Order No. MD0102027C2

Service Manual

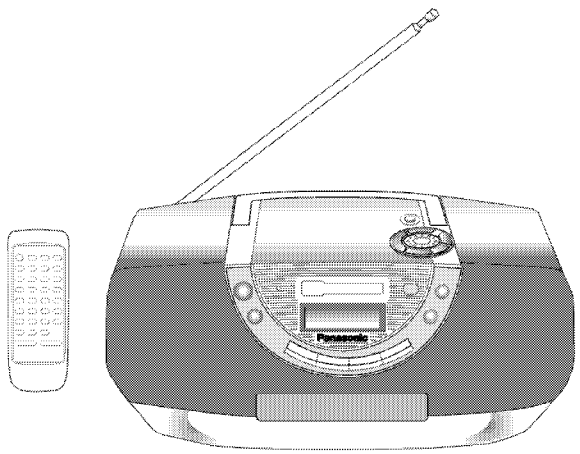
Portable Stereo CD System

COMPACT disc DIGITAL AUDIO

RX-EX1

Color

(A) ... Blue Type
(H) ... Gray Type



E ... Europe
EB ... Great Britain
EG ... Germany and Italy

Tape Deck: TR2 Mechanism Series
Traverse Deck: RAE0155Z-M Mechanism Series

n RADIO

Frequency Range	
FM	87.5-108.0 MHz (50 kHz steps)
AM	522-1629 kHz (9 kHz steps)
Intermediate Frequency	
AM	459 kHz
FM	10.7 MHz
Sensitivity	
AM	43 dB/m/50 mW
FM	14 dB/50 mW

n CD PLAYER

Sampling frequency	44.1 kHz
Decoding	16 bit linear
Beam source	Semiconductor laser (wavelength 780 nm)
No. of channels	2 channel, stereo
Wow and flutter	Below measurable limit
D/A converter	MASH (1 bit DAC)

n TAPE RECORDER

Track System	4 track, 2 channel, stereo
Monitor System	Variable sound monitor
Recording system	AC bias
Erasing system	Multi Pole magnet
Frequency range	
Normal position	50 Hz ~ 14 kHz

n GENERAL

Speakers	
Full Range	7 cm 5.4Ω x 2
Jacks	
Output	Phones : 3.5 mm stereo (16-64Ω)
Power Requirement	
AC	230~240 V, 50 Hz
	Power Consumption : 17 W
Battery	12 V (Eight R20, D, UM-1 batteries)
Memory back-up for computer/clock	6 V (Four R6, AA, UM-3 batteries)
Dimensions (W x H x D)	380 x 158 x 250 mm
Mass	3.7 kg
	without batteries

Notes:

1. Specifications are subject to change without notice.
2. Mass and dimensions are approximate.

Panasonic®

⚠ 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.

CONTENTS

1 Before Repair and Adjustment

Disconnect AC power, discharge Power Supply Capacitors C121, C221, C401 through a 10 Ω, 5 W resistor to ground. DO NOT SHORT-CIRCUIT DIRECTLY (with a screw driver blade, for instance), as this may destroy solid state devices.

After repairs are completed, restore power gradually using a variac, to avoid over current.

Current consumption at AC 220 V, 240 V, 50 Hz, 60 Hz in NO SIGNAL mode should be ~80 mA and ~90 mA respectively.

2 Protection Circuitry

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

- No sound is heard when the power is turned on.
- Stops during a performance.

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

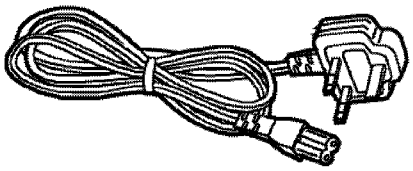
If this occurs, follow the procedure outlines below:

1. Turn off the power.
2. Determine the cause of the problem and correct it.
3. Turn on the power once again after one minute.

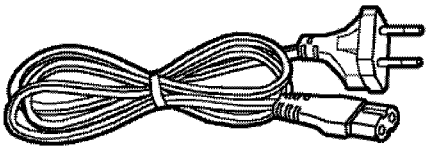
Note:

When the protection circuitry functions, the unit will not operate unless the power is first turned off and then on again.

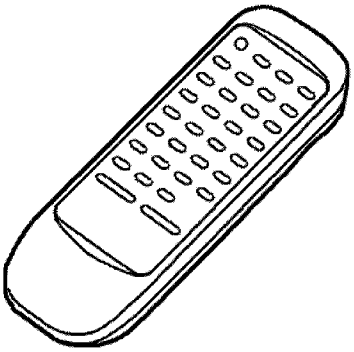
3 Accessories



AC Power Supply (EB).....1 pc



AC Power Supply (E/EG).....1 pc



Remote Control.....1 pc

4 Handling Precautions For Traverse Deck

The laser diode in the traverse deck (optical pickup) may break down due to potential difference caused by static electricity of clothes or human body. So, be careful of electrostatic breakdown during repair of the traverse deck (optical pickup).

· Handling of traverse deck (optical pickup)

1. Do not subject the traverse deck (optical pickup) to static electricity as it is extremely sensitive to electrical shock.
2. To prevent the breakdown of the laser diode, an antistatic shorting pin is inserted into the flexible board (FFC board).
3. Take care not to apply excessive stress to the flexible board (FFC board). When removing or connecting the short pin, finish the job in as short time as possible.
4. Do not turn the variable resistor (laser power adjustment). It has already been adjusted.

· Grounding for electrostatic breakdown prevention

1. Human body grounding

   Use the anti-static wrist strap to discharge the static electricity from your body.
2. Work table grounding.

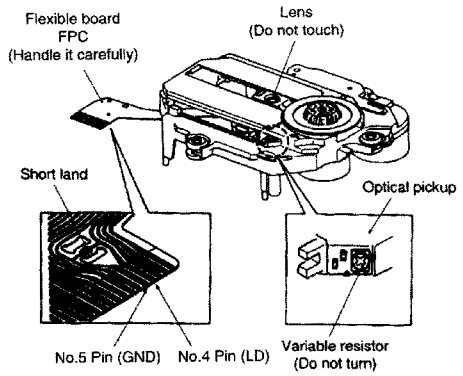
   Put a conductive material (sheet) or steel sheet on the area where the traverse deck (optical pickup) is place, and ground the sheet.

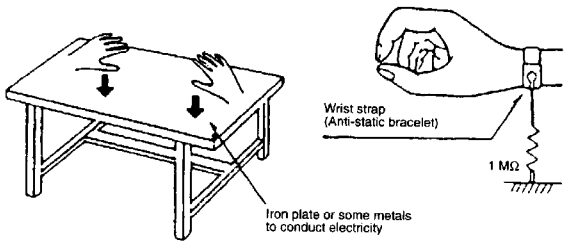
Caution:

The static electricity of your clothes will not be grounded through the wrist strap. So, take care not to let your clothes touch the traverse deck (optical pickup).

Caution when replacing the Traverse Deck

The traverse deck has a short point shorted with solder to protect the laser diode against electrostatics breakdown. Be sure to remove the solder from the short point before making connections.





5 Precaution of Laser Diode

CAUTION:

This product utilizes a laser diode with the unit truned "ON", invisible laser radiation is emitted from the pick up lens.
Wavelength : 780 nm
Maximum output radiation power from pick up : 100µW/VDE
Laser radiation from pick up unit is safety level, but be sure the followings:

1. Do not disassemble the optical pick up unit, since radiation from exposed laser diode is dangerous.
2. Do not adjust the variable resistor on the pick up unit. It was already adjusted.
3. Do not look at the focus lens using optical instruments.
4. Recommend not to look at pick up lens for a long time.

ACHTUNG:

Dieses Produkt enthält eine Laserdiode. Im enigeschalteten Zustand wird unsichtbare Laserstrahlung von der Lasereinheit abgestrahlt.
Wellenlänge : 780nm
Maximale Strahlungsleistung der Lasereinheit : 100µW/VDE
Die Strahlung an der Lasereinheit ist ungefährlich, wenn folgende Punkte beachtet werden:

1. Die Lasereinheit nicht zerlegen, da die Strahlung an der freigelegten Laserdiode gefährlich ist.
2. Den werkseitig justierten Einstellregler der Lasereinhit nicht verstellen.
3. Nicht mit optischen Instrumenten in die Fokussierlinse blicken.
4. Nicht über längere Zeit in die Fokussierlinse blicken.

ADVARSEL: I dette a apparat anvendes laser.

CAUTION!

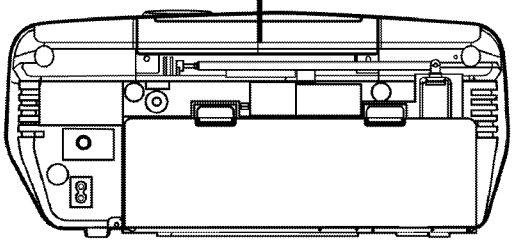
THIS PRODUCT UTILIZES A LASER.

USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

6 Use of Caution Labels.

LUOKAN 1 LASERLAITE
KLASS 1 LASER APPARAT

(Back of product)



DANGER	INVISIBLE LASER RADIATION WHEN OPEN. AVOID DIRECT EXPOSURE TO BEAM.	(Inside of product)
ADVARSEL	USYNLIG LASERSTRÅLING VED ÅBNING, NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSÆTTELSE FOR STRÅLING.	(Indersiden at apparatet)
VARO!	AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA NÄKYMÄTÖNTÄ LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.	(Tuotteen sisällä)
VARNING	OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRREN ÄR URKOPPLAD. BETRAKTA EJ STRÅLEN.	(Apparatens insida)
ADVARSEL	USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES OG SIKKERHEDSLÅS BRYTES. UNNGÅ EKSPONERING FOR STRÅLEN.	(Produktets innside)
VORSICHT	UNSICHTBARE LASERSTRAHLUNG, WENN ABDECKUNG GEÖFFNET. NICHT DEM STRAHL AUSSETZEN.	(Im Inneren des Gerätes)

7 Caution for AC Mains Lead

(For "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 OFF 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 or coloured Black or Blue.

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

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

THIS PLUG IS NOT WATERPROOF—KEEP DRY.

Before use

Remove 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

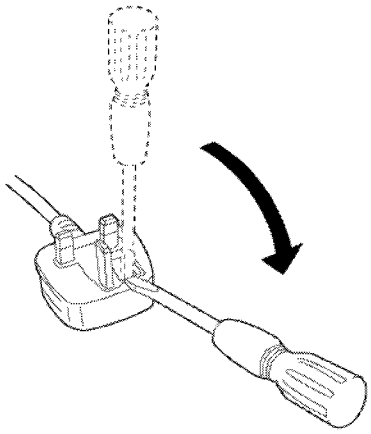
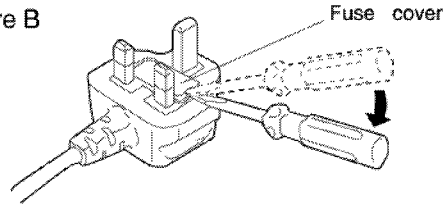


Figure B



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

Figure A

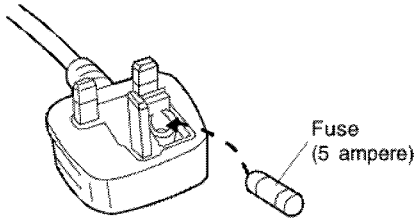
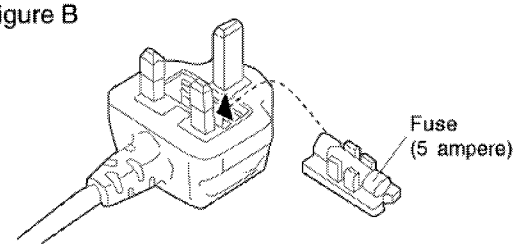
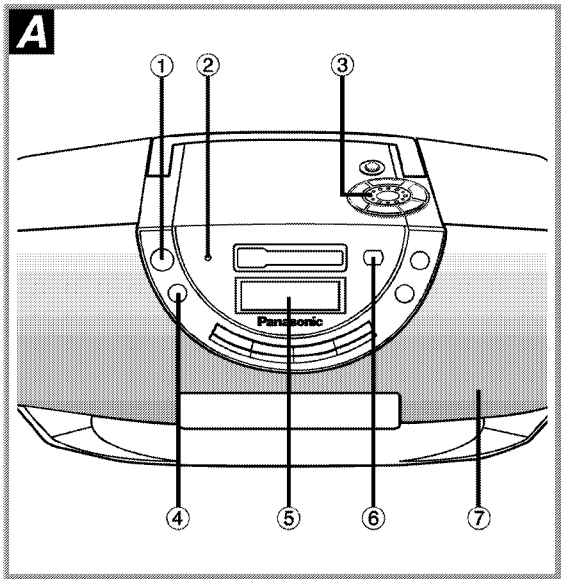


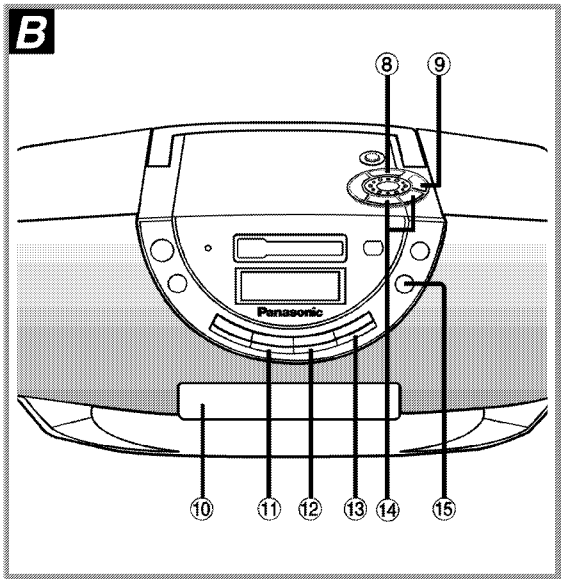
Figure B

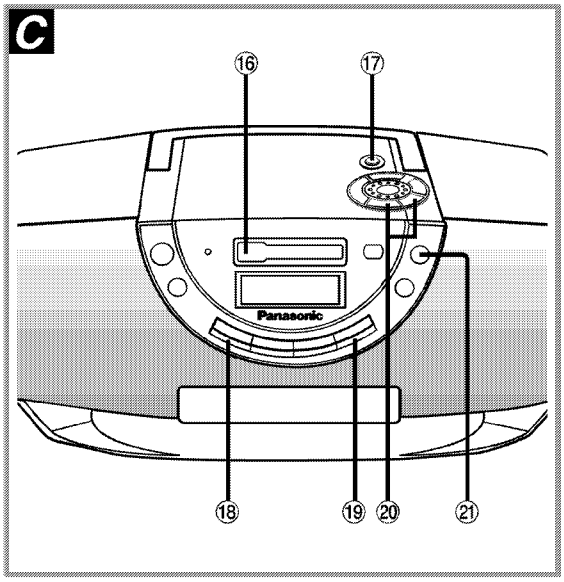


8 Front Panel Controls

8.1. Front Panel







A Basic controls

Number	Designation

① **Standby/on switch (⏻/I)**
Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.

② **Standby indicator (⏻)**
When the unit is connected to the AC mains supply, this indicator lights up in standby mode and goes out when the unit is turned on.

③ **Volume control (– ←VOLUME→ +)**
④ **Harmonic enhancer sound (H.E.S)**
⑤ **Display panel**
⑥ **Remote control signal sensor (SENSOR)**
⑦ **Speaker**

Note
These speakers do not have magnetic shielding. Do not place them near televisions, personal computers or others devices easily influenced by magnetism.

B Tuner/CD controls

Number	Designation

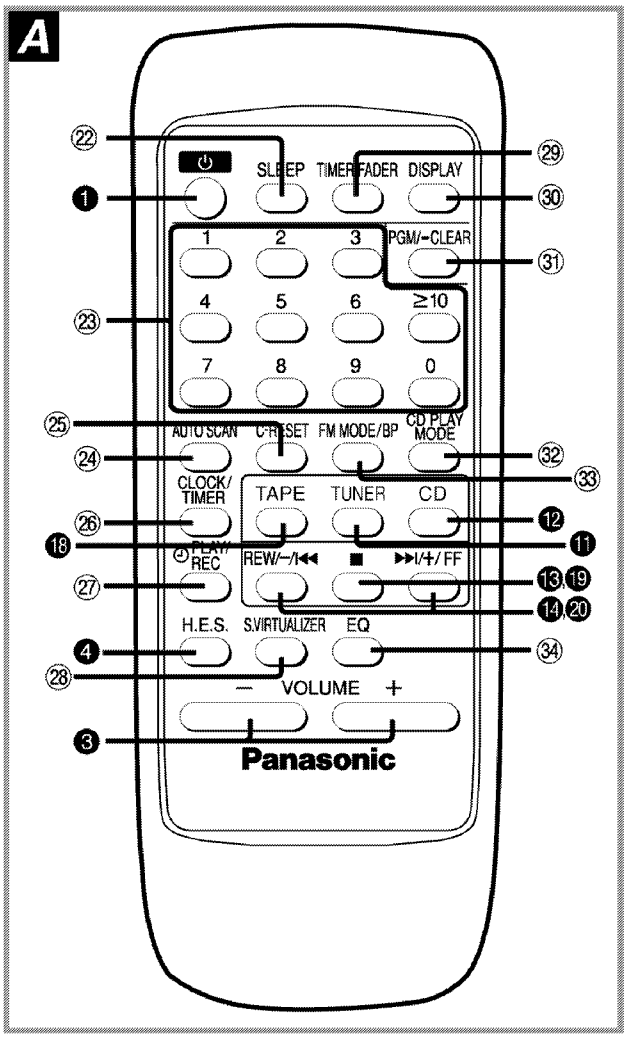
⑧ **CD recording mode button (CD REC MODE)**
⑨ **Tune mode (TUNE MODE)**
⑩ **CD Tray**
⑪ **Band button (TUNER BAND)**
⑫ **CD play/pause button (▶/II CD)**
⑬ **Stop, TAPE/CD mode select button (■ TAPE/CD)**
⑭ **Tuning/CD skip/search/track select buttons (REW/– |◀◀, ▶▶| /+/FF)**
⑮ **CD tray open/close button (▲ CD)**

C Cassette deck controls

Number	Designation

⑯ **Deck**
⑰ **Record/record pause button (●/II)**
⑱ **Cassette play button (▶TAPE)**
⑲ **Stop, TAPE/CD mode select button (■ TAPE/CD)**
⑳ **Rewind/fast forward buttons (REW/– |◀◀, ▶▶| /+/FF)**
㉑ **Tape eject button (▲ TAPE)**

8.2. Remote Control



A Buttons

Number	Designation
㉒	**Sleep timer button (SLEEP)**
㉓	**Numbered buttons**
㉔	**Auto scan button (AUTO SCAN)**
㉕	**Tape counter reset button (C-RESET)**
㉖	**Clock/timer button (CLOCK/TIMER)**
㉗	**Play timer/ record timer button (◴ PLAY/REC)**
㉘	**Sound virtualizer button (S.VIRTUALIZER)**
㉙	**Timer fader button (TIMER FADER)**
㉚	**Display select button (DISPLAY)**
㉛	**CD Program/clear, tuner preset button (PGM/-CLEAR)**
㉜	**CD play mode button (CD PLAY MODE)**
㉝	**FM mode BP button (FM MODE/BP)**
㉞	**Equalizer button (EQ)**

When the unit is supplied with AC power, buttons ❶, ❸, ❹, ⓫ to ⓮ and ⓲ to ⓴ function in the same way as the controls on the main unit. To save power, the unit cannot be turned on from the remote control when batteries are used.

9 Self Diagnostic Function

9.1. Setting of self-diagnosis Function

9.1.1. Setting of CD self-diagnosis mode

1. Remove the cassette from the deck.
2. Switch to CD function.
3. Press the STOP ■ (TAPE/CD) key of the main set for more than 2 seconds. While pressing this key, press the FF key on the main set for another 2 seconds to enter into the Self-Diagnosis mode.

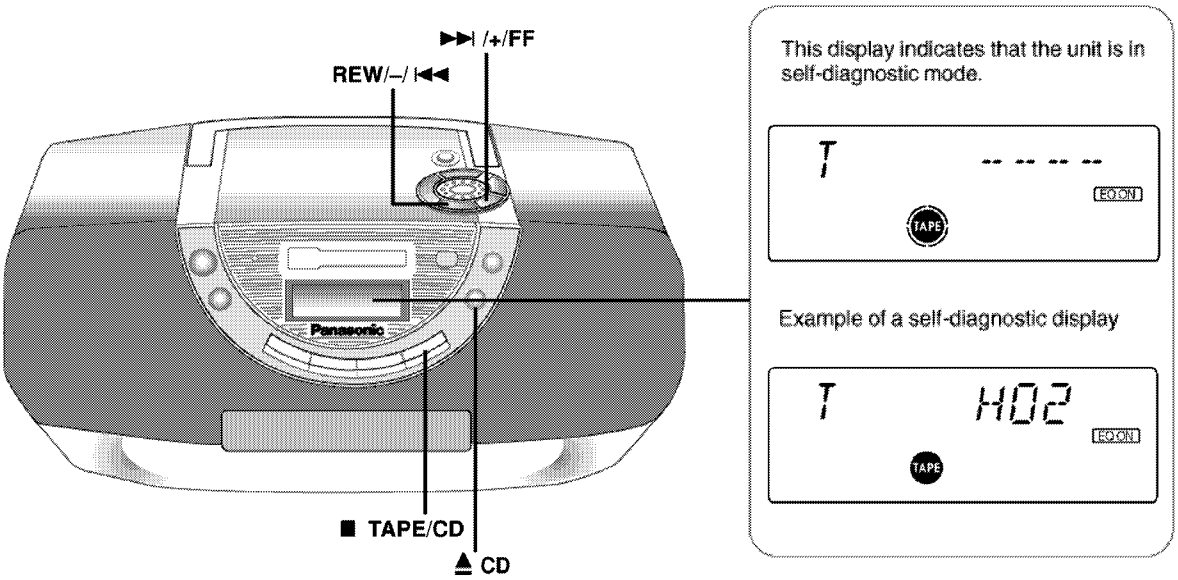
   *Even if STOP / FUNCTION key of the main set is pressed while the Self Diagnosis mode is on, function shall not be switched. Instead, confirmation of error numbers shall begin.

9.1.2. Setting of cassette mechanism self-diagnosis mode

1. Activate the Self Diagnosis mode for the Deck and the following Self Diagnosis shall be couducted.
   a. H02 : REC INH SW abnormal
   b. H03 : HALF SW abnormal
   c. H04 : LOAD SW abnormal
   d. F01 : Reel pulse abnormal
   - H01 : If MODE SW abnormal is detected during normal operation, it shall be memorized. The detection and memory shall be done for Deck.
2. Activate the Self Diagnosis mode with the Deck unloaded.
3. The test mode display ([T] at the 1st digit shows TEST) shall be made and detection shall be executed to check RECINH SW, HALFSW are in OFF state.

   (Tape counter display is retained)
4. Slot a cassette tape (with recording preventive tab present) into a deck and push the cassette into the deck (LOADING Operation should be observed).
5. After this instant with the cassette loaded in, RECINH SW, HALF SW shall be checked and confirmed at this stage by the software. Press FF key to proceed the self-diagnosis. The FF operation shall stop automatically after 3 sec. If abnormal operation is detected, the tape shall stop automatically after 1 sec. During the FF operation, the Reel Pulse shall be checked by the software.
6. After the tape stop, the Error codes shall be displayed by toggling the STOP key.
   - In Self Diagnosis mode, the operations which are normally conducted by the cassette mechanism basic operation keys shall not be executed. Those keys are used only to comfirm a diagnosis results. The keys used for other functions shall be valid, unless there are some reasons to make them invalid.

9.2. Display Location



9.3. Display Content

U01 : Battery flat.

1. During operation, when PDET switches to OFF (PDET < 0.85V) due to power supply voltage fall, the power supply shall be automatically switched OFF. If RMSTBY = L, VCCDET = L the system shall be judged as in battery low and [_ _ _ _ _ _ U01] shall be displayed for 10 seconds.
   - To check RMSTBY and VCCDET, chattering check shall be read-in twice 1 sec after PCNT is set to L.
2. In case of the power ON operation, after PCNT is set to ' H ', a power supply shall be checked using PDET input. If the battery is flat (PDET<0.85V), power supply OFF process shall be executed and error number [_ _ _ _ _ _ U01] shall be displayed for 5 seconds.

   This error number shall not be memorized.

U02 : Power supply cut.

1. During operation, when PDET switches to OFF (PDET < 0.85V) due to power supply voltage fall, the power supply shall be automatically switched OFF. If RMSTBY = L, VCCDET = H the system shall be judged as in battery low and [_ _ _ _ _ _ U02] shall be displayed for 10 seconds.
   - To check RMSTBY and VCCDET, chattering check shall be read-in twice 1 sec after PCNT is set to L.

   Power supply state shall be checked using RMSTBY and VCCDET inputs. If power ON is executed from power OFF (RMSTBY = L and VCCDET = H), error number [_ _ _ _ _ _ U02] shall be displayed for 5 seconds. This error number shall not be memorized.

F15 : CD REST SW abnormal.

At initial setting of CD traverse position, if RESET SW ON is not detected even though the fail safe timer time is over (10 sec), this is memorized as an error number can be cleared only at the start up of micro-p after reset.

H15 : CD OPEN SW abnormal.

During normal operation, if CD OPEN SW ON is not detected within 4 sec, then H15 shall be memorized in memory. The error code can be cleared only at the start up of micro-p after reset.

H01 : Deck operation abnormal (reel motor, solenoid and mode SW)

During normal operation, if mechanism error process is executed once by mode switch against the same deck operation, it is judged as mechanism abnormality and this is memorized as an error.

Conditions for judging mechanism error :

1. Mode switch ON is not detected 800 ms after plunger activation for PLAY/REC process.
2. Mode switch ON in not detected 800 ms after plunger activation for FF/REW process. Or, Mode switch OFF in not detected 800 ms after plunger activation after detecting Mode SW ON. Or, Mode switch ON is not detected 800 ms after detecting Mode switch OFF.
3. If Mode switch comes ON at STOP/PAUSE state (normal condition), this is judge as Error :-
   a. Main purpose for this Self Diagnosis is to diagnose a partial short of a deck.
   b. Mechanical error process caused by EJECT operation shall not be counted.
   c. This error number can be cleared only at the start up of micro-p reset.

F26 : Communication between CD servo LSI and micro-p abnormal

At the time of switching to CD function, SENSE = H shall be detected using DTMS system setting command. If the error is memorized when SENSE = L is not detected within fail safe timer time (20 msec), [F26] shall be displayed simultaneously. This display shall be retained if the power is ON and at CD function. If this error occurs, CD operation afterward shall not be executed as in the case of [NO DISC].

This error number can be cleared only at the start up of micro-p reset.

10 Operation Checks and Main Component Replacement Procedures.

"ATTENTION SERVICER"

Some chassis components maybe have sharp edges. Be careful when diassembling and servicing.

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.

Content

Warning:

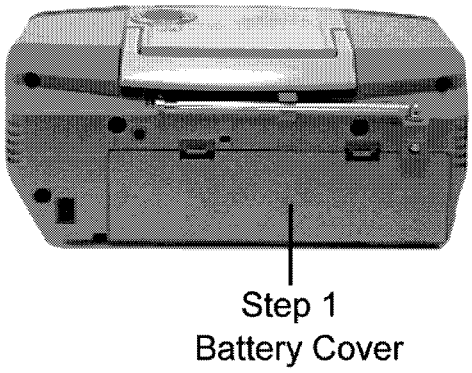
This product uses a laser diode. Refer to P.5.

ACHTUNG:

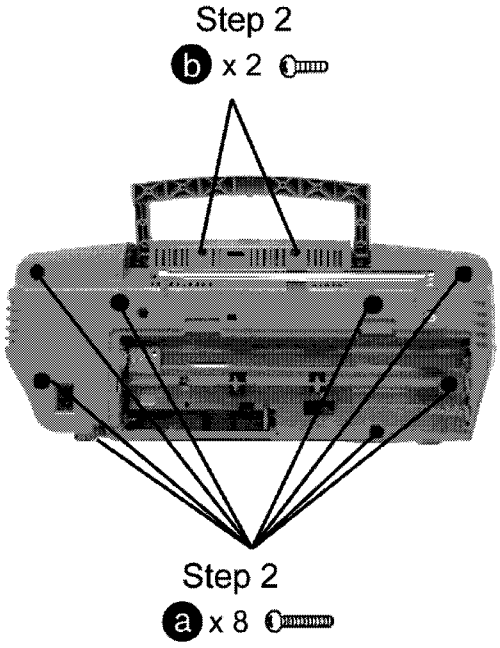
Die Lasereinheit nicht zerlegen.
Die Lasereinheit darf nur gegen eine vom Hertsteller spezifizierte Einheit ausgetauscht werden.

