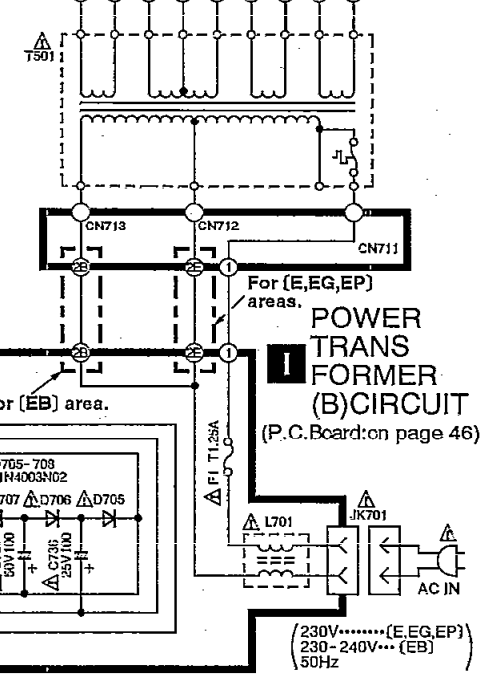
H POWER TRANSFORMER(A) CIRCUIT
 (P.C.Board: on page 46)



G POWER SUPPLY CIRCUIT
 (P.C.Board: on page 46)

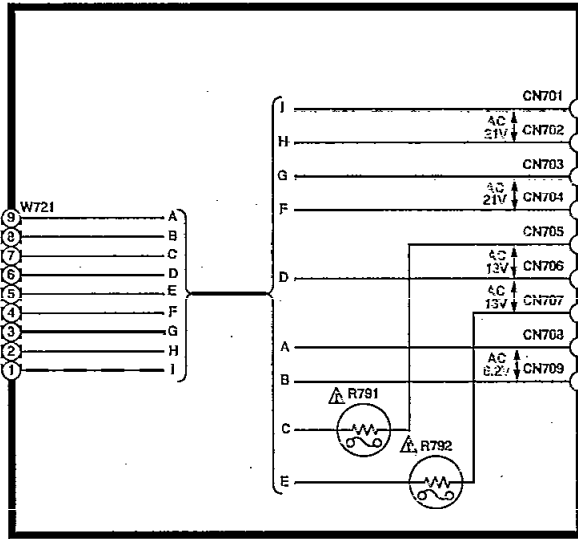


I POWER TRANSFORMER (B) CIRCUIT
 (P.C.Board: on page 46)

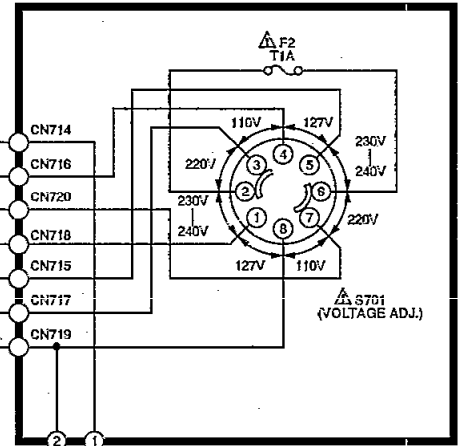


POWER SOURCE CIRCUIT For [GC] area.

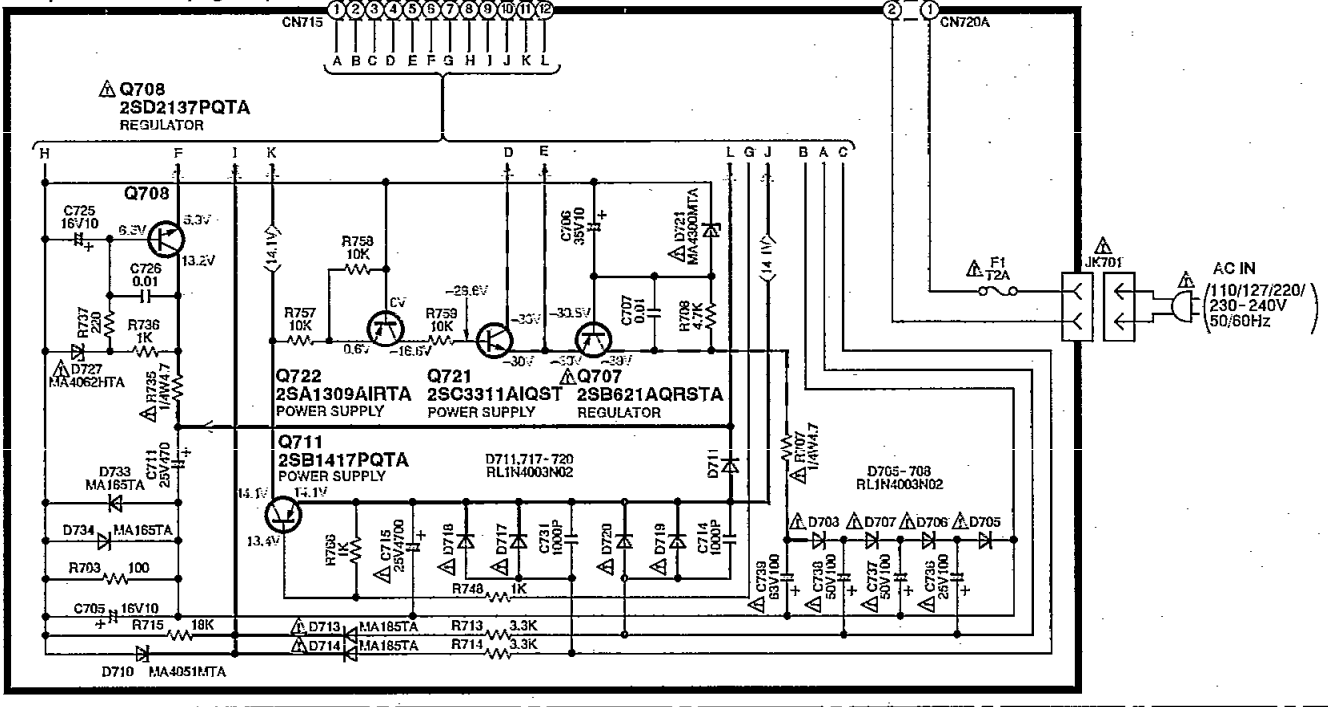
H POWER TRANSFORMER(A) CIRCUIT
(P.C.Board: on page 48)



I POWER TRANSFORMER(B) CIRCUIT
(P.C.Board: on page 48)

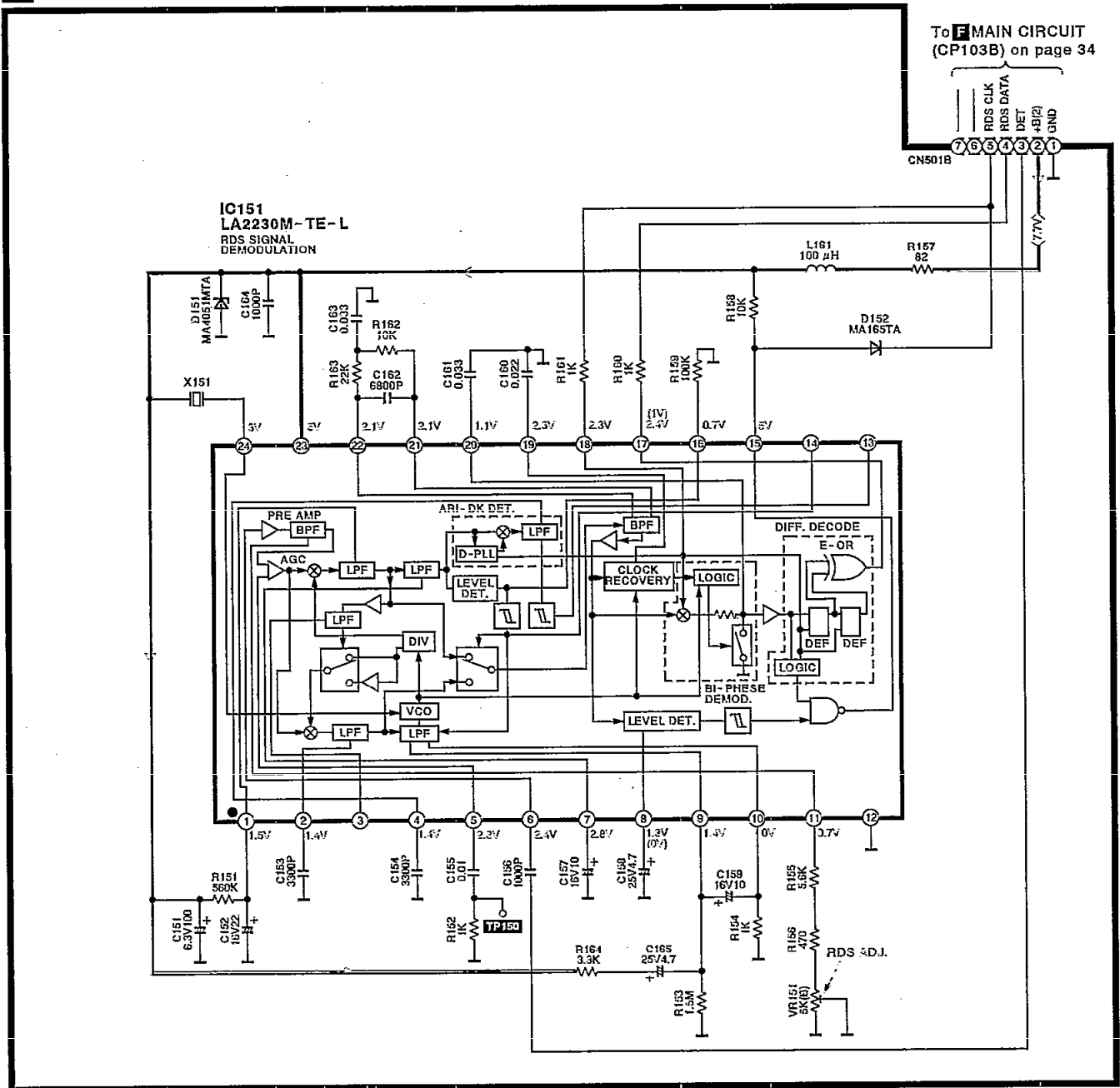


G POWER SUPPLY CIRCUIT
(P.C.Board: on page 48)



- : Positive voltage line
- : Negative voltage line
- : AM signal Line
- : Surround Speaker Drive signal line
- : Mic signal Line
- : FM signal line
- : Center Speaker Drive signal line

J RDS CIRCUIT For [EG,EP] areas. (P.C.Board: on page 46)



→ : Positive voltage line

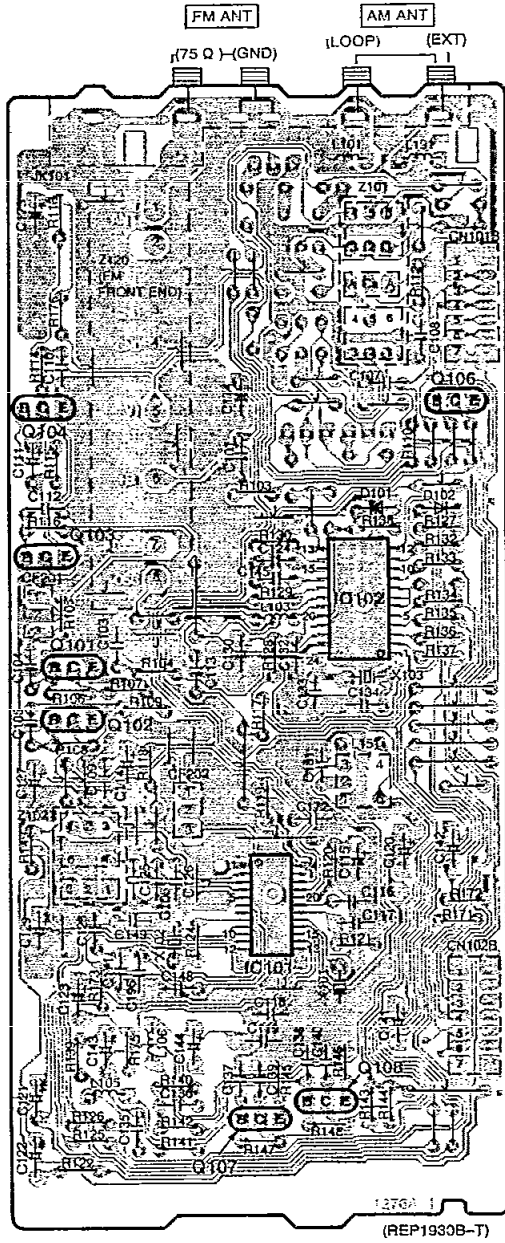
■ Type Illustration of IC's, Transistors and Diodes

<p>No.1</p>	<table border="1"> <tr><td>BU9255FS-E2</td><td>16PIN</td></tr> <tr><td>LA1832MH-TEL</td><td>24PIN</td></tr> <tr><td>LA2230M-TE-L</td><td>24PIN</td></tr> <tr><td>LC7218M-TE-L</td><td>24PIN</td></tr> <tr><td>M62425FPE1</td><td>36PIN</td></tr> </table>	BU9255FS-E2	16PIN	LA1832MH-TEL	24PIN	LA2230M-TE-L	24PIN	LC7218M-TE-L	24PIN	M62425FPE1	36PIN	<p>M5218AP</p>	<p>LV1030</p>	<p>M38198MC097F M38198MC099F</p>	<p>M62433FP</p>
BU9255FS-E2	16PIN														
LA1832MH-TEL	24PIN														
LA2230M-TE-L	24PIN														
LC7218M-TE-L	24PIN														
M62425FPE1	36PIN														
<p>TA2011S</p>	<table border="1"> <tr><td>RSN308M24</td><td>22PIN</td></tr> <tr><td>RSN307M42</td><td>26PIN</td></tr> </table> <p>No.1</p>	RSN308M24	22PIN	RSN307M42	26PIN	<p>E C B</p>	<p>2SA1309AIRTA UN4211AITA 2SC2787LTA UN4214AITA 2SC2785FETA 2SC3311AIQST 2SC3311ARSTA 2SD1450STA UN411FTA UN4111AITA UN4115TA</p>	<p>2SC3940AQSTA</p> <p>E C B</p>	<p>2SB621AQRSTA</p> <p>E C B</p>						
RSN308M24	22PIN														
RSN307M42	26PIN														
<p>2SB1238QRTV2 2SD1859QRTV2</p> <p>B C E</p>	<p>2SB1548PQAU 2SD2374PQAU</p> <p>B C E</p>	<p>2SB1417PQTA 2SD2137PQTA</p> <p>B C E</p>	<p>2SD2144STA</p> <p>B C E</p>	<p>Anode Cathode</p>	<p>MA4020LTA MA4039MTA MA4051LTA MA4051MTA MA4062HTA MA4082LTA</p>										
<p>Anode Cathode</p>	<p>MA4100MTA MA4120MTA MA4140MTA MA4150HTA MA4200MTA MA4300MTA</p>	<p>1N5402BF RL1N4003N02</p> <p>Anode Cathode</p>	<p>SB360L6508</p> <p>Anode Cathode</p>	<p>Anode Cathode</p>	<p>MA165TA MA700TA 1SS291TA</p>										
<p>MA185TA</p> <p>Anode Cathode</p>	<p>SPR505MDTT</p> <p>Anode Cathode</p>														

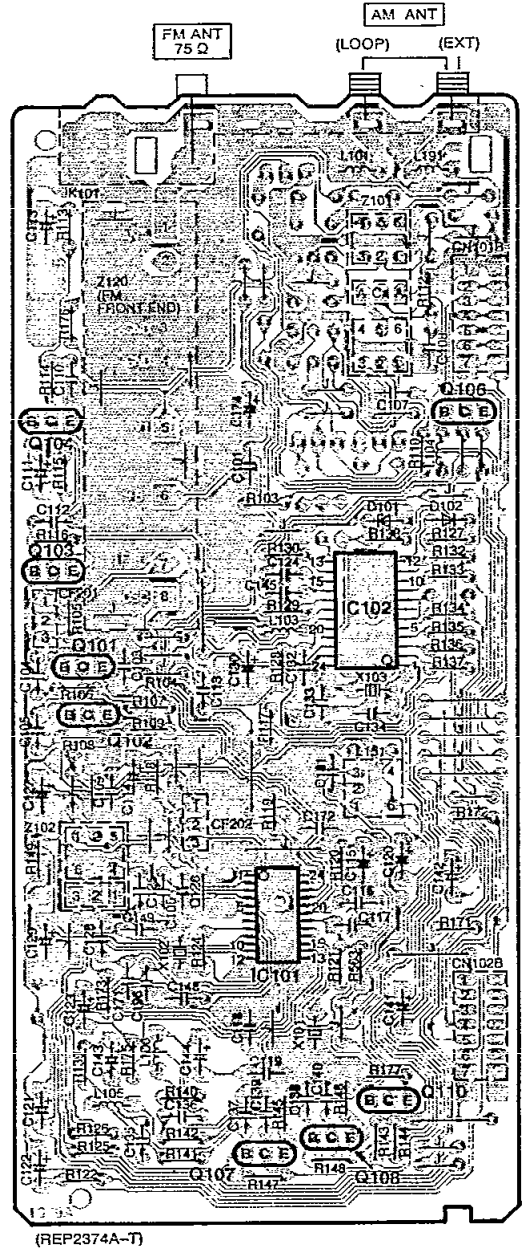
Printed Circuit Board Diagram

• This circuit board diagram may be modified at any time with the development of new technology.

A TUNER P.C.B. For [E,EB] areas.

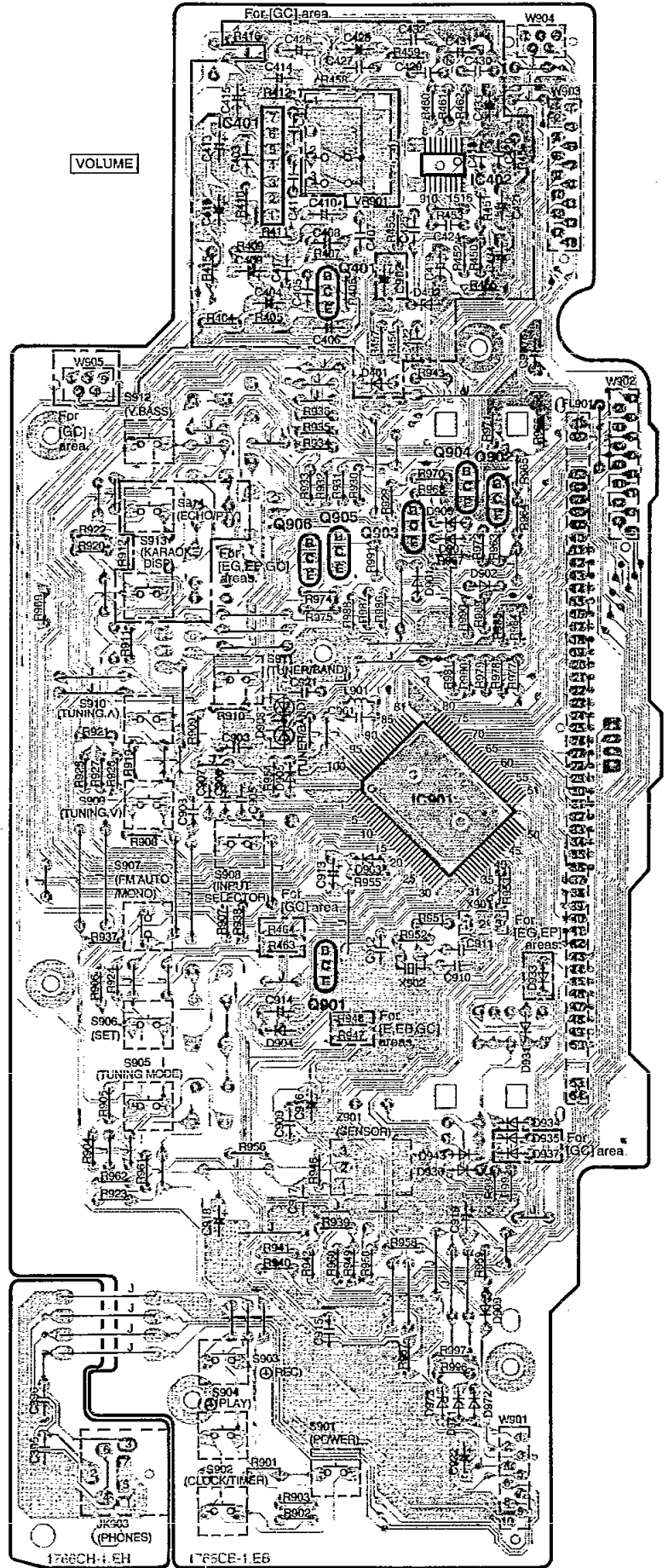
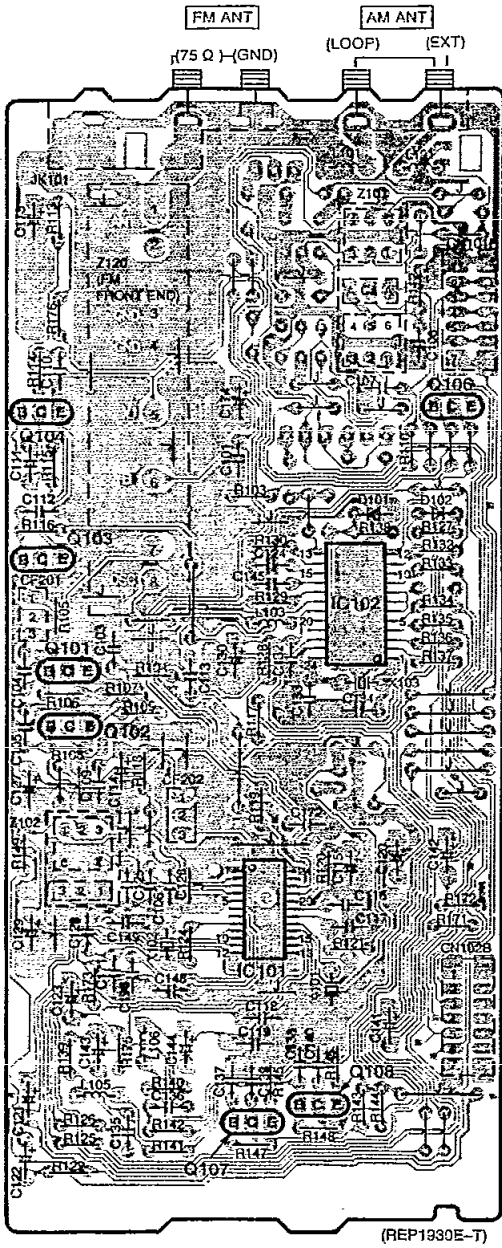


A TUNER P.C.B. For [EG,EP] areas.

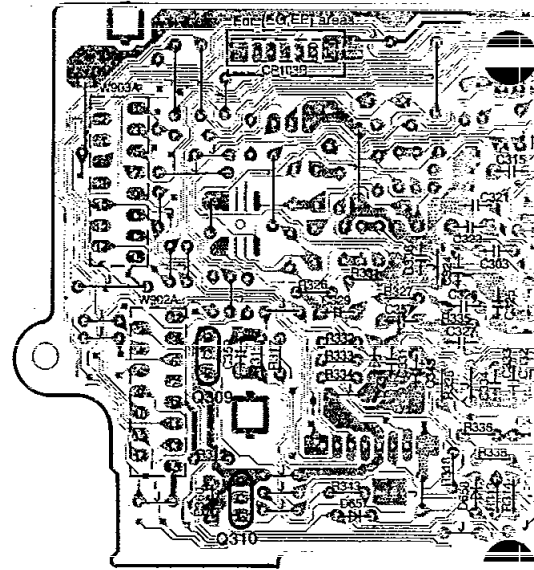
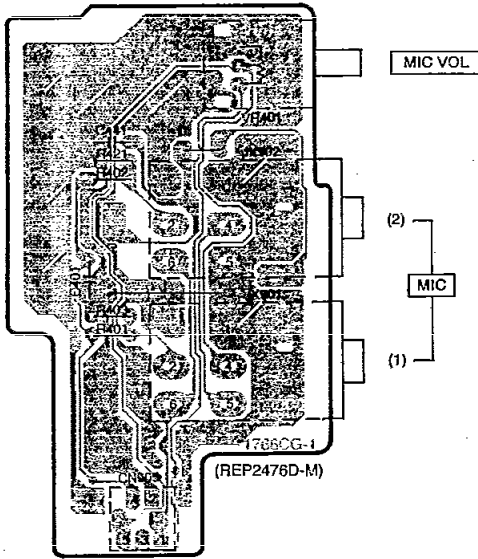


B OPERATION P.C.B.

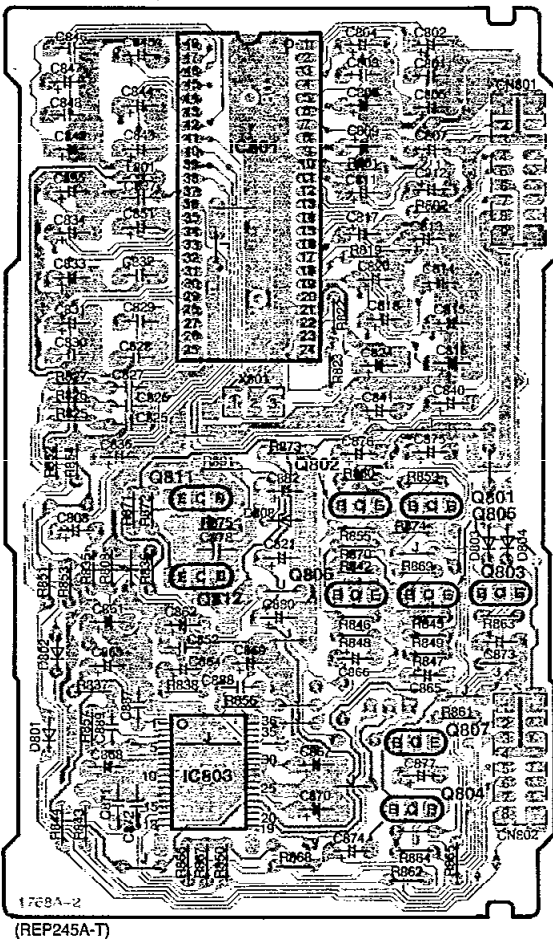
A TUNER P.C.B. For [GC] area.



