Order No. MD0202037C2

Service Manual

Portable Stereo CD System

COMPACT disc DIGITAL AUDIO

RX-D17E
RX-D17EB
RX-D17EG

Colour

(A) ... Blue Type

(S) ... Silver Type

Tape Deck: SG20 Mechanism Series

Traverse Deck: RAE0152Z-1C Mechanism Series

n RADIO

Frequency Range	
FM	87.50-108.00 MHz (50 kHz steps)
AM	522-1629 kHz (9 kHz steps)

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 ~ 12000 Hz

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	Less than possible measurement data
D/A converter	1 bit DAC

n GENERAL

Power Requirement	
AC	230-240 V, 50 Hz
Power Consumption	11 W
Battery	9 V (six R20/LR20, D, UM-1 batteries)
	! Do not use rechargeable type batteries.
Memory back-up	6 V (four R6/LR6, AA, UM-3 batteries)
	! Do not use rechargeable type batteries.
Speakers	
Full range	10 cm 4Ω x 2
Jacks	
Output	Phones : 3.5 mm stereo (32Ω)
Dimensions (W x H x D)	420 x 167 x 275 mm
Mass	3.4 kg without batteries

Notes:

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

Panasonic

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⚠ WARNING

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

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1 Before Repair and Adjustment

Disconnect AC power, discharge Power Supply Capacitors C120, C220, C317 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 230 V, 240 V, 50 Hz in NO SIGNAL mode should be ~45 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.

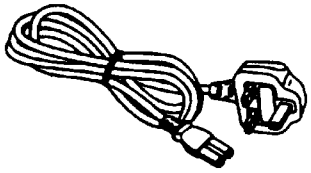
If this occurs, follow the procedure outlines below:

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.

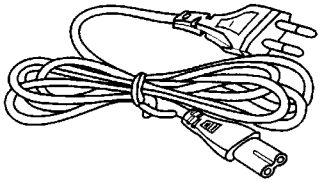
Note:

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

3 Accessories



AC Main Lead (EB).....1 pc



AC Main Lead (E/EG).....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.

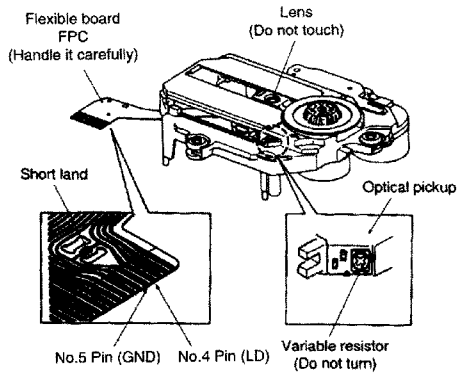
   Put a conductive material (sheet) or steel sheet on the area where the traverse deck (optical pickup) is place, and ground the sheet.

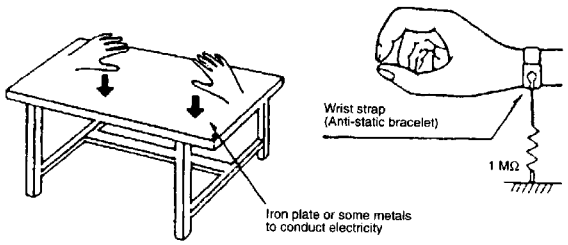
Caution:

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:

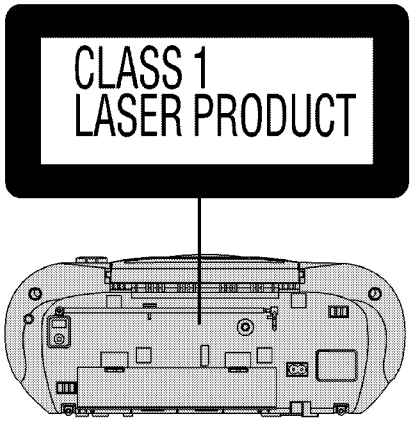
Dieses Produkt enthält eine Laserdiode. Im enigeschalteten Zustand wird unsichtbare Laserstrahlung von der Lasereinheit abgestrahlt.
Wellenlänge : 780nm
Maximale Strahlungsleistung der Lasereinheit : 100µW/VDE
Die Strahlung an der Lasereinheit ist ungefährlich, wenn folgende Punkte beachtet werden:

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.

n Use of Caution Labels



(Parte de atrás del aparato)
(Back of product)

DANGER	INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCK DEFEATED. 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 UND SICHERHEITSVERRIEGELUNG ÜBERBRÜCKT. NICHT DEM STRAHL AUSSETZEN.	(Im Inneren des Gerätes)

6 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

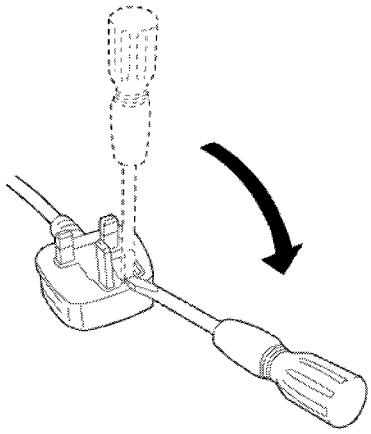
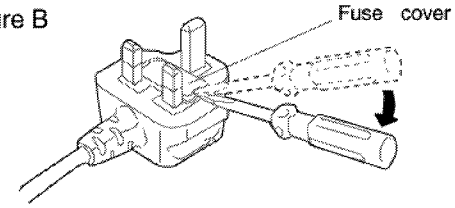


Figure B



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

Figure A

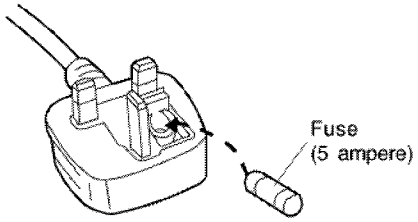
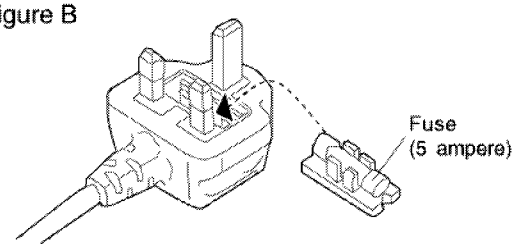
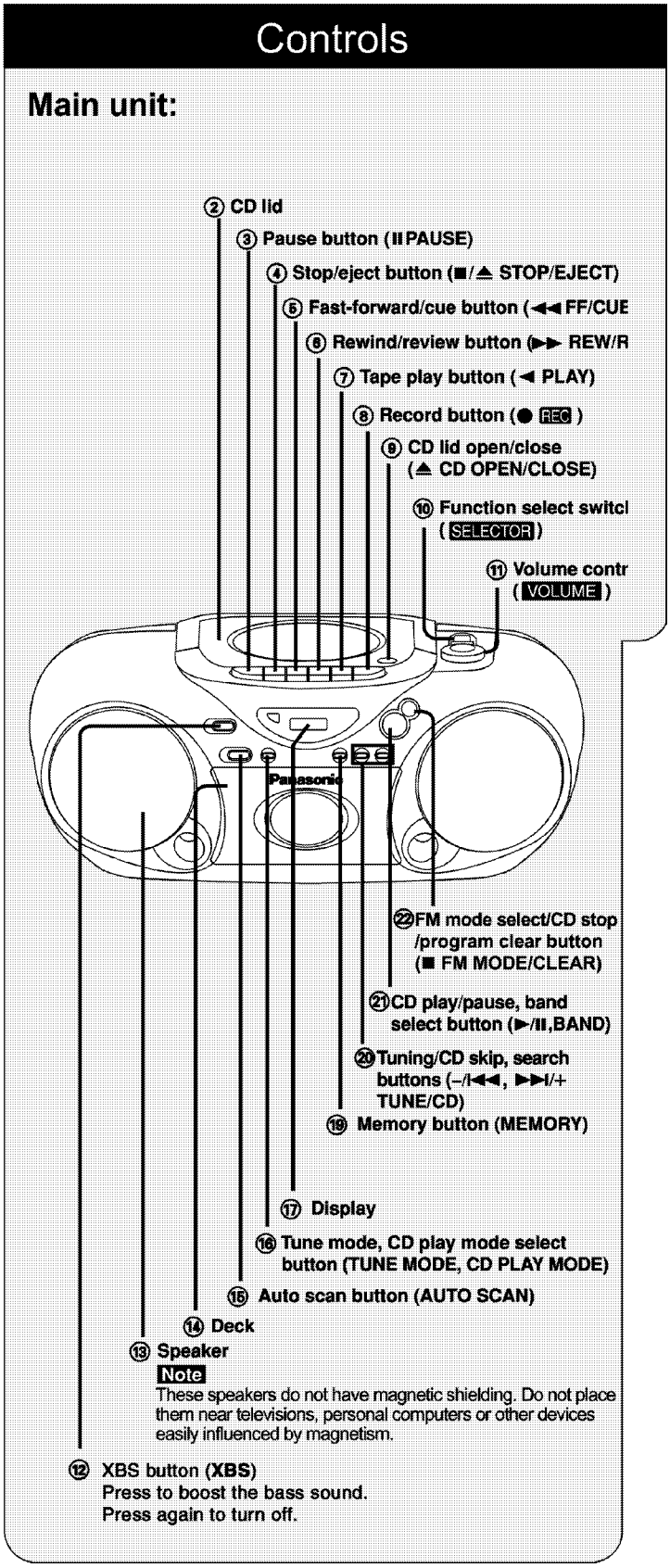