10.1. Checking Procedure for each major P.C.B.

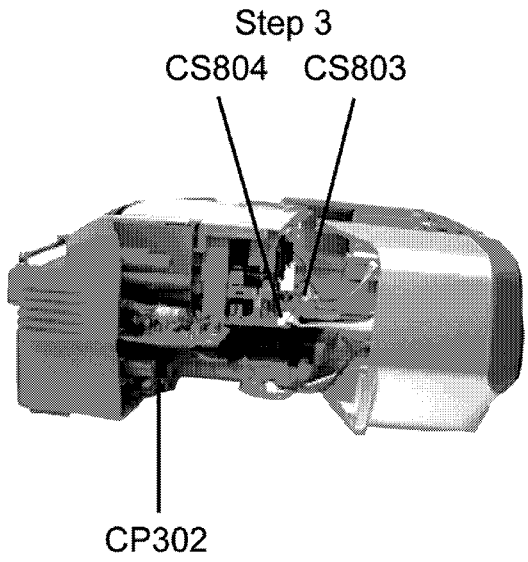
10.1.1. Checking for the Panel P.C.B



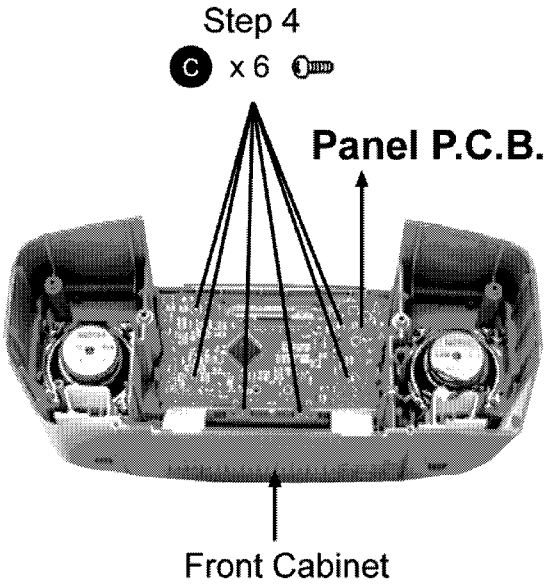
Step 1 Remove Battery Cover as shown.



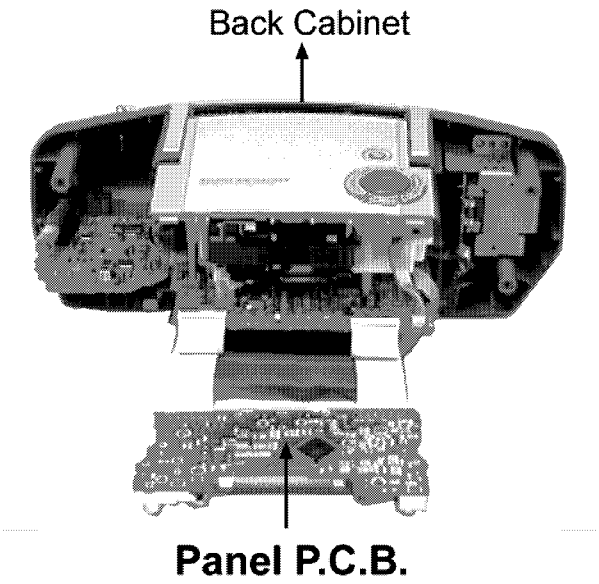
Step 2 Remove all the screws.



Step 3 Release the connectors CP302, CS804 and CS803.

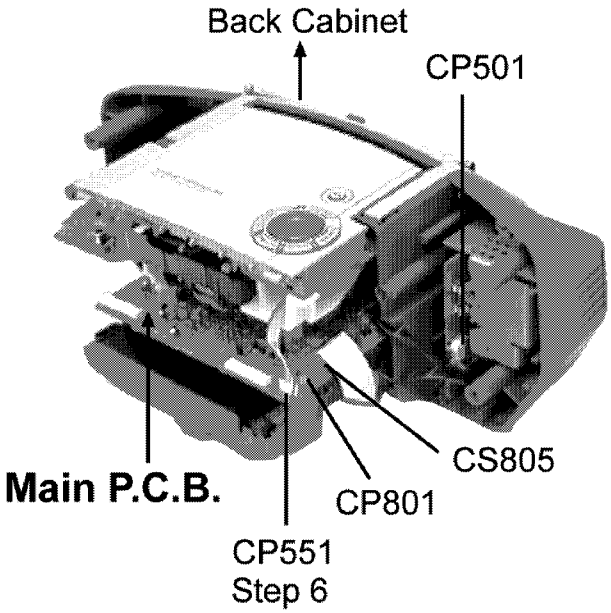


Step 4 Remove all the screws.

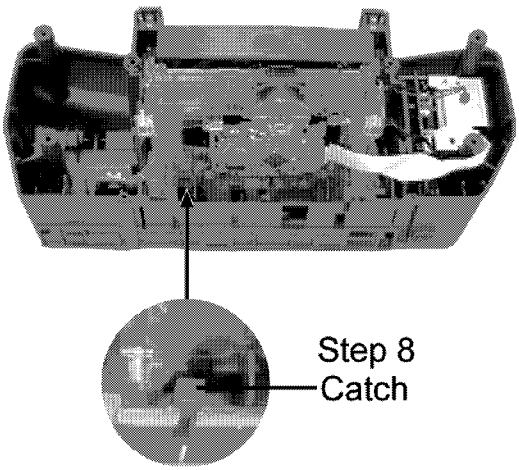


Step 5 By checking Panel P.C.B., reconnect back all the connectors (CP302, CS804 and CS803).

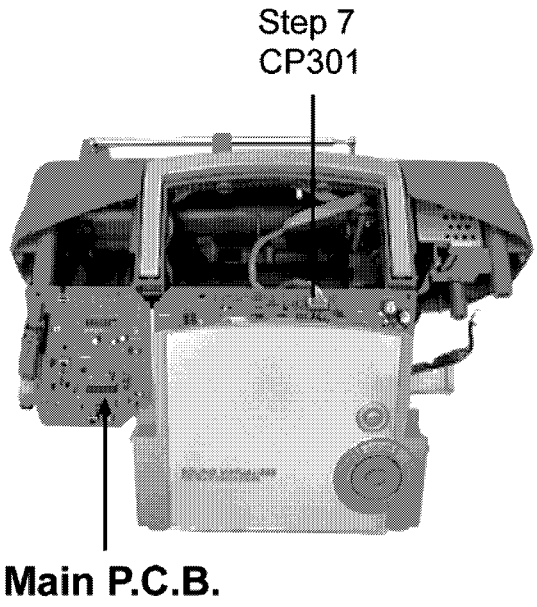
10.1.2. Checking for Main, Tuner (Main), Battery, Transformer and CD Servo P.C.B.



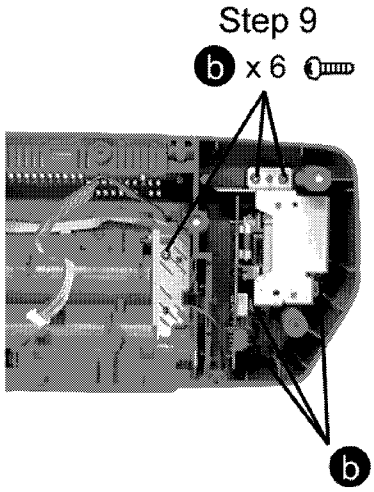
Step 6 Release the connectors CP501, CP551, CP801 and CS805.



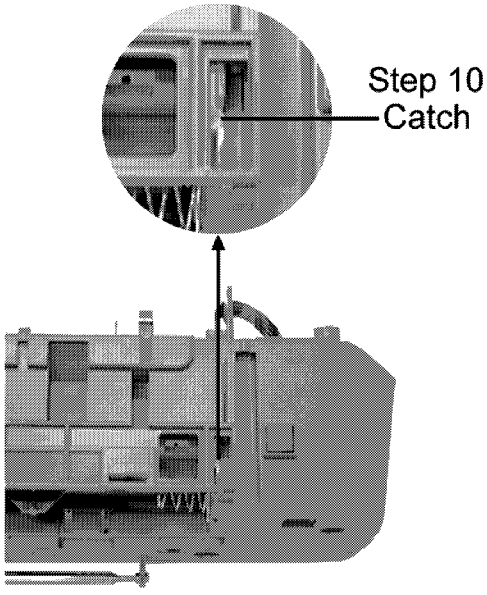
Step 8 Release the catch as shown.



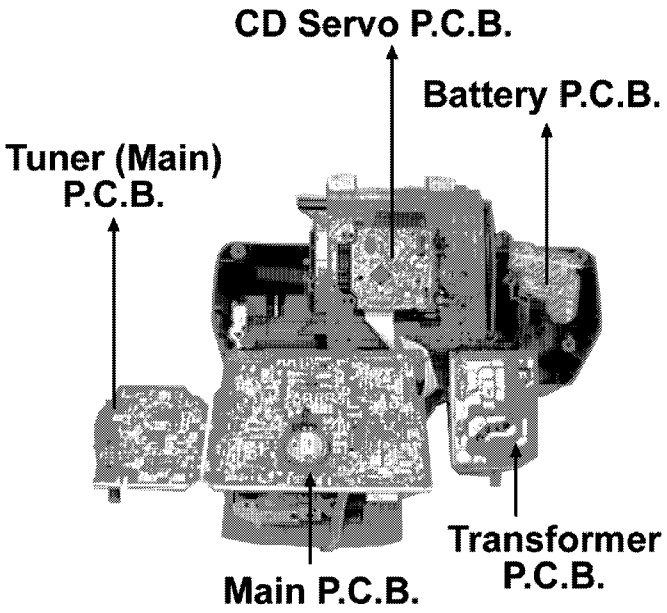
Step 7 Release the connector CP301.



Step 9 Remove all the screws.



Step 10 Release the catch as shown.



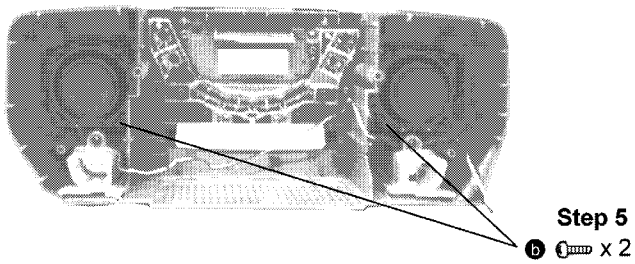
Step 11 By checking all the P.C.B. as shown, reconnect back all the connectors (CP501, CP551, CP801, CS805 and CP301).

10.2. Removal Of Speaker net

Repeat section 10.1.1 Step 1 to Step 4 to detach back cabinet from front cabinet.

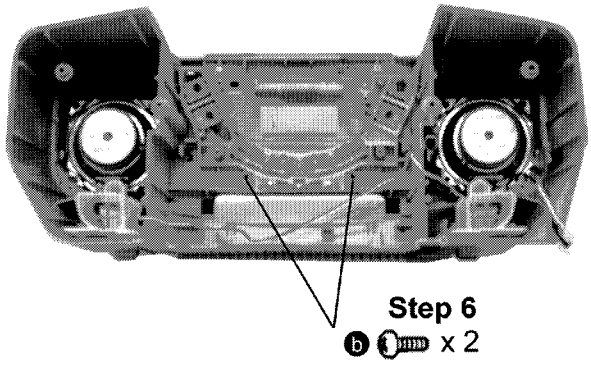
Step 5

Remove the 2 screws from the speaker.



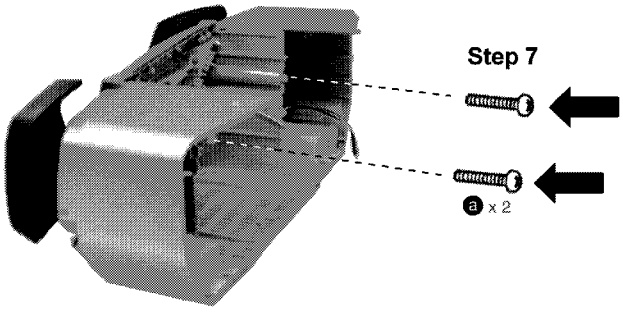
Step 6

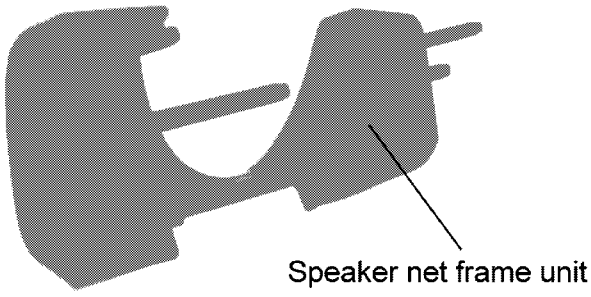
Remove the 2 screws from the cabinet.



Step 7

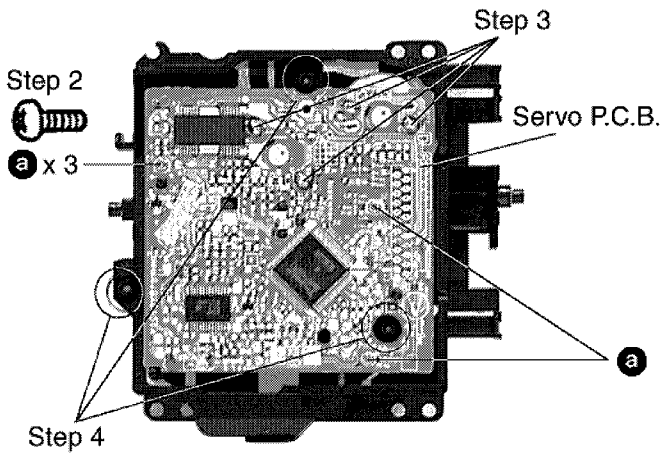
Insert 2 long screws into the holes and use a mallet to hammer both sides of the screws to release the speaker net frame unit.





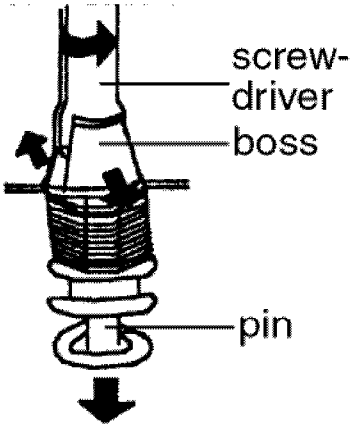
10.3. Main Component Replacement Procedures

10.3.1. Replacement of the Traverse Deck



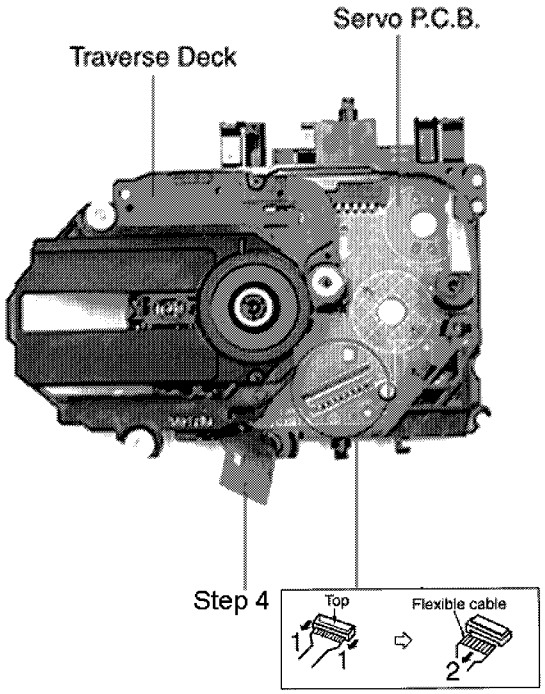
Step 2: Desolder the 4 legs of the 2 motors and pull out the Servo P.C.B.

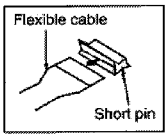
Step 3: Widen the 3 bosses with a flat screwdriver and pull out the 3 pins. Then remove the Traverse Deck.



Note :

Insert a short pin into the flexible cable for traverse unit.

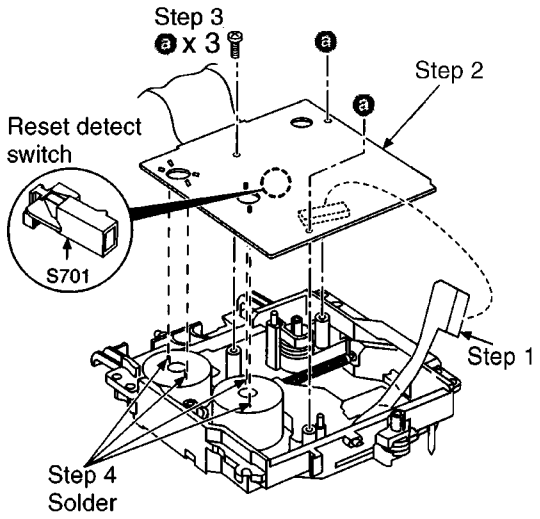




Step 4: Remove the flexible cable CN701.

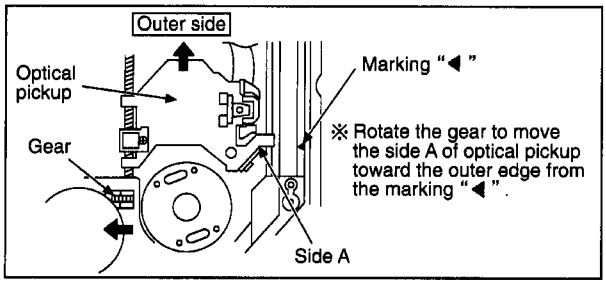
- Removal of the flexible cable. Push the top of the connector in the direction of the arrow 1, and the pull out the flexible cable in the direction of the arrow 2.

10.3.2. Installation of the CD Servo P.C.B. after Replacement



Step 1 Connect the FFC board.

Step 2 Install the CD servo P.C.B. in the traverse deck assembly.



Note :

Before installing the CD servo P.C.B., move the optical pickup towards the outer edge from the marking (black triangle).

[Otherwise, the detect switch (S701) mounted on the CD servo P.C.B. may be damaged.]

11 Schematic Diagram

(All schematic diagrams may be modified at any time with the development of new technology.)

Notes:

S601	Eject Switch
S602	CD Open Switch
S603	REC Mode Switch
S604	CD REC Switch
S605	Tune Switch
S606	FF/+ Switch
S607	Play Switch
S608	Power Switch
S609	H.E.S. Switch
S610	Tape Switch
S611	Tuner Switch
S612	CD Switch
S613	Clear Switch
S701	Reset Switch
S780	Open Switch
S951	Mode Switch
S952	Leaf Switch
S954	Leaf Switch
S1201	Deck Mode Switch

Battery Current:

Volume minimum :

270 mA (FM)

280 mA (AM)

410 mA (FM REC)

400 mA (AM REC)

370 mA (TAPE Playback)

350 mA (CD)

510 mA (CD REC)

Volume maximum :

590 mA (FM)

620 mA (AM)

720 mA (FM)

750 mA (AM)

680 mA (TAPE Playback)

1000 mA (CD)

1070 mA (CD REC)

- The voltage value and waveforms are the reference voltage of this unit measured by DC electronic voltmeter (high impedance) and oscilloscope on the basis of chassis. Accordingly, there may arise some error in voltage values and waveforms depending upon the internal impedance of the tester or the measuring unit.

No mark	...Playback	< >	...FM
(( ))	...CD	( )	...AM

- **Importance safety notice:**

  Components identifed by ⚠ 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, LSI and VLSI are sensitive to static electricity.

Secondary trouble can be prevented by taking care during repair.

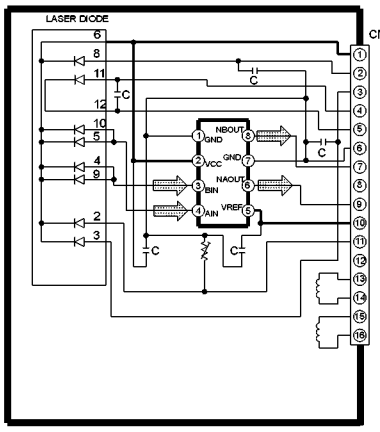
- Cover the parts boxes made of plastics with aluminium foil.
- Put a conductive mat on the work table.
- Ground the soldering iron.
- Do not touch the pins of IC, LSI or VLSI with fingers directly.

