

Service Manual

Tuner

ST-HD505

Colour

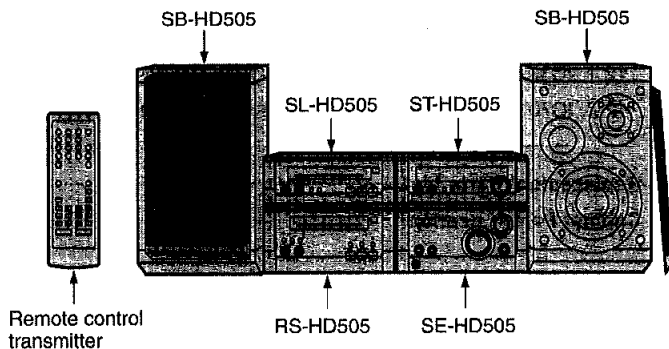
(S)Silver Type

Areas

PP.....U.S.A. and Canada.

EEurope.

System: SC-HD505



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

Note: Refer to the service manual for Model No. SE-HD505 (ORDER NO. AD9904110C5) for information on "ACCESSORIES", "INSTALLATION", "CONNECTIONS" and "PACKAGING".

Specification

■Pre-amplifier section

Input sensitivity/impedance

EXTERNAL: 300mV/15k Ω

Output level

EXTERNAL: 250mV/1.5k Ω

■FM tuner section

Frequency range(PP): 87.5-108.0MHz(0.1MHz step)

87.9-107.9MHz(0.2MHz step)

Frequency range(E): 87.50-108.00MHz(0.05MHz step)

Antenna terminals: 75 Ω (unbalance)

■AM tuner section

Frequency range(PP): 520-1710kHz(10kHz step)

Frequency range(E): 522-1629kHz(9kHz step)

520-1630kHz(10kHz step)

■Timer section

Clock: Quartz-lock type

Function:

Play timer: 1 time or everyday

Rec. timer: 1 time or everyday

Sleep timer: 120min. intervals

■General

Dimensions(WxHxD): 202x76x262.5mm

Weight: 1.2kg

Power Supply

[For (E) area only]: AC4.2V, DC \pm 13V/+16V/+10V/+5.6V/-24V

Power Consumption

[For (E) area only]: 15W

Notes:

1. Design and specifications are subject to change without notice.

2. Dimensions and weight are approximate.

■System/SC-HD505:

Tuner: ST-HD505, Compact Disc Player: SL-HD505, Amplifier: SE-HD505, Cassette Deck: RS-HD505, Speakers: SB-HD505 (Made in MAES)

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⚠ 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.

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1 Before Repair

This equipment (ST-HD505), which is a component of the system, is supplied with power from the amplifier (SE-HD505).When repairing this equipment or checking operation

of the system, be sure to connect the amplifier with it.

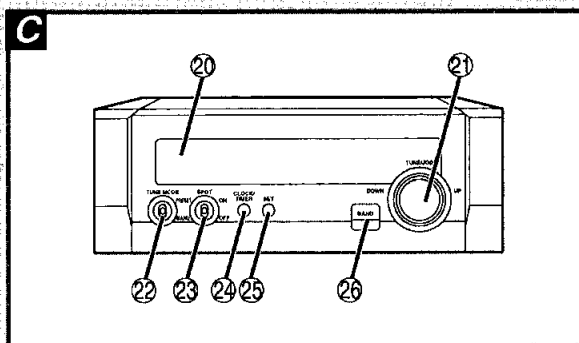
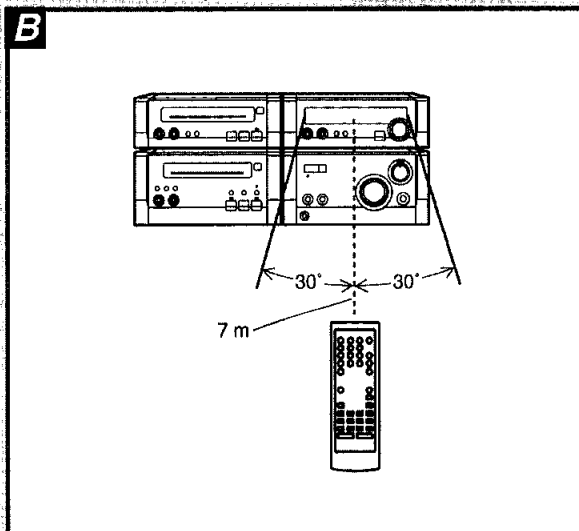
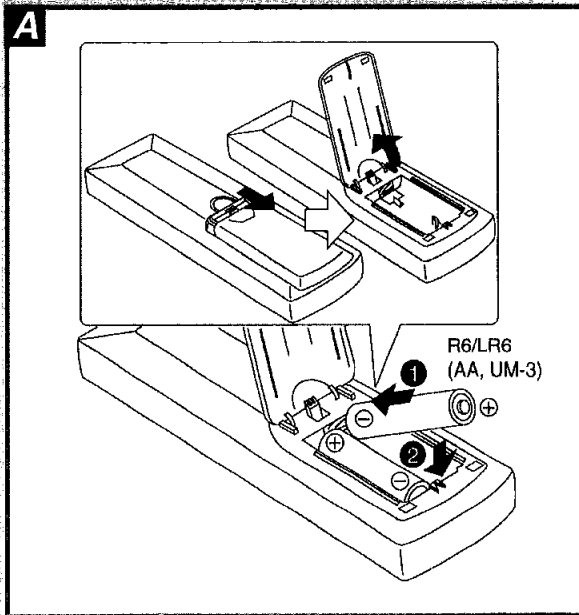
Power supply and operation check in the state of it as a single equipmenet are impracticable.

2 Blue LED

- The LED mounted to each side of the front panel of this set is very sensitive to static electricity.When handling the LED base plate, be very careful about it.
- Do not replace a blue LED singly. If replaced singly, it may be subject to electrostatic breakdown or deterioration in quality. When replacing the LED base plate, be sure to replace L and R sides simultaneously to permit the brightness adjustment.

*For configuration at the time of supply of replacement parts, refer to "Printed Circuit Board Diagram".

3 Operating Instructions



The remote control

A Batteries

Insert so the poles (+ and -) match those in the remote control.

Do not;

- mix old and new batteries.
- use different types at the same time.
- heat or expose to flame.
- take apart.
- short circuit.
- attempt to recharge alkaline or manganese batteries.

Mishandling of batteries can cause electrolyte leakage which can damage items the fluid contacts and may cause a fire.

If electrolyte leaks from the batteries, consult your dealer.

Wash thoroughly with water if electrolyte comes in contact with any part of your body.

Do not use rechargeable type batteries.

Remove if the remote control is not going to be used for a long period of time. Store in a cool, dark place.

Replace if the unit does not respond to the remote control even when held close to the front panel.

If the battery lid comes loose, slide it back into place horizontally.

B Use

Aim at the sensor, avoiding obstacles, at a maximum range of 7 meters directly in front of the unit.

Keep the transmission window and the unit's sensor free from dust.

Operation can be affected by strong light sources, such as direct sunlight, and the glass doors on cabinets.

Do not;

- put heavy objects on the remote control.
- take the remote control apart.
- spill liquids onto the remote control.

Front panel controls

C Tuner

Ⓧ Display panel

The display also shows information for the cassette deck, CD player, and amplifier.

Ⓧ Station selection and JOG dial (TUNE/JOG)

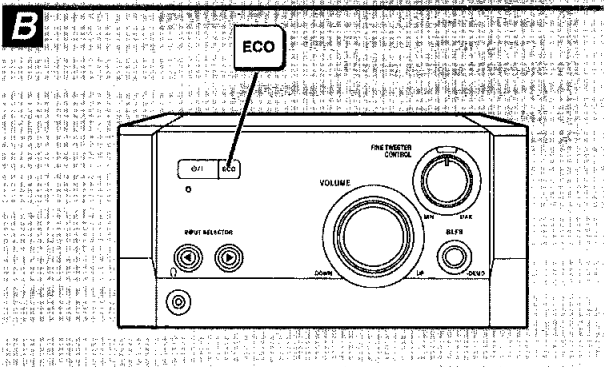
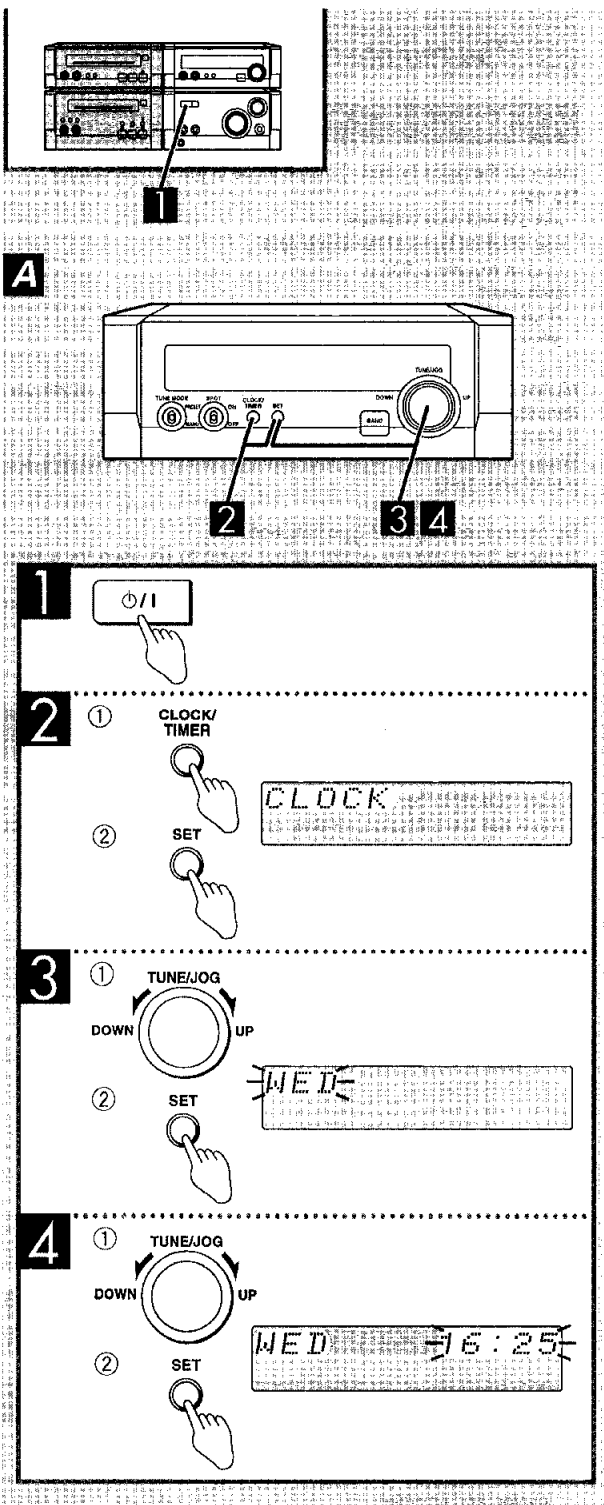
Ⓧ Tuning mode switch (TUNE MODE)

Ⓧ Sidelight switch (SPOT)

Ⓧ Clock/timer button (CLOCK/TIMER)

Ⓧ Set button (SET)

Ⓧ Band select button (BAND)



A Setting the time

This is a 24-hour clock.

The example shows how to set the clock for Wednesday 16:25 (4:25 pm).

1 Press [POWER] to turn the unit on.

2 Press [CLOCK/TIMER] to display "CLOCK."

Each time you press the button:

CLOCK → [PLAY] → [REC] → Original display

2 Within 7 seconds
Press [SET].

3 Turn [TUNE/JOG] to set the day.
Press [SET].

4 Turn [TUNE/JOG] to set the time.
Press [SET].

The time is set and the original display is restored.

Displaying the clock

Press [CLOCK/TIMER].

The clock is shown for about 5 seconds.

B ECO mode

When this mode is turned on, the clock is not displayed when the unit is in standby mode, thereby reducing standby mode power consumption from 9 W to 0.8 W. The standby indicator still lights.

Note

Turn DEMO off. ECO does not work when DEMO is on.

Turning ECO on and off:

1 Press [ECO].

The current mode is displayed.

2 Within 2 seconds

Press [ECO] again.

Each time you press the button:

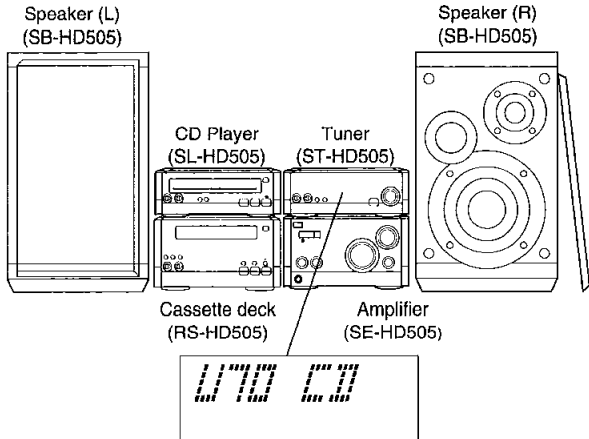
NORMAL (off) ↔ ECO (on)

The mode can be switched to ECO when the unit is off but it can not be switched back to NORMAL.

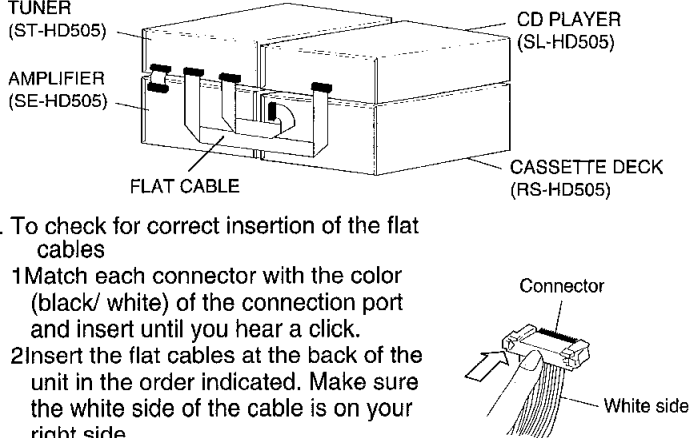
4 About the Self-Diagnostic Mode

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 malfunctions. Use this self-diagnostic function when servicing the unit.

Display method	Display location
<p>To display the malfunction code</p> <p>U70 CD..... Automatically displays on the tuner when a malfunction occurs.</p> <p>F61..... Automatically displays on the tuner when a malfunction occurs.</p> <p>To return the normal display</p> <p>1.For U70 CD:</p> <ul style="list-style-type: none"> Press an any operation button on the tuner. To re-display the code, switch the power off (POWER STANDBY button), and then switch power back on again. <p>2.For F61 CD:</p> <ul style="list-style-type: none"> If F61 is displayed, the power will automatically be switched off. F61 will be displayed for 3 seconds, and then the clock will be displayed. To re-display the code, switch the power on. F61 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>U70 CD (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 U70 is displayed on the tuner, the Cassette deck or CD player 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"> Match each connector with the color (black/ white) of the connection port and insert until you hear a click. 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>U70CD { ST-HD505: IC701 (M30218MAA101) SL-HD505: IC403 (LC66358C4K97)</p> <p>Check these IC's and replace as necessary.</p>
<p>F61</p>	<p>When the power switch is switched on, it automatically switches back off, making it impossible to switch power on.</p>	<ul style="list-style-type: none"> Faulty amplifier (SE-HD505) output IC (IC501 and IC502). (When a DC voltage is applied to the speaker terminals.)

5 Power Source ON/OFF and Signal Check

To operate this unit ST-HD505 normally, it is necessary for connecting to the unit SE-HD505.

When operating the unit ST-HD505, be sure to connect the unit SE-HD505 by connection cable.

1. Short the section between TP302 (A.GND) and TP304(D.GND), and as well as the section between TP303(CT) and TP304(D.GND).(As shown in Fig.1.)
2. Connect with the Amplifier (SE-HD505).(As shown in Fig.1.)
3. Connect the AC mains lead to Amplifier (SE-HD505).(As

shown in Fig.1.)

4. Connect the speakers to speaker input terminal.(As shown in Fig.1.)
5. Turn on the power of the Amplifier (SE-HD505).
6. Press INPUT SELECTOR to select the external source (EXT) of the Amplifier (SE-HD505).
7. Input a sound signal to external input terminal of Tuner (ST-HD505), and confirm to be outputted from the speaker.