Figure B



7 Controls

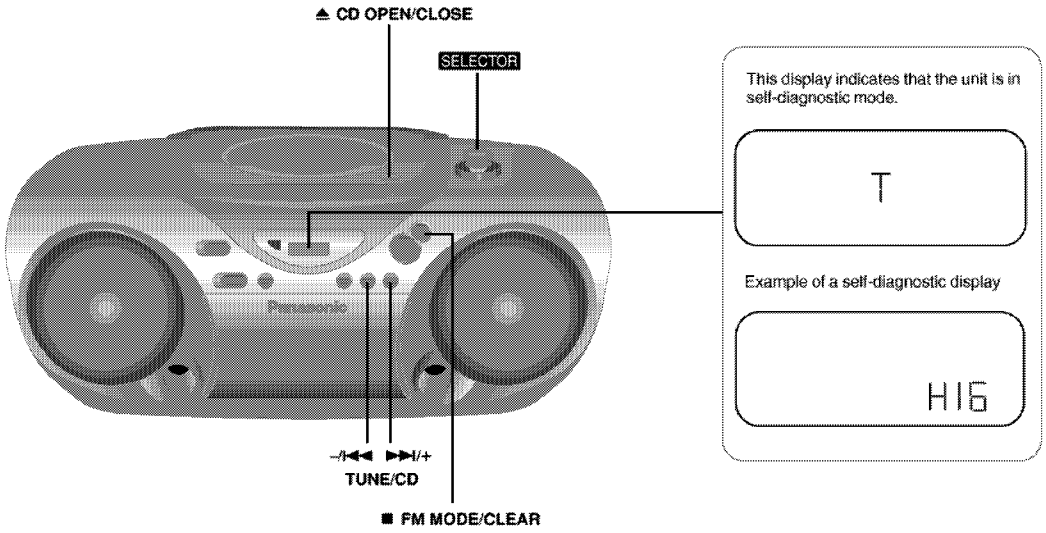

Controls
Main unit:
② CD lid
③ Pause button (⏸PAUSE)
④ Stop/eject button (■/⏏ STOP/EJECT)
⑤ Fast-forward/cue button (◄◄ FF/CUE
⑥ Rewind/review button (►► REW/R
⑦ Tape play button (◄ PLAY)
⑧ Record button (● REC)
⑨ CD lid open/close (⏏ CD OPEN/CLOSE)
⑩ Function select switcl (SELECTOR)
⑪ Volume contr (VOLUME)
Panasonic
㉒FM mode select/CD stop /program clear button (■ FM MODE/CLEAR)
㉑CD play/pause, band select button (►/⏸,BAND)
⑳Tuning/CD skip, search buttons (–/I◄◄, ►►I/+ TUNE/CD)
⑲ Memory button (MEMORY)
⑰ Display
⑯ Tune mode, CD play mode select button (TUNE MODE, CD PLAY MODE)
⑮ Auto scan button (AUTO SCAN)
⑭ Deck
⑬ Speaker
Note
These speakers do not have magnetic shielding. Do not place them near televisions, personal computers or other devices easily influenced by magnetism.
⑫ XBS button (XBS)
Press to boost the bass sound.
Press again to turn off.

8 Self-Diagnostic Functions

8.1. Setting of the Self-Diagnostic Mode

1. Switch the SELECTOR to CD and set to TAPE STOP state. (CD PLAY→STOP)
2. Press the n/CLEAR for the first two seconds and followed by the FAST FORWARD keys for another two seconds without releasing the n/CLEAR key, it shall enter into the Self-Diagnostic mode.
3. At the state of [T] display, operate as follows:
   - Open the CD lid and close it right away.
   - Start recording TAPE, and STOP it at once.
4. Press n/CLEAR key.
   - Self diagnostic results, i.e. the memorized errors during actual operations and the result of above-mentioned operation shall be displayed alternately.
   - If there is no error, the aforementioned display [T], shall be kept.
   - If the operation in the above mentioned in 4 is made without executing the procedure in 3, [H16] and [F69] shall be displayed.

8.2. Display Location



8.3. Display Content

No.	Abnormal Items	Error Display	Method of detection
1	CLOSE SW abnormal	H16	Detect error during closing operation and memorised it as an error.
2	REST SW abnormal	F15	Under normal operation (Self-Diagnostic Mode inclusive), this error occurs when the REST SW ON is not detected within the specified time (5000 ms) and shall be memorised.
3	Transmission error between CD servo LSI and micon	F26	Under normal operation (Self-Diagnostic Mode inclusive), this error occurs when the selection is set to CD and SENSE ='H' is detected and SENSE ='L' is not detected within a fail-safe time (20 ms) after system command transmission was sent.

9 Disassembly 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

· **Disassembly Procedure for each major P.C.B.**

1. Checking for the Main, Panel, Tuner, Power & Cd Servo P.C.B ..... P.g. 9 ~ 12

· **Main Component Replacement Procedures**

1. Replacement of the Traverse Deck P.g.13
2. Installation of the CD Servo P.C.B. after Replacement P.g.14

Warning:

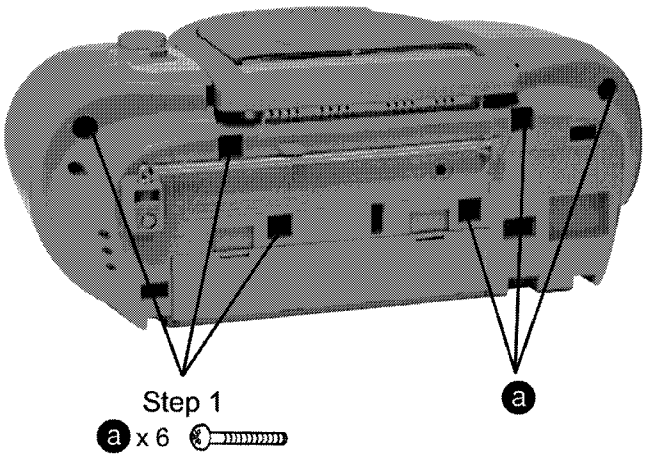
This product uses a laser diode. Refer to Precaution of Laser Diode.

ACHTUNG:

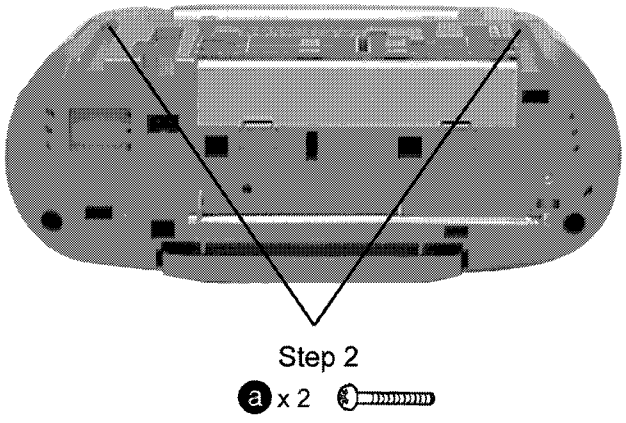
Die Lasereinheit nicht zerlegen.
Die Lasereinheit darf nur gegen eine vom Hertsteller spezifizierte Einheit ausgetauscht werden.

9.1. Disassembly Procedure for each major P.C.B.

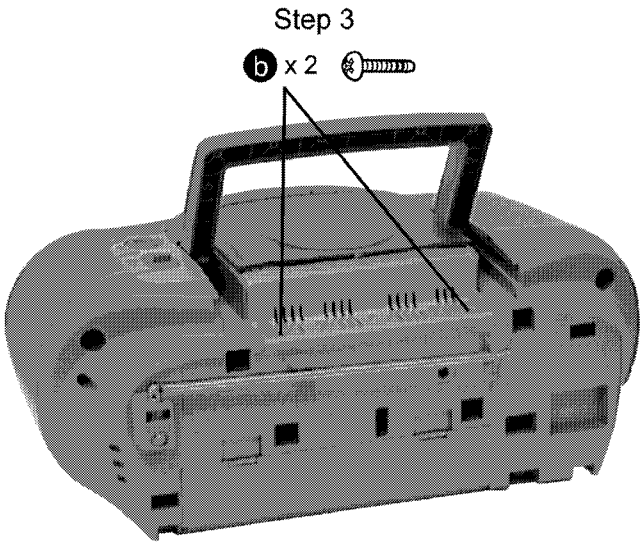
9.1.1. Checking for the Main, Panel, Tuner, Power & Cd Servo P.C.B



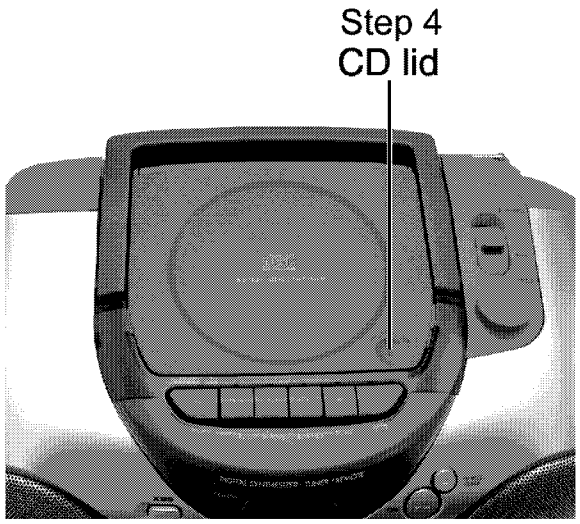
Step 1: Remove all the screws.



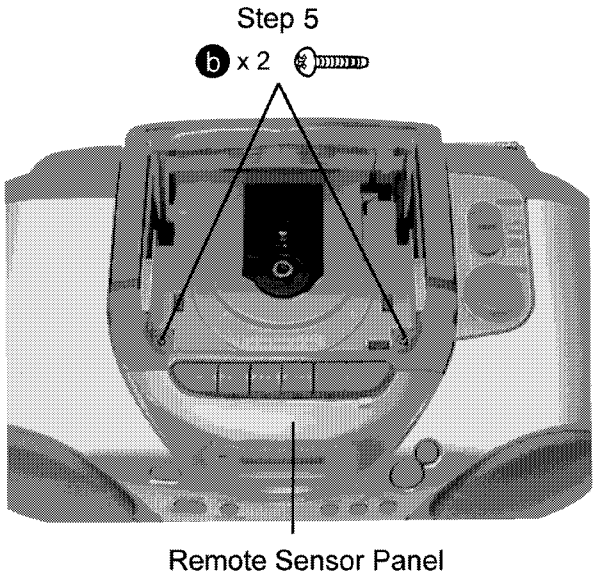
Step 2: Remove all the screws.