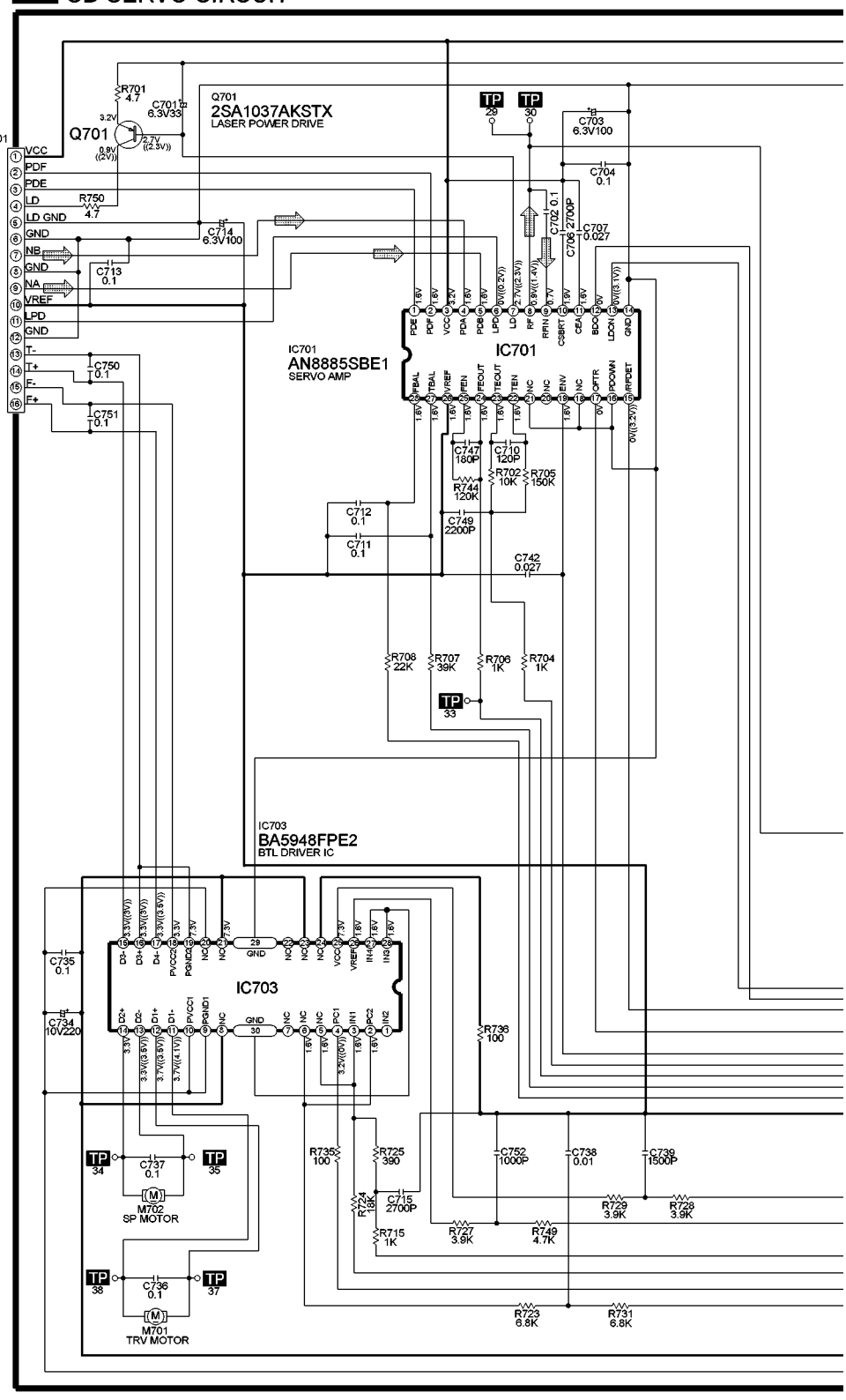
SCHEMATIC DIAGRAM -1

—— : +B SIGNAL LINE ⇨ : CD SIGNAL LINE

A CD SERVO CIRCUIT

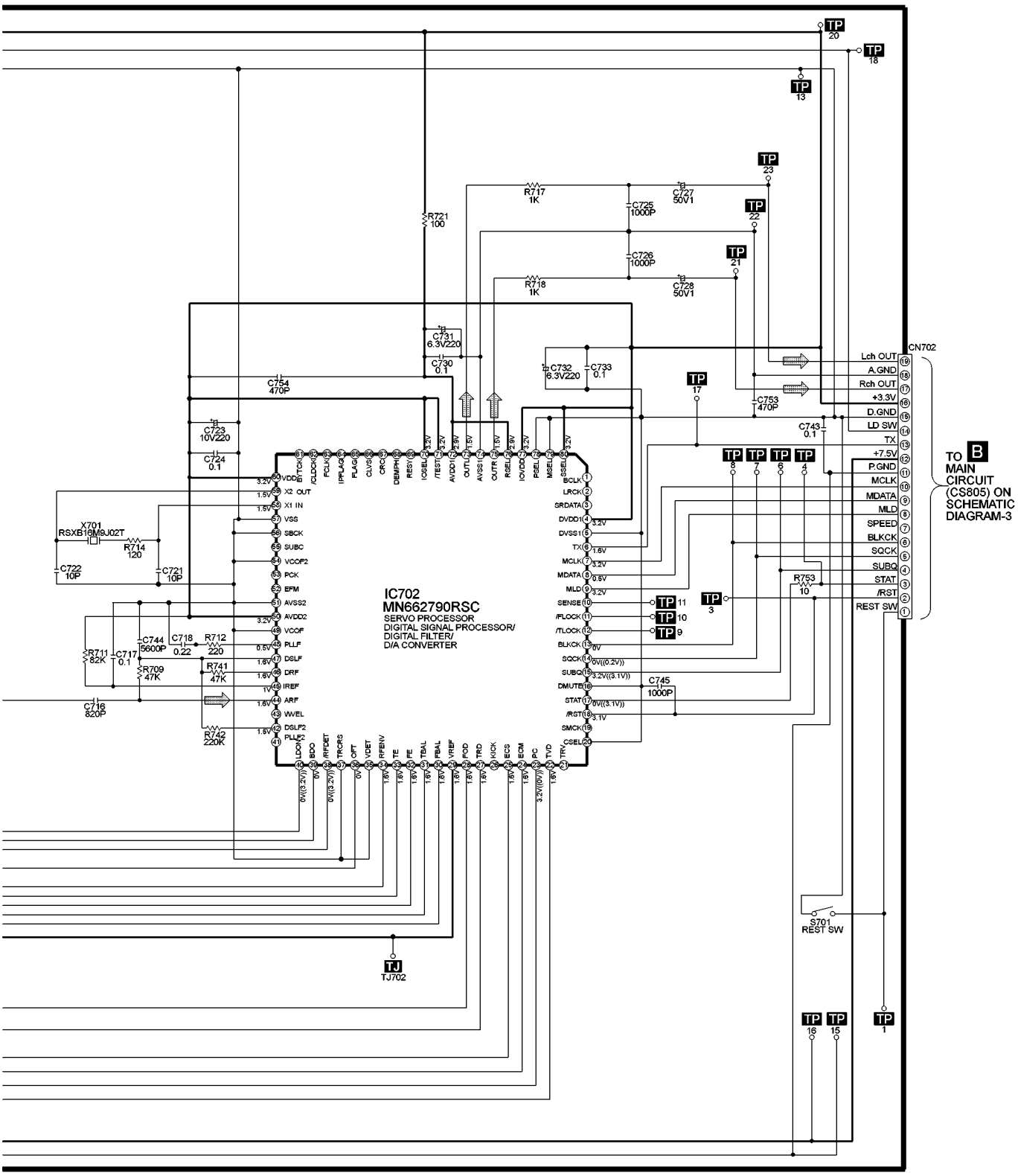
OPTICAL PICKUP CIRCUIT





SCHEMATIC DIAGRAM - 2

—— : +B SIGNAL LINE ⇨ : CD SIGNAL LINE

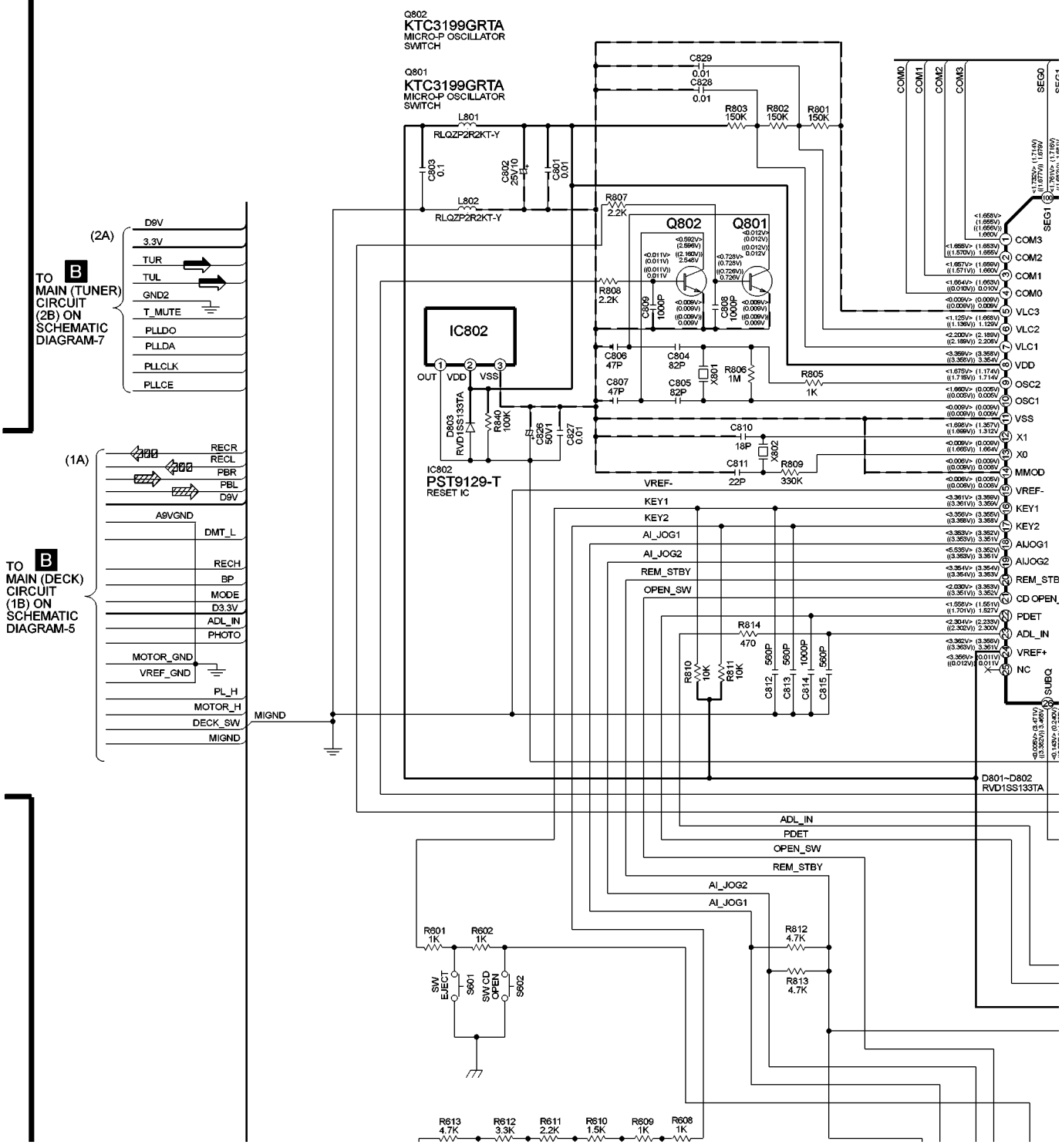


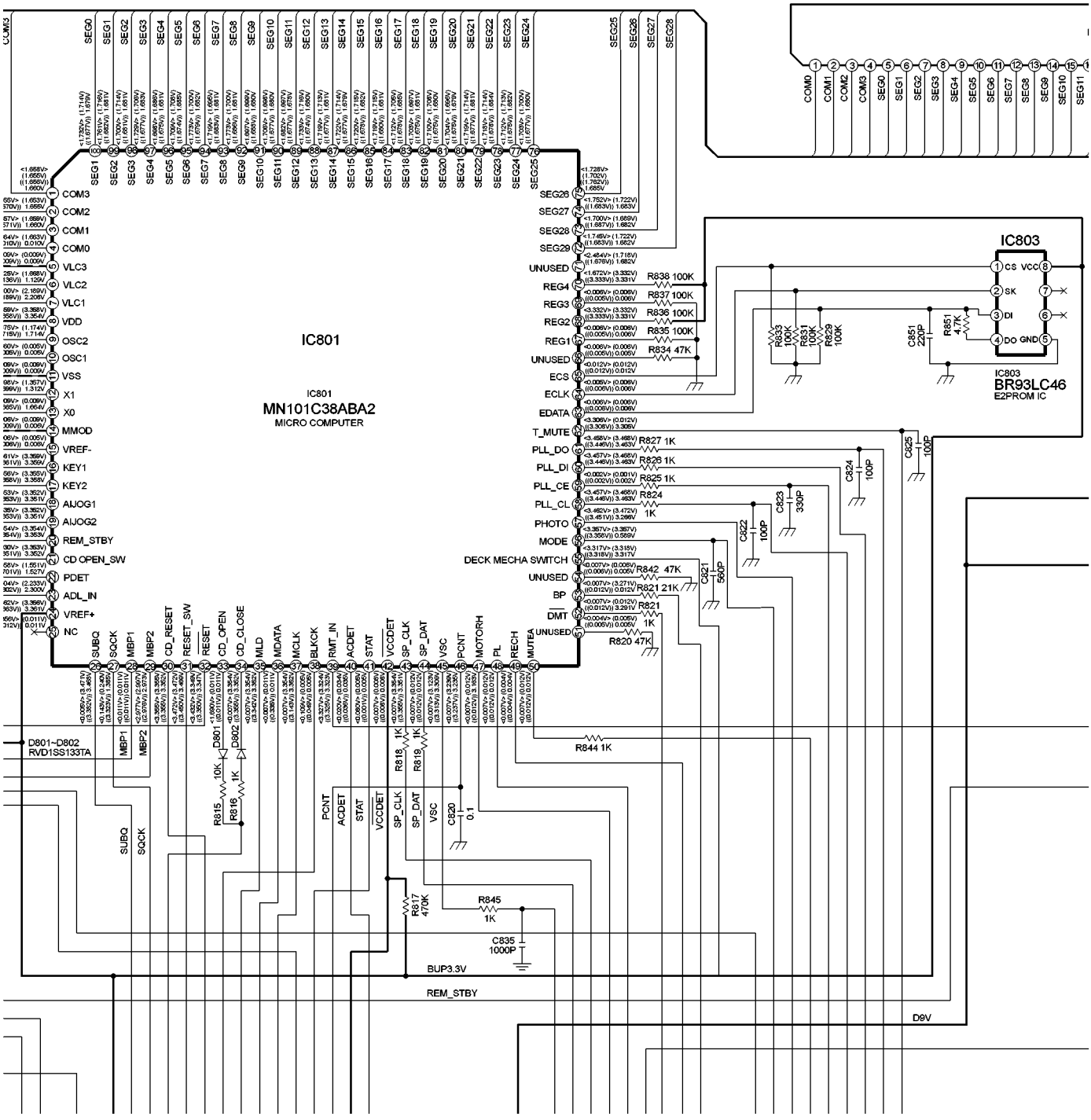
SCHEMATIC DIAGRAM-3

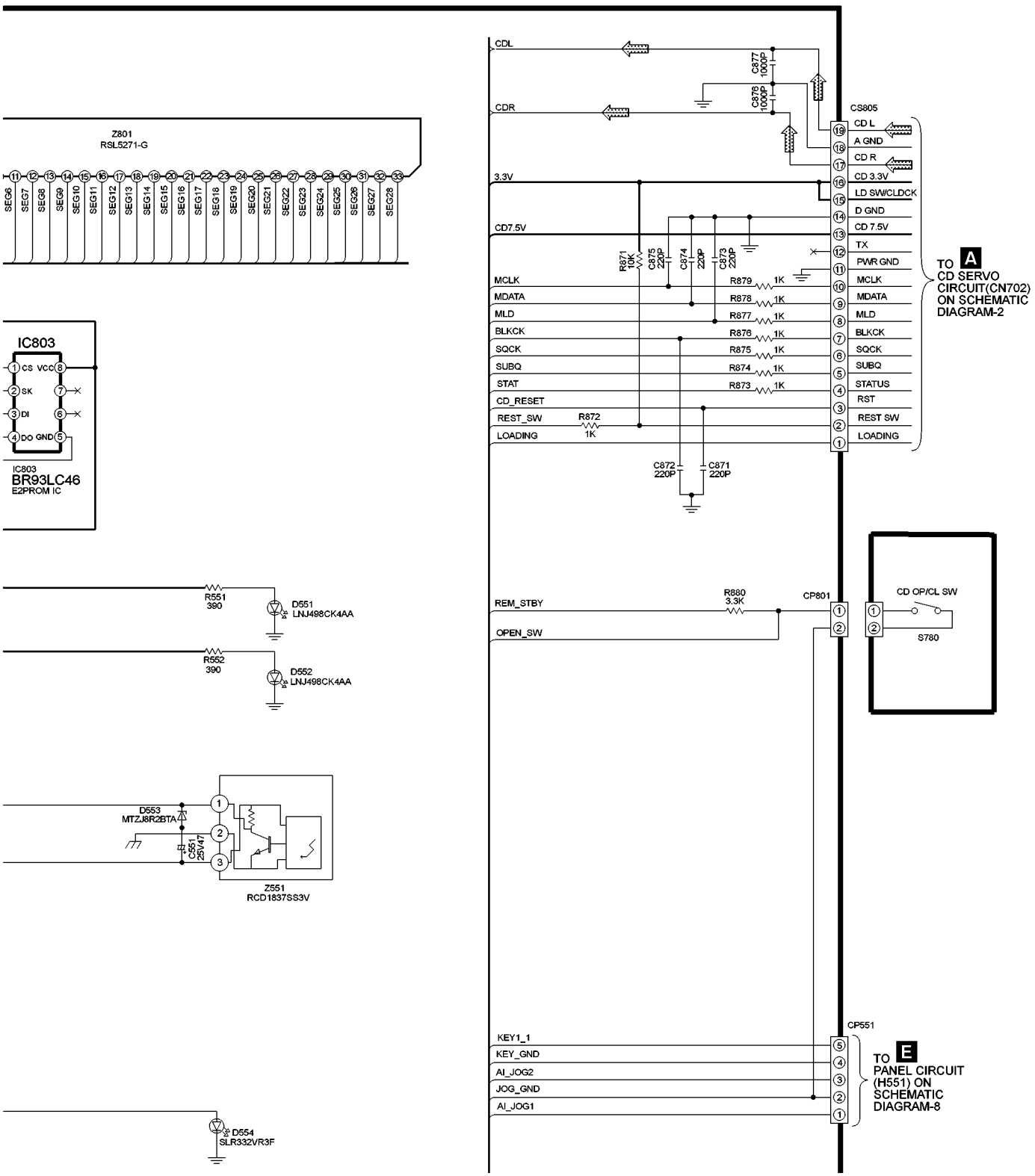
B MAIN CIRCUIT

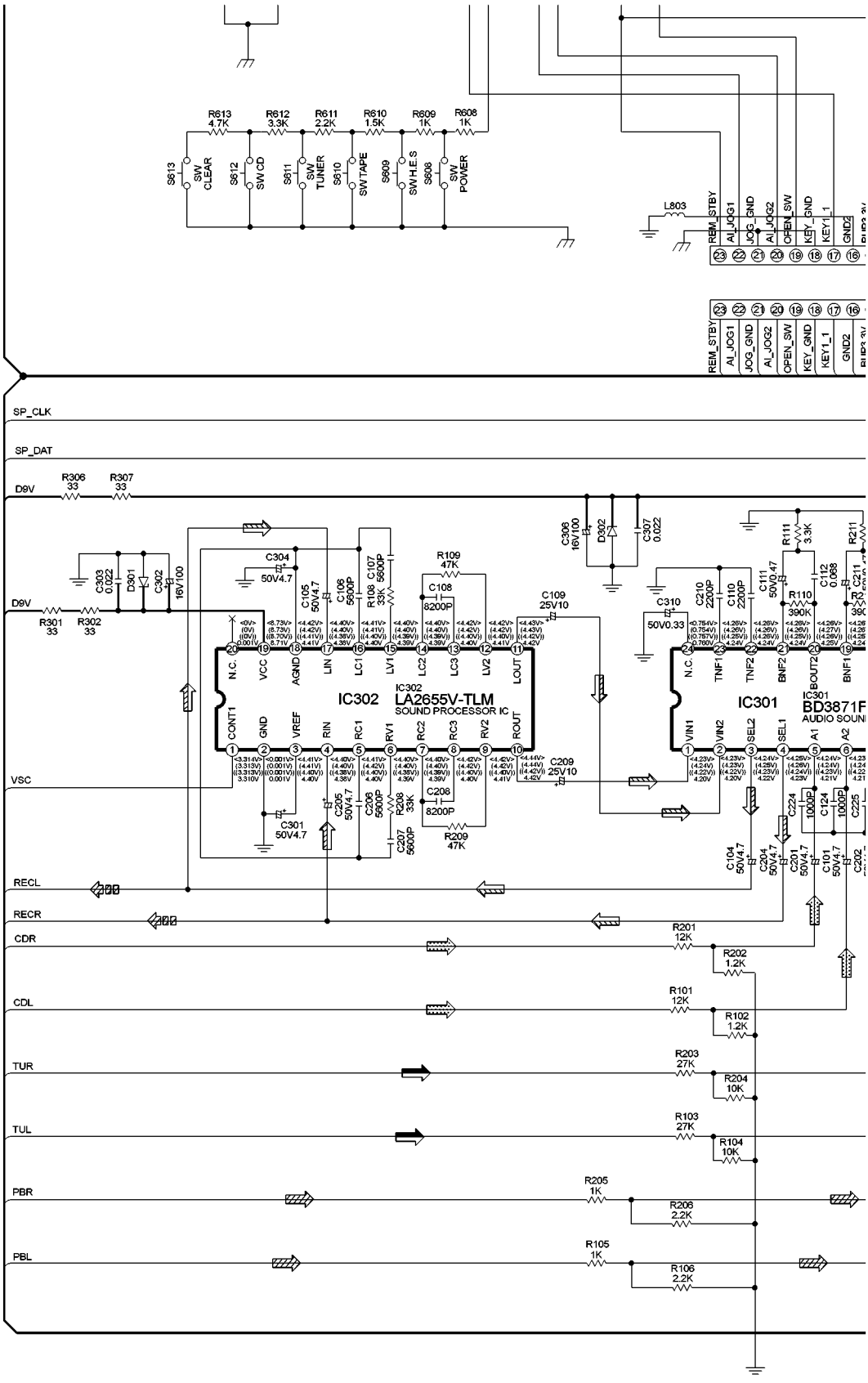
——— : +B signal line
— — — : –B signal line
: Main signal line
: Record signal line
: Playback signal line
: FM/AM signal line
: CD signal line

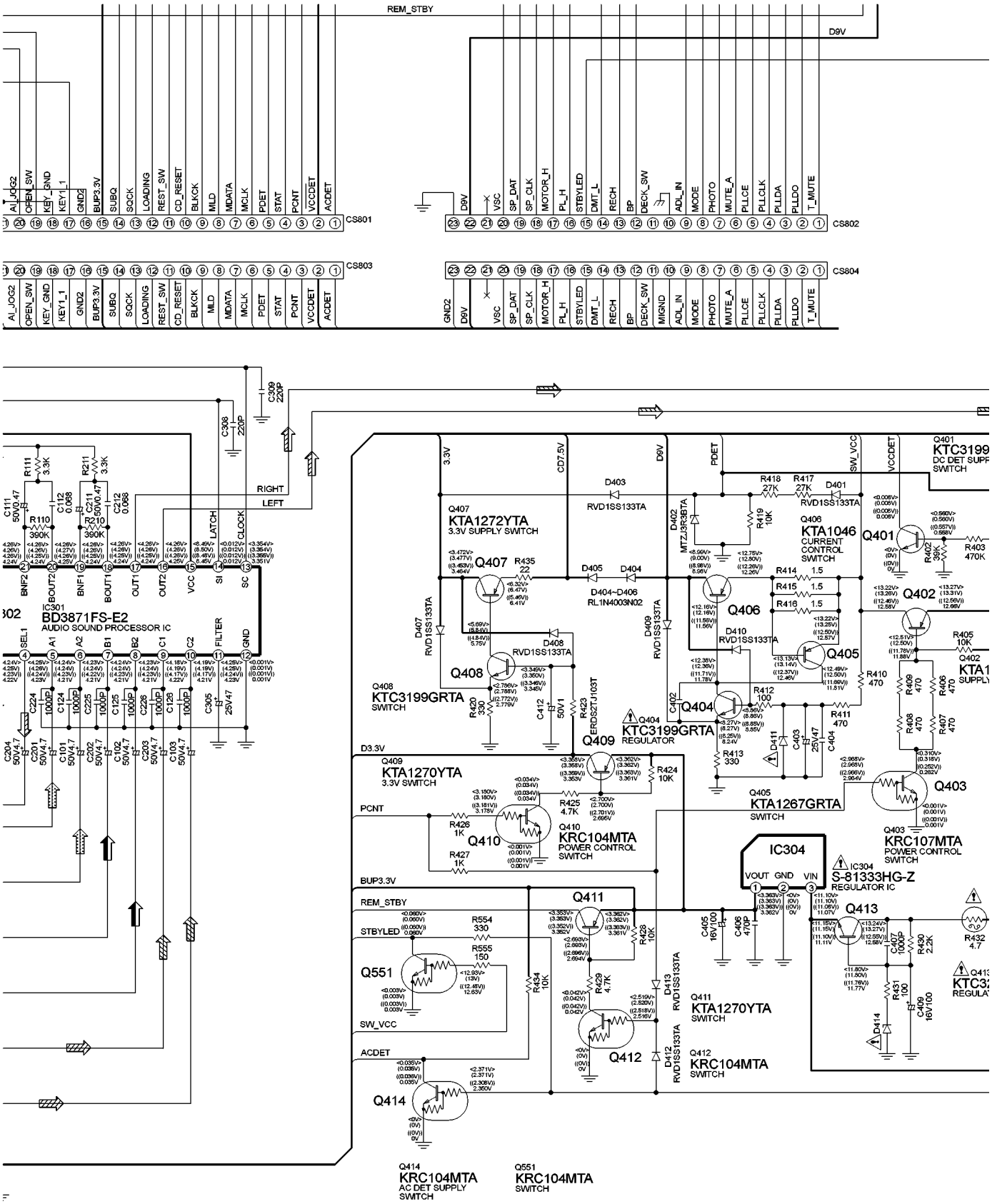
(FL CIRCUIT)

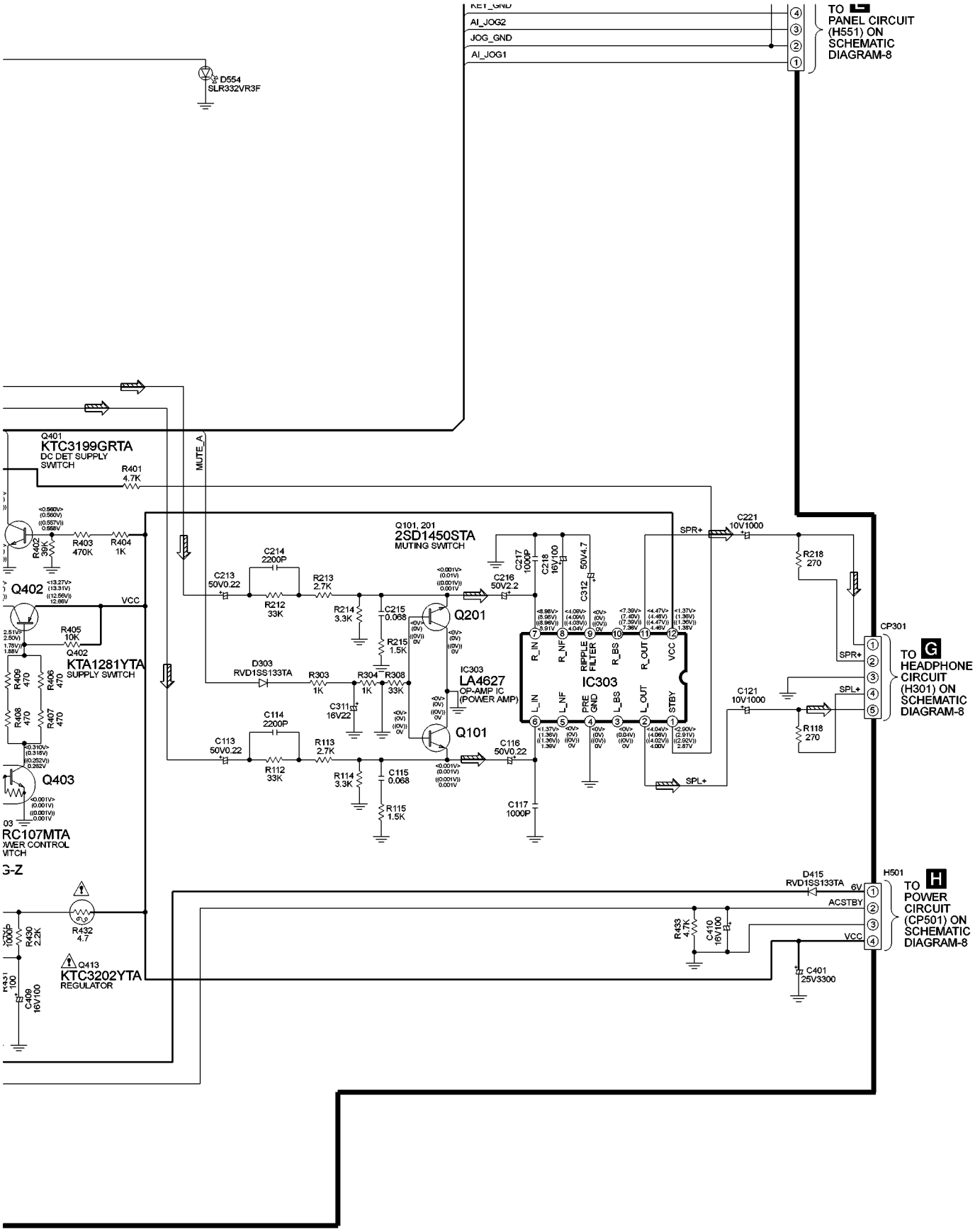



IC801
IC801
MN101C38ABA2
MICRO COMPUTER
IC803
BR93LC46
E2PROM IC
D801~D802
RVD1SS133TA
BUP3.3V
REM_STBY
D9V


Z801
RSL5271-G
SEG6 SEG7 SEG8 SEG9 SEG10 SEG11 SEG12 SEG13 SEG14 SEG15 SEG16 SEG17 SEG18 SEG19 SEG20 SEG21 SEG22 SEG23 SEG24 SEG25 SEG26 SEG27 SEG28
IC803
CS VCC
SK
DI
DO GND
IC803
BR93LC46
E2PROM IC
R551
390
D551
LNJ498CK4AA
R552
390
D552
LNJ498CK4AA
D553
MTZJ8R2BTA
C551
25V47
Z551
RCD1837SS3V
D554
SLR332VR3F
CDL
CDR
3.3V
CD7.5V
MCLK
MDATA
MLD
BLKCK
SQCK
SUBQ
STAT
CD_RESET
REST_SW
LOADING
C877
1000P
C876
1000P
R871
10K
C875
220P
C874
220P
C873
220P
R879
1K
R878
1K
R877
1K
R876
1K
R875
1K
R874
1K
R873
1K
R872
1K
C872
220P
C871
220P
CS805
CD L
A GND
CD R
CD 3.3V
LD SW/CLDCK
D GND
CD 7.5V
TX
PWR GND
MCLK
MDATA
MLD
BLKCK
SQCK
SUBQ
STATUS
RST
REST SW
LOADING
TO A
CD SERVO
CIRCUIT(CN702)
ON SCHEMATIC
DIAGRAM-2
REM_STBY
OPEN_SW
R880
3.3K
CP801
CD OP/CL SW
S780
KEY1_1
KEY_GND
AI_JOG2
JOG_GND
AI_JOG1
CP551
TO E
PANEL CIRCUIT
(H551) ON
SCHEMATIC
DIAGRAM-8


R613 4.7K
R612 3.3K
R611 2.2K
R610 1.5K
R609 1K
R608 1K
S613 SW CLEAR
S612 SW CD
S611 SW TUNER
S610 SW TAPE
S609
S608 SW H.E.S
SW POWER
L803
REM_STBY
AI_JOG1
JOG_GND
AI_JOG2
OPEN_SW
KEY_GND
KEY1_1
GND2
SP_CLK
SP_DAT
D9V
R306 33
R307 33
R301 33
R302 33
C303 0.022
D301
C302 16V100
C304 50V4.7
C105 50V4.7
C106 5600P
C107 5600P
R108 33K
R109 47K
C108 8200P
C109 25V10
C306 16V100
D302
C307 0.022
C310 50V0.33
R111 3.3K
C112 0.068
C111 50V0.47
R110 390K
C210 2200P
C110 2200P
IC302
IC302 LA2655V-TLM
SOUND PROCESSOR IC
N.C. VCC AGND LIN LC1 LV1 LC2 LC3 LV2 LOUT
CONT1 GND VREF RIN RC1 RV1 RC2 RC3 RV2 ROUT
IC301
IC301 BD3871F
AUDIO SOUN
N.C. TNF1 TNF2 BNF2 BOUT2 BNF1
VIN1 VIN2 SEL2 SEL1 A1 A2
C209 25V10
C208 8200P
R209 47K
C205 50V4.7
C206 5600P
R206 33K
C207 5600P
C301 50V4.7
C224 1000P
C124 1000P
C225
C104 50V4.7
C204 50V4.7
C201 50V4.7
C101 50V4.7
C202
VSC
RECL
RECR
CDR
CDL
TUR
TUL
PBR
PBL
R201 12K
R202 1.2K
R101 12K
R102 1.2K
R203 27K
R204 10K
R103 27K
R104 10K
R205 1K
R206 2.2K
R105 1K
R106 2.2K