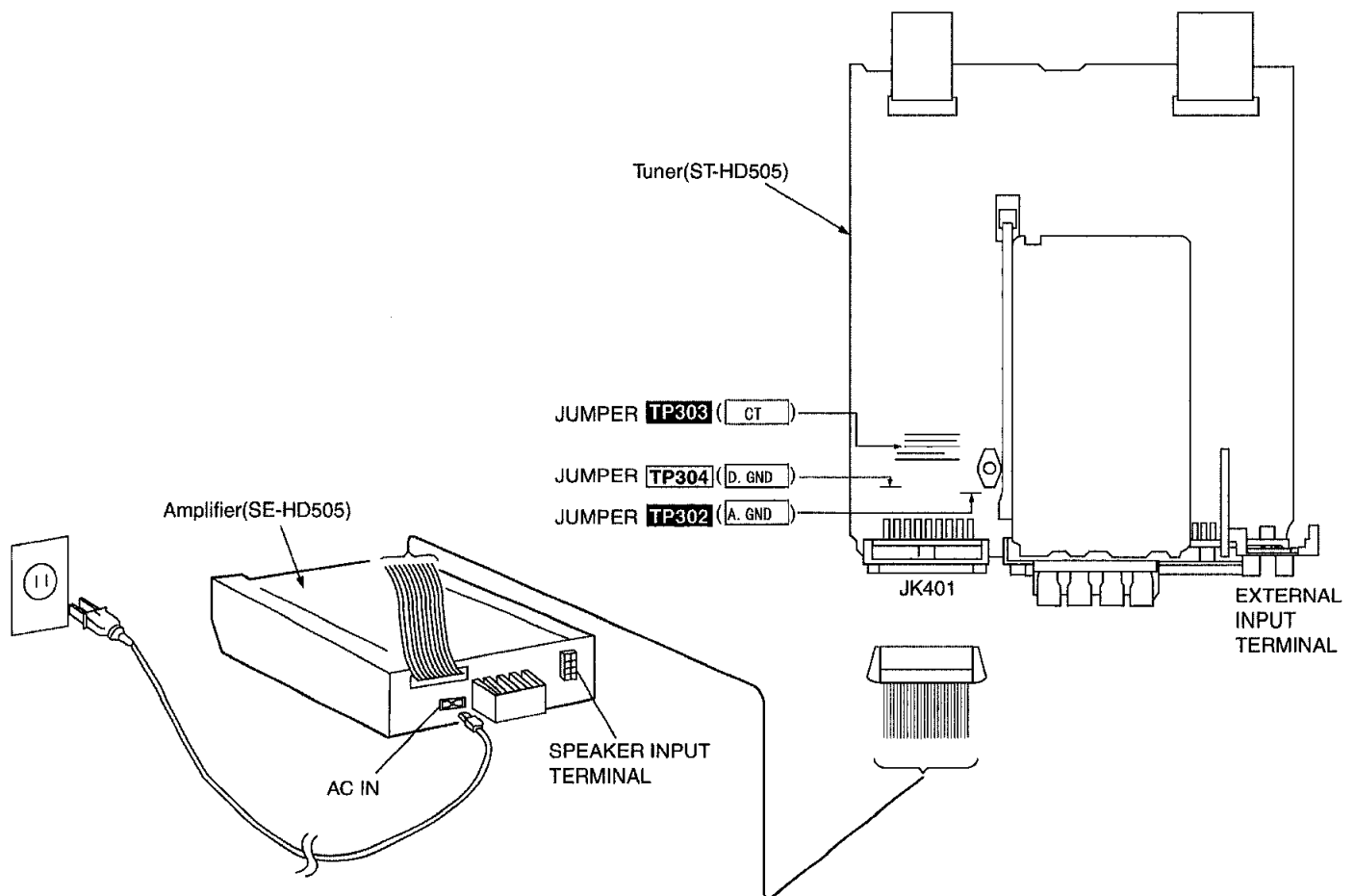
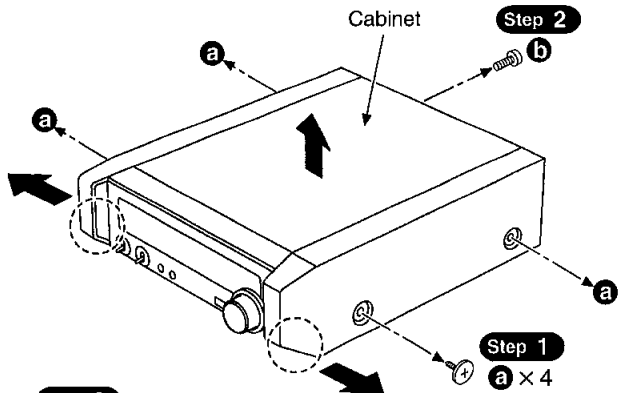


Fig.1

6 Operation Checks and Component Replacement Procedures

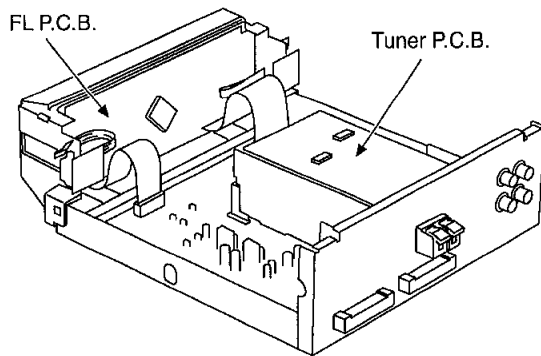
- NOTE** 1. This section describes procedures for checking the operation of the major printed circuit boards and replacing the main components.
2. For reassembly after operation checks or replacement, reverse the respective procedures. Special reassembly procedures are described only when required.

1. Checking for the tuner P.C.B. and FL P.C.B.



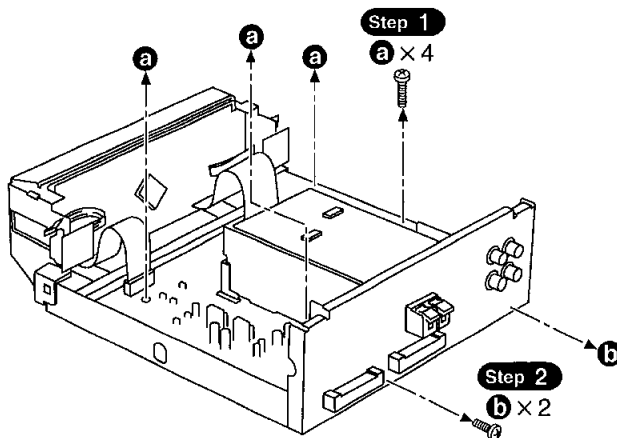
Step 3
Spreading the both front tails indicated with (○) of cabinet a small amount, lift up and remove the cabinet in the direction of arrow.

- Check the tuner P.C.B. and FL P.C.B. as shown below.



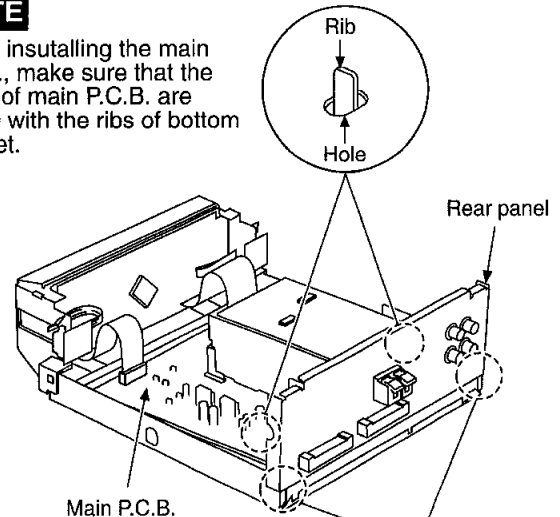
2. Checking for the main P.C.B.

- Follow **Step 1** ~ **Step 3** in item 1.

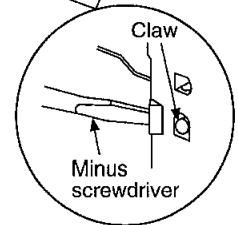


NOTE

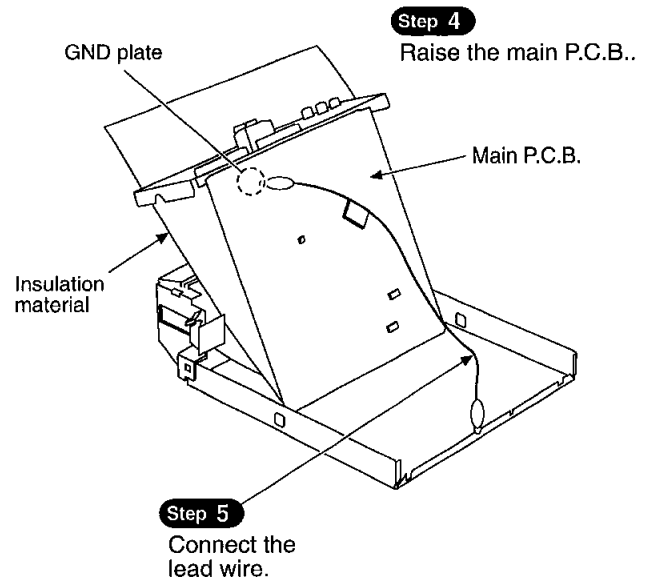
When insutalling the main P.C.B., make sure that the holes of main P.C.B. are aligned with the ribs of bottom cabinet.



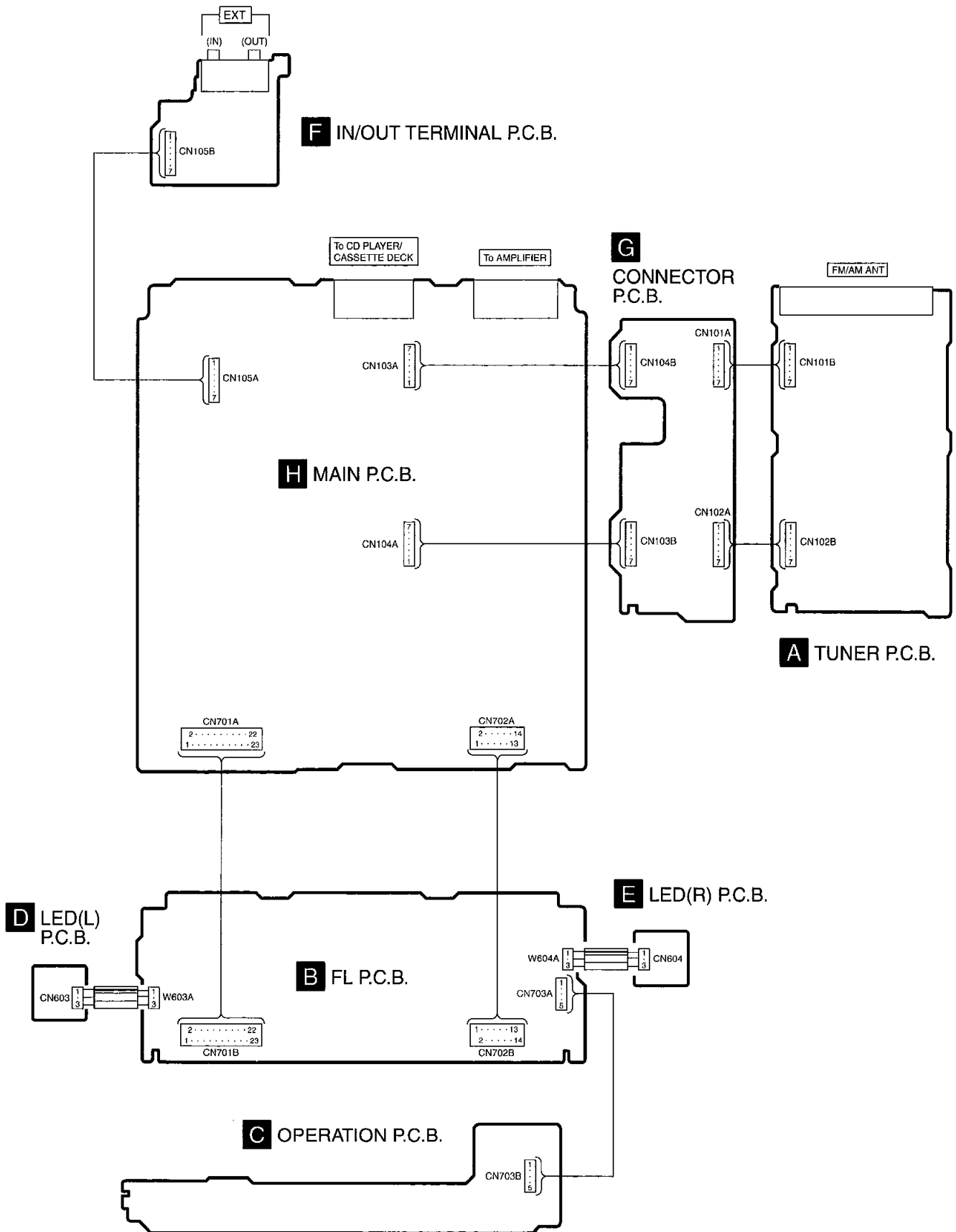
Step 3
Release the 2 claws, and then remove the main P.C.B. and rear panel.



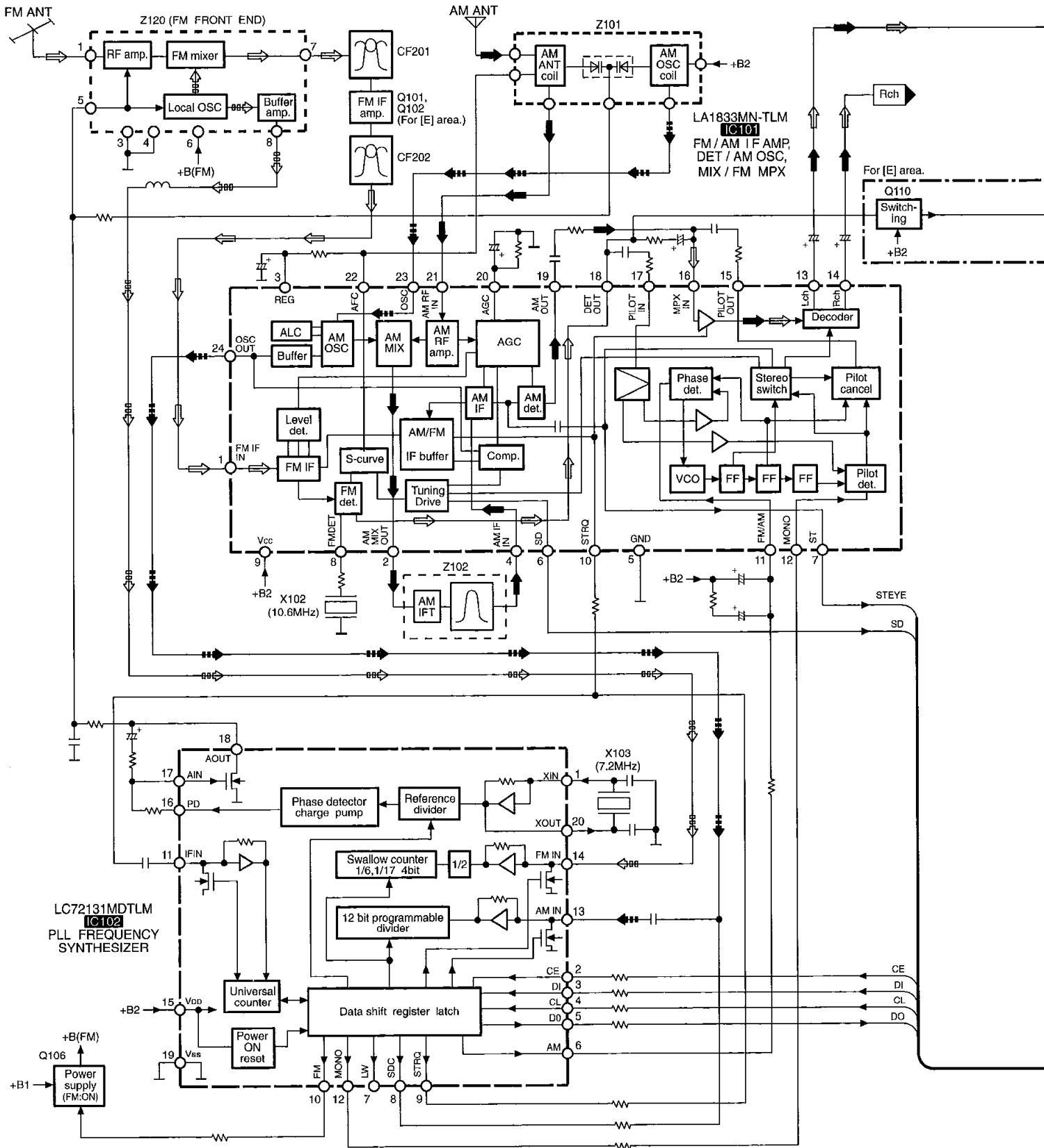
- Check the main P.C.B. as shown below.