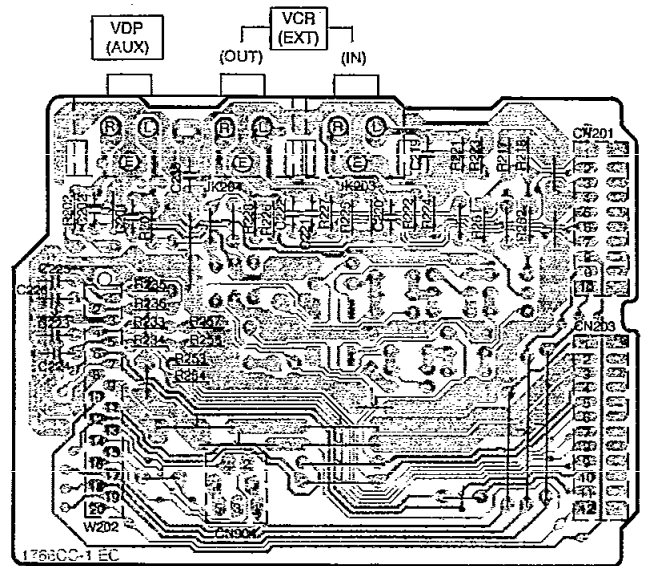
C MIC JACK P.C.B.
For [GC] area.



D DOLBY PROLOGIC P.C.B.
For [GC] area.



E IN/OUT TERMINAL P.C.B.

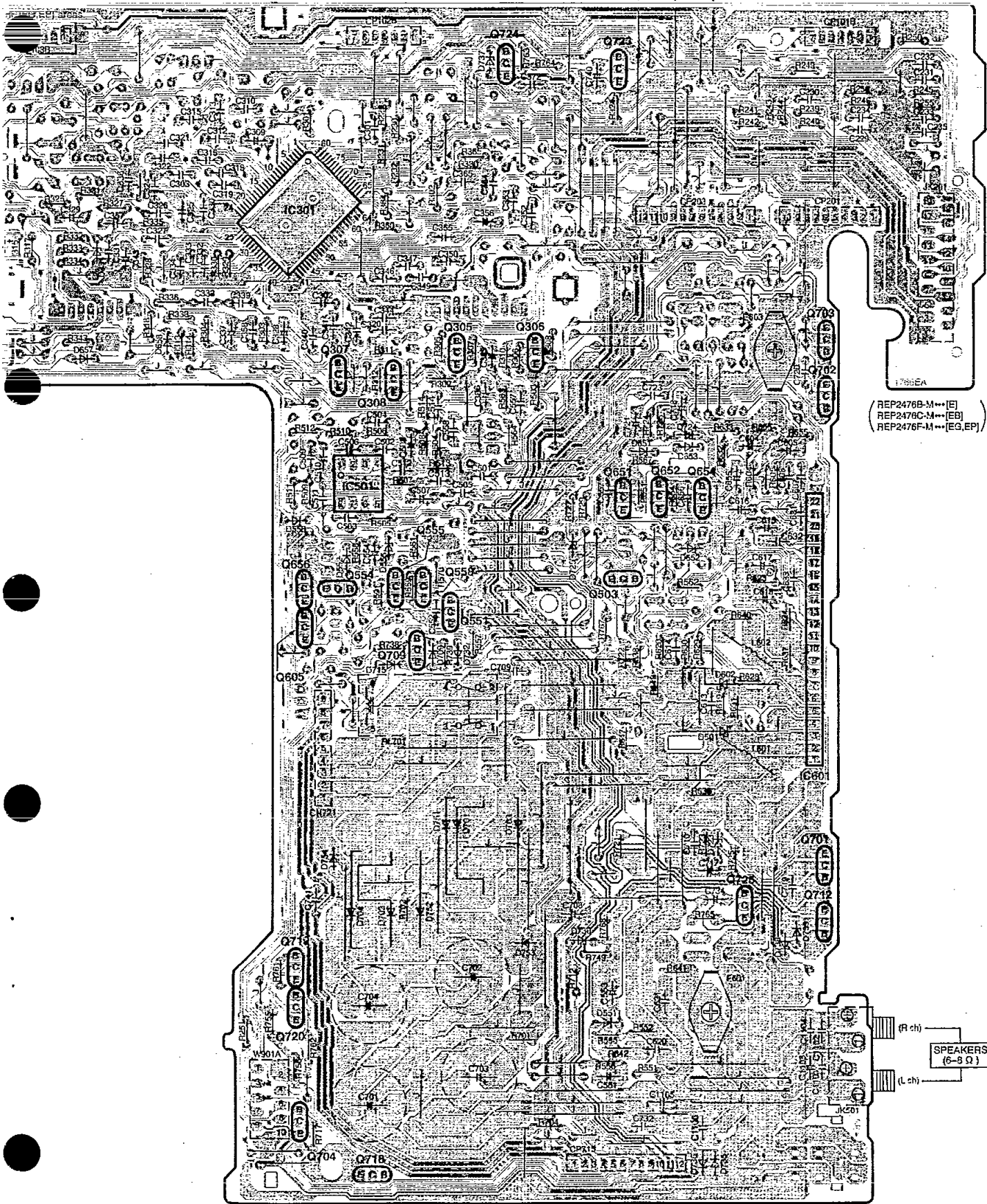


(REP2476B-M---[E])
(REP2476C-M---[EB])
(REP2476D-M---[GC])
(REP2476F-M---[EG,EP])

SH-EH50

B. For [E,EB,EG,EP] areas.

(D.GND)(CTGND)(A.GND)
TP701 TP702 TP703

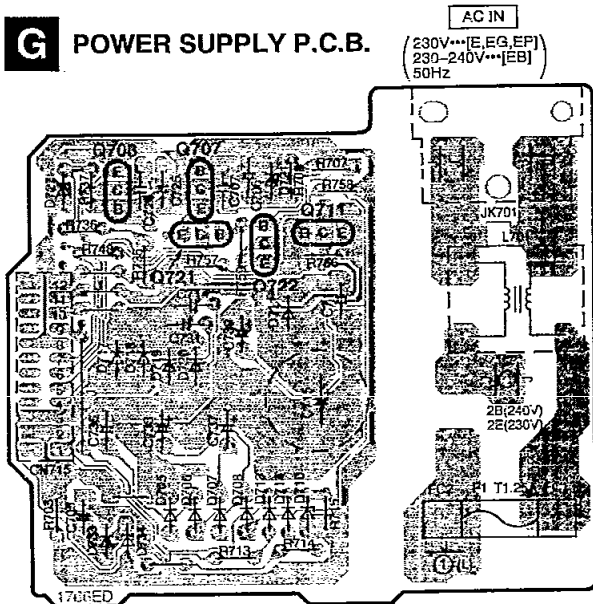


RS-EH90
SL-EH50

(REP2476B-M---[E]
REP2476C-M---[EB]
REP2476F-M---[EG,EP])

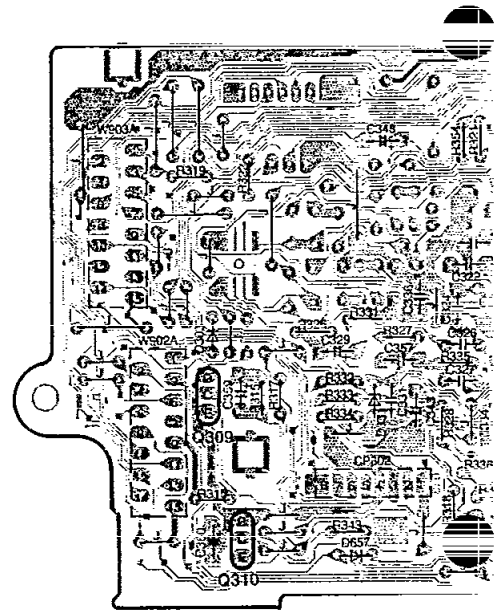
SPEAKERS
(6-8 Ω)

G POWER SUPPLY P.C.B.

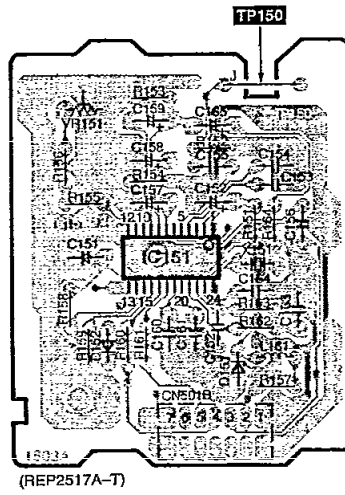


(REP2476B-M...[E]
REP2476C-M...[EB]
REP2476F-M...[EG,EP])

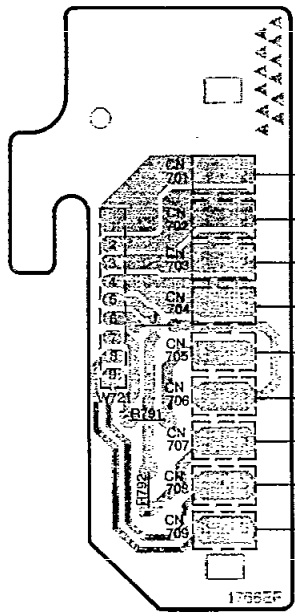
F MAIN P.C.B. For [GC] area.



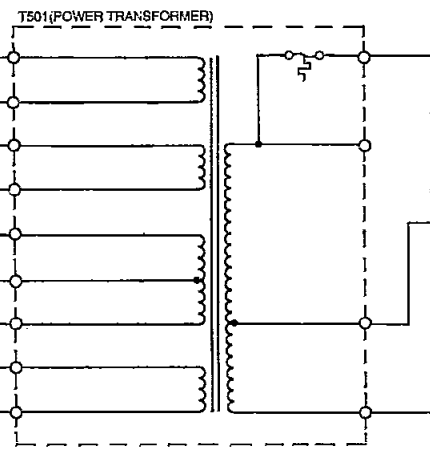
J RDS P.C.B. For [EG,EP] areas.



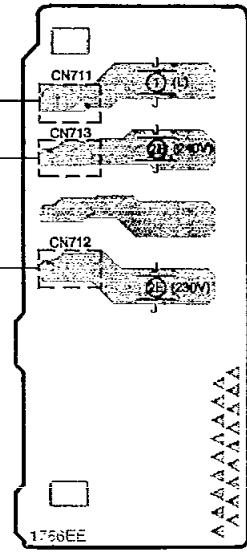
H POWER TRANSFORMER (A) P.C.B.



(REP2476B-M...[E]
REP2476C-M...[EB]
REP2476F-M...[EG,EP])



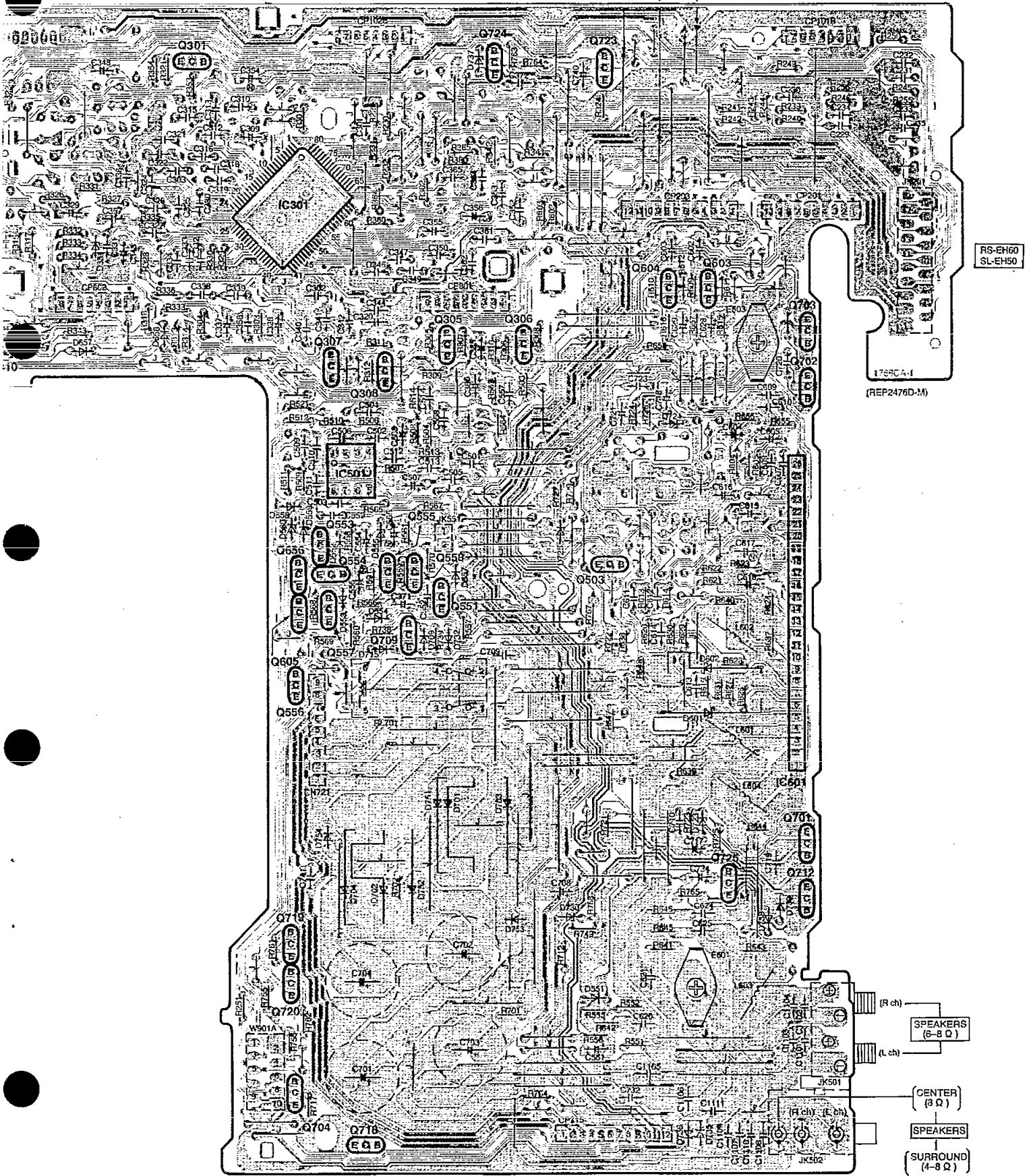
I POWER TRANSFORMER (B) P.C.B.



(REP2476B-M...[E]
REP2476C-M...[EB]
REP2476F-M...[EG,EP])

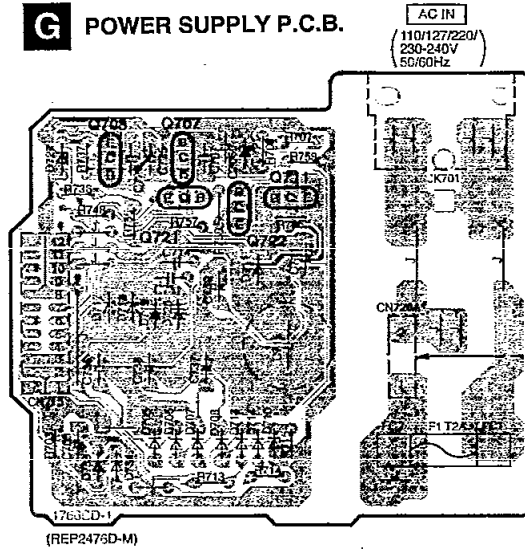
B. For [GC] area.

(D.GND)(CTGND)(A.GND)
TP701 TP702 TP703

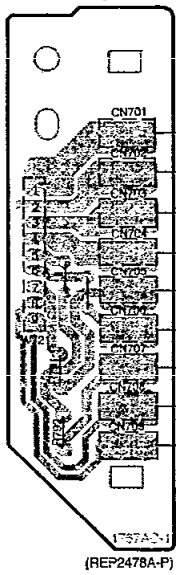


POWER SOURCE P.C.B. For [GC] area.

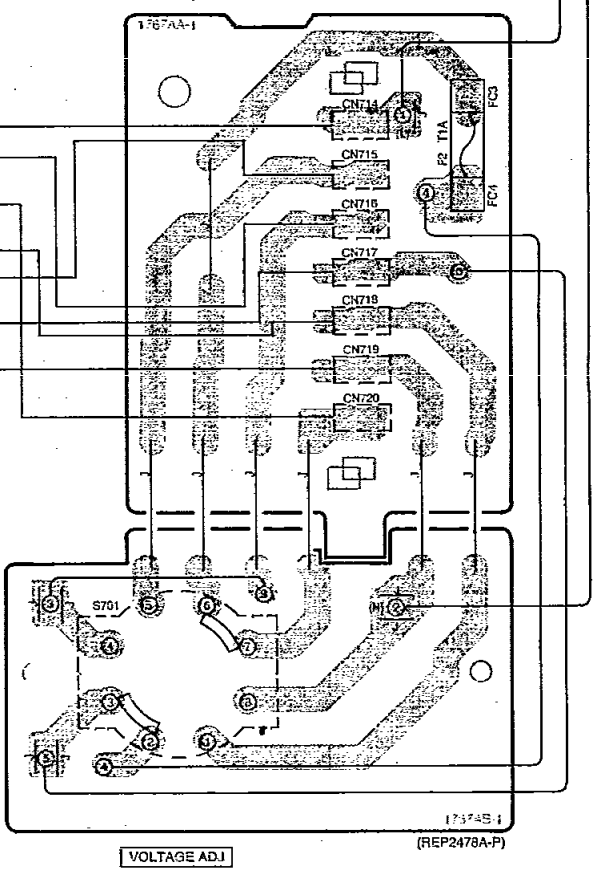
G POWER SUPPLY P.C.B.



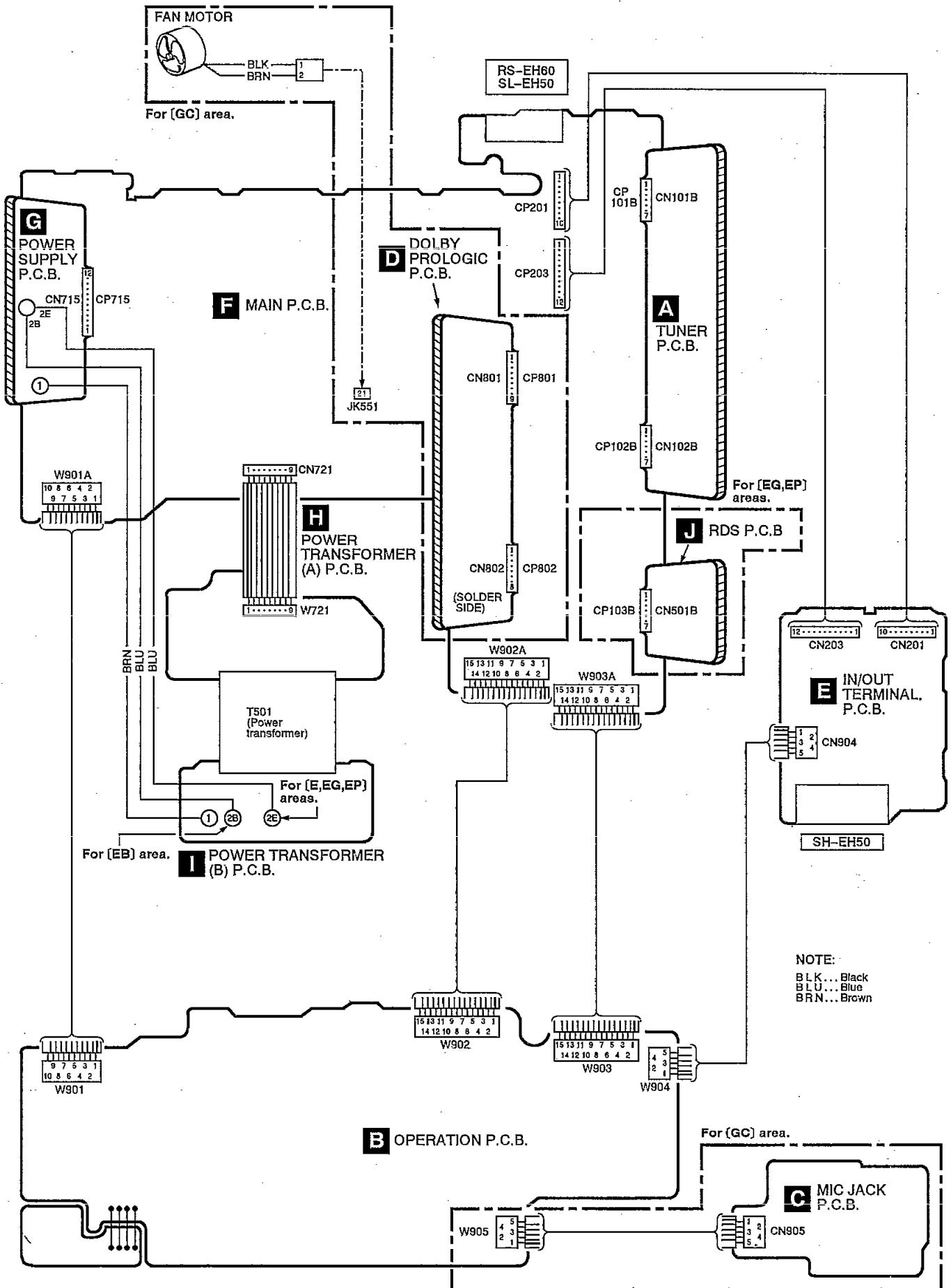
H POWER TRANSFORMER (A) P.C.B.



I POWER TRANSFORMER (B) P.C.B.



Wiring Connection Diagram



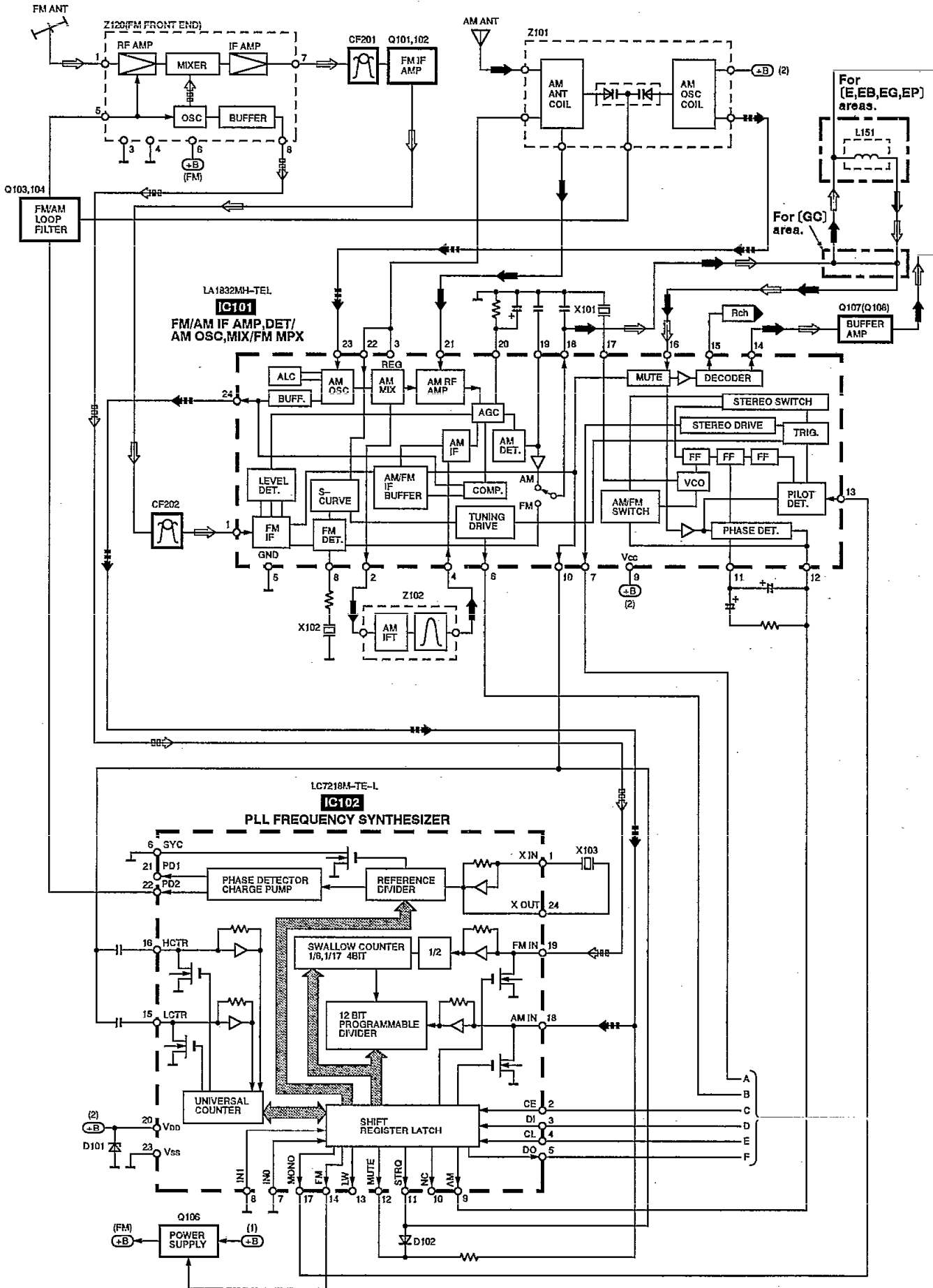
■ Terminal Function of IC's

- IC901 (M38198MC097F)...For (E)/(EP), (EB) and (EG) areas : SYSTEM CONTROL / FL DRIVE
 (M38198MC099F)...For (GC) area