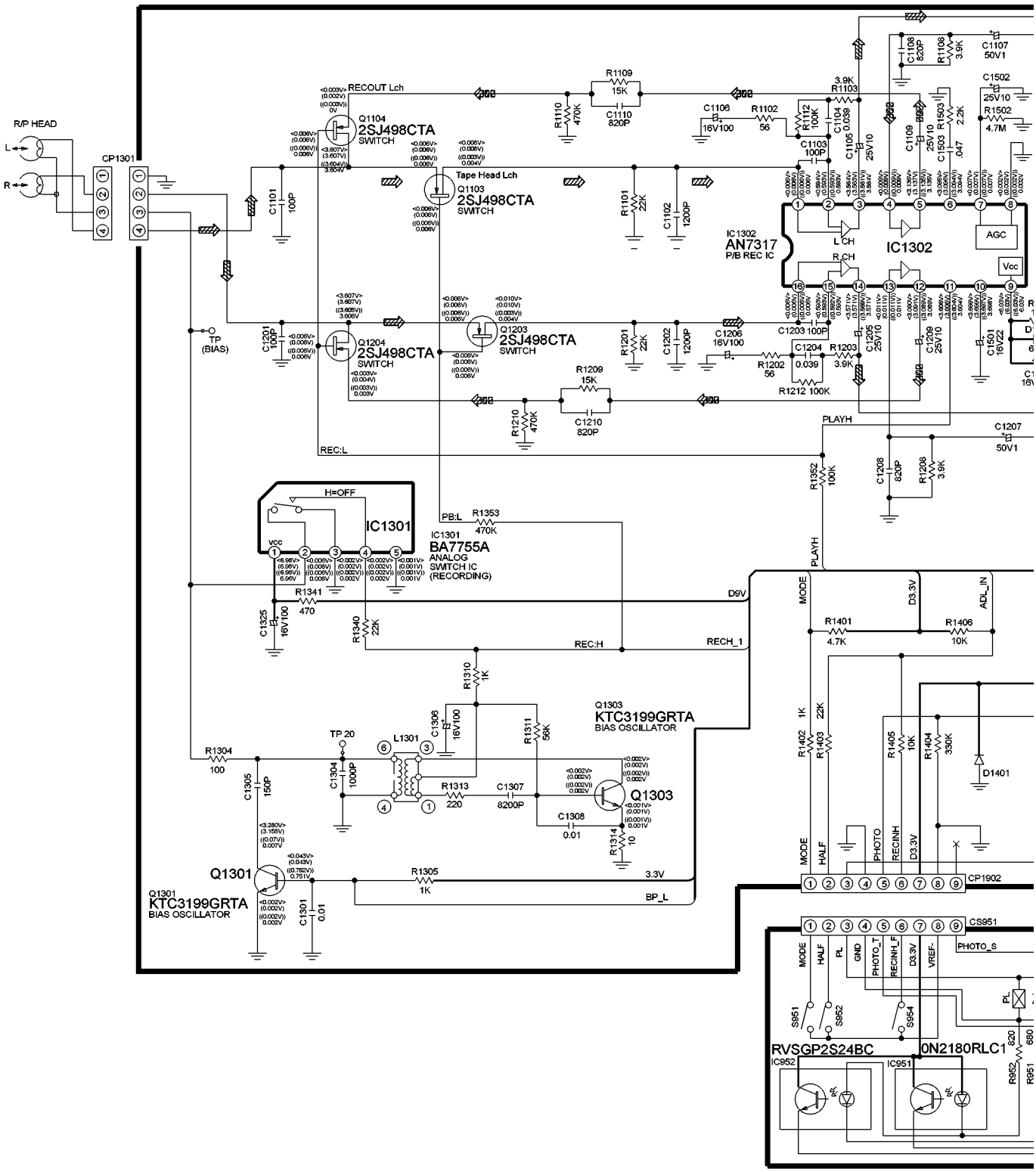

REM_STBY
D9V
CS801
CS802
CS803
CS804
IC301
BD3871FS-E2
AUDIO SOUND PROCESSOR IC
IC304
S-81333HG-Z
REGULATOR IC
Q401
KTC3199
DC DET SUPP
SWITCH
Q407
KTA1272YTA
3.3V SUPPLY SWITCH
Q406
KTA1046
CURRENT CONTROL SWITCH
Q408
KTC3199GRTA
SWITCH
Q404
KTC3199GRTA
REGULATOR
Q409
KTA1270YTA
3.3V SWITCH
Q405
KTA1267GRTA
SWITCH
Q403
KRC107MTA
POWER CONTROL SWITCH
Q410
KRC104MTA
POWER CONTROL SWITCH
Q411
KTA1270YTA
SWITCH
Q412
KRC104MTA
SWITCH
Q413
Q414
KRC104MTA
AC DET SUPPLY SWITCH
Q551
KRC104MTA
SWITCH
D403
RVD1SS133TA
D401
RVD1SS133TA
D402
MTZJ3R3BTA
D404~D406
RL1N4003N02
D407
RVD1SS133TA
D408
RVD1SS133TA
D409
RVD1SS133TA
D410
RVD1SS133TA
D411
D412
RVD1SS133TA
D413
RVD1SS133TA
D414
3.3V
CD7.5V
D9V
PDET
SW_VCC
VCCDET
D3.3V
BUP3.3V
REM_STBY
STBYLED
PCNT
ACDET
SW_VCC
RIGHT
LEFT
LATCH
CLOCK
R110 390K
R210 390K
R111 3.3K
R211 3.3K
R418 27K
R417 27K
R419 10K
R435 22
R414 1.5
R415 1.5
R416 1.5
R410 470
R411 470
R412 100
R413 330
R420 330
R423 ERDS2TJ103T
R424 10K
R425 4.7K
R426 1K
R427 1K
R428 10K
R429 4.7K
R430 2.2K
R431 100
R432 4.7
R434 10K
R554 330
R555 150
R402 39K
R403 470K
R405 10K
R406 470
R407 470
R408 470
R409 470
C308 220P
C309 220P
C111 50V0.47
C112 0.068
C211 50V0.47
C212 0.068
C224 1000P
C124 1000P
C225 1000P
C125 1000P
C226 1000P
C126 1000P
C305 25V47
C204 50V4.7
C201 50V4.7
C101 50V4.7
C202 50V4.7
C102 50V4.7
C203 50V4.7
C103 50V4.7
C412 50V1
C402
C403 25V47
C404
C405 16V100
C406 47P
C407 1000P
C409 16V100


RET_GND
AI_JOG2
JOG_GND
AI_JOG1
TO PANEL CIRCUIT (H551) ON SCHEMATIC DIAGRAM-8
D554 SLR332VR3F
Q401 KTC3199GRTA DC DET SUPPLY SWITCH
R401 4.7K
MUTE_A
Q402 KTA1281YTA SUPPLY SWITCH
R405 10K
VCC
R403 470K
R404 1K
R402 39K
R406 470
R407 470
R408 470
R409 470
Q403
RC107MTA
POWER CONTROL
SWITCH
Q413 KTC3202YTA REGULATOR
R432 4.7
R430 2.2K
C409 16V100
Q101, 201 2SD1450STA MUTING SWITCH
C213 50V0.22
C214 2200P
R212 33K
R213 2.7K
R214 3.3K
C215 0.068
R215 1.5K
Q201
C216 50V2.2
C217 1000P
C218 16V100
C312 50V4.7
D303 RVD1SS133TA
R303 1K
R304 1K
R308 33K
C311 16V22
IC303 LA4627 OP-AMP IC (POWER AMP)
IC303
R_IN
R_NF
RIPPLE FILTER
R_BS
R_OUT
VCC
L_IN
L_NF
PRE GND
L_BS
L_OUT
STBY
Q101
C113 50V0.22
C114 2200P
R112 33K
R113 2.7K
R114 3.3K
C115 0.068
R115 1.5K
C116 50V0.22
C117 1000P
SPR+
SPL+
C221 10V1000
R218 270
C121 10V1000
R118 270
CP301
TO G HEADPHONE CIRCUIT (H301) ON SCHEMATIC DIAGRAM-8
D415 RVD1SS133TA
6V
ACSTBY
VCC
H501
TO H POWER CIRCUIT (CP501) ON SCHEMATIC DIAGRAM-8
R433 4.7K
C410 16V100
C401 25V3300

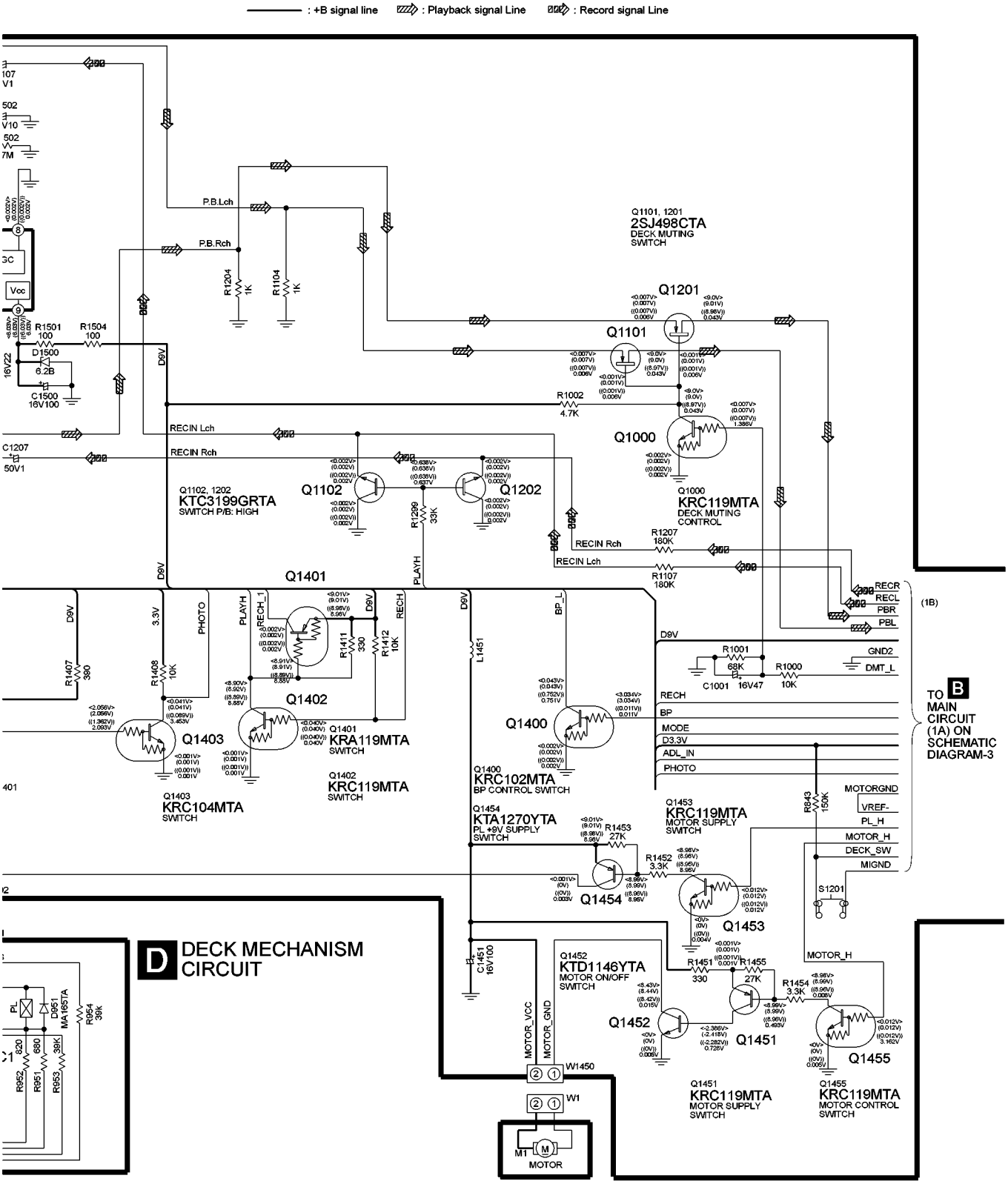
SCHEMATIC DIAGRAM-4

B MAIN (DECK) CIRCUIT

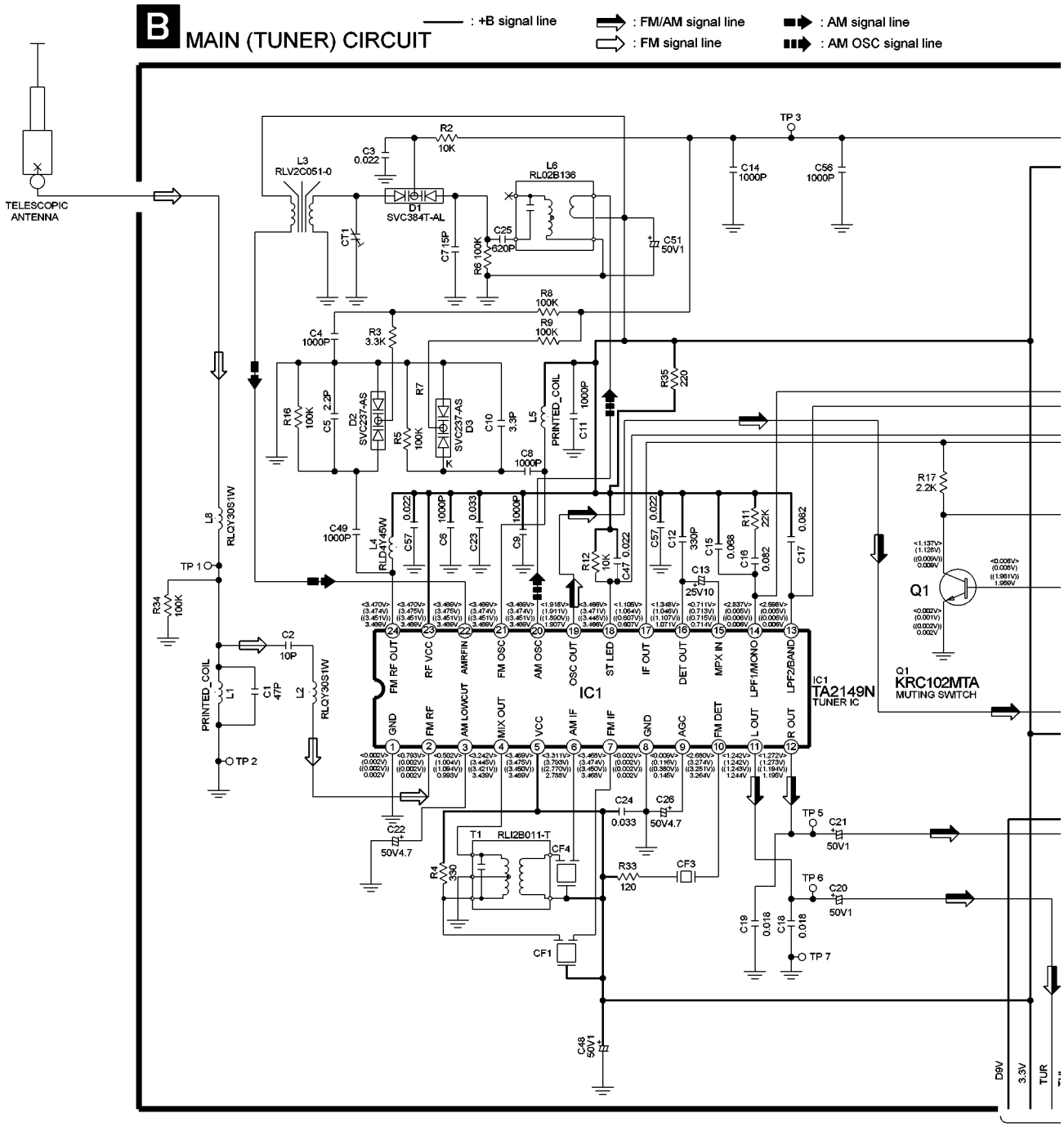
: +B signal line : Playback signal Line : Record signal Line



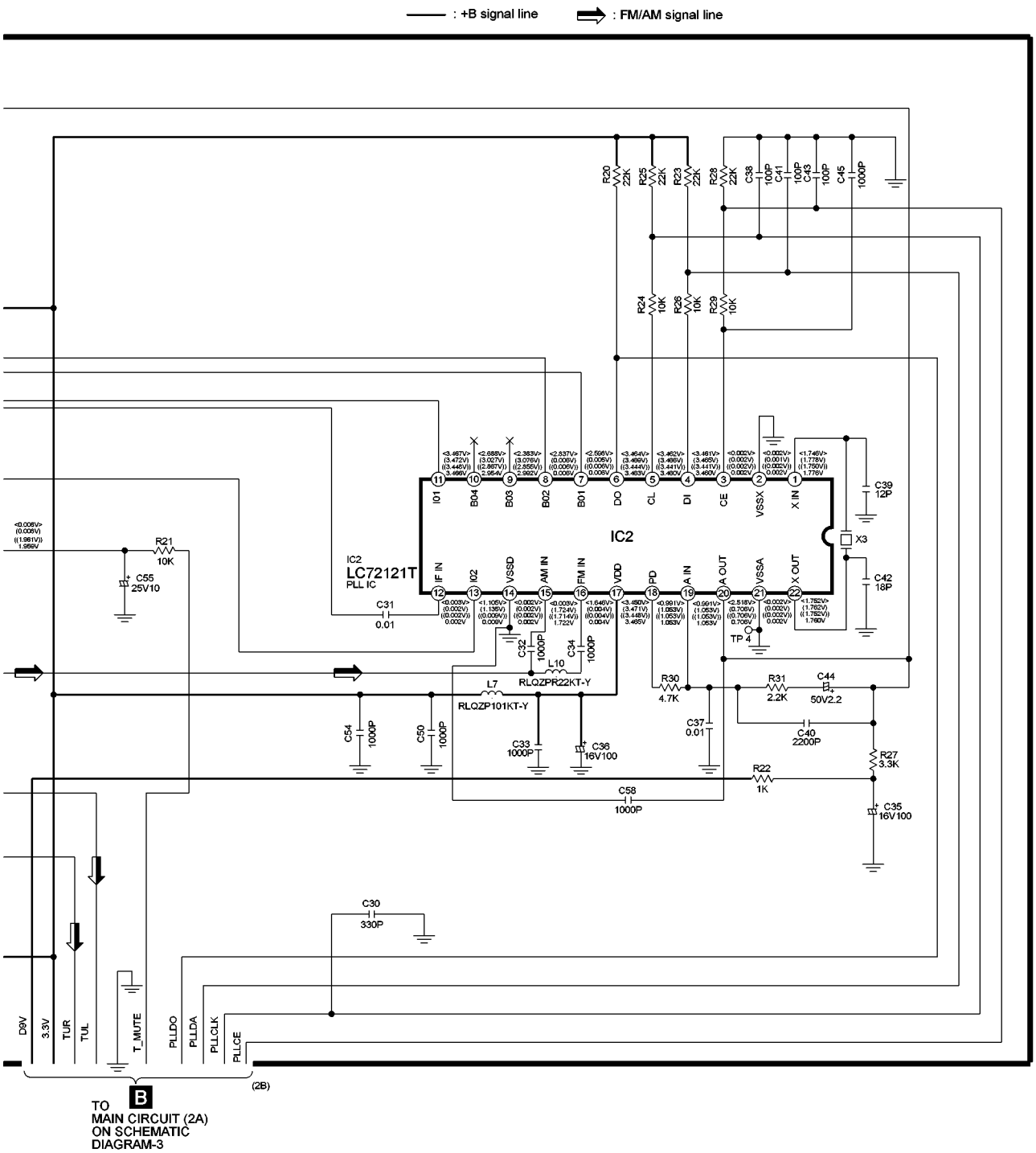
SCHEMATIC DIAGRAM-5



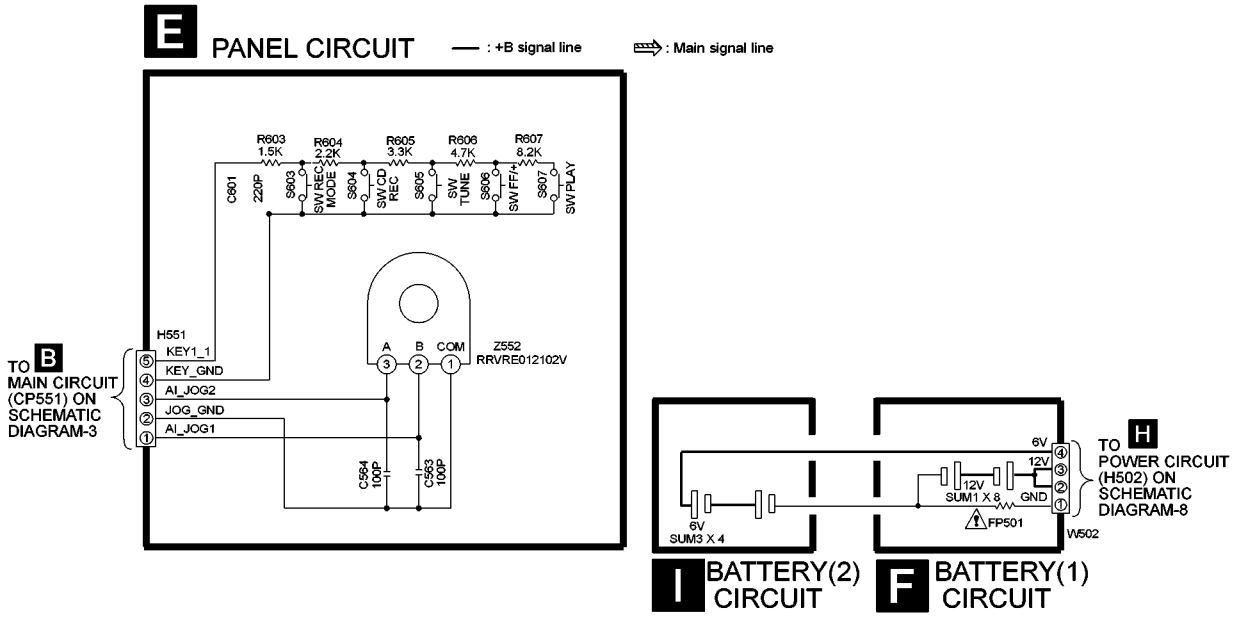
SCHEMATIC DIAGRAM-6

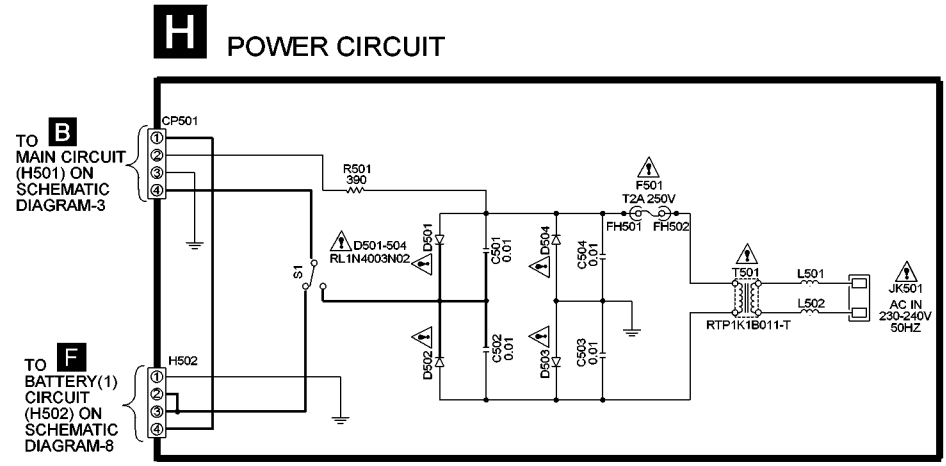


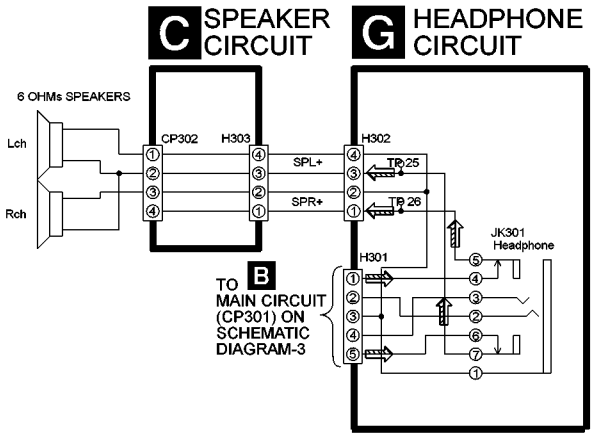
SCHEMATIC DIAGRAM-7



SCHEMATIC DIAGRAM-8

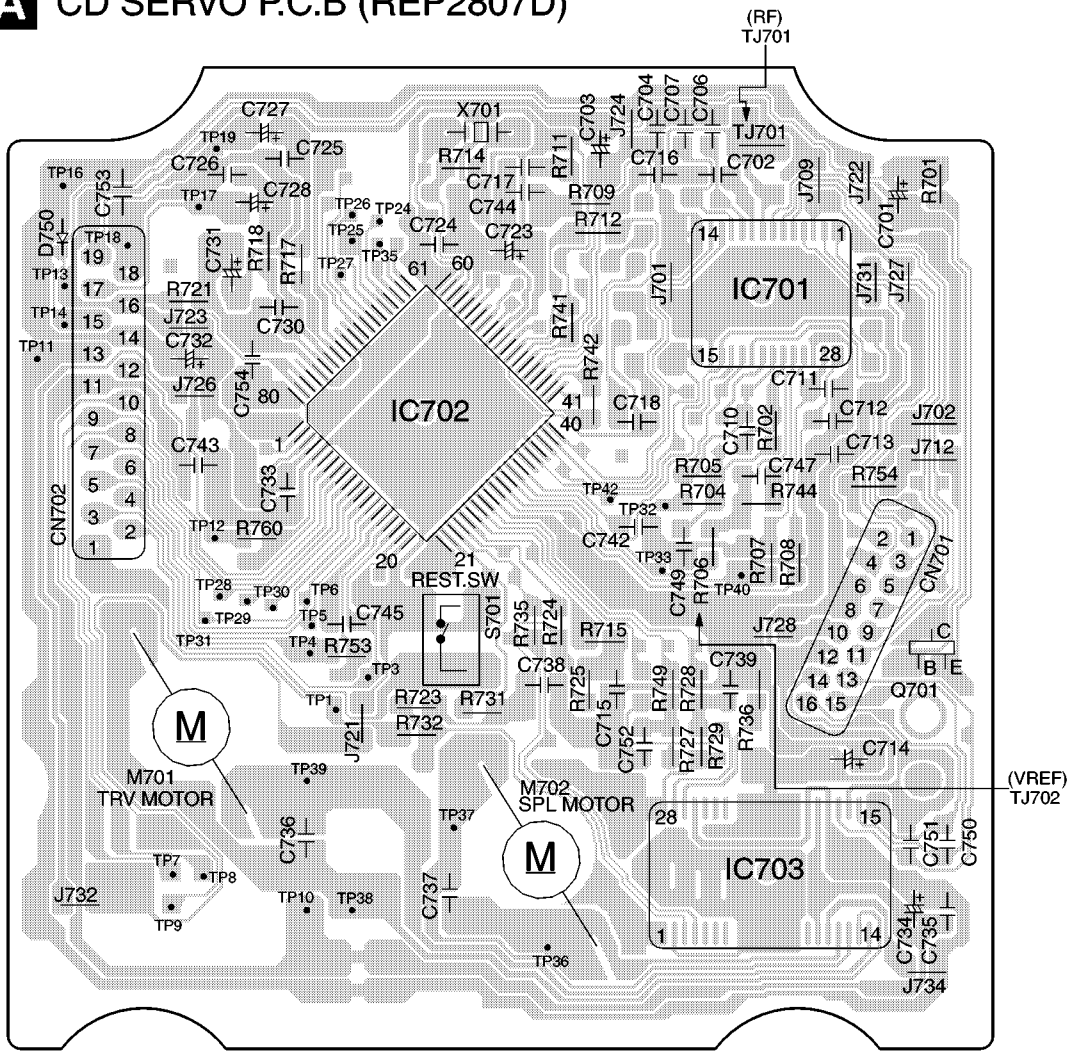




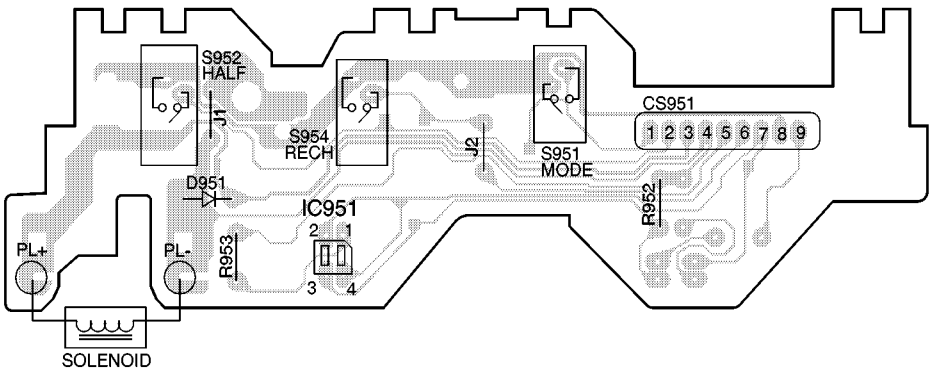


12 Printed Circuit Board

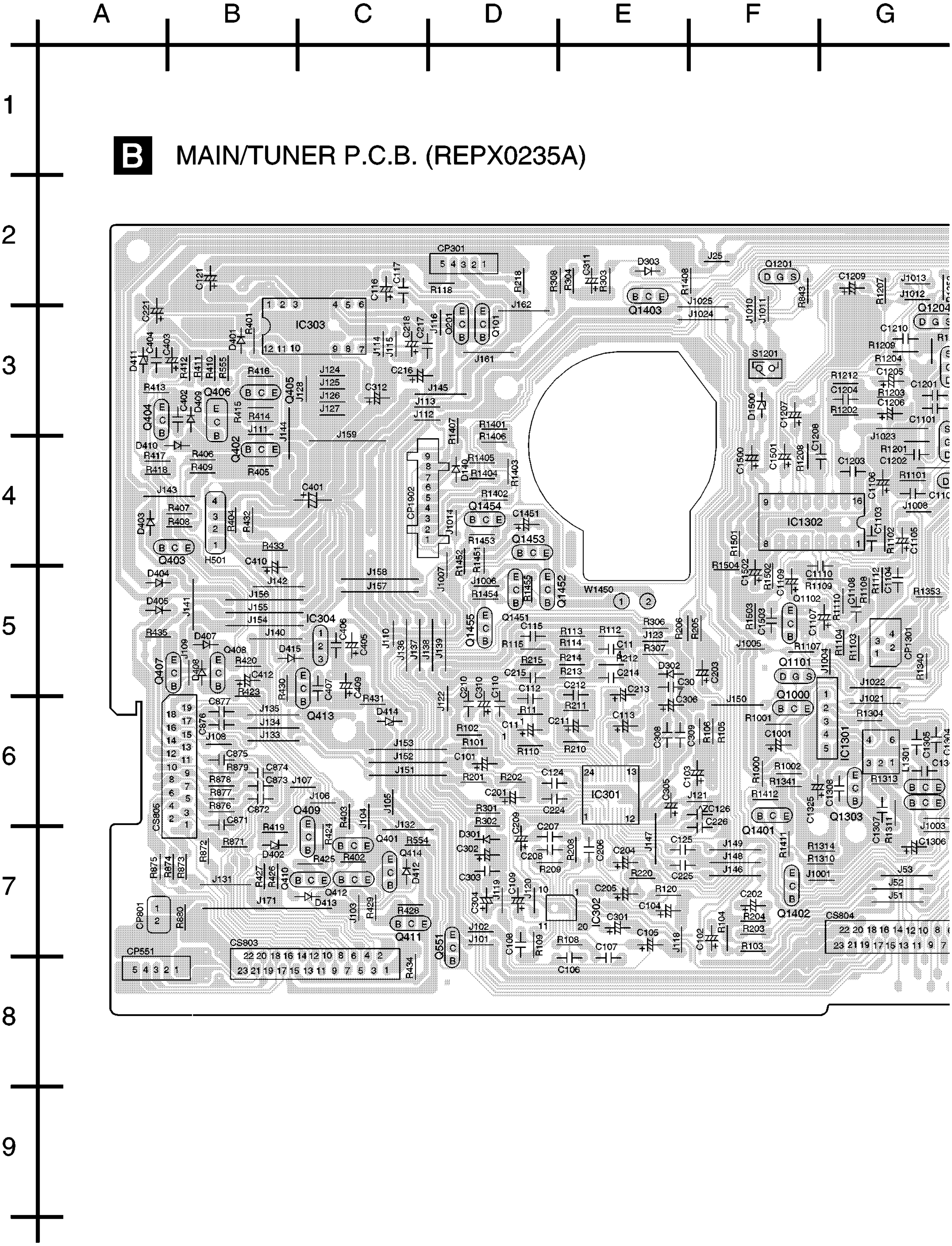
A CD SERVO P.C.B (REP2807D)