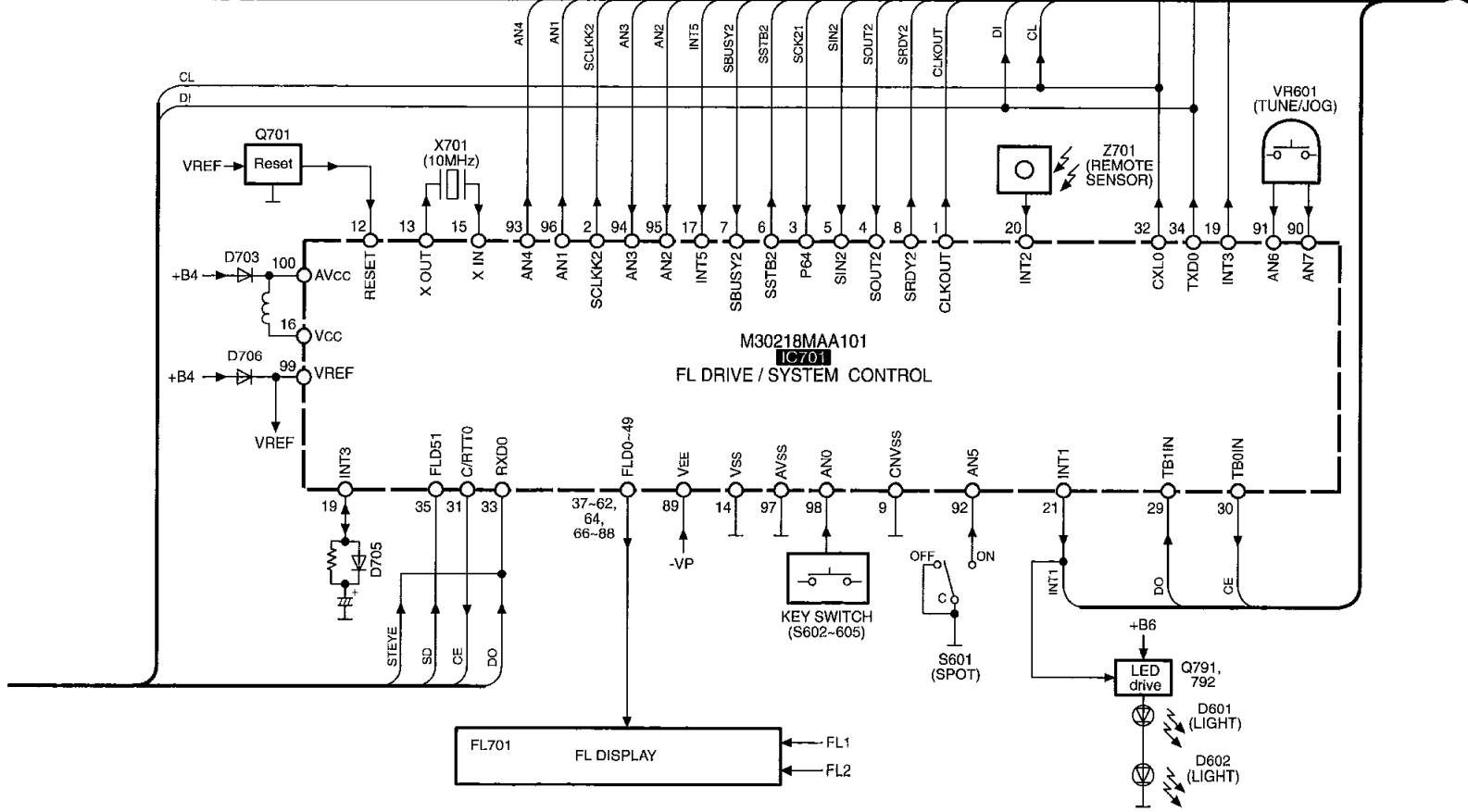
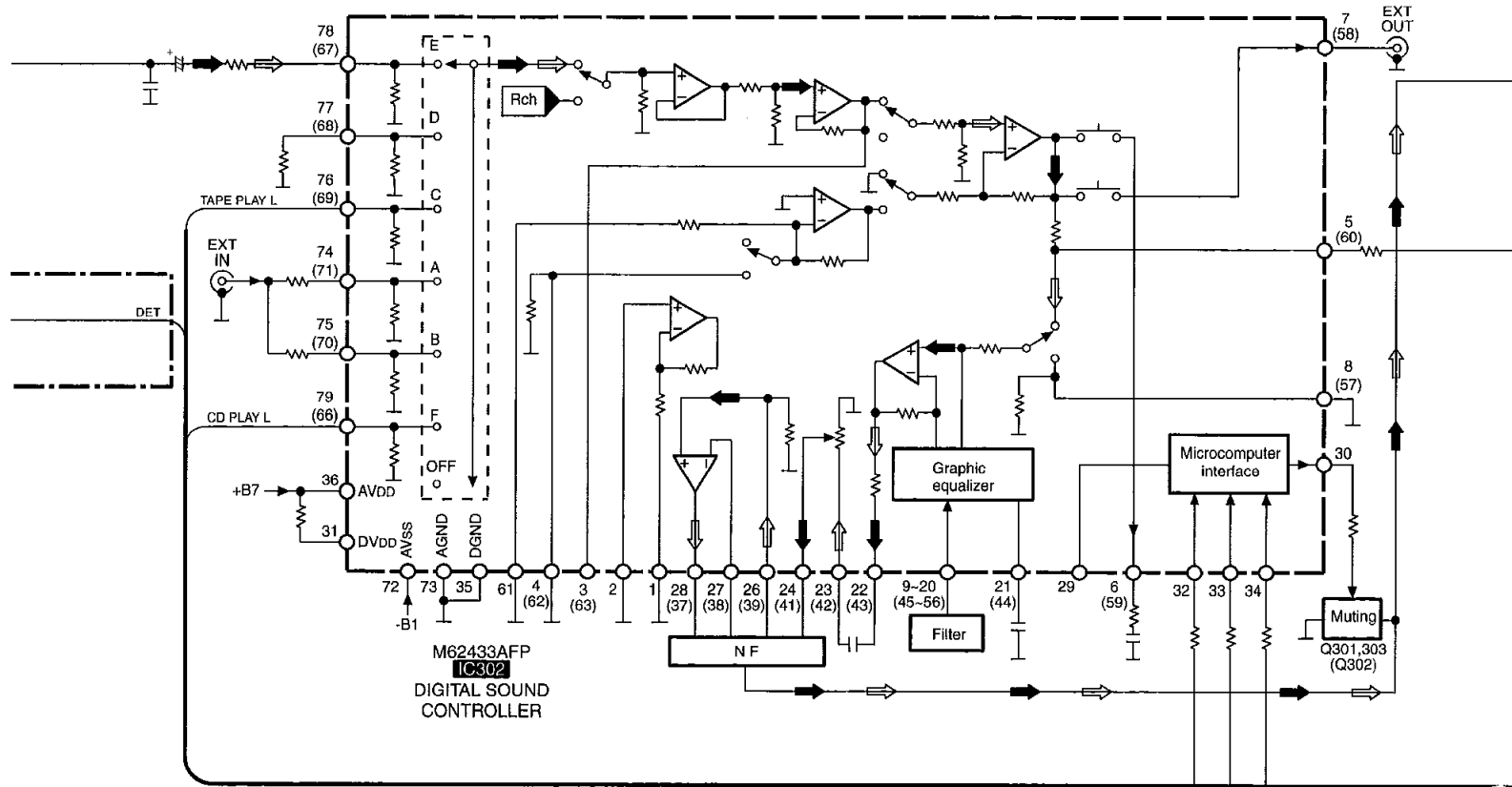


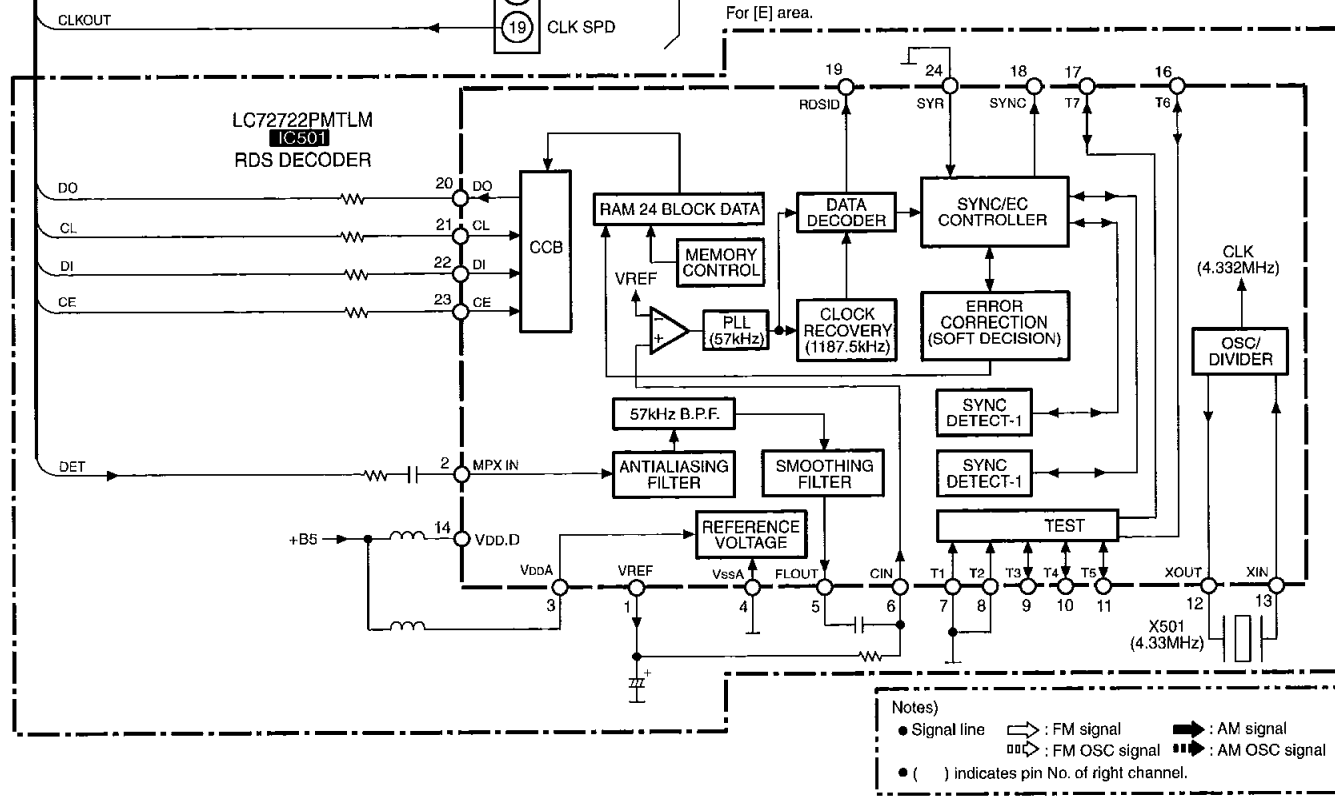
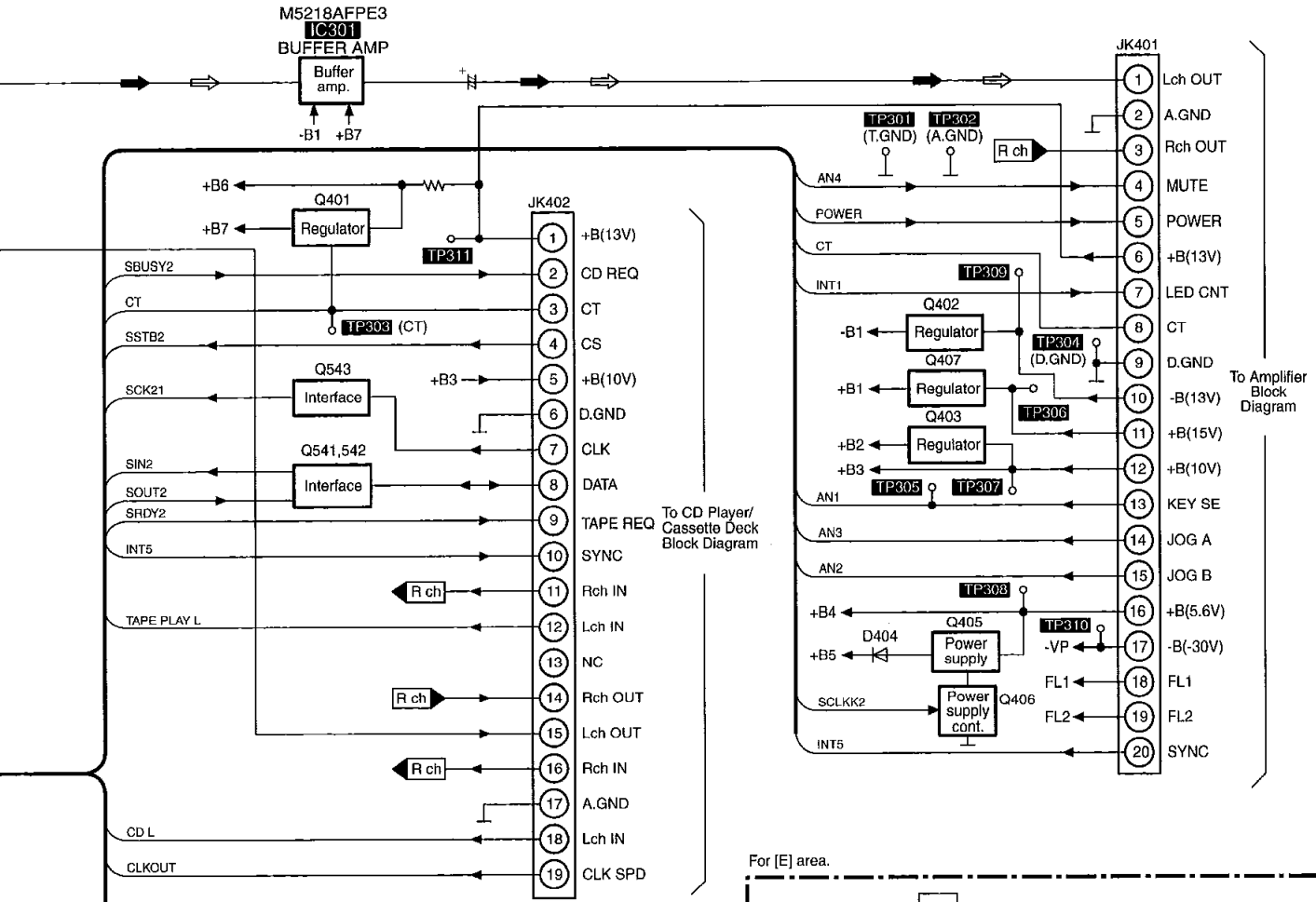
7 Wiring Connection Diagram



8 Block Diagram







Notes)

- Signal line
- ◀ : FM signal
- ▶ : AM signal
- ◻◻ : FM OSC signal
- ◻◻◻ : AM OSC signal
- () indicates pin No. of right channel.

9 Schematic Diagram Notes

9.1. Schematic Diagram Notes

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

Notes:

- S601: Side light (SPOT) switch.
- S602: Tuning mode (TUNE MODE) switch.
- S603: Band select (BAND) switch .
- S604: Set (SET) switch .
- S605: Clock/Timer (CLOCK/TIMER) switch.
- VR601: Station selection and JOG (TUNE/JOG) dial.
- 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 mode

(): AM mode

Important safety notice:

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

Furthermore, special parts which have purpose 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.

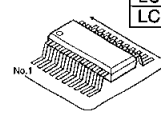
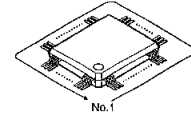
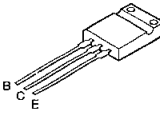
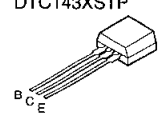
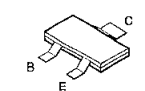
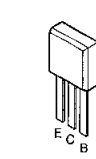
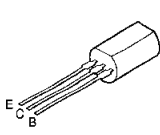
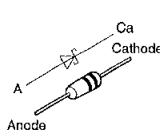
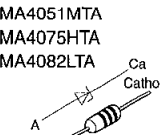
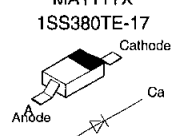
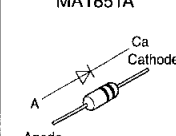
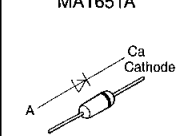
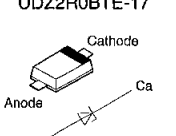
Put a conductive mat on the work table.

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

Voltage and signal line

-  : Positive voltage line
-  : FM signal line
-  : AM signal line
-  : Negative voltage line
-  : FM OSC signal line
-  : AM OSC signal line

9.2. Type Illustration of IC's Transistors and Diodes

 <table border="1" data-bbox="351 1232 590 1332"> <tr><td>M5218AFPE3</td><td>8PIN</td></tr> <tr><td>LA1833MN-TLM</td><td>24PIN</td></tr> <tr><td>LC72131MDTLM</td><td>20PIN</td></tr> <tr><td>LC72722PMTLM</td><td>24PIN</td></tr> </table>	M5218AFPE3	8PIN	LA1833MN-TLM	24PIN	LC72131MDTLM	20PIN	LC72722PMTLM	24PIN	 <table border="1" data-bbox="734 1232 973 1299"> <tr><td>M62433AFP</td><td>80PIN</td></tr> <tr><td>M30218MAA101</td><td>100PIN</td></tr> </table>	M62433AFP	80PIN	M30218MAA101	100PIN	 <p>2SB1417PQTA 2SD2137PQTA</p>	 <p>DTB123YSTP DTC114ESTP DTC143XSTP</p>
M5218AFPE3	8PIN														
LA1833MN-TLM	24PIN														
LC72131MDTLM	20PIN														
LC72722PMTLM	24PIN														
M62433AFP	80PIN														
M30218MAA101	100PIN														
 <p>2SD1819ATX 2SB709ASTX UN5214TX</p>	 <p>2SC2787LTA 2SC3311ARSTA 2SC3311ATA UN4111TA UN4115TA</p>	 <p>2SC3940AQSTA</p>	 <p>MA719TA</p>	 <p>MA4043MTA MA4051MTA MA4075HTA MA4082LTA</p>											
 <p>MA111TX 1SS380TE-17</p>	 <p>MA185TA</p>	 <p>MA165TA</p>	 <p>UDZ2R0BTE-17</p>												

10 Schematic Diagram

SCHEMATIC DIAGRAM-1

NOTE:
 The number which noted at the connectors on the schematic diagram as
 "SCHEMATIC DIAGRAM-1" or "SCHEMATIC DIAGRAM-2"
 indicates the schematic diagram serial number located on the left corner in the schematic diagram.

A TUNER CIRCUIT

For [E] area.