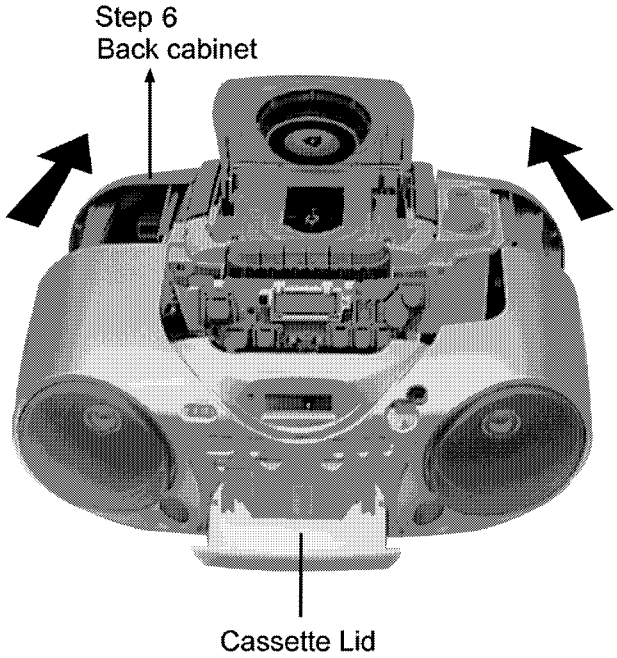
Step 3: Remove all the screws.



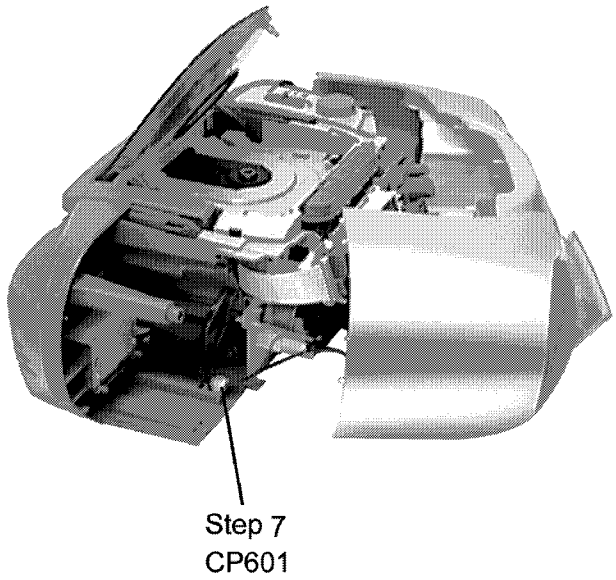
Step 4: Press down the CD lid as indicated.



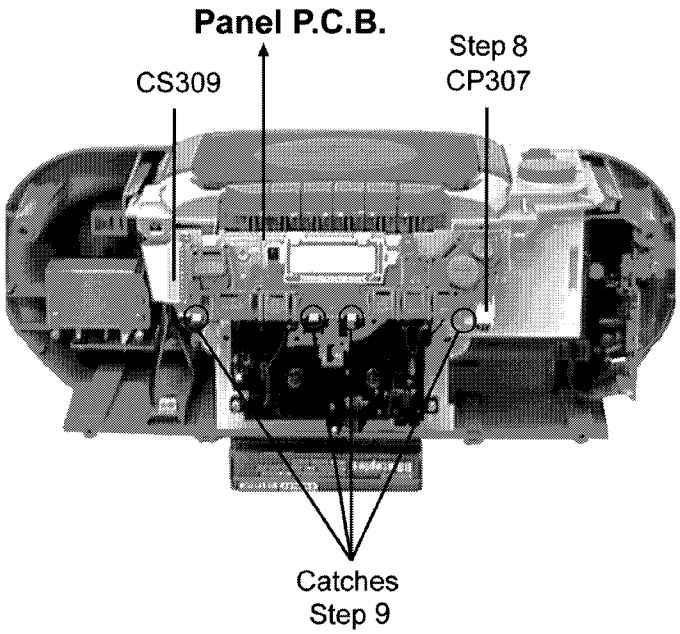
Step 5: Remove all the screws and take out the Remote Sensor Panel.



Step 6: Press STOP/EJECT button to release the cassette lid and pull the back cabinet as direction shown.

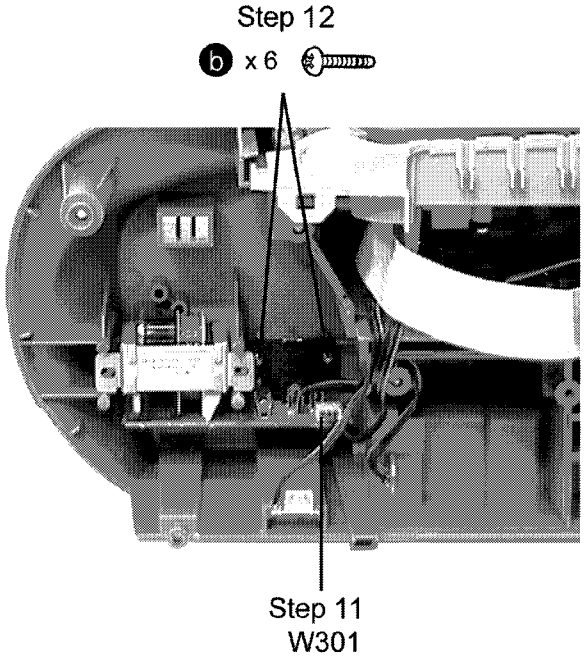


Step 7: Release the connector CP601.



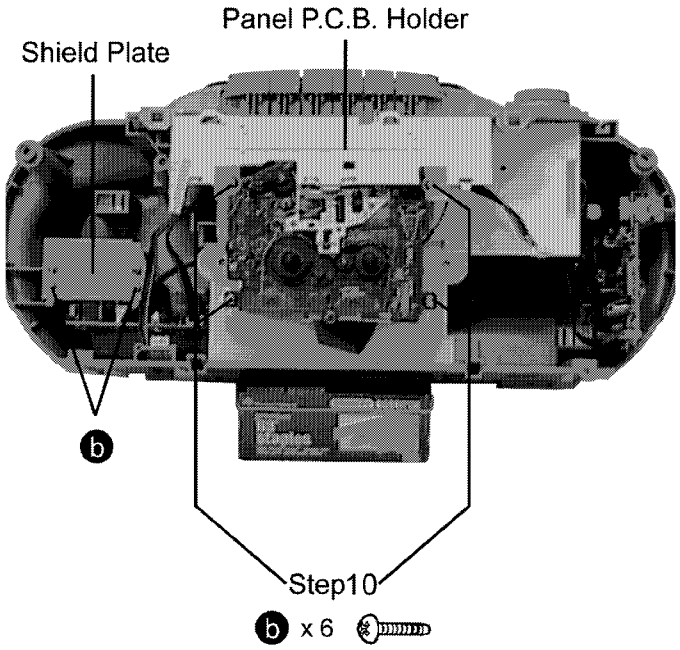
Step 8: Release the connectors CP307 and CS309.

Step 9: Pull down all the catches to remove the Panel P.C.B.

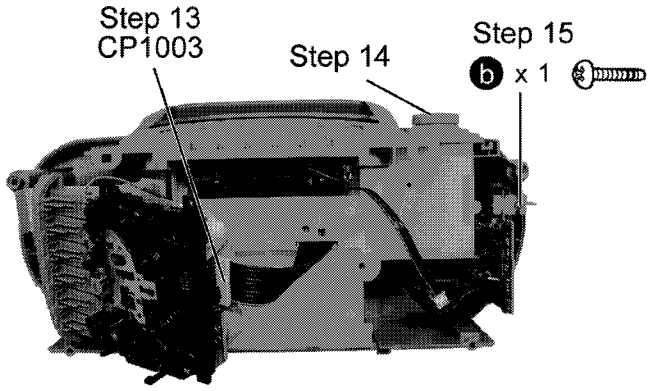


Step 11: Release the connector W301.

Step 12: Remove all the screws.



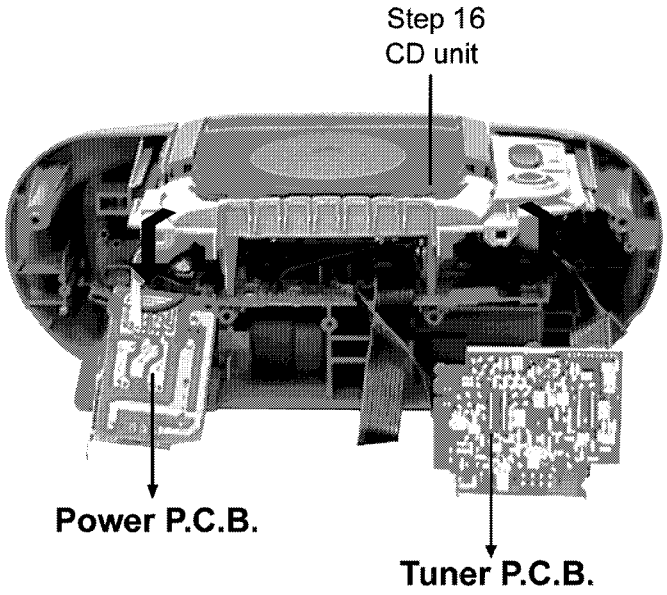
Step 10: Unscrew all the screws. Remove the Panel P.C.B. Holder.



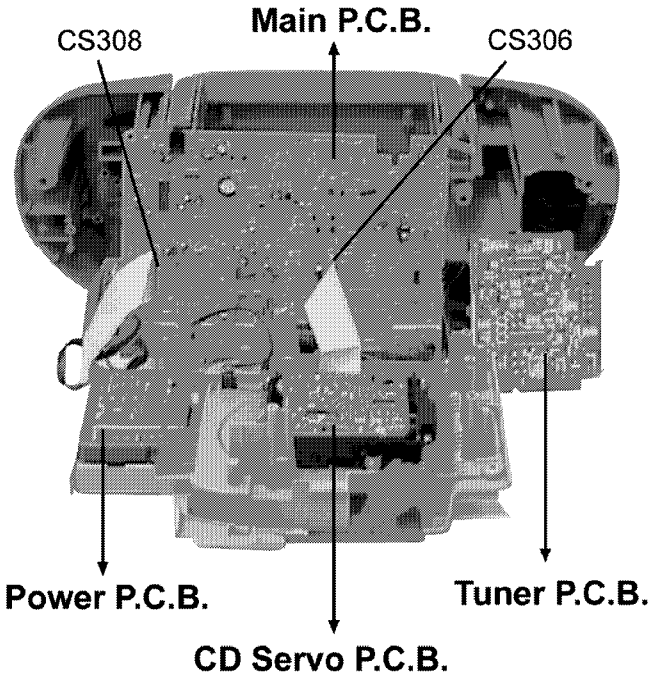
Step 13: Release the connector CP1003.