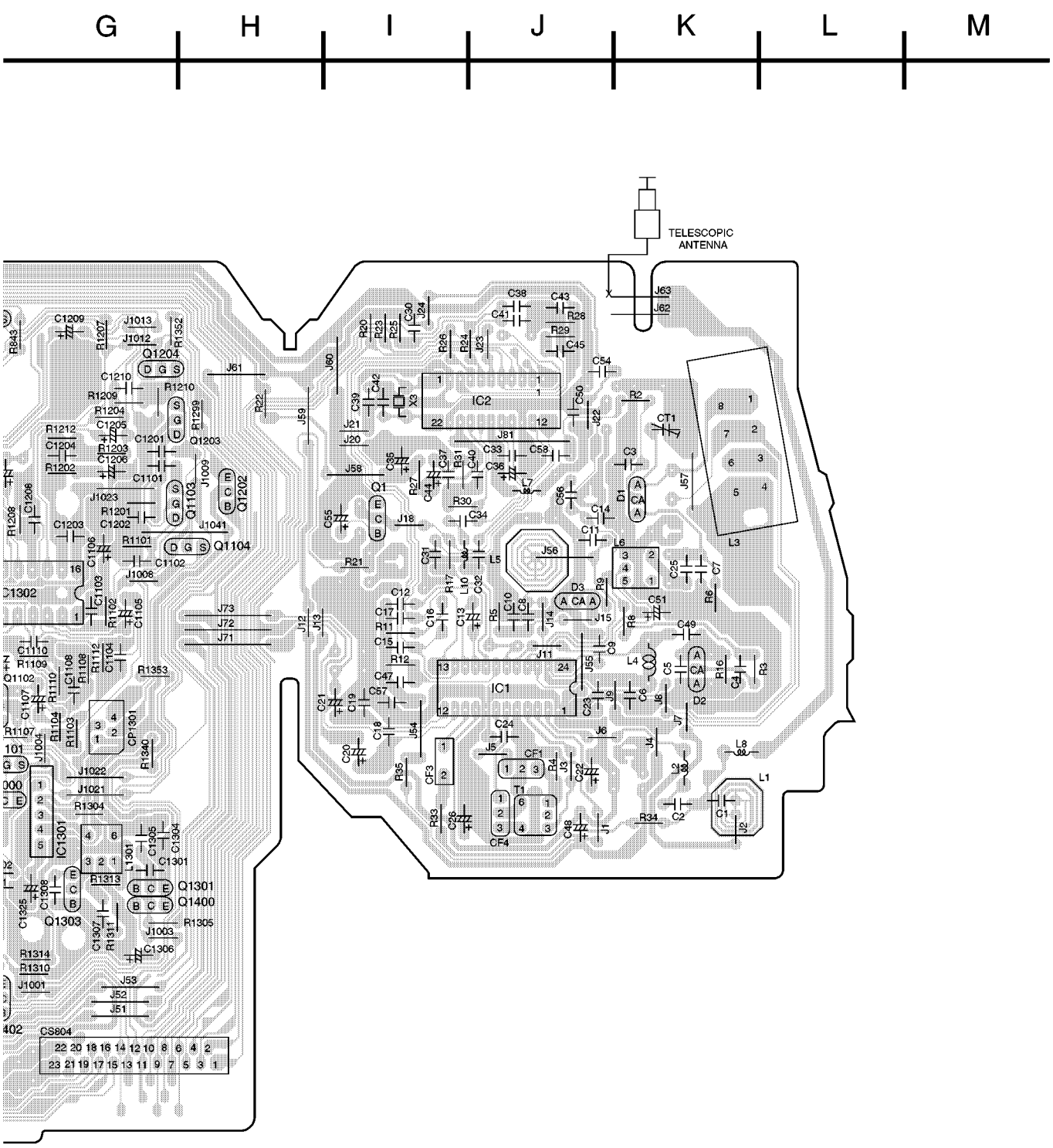


D DECK MECHANISM P.C.B (REPX0108E)

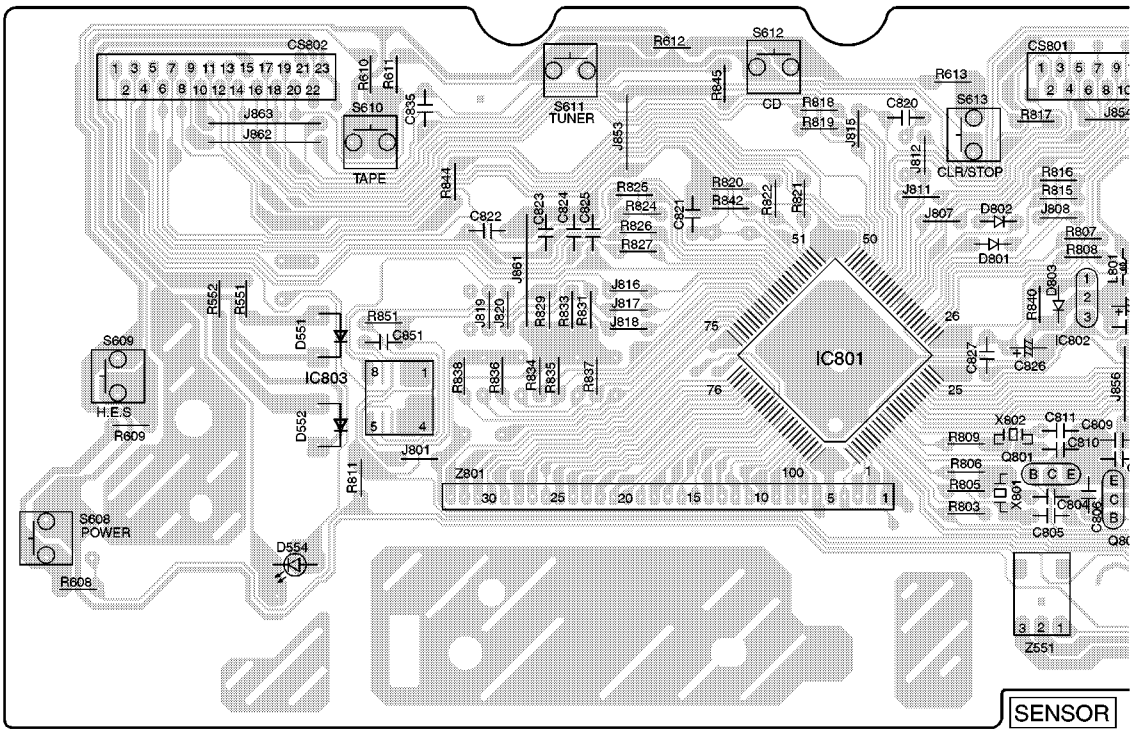


B MAIN/TUNER P.C.B. (REPX0235A)

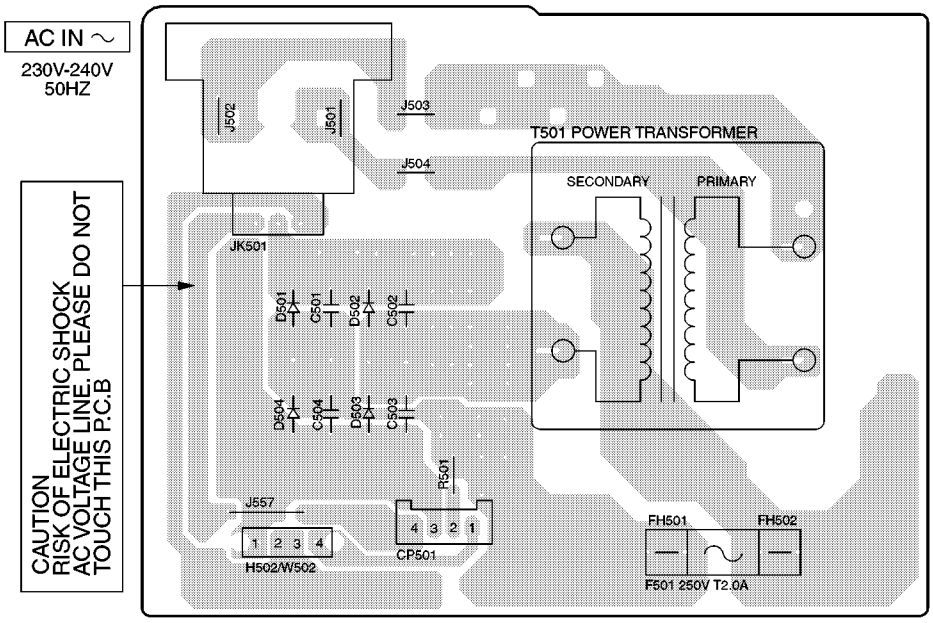



G
H
I
J
K
L
M
TELESCOPIC
ANTENNA
IC1
IC2
CS804

B FL P.C.B. (REPX0235A)

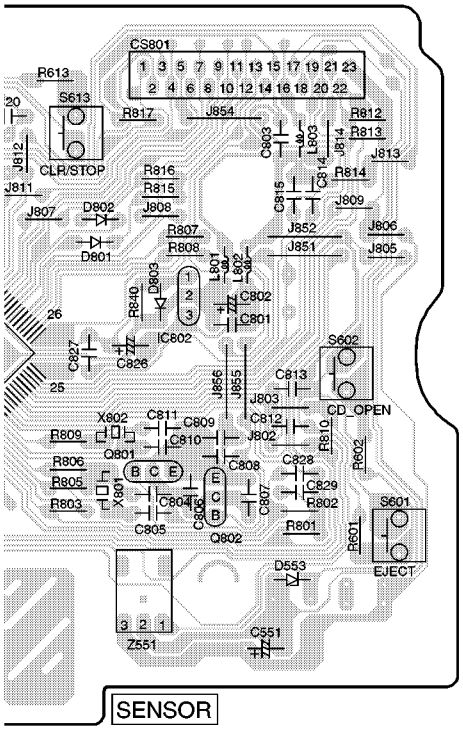


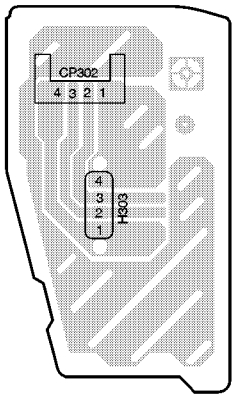
H POWER P.C.B. (REPX0235A)



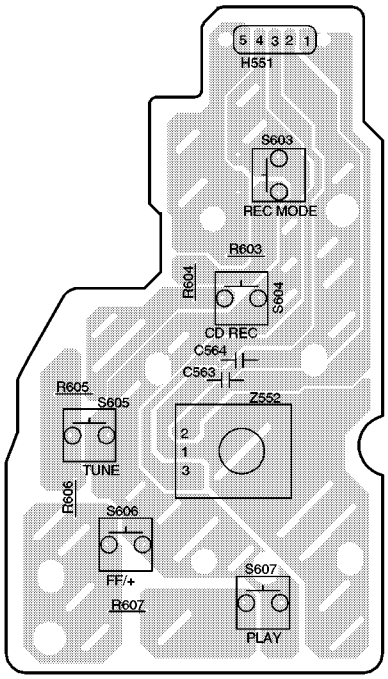
G H I J K L M

C SPEAKER P.C.B. (REPX0235A)

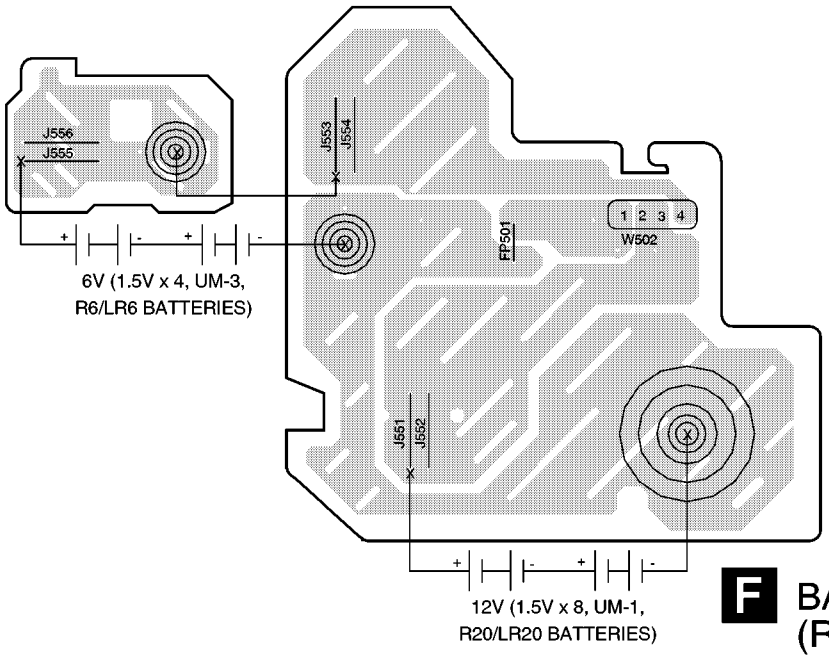




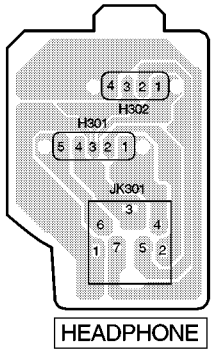
E PANEL P.C.B. (REPX0235A)



I BATTERY (2) P.C.B. (REPX0235A)

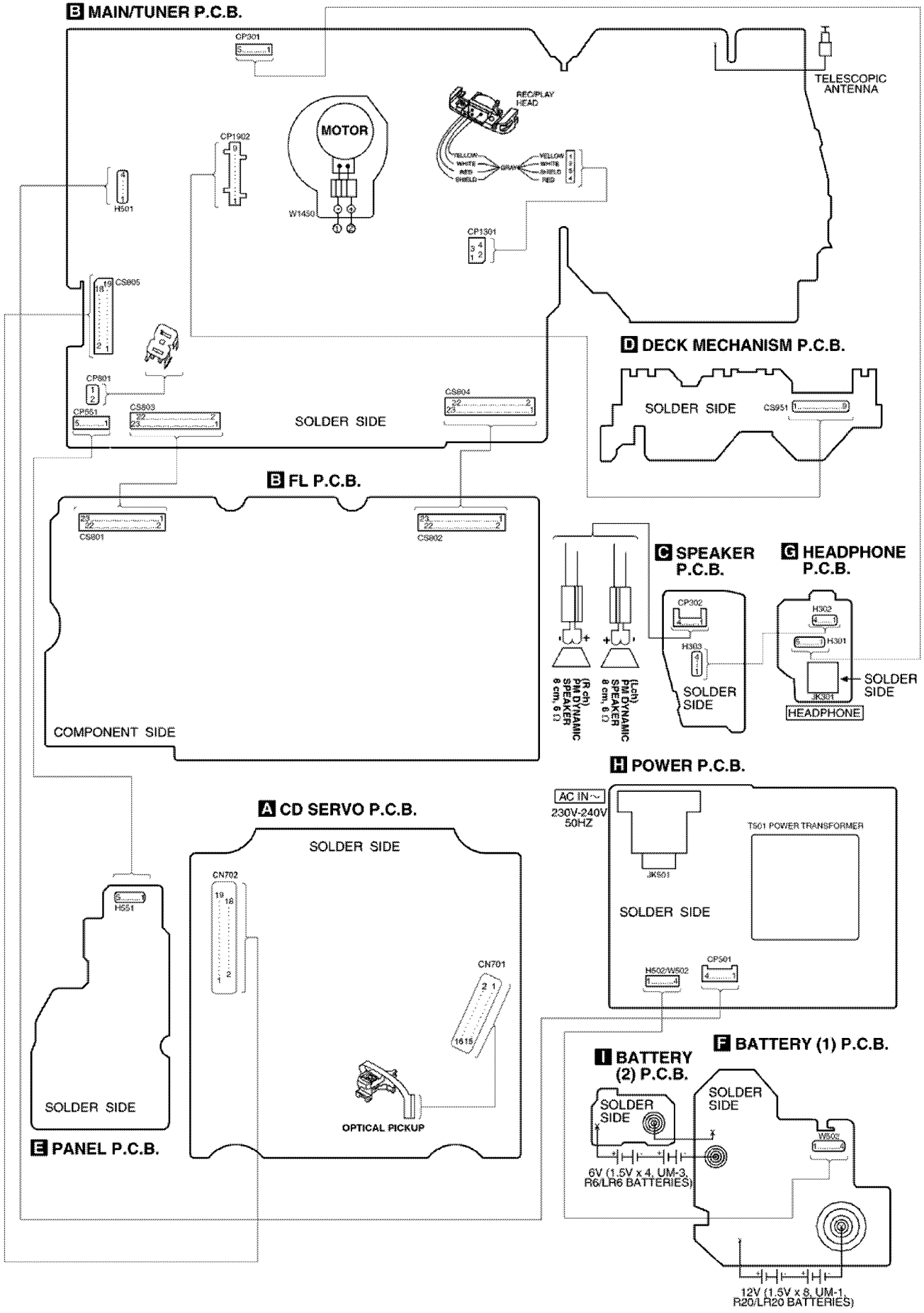


G HEADPHONE P.C.B. (REPX0235A)

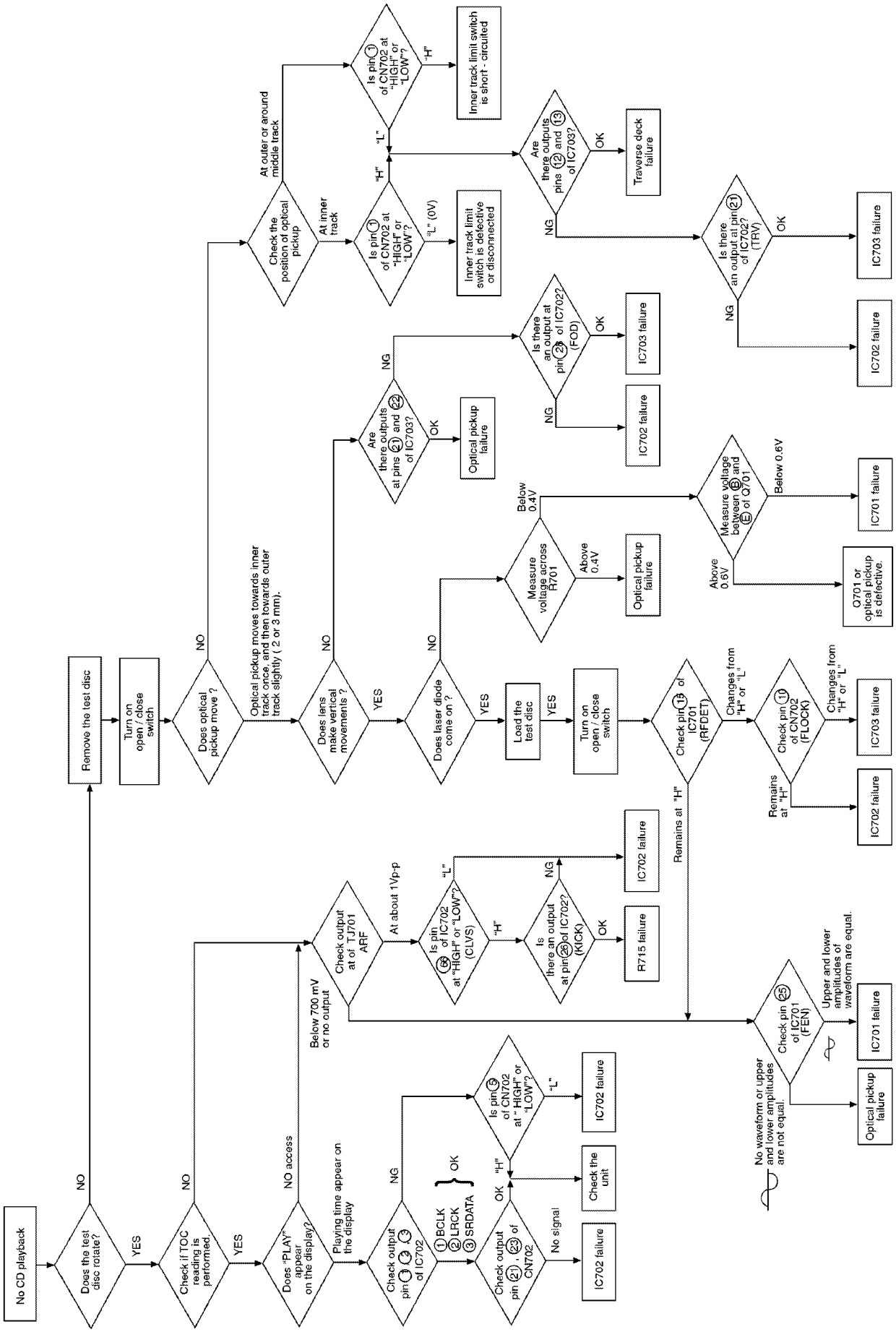


F BATTERY (1) P.C.B. (REPX0235A)

13 Wiring Connection Diagram



14 Troubleshooting Guide



15 Measurements and Adjustments

15.1. Tuner Section

READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT
1. Set volume control to maximum.
2. Set power source voltage to 12V.
3. Output of signal generator should be no higher than necessary to obtain an output reading.

NOTE: NO FM IF and FM stereo alignment is necessary as Tuner IC is used.

l AM-RF ALIGNMENT

Signal Generator or Sweep Generator		Radio Dial Setting	Indicator (Electronic Voltmeter or Oscilloscope)	Adjustment (Shown in Fig.1)	Remarks
Connections	Frequency				
Fashion a loop of several turns of wire and radiate signal into loop of receiver.	594 kHz	Point of non-interference.(on/ about 600kHz)	Headphone Jack (32Ω) Fabricate the plug as shown in Fig.2 and then connect the lead wires of the plug to the measuring instrument.	[*1] L3 (AM ANT Coil)	Adjust for maximum output.
Fashion a loop of several turns of wire and radiate signal into loop of receiver.	522 kHz	Point of non-interference.(on/ about 600kHz)	Headphone Jack (32Ω) Fabricate the plug as shown in Fig.2 and then connect the lead wires of the plug to the measuring instrument.	L6 (AM OSC Coil)	Adjust for maximum output.
Fashion a loop of several turns of wire and radiate signal into loop of receiver.	1503 kHz	Point of non-interference.(on/ about 600kHz)	Headphone Jack (32Ω) Fabricate the plug as shown in Fig.2 and then connect the lead wires of the plug to the measuring instrument.	CT1 (AM ANT Trimmer)	Adjust for maximum output.

[*1] Fix antenna coil with wax after completing alignment.

l FM-RF ALIGNMENT

Signal Generator or Sweep Generator		Radio Dial Setting	Indicator (Electronic Voltmeter or Oscilloscope)	Adjustment (Shown in Fig.1)	Remarks
Connections	Frequency				
Fashion a loop of several turns of wire and radiate signal into loop of receiver.	87.5 MHz	Point of non-interference.(on/ about 600kHz)	Headphone Jack (32Ω) Fabricate the plug as shown in Fig.2 and then connect the lead wires of the plug to the measuring instrument.	[*1] L4 (FM ANT Coil)	Adjust for maximum output.

[*1] Fix antenna coil with wax after completing alignment.

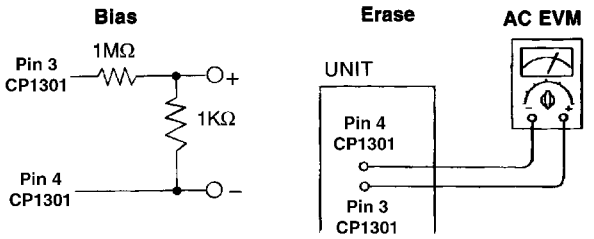
l TAPE SPEED ALIGNMENT

Test Tape	Equipment Connection Electronic Counter	Adjustment	Specification	Remarks
C-WAT (3 kHz, -10 dB)	Headphone Jack (32Ω) Fabricate the plug as shown in Fig.2 and then connect the lead wires of the plug to the measuring instrument.	-	3000 ± 90 Hz	Play mode

l BIAS AND ERASE VOLTAGE CHECK

1. Set the unit to TUNER mode.
2. Insert the Normal blank tape (QZZCRA) into DECK and set the unit to “REC” mode (use “ l REC/STOP” key).
3. Measure and make sure that the output is within the standard value.
4. Insert the CrO2 tape (QZZCRX).
5. Repeat steps 2 and 3.

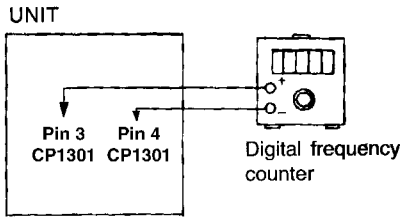
Bias voltage for Deck (Standard value) : 13.3 ± 1 mV



I BIAS FREQUENCY ADJUSTMENT (DECK)

1. Set the unit to TUNER mode.
2. Insert the Normal blank tape (QZZCRA) into DECK and set the unit to "REC" mode (use " I REC/STOP" key).
3. Adjust L1301 so that the output frequency is within the standard value.

Standard Value : 95 ± 8 kHz



15.2. CD Section

Alignment is unneccessary for CD section of this unit.