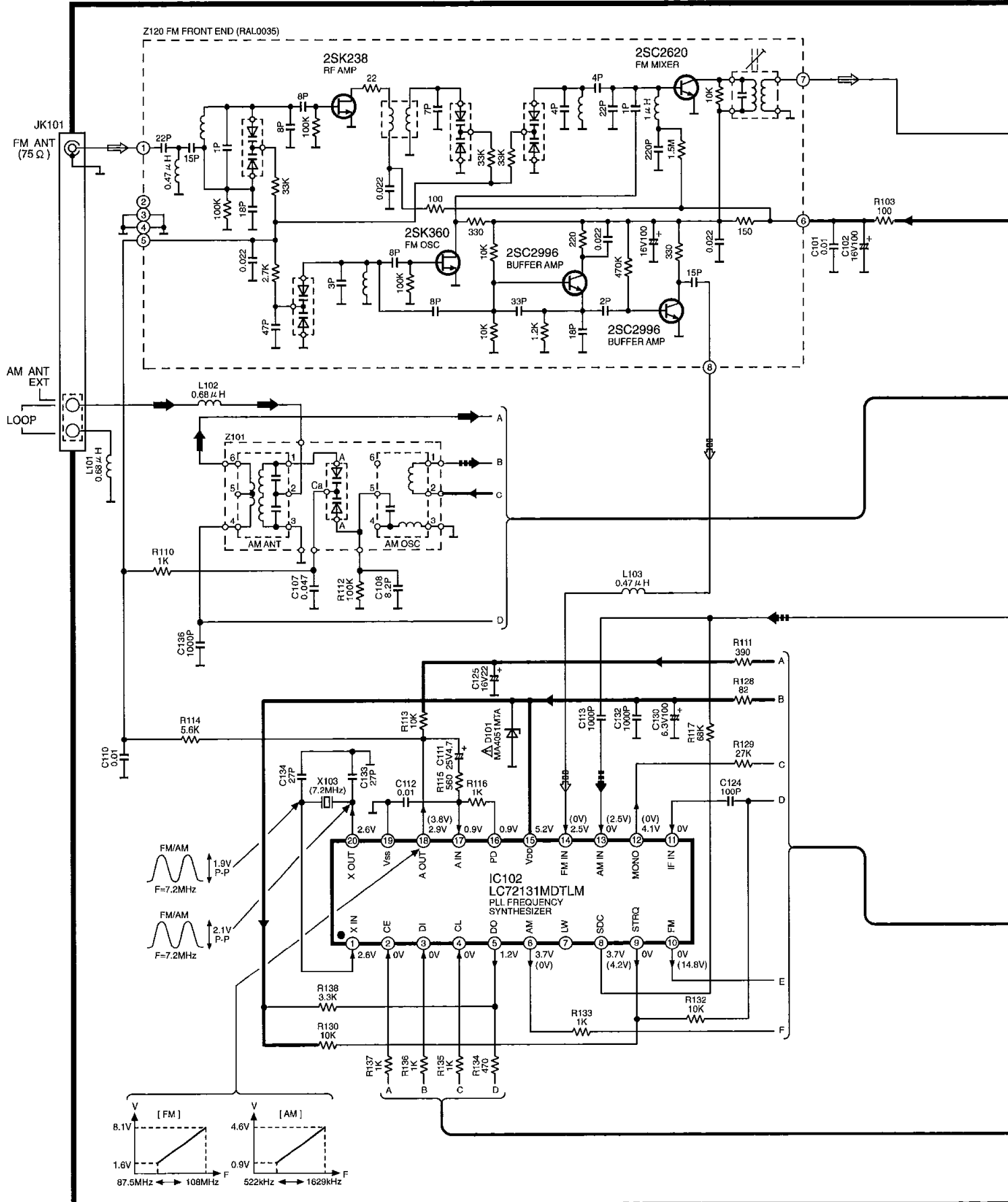
→ : POSITIVE VOLTAGE LINE
 ⇨ : FM OSC SIGNAL LINE
 ⇩ : AM OSC SIGNAL LINE

⇨ : FM OSC SIGNAL LINE

⇨ : FM SIGNAL LINE

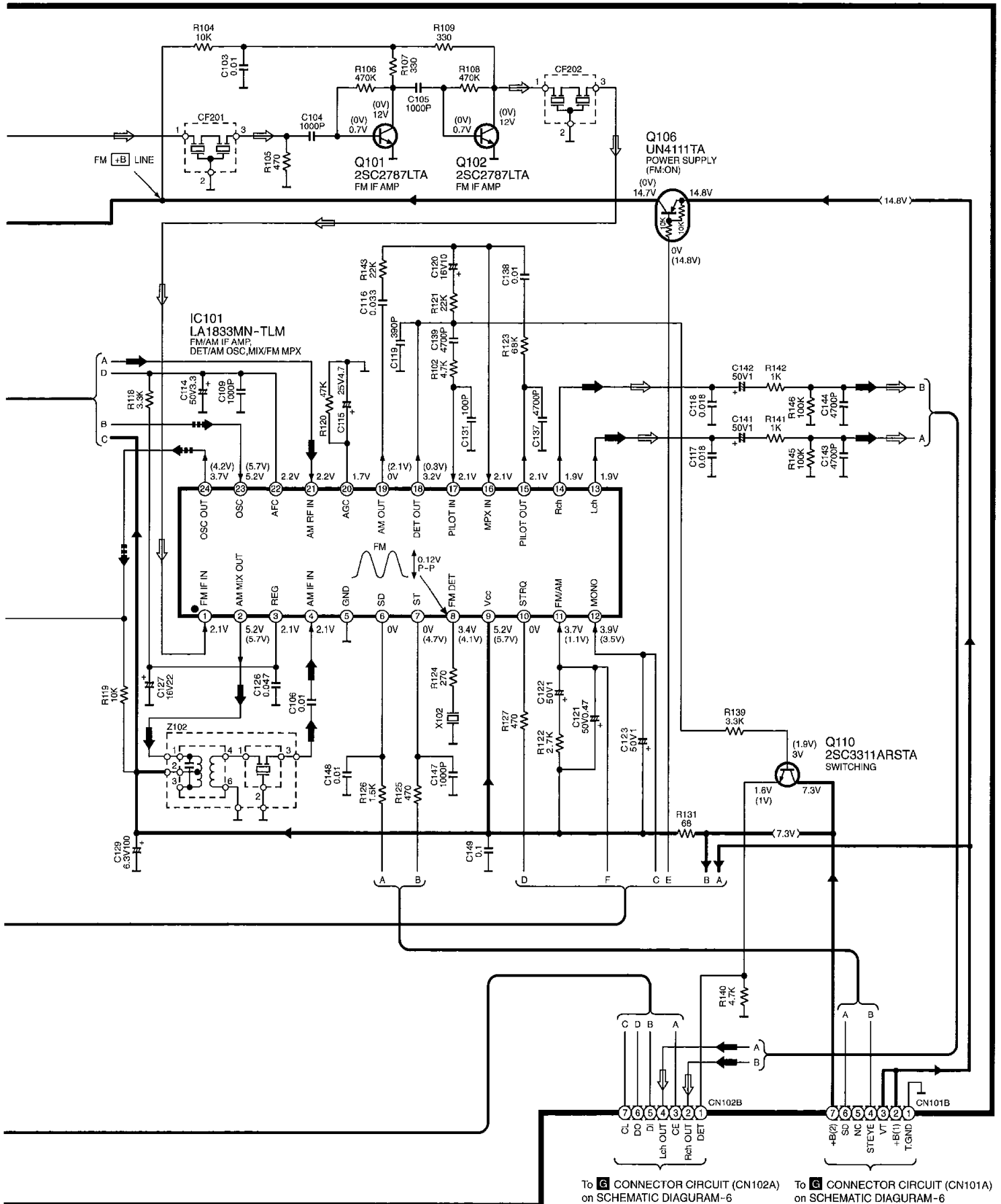
⇩ : AM OSC SIGNAL LINE

⇨ : AM SIGNAL LINE



SCHEMATIC DIAGRAM-2

→ : POSITIVE VOLTAGE LINE ⇨ : FM SIGNAL LINE → : AM SIGNAL LINE ⇨⇨ : AM OSC SIGNAL LINE



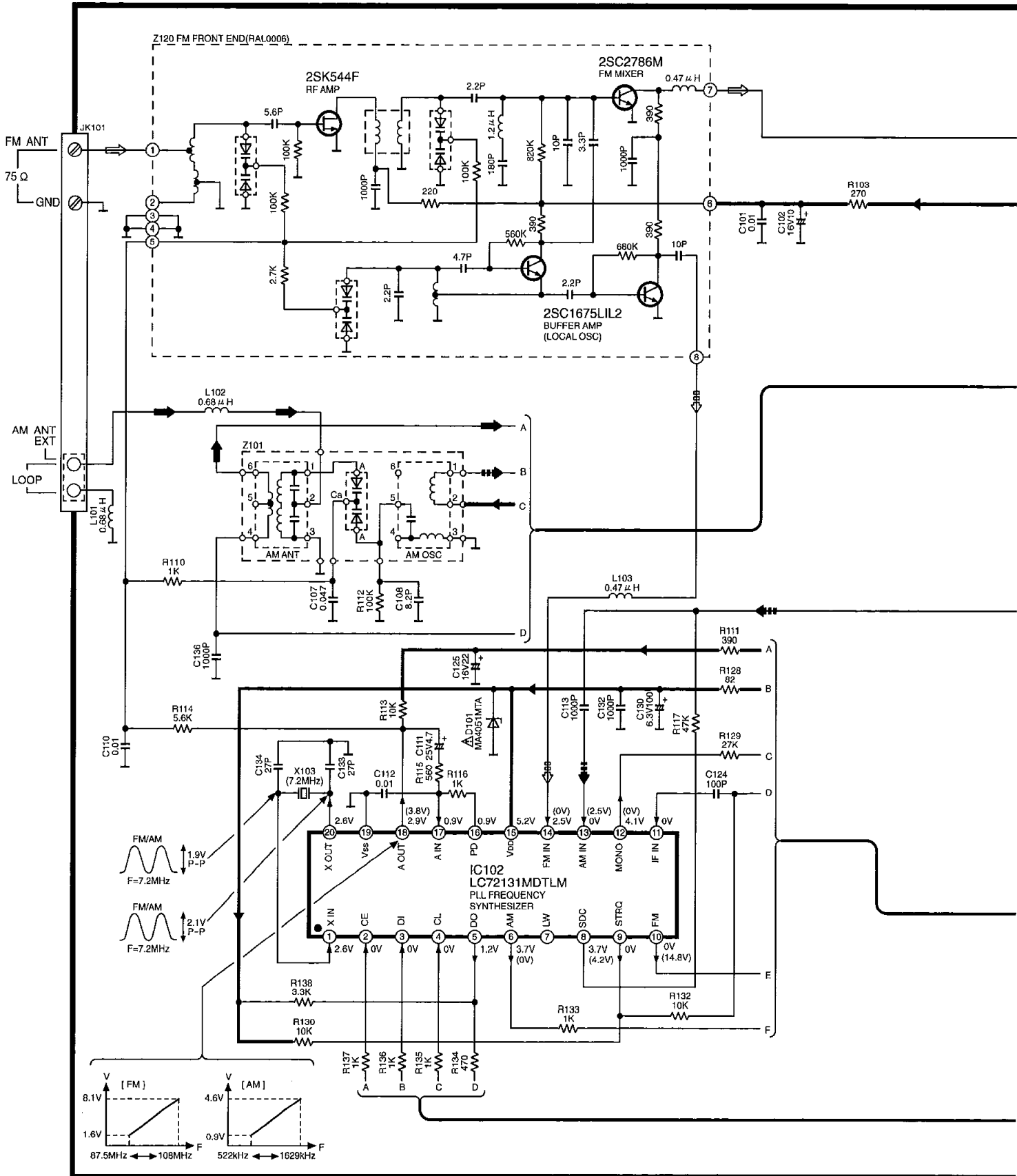
To **6** CONNECTOR CIRCUIT (CN102A) on SCHEMATIC DIAGRAM-6 To **6** CONNECTOR CIRCUIT (CN101A) on SCHEMATIC DIAGRAM-6

SCHEMATIC DIAGRAM-3

A TUNER CIRCUIT

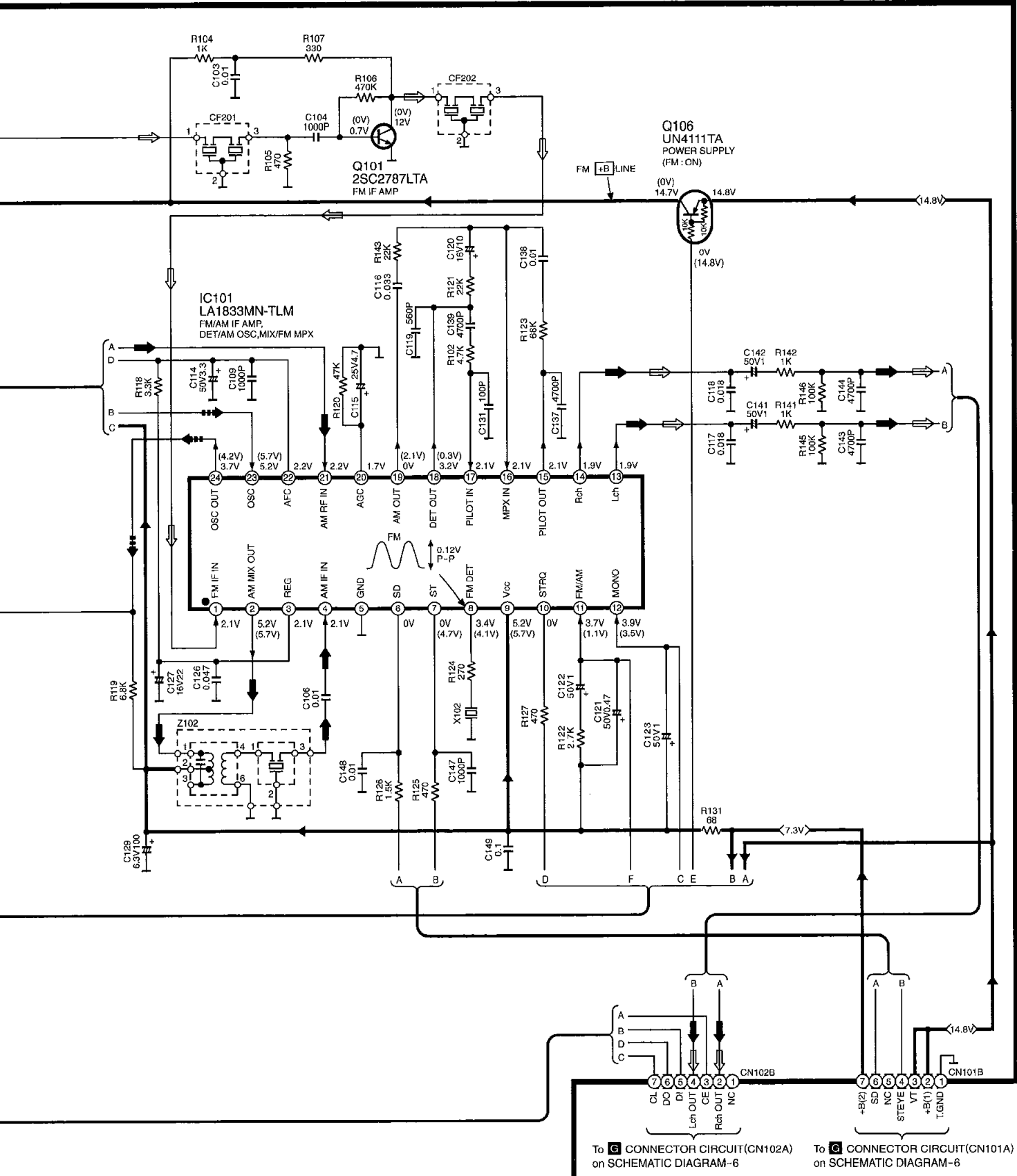
For [PP] area.

→ : POSITIVE VOLTAGE LINE ⇨ : FM SIGNAL LINE ⇩ : AM SIGNAL LINE
⇨⇨ : FM OSC SIGNAL LINE ⇩⇩ : AM OSC SIGNAL LINE



SCHEMATIC DIAGRAM-4

: POSITIVE VOLTAGE LINE
 : AM SIGNAL LINE
 : FM SIGNAL LINE
 : AM OSC SIGNAL LINE



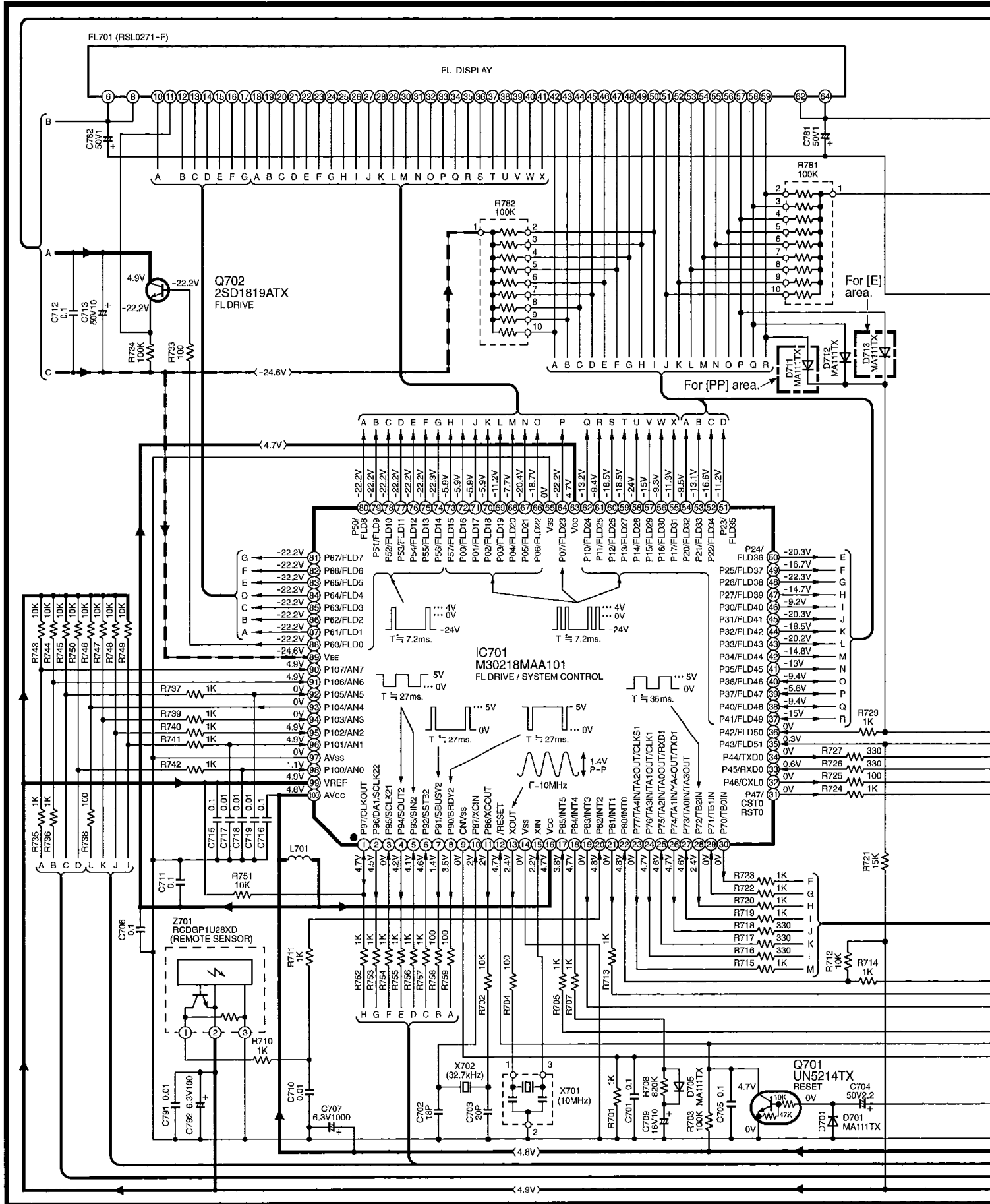
To **C** CONNECTOR CIRCUIT(CN102A) on SCHEMATIC DIAGRAM-6

To **C** CONNECTOR CIRCUIT(CN101A) on SCHEMATIC DIAGRAM-6

SCHEMATIC DIAGRAM-5

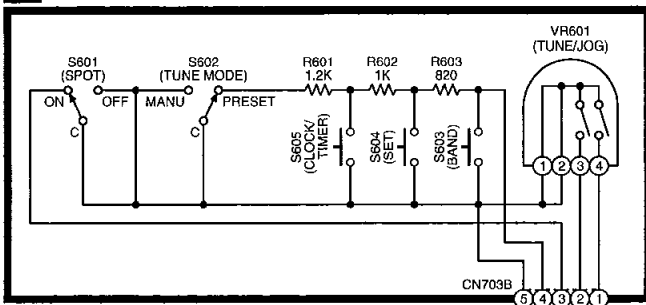
B FL CIRCUIT

➔ : POSITIVE VOLTAGE LINE ➔ : NEGATIVE VOLTAGE LINE

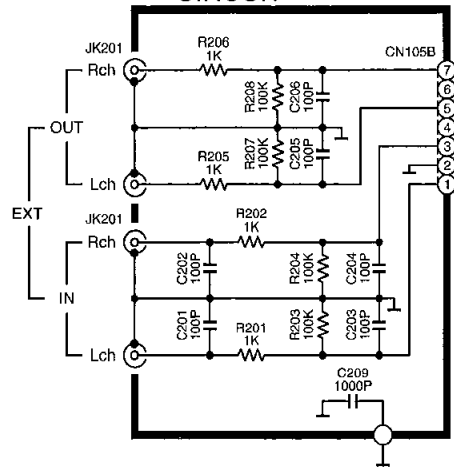


SCHEMATIC DIAGRAM-6

C OPERATION CIRCUIT

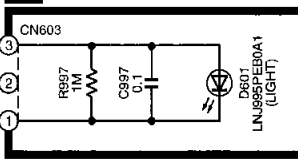


F IN/OUT TERMINAL CIRCUIT

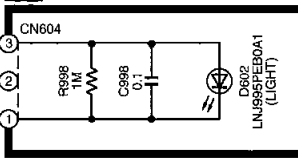


KEEPING TO THE RULE OF UNIT SUPPLY, WE DO NOT SUPPLY SINGLE PARTS.