Step 14: Remove the Volume knob.

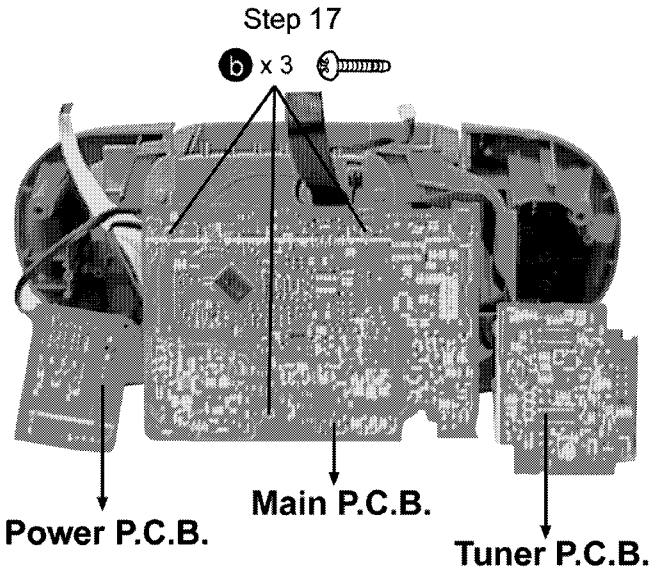
Step 15: Remove the screw.



Step 16: Pull the CD unit as direction shown.



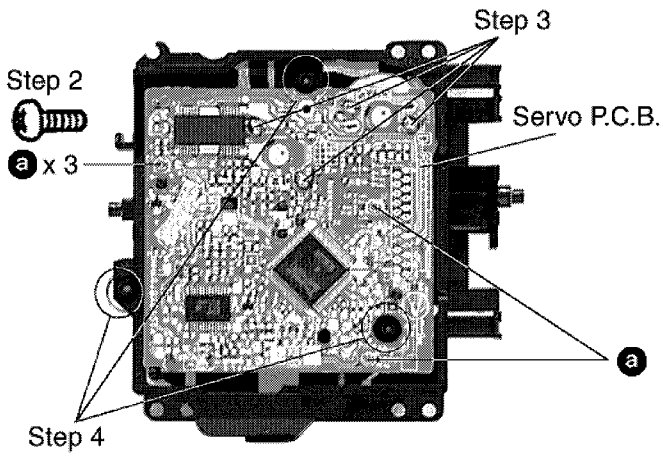
Rconnect back all connectors and wires to do the testing.



Step 17: Remove all the screws from Main P.C.B..

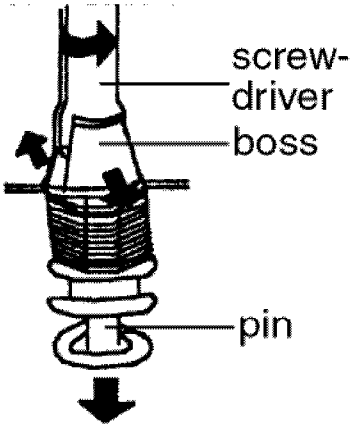
9.2. Main Component Replacement Procedures

9.2.1. Replacement of the Traverse Deck



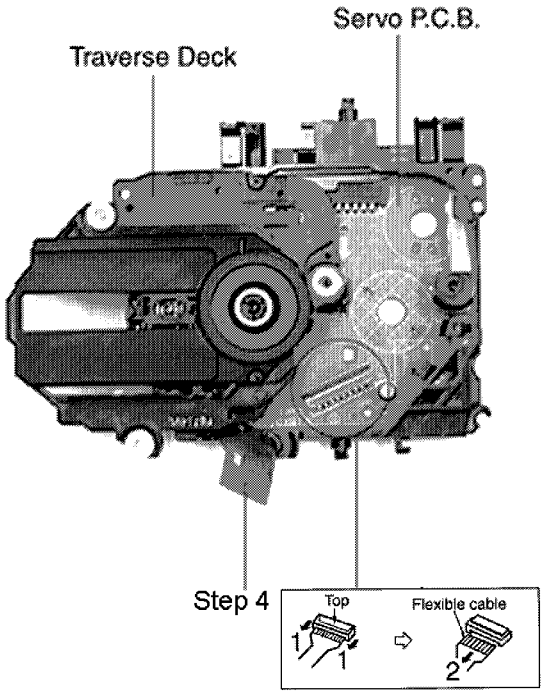
Step 2: Desolder the 4 legs of the 2 motors and pull out the Servo P.C.B.

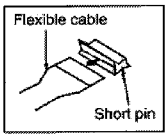
Step 3: Widen the 3 bosses with a flat screwdriver and pull out the 3 pins. Then remove the Traverse Deck.



Note :

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

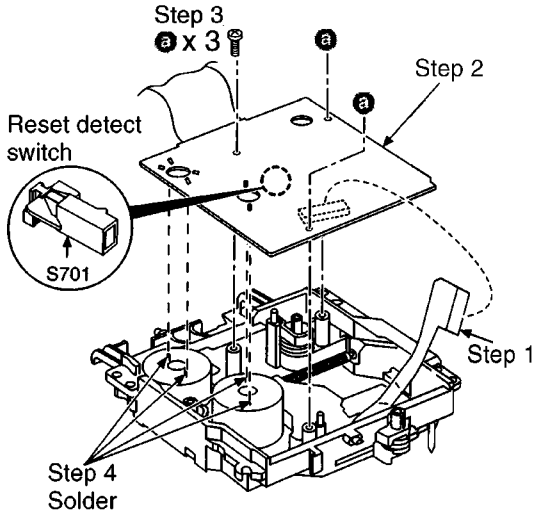




Step 4: Remove the flexible cable CN701.

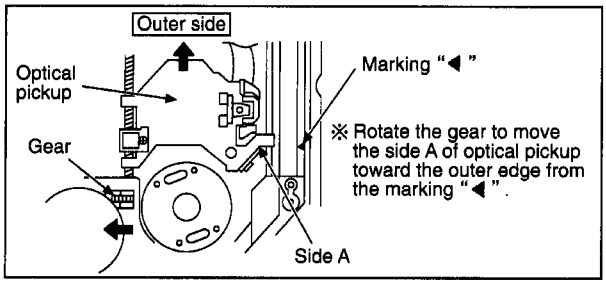
- Removal of the flexible cable. Push the top of the connector in the direction of the arrow 1, and the pull out the flexible cable in the direction of the arrow 2.

9.2.2. 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.]

10 Schematic Diagram

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

Notes:

S702	Interlock Switch
S703	Rest Switch
SW302	Function Switch
SW601	Auto Scan Switch
SW602	XBS/TONE/HES Switch
SW603	Play Mode Switch
SW604	Memory Switch
SW605	REV Skip Switch
SW606	FWD Skip Switch
SW607	Play/Pause Switch
SW608	CD Stop Switch
SW1001	Push Switch
SW1002	Leaf Switch

- 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.

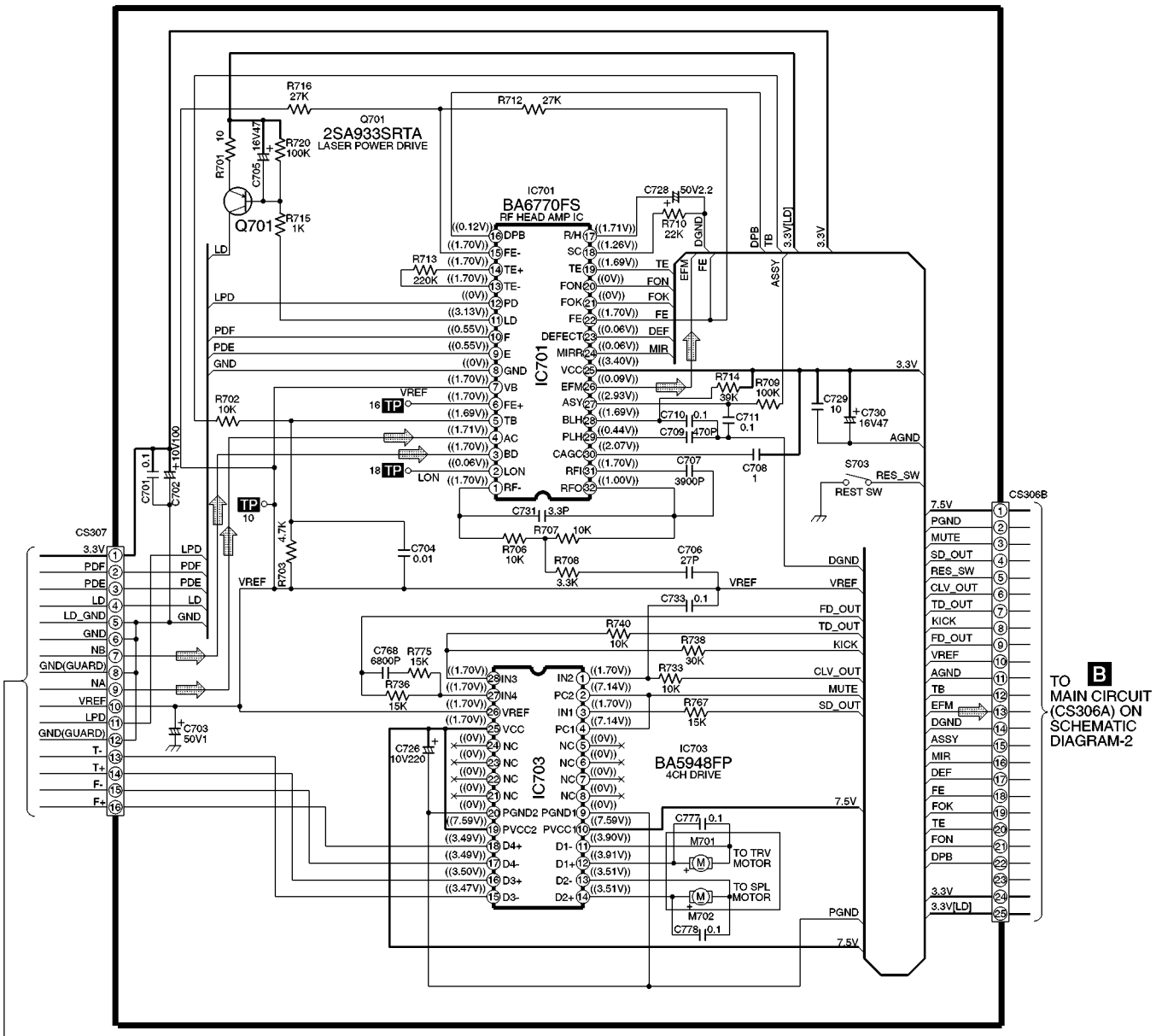
Secondary trouble can be prevented by taking care during repair.