15.2.1. Alignment Points

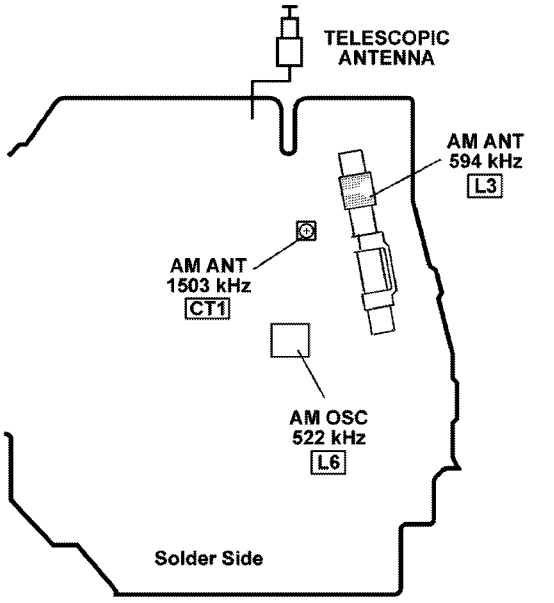


Fig 1

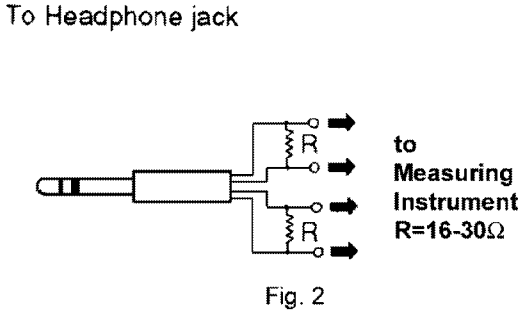
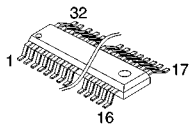
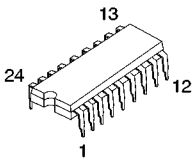
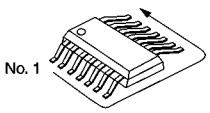
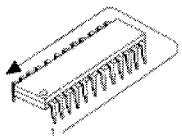
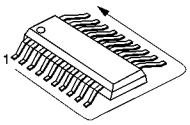
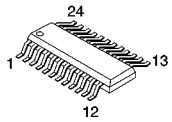
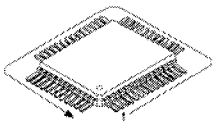
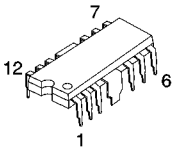
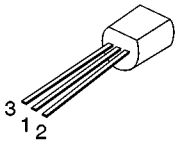
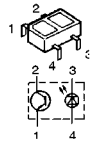
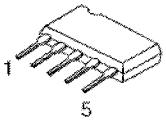
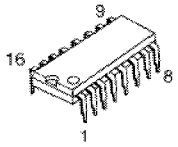
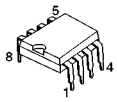
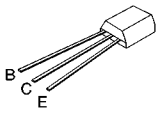
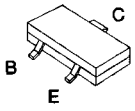
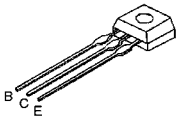
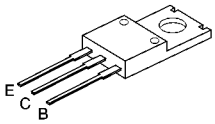
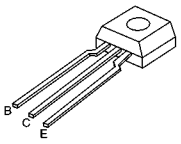
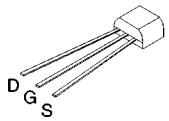
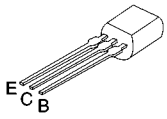
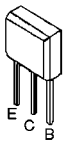
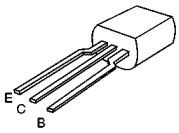
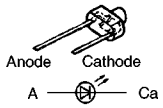
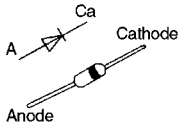
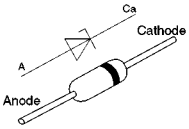
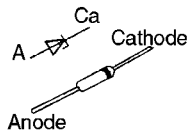
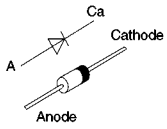
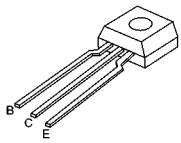
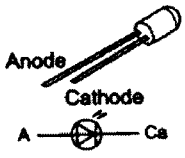
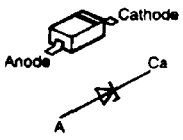


Fig. 2

16 Type Illustrations of ICs, Transistors & Diodes

BA5948FPE2 (28P) 	TA2149N 	LA2655V-TLM (24P) 	LC72121T 	AN8885SBE1 (28p) 	BD3871FS-E2 
MN662790RSC (80P) MN101C38ABA2 (100P) 	LA4627 	S-81333HG-Z PST9129-T 	ON2180RLC1 	BA7755A (5P) 	AN7317 
BR93LC46 	KTA1281YTA 	2SA1037AKSTX 	KRA119MTA KRC102MTA KRC107MTA KRC119MTA 		KTA1046 
KRC102MTA KRC104MTA KTA1267GRTA KTA1272YTA KTC3199GRTA 		2SJ498CTA 	KTD1146YTA 	2SD1450STA 	KTA1270YTA KTC3202YTA 
SLR332VR3F 	RVD1SS133TA MA165TA 	MTZJ8R2BTA 	MTZJ12BTA MTZJ3R3BTA MTZJ5R1BTA MTZJ6R2BTA MTZJ7R5BTA MTZJ9R1BTA 		RL1N4003N02 
SVC384T-AL SVC237-AS 	LNJ498CK4AA 	MA8056MTX 			

17 Terminal Functions of ICs

· **IC701 (AN8885SBE1) Servo Amplifier**

Pin No.	Mark	I/O	Function
1	PDE	I	Tracking signal input 1
2	PDF	I	Tracking signal input 2
3	VCC	I	Power supply
4	PDA	I	Focus signal input terminal 1
5	PDB	I	Focus signal input terminal 2
6	LPD	I	APC amp input
7	LD	O	APC amp output
8	RF	O	RFsumming output
9	RFIN	I	Detector's input
10	CSBRT	I	Capacitor for OFTR connection
11	CEA	I	Capacitor for HPF amp connection
12	BDO	O	BDO output ("H" : drop out)
13	LDON	I	APC control
14	GND	—	Ground
15	/RFDET	O	NRFDET output ("L" : detection)
16	PDOWN	O	Power-down input
17	OFTR	O	OFTR output
18	NC	O	N.C.
19	ENV	O	3T-ENV output
20	NC	I	N.C.
21	NC	I	N.C.
22	TEN	I	TE amp input
23	TEOUT	O	TE amp output
24	FEOUT	O	FE amp output
25	FEN	I	FE amp input
26	VREF	O	Reference voltage output
27	TBAL	I	Tracking balance control
28	FBAL	I	Focus balance control

· **IC702 (MN662790RSC) Servo Processor/Digital Processor/Digital Filter/D/A Converter**

Pin No.	Mark	I/O	Function
1	BCLK	O	N.C.
2	LRCK	O	N.C.
3	SRDATA	O	N.C.
4	DVDD1	I	Power supply input (for digital circuit)
5	DVSS1	I	GND (for digital circuit)
6	TX	O	Digital audio interface signal output (Latches data at first transition)
7	MCLK	I	Microprocessor command clock signal input
8	MDATA	I	Microprocessor command data signal input
9	MLD	I	Microprocessor command load signal input
10	SENSE	O	Sense signal output (OFT,FESL,MAGEND,NAJEND, POSAD,SFG) (Not used, open)
11	/FLOCK	O	Focus servo feeding signal output ("L": Feed)
12	/TLOCK	O	Tracking servo feeding signal output ("L": Feed)
13	BLKCK	O	Sub-code block clock signal output (BLKCKf = 75Hz during normal playback)
14	SQCK	I	External clock signal input for sub-code Q resistor
15	SUBQ	O	Sub-code Qcode output
16	DMUTE	I	Muting input ("H": mute)
17	STAT	O	Status signal output (CRC,CUE,CLVS,TTSTVP, FCLV,SQC)
18	/RST	I	Reset signal input
19	SMCK	O	1/2-divided clock signal of crystal oscillating at MSEL = "H" (fSMCK = 8.4672 MHz) 1/4-divided clock signal of crystal oscillating at MSEL = "L" (fSMCK = 4.2336 MHz)
20	CSEL	I	Frequency Selection Terminal H = 33.8688 MHz; L = 16.9344 MHz
21	TRV	O	N.C.
22	TVD	O	Traverse drive output
23	PC	O	Spindle motor ON output ("L": ON)
24	ECM	O	Spindle motor drive signal output (forced mode output)
25	ECS	O	Spindle motor drive signal output (servo error signal output)
26	KICK	O	N.C.
27	TRD	O	Traverse drive output
28	FOD	O	Focus drive output
29	VREF	I	D/A (drive) output (TVD,ECS,TRD,FOD,FBAL,TBAL) Reference voltage input
30	FBAL	O	Focus balance adjustment output
31	TBAL	O	Tracking balance adjustment output
32	FE	I	Focus error signal input (analog input)
33	TE	I	Tracking error signal input (analog input)
34	RFENV	I	RF envelope signal input
35	VDET	I	Vibration detection signal input ("H": detection)
36	OFT	I	Off-track signal input ("H": off track)
37	TRCRS	I	Track cross signal input
38	/RFDET	I	RF detection signal input ("L: detection)
39	BDO	I	Dropout signal input ("H": Dropout)
40	LDON	O	Laser on signal input ("H": ON)
41	PLLF2	I/O	N.C.
42	DSLF2	O	Tracking Offset alignment output/DSL Balance Output (DA Output)
43	WVEL	O	N.C.
44	ARF	I	RF signal input
45	IREF	I	Reference current input
46	DRF	I	DSL bias terminal (Not used, open)
47	DSLF	I/O	DSL loop filter terminal
48	PLLF	I/O	PII loop filter terminal
49	VCOF	I/O	VCO loop filter terminal
50	AVDDD2	I	Power supply input (for analog circuit)
51	AVSS2	I	GND (for analog circuit).
52	EFM	O	EFM signal output
53	PCK	O	PLL extraction clock output (fPCK = 4.321 MHz during normal playback)
54	VCOF2	I/O	VCO loop filter for 33.8688 MHz conversation terminal for 16.9344 MHz crystal mode, must use other circuit
55	SUBC	O	Sub-code serial data output
56	SBCK	I	Clock input for sub-code serial data
57	VSS	I	GND
58	X1 IN	I	Crystal oscillating circuit input (f = 16.9344MHz)
59	X2 OUT	O	Crystal oscillating circuit input (f = 16.9344MHz)
50	VDD	I	Power supply input (for oscillating circuit)
61	BYTCK	O	Byte clock output
62	/CLDCK	O	Sub-code frame clock signal output (fCLDCK = 7.35 kHz during normal playback)
63	FCLK	O	Crystal frame clock signal output (fCLK = 7.35 kHz, double = 14.7 kHz)
64	IPFLAG	O	Interpolation flag output ("H": Interpolation)

Pin No.	Mark	I/O	Function
65	FLAG	O	Flag output
66	CLVS	O	Spindle servo phase synchronizing signal output (“H”: CLV, “L”: rough servo)
67	CRC	O	Sub-code CRC checked output (“H”: OK, “L”: NG)
68	DEMPH	O	De-emphasis ON signal output(“H”:ON)
69	RESY	O	Frame re-synchronizing signal output
70	IOSEL	I	Mode Switching Terminal
71	/TEST	I	Test input
72	AVDD1	I	Power supply input (for analog circuit)
73	OUTL	O	Left channel audio signal output
74	AVSS1	I	GND
75	OUTR	O	Right channel audio signal output
76	RSEL	I	RF signal polarity assignment input (at “H” level, RSEL=”H”, at “L” level, RSEL=”L”)
77	10VDD	I	5V supply input
78	PSEL	I	Test terminal (connected to Gnd)
79	MSEL	I	SMCK oscillating frequency designation input(“L”:4.2336MHz, “H”:8.4672MHz)
80	SSEL	I	SUBQ output mode select (“H”: Q-code buffer mode)

· IC703 (BA5948FPE2) BTL Driver IC

Pin No.	Mark	I/O	Function
1	IN2	I	Motor driver (2) input
2	PC2	I	Turnable motor drive signal (“L”: ON)
3	IN1	I	Motor driver (1) input
4	PC1	I	Traverse motor drive signal (“L”: ON)
5	NC	-	Not used
6	NC	-	Not used
7	NC	I	Power supply (1) for driver
8	NC	-	Ground connection (1) for driver
9	PGND1	-	Ground connection (1) for driver
10	PVCC1	I	Power supply (1) for driver
11	D1-	O	Motor driver (1) reverse - action output
12	D1+	O	Motor driver (1) forward - action output
13	D2-	O	Motor driver (2) reverse - action output
14	D2+	O	Motor driver (2) forward - action output
15	D3-	O	Motor driver (3) reverse - action output
16	D3+	O	Motor driver (3) forward - action output
17	D4-	O	Motor driver (4) reverse - action output
18	D4+	O	Motor driver (4) forward - action output
19	PVCC2	I	Power supply (2) for driver
20	PGND2	-	Ground connection (2) for driver
21	NC	-	Not used
22	NC	-	Not used
23	NC	-	Not used
24	NC	-	Not used
25	VCC	I	Power supply terminal
26	VREF	I	Reference voltage input
27	IN4	I	Motor driver (4) input
28	IN3	I	Motor driver (3) input

· IC801 (MN101C38ABA2) MICROPROCESSOR

Pin No.	Mark	I/O	Function
1~4	COM3~COM0	O	LCD common output
5~7	VLC3~VLC1	-	LCD Bias
8	VDD	-	VDD +3.3V
9	OSC2	O	6 MHz Ceramic OSC output
10	OSC1	I	6 MHz Ceramic OSC input
11	VSS	-	Ground
12	XI	I	32.768kHz OSC output
13	XO	O	32.768kHz OSC input
14	MMOD	I	Microprocessor mode set to “L”
15	VREF-	-	Analog reference ground
16	KEY1	A/D	Key input 1
17	KEY2	A/D	Key input 2
18	AI_JOG1	I	AI JOG Input 1
19	AI_JOG2	I	AI JOG input 2
20	REM_STBY	I	Remote standby
21	OP_SW	I	Open switch
22	PDET	A/D	Power supply voltage detect
23	ADL_IN	A/D	Deck mechanism condition input
24	VREF+	-	+3.3V reference for A/D
25	NC	O	No connection
26	SUBQ	I	CD subcode data input
27	SQCK	O	CD subcode data clock
28	MBP1	O	Micro-P beat proof control output 1
29	MBP2	O	Micro-P beat proof control output 2
30	CD_RESET	O	CD RST output
31	REST_SW	I	CD limit SW input for the most inner point
32	RESET	I	System reset input
33	CD_OPEN	O	CD open output
34	CD_CLOSE	O	CD close output
35	MLD	O	CD signal processor control load output
36	MDATA	O	CD signal processor control data output
37	MCLK	O	CD signal processor control clock output
38	BLKCK	I	CD subcode block clock input
39	RMT_IN	I	Remote control input
40	ACDET	I	AC main detection input
41	STAT	I	CD status input
42	VCCDET	I	DC detect input
43	SP_CLK	O	Sound processor serial clock (SP_CLK)
44	SP_DAT	O	Sound processor serial data (SP_DAT)
45	HES	O	Harmonic enhancer sound
46	PCNT	O	Power control output
47	MOTORH	O	Deck motor output audio mute output
48	PL	O	Deck plunger
49	RECH	O	Deck REC control output
50	MUTEA	O	Audio mute output
51	UNUSED	I	Connect to ground
52	DMT	O	Tape mute output
53	BP	O	Beat proof for AM
54	CD_L	O	At CD selector : Low All other selector : High
55	LOADINGSW	I	Loading SW for TR2
56	MODE	I	Mode of drinving FWD/REV
57	PHOTO_1	I	Deck photo SW input
58	PLL CLK	O	PLL Clock output
59	PLL CE	O	PLL Chip enable output
60	PLL DA	O	PLL Data output
61	PLL DO	I	PLL IF count input
62	T_MUTE	O	Tuner mute
63	EDATA	I/O	Eeprom Data
64	ECLK	O	Eeprom Clock
65	ECS	O	Eeprom chip select
66	UNUSED	I	Connect to ground
67~70	REG_1~REG_4	I	Region setting 1~4
71~100	SEG30~SEG0	O	LCD segment drive output

18 Parts Location and Replacement Parts List

Notes:

- Important safety notice:

  Components identified by ⚠ 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 these components, be sure to use only manufacturers's specified parts shown in the parts list.
- The parenthesized indications in the Remarks column specify the areas or color. (Refer to the cover page for area or color.)

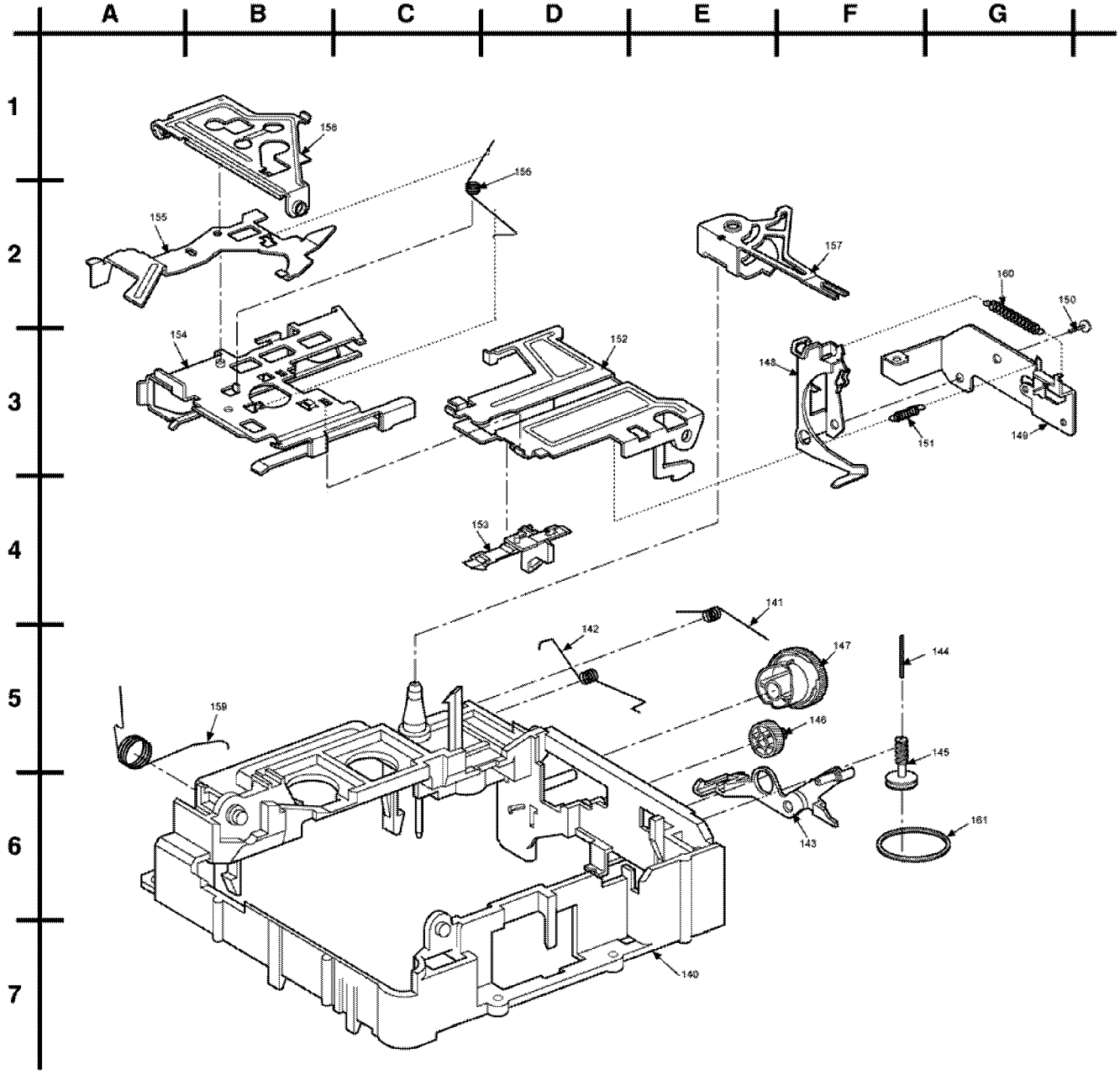
  Parts without these indications can be used for all areas.
- Warning: This product uses a laser diode. Refer to caution statements on P.5

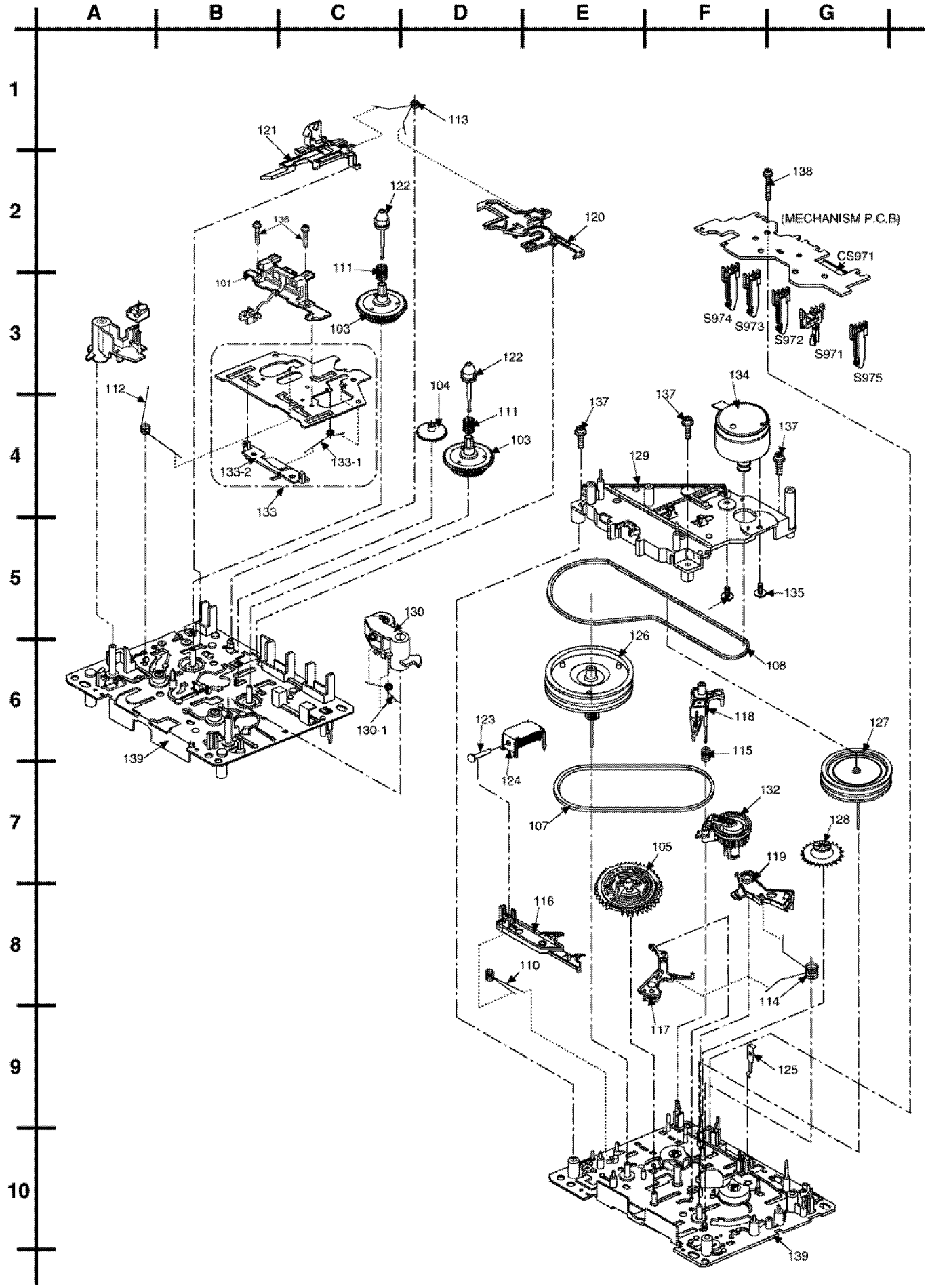
  ACHTUNG:
  Die Lasereinheit nicht zerlegen.
  Die Lasereinheit darf nur gegen enie vom Hertsteller spezifizierte Einheit ausgetauscht werden.
- Capacitor values are in microfarad (μF) unless specified otherwise, P=Pico-farads(pF); Farads.
- Resistance values are in ohms, unless specified otherwise, 1K=1,000(ohms).
- 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 lows govening part and product retention. After the end of this period, the assembly will no longer be available.
- [M] indicates in the Remarks columns indicates parts that are supplied by **MESA**.
- The "(SF)" mark denotes the standard part.
- Remote Control Unit: Supply period for three years from terminal of production.
- Reference for O/I book languages are as follows :

Ar : Arabic	Cf : Canadian French	Cz : Czech	Da : Danish
Du : Dutch	En : English	Fr : French	Ge : German
It : Italian	Ko : Korean	Po : Polish	Ru : Russian
Sp : Spanish	Sw : Swedish	Co : Traditional Chinese	Cn : Simplified Chinese

18.1. Deck Mechanism (RAA0940)

18.1.1. Deck Mechanism Parts Location

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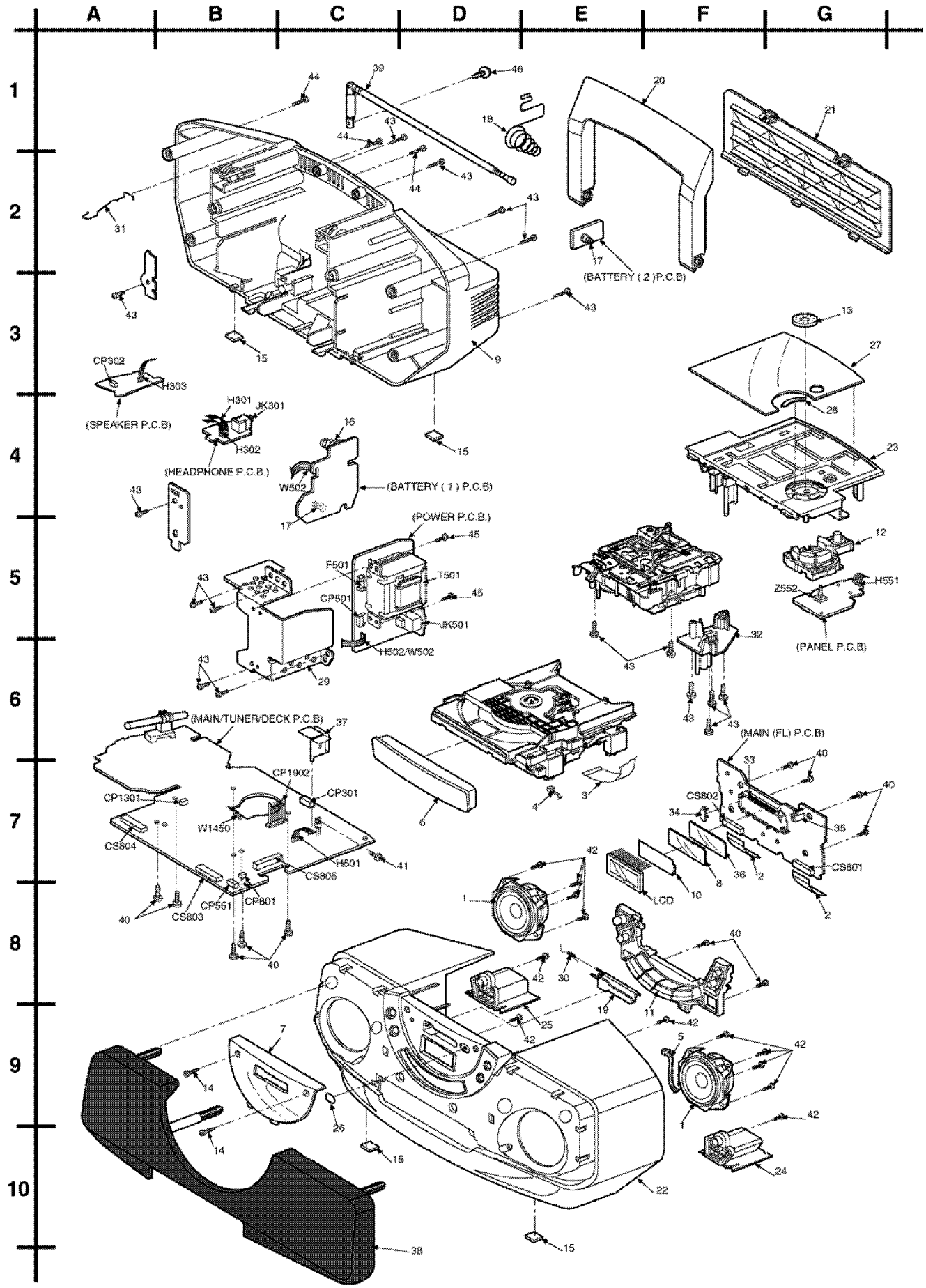
18.1.2. Deck Mechansim Part Lists