D LED(L) CIRCUIT

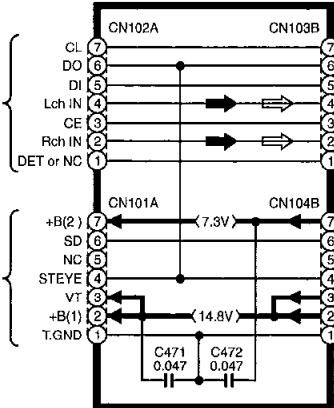


E LED(R) CIRCUIT



- : POSITIVE VOLTAGE LINE
- - -> : NEGATIVE VOLTAGE LINE
- ⇄ : FM SIGNAL LINE
- ⇄ : AM SIGNAL LINE

G CONNECTOR CIRCUIT



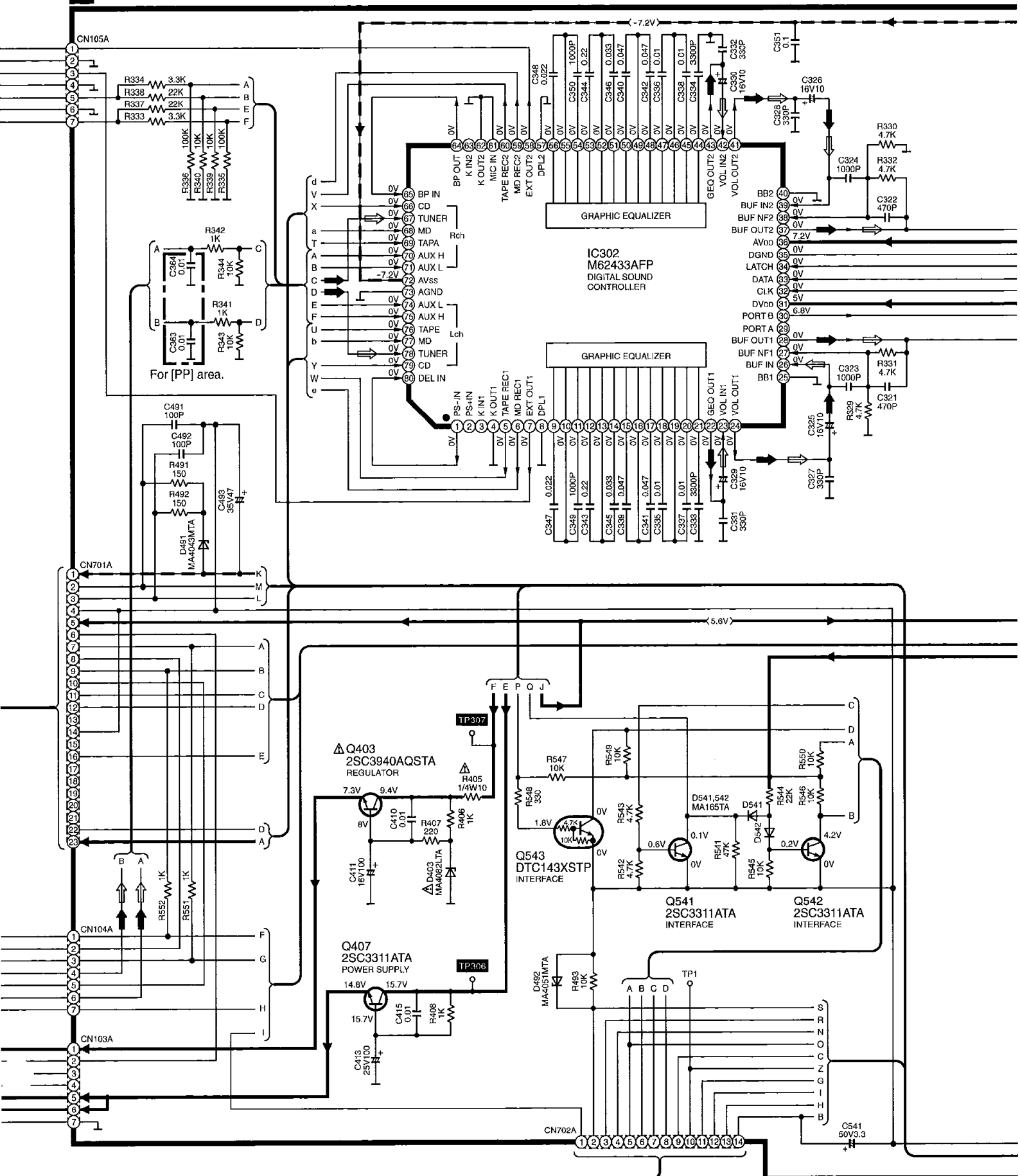
To **A** TUNER CIRCUIT (CN102B) on SCHEMATIC DIAGRAM-2,4

To **A** TUNER CIRCUIT (CN101B) on SCHEMATIC DIAGRAM-2,4

SCHEMATIC DIAGRAM-7

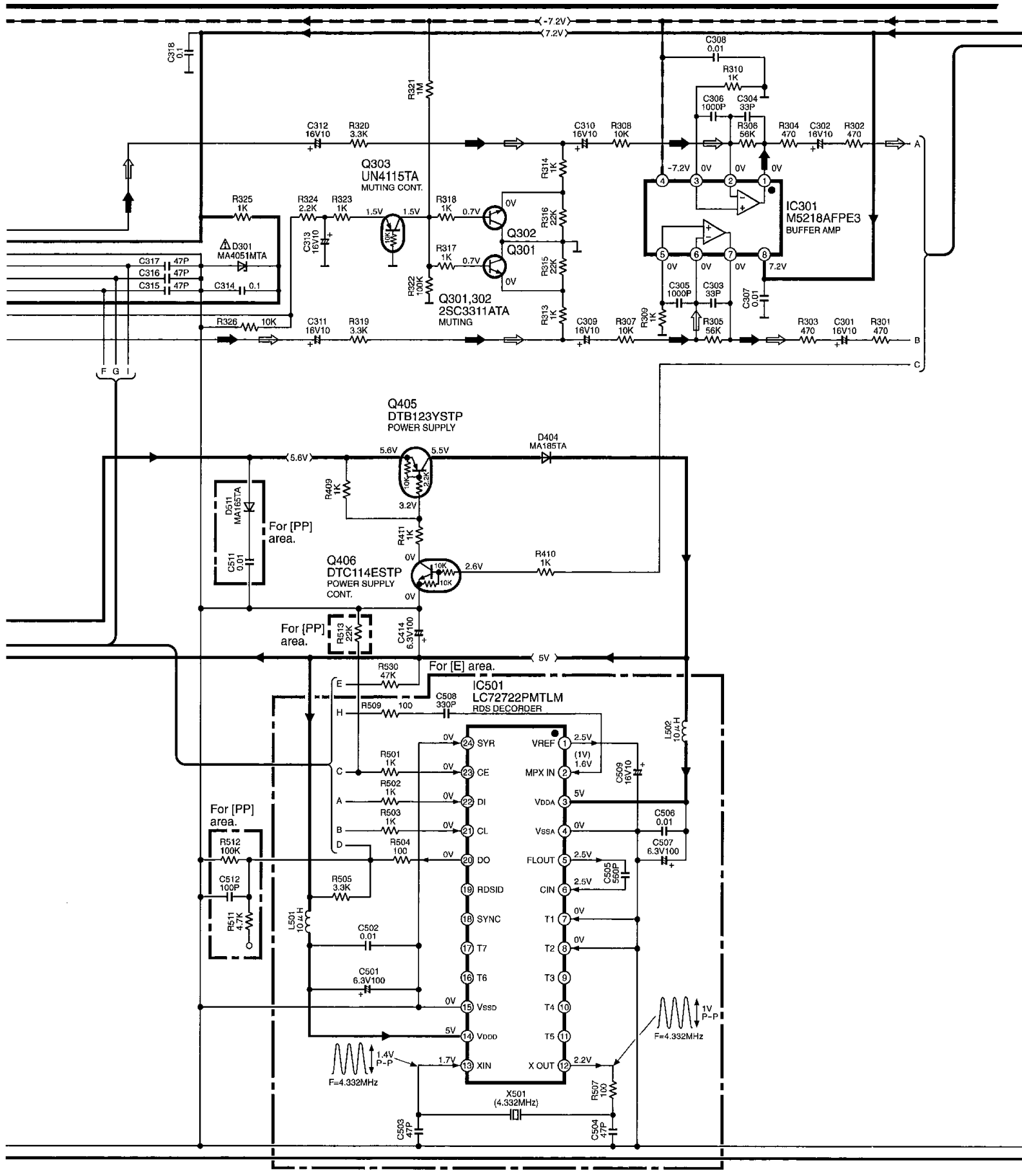
H MAIN CIRCUIT

→ : POSITIVE VOLTAGE LINE - - - - - : NEGATIVE VOLTAGE LINE ⇨ : FM SIGNAL LINE ⇨ : AM SIGNAL LINE



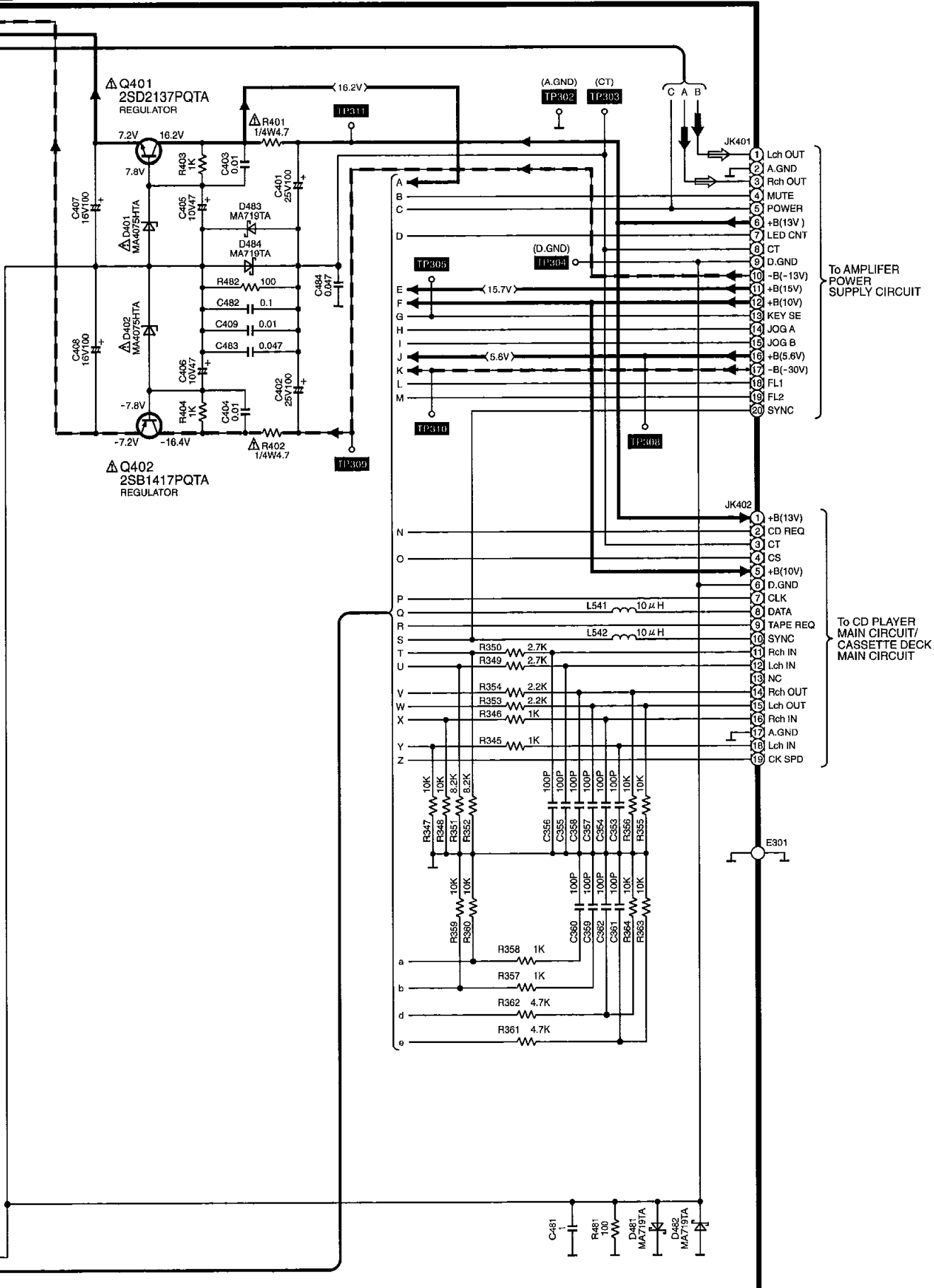
SCHEMATIC DIAGRAM-8

→ : POSITIVE VOLTAGE LINE → : NEGATIVE VOLTAGE LINE ⇨ : FM SIGNAL LINE ⇨ : AM SIGNAL LINE

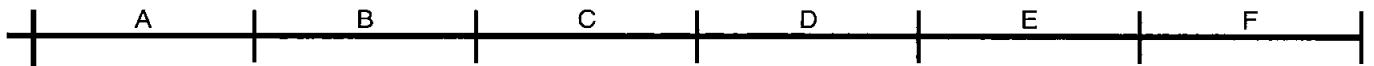


SCHEMATIC DIAGRAM-9
H MAIN CIRCUIT

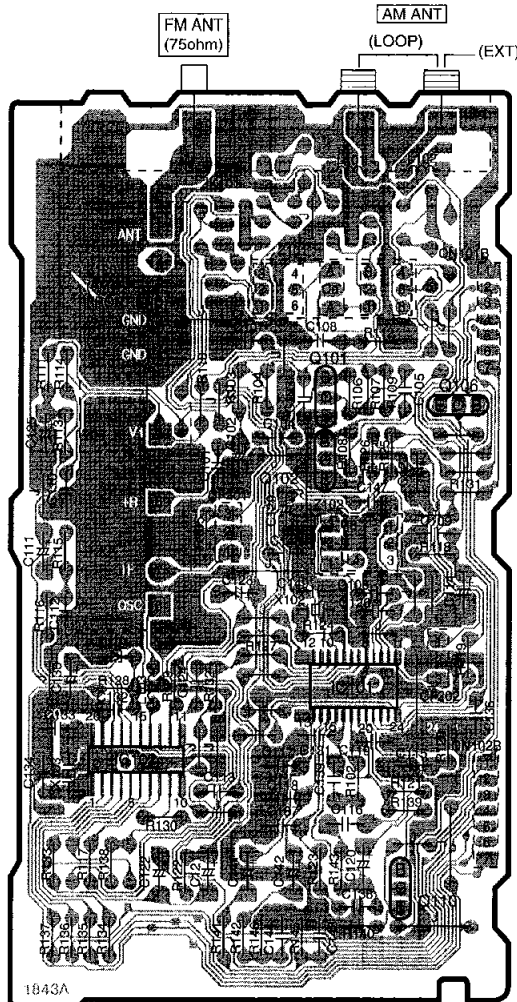
→ : POSITIVE VOLTAGE LINE ⇨ : FM SIGNAL LINE
 ← : NEGATIVE VOLTAGE LINE ⇩ : AM SIGNAL LINE



11 Printed Circuit Board Diagram

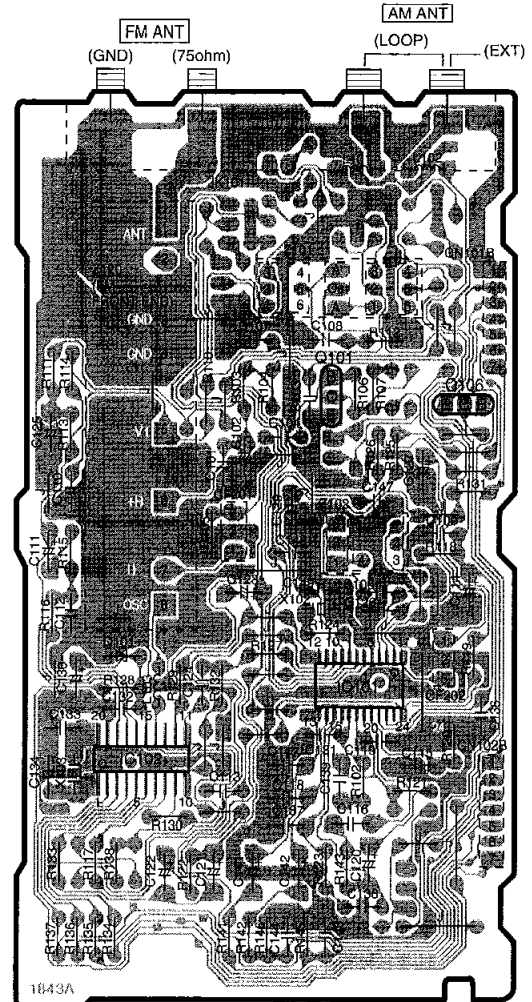


A TUNER P.C.B. For [E] area.