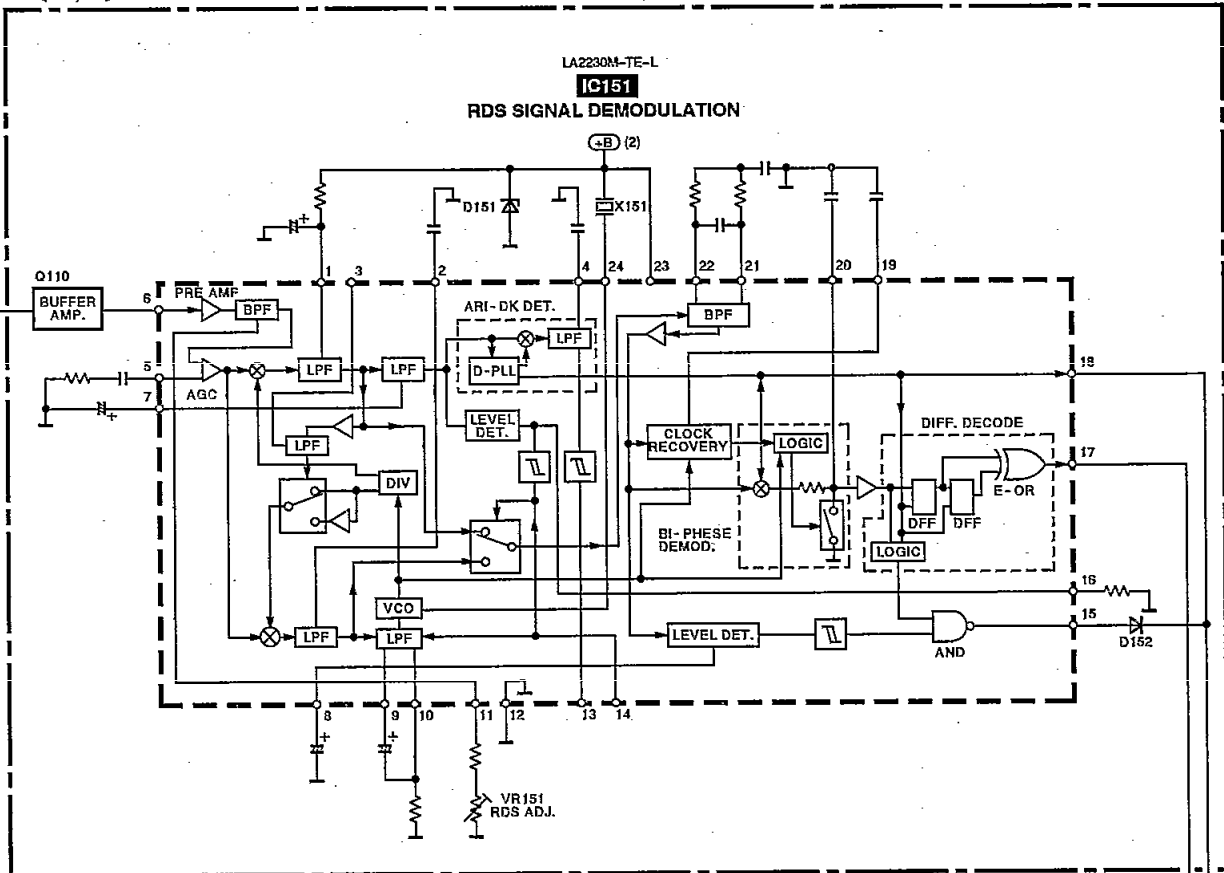
Pin No.	Terminal Name	I/O	Function
1	KEY TU	I	Operation switch signal input (TUNER, TIMER, AMP. section)
2	KEY KRAOKE	I	Operation switch signal input (KARAOKE section)
3	KEY SH	I	SH-EH50 Operation switch signal input
4	KEY CD	I	SL-EH50 Operation switch signal input (CD section)
5	KEY CD2	I	SL-EH50 Operation switch signal input (Changer section)
6	DATA1	O	Data signal output for M62433, M62425, LC7218 and LV1030
7	CLK1	O	Clock signal output for M62433, M62425, LC7218 and LV1030
8	CLK2	O	Clock signal output for M62425 (center and surround volume of dolby pro logic)
9	CLK3	O	Serial communication signal to SH-EH50 (Clock signal output)
10	DATA2	O	Serial communication signal to SH-EH50 (Data signal output)
11	CE2	O	Serial communication signal to SH-EH50 (Chip enable signal output)
12	SEL/TUNER	O	LED (D908) drive signal output (TUNER: "H")
13	SEL/TUNER	O	LED (D908) drive signal output (TUNER: "L")
14	LATCH	O	Latch signal output to M62433FP
15	REQ	O	Request signal output to LV1030
16	CE1	O	Chip enable signal output to LC7218
17	DATA IN	I	Data signal input from LC7218
18	CR TIMER	I/O	TIME CONSTANT terminal
19	CD & DECK CS	I	Serial data communication starting signal input (CD and DECK mechanism)
20	CD & DECK SCLK IN	I	Serial clock input (CD and DECK mechanism)
21	CD & DECK SDA OUT	O	Serial data output (CD and DECK mechanism)
22	CD & DECK SDA IN	I	Serial data input (CD and DECK mechanism)
23	MD REQ	O	Not used, open
24	SEL MD	O	
25	DECK REQ	O	RS-EH60 request signal output
26	CD REQ	O	SL-EH50 request signal output
27	DPL & CHECK	O	Clock check signal terminal
28	RDS DATA	I	Not used, open
29	RDS CLK	I	
30	REMOCON	I	Remote control signal input
31, 32	D1, D2	O	ECHO level set up signal output
33	ECHO	O	

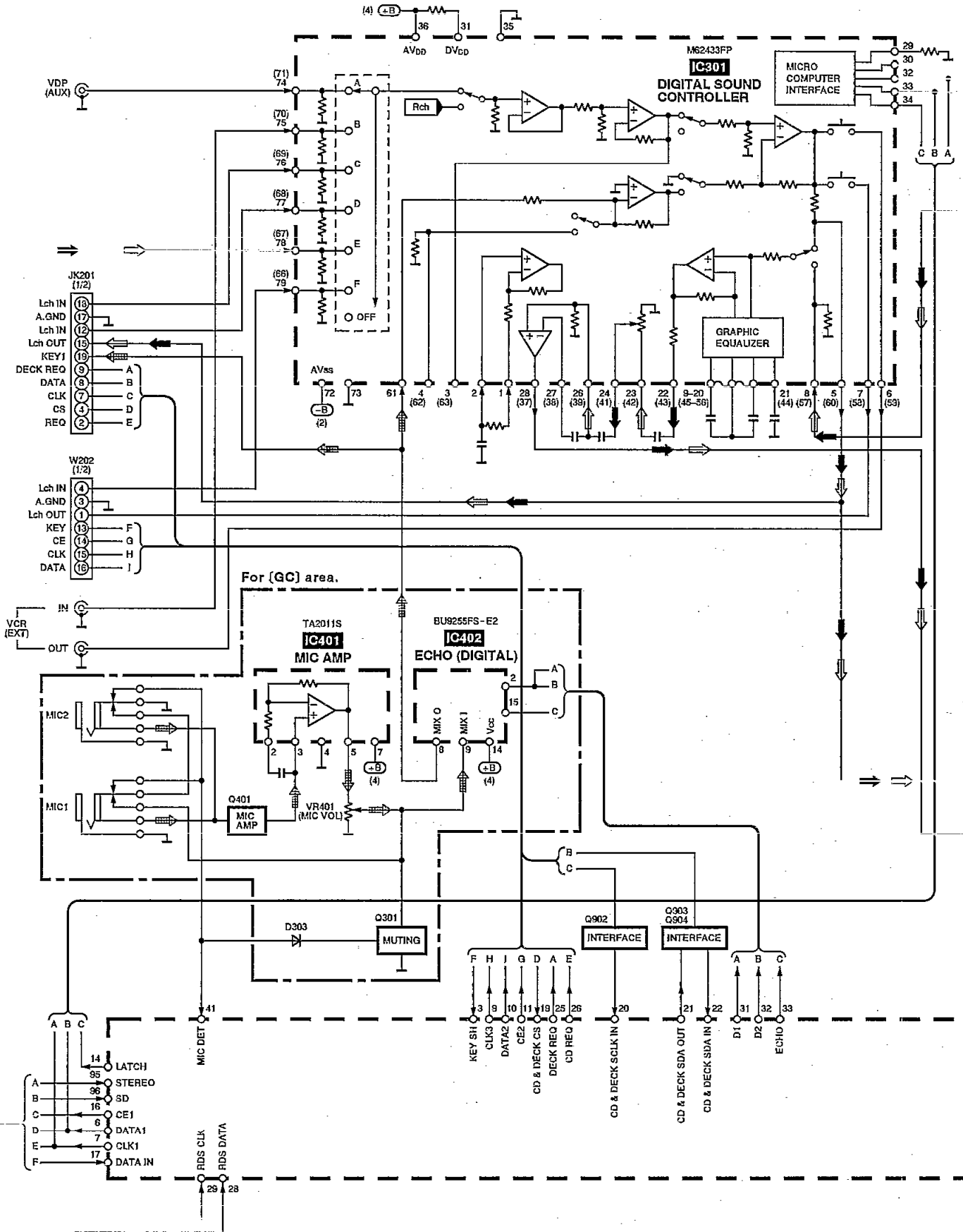
Pin No.	Terminal Name	I/O	Function
34	SYNC	I	AC power source input terminal
35	RESET	I	Reset signal input
36	XC IN	I	Oscillator connected terminal (f = 32 kHz)
37	XC OUT	O	
38	X IN	I	Oscillator connected terminal (f = 6 MHz)
39	X OUT	O	
40	Vss	—	GND terminal
41	MIC DET	I	Microphone connecting detect signal input
42	MUTE	O	Muting signal output
43	V JOGB	I	Volume control signal input
44	V JOGA	I	
45	POWER	O	Power control signal output
46	3DVOCAL	O	3D Vocal control signal output
47	NC	—	No used, open
48-54	7G-1G	O	Grid signal and chip select scan signal output
55-85	P31-P1	O	Segment signal output
86, 87	CS0, CS1	I	Chip select signal input
88	SEL TAPE	O	Tape select signal output
89	MIC S1	O	Microphone signal output for ECHO (except for CD)
90	MIC S2	O	Microphone through signal output (except for CD)
91	VCC	—	Power supply
92	VIBRATE	—	Not used, open
93	CHORUS	—	Not used, open
94	WIDE	—	Not used, open
95	STEREO	I	STEREO signal input for tuner circuit
96	SD	I	Station detector signal input for tuner circuit
97	IJO	I	Unusual condition detect terminal ("L": unusual)
98	-VP	—	Reference voltage input (negative)
99	AVSS	—	Connect to GND
100	VREF	—	Reference voltage input (positive)

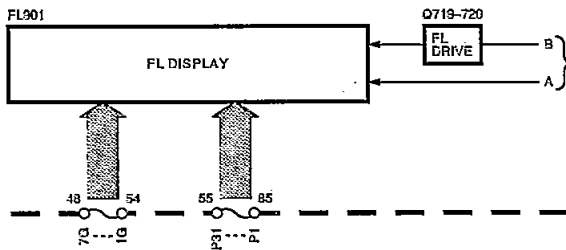
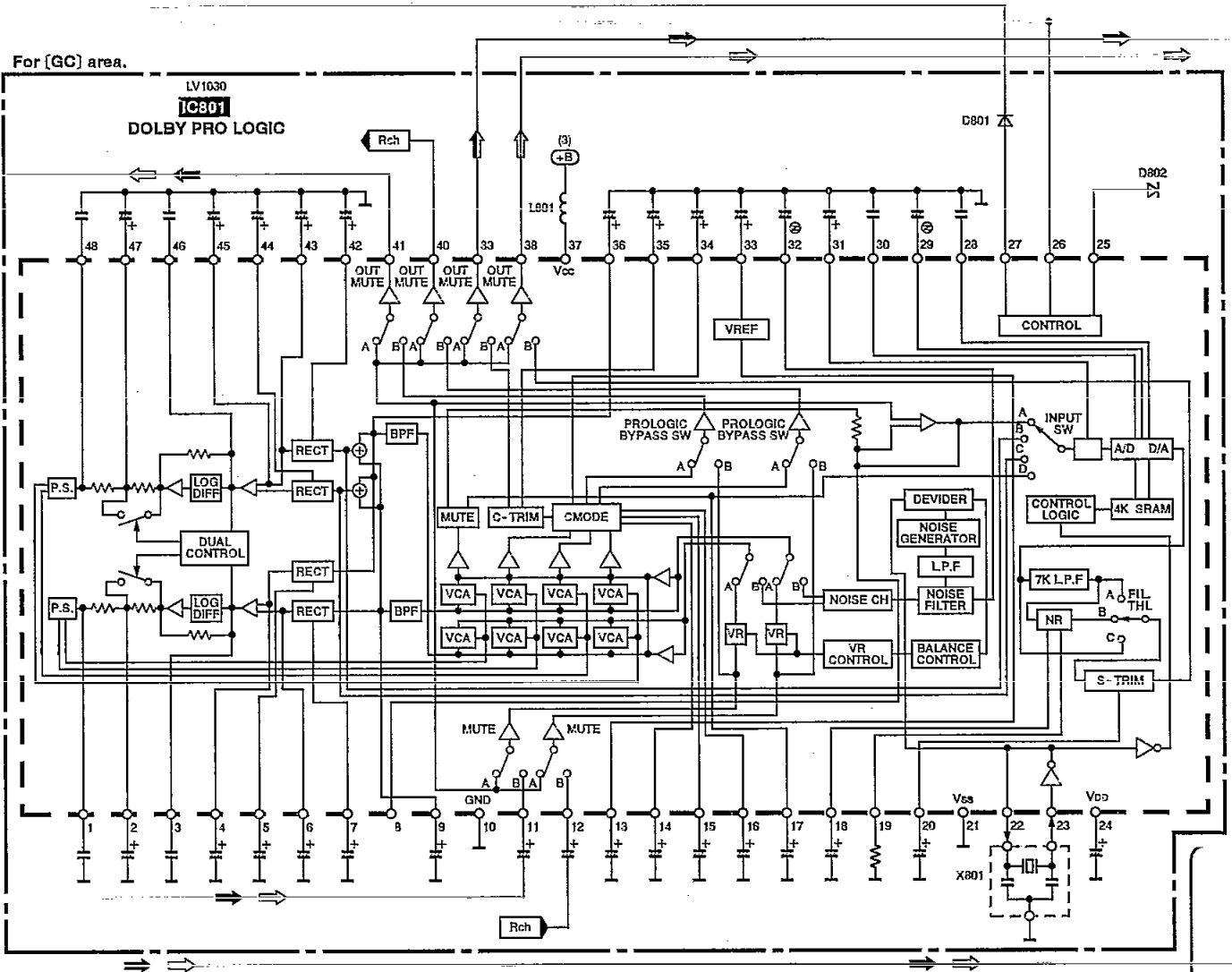
Block Diagram



For (EG,EP) areas.



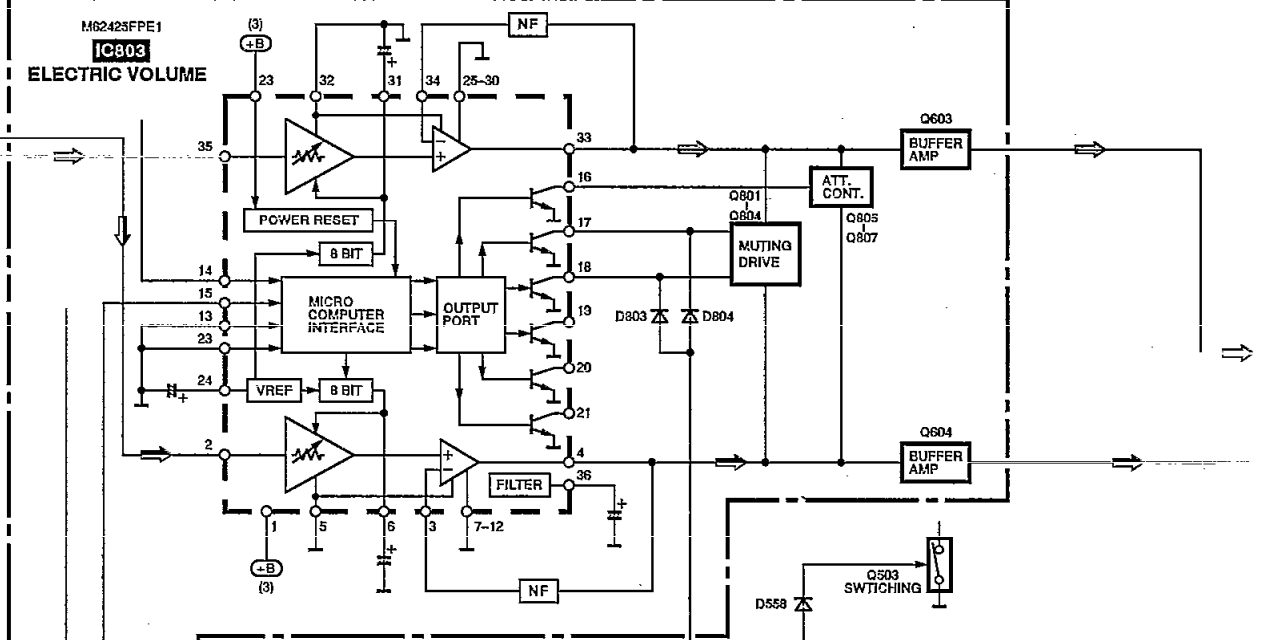




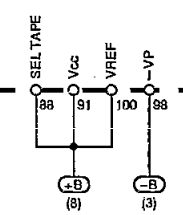
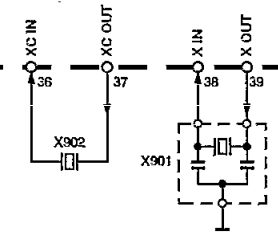
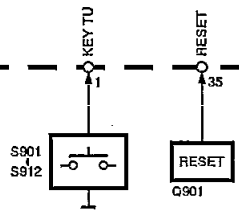
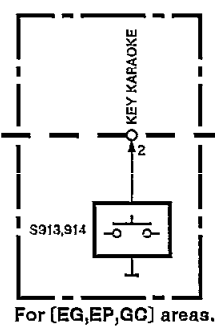
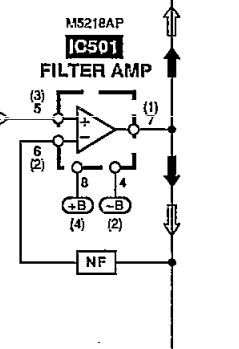
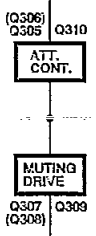
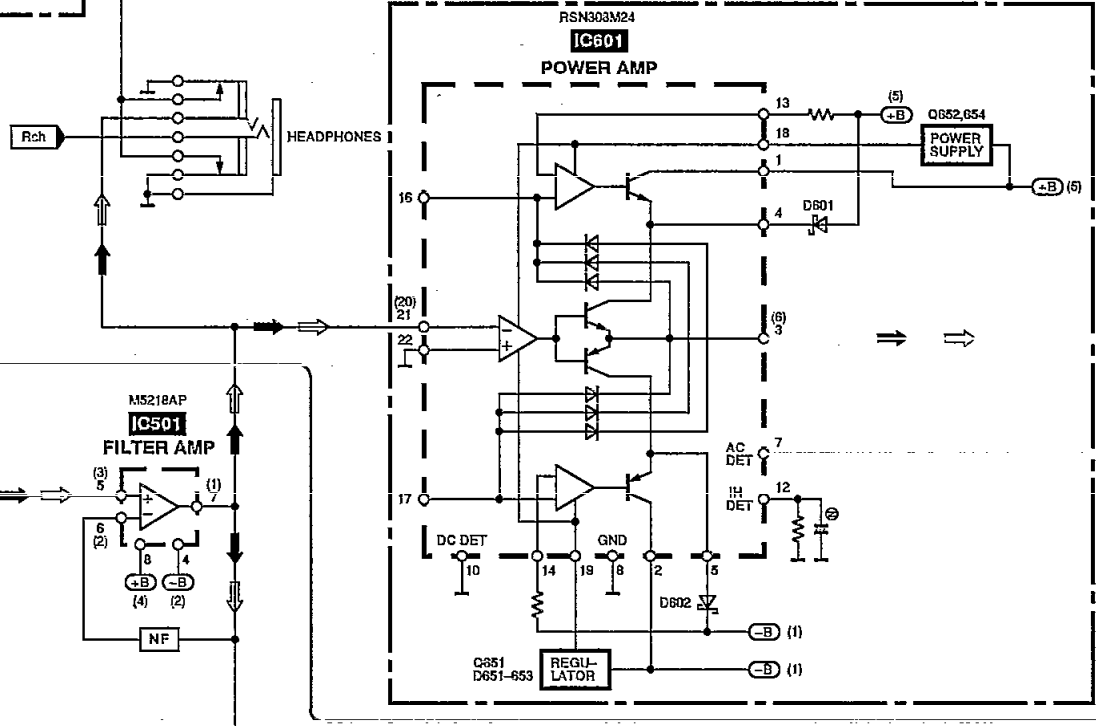
M38193MC097F... (E,EB,EG,EP)
M38193MC096F... (GC)

IC901
SYSTEM CONTROL
/ FL DRIVE

For (GC) area.

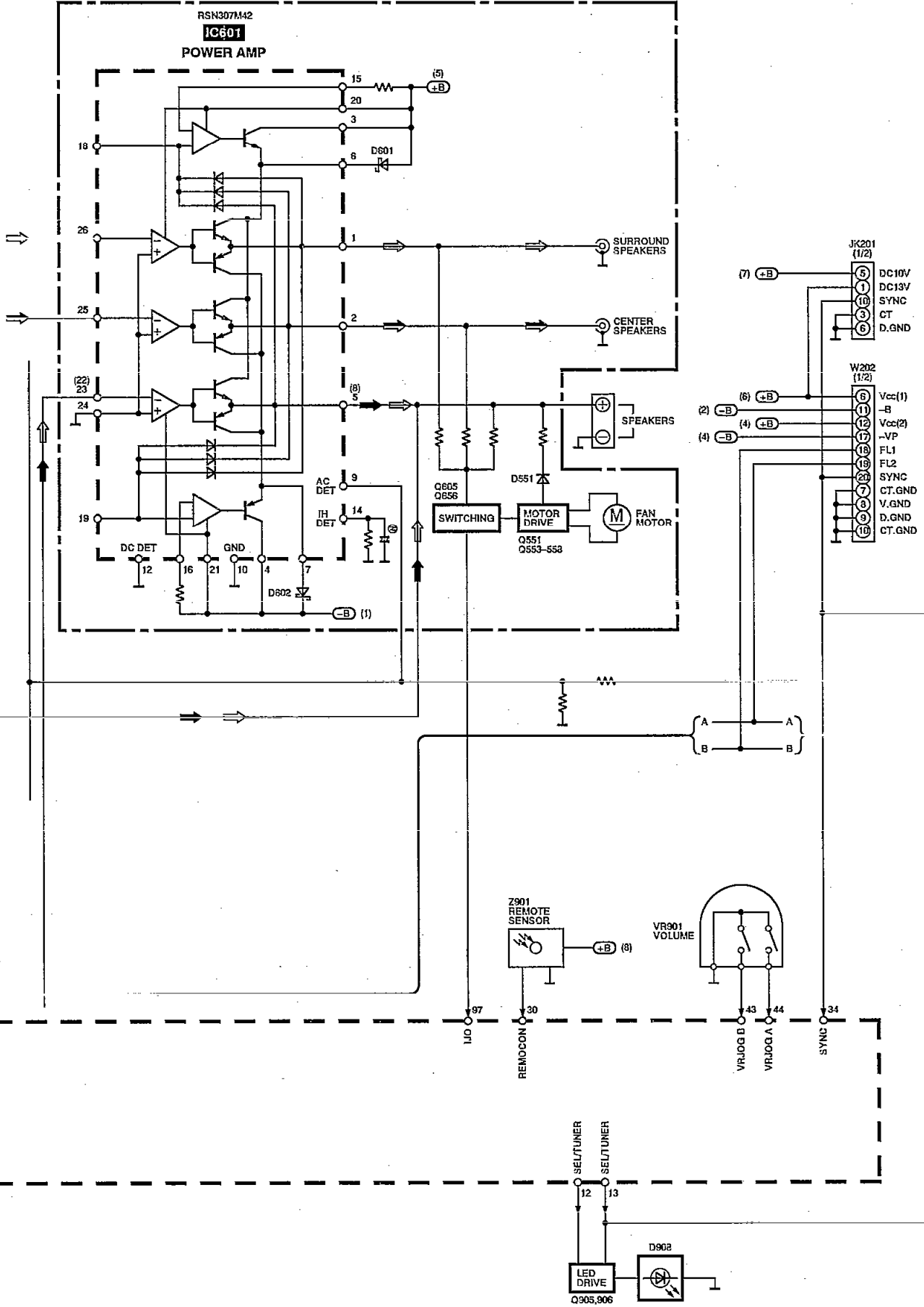


For (E,EB,EG,EP) areas.

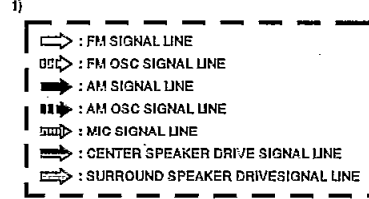


For (EG,EP,GC) areas.