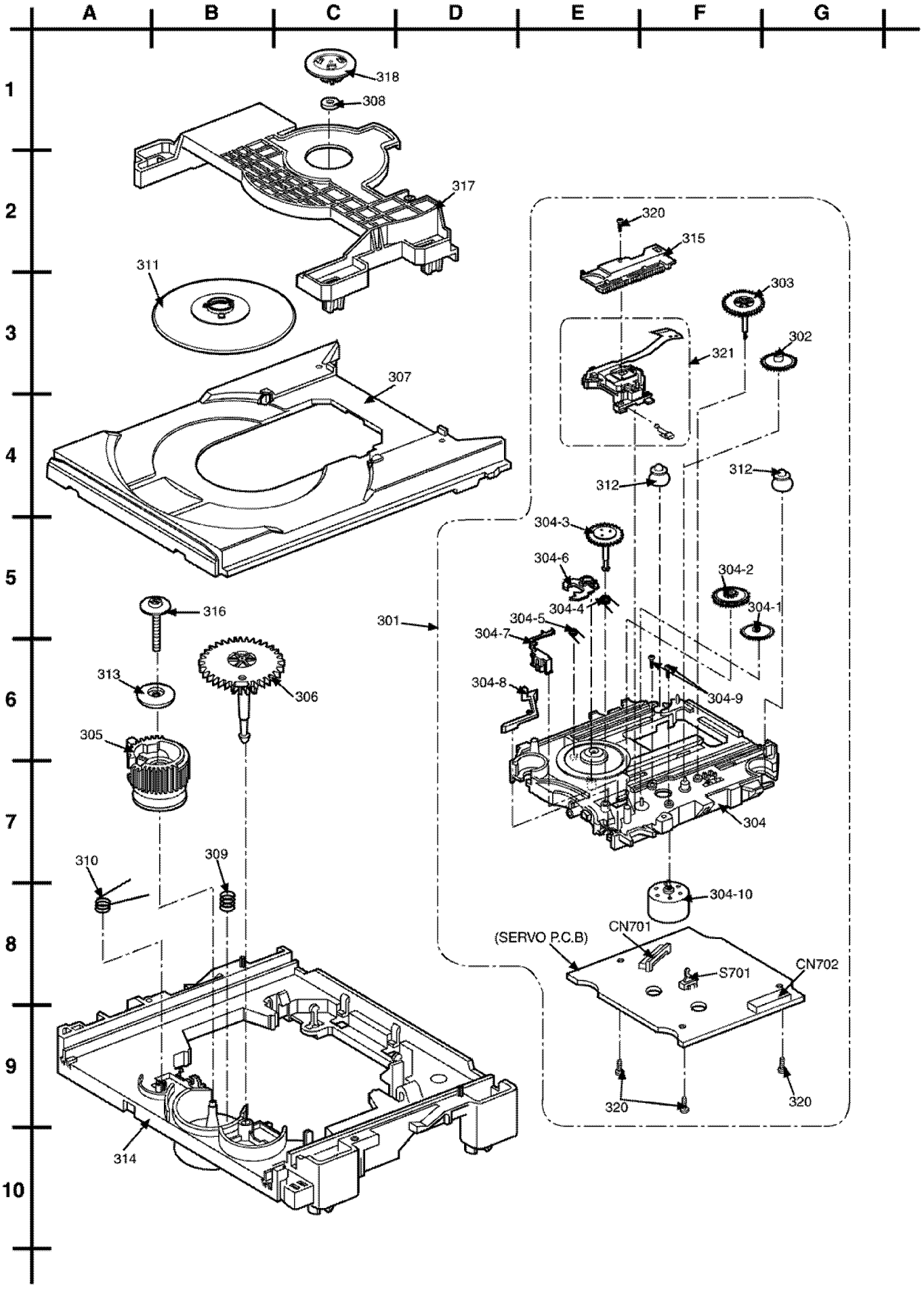
Ref. No.	Part No.	Part Name & Description	Remarks
		CASSETTE DECK	
101	RED0062	HEAD BLOCK UNIT	[M]
103	RDG0300	REEL BASE GEAR	[M]
104	RDG0301	WINDING RELAY GEAR	[M]
105	RDK0026	MAIN GEAR	[M]
107	RDV0033-4	WINDING BELT	[M]
108	RDV0064	CAPSTAN BELT	[M]
110	RMB0312	TRIGGER LEVER SPRING	[M]
111	RMB0400	REEL SPRING	[M]
112	RMB0403	HEAB PANEL SPRING	[M]
113	RMB0404	BRAKE ROD SPRING	[M]
114	RMB0406	FR LEVER SP	[M]
115	RMB0408	THRUST SPRING	[M]
116	RML0370	TRIGGER LEVER	[M]
117	RML0371	FR LEVER	[M]
118	RML0372	WINDING LEVER	[M]
119	RML0374	EJECT LEVER	[M]
120	RMM0131	BRAKE ROD	[M]
121	RMM0133-1	EJECT ROD	[M]
122	RMQ0519	REEL HUB	[M]
123	RMS0398-1	MOVING CORE	[M]
124	RSJ0003	PLUNGER ASSY	[M]
125	RMC0061	PACK SPRING	[M]
126	RXF0049	FLYWHEEL 'F' ASS'Y	[M]
127	RXL0151	E-HEAD ARM ASS'Y	[M]
128	RXG0040	FF RELAY GEAR ASS'Y	[M]
129	RMK0283A-J	SUB-CHASSIS	[M]
130	RXL0124	PINCH ARM 'F' ASS'Y	[M]
130-1	RMB0401	PINCH ARM SPRING 'F'	[M]
132	RXL0126	WINDING ARM ASS'Y	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
133	RXQ0412	HEAD PANEL ASS'Y	[M]
133-1	RMB0405	FR ROD SPRING	[M]
133-2	RMM0132	FR ROD	[M]
134	REM0064-2	CAP MOTOR ASS'Y	[M]
135	RHD26022	MOTOR SCREW	[M]
136	XTW2+5L	HEAD BLOCK UNIT SCRE	[M]
137	XTW26+10S	SUB-CHASSIS SCREW	[M]
138	XYC2+JF17	PCB EARTH SCREW	[M]
139	RMK0294	MECHA CHASSIS	[M]
140	RMK0473	HOUSING	[M]
141	RME0334	TRIGGER SPRING	[M]
142	RME0328	TRIGGER LEVER SPRING	[M]
143	RML0597	TRIGGER LEVER	[M]
144	RMU0083	WORM SHAFT	[M]
145	RDG0507	WORM PULLEY	[M]
146	RDG0508	WORM WHEEL	[M]
147	RDK0036	CAM GEAR	[M]
148	RML0600	DRIVE LEVER	[M]
149	RMA1413	HOLDER PLATE	[M]
150	RHD20048	SCREW	[M]
151	RMB0663	UD. ARM SPRING	[M]
152	RML0599	UD. ARM	[M]
153	RMQ1002	CASSTTE HOOK	[M]
154	RMA1412	CASSTTE HOLDER	[M]
155	RML0598	OPEN LEVER	[M]
156	RME0329	OPEN LEVER SPRING	[M]
157	RML0601	SLIDE LEVER	[M]
158	RMA1420	CT. PUSH PLATE	[M]
159	RME0333	PUSH SPRING	[M]
160	RMB0664	DRIVE LEVER SPRING	[M]
161	RDV0066	BELT	[M]

18.2. Cabinet & CD Loading Mechanism

18.2.1. Cabinet & CD Loading Machanism Parts Location

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(SERVO P.C.B)
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CN702
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18.2.2. Cabinet & CD Loading Machanism Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET AND CHASSIS	
1	EAST7P01A6	SPEAKER	[M]
2	REEX0102	PANEL TO MAIN FFC	[M]
3	REEX0104	CD TO MAIN PCB FFC	[M]
4	REX0980	MAIN TO CD	[M]
5	REXX0239	SPEAKER WIRE	[M]
6	RGKX0078-A	CD TRAY LID	[M]-A
6	RGKX0078-H	CD TRAY LID	[M]-H
7	RGKX0079-Q	FRONT ORNAMENT	[M]
8	RGLX0034-Q	LIGHTING PANEL	[M]
9	RFKHXEX1EB-A	BACK CABINET ASS'Y	[M]EB
9	RFKHXEX1E-A	BACK CABINET ASS'Y	[M]E
9	RKSX0041-H	BACK CABINET	[M]EG
10	RGPX0049	DIFFUSER	[M]
11	RGUX0395-S	CONT BUTTON	[M]
12	RGUX0396-S	FUNCTION BUTTON	[M]
13	RGWX0050-A	JOG KNOB	[M]
14	RHDX20001-S	SCREW	[M]
15	RHGV0008	LEG CUSHION	[M]
16	RJC511XA	BATTERY TERMINAL	[M]
17	RJC751YB	UM-3 BATTERY SPRING	[M]
18	RJCX0006	BATT. TERMINAL	[M]
19	RKFX0090-H	CASS LID	[M]
20	RKHX0015-H	HANDLE	[M]
21	RKKX0004-H	BATT COVER	[M]
22	RKMX0060-S	FRONT CABINET	[M]
23	RKQX0014-H	TOP CABINET	[M]
24	RKTX0009-K	JOINT PORT (R)	[M]
25	RKTX0010-K	JOINT PORT (L)	[M]
26	RKWX0152-Q	REMOTE SENSOR WINDOW	[M]
27	RKWX0153-Q	TOP ORNAMENT	[M]
28	RKWX0154-K	JOG PANEL	[M]
29	RMAX0047	TRANSFORMER BRACKET	[M]
30	RMEX0011	CASS LID SPRING	[M]
31	RMEX0012	ANTENNA TERMINAL	[M]
32	RMKX0050-K	PCB SUPPORT	[M]
33	RMNX0044-W	LCD HOLDER	[M]
34	RMNX0045-W	LED COVER	[M]
35	RMNX0046	REMOTE SENSOR HOLDER	[M]
36	RMVX0058	FILTER COVER	[M]
37	RMYX0054	HEAT SINK	[M]
38	RYBX0007-A	SPEAKER NET FRAME UN	[M]-A
38	RYBX0007-H	SPEAEKR NET FRAME UN	[M]-H
39	XEARR175EA-Y	ROD ANTENNA	[M]
40	XTBS26+10J	SCREW	[M]
41	XTV3+10F	SCREW (HEAT SINK)	[M]
42	XTV3+10G	SCREW	[M]
43	XTV3+12G	SCREW	[M]
44	XTV3+20G	CASING SCREW	[M]
45	XTV3+6F	SCREW	[M]
46	XYN3+F14FY	ROD ANT SCREW	[M]
		TRAVERSE DECK	
301	RAE0155Z-1V	CT100W TRAVERSE	[M]
302	RDG0455	TRAVERSE GEAR (A)	[M]
303	RDG0456	TRAVERSE GEAR (B)	[M]
304	RFKNCT100	TRAVERSE BASE ASS'Y	[M]
304-1	RDG0457	LOAD GEAR (A)	[M]
304-10	RXQ0632	TRV MOTOR UNIT	[M]
304-2	RDG0458	LOAD GEAR (B)	[M]
304-3	RDG0459	LOAD GEAR (C)	[M]
304-4	RME0290	PRESS SPRING	[M]
304-5	RME0291	LOCK SPRING	[M]
304-6	RML0551	TRG LEVER	[M]
304-7	RML0552	LOCK LEVER	[M]
304-8	RMM0219	STOPPER	[M]
304-9	XQN17+C28F	SCREW	[M]
305	RDG0460	CAM GEAR	[M]
306	RDG0461	DRIVE GEAR	[M]
307	RGQ0254-K	TRAY	[M]
308	RHM0001	MAGNET	[M]
309	RMB0603	FLOATING SPRING	[M]
310	RME0288	CENTERING SPRING	[M]
311	RFKNXED50-S	CLAMPER HOLDER ASS'Y	[M]
312	RMG0510-K	FLOATING RUBBER (A)	[M]
313	RMG0511-K	FLOATING RUBBER (B)	[M]
314	RMK0422	MECHA CHASSIS	[M]
315	RMM0218	TRAVERSE DRIVE RACK	[M]
316	RHD30083	CAM. GEAR SCREW	[M]
317	RMR1223-K	CLAMP PLATE	[M]
318	RMR1242-X1	FIXTURE	[M]
320	XTN2+6G	SCREW	[M]
321	RXQ0704	OPU UNIT	[M]

18.3. Electrical Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		P.C.B.	
	REP2807D	CD SERVO P.C.B.	[M] RTL
	REPX0108E	DECK MECHANISM P.C.B.	[M] RTL
	REPX0235A	MAIN/TUNER P.C.B./PANEL P.C.B./SPEAKER P.C.B./ FL P.C.B./BATTERY P.C.B./HEADPHONE P.C.B./POWER P.C.B.	[M] RTL
		INTEGRATED CIRCUITS	
IC1	TA2149N	IC TUNER	[M]
IC2	LC72121T	IC PLL	[M]
IC301	BD3871FS-E2	IC ASP	[M]
IC302	LA2655V-TLM	IC SOUND	[M]
IC303	LA4627	IC POWER AMP	[M]
IC304	S-81333HG-Z	IC 3.3 REGULATOR	[M] ⚠
IC701	AN8885SBE1	IC HEAD AMP	[M]
IC702	MN662790RSC	IC LSI	[M]
IC703	BA5948FPE2	IC 4 CH DRIVE	[M]
IC801	MN101C38ABA2	IC MICOM	[M]
IC802	PST9129-T	IC RESET	[M]
IC803	BR93LC46	IC E2 PROM	[M]
IC951	0N2180RLC1	PHOTO INTERUPTOR	[M]
IC1301	BA7755A	IC ANALOG SW	[M]
IC1302	AN7317	IC PLAYBACK/RECORD	[M]
		TRANSISTORS	
Q1	KRC102MTA	TRANSISTOR	[M]
Q101	2SD1450STA	TRANSISTOR	[M]
Q201	2SD1450STA	TRANSISTOR	[M]
Q401	KTC3199GRTA	TRANSISTOR	[M]
Q402	KTA1281YTA	TRANSISTOR	[M]
Q403	KRC107MTA	TRANSISTOR	[M]
Q404	KTC3199GRTA	TRANSISTOR	[M] ⚠
Q405	KTA1267GRTA	TRANSISTOR	[M]
Q406	KTA1046	TRANSISTOR	[M]
Q407	KTA1272YTA	TRANSISTOR	[M]
Q408	KTC3199GRTA	TRANSISTOR	[M]
Q409	KTA1270YTA	TRANSISTOR	[M]
Q410	KRC104MTA	TRANSISTOR	[M]
Q411	KTA1270YTA	TRANSISTOR	[M]
Q412	KRC104MTA	TRANSISTOR	[M]
Q413	KTC3202YTA	TRANSISTOR	[M] ⚠
Q414	KRC107MTA	TRANSISTOR	[M]
Q551	KRC104MTA	TRANSISTOR	[M]
Q701	2SA1037AKSTX	TRANSISTOR	[M]
Q801	KTC3199GRTA	TRANSISTOR	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
Q802	KTC3199GRTA	TRANSISTOR	[M]
Q1000	KRC119MTA	TRANSISTOR	[M]
Q1101	2SJ498CTA	TRANSISTOR	[M]
Q1102	KTC3199GRTA	TRANSISTOR	[M]
Q1103	2SJ498CTA	TRANSISTOR	[M]
Q1104	2SJ498CTA	TRANSISTOR	[M]
Q1201	2SJ498CTA	TRANSISTOR	[M]
Q1202	KTC3199GRTA	TRANSISTOR	[M]
Q1203	2SJ498CTA	TRANSISTOR	[M]
Q1204	2SJ498CTA	TRANSISTOR	[M]
Q1301	KTC3199GRTA	TRANSISTOR	[M]
Q1303	KTC3199GRTA	TRANSISTOR	[M]
Q1400	KRC102MTA	TRANSISTOR	[M]
Q1401	KRA119MTA	TRANSISTOR	[M]
Q1402	KRC119MTA	TRANSISTOR	[M]
Q1403	KRC104MTA	TRANSISTOR	[M]
Q1451	KTA1270YTA	TRANSISTOR	[M]
Q1452	KTD1146YTA	TRANSISTOR	[M]
Q1453	KRC119MTA	TRANSISTOR	[M]
Q1454	KTA1270YTA	TRANSISTOR	[M]
Q1455	KRC119MTA	TRANSISTOR	[M]
		DIODES	
D1	SVC384T-AL	DIODE	[M]
D2	SVC237-AS	DIODE	[M]
D3	SVC237-AS	DIODE	[M]
D301	MTZJ7R5BTA	DIODE	[M]
D302	MTZJ7R5BTA	DIODE	[M]
D303	RVD1SS133TA	DIODE	[M]
D401	RVD1SS133TA	DIODE	[M]
D402	MTZJ3R3BTA	DIODE	[M]
D403	RVD1SS133TA	DIODE	[M]
D404	RL1N4003N02	DIODE	[M]
D405	RL1N4003N02	DIODE	[M]
D407	RVD1SS133TA	DIODE	[M]
D408	RVD1SS133TA	DIODE	[M]
D409	RVD1SS133TA	DIODE	[M]
D410	RVD1SS133TA	DIODE	[M]
D411	MTZJ9R1BTA	DIODE	[M] ⚠
D412	RVD1SS133TA	DIODE	[M]
D413	RVD1SS133TA	DIODE	[M]
D414	MTZJ12BTA	DIODE	[M] ⚠
D415	RVD1SS133TA	DIODE	[M]
D501	RL1N4003N02	DIODE	[M] ⚠
D502	RL1N4003N02	DIODE	[M] ⚠
D503	RL1N4003N02	DIODE	[M] ⚠
D504	RL1N4003N02	DIODE	[M] ⚠
D551	LNJ498CK4AA	DIODE	[M]
D552	LNJ498CK4AA	DIODE	[M]
D553	MTZJ8R2BTA	DIODE	[M]
D554	SLR332VR3F	DIODE	[M]
D750	MA8056MTX	DIODE	[M]
D801	RVD1SS133TA	DIODE	[M]
D802	RVD1SS133TA	DIODE	[M]
D803	RVD1SS133TA	DIODE	[M]
D951	MA165TA	DIODE	[M]
D1401	MTZJ5R1BTA	DIODE	[M]
D1500	MTZJ6R2BTA	DIODE	[M]
		SWITCHES	
S601	EVQ21405R	SW EJECT	[M]
S602	EVQ21405R	SW CD OPEN	[M]
S603	EVQ21405R	SW REC MODE	[M]
S604	EVQ21405R	SW CD REC	[M]
S605	EVQ21405R	SW TUNE	[M]
S606	EVQ21405R	SW FF/+	[M]
S607	EVQ21405R	SW PLAY	[M]
S608	EVQ21405R	SW POWER	[M]
S609	EVQ21405R	SW H.E.S.	[M]
S610	EVQ21405R	SW TAPE	[M]
S611	EVQ21405R	SW TUNER	[M]
S612	EVQ21405R	SW CD	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
S613	EVQ21405R	SW CLEAR	[M]
S701	RSH1A048-A	SW RESET	[M]
S780	RSH1A049-U	SW OPEN	[M]
S951	RSH1A018-3U	SW MODE	[M]
S952	RSH1A019-2U	SW LEAF	[M]
S954	RSH1A019-2U	SW LEAF	[M]
S1201	RSH1A052-U	SW DECK MODE	[M]
		CONNECTORS	
CN701	RJS2A8616	16P FPC CONNECTOR	[M]
CN702	RJS1A9319	19P FFC CONNECTOR	[M]
CP301	RJP5G18ZA	CONNECTOR	[M]
CP302	RJP4G17ZA	4P POST	[M]
CP501	RJT029W004-1	4P EH CONNECTOR	[M]
CP551	RJP5G18ZA	CONNECTOR	[M]
CP801	RJP2G18ZA	2P CONNECTOR	[M]
CP1301	RJS1A6804-J	4P CONNECTOR	[M]
CP1902	RJT071K09A	CONNECTOR	[M]
CS801	RJS1A9323	23 FFC CONNECTOR	[M]
CS802	RJS1A9323	23 FFC CONNECTOR	[M]
CS803	RJS1A9323	23 FFC CONNECTOR	[M]
CS804	RJS1A9323	23 FFC CONNECTOR	[M]
CS805	RJS1A6819-J	19P FFC CONNECTOR	[M]
CS951	RJU071H09M1	CONNECTOR	[M]
		TRIMMER	
CT1	ECRLA010A53R	TRIMMER CAPACITOR	[M]
		COILS & TRANSFORMERS	
L2	RLQY30S1W	FM COIL	[M]
L3	RLV2C051-0	FERRITE ANTENNA	[M]
L4	RLD4Y45W	OSC COIL	[M]
L6	RL02B136	AM OSC COIL	[M]
L7	RLQZP101KT-Y	AXIAL COIL	[M]
L8	RLQY30S1W	FM COIL	[M]
L801	RLQZP2R2KT-Y	COIL	[M]
L802	RLQZP2R2KT-Y	COIL	[M]
L803	RLQZP2R2KT-Y	COIL	[M]
L1301	RL09B17	REC BIAS OSC COIL	[M]
T1	RLI2B019-T	AM IFI	[M]
T501	RTP1K1B011-T	TRANSFORMER	[M] ⚠
		COMPONENT COMBINATION	
Z551	RCD1837SS3V	REMOCON SENSOR	[M]
Z552	RRVRE012102V	AI JOG	[M]
Z801	RSL5271-G	LCD	[M]
		CERAMIC FILTERS	
CF1	RLFFETNL04AT	FM CF	[M]
CF3	RLFDFT26AT	FM DISCRIMINATOR	[M]
CF4	RLFCFA459L4B	AM FILTER	[M]
		OSCILLATORS	
X3	RSXD7M20C01	CRYSTAL OSCILLATOR	[M]
X701	RSXZ16M9M06	CERAMIC OSCILLATOR	[M]
X801	RSXZ6M00D01T	6MHZ RESONATOR	[M]
X802	RSXD32K7S02	CRYSTAL OSCILLATOR	[M]
		FUSES	
F501	XBA2C20TB0	FUSE	[M] ⚠
		FUSE HOLDERS	
FH501	RJR0169T	FUSE HOLDER	[M]
FH502	RJR0169T	FUSE HOLDER	[M]
		FUSE PROTECTOR	