- 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.

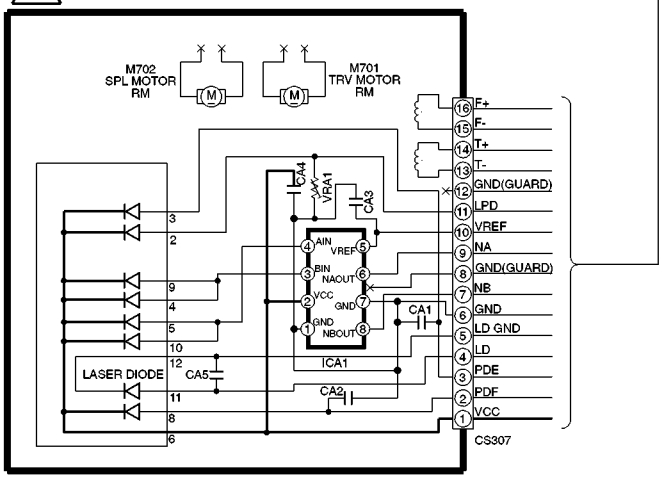
SCHEMATIC DIAGRAM-1

A CD SERVO CIRCUIT

: +B SIGNAL LINE : CD SIGNAL LINE



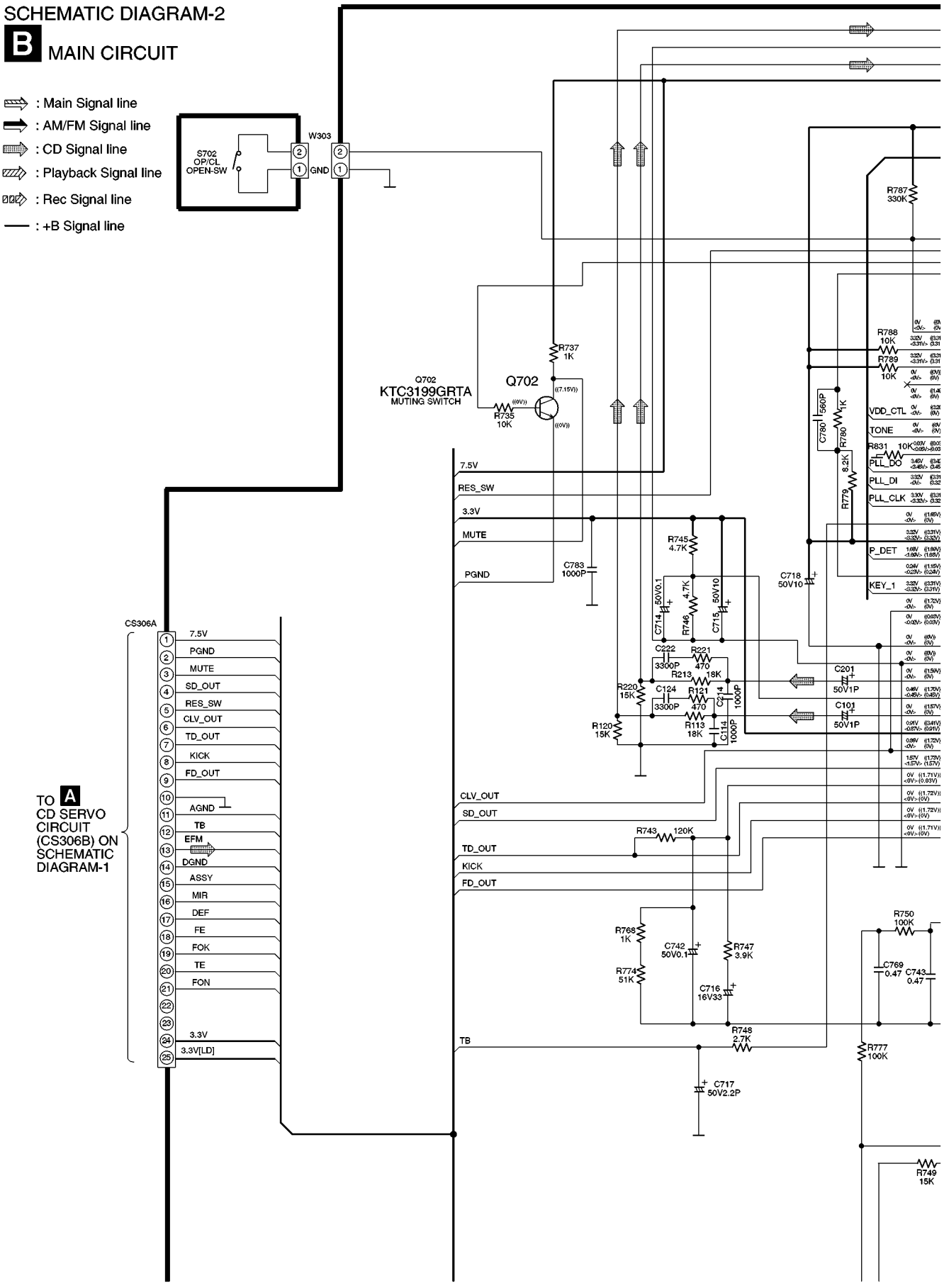
OPTICAL PICKUP CIRCUIT