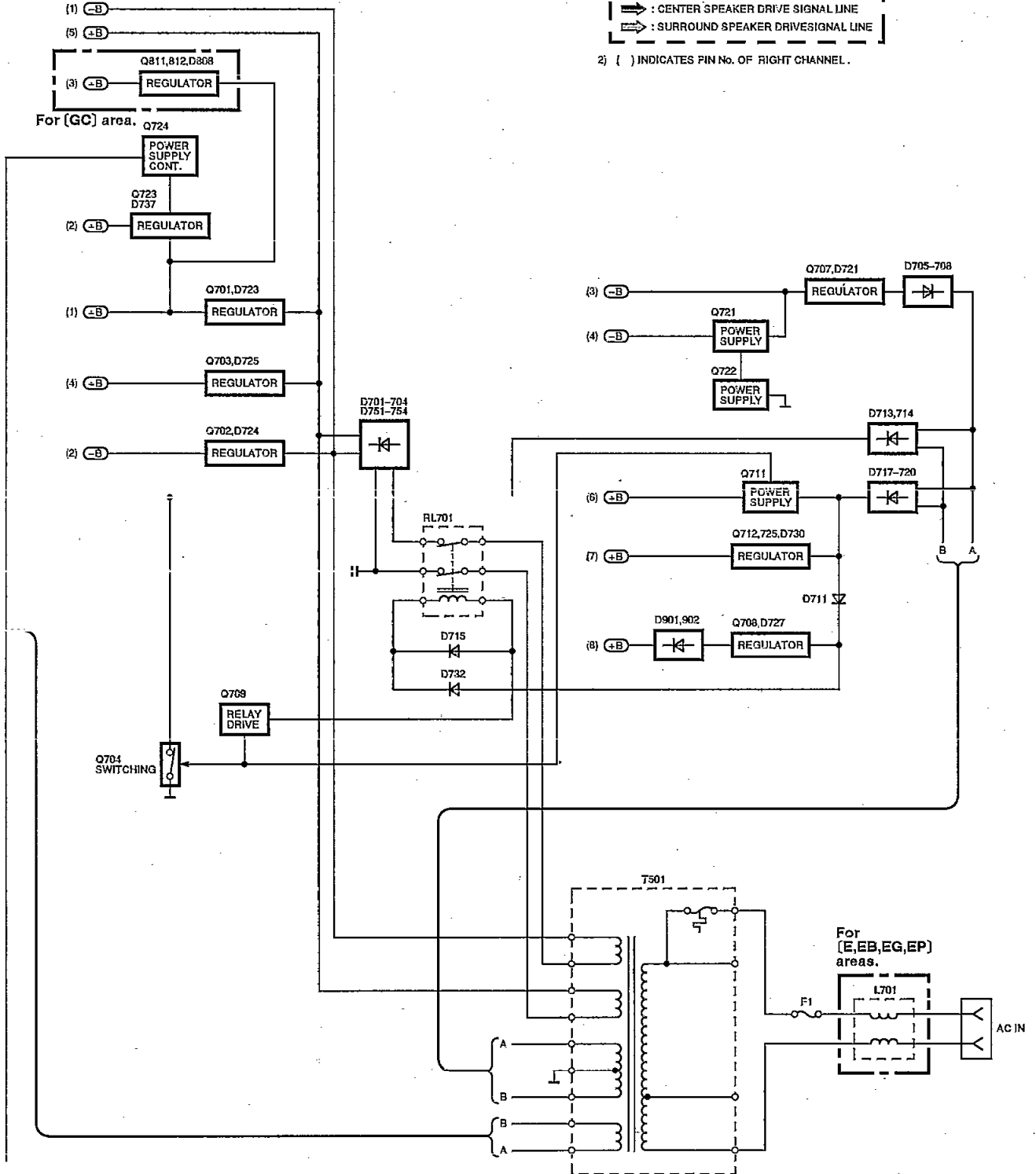
For (GC) area.



NOTES:



2) () INDICATES PIN No. OF RIGHT CHANNEL.



Replacement Parts List (Electrical) [For (E) and (EB) areas]

Notes: *Important safety notice:

 Components identified by Δ mark have special characteristics important for safety.

Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.

When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

*The parenthesized indications in the Remarks columns specify the areas. (Refer to the cover page for area.)

Parts without these indications can be used for all areas.

*(M) Indicates in Remarks columns parts that are supplied by MESA.

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
		INTEGRATED CIRCUIT (S)		Q902-904	2SC3311AIRTA	TRANSISTOR	(M)
				Q905, 906	UN411FTA	TRANSISTOR	(M)
IC101	LA1832MI-TEL	IC	(M)			DIODE (S)	
IC102	LC7218M-TE-L	IC	(M)	D101 Δ	MA4051MTA	DIODE	(M)
IC301	M62433FP	IC	(M)	D102	MA165	DIODE	(M)
IC501	M5218AP	IC	(M)	D331	MA4051-L	DIODE	(M)
IC601 Δ	RSN308M24	IC	(M)	D551, 552	MA165	DIODE	(M)
IC901	M38198MCO97F	IC	(M)	D555	MA4100MTA	DIODE	(M)
		TRANSISTOR (S)		D558	MA165	DIODE	(M)
Q101, 102	2SC2787L	TRANSISTOR	(M)	D601, 602	SB36JL6508	DIODE	(M)
Q103, 104	2SC2785FE	TRANSISTOR	(M)	D651 Δ	MA4200M	DIODE	(M)
Q106	UN411FTA	TRANSISTOR	(M)	D652, 653 Δ	MA4140M	DIODE	(M)
Q107, 108	2SC3311AR	TRANSISTOR	(M)	D657, 658	MA165	DIODE	(M)
Q305, 306	2SC3311AIRTA	TRANSISTOR	(M)	D701-704 Δ	1N5402BF	DIODE	(M)
Q307, 308	2SD2144S	TRANSISTOR	(M)	D705-708 Δ	RL1N4003N02	DIODE	(M)
Q309, 310	UN4115	TRANSISTOR	(M)	D709	MA165	DIODE	(M)
Q503	2SD1450RTA	TRANSISTOR	(M)	D710	MA4051MTA	DIODE	(M)
Q551	2SA1309AIRTA	TRANSISTOR	(M)	D711	RL1N4003N02	DIODE	(M)
Q554	2SA1309AIRTA	TRANSISTOR	(M)	D713, 714 Δ	MA185TA	DIODE	(M)
Q555	2SD2144S	TRANSISTOR	(M)	D715	MA165	DIODE	(M)
Q558	2SD2144S	TRANSISTOR	(M)	D717-720 Δ	RL1N4003N02	DIODE	(M)
Q605	2SC3311AIRTA	TRANSISTOR	(M)	D721 Δ	MA4300M	DIODE	(M)
Q651 Δ	2SB1238QRTV6	TRANSISTOR	(M)	D723 Δ	MA4150M	DIODE	(M)
Q652	2SD1859QRTV2	TRANSISTOR	(M)	D724, 725 Δ	MA4082LTA	DIODE	(M)
Q654	2SD1859QRTV2	TRANSISTOR	(M)	D727 Δ	MA4062-H	DIODE	(M)
Q656	2SC3311AIRTA	TRANSISTOR	(M)	D730 Δ	MA4100MTA	DIODE	(M)
Q701 Δ	2SD2374PQAU	TRANSISTOR	(M)	D732-736	MA165	DIODE	(M)
Q702 Δ	2SB1548PQAU	TRANSISTOR	(M)	D737 Δ	MA4082LTA	DIODE	(M)
Q703 Δ	2SD2374PQAU	TRANSISTOR	(M)	D738, 739	MA165	DIODE	(M)
Q704	UN4211	TRANSISTOR	(M)	D751, 752 Δ	1N5402BF	DIODE	(M)
Q707 Δ	2SB621A-R	TRANSISTOR	(M)	D753, 754 Δ	RL1N4003N02	DIODE	(M)
Q708 Δ	2SD2137PQTA	TRANSISTOR	(M)	D901, 902	1SS291TA	DIODE	(M)
Q709	2SD2144S	TRANSISTOR	(M)	D903, 904	MA165	DIODE	(M)
Q711	2SB1417PQTA	TRANSISTOR	(M)	D905	1SS291TA	DIODE	(M)
Q712 Δ	2SB1548PQAU	TRANSISTOR	(M)	D906, 907	MA165	DIODE	(M)
Q718	UN4111	TRANSISTOR	(M)	D908	SPR505MDTT	L. E. D.	(M)
Q719, 720	2SD1450RTA	TRANSISTOR	(M)	D909	MA165	DIODE	(M)
Q721	2SC3311AIRTA	TRANSISTOR	(M)	D931	MA165	DIODE	(M)
Q722	2SA1309AIRTA	TRANSISTOR	(M)	D934	MA165	DIODE	(M)
Q723 Δ	2SC3940AQSTA	TRANSISTOR	(M)	D936	MA165	DIODE	(M)
Q724	UN4211	TRANSISTOR	(M)	D943	MA165	DIODE	(M)
Q725 Δ	2SC3311AIRTA	TRANSISTOR	(M)	D971, 972	MA165	DIODE	(M)
Q901	UN4214TA	TRANSISTOR	(M)	D973	MA4039MTA	DIODE	(M)

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
		VARIABLE RESISTOR(S)					
VR901	EVQVBXFK124B	V. R	[M]	CN201	RJU057W010	CONNECTOR(10P)	[M]
		COMPONENT COMBINATION(S)		CN203	RJU057W012	CONNECTOR(12P)	[M]
Z101	RLA2Z002M-T	COMPONENT COMBINATION	[M]	CN701-709	RJS1A1101T1	CONNECTOR(1P)	[M]
Z102	RLI2Z006M-T	COMPONENT COMBINATION	[M]	CN711-713	RJS1A1101T1	CONNECTOR(1P)	[M]
Z120	RAL0019	FM FRONT END	[M]	CN715	RJU057W012	CONNECTOR(12P)	[M]
Z901	RCDGPIU28XD	REMOTE SENSOR	[M]	CN721	RJS9T5ZA	CONNECTOR(9P)	[M]
		COIL(S)		CN904	RJS2A2105	CONNECTOR(5P)	[M]
L101	ELESNR68MA	COIL	[M]	CN101B	RJU057W007	CONNECTOR(7P)	[M]
L103	ELEXTR47MA9	COIL	[M]	CN102B	RJU057W007	CONNECTOR(7P)	[M]
L105, 106	ELELN822KL	COIL	[M]	CP201	RJT057W010-1	CONNECTOR(10P)	[M]
L151	SLM1B10M-1M	COIL	[M]	CP203	RJT057W012-1	CONNECTOR(12P)	[M]
L191	ELESNR68MA	COIL	[M]	CP715	RJT057W012-1	CONNECTOR(12P)	[M]
L601, 602	SLQY07G-40	COIL	[M]	CP101B	RJT057W007-1	CONNECTOR(7P)	[M]
L701△	RLQZ271M-K	COIL	[M]	CP102B	RJT057W007-1	CONNECTOR(7P)	[M]
L901	RLQA100JT-Y	COIL	[M]			EARTH TERMINAL(S)	
		TRANSFORMER(S)		E601	SNE1004-2	EARTH TERMINAL	[M]
T501△	RTP2N5B009	POWER TRANSFORMER	[M]	E603	SNE1004-2	EARTH TERMINAL	[M]
		FILTER(S)				FUSE HOLDER(S)	
CF201	RLFFETNGD01L	CERAMIC FILTER	[M]	FC1, 2	EYF52BC	FUSE HOLDER	[M]
CF202	RLFFETNGD01L	CERAMIC FILTER	[M]			RELAY(S)	
		OSCILLATOR(S)		RL701△	RSY0030-C	RELAY	[M]
X101	RSX2456KM07M	OSCILLATOR	[M]			JACK(S)	
X102	RLFDGT05DD	OSCILLATOR	[M]	JK101	RJH5210M	ANTENNA	[M]
X103	RSXC7M20S05T	OSCILLATOR	[M]	JK201	RJT065K19	SYSTEM	[M]
X901	EFOEC6004T4	OSCILLATOR	[M]	JK203	SJF3068-7N	VCR IN	[M]
X902	RSXD32K7S02	OSCILLATOR	[M]	JK204	SJF3069-5N	VDP/VCR OUT	[M]
		DISPLAY TUBE		JK501	RJR0054M	SPEAKERS	[M]
FL901	RSLO234-F	DISPLAY TUBE	[M]	JK701△	SJS9236	AC INLET	[M]
		FUSE(S)		JK903	RJJ37T01-C	HEADPHONES	[M]
FL△	XBA2C12TB0S	FUSE	[M]				
		SWITCH(ES)					
S901-912	EVQ21405R	SW	[M]				
		CONNECTOR(S)					

■ Resistors and Capacitors [For (E) and (EB) areas]

Notes : * Capacity values are in microfarads (μF) unless specified otherwise, P=Pico-farads (pF) F=Farads (F)
 * Resistance values are in ohms, unless specified otherwise, 1K=1,000(OHM) , 1M=1,000k(OHM)

Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks
		RESISTORS	R235, 236	ERDS2TJ102	1/4W 1K [M]	R561	ERDS2TJ104	1/4W 100K [M]
			R239-242	ERDS2TJ102	1/4W 1K [M]	R562	ERDS2TJ102	1/4W 1K [M]
			R243, 244	ERDS2TJ152	1/4W 1.5K [M]	R563, 564	ERDS2TJ273	1/4W 27K [M]
R103	ERDS2TJ330	1/4W 33 [M]	R245, 246	ERDS2TJ332	1/4W 3.3K [M]	R570	ERDS2TJ335T	1/4W 3.3M [M]
R104	ERDS2TJ103	1/4W 10K [M]	R249, 250	ERDS2TJ101	1/4W 100 [M]	R591	ERDS2TJ473	1/4W 47K [M]
R105	ERDS2TJ471	1/4W 470 [M]	R251	ERDS2TJ222	1/4W 2.2K [M]	R604, 605	ERDS2TJ103	1/4W 10K [M]
R106	ERDS2TJ474	1/4W 470K [M]	R253, 254	ERDS2TJ104	1/4W 100K [M]	R619, 620	ERDS2TJ563	1/4W 56K [M]
R107	ERDS2TJ331	1/4W 330 [M]	R255, 256	ERDS2TJ123	1/4W 12K [M]	R623	ERDS2TJ684	1/4W 680K [M]
R108	ERDS2TJ474	1/4W 470K [M]	R257, 258	ERDS2TJ562	1/4W 5.6K [M]	R624	ERDS2TJ223	1/4W 22K [M]
R109	ERDS2TJ331	1/4W 330 [M]	R261, 262△	ERD25FVJ1R0T	1/4W 1.0 [M]	R628	ERDS2TJ184T	1/4W 180K [M]
R110	ERDS2TJ102	1/4W 1K [M]	R301	ERDS2TJ223	1/4W 22K [M]	R629, 630	ERDS2TJ100	1/4W 10 [M]
R112	ERDS2TJ104	1/4W 100K [M]	R302	ERDS2TJ472	1/4W 4.7K [M]	R631	ERDS2TJ224T	1/4W 220K [M]
R113	ERDS2TJ103	1/4W 10K [M]	R303, 304	ERDS2TJ222	1/4W 2.2K [M]	R632, 633	ERDS2TJ563	1/4W 56K [M]
R114	ERDS2TJ562	1/4W 5.6K [M]	R305, 306	ERDS2TJ152	1/4W 1.5K [M]	R637	ERDS2TJ154	1/4W 150K [M]
R115	ERDS2TJ561	1/4W 560 [M]	R307, 308	ERDS2TJ104	1/4W 100K [M]	R638	ERDS2TJ684	1/4W 680K [M]
R116	ERDS2TJ102	1/4W 1K [M]	R309, 310	ERDS2TJ102	1/4W 1K [M]	R639-642△	ERDS1FVJ100T	1/2W 10 [M]
R117	ERDS2TJ823T	1/4W 82K [M]	R311, 312	ERDS2TJ104	1/4W 100K [M]	R647, 648	ERQ16NKWR15E	1/6W 0.15 [M]
R118	ERDS2TJ562	1/4W 5.6K [M]	R313, 314	ERDS2EJ121	1/4W 120 [M]	R651	ERDS2TJ222	1/4W 2.2K [M]
R119	ERDS2TJ822	1/4W 8.2K [M]	R315	ERDS2TJ104	1/4W 100K [M]	R654	ERDS2TJ222	1/4W 2.2K [M]
R120	ERDS2TJ473	1/4W 47K [M]	R316	ERDS2TJ222	1/4W 2.2K [M]	R655, 656	ERDS2TJ183T	1/4W 18K [M]
R121	ERDS2TJ332	1/4W 3.3K [M]	R317	ERDS2TJ105T	1/4W 1M [M]	R667	ERDS2TJ331	1/4W 330 [M]
R122	ERDS2TJ272T	1/4W 2.7K [M]	R318	ERDS2TJ153	1/4W 15K [M]	R701, 702	ERDS2TJ273	1/4W 27K [M]
R124	ERDS2TJ271	1/4W 270 [M]	R324	ERDS2TJ223	1/4W 22K [M]	R703, 704	ERDS2TJ101	1/4W 100 [M]
R125, 126	ERDS2TJ152	1/4W 1.5K [M]	R326	ERDS2TJ332	1/4W 3.3K [M]	R707△	ERD25FVJ4R7T	1/4W 4.7 [M]
R127	ERDS2TJ103	1/4W 10K [M]	R327	ERDS2TJ392T	1/4W 3.9K [M]	R708	ERDS2TJ472	1/4W 4.7K [M]
R128	ERDS2TJ820	1/4W 82 [M]	R328	ERDS2TJ332	1/4W 3.3K [M]	R712	ERDS2TJ152	1/4W 1.5K [M]
R129	ERDS2TJ473	1/4W 47K [M]	R329	ERDS2TJ103	1/4W 10K [M]	R713, 714	ERDS2TJ332	1/4W 3.3K [M]
R130	ERDS2TJ103	1/4W 10K [M]	R330	ERDS2TJ332	1/4W 3.3K [M]	R715	ERDS2TJ183T	1/4W 18K [M]
R132	ERDS2TJ103	1/4W 10K [M]	R331	ERDS2TJ102	1/4W 1K [M]	R717	ERDS2TJ473	1/4W 47K [M]
R133-137	ERDS2TJ102	1/4W 1K [M]	R332-334	ERDS2TJ222	1/4W 2.2K [M]	R721△	ERD2FCVJ4R7T	1/4W 4.7 [M]
R138	ERDS2TJ103	1/4W 10K [M]	R335, 336	ERDS2TJ683	1/4W 68K [M]	R722△	ERQ16NKW2R2E	1/6W 2.2 [M]
R139, 140	ERDS2TJ272T	1/4W 2.7K [M]	R338	ERDS2TJ392T	1/4W 3.9K [M]	R723	ERDS2TJ562	1/4W 5.6K [M]
R141, 142 /	ERDS2TJ102	1/4W 1K [M]	R343	ERDS2TJ334	1/4W 330K [M]	R724	ERDS2TJ152	1/4W 1.5K [M]
R143, 144	ERDS2TJ222	1/4W 2.2K [M]	R360	ERDS2TJ223	1/4W 22K [M]	R725, 726	ERDS2TJ100	1/4W 10 [M]
R145, 146	ERDS2TJ821	1/4W 820 [M]	R364	ERDS2TJ103	1/4W 10K [M]	R727	ERDS2TJ152	1/4W 1.5K [M]
R147, 148	ERDS2TJ474	1/4W 470K [M]	R365	ERDS2TJ223	1/4W 22K [M]	R729	ERDS2TJ221	1/4W 220 [M]
R149	ERDS2TJ680T	1/4W 68 [M]	R380	ERDS2TJ153	1/4W 15K [M]	R735△	ERD25FVJ4R7T	1/4W 4.7 [M]
R171, 172	ERDS2TJ102	1/4W 1K [M]	R503, 504	ERDS2TJ333	1/4W 33K [M]	R736	ERDS2TJ102	1/4W 1K [M]
R173	ERDS2TJ471	1/4W 470 [M]	R505, 506	ERDS2TJ153	1/4W 15K [M]	R737	ERDS2TJ221	1/4W 220 [M]
R175	ERDS2TJ102	1/4W 1K [M]	R507, 508	ERDS2TJ332	1/4W 3.3K [M]	R738	ERDS2TJ392T	1/4W 3.9K [M]
R176	ERDS2TJ391	1/4W 390 [M]	R509-512	ERDS2TJ560T	1/4W 56 [M]	R739	ERDS2TJ473	1/4W 47K [M]
R201, 202△	ERDS2FJ752	1/4W 7.5K [M]	R513, 514	ERDS2TJ103	1/4W 10K [M]	R748	ERDS2TJ102	1/4W 1K [M]
R217, 218	ERDS2TJ562	1/4W 5.6K [M]	R551	ERDS2TJ183T	1/4W 18K [M]	R749	ERDS2TJ271	1/4W 270 [M]
R221, 222	ERDS2FJ752	1/4W 7.5K [M]	R552	ERDS2TJ473	1/4W 47K [M]	R755△	ERDS1FVJ8R2T	1/2W 8.2 [M]
R223, 224	ERDS2TJ562	1/4W 5.6K [M]	R555	ERDS2TJ223	1/4W 22K [M]	R756△	ERDS1FJ4R7	1/2W 4.7 [M]
R225, 226	ERDS2TJ104	1/4W 100K [M]	R556	ERDS2TJ104	1/4W 100K [M]	R757-759	ERDS2TJ103	1/4W 10K [M]
R227, 228	ERDS2TJ222	1/4W 2.2K [M]	R557	ERDS2TJ103	1/4W 10K [M]	R761, 762	ERDS2TJ822	1/4W 8.2K [M]
R229, 230	ERDS2TJ822	1/4W 8.2K [M]	R558	ERDS2TJ102	1/4W 1K [M]	R763	ERDS2TJ472	1/4W 4.7K [M]
R231-234	ERDS2TJ682T	1/4W 6.8K [M]	R559	ERDS2TJ472	1/4W 4.7K [M]	R764	ERDS2TJ331	1/4W 330 [M]

Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks
R765△	ERDS1FVJ561T	1/2W 560 [M]	R984, 985	ERDS2TJ473	1/4W 47K [M]	C302, 303	ECBT1H561KB5	50V 560P [M]
R766	ERDS2TJ102	1/4W 1K [M]	R986-988	ERDS2TJ102	1/4W 1K [M]	C309	ECEA1HKAR22B	50V 0.22U [M]
R767△	ERD2FCVJ4R7T	1/4W 4.7 [M]	R989, 990	ERDS2TJ393	1/4W 39K [M]	C310	ECFRIC393KR	16V 0.039U [M]
R768	ERDS2TJ101	1/4W 100 [M]	R991	ERDS2TJ473	1/4W 47K [M]	C312	ECFRIC823MR	16V 0.082U [M]
R791, 792△	RSFMB30KT-L	PROTECTOR [M]	R993, 994	ERDS2TJ104	1/4W 100K [M]	C313	ECFRIC103KR	16V 0.01U [M]
R901	ERDS2TJ821	1/4W 820 [M]	R996, 997	ERDS2TJ151	1/4W 150 [M]	C315	ECFRIC223KR	16V 0.022U [M]
R902	ERDS2TJ102	1/4W 1K [M]				C316	ECBT1C332KR5	16V 3300P [M]
R903	ERDS2TJ122	1/4W 1.2K [M]			CAPACITORS	C318	ECBT1C682KR5	16V 6800P [M]
R904	ERDS2TJ152	1/4W 1.5K [M]				C319	ECBT1H102KB5	50V 1000P [M]
R905	ERDS2TJ182	1/4W 1.8K [M]	C101	ECBT1C103NS5	16V 0.01U [M]	C320	ECBA1H681KB5	50V 680P [M]
R906	ERDS2TJ222	1/4W 2.2K [M]	C103	ECBT1C103NS5	16V 0.01U [M]	C321	ECBT1C332KR5	16V 3300P [M]
R907	ERDS2TJ272T	1/4W 2.7K [M]	C104, 105	ECBT1H102KB5	50V 1000P [M]	C322	ECQV1H333JM3	50V 0.033U [M]
R908	ERDS2TJ472	1/4W 4.7K [M]	C106	ECBT1C103NS5	16V 0.01U [M]	C324	ECFRIC683KR	16V 0.068U [M]
R909	ERDS2TJ682T	1/4W 6.8K [M]	C107	ECBT1H473ZF5	50V 0.047U [M]	C325	ECQV1H154JM3	50V 0.15U [M]
R910	ERDS2TJ123	1/4W 12K [M]	C108	ECBT1H8R2KC5	50V 8.2P [M]	C326	ECBT1H102KB5	50V 1000P [M]
R911	ERDS2TJ223	1/4W 22K [M]	C109, 110	ECBT1C103NS5	16V 0.01U [M]	C327	ECBT1H471KB5	50V 470P [M]
R912	ERDS2TJ821	1/4W 820 [M]	C111	ECEA1EKA4R7B	25V 4.7U [M]	C328	RCE1CKA470BG	16V 47U [M]
R919-923	ERDS2TJ103	1/4W 10K [M]	C112	ECBT1C103NS5	16V 0.01U [M]	C329	ECEA1HKA2R2B	50V 2.2U [M]
R924-927	ERDS2TJ102	1/4W 1K [M]	C113	ECBT1H102KB5	50V 1000P [M]	C330	ECBA1H681KB5	50V 680P [M]
R929	ERDS2TJ102	1/4W 1K [M]	C114	RCE1HKA3R3BG	50V 3.3U [M]	C331	ECBT1H104ZF5	50V 0.1U [M]
R930	ERDS2TJ101	1/4W 100 [M]	C115	ECEA1EKA4R7B	25V 4.7U [M]	C332-334	ECBT1H470J5	50V 47P [M]
R931-936	ERDS2TJ102	1/4W 1K [M]	C116	ECBT1C822KS5	16V 8200P [M]	C336	ECBT1H104ZF5	50V 0.1U [M]
R937	ERDS2TJ562	1/4W 5.6K [M]	C117	ECQV1391JZ	100V 390P [M]	C337	RCE1CKA470BG	16V 47U [M]
R938	ERDS2TJ102	1/4W 1K [M]	C118, 119	ECFRIC103KR	16V 0.01U [M]	C338	ECBT1H471KB5	50V 470P [M]
R939	ERDS2TJ152	1/4W 1.5K [M]	C120, 121	ECEA1HKA010B	50V 1U [M]	C339	ECBT1H102KB5	50V 1000P [M]
R940, 941	ERDS2TJ102	1/4W 1K [M]	C122	ECEA1HKA2R2B	50V 2.2U [M]	C340	ECQV1H154JM3	50V 0.15U [M]
R942	ERDS2TJ101	1/4W 100 [M]	C123	ECEA1HKA010B	50V 1U [M]	C341	ECFRIC683KR	16V 0.068U [M]
R943	ERDS2TJ102	1/4W 1K [M]	C124	ECBT1H102KB5	50V 1000P [M]	C342	ECQV1H333JM3	50V 0.033U [M]
R946	ERDS2TJ102	1/4W 1K [M]	C125	ECBT1H150JG5	50V 15P [M]	C343	ECEA1HKA2R2B	50V 2.2U [M]
R947, 948	ERDS2TJ104	1/4W 100K [M]	C126	ECBT1H473ZF5	50V 0.047U [M]	C344	ECBT1C332KR5	16V 3300P [M]
R949	ERDS2TJ472	1/4W 4.7K [M]	C127	ECEA1CKA220B	16V 22U [M]	C346	ECBT1H102KB5	50V 1000P [M]
R950	ERDS2TJ101	1/4W 100 [M]	C128	ECBT1H102KB5	50V 1000P [M]	C347	ECBT1C682KR5	16V 6800P [M]
R951	ERDS2TJ334	1/4W 330K [M]	C129, 130	ECEA0JKA101B	6.3V 100U [M]	C349	ECBT1C332KR5	16V 3300P [M]
R952	ERDS2TJ106T	1/4W 10M [M]	C132	ECBT1H102KB5	50V 1000P [M]	C350	ECFRIC223KR	16V 0.022U [M]
R953	ERDS2TJ101	1/4W 100 [M]	C133, 134	ECBT1H270JU5	50V 27P [M]	C352	ECFRIC103KR	16V 0.01U [M]
R954	ERDS2TJ104	1/4W 100K [M]	C135, 136	ECBT1C103KS5	16V 0.01U [M]	C353	ECFRIC823MR	16V 0.082U [M]
R955	ERDS2TJ824	1/4W 820K [M]	C137, 138	ECBT1H561KB5	50V 560P [M]	C355	ECFRIC393KR	16V 0.039U [M]
R956-958	ERDS2TJ102	1/4W 1K [M]	C139, 140	ECBT1C682KR5	16V 6800P [M]	C356	ECEA1HKAR22B	50V 0.22U [M]
R959	ERDS2TJ471	1/4W 470 [M]	C141-144	ECEA1HKA010B	50V 1U [M]	C357, 358	ECQV1H683JM3	50V 0.068U [M]
R960	ERDS2TJ152	1/4W 1.5K [M]	C145	ECBT1H220JG5	50V 22P [M]	C359	RCE1HKA3R3BG	50V 3.3U [M]
R961, 962	ERDS2TJ223	1/4W 22K [M]	C148	ECBT1C103NS5	16V 0.01U [M]	C360	RCE1HKA4R7BG	50V 4.7U [M]
R963, 964	ERDS2TJ103	1/4W 10K [M]	C149	ECBT1H104ZF5	50V 0.1U [M]	C364	ECBT1C152KR5	16V 1500P [M]
R965	ERDS2TJ472	1/4W 4.7K [M]	C171, 172	ECBT1H102KB5	50V 1000P [M]	C365	ECQV1H154JM3	50V 0.15U [M]
R966	ERDS2TJ103	1/4W 10K [M]	C173	ECEA1CKA220B	16V 22U [M]	C372	ECBT1H104ZF5	50V 0.1U [M]
R967	ERDS2TJ473	1/4W 47K [M]	C174	RCE1CKA100BG	16V 10U [M]	C385, 386	ECEA1HKAR22B	50V 0.22U [M]
R968	ERDS2TJ103	1/4W 10K [M]	C181	ECBT1H471KB5	50V 470P [M]	C395, 396	ECBT1H473ZF5	50V 0.047U [M]
R969, 970	ERDS2TJ472	1/4W 4.7K [M]	C196	ECBT1H102KB5	50V 1000P [M]	C501-506	ECBT1H101KB5	50V 100P [M]
R971	ERDS2TJ473	1/4W 47K [M]	C201, 202	ECBT1H180J5	50V 18P [M]	C507, 508	RCE1CKA100BG	16V 10U [M]
R972	ERDS2TJ223	1/4W 22K [M]	C219-226	ECBT1H101KB5	50V 100P [M]	C509-512	ECBT1E103ZF	25V 0.01U [M]
R974	ERDS2TJ101	1/4W 100 [M]	C229-234	ECBT1H101KB5	50V 100P [M]	C513, 514	ECBT1C103KS5	16V 0.01U [M]
R975	ERDS2TJ181T	1/4W 180 [M]	C235, 236	ECBT1H104ZF5	50V 0.1U [M]	C551	ECEA1HKA2R2B	50V 2.2U [M]
R977-981	ERDS2TJ104	1/4W 100K [M]	C301	ECBT1H102KB5	50V 1000P [M]	C552	ECBT1E103ZF	25V 0.01U [M]

Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks
C553	ECEA1HKAR68B	50V 0.68U [M]	C915	ECBT1E103ZF	25V 0.01U [M]
C554	ECEA1AKA221B	10V 220U [M]	C916	ECA0JKF101B	6.3V 100U [M]
C557, 558	ECFR1C393KR	16V 0.039U [M]	C917	ECBT1E103ZF	25V 0.01U [M]
C604, 605	RCE1CKA100BG	16V 10U [M]	C918	ECEA0JKA221B	6.3V 220U [M]
C607, 608	ECBT1C122KR5	16V 1200P [M]	C919, 920	ECEA1HKS2R2B	50V 2.2U [M]
C613, 614	ECBT1H150JC5	50V 15P [M]	C921	ECBT1H102KB5	50V 1000P [M]
C615	ECEA2AU010	100V 1U [M]	C922	ECEA1VKA330B	35V 33U [M]
C616	ECA1JM330B	63V 33U [M]	C1101, 1102	ECBT1H473ZF5	50V 0.047U [M]
C617	ECEA1HN2R2	50V 2.2U [M]	C1103-1106	ECBT1H102KB5	50V 1000P [M]
C618	ECA1HM101B	50V 100U [M]			
C620, 621	ECQV1H473JM3	50V 0.047U [M]			
C631, 632	ECBT1H102KB5	50V 1000P [M]			
C633	ECBT1C103KS5	16V 0.01U [M]			
C655	ECEA2AU3R3B	100V 3.3U [M]			
C656	ECBT1E103ZF	25V 0.01U [M]			
C657	ECBT1H104ZF5	50V 0.1U [M]			
C701, 702△	ECA1VM472E	35V 4700U [M]			
C703, 704△	ECA1VM332E	35V 3300U [M]			
C705	RCE1CKA100BG	16V 10U [M]			
C706	RCE1VKA100BG	35V 10U [M]			
C707	ECBT1E103ZF	25V 0.01U [M]			
C708	RCE1CKA100BG	16V 10U [M]			
C709	ECBT1H104ZF5	50V 0.1U [M]			
C710	ECBT1E103ZF	25V 0.01U [M]			
C711	RCE1EM471BV	25V 470U [M]			
C714	ECBT1H102KB5	50V 1000P [M]			
C715△	ECA1EM472E	25V 4700U [M]			
C717	ECEA1CKA330B	16V 33U [M]			
C718	RCE1AKA101BG	10V 100U [M]			
C719, 720	ECBT1E103ZF	25V 0.01U [M]			
C721	RCE1AKA101BG	10V 100U [M]			
C723	ECBT1E103ZF	25V 0.01U [M]			
C725	RCE1CKA100BG	16V 10U [M]			
C726	ECBT1E103ZF	25V 0.01U [M]			
C731	ECBT1H102KB5	50V 1000P [M]			
C732	ECBT1E223ZF	25V 0.022U [M]			
C734	RCE1CKA100BG	16V 10U [M]			
C736△	ECA1EM101B	25V 100U [M]			
C737, 738△	ECA1HM101B	50V 100U [M]			
C739△	ECA1JM101B	63V 100U [M]			
C740	RCE1CKA100BG	16V 10U [M]			
C741	ECBT1H104ZF5	50V 0.1U [M]			
C901	ECBT1H104ZF5	50V 0.1U [M]			
C902	ECA0JM102B	6.3V 1000U [M]			
C903	ECBT1E103ZF	25V 0.01U [M]			
C905-908	ECBT1H471KB5	50V 470P [M]			
C909	ECBT1H102KB5	50V 1000P [M]			
C910	ECBT1H150JC5	50V 15P [M]			
C911	ECBT1H180JC5	50V 18P [M]			
C912	ECBT1H104ZF5	50V 0.1U [M]			
C913	RCE1CKA100BG	16V 10U [M]			
C914	ECEA1HKA2R2B	50V 2.2U [M]			

Replacement Parts List (Electrical) [For (EG) and (EP) areas]

Notes: *Important safety notice:

 Components identified by Δ mark have special characteristics important for safety.

Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.

When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

*The parenthesized indications in the Remarks columns specify the areas. (Refer to the cover page for area.)

Parts without these indications can be used for all areas.

* [M] Indicates in Remarks columns parts that are supplied by MESA.

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
		INTEGRATED CIRCUIT (S)		Q725 Δ	2SC3311AIRTA	TRANSISTOR	[M]
				Q901	UN4214TA	TRANSISTOR	[M]
IC101	LA1832MH-TEL	IC	[M]	Q902-904	2SC3311AIRTA	TRANSISTOR	[M]
IC102	LC7218M-TE-L	IC	[M]	Q905, 906	UN411FTA	TRANSISTOR	[M]
IC151	LA2230M-TE-L	IC	[M]			DIODE (S)	
IC301	M62433FP	IC	[M]	D101 Δ	MA4051MTA	DIODE	[M]
IC501	M5218AP	IC	[M]	D102	MA165	DIODE	[M]
IC601 Δ	RSN308M24	IC	[M]	D151	MA4051MTA	DIODE	[M]
IC901	M38193MC097F	IC	[M]	D152	MA165	DIODE	[M]
		TRANSISTOR (S)		D331	MA4051-L	DIODE	[M]
Q101, 102	2SC2787L	TRANSISTOR	[M]	D551, 552	MA165	DIODE	[M]
Q103, 104	2SC2785FE	TRANSISTOR	[M]	D555	MA4100MTA	DIODE	[M]
Q106	UN4111	TRANSISTOR	[M]	D558	MA165	DIODE	[M]
Q107, 108	2SC3311AR	TRANSISTOR	[M]	D601, 602	SB360L6508	DIODE	[M]
Q110	2SC3311AR	TRANSISTOR	[M]	D651 Δ	MA4200M	DIODE	[M]
Q305, 306	2SC3311AIRTA	TRANSISTOR	[M]	D652, 653 Δ	MA4140M	DIODE	[M]
Q307, 308	2SD2144S	TRANSISTOR	[M]	D657, 658	MA165	DIODE	[M]
Q309, 310	UN4115	TRANSISTOR	[M]	D701-704 Δ	1N5402BF	DIODE	[M]
Q503	2SD1450RTA	TRANSISTOR	[M]	D705-708 Δ	RL1N4003N02	DIODE	[M]
Q551	2SA1309AIRTA	TRANSISTOR	[M]	D709	MA165	DIODE	[M]
Q554	2SA1309AIRTA	TRANSISTOR	[M]	D710	MA4051MTA	DIODE	[M]
Q555	2SD2144S	TRANSISTOR	[M]	D711	RL1N4003N02	DIODE	[M]
Q558	2SD2144S	TRANSISTOR	[M]	D713, 714 Δ	MA1857A	DIODE	[M]
Q605	2SC3311AIRTA	TRANSISTOR	[M]	D715	MA165	DIODE	[M]
Q651 Δ	2SB1238QRTV6	TRANSISTOR	[M]	D717-720 Δ	RL1N4003N02	DIODE	[M]
Q652	2SD1859QRTV2	TRANSISTOR	[M]	D721 Δ	MA4300M	DIODE	[M]
Q654	2SD1859QRTV2	TRANSISTOR	[M]	D723 Δ	MA4150M	DIODE	[M]
Q656	2SC3311AIRTA	TRANSISTOR	[M]	D724, 725 Δ	MA4082LTA	DIODE	[M]
Q701 Δ	2SD2374PQAU	TRANSISTOR	[M]	D727 Δ	MA4062-H	DIODE	[M]
Q702 Δ	2SB1548PQAU	TRANSISTOR	[M]	D730 Δ	MA4100MTA	DIODE	[M]
Q703 Δ	2SD2374PQAU	TRANSISTOR	[M]	D732-736	MA165	DIODE	[M]
Q704	UN4211	TRANSISTOR	[M]	D737 Δ	MA4082LTA	DIODE	[M]
Q707 Δ	2SB621A-R	TRANSISTOR	[M]	D738, 739	MA165	DIODE	[M]
Q708 Δ	2SD2137PQTA	TRANSISTOR	[M]	D751, 752 Δ	1N5402BF	DIODE	[M]
Q709	2SD2144S	TRANSISTOR	[M]	D753, 754 Δ	RL1N4003N02	DIODE	[M]
Q711	2SB1417PQTA	TRANSISTOR	[M]	D901, 902	1SS291TA	DIODE	[M]
Q712 Δ	2SB1548PQAU	TRANSISTOR	[M]	D903, 904	MA165	DIODE	[M]
Q718	UN4111	TRANSISTOR	[M]	D905	1SS291TA	DIODE	[M]
Q719, 720	2SD1450RTA	TRANSISTOR	[M]	D906, 907	MA165	DIODE	[M]
Q721	2SC3311AIRTA	TRANSISTOR	[M]	D908	SPR505MDTT	L. E. D.	[M]
Q722	2SA1309AIRTA	TRANSISTOR	[M]	D909	MA165	DIODE	[M]
Q723 Δ	2SC3940AQSTA	TRANSISTOR	[M]	D931	MA165	DIODE	[M]
Q724	UN4211	TRANSISTOR	[M]	D933, 934	MA165	DIODE	[M]
				D936	MA165	DIODE	[M]

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
D943	MA165	DIODE	[M]				
D971, 972	MA165	DIODE	[M]	F1△	XBA2C12TB0	FUSE	[M]
D973	MA4039MTA	DIODE	[M]			SWITCH(ES)	
		VARIABLE RESISTOR(S)					
VR151	EVNDCBA03B53	V. R	[M]	S901-914	EVQ21405R	SW	[M]
VR901	EVQVBFK124B	V. R	[M]			CONNECTOR(S)	
		COMPONENT COMBINATION(S)		CN201	RJU057W010	CONNECTOR (10P)	[M]
Z101	RLA2Z002M-T	COMPONENT COMBINATION	[M]	CN203	RJU057W012	CONNECTOR (12P)	[M]
Z102	RL12Z006M-T	COMPONENT COMBINATION	[M]	CN701-709	RJS1A1101T1	CONNECTOR (1P)	[M]
Z120	RAL0019	FM FRONT END	[M]	CN711-713	RJS1A1101T1	CONNECTOR (1P)	[M]
Z901	RCDGP1U28XD	COMPONENT COMBINATION	[M]	CN715	RJU057W012	CONNECTOR (12P)	[M]
		COIL (S)		CN721	RJS9T52A	CONNECTOR (9P)	[M]
L101	ELESNR68MA	COIL	[M]	CN904	RJS2A2105	CONNECTOR (5P)	[M]
L103	ELEXT47MA9	COIL	[M]	CN101B	RJU057W007	CONNECTOR (7P)	[M]
L104	ELEXT1R0KA9	COIL	[M]	CN102B	RJU057W007	CONNECTOR (7P)	[M]
L105, 106	ELELN822KL	COIL	[M]	CN501B	RJU057W007	CONNECTOR (7P)	[M]
L151	SLM1B10M-1M	COIL	[M]	CP103B	RJT057W007-1	CONNECTOR (7P)	[M]
L161	ELEXT101KA9	COIL	[M]	CP201	RJT057W010-1	CONNECTOR (10P)	[M]
L191	ELESNR68MA	COIL	[M]	CP203	RJT057W012-1	CONNECTOR (12P)	[M]
L601, 602	SLQY07G-40	COIL	[M]	CP715	RJT057W012-1	CONNECTOR (12P)	[M]
L701△	RLQZ271M-K	COIL	[M]	CP101B	RJT057W007-1	CONNECTOR (7P)	[M]
L901	RLQA100JT-Y	COIL	[M]	CP102B	RJT057W007-1	CONNECTOR (7P)	[M]
		TRANSFORMER (S)				EARTH TERMINAL (S)	
T501△	RTP2N5B009	POWER TRANSFORMER	[M]	E601	SNE1004-2	EARTH TERMINAL	[M]
		FILTER(S)		E603	SNE1004-2	EARTH TERMINAL	[M]
CF201	RLFFETNGD01L	CERAMIC FILTER	[M]			FUSE HOLDER(S)	
CF202	RLFFETMGD01L	CERAMIC FILTER	[M]	FC1, 2	EYF52BC	FUSE HOLDER	[M]
		OSCILLATOR(S)				RELAY (S)	
X101	RSXZ456K07M	OSCILLATOR	[M]	RL701△	RSY0030-C	RELAY	[M]
X102	RLFDGT05DD	OSCILLATOR	[M]			JACK(S)	
X103	RSXC7M20S05T	OSCILLATOR	[M]	JK101	RJH5210M	ANTENNA	[M]
X151	RSXZ456K07M	OSCILLATOR	[M]	JK201	RJT065K19	SYSTEM	[M]
X901	EFOEC6004T4	OSCILLATOR	[M]	JK203	SJF3068-7N	EXT IN	[M]
X902	RSXD32K7S02	OSCILLATOR	[M]	JK204	SJF3069-5N	PHONO/EXT OUT	[M]
		DISPLAY TUBE		JK501	RJR9054M	SPEAKERS	[M]
FL901	BSL0234-F	DISPLAY TUBE	[M]	JK701△	SJS9236	AC INLET	[M]
		FUSE (S)		JK903	RJJ37TN01-C	HEADPHONES	[M]
						FUSE (S)	
				F1△	XBA2C12TB0S	FUSE	[M]

Resistors and Capacitors [For (EG) and (EP) areas]

Notes : * Capacity values are in microfarads (uF) unless specified otherwise, P=Pico-farads (pF) F=Farads (F)
* Resistance values are in ohms, unless specified otherwise, 1K=1,000(OHM) , 1M=1,000k(OHM)

Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks
		RESISTORS	R164	ERDS2TJ332	1/4W 3.3K [M]	R365	ERDS2TJ223	1/4W 22K [M]
			R171, 172	ERDS2TJ102	1/4W 1K [M]	R380	ERDS2TJ153	1/4W 15K [M]
			R173	ERDS2TJ471	1/4W 470 [M]	R503, 504	ERDS2TJ333	1/4W 33K [M]
R103	ERDS2TJ101	1/4W 100 [M]	R175	ERDS2TJ102	1/4W 1K [M]	R505, 506	ERDS2TJ153	1/4W 15K [M]
R104	ERDS2TJ103	1/4W 10K [M]	R176	ERDS2TJ391	1/4W 390 [M]	R507, 508	ERDS2TJ332	1/4W 3.3K [M]
R105	ERDS2TJ471	1/4W 470 [M]	R177	ERDS2TJ472	1/4W 4.7K [M]	R509-512	ERDS2TJ560T	1/4W 56 [M]
R106	ERDS2TJ474	1/4W 470K [M]	R201, 202△	ERDS2FJ752	1/4W 7.5K [M]	R513, 514	ERDS2TJ103	1/4W 10K
R107	ERDS2TJ331	1/4W 330 [M]	R217, 218	ERDS2TJ562	1/4W 5.6K [M]	R551	ERDS2TJ183T	1/4W 18K [M]
R108	ERDS2TJ474	1/4W 470K [M]	R221, 222	ERDS2FJ752	1/4W 7.5K [M]	R552	ERDS2TJ473	1/4W 47K [M]
R109	ERDS2TJ331	1/4W 330 [M]	R223, 224	ERDS2TJ562	1/4W 5.6K [M]	R555	ERDS2TJ223	1/4W 22K [M]
R110	ERDS2TJ102	1/4W 1K [M]	R225, 226	ERDS2TJ104	1/4W 100K [M]	R556	ERDS2TJ104	1/4W 100K [M]
R112	ERDS2TJ104	1/4W 100K [M]	R227, 228	ERDS2TJ222	1/4W 2.2K [M]	R557	ERDS2TJ103	1/4W 10K [M]
R113	ERDS2TJ103	1/4W 10K [M]	R229, 230	ERDS2TJ822	1/4W 8.2K [M]	R558	ERDS2TJ102	1/4W 1K [M]
R114	ERDS2TJ562	1/4W 5.6K [M]	R231-234	ERDS2TJ682T	1/4W 6.8K [M]	R559	ERDS2TJ472	1/4W 4.7K [M]
R115	ERDS2TJ561	1/4W 560 [M]	R235, 236	ERDS2TJ102	1/4W 1K [M]	R561	ERDS2TJ104	1/4W 100K [M]
R116	ERDS2TJ102	1/4W 1K [M]	R239-242	ERDS2TJ102	1/4W 1K [M]	R562	ERDS2TJ102	1/4W 1K [M]
R117	ERDS2TJ823T	1/4W 82K [M]	R243, 244	ERDS2TJ152	1/4W 1.5K [M]	R563	ERDS2TJ332	1/4W 3.3K [M]
R118	ERDS2TJ472	1/4W 4.7K [M]	R245, 246	ERDS2TJ332	1/4W 3.3K [M]	R564	ERDS2TJ273	1/4W 27K [M]
R119	ERDS2TJ103	1/4W 10K [M]	R249, 250	ERDS2TJ101	1/4W 100 [M]	R570	ERDS2TJ335T	1/4W 3.3M [M]
R120	ERDS2TJ473	1/4W 47K [M]	R251	ERDS2TJ222	1/4W 2.2K [M]	R591	ERDS2TJ473	1/4W 47K [M]
R121	ERDS2TJ332	1/4W 3.3K [M]	R253, 254	ERDS2TJ104	1/4W 100K [M]	R604, 605	ERDS2TJ103	1/4W 10K [M]
R122	ERDS2TJ272T	1/4W 2.7K [M]	R255, 256	ERDS2TJ123	1/4W 12K [M]	R619, 620	ERDS2TJ563	1/4W 56K [M]
R124	ERDS2TJ271	1/4W 270 [M]	R257, 258	ERDS2TJ562	1/4W 5.6K [M]	R623	ERDS2TJ684	1/4W 680K [M]
R125, 126	ERDS2TJ152	1/4W 1.5K [M]	R261, 262△	ERD25FVJ1R0T	1/4W 1.0 [M]	R624	ERDS2TJ223	1/4W 22K [M]
R127	ERDS2TJ103	1/4W 10K [M]	R301	ERDS2TJ223	1/4W 22K [M]	R628	ERDS2TJ184T	1/4W 180K [M]
R128	ERDS2TJ820	1/4W 82 [M]	R302	ERDS2TJ472	1/4W 4.7K [M]	R629, 630	ERDS2TJ100	1/4W 10 [M]
R129	ERDS2TJ473	1/4W 47K [M]	R303, 304	ERDS2TJ222	1/4W 2.2K [M]	R631	ERDS2TJ224T	1/4W 220K [M]
R130	ERDS2TJ103	1/4W 10K [M]	R305, 306	ERDS2TJ152	1/4W 1.5K [M]	R632, 633	ERDS2TJ563	1/4W 56K [M]
R132	ERDS2TJ103	1/4W 10K [M]	R307, 308	ERDS2TJ104	1/4W 100K [M]	R637	ERDS2TJ154	1/4W 150K [M]
R133-137	ERDS2TJ102	1/4W 1K [M]	R309, 310	ERDS2TJ102	1/4W 1K [M]	R638	ERDS2TJ684	1/4W 680K [M]
R138	ERDS2TJ103	1/4W 10K [M]	R311, 312	ERDS2TJ104	1/4W 100K [M]	R639-642△	ERDS1FJ100	1/2W 10 [M]
R139, 140	ERDS2TJ272T	1/4W 2.7K [M]	R313, 314	ERDS2EJ121	1/4W 120 [M]	R647, 648	ERQ16NKWR15E	1/6W 0.15 [M]
R141, 142	ERDS2TJ102	1/4W 1K [M]	R315	ERDS2TJ104	1/4W 100K [M]	R651	ERDS2TJ222	1/4W 2.2K [M]
R143, 144	ERDS2TJ222	1/4W 2.2K [M]	R316	ERDS2TJ222	1/4W 2.2K [M]	R654	ERDS2TJ222	1/4W 2.2K [M]
R145, 146	ERDS2TJ821	1/4W 820 [M]	R317	ERDS2TJ105T	1/4W 1M [M]	R655, 656	ERDS2TJ183T	1/4W 18K [M]
R147, 148	ERDS2TJ474	1/4W 470K [M]	R318	ERDS2TJ153	1/4W 15K [M]	R667	ERDS2TJ331	1/4W 330 [M]
R149	ERDS2TJ680T	1/4W 68 [M]	R324	ERDS2TJ223	1/4W 22K [M]	R701, 702	ERDS2TJ273	1/4W 27K [M]
R151	ERDS2TJ564	1/4W 560K [M]	R326	ERDS2TJ332	1/4W 3.3K [M]	R703, 704	ERDS2TJ101	1/4W 100 [M]
R152	ERDS2TJ102	1/4W 1K [M]	R327	ERDS2TJ392T	1/4W 3.9K [M]	R707△	ERD25FVJ4R7T	1/4W 4.7 [M]
R153	ERDS2TJ155	1/4W 1.5M [M]	R328	ERDS2TJ332	1/4W 3.3K [M]	R708	ERDS2TJ472	1/4W 4.7K [M]
R154	ERDS2TJ102	1/4W 1K [M]	R329	ERDS2TJ103	1/4W 10K [M]	R712	ERDS2TJ152	1/4W 1.5K [M]
R155	ERDS2TJ562	1/4W 5.6K [M]	R330	ERDS2TJ332	1/4W 3.3K [M]	R713, 714	ERDS2TJ332	1/4W 3.3K [M]
R156	ERDS2TJ471	1/4W 470 [M]	R331	ERDS2TJ102	1/4W 1K [M]	R715	ERDS2TJ183T	1/4W 18K [M]
R157	ERDS2TJ820	1/4W 82 [M]	R332-334	ERDS2TJ222	1/4W 2.2K [M]	R717	ERDS2TJ473	1/4W 47K [M]
R158	ERDS2TJ103	1/4W 10K [M]	R335, 336	ERDS2TJ683	1/4W 68K [M]	R721△	ERD2FCJ4R7	1/4W 4.7 [M]
R159	ERDS2TJ104	1/4W 100K [M]	R338	ERDS2TJ392T	1/4W 3.9K [M]	R722△	ERQ16NKW2R2E	1/6W 2.2 [M]
R160, 161	ERDS2TJ102	1/4W 1K [M]	R343	ERDS2TJ334	1/4W 330K [M]	R723	ERDS2TJ562	1/4W 5.6K [M]
R162	ERDS2TJ103	1/4W 10K [M]	R360	ERDS2TJ223	1/4W 22K [M]	R724	ERDS2TJ152	1/4W 1.5K [M]
R163	ERDS2TJ223	1/4W 22K [M]	R364	ERDS2TJ103	1/4W 10K [M]	R725, 726	ERDS2TJ100	1/4W 10 [M]

Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks
R727	ERDS2TJ152	1/4W 1.5K [M]	R959	ERDS2TJ471	1/4W 470 [M]	C141-144	ECEA1HKA010B	50V 1U [M]
R729	ERDS2TJ221	1/4W 220 [M]	R960	ERDS2TJ152	1/4W 1.5K [M]	C145	ECBT1H220JC5	50V 22P [M]
R735△	ERD25FVJ4R7T	1/4W 4.7 [M]	R961, 962	ERDS2TJ223	1/4W 22K [M]	C148	ECBT1C103NS5	16V 0.01U [M]
R736	ERDS2TJ102	1/4W 1K [M]	R963, 964	ERDS2TJ103	1/4W 10K [M]	C149	ECBT1H104ZF5	50V 0.1U [M]
R737	ERDS2TJ221	1/4W 220 [M]	R965	ERDS2TJ472	1/4W 4.7K [M]	C151	ECEA0JKA101B	6.3V 100U [M]
R738	ERDS2TJ392T	1/4W 3.9K [M]	R966	ERDS2TJ103	1/4W 10K [M]	C152	ECEA1CKA220B	16V 22U [M]
R739	ERDS2TJ473	1/4W 47K [M]	R967	ERDS2TJ473	1/4W 47K [M]	C153, 154	ECBT1C332KR5	16V 3300P [M]
R748	ERDS2TJ102	1/4W 1K [M]	R968	ERDS2TJ103	1/4W 10K [M]	C155	ECBT1C103KS5	16V 0.01U [M]
R749	ERDS2TJ271	1/4W 270 [M]	R969, 970	ERDS2TJ472	1/4W 4.7K [M]	C156	ECBT1H102KB5	50V 1000P [M]
R755△	ERDS1FVJ8R2T	1/2W 8.2 [M]	R971	ERDS2TJ473	1/4W 47K [M]	C157	RCE1CKA100BG	16V 10U [M]
R756△	ERDS1FJ4R7	1/2W 4.7 [M]	R972	ERDS2TJ223	1/4W 22K [M]	C158	ECEA1EKA4R7B	25V 4.7U [M]
R757-759	ERDS2TJ103	1/4W 10K [M]	R974	ERDS2TJ101	1/4W 100 [M]	C159	RCE1CKA100BG	16V 10U [M]
R761, 762	ERDS2TJ822	1/4W 8.2K [M]	R975	ERDS2TJ181T	1/4W 180 [M]	C160	ECFR1C223KR	16V 0.022U [M]
R763	ERDS2TJ472	1/4W 4.7K [M]	R977-981	ERDS2TJ104	1/4W 100K [M]	C161	ECFR1C333KR	16V 0.033U [M]
R764	ERDS2TJ331	1/4W 330 [M]	R984, 985	ERDS2TJ473	1/4W 47K [M]	C162	ECBT1C682KR5	16V 6800P [M]
R765△	ERDS1FVJ561T	1/2W 560 [M]	R986-988	ERDS2TJ102	1/4W 1K [M]	C163	ECFR1C333KR	16V 0.033U [M]
R766	ERDS2TJ102	1/4W 1K [M]	R989, 990	ERDS2TJ393	1/4W 39K [M]	C164	ECBT1H102KB5	50V 1000P [M]
R767△	ERD2FCJ4R7	1/4W 4.7 [M]	R991	ERDS2TJ473	1/4W 47K [M]	C165	ECEA1EKA4R7B	25V 4.7U [M]
R768	ERDS2TJ101	1/4W 100 [M]	R993, 994	ERDS2TJ104	1/4W 100K [M]	C171, 172	ECBT1H102KB5	50V 1000P [M]
R791, 792△	RSFMB30KT-L	PROTECTOR [M]	R996, 997	ERDS2TJ151	1/4W 150 [M]	C173	ECEA1CKA220B	16V 22U [M]
R901	ERDS2TJ821	1/4W 820 [M]				C174	RCE1CKA100BG	16V 10U [M]
R902	ERDS2TJ102	1/4W 1K [M]			CAPACITORS	C181	ECBT1H471KB5	50V 470P [M]
R903	ERDS2TJ122	1/4W 1.2K [M]				C196	ECBT1H102KB5	50V 1000P [M]
R904	ERDS2TJ152	1/4W 1.5K [M]	C101	ECBT1C103NS5	16V 0.01U [M]	C201, 202	ECBT1H180J5	50V 18P [M]
R905	ERDS2TJ182	1/4W 1.8K [M]	C103	ECBT1C103NS5	16V 0.01U [M]	C219-226	ECBT1H101KB5	50V 100P [M]
R906	ERDS2TJ222	1/4W 2.2K [M]	C104, 105	ECBT1H102KB5	50V 1000P [M]	C229-234	ECBT1H101KB5	50V 100P [M]
R907	ERDS2TJ272T	1/4W 2.7K [M]	C106	ECBT1C103NS5	16V 0.01U [M]	C235, 236	ECBT1H104ZF5	50V 0.1U [M]
R908	ERDS2TJ472	1/4W 4.7K [M]	C107	ECBT1H473ZF5	50V 0.047U [M]	C301	ECBT1H102KB5	50V 1000P [M]
R909	ERDS2TJ682T	1/4W 6.8K [M]	C108	ECBT1H8R2KC5	50V 8.2P [M]	C302, 303	ECBT1H561KB5	50V 560P [M]
R910	ERDS2TJ123	1/4W 12K [M]	C109, 110	ECBT1C103NS5	16V 0.01U [M]	C309	ECEA1HKA2R2B	50V 0.22U [M]
R911	ERDS2TJ223	1/4W 22K [M]	C111	ECEA1EKA4R7B	25V 4.7U [M]	C310	ECFR1C393KR	16V 0.039U [M]
R912	ERDS2TJ821	1/4W 820 [M]	C112	ECBT1C103NS5	16V 0.01U [M]	C312	ECFR1C923MR	16V 0.082U [M]
R919-923	ERDS2TJ103	1/4W 10K [M]	C113	ECBT1H102KB5	50V 1000P [M]	C313	ECFR1C103KR	16V 0.01U [M]
R924-927	ERDS2TJ102	1/4W 1K [M]	C114	RCE1HKA3R3BG	50V 3.3U [M]	C315	ECFR1C223KR	16V 0.022U [M]
R929	ERDS2TJ102	1/4W 1K [M]	C115	ECEA1EKA4R7B	25V 4.7U [M]	C316	ECBT1C332KR5	16V 3300P [M]
R930	ERDS2TJ101	1/4W 100 [M]	C116	ECBT1C682KR5	16V 8200P [M]	C318	ECBT1C682KR5	16V 6800P [M]
R931-936	ERDS2TJ102	1/4W 1K [M]	C117	ECQP1391JZ	100V 390P [M]	C319	ECBT1H102KB5	50V 1000P [M]
R937	ERDS2TJ562	1/4W 5.6K [M]	C118, 119	ECFR1C103KR	16V 0.01U [M]	C320	ECBA1H681KB5	50V 680P [M]
R938	ERDS2TJ102	1/4W 1K [M]	C120, 121	ECEA1HKA010B	50V 1U [M]	C321	ECBT1C332KR5	16V 3300P [M]
R939	ERDS2TJ152	1/4W 1.5K [M]	C122	ECEA1HKA2R2B	50V 2.2U [M]	C322	ECQV1H333JM3	50V 0.033U [M]
R940, 941	ERDS2TJ102	1/4W 1K [M]	C123	ECEA1HKA010B	50V 1U [M]	C324	ECFR1C683KR	16V 0.068U [M]
R942	ERDS2TJ101	1/4W 100 [M]	C124	ECBT1H102KB5	50V 1000P [M]	C325	ECQV1H154JM3	50V 0.15U [M]
R943	ERDS2TJ102	1/4W 1K [M]	C125	ECBT1H150JC5	50V 15P [M]	C326	ECBT1H102KB5	50V 1000P [M]
R946	ERDS2TJ102	1/4W 1K [M]	C126	ECBT1H473ZF5	50V 0.047U [M]	C327	ECBT1H471KB5	50V 470P [M]
R949	ERDS2TJ472	1/4W 4.7K [M]	C127	ECEA1CKA220B	16V 22U [M]	C328	RCE1CKA470BG	16V 47U [M]
R950	ERDS2TJ101	1/4W 100 [M]	C128	ECBT1H102KB5	50V 1000P [M]	C329	ECEA1HKA2R2B	50V 2.2U [M]
R951	ERDS2TJ334	1/4W 330K [M]	C129, 130	ECEA0JKA101B	6.3V 100U [M]	C330	ECBA1H681KB5	50V 680P [M]
R952	ERDS2TJ106T	1/4W 10M [M]	C132	ECBT1H102KB5	50V 1000P [M]	C331	ECBT1H104ZF5	50V 0.1U [M]
R953	ERDS2TJ101	1/4W 100 [M]	C133, 134	ECBT1H270JU5	50V 27P [M]	C332-334	ECBT1H470J5	50V 47P [M]
R954	ERDS2TJ104	1/4W 100K [M]	C135, 136	ECBT1C103KS5	16V 0.01U [M]	C336	ECBT1H104ZF5	50V 0.1U [M]
R955	ERDS2TJ824	1/4W 820K [M]	C137, 138	ECBT1H561KB5	50V 560P [M]	C337	RCE1CKA470BG	16V 47U [M]
R956-958	ERDS2TJ102	1/4W 1K [M]	C139, 140	ECBT1C682KR5	16V 6800P [M]	C338	ECBT1H471KB5	50V 470P [M]

Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks			
C339	ECBT1H102KB5	50V 1000P [M]	C714	ECBT1H102KB5	50V 1000P [M]			
C340	ECQV1H154JM3	50V 0.15U [M]	C715△	ECA1EM472E	25V 4700U [M]			
C341	ECFR1C683KR	16V 0.068U [M]	C717	ECEA1CKA330B	16V 33U [M]			
C342	ECQV1H333JM3	50V 0.033U [M]	C718	RCE1AKA101BG	10V 100U [M]			
C343	ECEA1HKA2R2B	50V 2.2U [M]	C719, 720	ECBT1E103ZF	25V 0.01U [M]			
C344	ECBT1C332KR5	16V 3300P [M]	C721	RCE1AKA101BG	10V 100U [M]			
C346	ECBT1H102KB5	50V 1000P [M]	C723	ECBT1E103ZF	25V 0.01U [M]			
C347	ECBT1C682KR5	16V 6800P [M]	C725	RCE1CKA100BG	16V 10U [M]			
C349	ECBT1C332KR5	16V 3300P [M]	C726	ECBT1E103ZF	25V 0.01U [M]			
C350	ECFR1C223KR	16V 0.022U [M]	C731	ECBT1H102KB5	50V 1000P [M]			
C352	ECFR1C103KR	16V 0.01U [M]	C732	ECBT1E223ZF	25V 0.022U [M]			
C353	ECFR1C823MR	16V 0.082U [M]	C734	RCE1CKA100BG	16V 10U [M]			
C355	ECFR1C393KR	16V 0.039U [M]	C736△	ECA1EM101B	25V 100U [M]			
C356	ECEA1HKA2R2B	50V 0.22U [M]	C737, 738△	ECA1HM101B	50V 100U [M]			
C357, 358	ECQV1H683JM3	50V 0.068U [M]	C739△	ECA1JM101B	83V 100U [M]			
C359	RCE1HKA3R3BG	50V 3.3U [M]	C740	RCE1CKA100BG	16V 10U [M]			
C360	RCE1HKA4R7BG	50V 4.7U [M]	C741	ECBT1H104ZF5	50V 0.1U [M]			
C364	ECBT1C152KR5	16V 1500P [M]	C901	ECBT1H104ZF5	50V 0.1U [M]			
C365	ECQV1H154JM3	50V 0.15U [M]	C902	ECA0JM102B	6.3V 1000U [M]			
C372	ECBT1H104ZF5	50V 0.1U [M]	C903	ECBT1E103ZF	25V 0.01U [M]			
C385, 386	ECEA1HKA2R2B	50V 0.22U [M]	C905-908	ECBT1H471KB5	50V 470P [M]			
C395, 396	ECBT1H473ZF5	50V 0.047U [M]	C909	ECBT1H102KB5	50V 1000P [M]			
C501-506	ECBT1H101KB5	50V 100P [M]	C910	ECBT1H150JC5	50V 15P [M]			
C507, 508	RCE1CKA100BG	16V 10U [M]	C911	ECBT1H180JC5	50V 18P [M]			
C509-512	ECBT1E103ZF	25V 0.01U [M]	C912	ECBT1H104ZF5	50V 0.1U [M]			
C551	ECEA1HKA2R2B	50V 2.2U [M]	C913	RCE1CKA100BG	16V 10U [M]			
C552	ECBT1E103ZF	25V 0.01U [M]	C914	ECEA1HKA2R2B	50V 2.2U [M]			
C553	ECEA1HKA68B	50V 0.68U [M]	C915	ECBT1E103ZF	25V 0.01U [M]			
C554	ECA1AM221B	10V 220U [M]	C916	ECA0JKF101B	6.3V 100U [M]			
C557, 558	ECFR1C393KR	16V 0.039U [M]	C917	ECBT1E103ZF	25V 0.01U [M]			
C604, 605	RCE1CKA100BG	16V 10U [M]	C918	ECEA0JKA221B	6.3V 220U [M]			
C607, 608	ECBT1C122KR5	16V 1200P [M]	C919, 920	ECEA1HKS2R2B	50V 2.2U [M]			
C613, 614	ECBT1H150JC5	50V 15P [M]	C921	ECBT1H102KB5	50V 1000P [M]			
C615	ECEA2AU010	100V 1U [M]	C922	ECEA1VKA330B	35V 33U [M]			
C616	ECALJM330B	63V 33U [M]	C1101, 1102	ECBT1H473ZF5	50V 0.047U [M]			
C617	ECEA1HKNR47B	50V 0.47U [M]	C1103-1106	ECBT1H102KB5	50V 1000P [M]			
C618	ECA1HM101B	50V 100U [M]						
C620, 621	ECQV1H473JM3	50V 0.047U [M]						
C631, 632	ECBT1H102KB5	50V 1000P [M]						
C633	ECBT1C103KS5	16V 0.01U [M]						
C655	ECEA2AU3R3B	100V 3.3U [M]						
C656	ECBT1E103ZF	25V 0.01U [M]						
C657	ECBT1H104ZF5	50V 0.1U [M]						
C701, 702△	ECA1VM472E	35V 4700U [M]						
C703, 704△	ECA1VM332E	35V 3300U [M]						
C705	RCE1CKA100BG	16V 10U [M]						
C706	RCE1VKA100BG	35V 10U [M]						
C707	ECBT1E103ZF	25V 0.01U [M]						
C708	RCE1CKA100BG	16V 10U [M]						
C709	ECBT1H104ZF5	50V 0.1U [M]						
C710	ECBT1E103ZF	25V 0.01U [M]						
C711	RCE1EM471BV	25V 470U [M]						

■ Replacement Parts List (Electrical) [For (GC) area]

Notes: *Important safety notice:

 Components identified by Δ mark have special characteristics important for safety.

Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.

When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

*The parenthesized indications in the Remarks columns specify the areas. (Refer to the cover page for area.)

Parts without these indications can be used for all areas.

* [M] Indicates in Remarks columns parts that are supplied by MESA.

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
		INTEGRATED CIRCUIT(S)		Q721	2SC3311AIRTA	TRANSISTOR	[M]
				Q722	2SA1309AIRTA	TRANSISTOR	[M]
				Q723 Δ	2SC3940AQSTA	TRANSISTOR	[M]
IC101	LA1832MH-TEL	IC	[M]	Q724	UN4211	TRANSISTOR	[M]
IC102	LC7218M-TE-L	IC	[M]	Q725 Δ	2SC3311AIRTA	TRANSISTOR	[M]
IC301	M62433FP	IC	[M]	Q801, 802	2SD1450RTA	TRANSISTOR	[M]
IC401	TA2011S	IC	[M]	Q803, 804	UN4115	TRANSISTOR	[M]
IC402	BU9255FS-E2	IC	[M]	Q805, 806	2SD1450RTA	TRANSISTOR	[M]
IC501	M5218AP	IC	[M]	Q807	UN4115	TRANSISTOR	[M]
IC601 Δ	RSN307M42	IC	[M]	Q811, 812 Δ	2SD2137PQTA	TRANSISTOR	[M]
IC801	LV1030	IC	[M]	Q901	UN4214TA	TRANSISTOR	[M]
IC803	M62425FPE1	IC	[M]	Q902-904	2SC3311AIRTA	TRANSISTOR	[M]
IC901	M38198MCO99F	IC	[M]	Q905, 906	UN411FTA	TRANSISTOR	[M]
		TRANSISTOR(S)				DIODE(S)	
Q101, 102	2SC2787L	TRANSISTOR	[M]	D101 Δ	MA4051MTA	DIODE	[M]
Q103, 104	2SC2785FE	TRANSISTOR	[M]	D102	MA165	DIODE	[M]
Q106	UN411FTA	TRANSISTOR	[M]	D303	MA165	DIODE	[M]
Q107, 108	2SC3311AR	TRANSISTOR	[M]	D331	MA4051-L	DIODE	[M]
Q301	2SD2144S	TRANSISTOR	[M]	D401	MA165	DIODE	[M]
Q305, 306	2SC3311AIRTA	TRANSISTOR	[M]	D402	MA4051MTA	DIODE	[M]
Q307, 308	2SD2144S	TRANSISTOR	[M]	D551, 552	MA165	DIODE	[M]
Q309, 310	UN4115	TRANSISTOR	[M]	D553	MA700TA	DIODE	[M]
Q401	2SC3311AIRTA	TRANSISTOR	[M]	D554	MA165	DIODE	[M]
Q503	2SD1450RTA	TRANSISTOR	[M]	D555	MA4100MTA	DIODE	[M]
Q551	2SA1309AIRTA	TRANSISTOR	[M]	D557, 558	MA165	DIODE	[M]
Q553	2SD2144S	TRANSISTOR	[M]	D559, 560	MA4020LTA	DIODE	[M]
Q554	2SA1309AIRTA	TRANSISTOR	[M]	D601, 602	SB350L6508	DIODE	[M]
Q555	2SD2144S	TRANSISTOR	[M]	D657, 658	MA165	DIODE	[M]
Q556	2SC3311AIRTA	TRANSISTOR	[M]	D701-704 Δ	1N5402BF	DIODE	[M]
Q557	2SA1309AIRTA	TRANSISTOR	[M]	D705-708 Δ	RL1N4003N02	DIODE	[M]
Q558	2SD2144S	TRANSISTOR	[M]	D709	MA165	DIODE	[M]
Q603-605	2SC3311AIRTA	TRANSISTOR	[M]	D710	MA4051MTA	DIODE	[M]
Q656	2SC3311AIRTA	TRANSISTOR	[M]	D711	RL1N4003N02	DIODE	[M]
Q701 Δ	2SD2374PQAU	TRANSISTOR	[M]	D713, 714 Δ	MA165TA	DIODE	[M]
Q702 Δ	2SB1548PQAU	TRANSISTOR	[M]	D715	MA165	DIODE	[M]
Q703 Δ	2SD2374PQAU	TRANSISTOR	[M]	D717-720 Δ	RL1N4003N02	DIODE	[M]
Q704	UN4211	TRANSISTOR	[M]	D721 Δ	MA4300M	DIODE	[M]
Q707 Δ	2SB621A-R	TRANSISTOR	[M]	D723 Δ	MA4150M	DIODE	[M]
Q708 Δ	2SD2137PQTA	TRANSISTOR	[M]	D724, 725 Δ	MA4082LTA	DIODE	[M]
Q709	2SD2144S	TRANSISTOR	[M]	D727 Δ	MA4062-H	DIODE	[M]
Q711	2SB1417PQTA	TRANSISTOR	[M]	D730 Δ	MA4100MTA	DIODE	[M]
Q712 Δ	2SB1548PQAU	TRANSISTOR	[M]	D732-736	MA165	DIODE	[M]
Q718	UN4111	TRANSISTOR	[M]	D737 Δ	MA4082LTA	DIODE	[M]
Q719, 720	2SD1450RTA	TRANSISTOR	[M]	D738, 739	MA165	DIODE	[M]

Ref.No.	Part No.	Part Name & Description	Remarks	Ref.No.	Part No.	Part Name & Description	Remarks
D751, 752△	1N5402BF	DIODE	[M]	X801	EF0EC8004T4	OSCILLATOR	[M]
D753, 754△	RL1N4003N02	DIODE	[M]	X901	EF0EC6004T4	OSCILLATOR	[M]
D801-804	MA165	DIODE	[M]	X902	RSXD32K7S02	OSCILLATOR	[M]
D808△	MA4120	DIODE	[M]			DISPLAY TUBE	
D901, 902	1SS291TA	DIODE	[M]	FL901	RSL0234-F	DISPLAY TUBE	[M]
D903, 904	MA165	DIODE	[M]			FUSE (S)	
D905	1SS291TA	DIODE	[M]	F1△	XBA2C12TB0S	FUSE, T2A	[M]
D906, 907	MA165	DIODE	[M]	F2△	XBA2C25TB0	FUSE, T1A	[M]
D908	SPR505MDIT	L. E. D.	[M]			SWITCH (ES)	
D909	MA165	DIODE	[M]	S701△	ESE37314	SW	[M]
D931	MA165	DIODE	[M]	S901-914	EVQ21405R	SW	[M]
D934	MA165	DIODE	[M]			CONNECTOR (S)	
D935-937	MA165	DIODE	[M]	CN201	RJU057W010	CONNECTOR (10P)	[M]
D943	MA165	DIODE	[M]	CN203	RJU057W012	CONNECTOR (12P)	[M]
D971, 972	MA165	DIODE	[M]	CN701-709	RJS1A1101T1	CONNECTOR (1P)	[M]
D973	MA4039MTA	DIODE	[M]	CN711-715	RJS1A1101T1	CONNECTOR (1P)	[M]
		VARIABLE RESISTOR(S)		CN715A	RJU057W012	CONNECTOR (12P)	[M]
VR401	EVUE27FK3B53	V. R	[M]	CN716-719	RJS1A1101T1	CONNECTOR (1P)	[M]
VR901	EVQVBXFK124B	V. R	[M]	CN720A	RJPIA4103	CONNECTOR (2P)	[M]
		COMPONENT COMBINATION(S)		CN720	RJS1A1101T1	CONNECTOR (1P)	[M]
Z101	RLA2Z002M-T	COMPONENT COMBINATION	[M]	CN721	RJS9T5ZA	CONNECTOR (9P)	[M]
Z102	RLI2Z006M-T	COMPONENT COMBINATION	[M]	CN801	RJU057W009	CONNECTOR (9P)	[M]
Z120	RAL0006	FM FRONT END	[M]	CN802	RJU057W008	CONNECTOR (8P)	[M]
Z901	RCDCP1U28XD	COMPONENT COMBINATION	[M]	CN904, 905	RJS2A2105	CONNECTOR (5P)	[M]
		COIL (S)		CN101B	RJU057W007	CONNECTOR (7P)	[M]
L101	ELESNR68MA	COIL	[M]	CN102B	RJU057W007	CONNECTOR (7P)	[M]
L103	ELEXTR47MA9	COIL	[M]	CP201	RJT057W010-1	CONNECTOR (10P)	[M]
L105, 106	ELELN322KL	COIL	[M]	CP203	RJT057W012-1	CONNECTOR (12P)	[M]
L191	ELESNR68MA	COIL	[M]	CP715	RJT057W012-1	CONNECTOR (12P)	[M]
L601-604	SLQY07G-40	COIL	[M]	CP801	RJT057W009-1	CONNECTOR (9P)	[M]
L801	RLQA100JT-Y	COIL	[M]	CP802	RJT057W008-1	CONNECTOR (8P)	[M]
L901	RLQA100JT-Y	COIL	[M]	CP101B	RJT057W007-1	CONNECTOR (7P)	[M]
		TRANSFORMER (S)		CP102B	RJT057W007-1	CONNECTOR (7P)	[M]
T501△	RTP2M5E011	POWER TRANSFORMER	[M]			EARTH TERMINAL (S)	
		FILTER (S)		E601	SNE1004-2	EARTH TERMINAL	[M]
CF201, 202	RLFFETW4D01M	CERAMIC FILTER	[M]	E603	SNE1004-2	EARTH TERMINAL	[M]
		OSCILLATOR(S)				FUSE HOLDER(S)	
X101	RSXZ456RM07M	OSCILLATOR	[M]	FC1-A	EYF52BC	FUSE HOLDER	[M]
X102	RLFDGT05DD	OSCILLATOR	[M]			RELAY (S)	
X103	RSXC7M20S05T	OSCILLATOR	[M]				

Resistors and Capacitors [For (GC) area]

Notes : * Capacity values are in microfarads (μF) unless specified otherwise, P=Pico-farads (pF) F=Farads (F)
 * Resistance values are in ohms, unless specified otherwise, 1K=1,000 (OHM) , 1M=1,000K(OHM)