1B43A
(REP2592C-T)

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



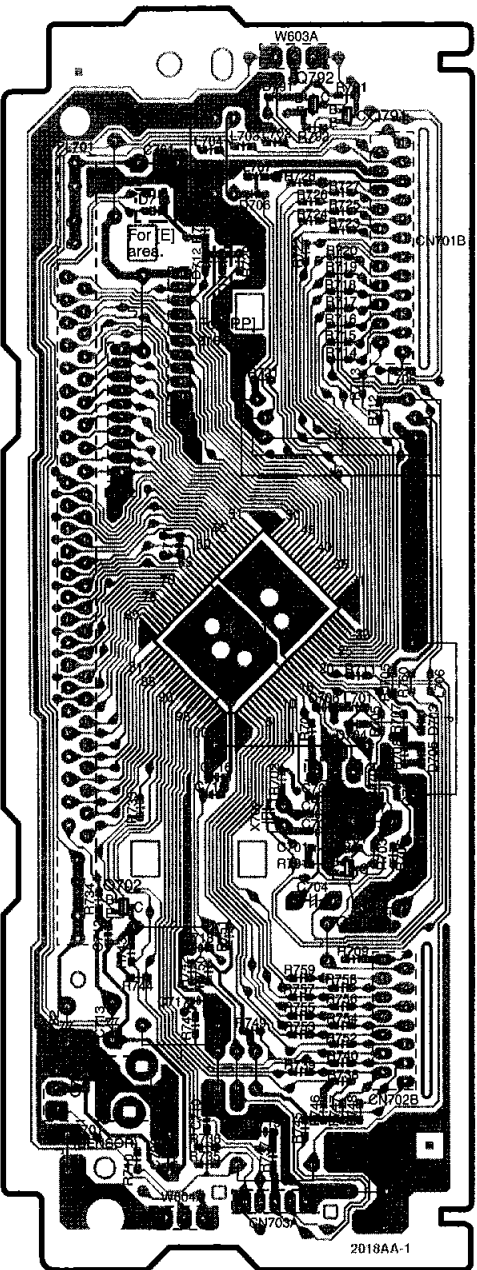
1B43A
(REP2592B-T)

ELECTRICAL PARTS LOCATION

Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.
A TUNER P.C.B. For [E] area.															
IC101	4C	CF202	4C	R110	3B	R124	4B	R138	5A	C107	2B	C121	5B	C137	5B
IC102	4B	X102	4B	R111	3A	R125	3C	R139	5C	C108	2B	C122	5B	C138	5C
Q101	3B	X103	4A	R112	2C	R126	3C	R140	5C	C109	3C	C123	4B	C139	4B
Q102	3B	CN101B	2C	R113	3A	R127	4B	R141	5B	C110	3A	C124	4B	C141	5B
Q106	3C	CN102B	5C	R114	3A	R128	4A	R142	5B	C111	3A	C125	3A	C142	5B
Q110	5C	JK101	2B	R115	3A	R129	4B	R143	5B	C112	4A	C126	4C	C143	5B
D101	4A	R102	4C	R116	4A	R130	5B	R145	5B	C113	4B	C127	3C	C144	5B
L101	2C	R103	3B	R117	5A	R131	3C	R146	5B	C114	4C	C129	3B	C147	3C
L102	2C	R104	3B	R118	3C	R132	4B	C101	3B	C115	4C	C130	4A	C148	3B
L103	4B	R105	3B	R119	4C	R133	5A	C102	3B	C116	5B	C131	4B	C149	4B
Z101	2B	R106	3C	R120	4C	R134	5A	C103	3B	C117	4B	C132	4A		
Z102	3C	R107	3C	R121	4C	R135	5A	C104	3B	C118	5B	C133	4A		
Z120	2A	R108	3C	R122	5B	R136	5A	C105	3C	C119	4C	C134	4A		
CF201	3B	R109	3C	R123	5B	R137	5A	C106	4C	C120	5C	C136	4C		
A TUNER P.C.B. For [PP] area.															
IC101	4E	X102	4E	R112	2F	R125	3F	R138	5D	C109	3F	C122	5E	C137	5E
IC102	4D	X103	4D	R113	3D	R126	3F	R141	5E	C110	3D	C123	4E	C138	5E
Q101	3E	CN101B	2F	R114	3D	R127	4E	R142	5E	C111	3D	C124	4E	C139	4E
Q106	3F	CN102B	5F	R115	3D	R128	4D	R143	5E	C112	4D	C125	3D	C141	5E
D101	4D	JK101	2E	R116	4D	R129	4E	R145	5E	C113	4E	C126	4F	C142	5E
L101	2E	R102	4E	R117	5D	R130	5E	R146	5E	C114	4F	C127	3F	C143	5E
L102	2F	R103	3E	R118	3F	R131	3F	C101	3E	C115	4F	C129	3E	C144	5F
L103	4E	R104	3E	R119	4F	R132	4E	C102	3E	C116	5E	C130	4D	C147	3F
Z101	2E	R105	3E	R120	4F	R133	5D	C103	3E	C117	4E	C131	4E	C148	3E
Z102	3E	R106	3E	R121	4F	R134	5D	C104	3E	C118	5E	C132	4D	C149	4E
Z120	2D	R107	3F	R122	5E	R135	5D	C106	4F	C119	4F	C133	4D		
CF201	3E	R110	3E	R123	5E	R136	5D	C107	2E	C120	5E	C134	4D		
CF202	4F	R111	3D	R124	4E	R137	5D	C108	2E	C121	5E	C136	4F		

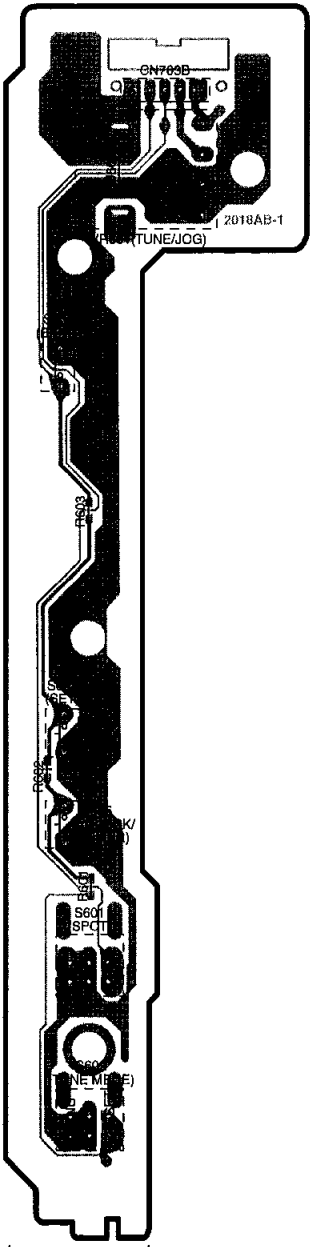
A B C D E F

B FL P.C.B.



(REP2769C-S [E])
(REP2769D-S [PP])

C OPERATION P.C.B.



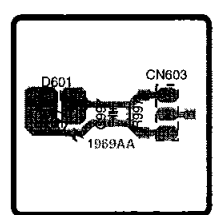
(REP2769C-S [E])
(REP2769D-S [PP])

ELECTRICAL PARTS LOCATION

Ref. No.	Lo. No.	Ref. No.	Lo. No.
FL P.C.B.			
IC701	4B	R729	2B
Q701	5B	R730	2B
Q702	5A	R733	5A
Q791	1B	R734	5A
Q792	1B	R735	6B
D701	5B	R736	6B
D703	4C	R737	6B
D704	4B	R738	6B
D705	4C	R739	6B
D706	2B	R740	6B
D711	2B	R741	6B
D712	2B	R742	5B
D713	2B	R743	5A
D791	1B	R744	5A
L701	4B	R745	6B
L702	2B	R746	6B
L703	2B	R747	6B
L704	2B	R748	6B
L705	3C	R749	6B
L706	4C	R750	5B
L707	2B	R751	5B
Z701	6A	R752	6B
X701	4B	R753	6B
X702	5B	R754	6B
FL701	2A	R755	5B
CN701B	2C	R756	5B
CN702B	6C	R757	5B
CN703A	6B	R758	5B
W603A	1B	R759	5B
W604A	6B	R760	4C
R701	5B	R781	2B
R702	4B	R782	3A
R703	5C	R791	1B
R704	4B	R792	2B
R705	4C	RJ704	4C
R706	5C	RJ705	4C
R707	4C	C701	5B
R708	4C	C702	5B
R709	5B	C703	5B
R710	6A	C704	5B
R711	4B	C705	4B
R712	3C	C706	4B
R713	3B	C707	5C
R714	3B	C708	4C
R715	2B	C709	5C
R716	2B	C710	6B
R717	2B	C711	3B
R718	2B	C712	5A
R719	2B	C713	6A
R720	2B	C715	4B
R721	3B	C716	4B
R722	2B	C717	5B
R723	2B	C718	5B
R724	2B	C719	6B
R725	2B	C781	2B
R726	2B	C782	6A
R727	2B	C791	6A
R728	2B	C792	6B
OPERATION P.C.B.			
VR601	2D	CN703B	1D
S601	5D	R601	5D
S602	6D	R602	4D
S603	3D	R603	3D
S604	4D	RJ601	2D
S605	5D		
LED(L) P.C.B.			
D601	8B	R997	8C
CN603	8C	C997	8C
LED(R) P.C.B.			
D602	8D	R998	8D
CN604	8D	C998	8D

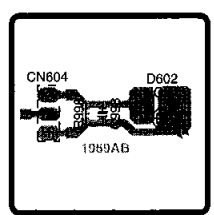
[Keeping to the rule of unit supply, we do not supply single parts.]

D LED(L) P.C.B.



(REP2683A-S)

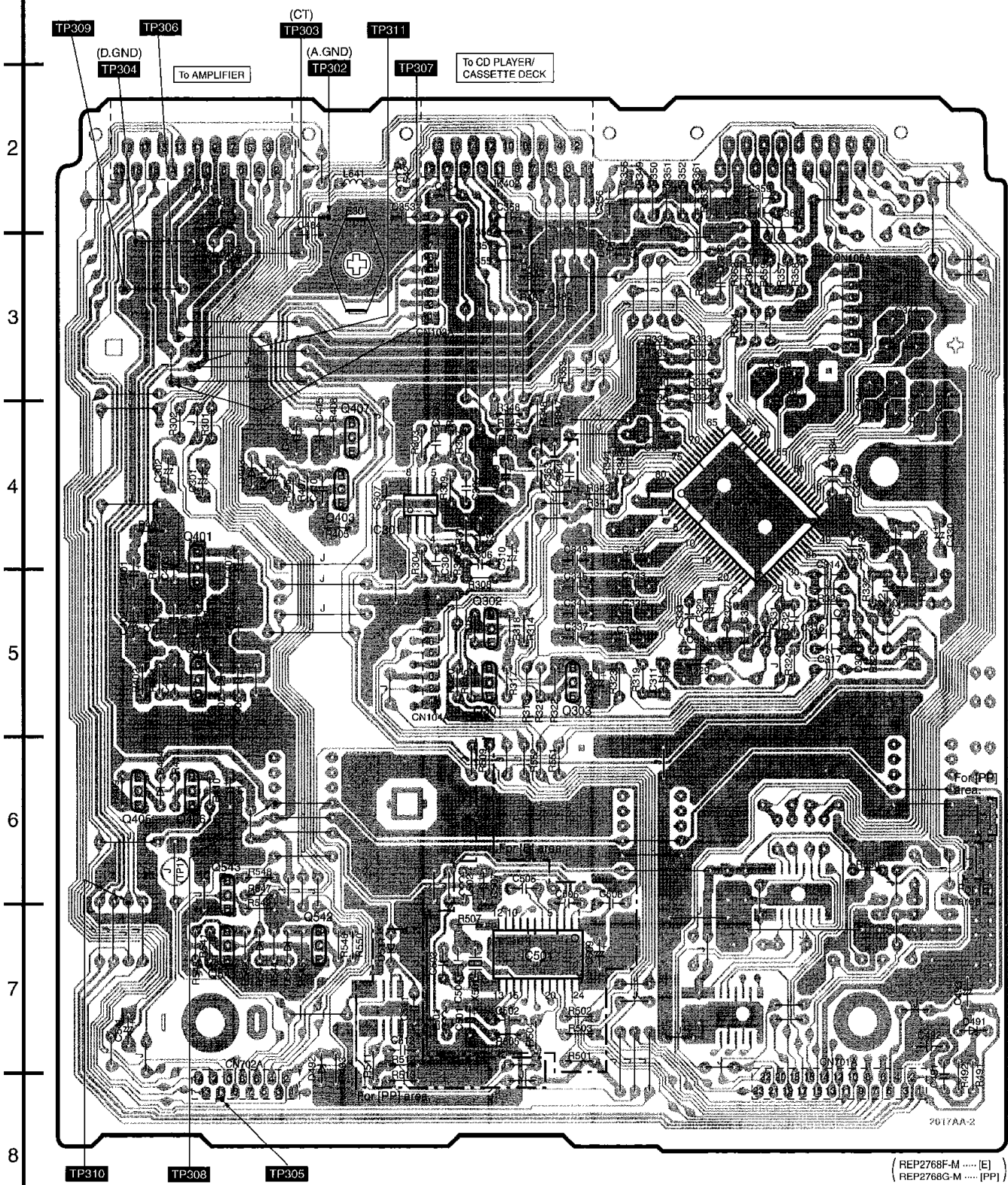
E LED(R) P.C.B.



(REP2683A-S)

A | B | C | D | E | F

1 **H** MAIN P.C.B.



(REP2768F-M [E])
(REP2768G-M [PP])

G

H

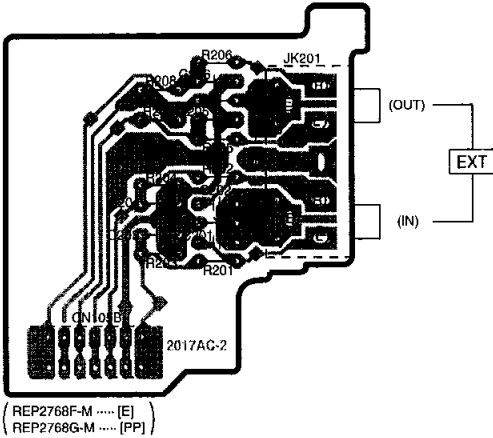
I

J

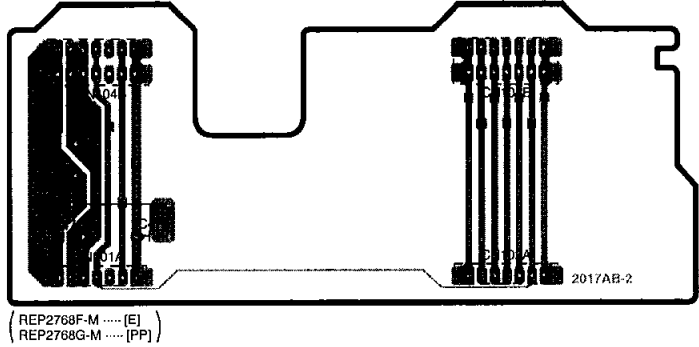
K

L

F IN/OUT TERMINAL P.C.B.



G CONNECTOR P.C.B.



ELECTRICAL PARTS LOCATION

Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.
F IN/OUT TERMINAL P.C.B.											
CN105B	3G	R202	2H	R205	2H	R208	2G	C203	2G	C206	2H
JK201	2H	R203	2G	R206	1H	C201	2H	C204	2G	C209	2H
R201	2H	R204	2G	R207	2G	C202	2H	C205	2H		
G CONNECTOR P.C.B.											
CN101A	2J	CN102A	2K	CN103B	1K	CN104B	1J	C471	2J	C472	2J
MAIN P.C.B.											
IC301	4C	E301	3C	R334	3E	R411	6A	C313	5D	C357	3C
IC302	4E	(TP1)	6A	R335	3D	R481	3D	C314	5E	C358	2C
IC501	7D	TP302	2B	R336	3D	R482	2B	C315	5E	C359	2E
Q301	5C	TP303	3B	R337	3E	R491	7F	C316	5E	C360	2E
Q302	5C	TP304	3A	R338	3E	R492	7F	C317	5E	C361	2E
Q303	5D	TP305	8B	R339	3D	R493	7B	C318	4E	C362	3E
Q401	4B	TP306	3A	R340	3D	R501	7D	C321	5E	C363	4D
Q402	5B	TP307	3A	R341	4D	R502	7D	C322	5F	C364	4D
Q403	4B	TP308	6B	R342	4D	R503	7D	C323	5E	C401	5A
Q405	6A	TP309	3A	R343	4D	R504	7D	C324	5F	C402	5A
Q406	6B	TP310	6A	R344	4D	R505	7C	C325	5E	C403	4A
Q407	4B	TP311	3B	R345	4C	R507	7C	C326	4F	C404	5A
Q541	7B	R301	4B	R346	4C	R509	6C	C327	5E	C405	5A
Q542	7B	R302	4A	R347	4D	R511	7C	C328	4F	C406	5B
Q543	6B	R303	4C	R348	4D	R512	7C	C329	5E	C407	4B
D301	5F	R304	4C	R349	2D	R513	8C	C330	4F	C408	5B
D401	5B	R305	4C	R350	2D	R530	6F	C331	5E	C409	5A
D402	5B	R306	4C	R351	2D	R541	7B	C332	4E	C410	4B
D403	4B	R307	4C	R352	2D	R542	7B	C333	5D	C411	4B
D404	6A	R308	5C	R353	3D	R543	7B	C334	4E	C413	4B
D481	3D	R309	4C	R354	3E	R544	7B	C335	5D	C414	6B
D482	3D	R310	4C	R355	3C	R545	7B	C336	4F	C415	4B
D483	3B	R313	5D	R356	2C	R546	7B	C337	5D	C481	3D
D484	3B	R314	5D	R357	3E	R547	6B	C338	4F	C482	3D
D491	7F	R315	5C	R358	3E	R548	6B	C339	5D	C483	2B
D492	7B	R316	5C	R359	3E	R549	6B	C340	3F	C484	2B
D511	7C	R317	5C	R360	3E	R550	7B	C341	5D	C491	7F
D541	7B	R318	5C	R361	2E	R551	6D	C342	3F	C492	7F
D542	7B	R319	5D	R362	3E	R552	6D	C343	5D	C493	7F
L501	7C	R320	5C	R363	2E	C301	4B	C344	3F	C501	7C
L502	6C	R321	5D	R364	3E	C302	4A	C345	5D	C502	7C
L541	2B	R322	5D	R401	4A	C303	4C	C346	3F	C503	7C
L542	2C	R323	5D	R402	5A	C304	4C	C347	4D	C504	7C
X501	7C	R324	5E	R403	4A	C305	4C	C348	3E	C505	6D
CN103A	3C	R325	5F	R404	5A	C306	4C	C349	4D	C506	6D
CN104A	5C	R326	5E	R405	4B	C307	4C	C350	3E	C507	6C
CN105A	3E	R329	5E	R406	4B	C308	4C	C351	4D	C508	6D
CN701A	8E	R330	5F	R407	4B	C309	4C	C353	2C	C509	7D
CN702A	8B	R331	5E	R408	4B	C310	4C	C354	2C	C511	7C
JK401	2B	R332	5F	R409	6A	C311	5D	C355	2D	C512	7C
JK402	2C	R333	3E	R410	6B	C312	5F	C356	2D	C541	7A