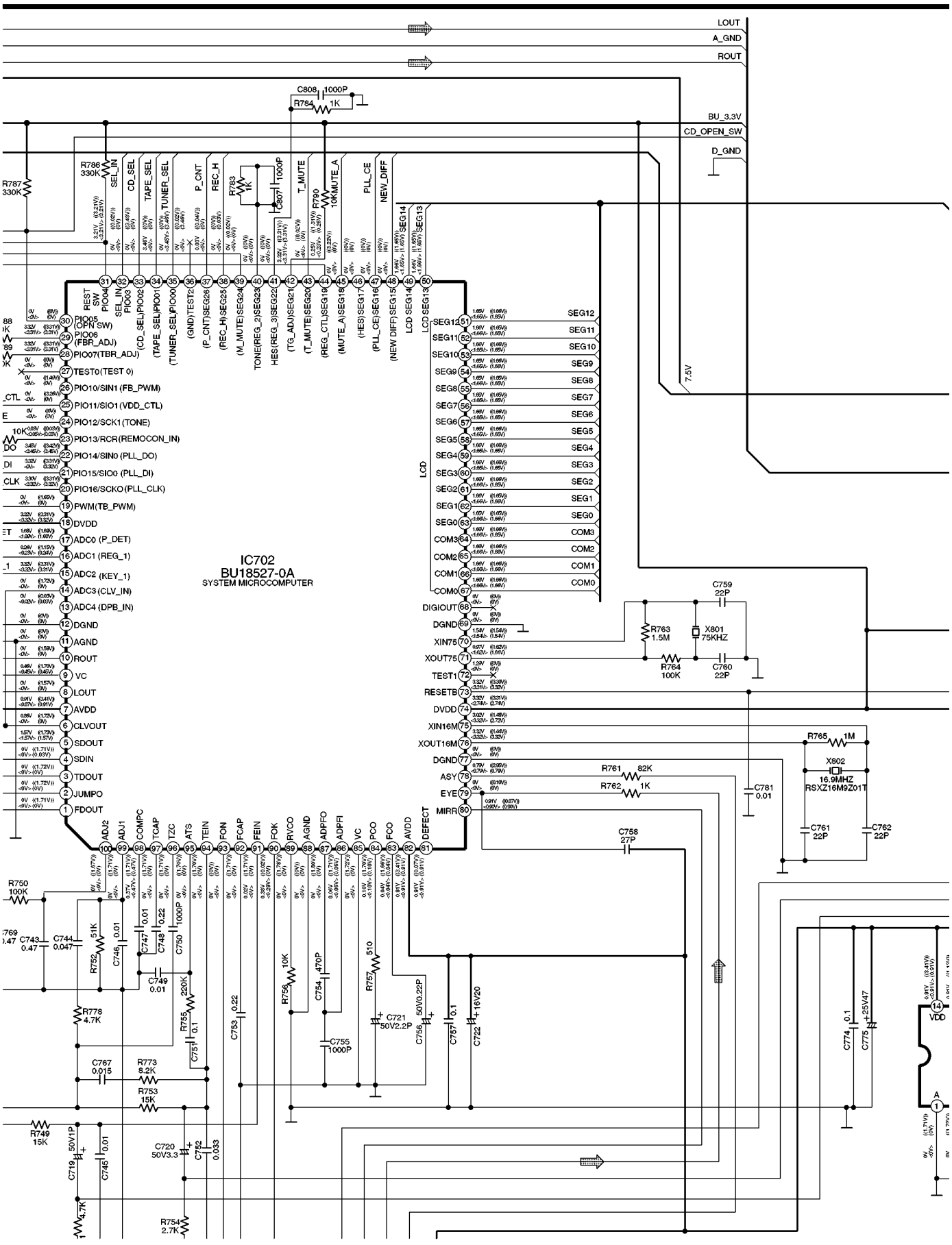


SCHEMATIC DIAGRAM-2

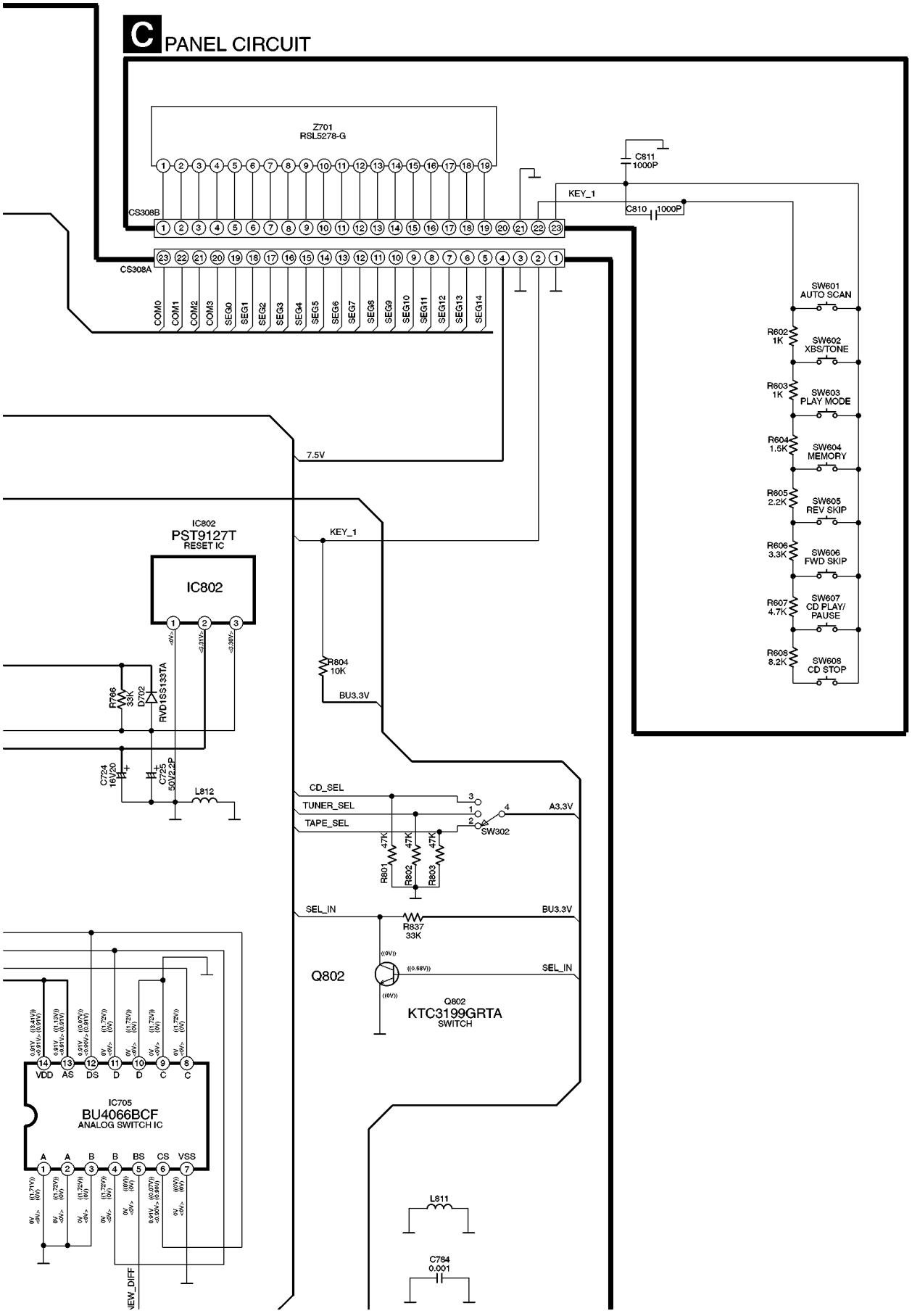
B MAIN CIRCUIT

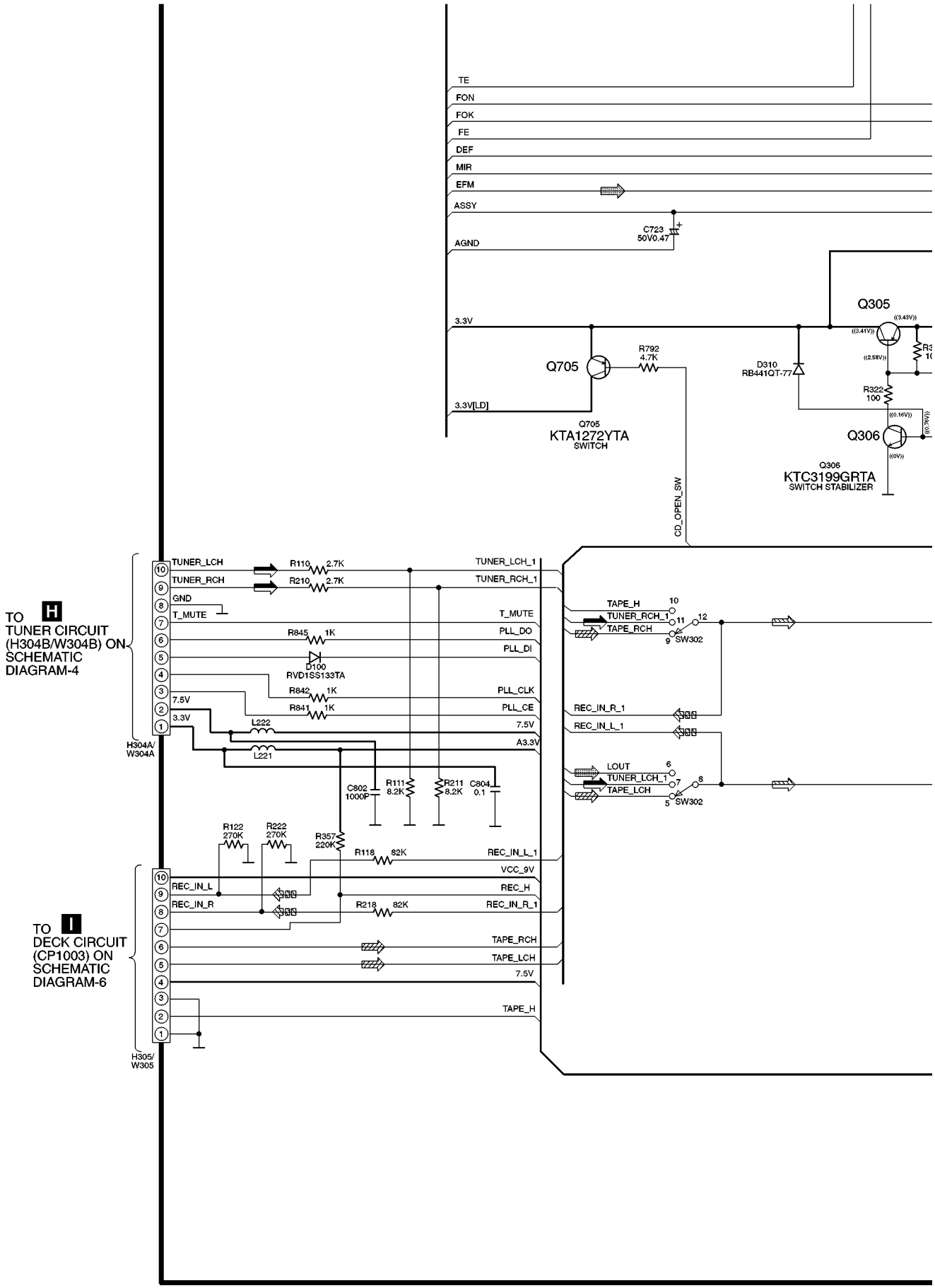
: Main Signal line
: AM/FM Signal line
: CD Signal line
: Playback Signal line
: Rec Signal line
: +B Signal line