Ref.No.	Part No.	Values & Remarks	Ref.No.	Part No.	Values & Remarks	Ref.No.	Part No.	Values & Remarks
		RESISTORS	R235, 236	ERDS2TJ102	1/4W 1K Ω	R409	ERDS2TJ472	1/4W 4.7K Ω
			R239-242	ERDS2TJ102	1/4W 1K Ω	R410	ERDS2TJ222	1/4W 2.2K Ω
			R243, 244	ERDS2TJ152	1/4W 1.5K Ω	R411	ERDS2TJ331	1/4W 330 Ω
R103	ERDS2TJ271	1/4W 270 Ω	R245, 246	ERDS2TJ332	1/4W 3.3K Ω	R412	ERDS2TJ105T	1/4W 1M Ω
R104	ERDS2TJ822	1/4W 8.2K Ω	R249, 250	ERDS2TJ101	1/4W 100 Ω	R415	ERDS2TJ102	1/4W 1K Ω
R105	ERDS2TJ471	1/4W 470 Ω	R251	ERDS2TJ222	1/4W 2.2K Ω	R416	ERDS2TJ181T	1/4W 180 Ω
R106	ERDS2TJ474	1/4W 470K Ω	R253, 254	ERDS2TJ104	1/4W 100K Ω	R421	ERDS2TJ223	1/4W 22K Ω
R107	ERDS2TJ331	1/4W 330 Ω	R255, 256	ERDS2TJ123	1/4W 12K Ω	R450	ERDS2TJ682T	1/4W 6.8K Ω
R108	ERDS2TJ474	1/4W 470K Ω	R257, 258	ERDS2TJ562	1/4W 5.6K Ω	R451, 452	ERDS2TJ223	1/4W 22K Ω
R109	ERDS2TJ331	1/4W 330 Ω	R261, 262 Δ	ERD25FVJ1R0T	1/4W 1.0 Ω	R453	ERDS2TJ1R0	1/4W 1.0 Ω
R110	ERDS2TJ102	1/4W 1K Ω	R301	ERDS2TJ223	1/4W 22K Ω	R454	ERDS2TJ103	1/4W 10K Ω
R112	ERDS2TJ104	1/4W 100K Ω	R302	ERDS2TJ472	1/4W 4.7K Ω	R455	ERDS2TJ223	1/4W 22K Ω
R113	ERDS2TJ103	1/4W 10K Ω	R303, 304	ERDS2TJ222	1/4W 2.2K Ω	R456	ERDS2EJ121	1/4W 120 Ω
R114	ERDS2TJ562	1/4W 5.6K Ω	R305, 306	ERDS2TJ122	1/4W 1.2K Ω	R457	ERDS2TJ822	1/4W 8.2K Ω
R115	ERDS2TJ561	1/4W 560 Ω	R307, 308	ERDS2TJ104	1/4W 100K Ω	R458	ERDS2TJ123	1/4W 12K Ω
R116	ERDS2TJ102	1/4W 1K Ω	R309, 310	ERDS2TJ102	1/4W 1K Ω	R459	ERDS2TJ472	1/4W 4.7K Ω
R117	ERDS2TJ273	1/4W 27K Ω	R311, 312	ERDS2TJ104	1/4W 100K Ω	R460	ERDS2TJ153	1/4W 15K Ω
R118	ERDS2TJ562	1/4W 5.6K Ω	R313, 314	ERDS2EJ121	1/4W 120 Ω	R461	ERDS2TJ472	1/4W 4.7K Ω
R119	ERDS2TJ682T	1/4W 6.8K Ω	R315	ERDS2TJ104	1/4W 100K Ω	R462	ERDS2TJ103	1/4W 10K Ω
R120	ERDS2TJ473	1/4W 47K Ω	R316	ERDS2TJ222	1/4W 2.2K Ω	R463	ERDS2TJ223	1/4W 22K Ω
R121	ERDS2TJ332	1/4W 3.3K Ω	R317	ERDS2TJ105T	1/4W 1M Ω	R464	ERDS2TJ103	1/4W 10K Ω
R122	ERDS2TJ272T	1/4W 2.7K Ω	R318	ERDS2TJ153	1/4W 15K Ω	R465	ERDS2TJ104	1/4W 100K Ω
R124	ERDS2TJ271	1/4W 270 Ω	R319	ERDS2TJ472	1/4W 4.7K Ω	R503, 504	ERDS2TJ333	1/4W 33K Ω
R125, 126	ERDS2TJ152	1/4W 1.5K Ω	R321	ERDS2TJ104	1/4W 100K Ω	R505, 506	ERDS2TJ153	1/4W 15K Ω
R127	ERDS2TJ103	1/4W 10K Ω	R322	ERDS2TJ222	1/4W 2.2K Ω	R507, 508	ERDS2TJ332	1/4W 3.3K Ω
R128	ERDS2TJ820	1/4W 82 Ω	R324	ERDS2TJ223	1/4W 22K Ω	R509-512	ERDS2TJ560T	1/4W 56 Ω
R129	ERDS2TJ473	1/4W 47K Ω	R326	ERDS2TJ332	1/4W 3.3K Ω	R513, 514	ERDS2TJ103	1/4W 10K Ω
R130	ERDS2TJ103	1/4W 10K Ω	R327	ERDS2TJ392T	1/4W 3.9K Ω	R521	ERDS2TJ561	1/4W 560 Ω
R132	ERDS2TJ103	1/4W 10K Ω	R328	ERDS2TJ332	1/4W 3.3K Ω	R551	ERDS2TJ183T	1/4W 18K Ω
R133-137	ERDS2TJ102	1/4W 1K Ω	R329	ERDS2TJ103	1/4W 10K Ω	R552	ERDS2TJ473	1/4W 47K Ω
R138	ERDS2TJ103	1/4W 10K Ω	R330	ERDS2TJ332	1/4W 3.3K Ω	R555	ERDS2TJ223	1/4W 22K Ω
R139, 140	ERDS2TJ272T	1/4W 2.7K Ω	R331	ERDS2TJ102	1/4W 1K Ω	R556	ERDS2TJ104	1/4W 100K Ω
R141, 142	ERDS2TJ102	1/4W 1K Ω	R332-334	ERDS2TJ222	1/4W 2.2K Ω	R557	ERDS2TJ472	1/4W 4.7K Ω
R143, 144	ERDS2TJ222	1/4W 2.2K Ω	R335, 336	ERDS2TJ683	1/4W 68K Ω	R558	ERDS2TJ102	1/4W 1K Ω
R145, 146	ERDS2TJ102	1/4W 1K Ω	R338	ERDS2TJ392T	1/4W 3.9K Ω	R559	ERDS2TJ472	1/4W 4.7K Ω
R147, 148	ERDS2TJ474	1/4W 470K Ω	R341, 342	ERDS2TJ222	1/4W 2.2K Ω	R560, 561	ERDS2TJ104	1/4W 100K Ω
R149	ERDS2TJ680T	1/4W 68 Ω	R343	ERDS2TJ334	1/4W 330K Ω	R563, 564	ERDS2TJ273	1/4W 27K Ω
R171, 172	ERDS2TJ102	1/4W 1K Ω	R353	ERDS2TJ104	1/4W 100K Ω	R566	ERDS2TJ683	1/4W 68K Ω
R173	ERDS2TJ471	1/4W 470 Ω	R354	ERDS2TJ223	1/4W 22K Ω	R567	ERG1SJ220	1W 22 Ω
R175	ERDS2TJ102	1/4W 1K Ω	R360	ERDS2TJ223	1/4W 22K Ω	R568	ERDS2TJ101	1/4W 100 Ω
R176	ERDS2TJ391	1/4W 390 Ω	R364	ERDS2TJ103	1/4W 10K Ω	R569	ERDS2TJ103	1/4W 10K Ω
R201, 202 Δ	ERDS2FJ752	1/4W 7.5K Ω	R365	ERDS2TJ223	1/4W 22K Ω	R570	ERDS2TJ225	1/4W 2.2M Ω
R217, 218	ERDS2TJ562	1/4W 5.6K Ω	R380	ERDS2TJ153	1/4W 15K Ω	R591	ERDS2TJ473	1/4W 47K Ω
R221, 222	ERDS2FJ752	1/4W 7.5K Ω	R401, 402	ERDS2TJ681	1/4W 680 Ω	R602, 603	ERDS2TJ221	1/4W 220 Ω
R223, 224	ERDS2TJ562	1/4W 5.6K Ω	R403	ERDS2TJ223	1/4W 22K Ω	R604, 605	ERDS2TJ103	1/4W 10K Ω
R225, 226	ERDS2TJ104	1/4W 100K Ω	R404	ERDS2TJ471	1/4W 470 Ω	R609, 610	ERDS2TJ563	1/4W 56K Ω
R227, 228	ERDS2TJ222	1/4W 2.2K Ω	R405	ERDS2TJ472	1/4W 4.7K Ω	R611, 612	ERDS2TJ332	1/4W 3.3K Ω
R229, 230	ERDS2TJ822	1/4W 8.2K Ω	R406	ERDS2TJ474	1/4W 470K Ω	R613	ERDS2TJ104	1/4W 100K Ω
R231-234	ERDS2TJ682T	1/4W 6.8K Ω	R407	ERDS2TJ472	1/4W 4.7K Ω	R614	ERDS2TJ124T	1/4W 120K Ω

Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks
R615, 616	ERDS2TJ182	1/4W 1.8K [M]	R819	ERDS2TJ393	1/4W 39K [M]	R942	ERDS2TJ101	1/4W 100 [M]
R619, 620	ERDS2TJ563	1/4W 56K [M]	R822	ERDS2TJ102	1/4W 1K [M]	R943	ERDS2TJ102	1/4W 1K [M]
R621	ERDS2TJ273	1/4W 27K [M]	R823	ERDS2TJ105T	1/4W 1M [M]	R946	ERDS2TJ102	1/4W 1K [M]
R622	ERDS2TJ473	1/4W 47K [M]	R825-827	ERDS2TJ332	1/4W 3.3K [M]	R947, 948	ERDS2TJ104	1/4W 100K [M]
R623	ERDS2TJ684	1/4W 680K [M]	R835, 836	ERDS2TJ222	1/4W 2.2K [M]	R949	ERDS2TJ472	1/4W 4.7K [M]
R624	ERDS2TJ223	1/4W 22K [M]	R837, 838	ERDS2TJ182	1/4W 1.8K [M]	R950	ERDS2TJ101	1/4W 100 [M]
R626	ERDS2TJ154	1/4W 150K [M]	R842	ERDS2TJ104	1/4W 100K [M]	R951	ERDS2TJ334	1/4W 330K [M]
R627	ERDS2TJ124T	1/4W 120K [M]	R843, 844	ERDS2TJ222	1/4W 2.2K [M]	R952	ERDS2TJ106T	1/4W 10M [M]
R628	ERDS2TJ184T	1/4W 180K [M]	R845	ERDS2TJ104	1/4W 100K [M]	R953	ERDS2TJ101	1/4W 100 [M]
R629	ERDS2TJ104	1/4W 100K [M]	R846	ERDS2TJ102	1/4W 1K [M]	R954	ERDS2TJ104	1/4W 100K [M]
R630	ERDS2TJ473	1/4W 47K [M]	R847, 848	ERDS2TJ472	1/4W 4.7K [M]	R955	ERDS2TJ824	1/4W 820K [M]
R631	ERDS2TJ224T	1/4W 220K [M]	R849	ERDS2TJ102	1/4W 1K [M]	R956-958	ERDS2TJ102	1/4W 1K [M]
R637	ERDS2TJ154	1/4W 150K [M]	R850	ERDS2TJ222	1/4W 2.2K [M]	R959	ERDS2TJ471	1/4W 470 [M]
R638	ERDS2TJ684	1/4W 680K [M]	R851	ERDS2TJ473	1/4W 47K [M]	R960	ERDS2TJ152	1/4W 1.5K [M]
R639-646△	ERBS1FVJ100T	1/2W 10 [M]	R852	ERDS2TJ393	1/4W 39K [M]	R961, 962	ERDS2TJ223	1/4W 22K [M]
R647, 648	ERQ16NKR15E	1/6W 0.15 [M]	R853	ERDS2TJ473	1/4W 47K [M]	R963, 964	ERDS2TJ103	1/4W 10K [M]
R655-658	ERDS2TJ183T	1/4W 18K [M]	R854	ERDS2TJ393	1/4W 39K [M]	R965	ERDS2TJ472	1/4W 4.7K [M]
R701, 702	ERDS2TJ273	1/4W 27K [M]	R855	ERDS2TJ104	1/4W 100K [M]	R966	ERDS2TJ103	1/4W 10K [M]
R703, 704	ERDS2TJ101	1/4W 100 [M]	R856, 857	ERDS2TJ123	1/4W 12K [M]	R967	ERDS2TJ473	1/4W 47K [M]
R707△	ERD25FVJ4R7T	1/4W 4.7 [M]	R859, 860	ERDS2EJ121	1/4W 120 [M]	R968	ERDS2TJ103	1/4W 10K [M]
R708	ERDS2TJ472	1/4W 4.7K [M]	R861	ERDS2TJ105T	1/4W 1M [M]	R969, 970	ERDS2TJ472	1/4W 4.7K [M]
R712	ERDS2TJ152	1/4W 1.5K [M]	R862	ERDS2TJ472	1/4W 4.7K [M]	R971	ERDS2TJ473	1/4W 47K [M]
R713, 714	ERDS2TJ332	1/4W 3.3K [M]	R863, 864	ERDS2TJ105T	1/4W 1M [M]	R972	ERDS2TJ223	1/4W 22K [M]
R715	ERDS2TJ183T	1/4W 18K [M]	R865	ERDS2TJ102	1/4W 1K [M]	R974	ERDS2TJ101	1/4W 100 [M]
R717	ERDS2TJ473	1/4W 47K [M]	R866, 867	ERDS2TJ222	1/4W 2.2K [M]	R975	ERDS2TJ181T	1/4W 180 [M]
R721△	ERD2FCVJ4R7T	1/4W 4.7 [M]	R868-870	ERDS2TJ102	1/4W 1K [M]	R977-981	ERDS2TJ104	1/4W 100K [M]
R722△	ERQ16NKR2R2E	1/6W 2.2 [M]	R871, 872	ERDS2TJ4R7T	1/4W 4.7 [M]	R984, 985	ERDS2TJ473	1/4W 47K [M]
R723	ERDS2TJ562	1/4W 5.6K [M]	R873△	ERD2FCVJ4R7T	1/4W 4.7 [M]	R986-988	ERDS2TJ102	1/4W 1K [M]
R724	ERDS2TJ152	1/4W 1.5K [M]	R874	ERDS2TJ104	1/4W 100K [M]	R989, 990	ERDS2TJ393	1/4W 39K [M]
R725, 726	ERDS2TJ100	1/4W 10 [M]	R875	ERDS2TJ102	1/4W 1K [M]	R991	ERDS2TJ473	1/4W 47K [M]
R727	ERDS2TJ152	1/4W 1.5K [M]	R891	ERDS2TJ331	1/4W 330 [M]	R993, 994	ERDS2TJ104	1/4W 100K [M]
R729	ERDS2TJ221	1/4W 220 [M]	R901	ERDS2TJ821	1/4W 820 [M]	R996, 997	ERDS2TJ151	1/4W 150 [M]
R735△	ERD25FVJ4R7T	1/4W 4.7 [M]	R902	ERDS2TJ102	1/4W 1K [M]			
R736	ERDS2TJ102	1/4W 1K [M]	R903	ERDS2TJ122	1/4W 1.2K [M]			CAPACITORS
R737	ERDS2TJ221	1/4W 220 [M]	R904	ERDS2TJ152	1/4W 1.5K [M]			
R738	ERDS2TJ392T	1/4W 3.9K [M]	R905	ERDS2TJ182	1/4W 1.8K [M]	C101	ECBT1C103NS5	16V 0.01U [M]
R739	ERDS2TJ473	1/4W 47K [M]	R906	ERDS2TJ222	1/4W 2.2K [M]	C103	ECBT1C103NS5	16V 0.01U [M]
R748	ERDS2TJ102	1/4W 1K [M]	R907	ERDS2TJ272T	1/4W 2.7K [M]	C104, 105	ECBT1H102KB5	50V 1000P [M]
R749	ERDS2TJ271	1/4W 270 [M]	R908	ERDS2TJ472	1/4W 4.7K [M]	C106	ECBT1C103NS5	16V 0.01U [M]
R755△	ERDS1FVJ8R2T	1/2W 8.2 [M]	R909	ERDS2TJ682T	1/4W 6.8K [M]	C107	ECBT1H4732F5	50V 0.047U [M]
R756△	ERDS1FJ4R7	1/2W 4.7 [M]	R910	ERDS2TJ123	1/4W 12K [M]	C108	ECBT1H8R2KC5	50V 8.2P [M]
R757-759	ERDS2TJ103	1/4W 10K [M]	R911	ERDS2TJ223	1/4W 22K [M]	C109, 110	ECBT1C103NS5	16V 0.01U [M]
R761, 762	ERDS2TJ822	1/4W 8.2K [M]	R912	ERDS2TJ821	1/4W 820 [M]	C111	ECEA1EKA4R7B	25V 4.7U [M]
R763	ERDS2TJ472	1/4W 4.7K [M]	R919-923	ERDS2TJ103	1/4W 10K [M]	C112	ECBT1C103NS5	16V 0.01U [M]
R764	ERDS2TJ331	1/4W 330 [M]	R924-927	ERDS2TJ102	1/4W 1K [M]	C113	ECBT1H102KB5	50V 1000P [M]
R765△	ERDS1FVJ561T	1/2W 560 [M]	R929	ERDS2TJ102	1/4W 1K [M]	C114	RCE1HKA3R3BG	50V 3.3U [M]
R766	ERDS2TJ102	1/4W 1K [M]	R930	ERDS2TJ101	1/4W 100 [M]	C115	ECEA1EKA4R7B	25V 4.7U [M]
R767△	ERD2FCVJ4R7T	1/4W 4.7 [M]	R931-936	ERDS2TJ102	1/4W 1K [M]	C116	ECBT1C822KS5	16V 8200P [M]
R768	ERDS2TJ101	1/4W 100 [M]	R937	ERDS2TJ562	1/4W 5.6K [M]	C117	ECQB1H102JF3	50V 1000P [M]
R791, 792△	RSFMR30KT-L	PROTECTOR [M]	R938	ERDS2TJ102	1/4W 1K [M]	C118, 119	ECFR1C103KR	16V 0.01U [M]
R801, 802	ERDS2TJ393	1/4W 39K [M]	R939	ERDS2TJ152	1/4W 1.5K [M]	C120, 121	ECEA1HKA010B	50V 1U [M]
R808	ERDS2TJ104	1/4W 100K [M]	R940, 941	ERDS2TJ102	1/4W 1K [M]	C122	ECEA1HKA2R2B	50V 2.2U [M]

Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks
C123	ECEA1HKA010B	50V 1U [M]	C342	ECQV1H333JM3	50V 0.033U [M]	C432	ECB10J223MS5	6.3V 0.022U [M]
C124	ECBT1H102KB5	50V 1000P [M]	C343	ECEA1HKA2R2B	50V 2.2U [M]	C433	RCE1CKA470BG	16V 47U [M]
C125	ECBT1H150JC5	50V 15P [M]	C344	ECBT1C332KR5	16V 3300P [M]	C434	RCE1CKA100BG	16V 10U [M]
C126	ECBT1H473ZF5	50V 0.047U [M]	C346	ECBT1H102KB5	50V 1000P [M]	C441	ECBT1E103ZF	25V 0.01U [M]
C127	ECEA1CKA220B	16V 22U [M]	C347	ECBT1C682KR5	16V 6800P [M]	C501-506	ECBT1H101KB5	50V 100P [M]
C128	ECBT1H102KB5	50V 1000P [M]	C348	RCE1CKA100BG	16V 10U [M]	C507, 508	RCE1CKA100BG	16V 10U [M]
C129, 130	ECEA0JKA101B	6.3V 100U [M]	C349	ECBT1C332KR5	16V 3300P [M]	C509-512	ECBT1E103ZF	25V 0.01U [M]
C132	ECBT1H102KB5	50V 1000P [M]	C350	ECFR1C223KR	16V 0.022U [M]	C513, 514	ECBT1C103KS5	16V 0.01U [M]
C133, 134	ECBT1H270JU5	50V 27P [M]	C352	ECFR1C103KR	16V 0.01U [M]	C551	ECEA1HKA2R2B	50V 2.2U [M]
C135, 136	ECBT1C103KS5	16V 0.01U [M]	C353	ECFR1C823MR	16V 0.082U [M]	C552	ECBT1E103ZF	25V 0.01U [M]
C137, 138	ECBT1H561KB5	50V 560P [M]	C354	ECEA1CN100SB	16V 10U [M]	C554	ECA1AM221B	10V 220U [M]
C139, 140	ECBT1C562KR5	16V 5600P [M]	C355	ECFR1C393KR	16V 0.039U [M]	C555, 556	ECEA1CKN100B	16V 10U [M]
C141-144	ECEA1HKA010B	50V 1U [M]	C356	ECEA1HKA2R2B	50V 0.22U [M]	C557, 558	ECFR1C393KR	16V 0.039U [M]
C145	ECBT1H220JC5	50V 22P [M]	C357, 358	ECQV1H683JM3	50V 0.068U [M]	C559	ECBT1E103ZF	25V 0.01U [M]
C148	ECBT1C103NS5	16V 0.01U [M]	C359	RCE1HKA3R3BG	50V 3.3U [M]	C602-605	RCE1CKA100BG	16V 10U [M]
C149	ECBT1H104ZF5	50V 0.1U [M]	C360	RCE1HKA4R7BG	50V 4.7U [M]	C607-610	ECBT1H471KB5	50V 470P [M]
C171, 172	ECBT1H102KB5	50V 1000P [M]	C361, 362	ECBT1C222KR5	16V 2200P [M]	C611-614	ECBT1H150JC5	50V 15P [M]
C173	ECEA1CKA220B	16V 22U [M]	C364	ECBT1C152KR5	16V 1500P [M]	C615	ECEA2AU010	100V 1U [M]
C174	RCE1CKA100BG	16V 10U [M]	C365	ECQV1H154JM3	50V 0.15U [M]	C616	ECA1JM330B	63V 33U [M]
C196	ECBT1H102KB5	50V 1000P [M]	C371	ECEA0JKA101B	6.3V 100U [M]	C617	ECEA1HR2R2	50V 2.2U [M]
C201, 202	ECBT1H180J5	50V 18P [M]	C372	ECBT1H104ZF5	50V 0.1U [M]	C618	ECA1HM101B	50V 100U [M]
C219-226	ECBT1H101KB5	50V 100P [M]	C385, 386	ECEA1HKAR22B	50V 0.22U [M]	C620, 621	ECQV1H473JM3	50V 0.047U [M]
C229-234	ECBT1H101KB5	50V 100P [M]	C395, 396	ECBT1H473ZF5	50V 0.047U [M]	C624, 625	ECQV1H473JM3	50V 0.047U [M]
C235, 236	ECBT1H104ZF5	50V 0.1U [M]	C401	ECBT1H102KB5	50V 1000P [M]	C628, 629	RCE1CKA100BG	16V 10U [M]
C301	ECBT1H102KB5	50V 1000P [M]	C403	ECBT1H102KB5	50V 1000P [M]	C701△	ECA1VM472E	35V 4700U [M]
C302, 303	ECBT1H561KB5	50V 560P [M]	C404	RCE1HKA3R3BG	50V 3.3U [M]	C702△	ECA1VM562E	35V 5600U [M]
C309	ECEA1HKAR22B	50V 0.22U [M]	C405	ECBT1H471KB5	50V 470P [M]	C703, 704△	ECA1VM332E	35V 3300U [M]
C310	ECFR1C393KR	16V 0.039U [M]	C406	ECEA1EU4R7	25V 4.7U [M]	C705	RCE1CKA100BG	16V 10U [M]
C312	ECFR1C823MR	16V 0.082U [M]	C407	ECBT1E103ZF	25V 0.01U [M]	C706	RCE1YKA100BG	35V 10U [M]
C313	ECFR1C103KR	16V 0.01U [M]	C408	ECBT1C103MS5	16V 0.01U [M]	C707	ECBT1E103ZF	25V 0.01U [M]
C315	ECFR1C223KR	16V 0.022U [M]	C409	ECEA1HKA010B	50V 1U [M]	C708	RCE1CKA100BG	16V 10U [M]
C316	ECBT1C332KR5	16V 3300P [M]	C410	ECEA1CKS100L	16V 10U [M]	C709	ECBT1H104ZF5	50V 0.1U [M]
C318	ECBT1C682KR5	16V 6800P [M]	C411	ECBT1H101KB5	50V 100P [M]	C710	ECBT1E103ZF	25V 0.01U [M]
C319	ECBT1H102KB5	50V 1000P [M]	C412	ECBT1H102KB5	50V 1000P [M]	C711	RCE1EM471BV	25V 470U [M]
C320	ECBA1H681KB5	50V 680P [M]	C413	ECEA1HKA010B	50V 1U [M]	C714	ECBT1H102KB5	50V 1000P [M]
C321	ECBT1C332KR5	16V 3300P [M]	C414	ECEA1AKA221B	10V 220U [M]	C715△	ECA1EM472E	25V 4700U [M]
C322	ECQV1H333JM3	50V 0.033U [M]	C415	ECEA1HKA010B	50V 1U [M]	C717	ECEA1CKA330B	16V 33U [M]
C324	ECFR1C683KR	16V 0.068U [M]	C416	RCE1CKA100BG	16V 10U [M]	C718	RCE1AKA101BG	10V 100U [M]
C325	ECQV1H154JM3	50V 0.15U [M]	C417	ECBT1C472KR5	16V 4700P [M]	C719, 720	ECBT1E103ZF	25V 0.01U [M]
C326	ECBT1H102KB5	50V 1000P [M]	C418	ECBT1H221KB5	50V 220P [M]	C721	RCE1AKA101BG	10V 100U [M]
C327	ECBT1H471KB5	50V 470P [M]	C419	RCE1CKA100BG	16V 10U [M]	C723	ECBT1E103ZF	25V 0.01U [M]
C328	RCE1CKA470BG	16V 47U [M]	C420	ECBT1H104ZF5	50V 0.1U [M]	C725	RCE1CKA100BG	16V 10U [M]
C329	ECEA1HKA2R2B	50V 2.2U [M]	C421	RCE1AKA101BG	10V 100U [M]	C726	ECBT1E103ZF	25V 0.01U [M]
C330	ECBA1H681KB5	50V 680P [M]	C422	ECBT1C103KS5	16V 0.01U [M]	C731	ECBT1H102KB5	50V 1000P [M]
C331	ECBT1H104ZF5	50V 0.1U [M]	C424	ECBT1C103KS5	16V 0.01U [M]	C732	ECBT1E223ZF	25V 0.022U [M]
C332-334	ECBT1H470J5	50V 47P [M]	C425	ECBT1C332MR5	16V 3300P [M]	C734	RCE1CKA100BG	16V 10U [M]
C336	ECBT1H104ZF5	50V 0.1U [M]	C426	ECEA1HKA010B	50V 1U [M]	C736△	ECA1EM101B	25V 100U [M]
C337	RCE1CKA470BG	16V 47U [M]	C427	ECBT0J223MS5	6.3V 0.022U [M]	C737, 738△	ECA1HM101B	50V 100U [M]
C338	ECBT1H471KB5	50V 470P [M]	C428	ECEA1HKA010B	50V 1U [M]	C739△	ECA1JM101B	63V 100U [M]
C339	ECBT1H102KB5	50V 1000P [M]	C429	ECBT1C472MR5	16V 4700P [M]	C740	RCE1CKA100BG	16V 10U [M]
C340	ECQV1H154JM3	50V 0.15U [M]	C430	ECBT1C103KS5	16V 0.01U [M]	C741	ECBT1H104ZF5	50V 0.1U [M]
C341	ECFR1C683KR	16V 0.068U [M]	C431	ECEA1HRNR47B	50V 0.47U [M]	C801	ECQV1H154JM3	50V 0.15U [M]

Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks			
C802	RCE1HKA3R3BG	50V 3.3U [M]	C902	ECA0JMI02B	6.3V 1000U [M]			
C803	ECQV1H154JM3	50V 0.15U [M]	C903	ECBT1E103ZF	25V 0.01U [M]			
C804	RCE1HKA4R7BG	50V 4.7U [M]	C905-908	ECBT1H471KB5	50V 470P [M]			
C805	RCE1HKA47BG	50V 0.47U [M]	C909	ECBT1H102KB5	50V 1000P [M]			
C806	RCE1HKA4R7BG	50V 4.7U [M]	C910	ECBT1H150JC5	50V 15P [M]			
C807	RCE1HKA47BG	50V 0.47U [M]	C911	ECBT1H180JC5	50V 18P [M]			
C808	RCE1CKA100BG	16V 10U [M]	C912	ECBT1H104ZF5	50V 0.1U [M]			
C809	ECEA1HKA010B	50V 1U [M]	C913	RCE1CKA100BG	16V 10U [M]			
C811, 812	ECEA1CKA330B	16V 33U [M]	C914	ECEA1HKA2R2B	50V 2.2U [M]			
C813	ECA1CM221B	16V 220U [M]	C915	ECBT1E103ZF	25V 0.01U [M]			
C814-817	RCE1CKA100BG	16V 10U [M]	C916	ECA0JKF101B	6.3V 100U [M]			
C818	ECEA1HKA2R2B	50V 2.2U [M]	C917	ECBT1E103ZF	25V 0.01U [M]			
C820	ECEA1HKA33B	50V 0.33U [M]	C918	ECEA0JKA221B	6.3V 220U [M]			
C821	ECA1CM221B	16V 220U [M]	C919, 920	ECEA1HKS2R2B	50V 2.2U [M]			
C824	ECA1CM221B	16V 220U [M]	C921	ECBT1H102KB5	50V 1000P [M]			
C825, 826	ECBT1H101KB5	50V 100P [M]	C922	ECEA1VKA330B	35V 33U [M]			
C827	ECBT1H330J5	50V 33P [M]	C1101, 1102	ECBT1H473ZF5	50V 0.047U [M]			
C828	ECFR1C823MR	16V 0.082U [M]	C1103-1106	ECBT1H102KB5	50V 1000P [M]			
C829	ECFR1E332KR	25V 3300P [M]	C1107, 1108	ECBT1H473ZF5	50V 0.047U [M]			
C830	ECFR1C823MR	16V 0.082U [M]	C1109-1111	ECBT1H102KB5	50V 1000P [M]			
C831	RCE1HKA47BG	50V 0.47U [M]						
C832	ECQV1H473JM3	50V 0.047U [M]						
C833	ECA1CM221B	16V 220U [M]						
C834	RCE1HKA47BG	50V 0.47U [M]						
C835	RCE1CKA470BG	16V 47U [M]						
C836	ECEA1HKA010B	50V 1U [M]						
C837	ECBT1H104ZF5	50V 0.1U [M]						
C840, 841	RCE1CKA100BG	16V 10U [M]						
C842	RCE1HKA47BG	50V 0.47U [M]						
C843	RCE1HKA4R7BG	50V 4.7U [M]						
C844	RCE1HKA47BG	50V 0.47U [M]						
C845	RCE1HKA4R7BG	50V 4.7U [M]						
C846	ECQV1H154JM3	50V 0.15U [M]						
C847	RCE1HKA3R3BG	50V 3.3U [M]						
C848	ECQV1H154JM3	50V 0.15U [M]						
C851	RCE1CKA470BG	16V 47U [M]						
C852	ECBA1H681KB5	50V 680P [M]						
C861, 862	RCE1CKA100BG	16V 10U [M]						
C863, 864	ECEA1CKA220B	16V 22U [M]						
C865, 866	RCE1HKA3R3BG	50V 3.3U [M]						
C867-869	ECEA1CKA330B	16V 33U [M]						
C870	RCE1CKA100BG	16V 10U [M]						
C871, 872	ECBT1H470J5	50V 47P [M]						
C873, 874	ECEA0JKA470B	6.3V 47U [M]						
C875, 876	RCE1CKA100BG	16V 10U [M]						
C877	ECEA0JKA101B	6.3V 100U [M]						
C878	ECBT1E103ZF	25V 0.01U [M]						
C880	ECEA1CKA101B	16V 100U [M]						
C882	ECEA1CKA101B	16V 100U [M]						
C887	ECBT1H102KB5	50V 1000P [M]						
C888, 889	ECBT1H221KB5	50V 220P [M]						
C901	ECBT1H104ZF5	50V 0.1U [M]						

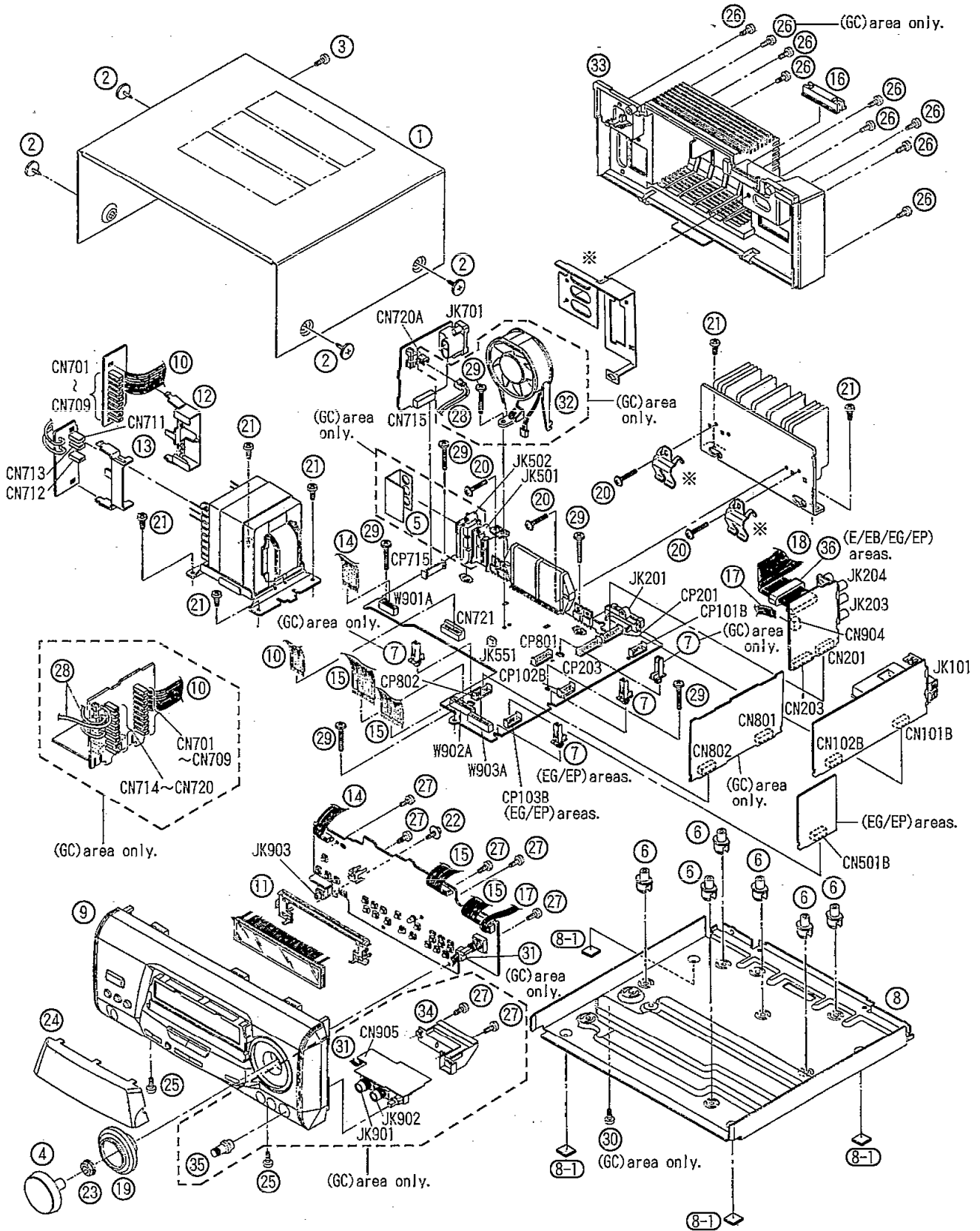
Replacement Parts List (Cabinet, Packing and Accessory)

Ref.No.	Part No.	Part Name & Description	Remarks	Ref.No.	Part No.	Part Name & Description	Remarks
		CABINET PARTS					
1	RKWD202E-K	CABINET	[M] (E/EB/EG/EP)	P4	RPQ0777-1	PAD (SH/SL-EH50)	[M] (E)
1	RKWD202F-K	CABINET	[M] (GC)	P5	RPQ0734	PAD (RS-EH60)	[M] (E)
2	RHD30007-K1	SCREW	[M]	P6	RPQ0776-1	PAD (RS-EH60)	[M] (E)
3	XTBS3+10JFZ1	SCREW	[M]	P7	RPQ0769	PAD (SYSTEM)	[M] (EP/GC)
4	RGWD183-K	KNOB, VOLUME	[M]	P8	RPQ0770	PAD (SYSTEM)	[M] (EP/GC)
5	RMV0136	HOLDER	[M] (GC)	P9	RPF0139	PROTECTION COVER	[M]
6	RKQ0089-2	P. C. B. SPACER	[M]	P10	RPG3521	PACKING CASE (SA-EH50)	[M] (E/EB/EG)
7	RMN0203	P. C. B. HOLDER 1	[M]	P10	RPG3517	PACKING CASE (SA-EH50)	[M] (EP/GC)
8	RFKJAEH50E-K	CHASSIS ASS' Y	[M] (E/EB/EG/EP)	P10	RPG3451	PACKING CASE (SH-EH50)	[M] (E)
8	RFKJAEH50GCK	CHASSIS ASS' Y	[M] (GC)	P10	RPG3513	PACKING CASE (SH-EH50)	[M] (EP)
8-1	SHG1645	RUBBER	[M]	P10	RPG3514	PACKING CASE (SH-EH50)	[M] (GC)
9	RFKGAEH50E-K	FRONT PANEL ASS' Y	[M] (E/EB)	P10	RPG3348	PACKING CASE (SL-EH50)	[M] (E)
9	RFKGAEH50EGK	FRONT PANEL ASS' Y	[M] (EG/EP)	P10	RPG3514	PACKING CASE (SL-EH50)	[M] (EP)
9	RFKGAEH50GCK	FRONT PANEL ASS' Y	[M] (GC)	P10	RPG3453	PACKING CASE (RS-EH60)	[M] (E)
10	RWJ1809150KQ	FLAT CABLE (W721/9P)	[M]	P10	RPG3515	PACKING CASE (RS-EH60)	[M] (EP)
11	RMN0426	FL. HOLDER	[M]	P11	RPG3449	PACKING CASE (SYSTEM)	[M] (EP)
12	RMN0429	P. C. B. HOLDER 2	[M]	P11	RPG3340	PACKING CASE (SYSTEM)	[M] (GC)
13	RMN0437	P. C. B. HOLDER 3	[M]	P12	SPP740	SHEET	[M]
14	RWJ7610260QQ	FLAT CABLE (W901/10P)	[M]			ACCESSORIES	
15	RWJ7615210QQ	FLAT CABLE (W902-W903/15P)	[M]	A1	RAK-CH426WH	REMOTE CONTROL TRANSMITTER	[M] (E/EB/EG/EP)
16	RMN0427	CABLE HOLDER	[M]	A1	RAK-CH220WH	REMOTE CONTROL TRANSMITTER	[M] (GC)
17	RWJ6805330QR	FLAT CABLE (W904/5P)	[M]	A1-1	RKK0080-K	BATTERY COVER	[M] (E/EB/EG/EP)
18	REX0852	WIRE ASS' Y (W202)	[M]	A1-1	RKK0057-K	BATTERY COVER	[M] (GC)
19	RGK0894-N	ORNAMENT	[M]	A2	REE0499	SPEAKER CORD	[M]
20	XTW3+15T	SCREW	[M]	A3△	RJA0019-X	AC POWER SUPPLY CORD	[M] (E/EG/EP/GC)
21	XTB3+8JFZ	SCREW	[M]	A3△	RJA0053-1X	AC POWER SUPPLY CORD	[M] (EB)
22	RHD26016	SCREW	[M]	A4	RQA0117	WARRANTY CARD	[M] (E/EB/EG)
23	RHN90001	NUT	[M]	A5<IA>	RQT3988-E	INSTRUCTION MANUAL	[M] (E)
24	RKWD506B-Q	FL. PANEL	[M]	A5<IB>	RQT3868-B	INSTRUCTION MANUAL	[M] (EB/EP)
25	XTBS3+8JFZ1	SCREW	[M]	A5<IC>	RQT3870-D	INSTRUCTION MANUAL	[M] (EG)
26	XTB3+10JFZ	SCREW	[M]	A5<ID>	RQT3871-H	INSTRUCTION MANUAL	[M] (EG)
27	XTBS26+8J	SCREW	[M]	A5<IE>	RQT3869-R	INSTRUCTION MANUAL	[M] (EP)
28	RFKAEH50GCK	WIRE ASS' Y	[M] (GC)	A5<IF>	RQT3873-G	INSTRUCTION MANUAL	[M] (GC)
29	XTB3+20JFZ	SCREW	[M]	A6	RSAD007	FM INDOOR ANTENNA	[M] (E/EB/EG/EP)
30	XTB3+8FFZ	SCREW	[M] (GC)	A6	RSAD006	FM INDOOR ANTENNA	[M] (GC)
31	REZ0971	FLAT CABLE (W905/5P)	[M] (GC)	A7	RSAD012	AM LOOP ANTENNA	[M]
32	REM0057	FAN UNIT	[M] (GC)	A7-1	RMN0244	ANTENNA HOLDER	[M]
33	RKF0513B-K	REAR PANEL	[M] (E/EG/EP)	A8	RQCB0169	SERVICENTER LIST	[M] (E/EB/EG/GC)
33	RFKHAEH50EBK	REAR PANEL ASS' Y	[M] (EB)	A9	RQCA0536	QUICK SET UP GUIDE	[M] (EB)
33	RFKHAEH50GCK	REAR PANEL ASS' Y	[M] (GC)	A10	SJP9009	ANTENNA PLUG ADAPTER	[M] (EB)
34	RMN0425	JACK HOLDER	[M] (GC)	A11△	SJP5213-1	AC PLUG ADAPTER	[M] (GC)
35	RGWD235-K	KNOB, MIC VOLUME	[M] (GC)			JIG/TOOL(S)	
36	RLBT4001-D	FERRITE CORE (5P)	[M] (E/EB/EG EP)	SA1	RFKX0002	GREASE	[M]
		PACKING MATERIALS					
P1	RPN1036-1	PAD (SA-EH50)	[M]				
P1	RPN1038	PAD (SH/SL-EH50)	[M]				
P1	RPN1037	PAD (RS-EH60)	[M]				
P2	RPQ0779	PAD (SA-EH50)	[M] (E/EB/EG)				
P3	RPQ0734	PAD (SA-EH50)	[M] (E/EB/EG)				

NOTE: The "<IA>, <IB>, <IC>, <ID>, <IE>, <IF>" marks in Remarks indicate language of instruction manual.

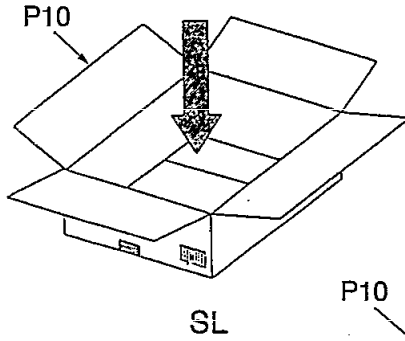
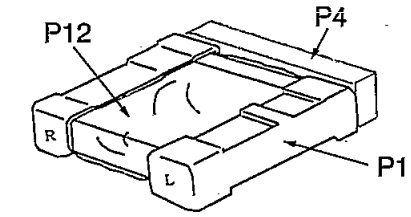
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■ Cabinet Parts Location

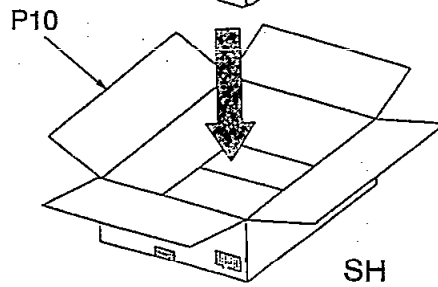
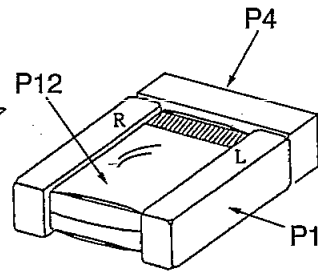


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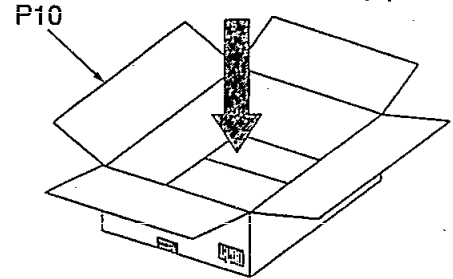
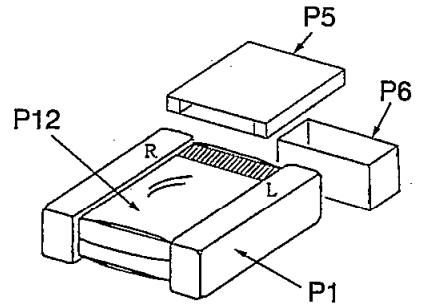
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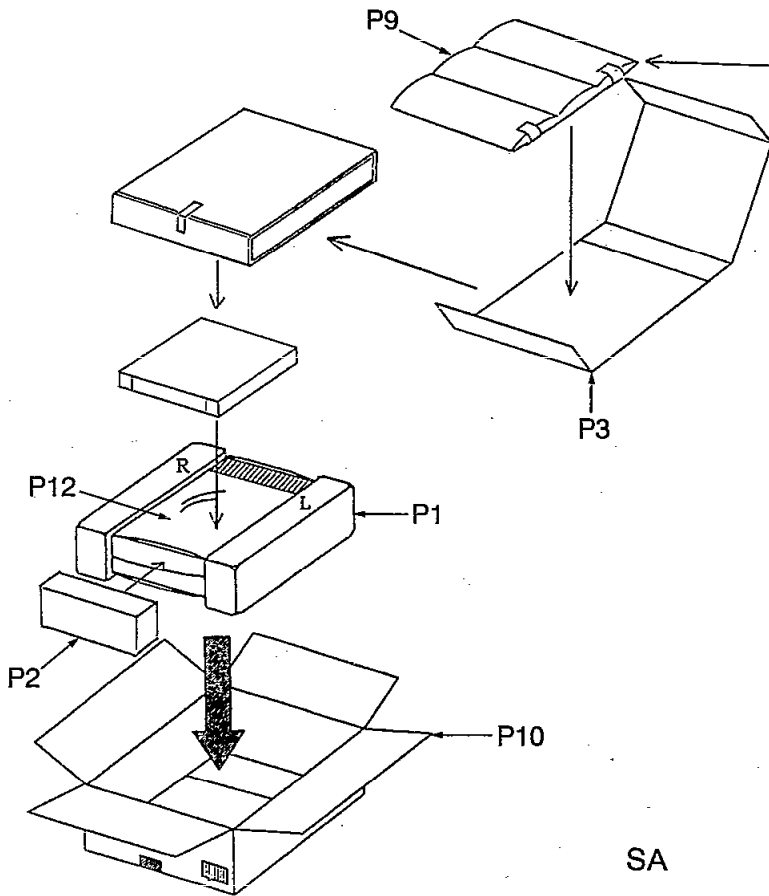
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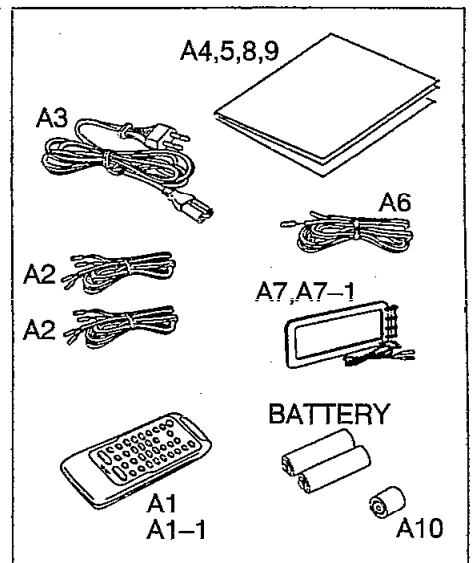
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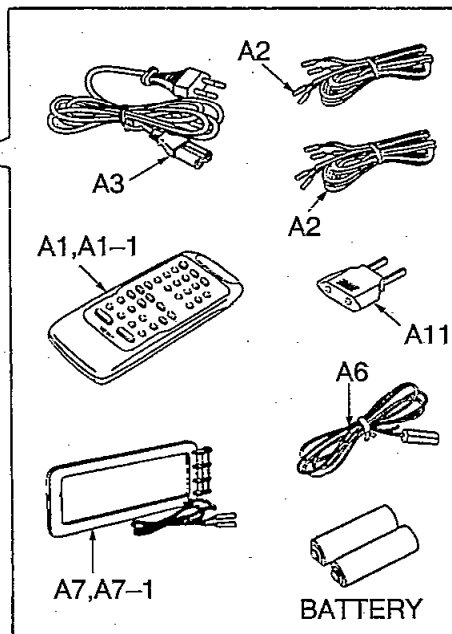
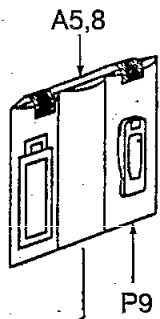
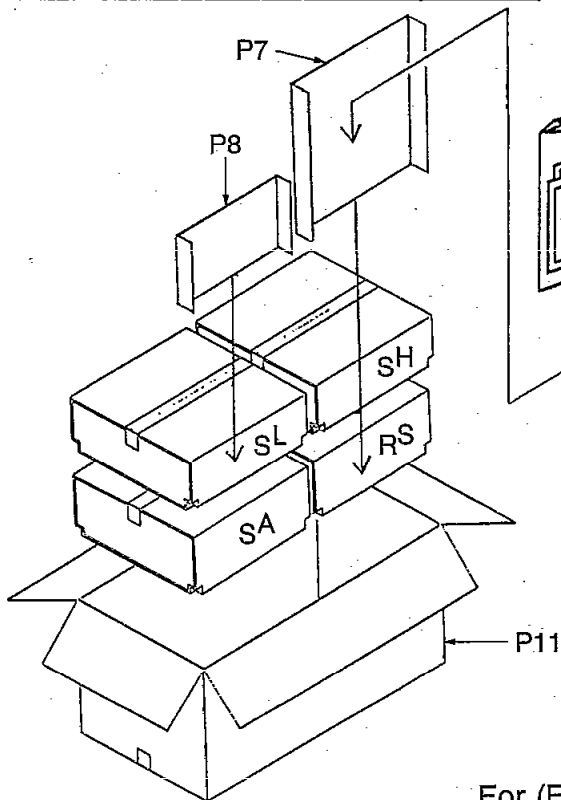
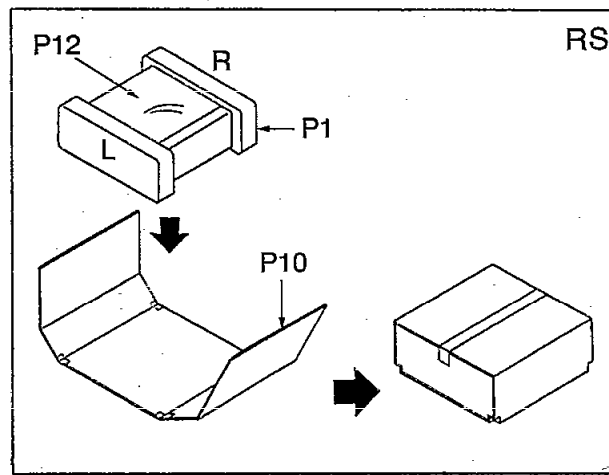
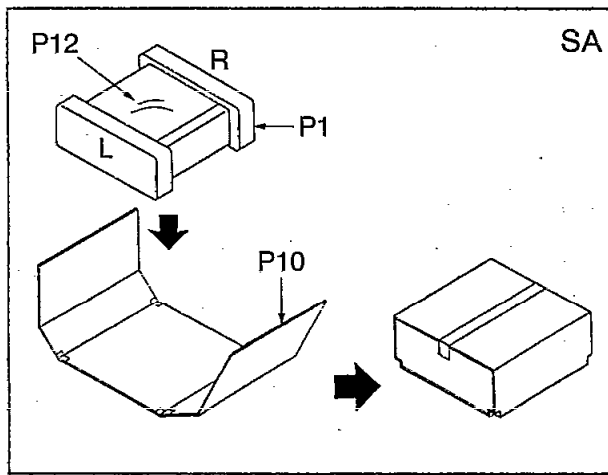
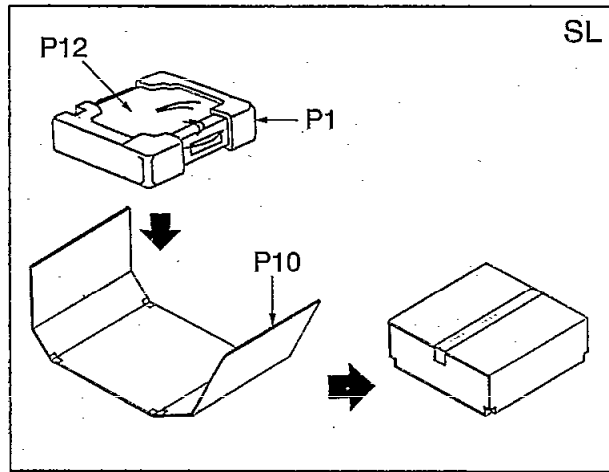
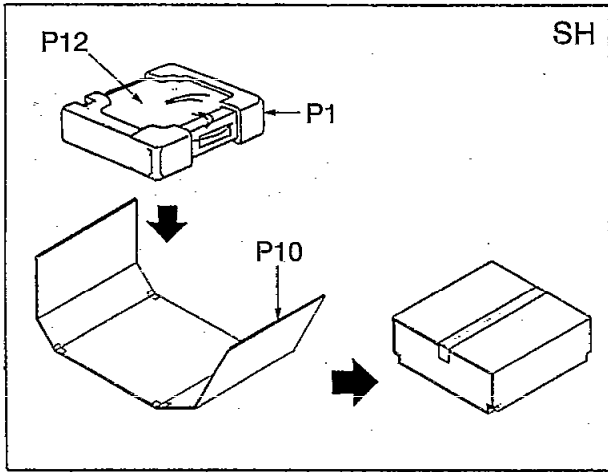


SA



For (E),(EB),(EG) Area

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For (EP),(GC) Area