Ref. No.	Part No.	Part Name & Description	Remarks
FP501	RSFMB40KT-L	FUSE PROTECTOR	[M] ⚠
		HOLDERS	
H301	REXX0236	PHONE TO MAIN WIRE	[M]
H301	RMR0314	CABLE HOLDER	[M]
H302	RMR0313	CABLE HOLDER	[M]
H302	RWJ1104310XX	PHONE TO CONNECT PCB	[M]
H303	RMR0313	CABLE HOLDER	[M]
H501	REXX0238	POWER TO MAIN WIRE	[M]
H501	RJS1A5504	CABLE HOLDER	[M]
H502	RJS1A5504	CABLE HOLDER	[M]
H502	RWJ0104160XS	POWER TO BATT WIRE	[M]
H551	REXX0237	FUNCTION TO MAIN WIR	[M]
H551	RMR0314	CABLE HOLDER	[M]
		JACKS	
JK301	RJJ37TK01-2C	JK HEAD PHONE	[M]
JK501	RJJ1SE01-1H	JK AC INLET (SW501)	[M] ⚠
		WIRES	
W1450	RWJ0102050KR	MOTOR WIRE	[M]
		RESISTORS	
R2	ERDS2TJ103T	10K 1/4W	[M]
R3	ERDS2TJ332T	3.3K 1/4W	[M]
R4	ERDS2TJ331T	330 1/4W	[M]
R5	ERDS2TJ104T	100K 1/4W	[M]
R6	ERDS2TJ104T	100K 1/4W	[M]
R8	ERDS2TJ104T	100K 1/4W	[M]
R9	ERDS2TJ104T	100K 1/4W	[M]
R11	ERDS2TJ223T	22K 1/4W	[M]
R12	ERDS2TJ103T	10K 1/4W	[M]
R16	ERDS2TJ104T	100K 1/4W	[M]
R17	ERDS2TJ222T	2.2K 1/4W	[M]
R20	ERDS2TJ223T	22K 1/4W	[M]
R21	ERDS2TJ103T	10K 1/4W	[M]
R22	ERDS2TJ102T	1K 1/4W	[M]
R23	ERDS2TJ223T	22K 1/4W	[M]
R24	ERDS2TJ103T	10K 1/4W	[M]
R25	ERDS2TJ223T	22K 1/4W	[M]
R26	ERDS2TJ103T	10K 1/4W	[M]
R27	ERDS2TJ332T	3.3K 1/4W	[M]
R28	ERDS2TJ223T	22K 1/4W	[M]
R29	ERDS2TJ103T	10K 1/4W	[M]
R30	ERDS2TJ472T	4.7K 1/4W	[M]
R31	ERDS2TJ222T	2.2K 1/4W	[M]
R33	ERDS2TJ121T	120 1/4W	[M]
R34	ERDS2TJ104T	100K 1/4W	[M]
R35	ERDS2TJ221T	220 1/4W	[M]
R101	ERDS2TJ123T	12K 1/4W	[M]
R102	ERDS2TJ122T	1.2K 1/4W	[M]
R103	ERDS2TJ273T	27K 1/4W	[M]
R104	ERDS2TJ103T	10K 1/4W	[M]
R105	ERDS2TJ102T	1K 1/4W	[M]
R106	ERDS2TJ222T	2.2K 1/4W	[M]
R108	ERDS2TJ333T	33K 1/4W	[M]
R109	ERDS2TJ473T	47K 1/4W	[M]
R110	ERDS2TJ394T	390K 1/4W	[M]
R111	ERDS2TJ332T	3.3K 1/4W	[M]
R112	ERDS2TJ333T	33K 1/4W	[M]
R113	ERDS2TJ272T	2.7K 1/4W	[M]
R114	ERDS2TJ332T	3.3K 1/4W	[M]
R115	ERDS2TJ152T	1.5K 1/4W	[M]
R118	ERDS2TJ271T	270 1/4W	[M]
R120	ERDS2TJ682T	6.8K 1/4W	[M]
R201	ERDS2TJ123T	12K 1/4W	[M]
R202	ERDS2TJ122T	1.2K 1/4W	[M]
R203	ERDS2TJ273T	27K 1/4W	[M]
R204	ERDS2TJ103T	10K 1/4W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R205	ERDS2TJ102T	1K 1/4W	[M]
R206	ERDS2TJ222T	2.2K 1/4W	[M]
R208	ERDS2TJ333T	33K 1/4W	[M]
R209	ERDS2TJ473T	47K 1/4W	[M]
R210	ERDS2TJ394T	390K 1/4W	[M]
R211	ERDS2TJ332T	3.3K 1/4W	[M]
R212	ERDS2TJ333T	33K 1/4W	[M]
R213	ERDS2TJ272T	2.7K 1/4W	[M]
R214	ERDS2TJ332T	3.3K 1/4W	[M]
R215	ERDS2TJ152T	1.5K 1/4W	[M]
R218	ERDS2TJ271T	270 1/4W	[M]
R220	ERDS2TJ682T	6.8K 1/4W	[M]
R301	ERDS2TJ330T	33 1/4W	[M]
R302	ERDS2TJ330T	33 1/4W	[M]
R303	ERDS2TJ102T	1K 1/4W	[M]
R304	ERDS2TJ102T	1K 1/4W	[M]
R306	ERDS2TJ330T	33 1/4W	[M]
R307	ERDS2TJ330T	33 1/4W	[M]
R308	ERDS2TJ333T	33K 1/4W	[M]
R401	ERDS2TJ472T	4.7K 1/4W	[M]
R402	ERDS2TJ393T	39K 1/4W	[M]
R403	ERDS2TJ474T	470K 1/4W	[M]
R404	ERDS2TJ102T	1K 1/4W	[M]
R405	ERDS2TJ103T	10K 1/4W	[M]
R406	ERDS2TJ471T	470 1/4W	[M]
R407	ERDS2TJ471T	470 1/4W	[M]
R408	ERDS2TJ471T	470 1/4W	[M]
R409	ERDS2TJ471T	470 1/4W	[M]
R410	ERDS2TJ471T	470 1/4W	[M]
R411	ERDS2TJ471T	470 1/4W	[M]
R412	ERDS2TJ101T	100 1/4W	[M]
R413	ERDS2TJ331T	330 1/4W	[M]
R414	ERDS2TJ1R5T	1.5 1/4W	[M]
R415	ERDS2TJ1R5T	1.5 1/4W	[M]
R416	ERDS2TJ1R5T	1.5 1/4W	[M]
R417	ERDS2TJ273T	27K 1/4W	[M]
R418	ERDS2TJ273T	27K 1/4W	[M]
R419	ERDS2TJ103T	10K 1/4W	[M]
R420	ERDS2TJ331T	330 1/4W	[M]
R423	ERDS2TJ103T	10K 1/4W	[M]
R424	ERDS2TJ103T	10K 1/4W	[M]
R425	ERDS2TJ472T	4.7K 1/4W	[M]
R426	ERDS2TJ102T	1K 1/4W	[M]
R427	ERDS2TJ102T	1K 1/4W	[M]
R428	ERDS2TJ103T	10K 1/4W	[M]
R429	ERDS2TJ472T	4.7K 1/4W	[M]
R430	ERDS2TJ222T	2.2K 1/4W	[M]
R431	ERDS2TJ101T	100 1/4W	[M]
R432	ERD2FCVJ4R7T	4.7 1/4W	[M] ⚠ ;
R433	ERDS2TJ472T	4.7K 1/4W	[M]
R434	ERDS2TJ103T	10K 1/4W	[M]
R435	ERDS1FVJ220T	22 1/2W	[M]
R501	ERDS2TJ391T	390 1/4W	[M]
R551	ERDS2TJ391T	390 1/4W	[M]
R552	ERDS2TJ391T	390 1/4W	[M]
R554	ERDS2TJ331T	330 1/4W	[M]
R555	ERDS2TJ151T	150 1/4W	[M]
R601	ERDS2TJ102T	1K 1/4W	[M]
R602	ERDS2TJ102T	1K 1/4W	[M]
R603	ERDS2TJ152T	1.5K 1/4W	[M]
R604	ERDS2TJ222T	2.2K 1/4W	[M]
R605	ERDS2TJ332T	3.3K 1/4W	[M]
R606	ERDS2TJ472T	4.7K 1/4W	[M]
R607	ERDS2TJ822T	8.2K 1/4W	[M]
R608	ERDS2TJ102T	1K 1/4W	[M]
R609	ERDS2TJ102T	1K 1/4W	[M]
R610	ERDS2TJ152T	1.5K 1/4W	[M]
R611	ERDS2TJ222T	2.2K 1/4W	[M]
R612	ERDS2TJ332T	3.3K 1/4W	[M]
R613	ERDS2TJ472T	4.7K 1/4W	[M]
R701	ERJ3GEYJ4R7V	4.7 1/16W	[M]
R702	ERJ3GEYJ103V	10K 1/16W	[M]
R704	ERJ3GEYJ102V	1K 1/16W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R705	ERJ3GEYJ154V	150K 1/16W	[M]
R706	ERJ3GEYJ102V	1K 1/16W	[M]
R707	ERJ3GEYJ393V	39K 1/16W	[M]
R708	ERJ3GEYJ223V	22K 1/16W	[M]
R709	ERJ3GEYJ473V	47K 1/16W	[M]
R711	ERJ3GEYJ823V	82K 1/16W	[M]
R712	ERJ3GEYJ221V	220 1/16W	[M]
R714	ERJ3GEY0R00V	0 1/16W	[M]
R715	ERJ3GEYJ102V	1K 1/16W	[M]
R717	ERJ3GEYJ102V	1K 1/16W	[M]
R718	ERJ3GEYJ102V	1K 1/16W	[M]
R721	ERJ3GEYJ101V	100 1/16W	[M]
R723	ERJ3GEYJ103V	10K 1/16W	[M]
R724	ERJ3GEYJ153V	15K 1/16W	[M]
R725	ERJ3GEYJ681V	680 1/16W	[M]
R727	ERJ3GEYJ272V	2.7K 1/16W	[M]
R728	ERJ3GEYJ222V	2.2K 1/16W	[M]
R729	ERJ3GEYJ272V	2.7K 1/16W	[M]
R731	ERJ3GEYJ103V	10K 1/16W	[M]
R732	ERJ3GEYJ102V	1K 1/16W	[M]
R735	ERJ3GEYJ101V	100 1/16W	[M]
R736	ERJ3GEYJ101V	100 1/16W	[M]
R741	ERJ3GEYJ473V	47K 1/16W	[M]
R742	ERJ3GEYJ224V	220K 1/16W	[M]
R744	ERJ3GEYJ124V	120K 1/16W	[M]
R749	ERJ3GEYJ272V	2.7K 1/16W	[M]
R753	ERJ3GEYJ100V	10 1/16W	[M]
R754	ERJ3GEYJ5R6V	5.6 1/16W	[M]
R761	ERJ3GEYJ472V	4.7K 1/16W	[M]
R801	ERDS2TJ154T	150K 1/4W	[M]
R802	ERDS2TJ154T	150K 1/4W	[M]
R803	ERDS2TJ154T	150K 1/4W	[M]
R805	ERDS2TJ102T	1K 1/4W	[M]
R806	ERDS2TJ105T	1M 1/4W	[M]
R807	ERDS2TJ222T	2.2K 1/4W	[M]
R808	ERDS2TJ222T	2.2K 1/4W	[M]
R809	ERDS2TJ334T	330K 1/4W	[M]
R810	ERDS2TJ103T	10K 1/4W	[M]
R811	ERDS2TJ103T	10K 1/4W	[M]
R812	ERDS2TJ472T	4.7K 1/4W	[M]
R813	ERDS2TJ472T	4.7K 1/4W	[M]
R814	ERDS2TJ471T	470 1/4W	[M]
R815	ERDS2TJ103T	10K 1/4W	[M]
R816	ERDS2TJ102T	1K 1/4W	[M]
R817	ERDS2TJ474T	470K 1/4W	[M]
R818	ERDS2TJ102T	1K 1/4W	[M]
R819	ERDS2TJ102T	1K 1/4W	[M]
R820	ERDS2TJ473T	47K 1/4W	[M]
R821	ERDS2TJ102T	1K 1/4W	[M]
R822	ERDS2TJ102T	1K 1/4W	[M]
R824	ERDS2TJ102T	1K 1/4W	[M]
R825	ERDS2TJ102T	1K 1/4W	[M]
R826	ERDS2TJ102T	1K 1/4W	[M]
R827	ERDS2TJ102T	1K 1/4W	[M]
R829	ERDS2TJ104T	100K 1/4W	[M]
R831	ERDS2TJ104T	100K 1/4W	[M]
R833	ERDS2TJ104T	100K 1/4W	[M]
R834	ERDS2TJ473T	47K 1/4W	[M]
R835	ERDS2TJ104T	100K 1/4W	[M]
R836	ERDS2TJ104T	100K 1/4W	[M]
R837	ERDS2TJ104T	100K 1/4W	[M]
R838	ERDS2TJ104T	100K 1/4W	[M]
R840	ERDS2TJ104T	100K 1/4W	[M]
R842	ERDS2TJ473T	47K 1/4W	[M]
R843	ERDS2TJ154T	150K 1/4W	[M]
R844	ERDS2TJ102T	1K 1/4W	[M]
R845	ERDS2TJ102T	1K 1/4W	[M]
R851	ERDS2TJ472T	4.7K 1/4W	[M]
R871	ERDS2TJ103T	10K 1/4W	[M]
R872	ERDS2TJ102T	1K 1/4W	[M]
R873	ERDS2TJ102T	1K 1/4W	[M]
R874	ERDS2TJ102T	1K 1/4W	[M]
R875	ERDS2TJ102T	1K 1/4W	[M]
R876	ERDS2TJ102T	1K 1/4W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R877	ERDS2TJ102T	1K 1/4W	[M]
R878	ERDS2TJ102T	1K 1/4W	[M]
R879	ERDS2TJ102T	1K 1/4W	[M]
R880	ERDS2TJ332T	3.3K 1/4W	[M]
R952	ERDS2TJ821T	820 1/4W	[M]
R953	ERDS2TJ393T	39K 1/4W	[M]
R1000	ERDS2TJ103T	10K 1/4W	[M]
R1001	ERDS2TJ683T	68K 1/4W	[M]
R1002	ERDS2TJ472T	4.7K 1/4W	[M]
R1101	ERDS2TJ223T	22K 1/4W	[M]
R1102	ERDS2TJ560T	56 1/4W	[M]
R1103	ERDS2TJ392T	3.9K 1/4W	[M]
R1104	ERDS2TJ102T	1K 1/4W	[M]
R1107	ERDS2TJ184T	180K 1/4W	[M]
R1108	ERDS2TJ392T	3.9K 1/4W	[M]
R1109	ERDS2TJ153T	15K 1/4W	[M]
R1110	ERDS2TJ474T	470K 1/4W	[M]
R1112	ERDS2TJ104T	100K 1/4W	[M]
R1201	ERDS2TJ223T	22K 1/4W	[M]
R1202	ERDS2TJ560T	56 1/4W	[M]
R1203	ERDS2TJ392T	3.9K 1/4W	[M]
R1204	ERDS2TJ102T	1K 1/4W	[M]
R1207	ERDS2TJ184T	180K 1/4W	[M]
R1208	ERDS2TJ392T	3.9K 1/4W	[M]
R1209	ERDS2TJ153T	15K 1/4W	[M]
R1210	ERDS2TJ474T	470K 1/4W	[M]
R1212	ERDS2TJ104T	100K 1/4W	[M]
R1299	ERDS2TJ333T	33K 1/4W	[M]
R1304	ERDS2TJ101T	100 1/4W	[M]
R1305	ERDS2TJ102T	1K 1/4W	[M]
R1310	ERDS2TJ102T	1K 1/4W	[M]
R1311	ERDS2TJ563T	56K 1/4W	[M]
R1313	ERDS2TJ221T	220 1/4W	[M]
R1314	ERDS2TJ100T	10 1/4W	[M]
R1340	ERDS2TJ223T	22K 1/4W	[M]
R1341	ERDS2TJ471T	470 1/4W	[M]
R1352	ERDS2TJ104T	100K 1/4W	[M]
R1353	ERDS2TJ474T	470K 1/4W	[M]
R1401	ERDS2TJ472T	4.7K 1/4W	[M]
R1402	ERDS2TJ102T	1K 1/4W	[M]
R1403	ERDS2TJ223T	22K 1/4W	[M]
R1404	ERDS2TJ334T	330K 1/4W	[M]
R1405	ERDS2TJ103T	10K 1/4W	[M]
R1406	ERDS2TJ103T	10K 1/4W	[M]
R1407	ERDS2TJ391T	390 1/4W	[M]
R1408	ERDS2TJ103T	10K 1/4W	[M]
R1411	ERDS2TJ331T	330 1/4W	[M]
R1412	ERDS2TJ103T	10K 1/4W	[M]
R1451	ERDS2TJ331T	330 1/4W	[M]
R1452	ERDS2TJ332T	3.3K 1/4W	[M]
R1453	ERDS2TJ273T	27K 1/4W	[M]
R1454	ERDS2TJ332T	3.3K 1/4W	[M]
R1455	ERDS2TJ273T	27K 1/4W	[M]
R1501	ERDS2TJ101T	100 1/4W	[M]
R1502	ERDS2TJ475T	4.7M 1/4W	[M]
R1503	ERDS2TJ222T	2.2K 1/4W	[M]
R1504	ERDS2TJ101T	100 1/4W	[M]
		CAPACITORS	
C1	ECBT1H470J5	47P 50V	[M]
C2	ECBT1H100JC5	10P 50V	[M]
C3	ECFR1C223KR	0.022 16V	[M]
C4	ECBT1H102KB5	1000P 50V	[M]
C5	ECBT1H2R2KC5	2.2P 50V	[M]
C6	ECBT1H102KB5	1000P 50V	[M]
C7	ECBT1H150JC5	15P 50V	[M]
C8	ECBT1H102KB5	1000P 50V	[M]
C9	ECBT1H102KB5	1000P 50V	[M]
C10	ECBT1H3R3KC5	3.3P 50V	[M]
C11	ECBT1H102KB5	1000P 50V	[M]
C12	ECBT1H331KB5	330P 50V	[M]
C13	ECA1EAK100XB	10 25V	[M]
C14	ECBT1H102KB5	1000P 50V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C15	ECFR1C683KR	0.068 16V	[M]
C16	ECFR1C823MR	0.082 16V	[M]
C17	ECFR1C823MR	0.082 16V	[M]
C18	ECFR1C183KR	0.018 16V	[M]
C19	ECFR1C183KR	0.018 16V	[M]
C20	ECA1HAK010XB	1 50V	[M]
C21	ECA1HAK010XB	1 50V	[M]
C22	ECA1HAKR47XB	0.47 50V	[M]
C23	ECFR1C333KR	0.033 16V	[M]
C24	ECFR1C333KR	0.033 16V	[M]
C25	ECQP2A621JZT	620P 100V	[M]
C26	ECA1HAK4R7XB	4.7 50V	[M]
C30	ECBT1H331KB5	330P 50V	[M]
C31	ECBT1C103MS5	0.01 16V	[M]
C32	ECBT1H102KB5	1000P 50V	[M]
C33	ECBT1H102KB5	1000P 50V	[M]
C34	ECBT1H102KB5	1000P 50V	[M]
C35	ECA1CAK101XB	100 16V	[M]
C36	ECA1CAK101XB	100 16V	[M]
C37	ECBT1C103MS5	0.01 16V	[M]
C38	ECBT1H101KB5	100P 50V	[M]
C39	ECBT1H120JC5	12P 50V	[M]
C40	ECBT1C222KR5	2200P 16V	[M]
C41	ECBT1H101KB5	100P 50V	[M]
C42	ECBT1H180JC5	18P 50V	[M]
C43	ECBT1H101KB5	100P 50V	[M]
C44	ECA1HAK2R2XB	2.2 50V	[M]
C45	ECBT1H102KB5	1000P 50V	[M]
C47	ECFR1C223KR	0.022 16V	[M]
C48	ECA1HAK010XB	1 50V	[M]
C49	ECBT1H102KB5	1000P 50V	[M]
C50	ECBT1H102KB5	1000P 50V	[M]
C51	ECA1HAK010XB	1 50V	[M]
C54	ECBT1H102KB5	1000P 50V	[M]
C55	ECA1EAK100XB	10 25V	[M]
C56	ECBT1H102KB5	1000P 50V	[M]
C57	ECBT1H223KB5	0.022 50V	[M]
C58	ECBT1H102KB5	1000P 50V	[M]
C101	ECA1HAK4R7XB	4.7 50V	[M]
C102	ECA1HAK4R7XB	4.7 50V	[M]
C103	ECA1HAK4R7XB	4.7 50V	[M]
C104	ECA1HAK4R7XB	4.7 50V	[M]
C105	ECA1HAK4R7XB	4.7 50V	[M]
C106	ECBT1C562KR5	5600P 16V	[M]
C107	ECBT1C562KR5	5600P 16V	[M]
C108	ECBT1C822MS5	8200P 16V	[M]
C109	ECA1EAK100XB	10 25V	[M]
C110	ECBT1C222KR5	2200P 16V	[M]
C111	ECA1HAKR47XB	0.47 50V	[M]
C112	ECFR1C683KR	0.068 16V	[M]
C113	ECA1HAKR22XB	0.22 50V	[M]
C114	ECBT1C222KR5	2200P 16V	[M]
C115	ECBT1H683KB5	0.068 50V	[M]
C116	ECA1HAKR22XB	0.22 50V	[M]
C117	ECBT1H102KB5	1000P 50V	[M]
C121	ECA1AAM102XE	1000 10V	[M]
C124	ECBT1H102KB5	1000P 50V	[M]
C125	ECBT1H102KB5	1000P 50V	[M]
C126	ECBT1H102KB5	1000P 50V	[M]
C201	ECA1HAK4R7XB	4.7 50V	[M]
C202	ECA1HAK4R7XB	4.7 50V	[M]
C203	ECA1HAK4R7XB	4.7 50V	[M]
C204	ECA1HAK4R7XB	4.7 50V	[M]
C205	ECA1HAK4R7XB	4.7 50V	[M]
C206	ECBT1C562KR5	5600P 16V	[M]
C207	ECBT1C562KR5	5600P 16V	[M]
C208	ECBT1C822MS5	8200P 16V	[M]
C209	ECA1EAK100XB	10 25V	[M]
C210	ECBT1C222KR5	2200P 16V	[M]
C211	ECA1HAKR47XB	0.47 50V	[M]
C212	ECFR1C683KR	0.068 16V	[M]
C213	ECA1HAKR22XB	0.22 50V	[M]
C214	ECBT1C222KR5	2200P 16V	[M]
C215	ECBT1H683KB5	0.068 50V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C216	ECA1HAKR22XB	0.22 50V	[M]
C217	ECBT1H102KB5	1000P 50V	[M]
C218	ECA1CAK101XB	100 16V	[M]
C221	ECA1AAM102XE	1000 10V	[M]
C224	ECBT1H102KB5	1000P 50V	[M]
C225	ECBT1H102KB5	1000P 50V	[M]
C226	ECBT1H102KB5	1000P 50V	[M]
C301	ECA1HAK4R7XB	4.7 50V	[M]
C302	ECA1CAK101XB	100 16V	[M]
C303	ECBT1E223ZF5	0.022 25V	[M]
C304	ECA1HAK4R7XB	4.7 50V	[M]
C305	ECA1EAK470XB	47 25V	[M]
C306	ECA1CAK101XB	100 16V	[M]
C307	ECBT1E223ZF5	0.022 25V	[M]
C308	ECBT1H221KB5	220P 50V	[M]
C309	ECBT1H221KB5	220P 50V	[M]
C310	ECA1HAKR33XB	0.33 50V	[M]
C311	ECA1CAK220XB	22 16V	[M]
C312	ECA1HAK4R7XB	4.7 50V	[M]
C401	ECA1EAM332XE	3300 25V	[M]
C402	ECBT1H104ZF5	0.1 50V	[M]
C403	ECA1EAK470XB	47 25V	[M]
C404	ECBT1H104ZF5	0.1 50V	[M]
C405	ECA1CAK101XB	100 16V	[M]
C406	ECBT1H471KB5	470P 50V	[M]
C407	ECBT1H102KB5	1000P 50V	[M]
C409	ECA1CAK101XB	100 16V	[M]
C410	ECA1CAK101XB	100 16V	[M]
C412	ECA1HAK010XB	1 50V	[M]
C501	ECKR1H103ZF5	0.01 50V	[M]
C502	ECKR1H103ZF5	0.01 50V	[M]
C503	ECKR1H103ZF5	0.01 50V	[M]
C504	ECKR1H103ZF5	0.01 50V	[M]
C551	ECA1EAK470XB	47 25V	[M]
C563	ECBT1H101KB5	100P 50V	[M]
C564	ECBT1H101KB5	100P 50V	[M]
C701	ECEA0JKA330I	33 6.3V	[M]
C702	ECUV1C104KBV	0.1 16V	[M]
C703	ECEA0JKA101I	100 6.3V	[M]
C704	ECUV1C104KBV	0.1 16V	[M]
C706	ECUV1H272KBV	2700P 50V	[M]
C707	ECUV1E273KBV	0.027 25V	[M]
C710	ECUV1H121JCV	120P 50V	[M]
C711	ECUV1C104KBV	0.1 16V	[M]
C712	ECUV1C104KBV	0.1 16V	[M]
C713	ECUV1C104KBV	0.1 16V	[M]
C714	ECEA0JKA101I	100 6.3V	[M]
C715	ECUV1H272KBV	2700P 50V	[M]
C716	ECUV1H821KBV	820P 50V	[M]
C717	ECUV1E104ZFV	0.1 25V	[M]
C718	ECUV1A224KBV	0.22 10V	[M]
C721	ECUV1H100JCV	10P 50V	[M]
C722	ECUV1H100JCV	10P 50V	[M]
C723	ECEA1AKA221I	220 10V	[M]
C724	ECUV1C104KBV	0.1 16V	[M]
C725	ECUV1H102KBV	1000P 50V	[M]
C726	ECUV1H102KBV	1000P 50V	[M]
C727	ECA1HAK010XI	1 50V	[M]
C728	ECA1HAK010XI	1 50V	[M]
C730	ECUV1E104ZFV	0.1 25V	[M]
C731	ECA0JAK221XI	220 6.3V	[M]
C732	ECEA0JKA221I	220 6.3V	[M]
C733	ECUV1C104KBV	0.1 16V	[M]
C734	ECEA1AKA221I	220 10V	[M]
C735	ECUV1E104ZFV	0.1 25V	[M]
C736	ECUV1E104ZFV	0.1 25V	[M]
C737	ECUV1E104ZFV	0.1 25V	[M]
C738	ECUV1C563KBV	0.056 16V	[M]
C739	ECUV1H222KBV	2200P 50V	[M]
C742	ECUV1E273KBV	0.027 25V	[M]
C743	ECUV1E104ZFV	0.1 25V	[M]
C744	ECUV1H562KBV	5600P 50V	[M]
C745	ECUV1E104ZFV	0.1 25V	[M]
C747	ECUV1H181JCV	180P 50V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C749	ECUV1H222KBV	2200P 50V	[M]
C750	ECUV1C104KBV	0.1 16V	[M]
C751	ECUV1C104KBV	0.1 16V	[M]
C752	ECUV1H152KBV	1500P 50V	[M]
C753	ECUV1H471KBV	470P 50V	[M]
C754	ECUV1H471KBV	470P 50V	[M]
C769	ECUV1A224KBV	0.22 10V	[M]
C801	ECBT1C103MS5	0.01 16V	[M]
C802	ECA1EAK100XB	10 25V	[M]
C803	ECBT1H104ZF5	0.1 50V	[M]
C804	ECBT1H820KB5	82P 50V	[M]
C805	ECBT1H820KB5	82P 50V	[M]
C806	ECBT1H470J5	47P 50V	[M]
C807	ECBT1H470J5	47P 50V	[M]
C808	ECBT1H102KB5	1000P 50V	[M]
C809	ECBT1H102KB5	1000P 50V	[M]
C810	ECBT1H180JC5	18P 50V	[M]
C811	ECBT1H220JC5	22P 50V	[M]
C812	ECBT1H561KB5	560P 50V	[M]
C813	ECBT1H561KB5	560P 50V	[M]
C814	ECBT1H102KB5	1000P 50V	[M]
C815	ECBT1H561KB5	560P 50V	[M]
C820	ECBT1H104ZF5	0.1 50V	[M]
C821	ECBT1H561KB5	560P 50V	[M]
C822	ECBT1H101KB5	100P 50V	[M]
C823	ECBT1H331KB5	330P 50V	[M]
C824	ECBT1H101KB5	100P 50V	[M]
C825	ECBT1H101KB5	100P 50V	[M]
C826	ECA1HAK010XB	1 50V	[M]
C827	ECBT1C103MS5	0.01 16V	[M]
C828	ECBT1C103MS5	0.01 16V	[M]
C829	ECBT1C103MS5	0.01 16V	[M]
C835	ECBT1H102KB5	1000P 50V	[M]
C851	ECBT1H221KB5	220P 50V	[M]
C871	ECBT1H221KB5	220P 50V	[M]
C872	ECBT1H221KB5	220P 50V	[M]
C873	ECBT1H221KB5	220P 50V	[M]
C874	ECBT1H221KB5	220P 50V	[M]
C875	ECBT1H221KB5	220P 50V	[M]
C876	ECBT1H102KB5	1000P 50V	[M]
C877	ECBT1H102KB5	1000P 50V	[M]
C1001	ECA1CAK470XB	47 16V	[M]
C1101	ECBT1H101KB5	100P 50V	[M]
C1102	ECBT1C122MR5	1200P 16V	[M]
C1103	ECBT1H101KB5	100P 50V	[M]
C1104	ECFR1C393KR	0.039 16V	[M]
C1105	ECA1EAK100XB	10 25V	[M]
C1106	ECA1CAK101XB	100 16V	[M]
C1107	ECA1HAK010XB	1 50V	[M]
C1108	ECBT1H821KB5	820P 50V	[M]
C1109	ECA1EAK100XB	10 25V	[M]
C1110	ECBT1H821KB5	820P 50V	[M]
C1201	ECBT1H101KB5	100P 50V	[M]
C1202	ECBT1C122MR5	1200P 16V	[M]
C1203	ECBT1H101KB5	100P 50V	[M]
C1204	ECFR1C393KR	0.039 16V	[M]
C1205	ECA1EAK100XB	10 25V	[M]
C1206	ECA1CAK101XB	100 16V	[M]
C1207	ECA1HAK010XB	1 50V	[M]
C1208	ECBT1H821KB5	820P 50V	[M]
C1209	ECA1EAK100XB	10 25V	[M]
C1210	ECBT1H821KB5	820P 50V	[M]
C1301	ECBT1C103MS5	0.01 16V	[M]
C1304	ECQP1102JZT	1000P 100V	[M]
C1305	ECQP2A151JZT	150P 100V	[M]
C1306	ECA1CAK101XB	100 16V	[M]
C1307	ECBT1C822MS5	8200P 16V	[M]
C1308	ECBT1C103MS5	0.01 16V	[M]
C1325	ECA1CAK101XB	100 16V	[M]
C1451	ECA1CAK101XB	100 16V	[M]
C1500	ECA1CAK101XB	100 16V	[M]
C1501	ECA1CAK220XB	22 16V	[M]
C1502	ECA1EAK100XB	10 25V	[M]
C1503	ECFR1C473KR	0.047 16V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
		CHIP JUMPER	
RJ701	ERJ3GEY0R00V	0 1/16W	[M]
RJ702	ERJ3GEY0R00V	0 1/16W	[M]
RJ703	ERJ3GEY0R00V	0 1/16W	[M]
RJ709	ERJ3GEY0R00V	0 1/16W	[M]
RJ710	ERJ3GEY0R00V	0 1/16W	[M]
RJ711	ERJ3GEY0R00V	0 1/16W	[M]
RJ712	ERJ3GEY0R00V	0 1/16W	[M]
RJ713	ERJ3GEY0R00V	0 1/16W	[M]
RJ714	ERJ3GEY0R00V	0 1/16W	[M]
RJ715	ERJ3GEY0R00V	0 1/16W	[M]
RJ716	ERJ3GEY0R00V	0 1/16W	[M]
RJ722	ERJ3GEY0R00V	0 1/16W	[M]
RJ723	ERJ3GEY0R00V	0 1/16W	[M]
RJ724	ERJ3GEY0R00V	0 1/16W	[M]
RJ726	ERJ3GEY0R00V	0 1/16W	[M]
RJ727	ERJ3GEY0R00V	0 1/16W	[M]
RJ728	ERJ3GEY0R00V	0 1/16W	[M]
RJ731	ERJ3GEY0R00V	0 1/16W	[M]
RJ732	ERJ3GEY0R00V	0 1/16W	[M]
RJ734	ERJ3GEY0R00V	0 1/16W	[M]
		TEST JUMPER	
TJ701	EYF8CU	TEST JUMPER	[M]

18.4. Packing Materials & Accessories Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		PACKING MATERIALS	
P1	RPGX0724-1	PACKING CASE	[M] EB-A EG-A
P1	RPGX0728-1	PACKING CASE	[M] E-A
P1	RPGX0779-1	PACKING CASE	[M] EB-H EG-H
P1	RPGX0780-1	PACKING CASE	[M] E-H
P2	RPNX0125	POLYFOAM	[M]
P3	RPHV0001	MIRAMAT SHEET	[M]
		ACCESSORIES	

Ref. No.	Part No.	Part Name & Description	Remarks
A1	RAK-RX979WK	REMOTE CONTROL	[M]
A1-1	RKK-HTR0280	R/C BATTERY COVER	[M]
A2	RJA0019-2K	AC CORD	[M] EG E
A2	VJA0733	AC CORD	[M] EB
A3	RQT5673-E	O/I BOOK (Sp)	[M] E
A3	RQT5674-R	O/I BOOK (Ru/Cz/Po)	[M] E
A3	RQT5675-D	O/I BOOK (Ge/It/Fr)	[M] EG
A3	RQT5676-H	O/I BOOK (Du/Da/Sw)	[M] EG
A3	RQT5677-B	O/I BOOK (En)	[M] EB E

18.5. Packaging

ACCESSORIES CASE

A2 : AC CORD

A3 : O/I BOOK