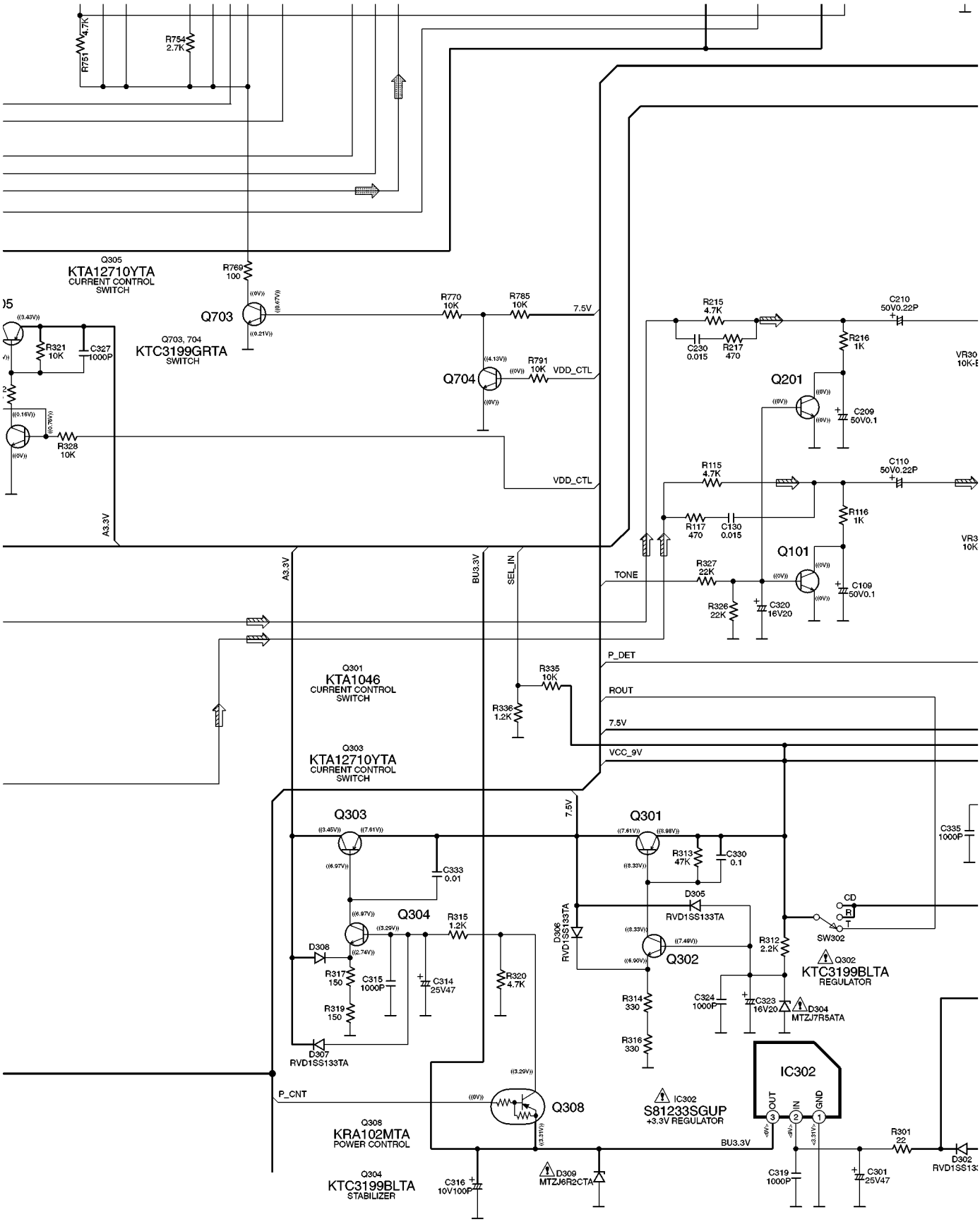


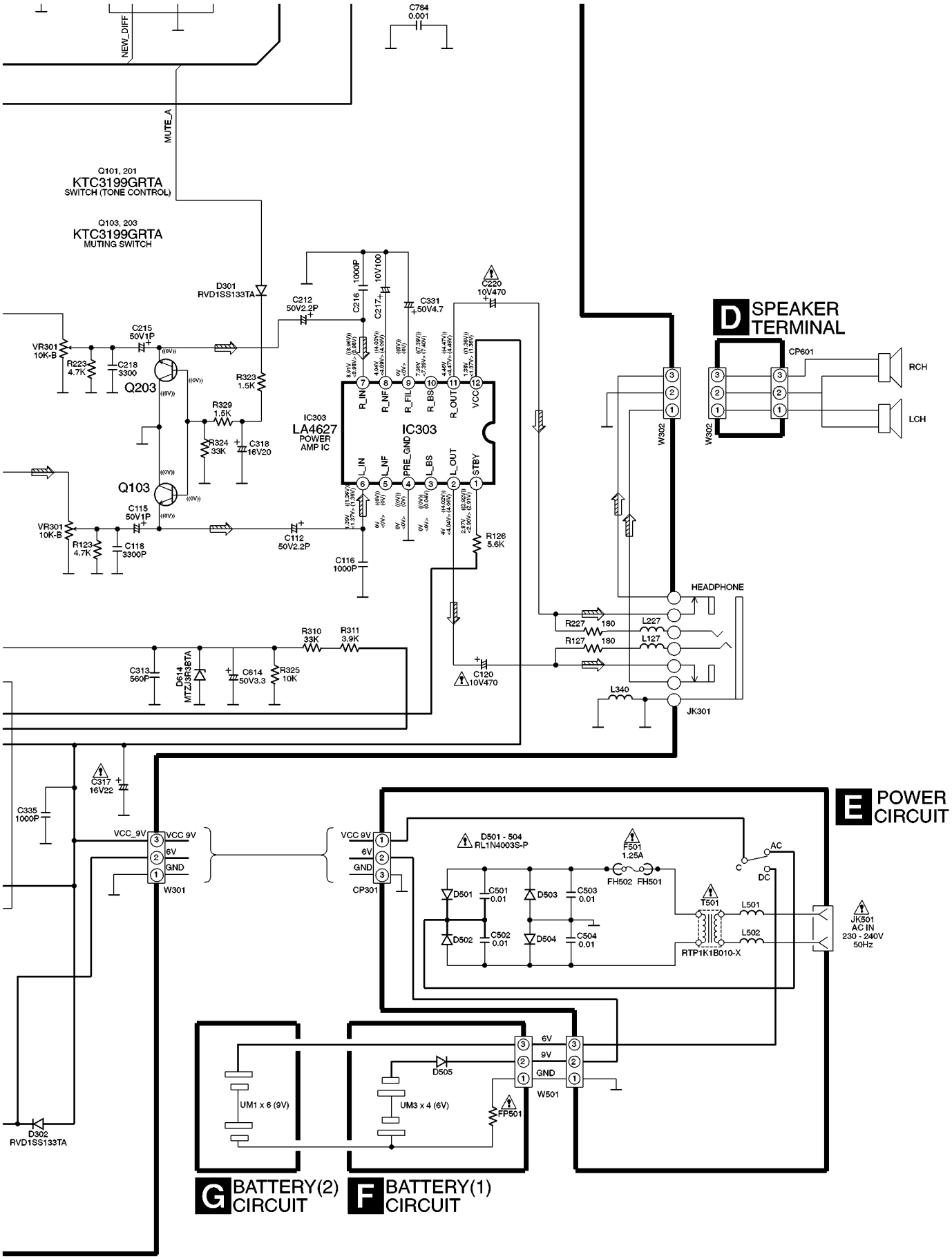

IC702
BU18527-0A
SYSTEM MICROCOMPUTER
LOUT
A_GND
ROUT
BU_3.3V
CD_OPEN_SW
D_GND
7.5V
LCD
C808 1000P
R784 1K
R786 330K
R787 330K
R783 1K
C807 1000P
R790 10K
SEL_IN
CD_SEL
TAPE_SEL
TUNER_SEL
P_CNT
REC_H
T_MUTE
MUTE_A
PLL_CE
NEW_DIFF
SEG14
SEG13
REST SW PIO04
SEL_IN PIO03
(CD_SEL)PIO02
(TAPE_SEL)PIO01
(TUNER_SEL)PIO00
(GND)TEST2
(P_CNT)SEG26
(REC_H)SEG25
(M_MUTE)SEG24
TONE(REG_2)SEG23
HES(REG_3)SEG22
(TG_ADJ)SEG21
(T_MUTE)SEG20
(REG_CTL)SEG19
(MUTE_A)SEG18
(HES)SEG17
(PLL_CE)SEG16
(NEW DIFF)SEG15
LCD SEG14
LCD SEG13
PIO05 (OPN SW)
PIO06 (FBR_ADJ)
PIO07(TBR_ADJ)
TEST0(TEST 0)
PIO10/SIN1 (FB_PWM)
PIO11/SIO1 (VDD_CTL)
PIO12/SCK1 (TONE)
PIO13/RCR (REMOCON_IN)
PIO14/SIN0 (PLL_DO)
PIO15/SIO0 (PLL_DI)
PIO16/SCKO (PLL_CLK)
PWM(TB_PWM)
DVDD
ADC0 (P_DET)
ADC1 (REG_1)
ADC2 (KEY_1)
ADC3 (CLV_IN)
ADC4 (DPB_IN)
DGND
AGND
ROUT
VC
LOUT
AVDD
CLVOUT
SDOUT
SDIN
TDOUT
JUMPO
FDOUT
SEG12
SEG11
SEG10
SEG9
SEG8
SEG7
SEG6
SEG5
SEG4
SEG3
SEG2
SEG1
SEG0
COM3
COM2
COM1
COM0
DIGIOUT
DGND
XIN75
XOUT75
TEST1
RESETB
DVDD
XIN16M
XOUT16M
DGND
ASY
EYE
MIRR
ADJ2
ADJ1
COMPC
TCAP
TZC
ATS
TEIN
FON
FCAP
FEIN
FOK
RVCO
AGND
ADPFO
ADPFI
VC
PCO
FCO
AVDD
DEFECT
C759 22P
R763 1.5M
X801 75KHZ
R764 100K
C760 22P
R765 1M
X802 16.9MHZ RSXZ16M9Z01T
R761 82K
R762 1K
C781 0.01
C758 27P
C761 22P
C762 22P
R750 100K
C743 0.47
C744 0.047
R752 51K
C746 0.01
C747 0.01
C748 0.22
C750 1000P
C749 0.01
R755 220K
C751 0.1
R778 4.7K
C767 0.015
R773 8.2K
R753 15K
R749 15K
C719 50V1P
C745 0.01
C720 50V3.3
C752 0.033
R754 2.7K
C753 0.22
R756 10K
C754 470P
C755 1000P
R757 510
C721 50V2.2P
C756 50V0.22P
C757 0.1
C722 16V20
C774 0.1
C775 25V47
VDD

C PANEL CIRCUIT




TE
FON
FOK
FE
DEF
MIR
EFM
ASSY
AGND
C723
50V0.47
3.3V
3.3V[LD]
Q705
R792
4.7K
Q705
KTA1272YTA
SWITCH
D310
RB441QT-77
Q305
R322
100
Q306
Q306
KTC3199GRTA
SWITCH STABILIZER
CD_OPEN_SW
TO H
TUNER CIRCUIT
(H304B/W304B) ON
SCHEMATIC
DIAGRAM-4
H304A/
W304A
TUNER_LCH
TUNER_RCH
GND
T_MUTE
7.5V
3.3V
R110 2.7K
R210 2.7K
R845 1K
D100
RVD1SS133TA
R842 1K
R841 1K
L222
L221
C802
1000P
R111
8.2K
R211
8.2K
C804
0.1
TUNER_LCH_1
TUNER_RCH_1
T_MUTE
PLL_DO
PLL_DI
PLL_CLK
PLL_CE
7.5V
A3.3V
TAPE_H
TUNER_RCH_1
TAPE_RCH
SW302
REC_IN_R_1
REC_IN_L_1
LOUT
TUNER_LCH_1
TAPE_LCH
SW302
R122
270K
R222
270K
R357
220K
R118 82K
R218 82K
REC_IN_L_1
VCC_9V
REC_H
REC_IN_R_1
TAPE_RCH
TAPE_LCH
7.5V
TAPE_H
TO I
DECK CIRCUIT
(CP1003) ON
SCHEMATIC
DIAGRAM-6
H305/
W305
REC_IN_L
REC_IN_R