12 Terminal Function of IC's

12.1. IC302(M62433AFP): DIGITAL SOUND CONTROLLER

Pin No.	Mark	I/O Division	Function
1	PS-IN	O	R/L output terminal for surround
2	PS+IN	I	Phase shift filter input terminal for surround (Not used, open)
3	KIN1	O	Key control adaptor output terminal (Not used, open)
4	KOUT1	I	Key control adaptor input terminal (Not used, connected to GND)
5	TAPEREC1	O	Rec signal output terminal from surround mix amp. terminal
6	MDREC1	O	Select common output rec signal output terminal
7	EXT OUT1	O	Select common output rec signal output terminal
8	DPL1	I	Tone signal input terminal (Not used, connected to GND)
9	F1F1	I	Resonance impedance connect terminal
10	F1O1	O	Resonance buffer amp output terminal
11	FIN1	I	Resonance buffer amp input terminal
12	F2F1	I	Resonance impedance connect terminal
13	F2O1	O	Resonance buffer amp output terminal
14	F2IN1	I	Resonance buffer amp input terminal
15	F3F1	I	Resonance impedance connect terminal
16	F3O1	O	Resonance buffer amp output terminal
17	F3IN1	I	Resonance buffer amp input terminal
18	F4F1	I	Resonance impedance connect terminal
19	F4O1	O	Resonance buffer amp output terminal
20	F4IN1	I	Resonance buffer amp input terminal
21	F5F1	I	Band pass filter connect terminal (Connected to GND through capacitor)
22	GEQOUT1	O	Tone signal output terminal
23	VOLIN1	I	R ladder volume input terminal
24	VOLOUT1	O	R ladder volume output terminal
25	BB1	—	Bass boost capacity connection terminal(Not used, connected to GND)
26	BUFIN	I	Bass boost amp (+) input terminal
27	BUFN1	I	Bass boost amp (-) input terminal
28	BUFOUT1	O	Bass boost amp output terminal
29	PORTA	O	Port A output terminal (Not used, open)
30	PORTB	O	Port B output terminal
31	DV _{DD}	I	Power supply terminal
32	CLK	I	Clock input terminal for serial data transfer
33	DATA	I	Control data input terminal
34	LATCH	I	Latch signal input terminal
35	DGND	—	GND terminal
36	AV _{DD}	I	Power supply terminal
37	BUFOUT2	O	Bass boost amp output terminal
38	BUFN2	I	Bass boost amp (-) input terminal
39	BUFIN2	I	Bass boost amp (+) input terminal

Pin No.	Mark	I/O Division	Function
40	BB2	I	Bass boost capacity connection terminal(Not used, connected to GND)
41	VOLOUT2	O	R ladder volume output terminal
42	VOLIN2	I	R ladder volume input terminal
43	GEQOUT2	O	Tone signal output terminal
44	F5F2	I	Band pass filter connect terminal (Connected to GND through capacitor)
45	F4IN2	I	Resonance buffer amp input terminal
46	F4O2	O	Resonance buffer amp output terminal
47	F4F2	I	Resonance impedance connect terminal
48	F3IN2	I	Resonance buffer amp input terminal
49	F3O2	O	Resonance buffer amp output terminal
50	F3F2	I	Resonance impedance connect terminal
51	F2IN2	I	Resonance buffer amp input terminal
52	F2O2	O	Resonance buffer amp output terminal
53	F2F2	I	Resonance impedance connect terminal
54	F1IN2	I	Resonance buffer amp input terminal
55	F1O2	O	Resonance buffer amp output terminal
56	F1F2	I	Resonance impedance connect terminal
57	DPL2	I	Tone signal input terminal (Not used, connected to GND)
58	EXT OUT2	O	Select common output rec signal output terminal
59	MD REC2	O	Rec signal output terminal from surround mix amp. terminal
60	TAPE REC2	O	Rec signal output terminal from surround mix amp. terminal
61	MIC IN	I	Mic signal input terminal (Not used, connected to GND)
62	KOUT2	I	Key control adaptor input terminal (Not used, connected to GND)
63	KIN2	O	Key control adaptor output terminal (Not used, open)
64	BPOUT	O	Band pass filter amp output terminal for vocal cancel
65	BPIN	I	Band pass filter amp input terminal for vocal cancel
66	CD	I	Input terminal for Rch
67	TUNER	I	
68	MD	I	
69	TAPE	I	
70	AUXH	I	
71	AUXL	I	
72	AVSS	I	Power supply terminal
73	AGND	—	GND terminal
74	AUXL	I	Input terminal for Lch
75	AUXH	I	
76	TAPE	I	
77	MD	I	
78	TUNER	I	
79	CD	I	
80	DELIN	I	R/L input terminal for surround

12.2. IC701(M30218MAA101): FL DRIVE/SYSTEM CONTROL

Pin No.	Mark	I/O Division	Function
1	P97/CLKOUT	I/O	Communication clock velocity terminal ("H": normal, "L": CD-TEXT)
2	P96/DA1/SCLK22	O	Clock output terminal for serial data transfer
3	P95/SCLK21	I	CD & Tape communication clock input terminal
4	P94/SOUT2	O	CD & Tape communication data output terminal
5	P93/SIN2	I	CD & Tape communication data input terminal
6	P92/SSTB2	I	CD & Tape communication response input terminal
7	P91/SBUSY2	O	CD communication request output terminal
8	P90/SRDY2	O	Tape communication request output terminal
9	CNV _{SS}	—	GND terminal
10	P87/XCIN	I	Crystal oscillator connection terminal (f=32.7kHz)
11	P86/XCOUT	O	
12	/RESET	I	Reset input terminal ("L": Micon reset)
13	XOUT	O	Main clock ceramic oscillator output terminal (f=10MHz)
14	VSS	—	GND terminal
15	XIN	I	Main clock ceramic oscillator input terminal (f=10MHz)
16	VCC	I	Power supply terminal
17	P85/INT5	I	Power failure detection input terminal
18	P84/INT4	I/O	CR timer terminal for watch backup
19	P83/INT3	O	Latch output terminal to IC302 (M62433AFP)
20	P82/INT2	I	Remote control data input terminal
21	P81/INT1	I	LED drive signal output terminal("L":OFF,"H":ON)
22	P80/INT0	O	Not used,open
23	P77/TA4IN/TA2OUT/CLK1	O	
24	P76/TA3IN/TA1OUT/CLK1		
25	P75/TA2IN/TA0OUT/RXD1	I	
26	P74/TA1IN/YA4OUT/TXD1	O	
27	P73/TA0IN/TA3OUT	I	Connected to power supply through resistor
28	P72/TB2IN	O	Not used, open

Pin No.	Mark	I/O Division	Function
29	P71/TB1IN	I	Tuner reception detect input terminal
30	P70/TB0IN	O	Chip enable signal output terminal to IC501 (LC72722PMTLM)
31	P47/CST0/RST0	O	Chip enable signal output terminal to IC102 (LC72131MDTLM)
32	P46/CXL0	O	Clock output terminal to IC501 (LC72722PMTLM)
33	P45/RXD0	I	Stereo input terminal from IC102 (LC72131MDTLM)
34	P44/TXD0	O	Data output terminal from IC102 (LC72131MDTLM)
35	P43/FLD51	I	Tuner signal detection input terminal from IC101 (LA1833MN-TLM)
36	P42/FLD50	I	Chip select input terminal
37	P41/FLD49	I/O	FL segment control in/output terminal
~	~		
40	P36/FLD46		
41	P35/FLD45	O	FL segment control output terminal
~	~		
54	P20/FLD32		
55	P17/FLD31		
~	~		
62	P10/FLD24		
63	VCC	I	Power supply terminal
64	P70/FLD23	O	FL segment control output terminal
65	VSS	—	GND terminal
66	P06/FLD22	O	FL segment control output terminal
~	~		
72	P00/FLD16		
73	P57/FLD15	O	FL segment control output terminal
74	P56/FLD14	O	FL grid control output terminal
~	~		
80	P50/FLD8		
81	P67/FLD7	O	FL grid control output terminal
~	~		
86	P62/FLD2		
87	P61/FLD1	O	FL grid control output terminal
88	P60/FLD0	O	FL grid control output terminal
89	VEE	I	Power supply terminal
90	P107/AN7	I	Key switch connect terminal
~	~		
92	P105/AN5		
93	P104/AN4	O	Muting output terminal ("H": OFF, "L": ON)
94	P103/AN3	I	Key switch connect terminal from SE-HD505
~	~		
96	P101/AN1		
97	AVSS	—	Connected to GND
98	P100/AN0	I	Key switch input terminal
99	VREF	I	Power supply terminal
100	AVCC		

13 Replacement Parts List

Note:

*Important safety notice:

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

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

When replacing any of components, be sure to use only manufacture'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.

*The marking <RTL> indicates that the Retention Time is limited for this item. After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time. The retention period of availability is dependant on the type of assembly , and in accordance with the laws governing part and product retention. After the end of this period, the assembly will no longer be available.

*Capacity values are in microfarads (μ F) 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.	Part Name & Description	Pcs	Remarks
1	RHD30007-S	SCREW	4	
2	RGK0969-1S	SIDE PANEL (L)	1	
3	RGK0970-1S	SIDE PANEL (R)	1	
4	XTBS26+8J	SCREW	10	
5	RGL0391-Q	PANEL LIGHT (L)	1	
6	RGL0392-Q	PANEL LIGHT (R)	1	
7	XTBS3+8JFZ1	SCREW	9	
8	REZ1119	FFC (23P)	1	
9	RKM0363-1S	CABINET	1	
10	RKA0098-K	FOOT	4	
11	XTB3+5JFZ	SCREW	4	
12	XTB3+8JFZ	SCREW	1	
13	RKW0568-S1	FL WINDOW	1	
14	RGG0160B-S	FRONT PANEL	1	(E)
14	RGG0160C-S	FRONT PANEL	1	(PP)
15	REP2683A-S	LED (L R) P.C.B.	1	
16	RGPO698-S	SUB PANEL	1	
17	REZ1120	FFC (14P)	1	
18	RGU1602-1S1	BUTTON BAND	1	
19	RGW0302-S	KNOB TUNER/JOG	1	
20	XTB3+12JFZ	SCREW	4	
C101	ECBT1C103NS5	16V 0.01U	1	
C102	ECEA1CKS101	16V 100U	1	(E)
C102	RCE1CKA100BG	16V 10U	1	(PP)
C103	ECBT1C103NS5	16V 0.01U	1	
C104	ECBT1H102KB5	50V 1000P	1	
C105	ECBT1H102KB5	50V 1000P	1	(E)
C106	ECBT1C103NS5	16V 0.01U	1	
C107	ECBT1H473ZF5	50V 0.047U	1	
C108	ECBT1H8R2KC5	50V 8.2P	1	
C109	ECBT1H102KB5	50V 1000P	1	
C110	ECBT1C103NS5	16V 0.01U	1	
C111	ECEA1EKS4R7	25V 4.7U	1	
C112	ECBT1C103NS5	16V 0.01U	1	
C113	ECBT1H102KB5	50V 1000P	1	
C114	RCE1HKA3R3BG	50V 3.3U	1	
C115	ECEA1EKS4R7	25V 4.7U	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C116	ECFR1C333KR	16V 0.033U	1	
C117,18	ECFR1C183KR	16V 0.018U	2	
C119	ECQP1391JZ	100V 390P	1	(E)
C119	ECQB1H561JF3	50V 560P	1	(PP)
C120	RCE1CKA100BG	16V 10U	1	
C121	RCE1HKAR47BG	50V 0.47U	1	
C122,23	ECEA1HKS010	50V 1U	2	
C124	ECBT1H101KB5	50V 100P	1	
C125	ECEA1CKS220	16V 22U	1	
C126	ECBT1H473ZF5	50V 0.047U	1	
C127	ECEA1CKS220	16V 22U	1	
C129,30	ECEA0JKS101	6.3V 100U	2	
C131	ECBT1H101KB5	50V 100P	1	
C132	ECBT1H102KB5	50V 1000P	1	
C133,34	ECBT1H270JU5	50V 27P	2	
C136	ECBT1H102KB5	50V 1000P	1	
C137	ECFR1E472KR	25V 4700P	1	
C138	ECBT1C103KS5	16V 0.01U	1	
C139	ECFR1E472KR	25V 4700P	1	
C141,42	ECEA1HKS010	50V 1U	2	
C143,44	ECBT1C472KR5	16V 4700P	2	
C147	ECBT1H102KB5	50V 1000P	1	
C148	ECBT1C103NS5	16V 0.01U	1	
C149	ECBT1H104ZF5	50V 0.1U	1	
C201-06	ECBT1H101KB5	50V 100P	6	
C209	ECBT1H102KB5	50V 1000P	1	
C301,02	RCE1CKA100BG	16V 10U	2	
C303,04	ECBT1H330J5	50V 33P	2	
C305,06	ECBT1H102KB5	50V 1000P	2	
C307,08	ECBT1E103ZF	25V 0.01U	2	
C309-13	RCE1CKA100BG	16V 10U	5	
C314	ECBT1H104ZF5	50V 0.1U	1	
C315-17	ECBT1H470J5	50V 47P	3	
C318	ECBT1H104ZF5	50V 0.1U	1	
C321,22	ECBT1H471KB5	50V 470P	2	
C323,24	ECBT1H102KB5	50V 1000P	2	
C325,26	RCE1CKA100BG	16V 10U	2	
C327,28	ECBT1H331KB5	50V 330P	2	
C329,30	RCE1CKA100BG	16V 10U	2	
C331,32	ECBT1H331KB5	50V 330P	2	
C333,34	ECBT1C332KR5	16V 3300P	2	
C335-38	ECQB1H103JZ	50V 0.01U	4	
C339-42	ECQV1H473JM3	50V 0.047U	4	
C343,44	ECQV1H224JM3	50V 0.22U	2	
C345,46	ECQB1H333JF3	50V 0.033U	2	
C347,48	ECQB1H223JF3	50V 0.022U	2	
C349,50	ECBT1H102KB5	50V 1000P	2	
C351	ECBT1H104ZF5	50V 0.1U	1	
C353-62	ECBT1H101KB5	50V 100P	10	
C363,64	ECBT1C103KS5	16V 0.01U	2	(PP)
C401,02	ECAEM101	25V 100U	2	
C403,04	ECBT1E103ZF	25V 0.01U	2	
C405,06	RCE1AKA470BG	10V 47U	2	
C407,08	ECEA1CKS101	16V 100U	2	
C409,10	ECBT1E103ZF	25V 0.01U	2	
C411	ECEA1CKS101	16V 100U	1	
C413	ECAEM101	25V 100U	1	
C414	ECEA0JKS101	6.3V 100U	1	
C415	ECBT1E103ZF	25V 0.01U	1	
C471,72	ECBT1H473ZF5	50V 0.047U	2	
C481	ECBT1C105ZF5	16V 1U	1	
C482	ECBT1H104ZF5	50V 0.1U	1	
C483,84	ECBT1H473ZF5	50V 0.047U	2	
C491,92	ECBT1H101KB5	50V 100P	2	
C493	ECEA1VKS470	35V 47U	1	
C501	ECEA0JKS101	6.3V 100U	1	(E)
C502	ECBT1E103ZF	25V 0.01U	1	(E)
C503,04	ECBT1H470J5	50V 47P	2	(E)
C505	ECBT1H561KB5	50V 560P	1	(E)
C506	ECBT1E103ZF	25V 0.01U	1	(E)
C507	ECEA0JKS101	6.3V 100U	1	(E)
C508	ECBT1H331KB5	50V 330P	1	(E)
C509	RCE1CKA100BG	16V 10U	1	(E)

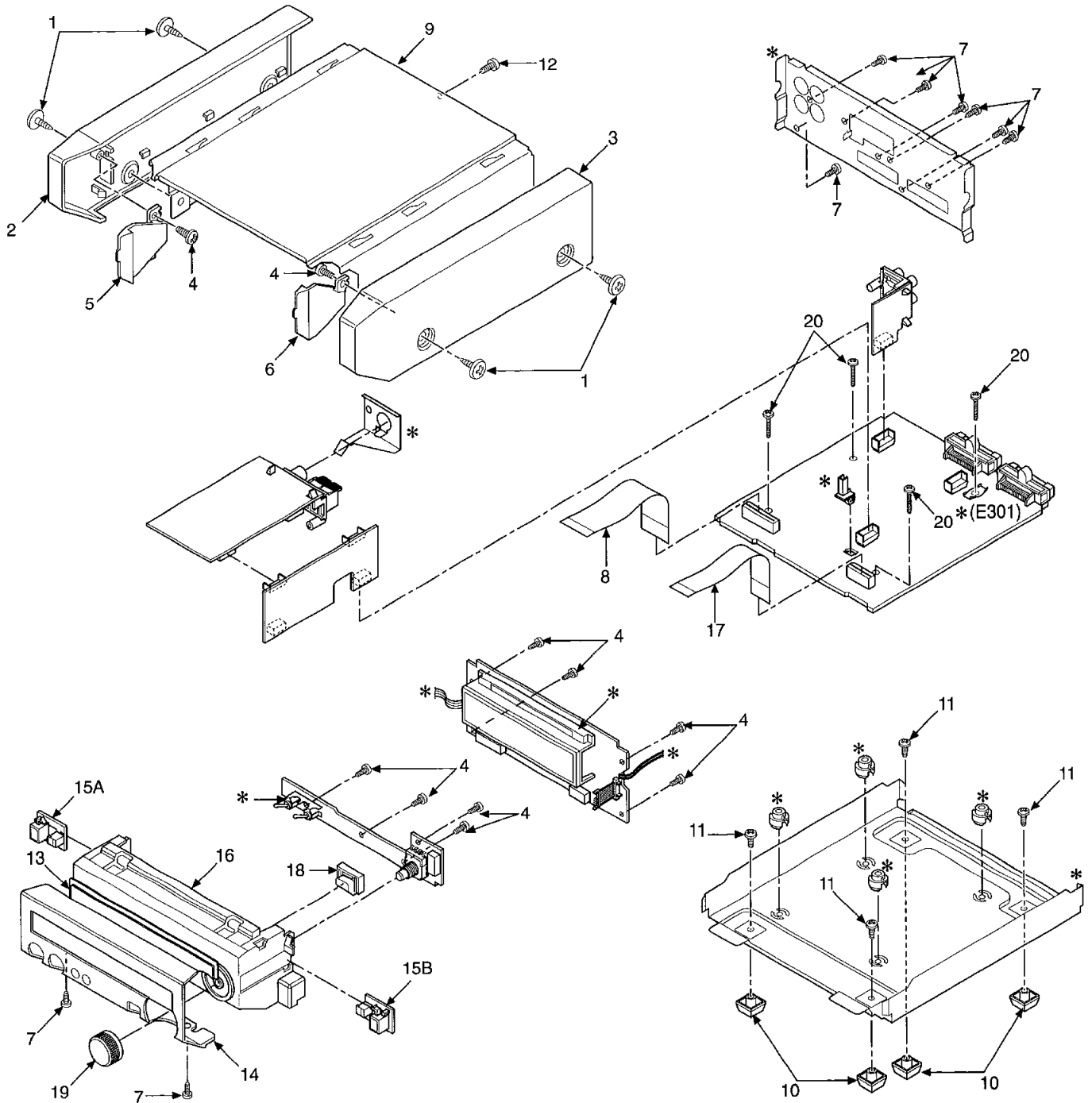
Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C511	ECBT1E103ZF	25V 0.01U	1	(PP)
C512	ECBT1H101KB5	50V 100P	1	(PP)
C541	RCE1HKA3R3BG	50V 3.3U	1	
C701	ECUV1H104ZFN	50V 0.1U	1	
C702	ECUV1H180JCN	50V 18P	1	
C703	ECUV1H200JCN	50V 20P	1	
C704	ECEA1HKS2R2	50V 2.2U	1	
C705,06	ECUV1H104ZFN	50V 0.1U	2	
C707	RCE0JRC102BG	6.3V 1000U	1	
C708	ECUV1H103ZFN	50V 0.01U	1	
C709	RCE1CKA100BG	16V 10U	1	
C710	ECUV1H103ZFN	50V 0.01U	1	
C711,12	ECUV1H104ZFN	50V 0.1U	2	
C713	ECEA1HKS100	50V 10U	1	
C715,16	ECUV1H104ZFN	50V 0.1U	2	
C717-19	ECUV1H103ZFN	50V 0.01U	3	
C781,82	ECEA1HKS010	50V 1U	2	
C791	ECUV1H103ZFN	50V 0.01U	1	
C792	ECEA0JKS101	6.3V 100U	1	
CF201	RLFFETNGD01L	CERAMIC FILTER	1	(E)
CF201	RLFFETWN01DD	CERAMIC FILTER	1	(PP)
CF202	RLFFETMGD01L	CERAMIC FILTER	1	(E)
CF202	RLFFETWN01DD	CERAMIC FILTER	1	(PP)
CN101A	RJT100W07	CONNECTOR (7P)	1	
CN101B	RJU100W07	CONNECTOR (7P)	1	
CN102A	RJT100W07	CONNECTOR (7P)	1	
CN102B	RJU100W07	CONNECTOR (7P)	1	
CN103A	RJT057W007-1	CONNECTOR (7P)	1	
CN103B	RJU057W007	CONNECTOR (7P)	1	
CN104A	RJT057W007-1	CONNECTOR (7P)	1	
CN104B	RJU057W007	CONNECTOR (7P)	1	
CN105A	RJT057W007-1	CONNECTOR (7P)	1	
CN105B	RJU057W007	CONNECTOR (7P)	1	
CN701A	RJS1A6823	CONNECTOR (23P)	1	
CN701B	RJS1A6223-1	CONNECTOR (23P)	1	
CN702A	RJS1A6814	CONNECTOR (14P)	1	
CN702B	RJS1A6214-1	CONNECTOR (14P)	1	
CN703A	RJT066H05A	CONNECTOR (5P)	1	
CN703B	RJU066H05	CONNECTOR (5P)	1	
D101	MA4051M	DIODE	1	
△				
D301	MA4051M	DIODE	1	
△				
D401,02	MA4075HTA	DIODE	2	
△				
D403	MA4082LTA	DIODE	1	
△				
D404	MA185TA	DIODE	1	
D481-84	MA719TA	DIODE	4	
D491	MA4043M	DIODE	1	
D492	MA4051M	DIODE	1	
D511	MA165	DIODE	1	(PP)
D541,42	MA165	DIODE	2	
D701	MA111TX	DIODE	1	
D703,04	1SS380TE-17	DIODE	2	
D705	MA111TX	DIODE	1	
D706	1SS380TE-17	DIODE	1	
D711	MA111TX	DIODE	1	(PP)
D712	MA111TX	DIODE	1	
D713	MA111TX	DIODE	1	(E)
D791	UDZ2R0BTE-17	DIODE	1	
FL701	RSL0271-F	FL DISPLAY TUBE	1	
IC101	LA1833MN-TLM	IC	1	
IC102	LC72131MDTLM	IC	1	
IC301	M5218AFPE3	IC	1	
IC302	M62433AFP	IC	1	
IC501	LC72722PMTLM	IC	1	(E)
IC701	M30218MAA101	IC	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
JK101	RJH5210M	ANTENNA	1	(E)
JK101	RJH5404M	ANTENNA	1	(PP)
JK201	SJF3069-20N	EXT OUT/IN	1	
JK401	RJT065K20	SYSTEM CONNECTOR (20P)	1	
JK402	RJT065K19	SYSTEM CONNECTOR (19P)	1	
L101,02	ELESNR68MA	COIL	2	
L103	ELEXTR47MA9	COIL	1	
L501,02	RLQA100JT-Y	COIL	2	(E)
L541,42	RLQA100JT-Y	COIL	2	
L701	RLBN300AV-W	COIL	1	
L702-06	RLBN601V-W	COIL	5	
L707	RLBN300AV-W	COIL	1	
PCB1	REP2592C-T	TUNER P.C.B.	1	(E) (RTL)
PCB1	REP2592B-T	TUNER P.C.B.	1	(PP) (RTL)
PCB2	REP2768F-M	MAIN P.C.B.	1	(E) (RTL)
PCB2	REP2768G-M	MAIN P.C.B.	1	(PP) (RTL)
PCB3	REP2769C-S	PANEL P.C.B.	1	(E) (RTL)
PCB3	REP2769D-S	PANEL P.C.B.	1	(PP) (RTL)
Q101	2SC2787FK	TRANSISTOR	1	
Q102	2SC2787FK	TRANSISTOR	1	(E)
Q106	UN4111	TRANSISTOR	1	
Q110	2SC3311AR	TRANSISTOR	1	(E)
Q301,02	2SC3311ATA	TRANSISTOR	2	
Q303	UN4115	TRANSISTOR	1	
Q401	2SD2137PQTA	TRANSISTOR	1	
△				
Q402	2SB1417PQTA	TRANSISTOR	1	
△				
Q403	2SC3940AQSTA	TRANSISTOR	1	
△				
Q405	DTB123YSTP	TRANSISTOR	1	
Q406	DTC114ESTP	TRANSISTOR	1	
Q407	2SC3311ATA	TRANSISTOR	1	
Q541,42	2SC3311ATA	TRANSISTOR	2	
Q543	DTC143XSTP	TRANSISTOR	1	
Q701	UN5214TX	TRANSISTOR	1	
Q702	2SD1819ATX	TRANSISTOR	1	
Q791	UN5214TX	TRANSISTOR	1	
Q792	2SB709ASTX	TRANSISTOR	1	
R102	ERDS2FJ472	1/4W 4.7K	1	
R103	ERDS2FJ101	1/4W 100	1	(E)
R103	ERDS2FJ271	1/4W 270	1	(PP)
R104	ERDS2FJ103	1/4W 10K	1	(E)
R104	ERDS2FJ102	1/4W 1K	1	(PP)
R105	ERDS2FJ471	1/4W 470	1	
R106	ERDS2FJ474	1/4W 470K	1	
R107	ERDS2FJ331	1/4W 330	1	
R108	ERDS2FJ474	1/4W 470K	1	(E)
R109	ERDS2FJ331	1/4W 330	1	(E)
R110	ERDS2FJ102	1/4W 1K	1	
R111	ERDS2FJ391	1/4W 390	1	
R112	ERDS2FJ104	1/4W 100K	1	
R113	ERDS2FJ103	1/4W 10K	1	
R114	ERDS2FJ562	1/4W 5.6K	1	
R115	ERDS2FJ561	1/4W 560	1	
R116	ERDS2FJ102	1/4W 1K	1	
R117	ERDS2FJ683	1/4W 68K	1	(E)
R117	ERDS2FJ473	1/4W 47K	1	(PP)
R118	ERDS2FJ332	1/4W 3.3K	1	
R119	ERDS2FJ103	1/4W 10K	1	(E)
R119	ERDS2FJ682	1/4W 6.8K	1	(PP)
R120	ERDS2FJ473	1/4W 47K	1	
R121	ERDS2FJ223	1/4W 22K	1	
R122	ERDS2FJ272	1/4W 2.7K	1	
R123	ERDS2FJ683	1/4W 68K	1	
R124	ERDS2FJ271	1/4W 270	1	
R125	ERDS2FJ471	1/4W 470	1	
R126	ERDS2FJ152	1/4W 1.5K	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R127	ERDS2FJ471	1/4W 470	1	
R128	ERDS2FJ820	1/4W 82	1	
R129	ERDS2FJ273	1/4W 27K	1	
R130	ERDS2FJ103	1/4W 10K	1	
R131	ERDS2FJ680	1/4W 68	1	
R132	ERDS2FJ103	1/4W 10K	1	
R133	ERDS2FJ102	1/4W 1K	1	
R134	ERDS2FJ471	1/4W 470	1	
R135-37	ERDS2FJ102	1/4W 1K	3	
R138	ERDS2FJ332	1/4W 3.3K	1	
R139	ERDS2FJ332	1/4W 3.3K	1	(E)
R140	ERDS2FJ472	1/4W 4.7K	1	(E)
R141,42	ERDS2FJ102	1/4W 1K	2	
R143	ERDS2FJ223	1/4W 22K	1	
R145,46	ERDS2FJ104	1/4W 100K	2	
R201,02	ERDS2FJ102	1/4W 1K	2	
R305,06	ERDS2FJ563	1/4W 56K	2	
R307,08	ERDS2FJ103	1/4W 10K	2	
R309,10	ERDS2FJ102	1/4W 1K	2	
R313,14	ERDS2FJ102	1/4W 1K	2	
R315,16	ERDS2FJ223	1/4W 22K	2	
R317,18	ERDS2FJ102	1/4W 1K	2	
R319,20	ERDS2FJ332	1/4W 3.3K	2	
R321	ERDS2FJ105	1/4W 1M	1	
R322	ERDS2FJ104	1/4W 100K	1	
R323	ERDS2FJ102	1/4W 1K	1	
R324	ERDS2FJ222	1/4W 2.2K	1	
R325	ERDS2FJ102	1/4W 1K	1	
R326	ERDS2FJ103	1/4W 10K	1	
R329-32	ERDS2FJ472	1/4W 4.7K	4	
R333,34	ERDS2FJ332	1/4W 3.3K	2	
R335,36	ERDS2FJ104	1/4W 100K	2	
R337,38	ERDS2FJ223	1/4W 22K	2	
R339,40	ERDS2FJ103	1/4W 10K	2	
R341,42	ERDS2FJ102	1/4W 1K	2	
R343,44	ERDS2FJ103	1/4W 10K	2	
R345,46	ERDS2FJ102	1/4W 1K	2	
R347,48	ERDS2FJ103	1/4W 10K	2	
R349,50	ERDS2FJ272	1/4W 2.7K	2	
R351,52	ERDS2FJ822	1/4W 8.2K	2	
R353,54	ERDS2FJ222	1/4W 2.2K	2	
R355,56	ERDS2FJ103	1/4W 10K	2	
R357,58	ERDS2FJ102	1/4W 1K	2	
R359,60	ERDS2FJ103	1/4W 10K	2	
R361,62	ERDS2FJ472	1/4W 4.7K	2	
R363,64	ERDS2FJ103	1/4W 10K	2	
R401,02	ERD2FCJ4R7	1/4W 4.7	2	
△				
R403,04	ERDS2FJ102	1/4W 1K	2	
R405	ERD2FCG100	1/4W 10	1	
△				
R406	ERDS2FJ102	1/4W 1K	1	
R407	ERDS2FJ221	1/4W 220	1	
R408-11	ERDS2FJ102	1/4W 1K	4	
R481,82	ERDS2FJ101	1/4W 100	2	
R491,92	ERDS2FJ151	1/4W 150	2	
R493	ERDS2FJ103	1/4W 10K	1	
R501-03	ERDS2FJ102	1/4W 1K	3	(E)
R504	ERDS2FJ101	1/4W 100	1	(E)
R505	ERDS2FJ332	1/4W 3.3K	1	(E)
R507	ERDS2FJ101	1/4W 100	1	(E)
R509	ERDS2FJ101	1/4W 100	1	(E)
R511	ERDS2FJ472	1/4W 4.7K	1	(PP)
R512	ERDS2FJ104	1/4W 100K	1	(PP)
R513	ERDS2FJ223	1/4W 22K	1	(PP)
R530	ERDS2FJ473	1/4W 47K	1	
R541	ERDS2FJ473	1/4W 47K	1	
R542,43	ERDS2FJ472	1/4W 4.7K	2	
R544	ERDS2FJ223	1/4W 22K	1	
R545-47	ERDS2FJ103	1/4W 10K	3	
R548	ERDS2FJ331	1/4W 330	1	
R549,50	ERDS2FJ103	1/4W 10K	2	
R551,52	ERDS2FJ102	1/4W 1K	2	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R601	ERJ6GEYJ122V	1/10W 1.2K	1	
R602	ERJ6GEYJ102Z	1/10W 1K	1	
R603	ERJ6GEYJ821V	1/10W 820	1	
R701	ERJ6GEYJ102Z	1/10W 1K	1	
R702	ERJ6GEYJ103V	1/10W 10K	1	
R703	ERJ6GEYJ104V	1/10W 100K	1	
R704	ERJ6GEYJ101V	1/10W 100	1	
R705-07	ERJ6GEYJ102Z	1/10W 1K	3	
R708	ERJ6GEYJ824V	1/10W 820K	1	
R709-11	ERJ6GEYJ102Z	1/10W 1K	3	
R712	ERJ6GEYJ103V	1/10W 10K	1	
R713-15	ERJ6GEYJ102Z	1/10W 1K	3	
R716-18	ERJ6GEYJ331V	1/10W 330	3	
R719,20	ERJ6GEYJ102Z	1/10W 1K	2	
R721	ERJ6GEYJ153V	1/10W 15K	1	
R722-24	ERJ6GEYJ102Z	1/10W 1K	3	
R725	ERJ6GEYJ101V	1/10W 100	1	
R726,27	ERJ6GEYJ331V	1/10W 330	2	
R728,29	ERJ6GEYJ102Z	1/10W 1K	2	
R730	ERJ6GEYJ103V	1/10W 10K	1	
R733	ERJ6GEYJ101V	1/10W 100	1	
R734	ERJ6GEYJ104V	1/10W 100K	1	
R735-37	ERJ6GEYJ102Z	1/10W 1K	3	
R738	ERJ6GEYJ101V	1/10W 100	1	
R739-42	ERJ6GEYJ102Z	1/10W 1K	4	
R743-51	ERJ6GEYJ103V	1/10W 10K	9	
R752-57	ERJ6GEYJ102Z	1/10W 1K	6	
R758,59	ERJ6GEYJ101V	1/10W 100	2	
R760	ERJ6GEYJ102Z	1/10W 1K	1	
R781,82	EXBZ10E104J	COMPONENT COMBINATION	2	
R791	ERJ6GEYJ103V	1/10W 10K	1	
R792	ERJ6GEYJ680V	1/10W 68	1	
RJ601	ERJ8GEYOR00V	CHIP JUMPER	1	
RJ704,05	ERJ8GEYOR00V	CHIP JUMPER	2	
S601,02	RST2A001-2D	SW STOP/TUNE MODE	2	
S603-05	EVQ21405R	SW PUSH	3	
VR601	EVQVENF0124B	V.R TUNE JOG	1	
X102	RLFDF13DD	OSCILLATOR	1	
X103	RSXC7M20S05T	OSCILLATOR	1	
X501	RSXC4M33S02T	OSCILLATOR	1	(E)
X701	RSXY10M0M01T	OSCILLATOR	1	
X702	RSXD32K7S05	OSCILLATOR	1	
Z101	RLA2Z006M-T	COMPONENT COMBINATION	1	
Z102	RLI2Z022M-T	COMPONENT COMBINATION	1	
Z120	RAL0035	FM FRONT END	1	(E)
Z120	RAL0006	FM FRONT END	1	(PP)
Z701	RCDGF1U28XD	REMOTE SENSOR	1	

14 Cabinet Parts Location



Note: We do not supply those items of parts marked *.

Ref. No.	Part No.	Part Name & Description	PCS	Remarks
1	RHD30007-S	SCREW	4	
2	RGK0969-1S	SIDE PANEL(L)	1	
3	RGK0970-1S	SIDE PANEL(R)	1	
4	XTBS26+8J	SCREW	10	
5	RGL0391-Q	PANEL LIGHT (L)	1	
6	RGL0392-Q	PANEL LIGHT (R)	1	
7	XTBS3+8JFZ1	SCREW	9	
8	REZ1119	FFC(23P)	1	
9	RKM0363-1S	CABINET	1	
10	RKA0098-K	FOOT	4	
11	XTB3+5JFZ	SCREW	4	

Ref. No.	Part No.	Part Name & Description	PCS	Remarks
12	XTB3+8JFZ	SCREW	1	
13	RKW0568-S1	FL WINDOW	1	
14	RGG0160B-S	FRONT PANEL	1	(E)
14	RGG0160C-S	FRONT PANEL	1	(PP)
15	REP2683A-S	LED (L R) P.C.B.	1	
16	RGP0698-S	SUB PANEL	1	
17	REZ1120	FFC(14P)	1	
18	RGU1602-1S1	BUTTON BAND	1	
19	RGW0302-S	KNOB TUNER/JOG	1	
20	XTB3+12JFZ	SCREW	4	

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