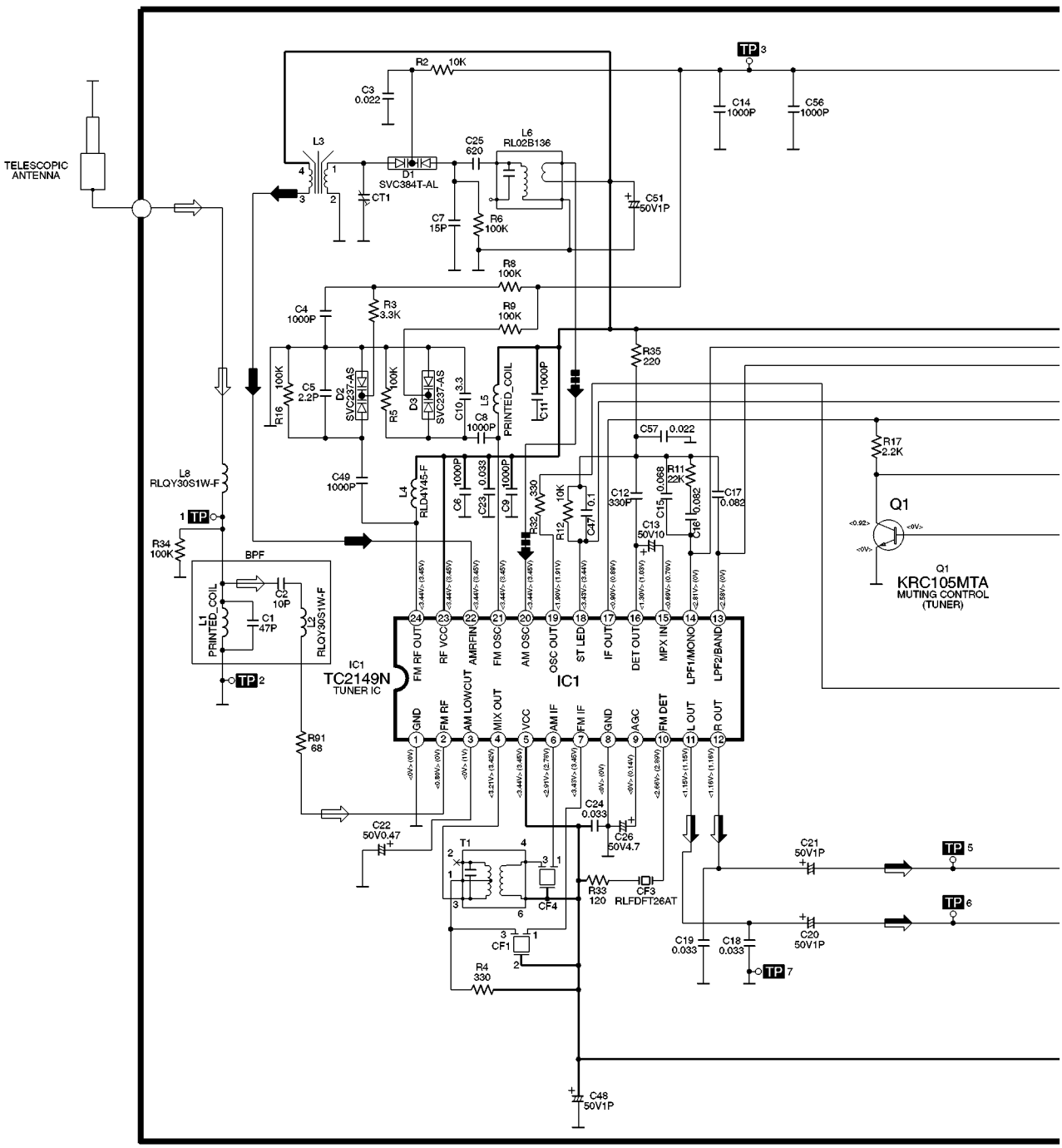

R751 4.7K
R754 2.7K
Q305
KTA12710YTA
CURRENT CONTROL
SWITCH
R769 100
Q703
Q703, 704
KTC3199GRTA
SWITCH
R770 10K
R785 10K
7.5V
Q704
R791 10K
VDD_CTL
R321 10K
C327 1000P
R328 10K
A3.3V
R215 4.7K
C230 0.015
R217 470
C210 50V0.22P
R216 1K
Q201
C209 50V0.1
R115 4.7K
R117 470
C130 0.015
C110 50V0.22P
R116 1K
Q101
C109 50V0.1
R327 22K
R326 22K
C320 16V20
TONE
BU3.3V
SEL_IN
P_DET
ROUT
7.5V
VCC_9V
Q301
KTA1046
CURRENT CONTROL
SWITCH
R335 10K
R336 1.2K
Q303
KTA12710YTA
CURRENT CONTROL
SWITCH
C333 0.01
Q304
R315 1.2K
D308
R317 150
C315 1000P
C314 25V47
R319 150
R320 4.7K
D307
RVD1SS133TA
R313 47K
C330 0.1
D305
RVD1SS133TA
D306
RVD1SS133TA
SW302
CD
R312 2.2K
Q302
KTC3199BLTA
REGULATOR
R314 330
R316 330
C324 1000P
C323 16V20
D304
MTZJ7R5ATA
C335 1000P
P_CNT
Q308
KRA102MTA
POWER CONTROL
IC302
S81233SGUP
+3.3V REGULATOR
OUT
IN
GND
R301 22
C316 10V100P
D309
MTZJ6R2CTA
C319 1000P
C301 25V47
D302


NEW_DIFF
C784
0.001
MUTE_A
Q101, 201
KTC3199GRTA
SWITCH (TONE CONTROL)
Q103, 203
KTC3199GRTA
MUTING SWITCH
D301
RVD1SS133TA
C212
50V2.2P
C216
1000P
C217
10V100
C331
1.50V4.7
C220
10V470
C215
50V1P
VR301
10K-B
R223
4.7K
C218
3300
Q203
R323
1.5K
R329
1.5K
R324
33K
C318
16V20
IC303
LA4627
POWER
AMP IC
R_IN
R_NF
R_FIL
R_BS
R_OUT
VCC
L_IN
L_NF
PRE_GND
L_BS
L_OUT
STBY
Q103
C115
50V1P
VR301
10K-B
R123
4.7K
C118
3300P
C112
50V2.2P
C116
1000P
R126
5.6K
D SPEAKER
TERMINAL
CP601
RCH
LCH
W302
HEADPHONE
R227
180
L227
R127
180
L127
L340
JK301
C120
10V470
R310
33K
R311
3.9K
C313
560P
D614
MTZJ3F3BTA
C614
50V3.3
R325
10K
C317
16V22
C335
1000P
VCC_9V
VCC 9V
6V
GND
W301
CP301
D501 - 504
RL1N4003S-P
F501
1.25A
FH502
FH501
AC
DC
D501
C501
0.01
D503
C503
0.01
D502
C502
0.01
D504
C504
0.01
T501
L501
L502
RTP1K1B010-X
JK501
AC IN
230 - 240V
50Hz
E POWER
CIRCUIT
D505
UM1 x 6 (9V)
UM3 x 4 (6V)
FP501
9V
W501
D302
RVD1SS133TA
G BATTERY(2)
CIRCUIT
F BATTERY(1)
CIRCUIT

SCHEMATIC DIAGRAM-3

H TUNER CIRCUIT

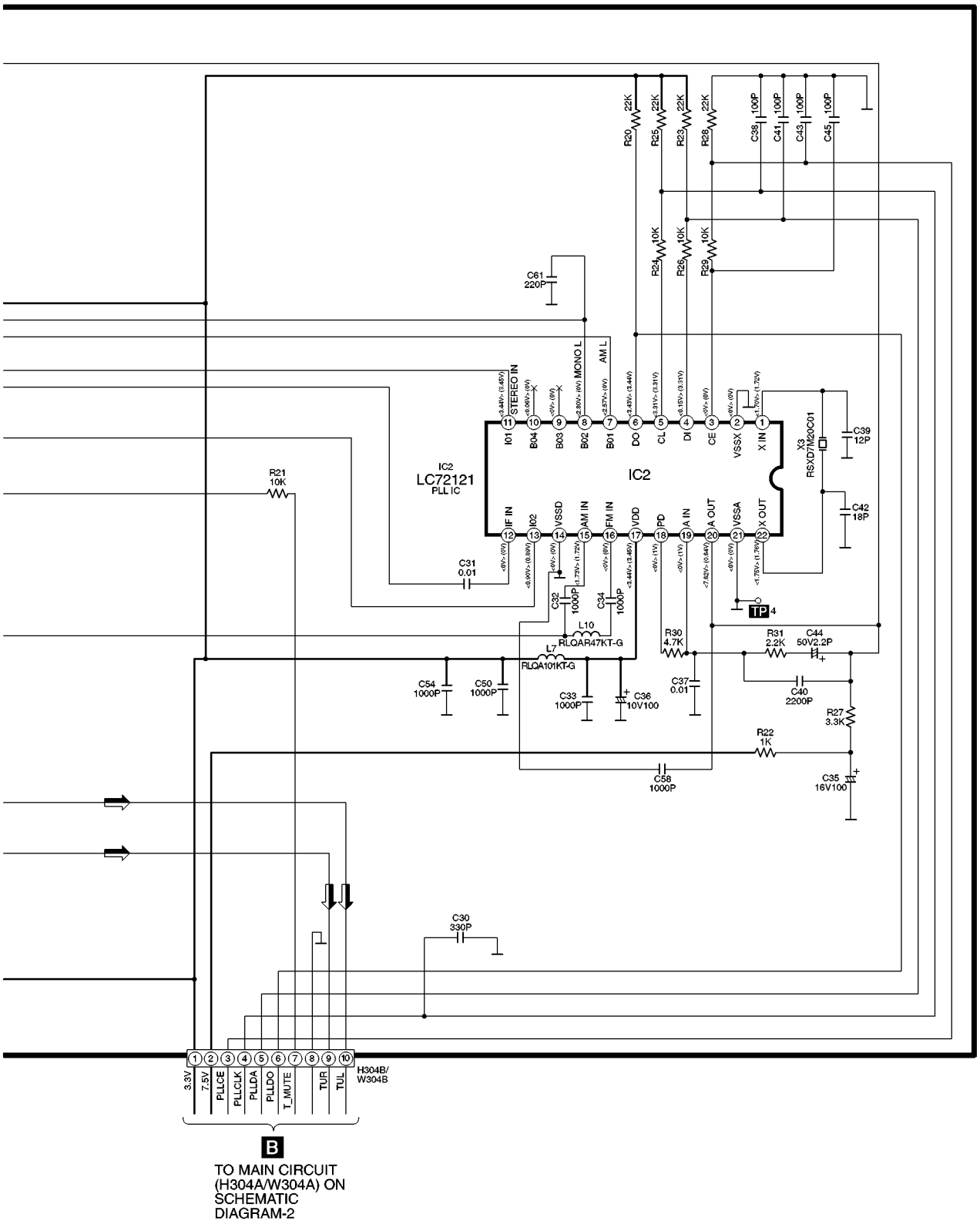
: FM Signal line
: +B Signal line
: AM Signal line
: AM/FM Signal line
: AM OSC Signal line



SCHEMATIC DIAGRAM-4

H TUNER CIRCUIT

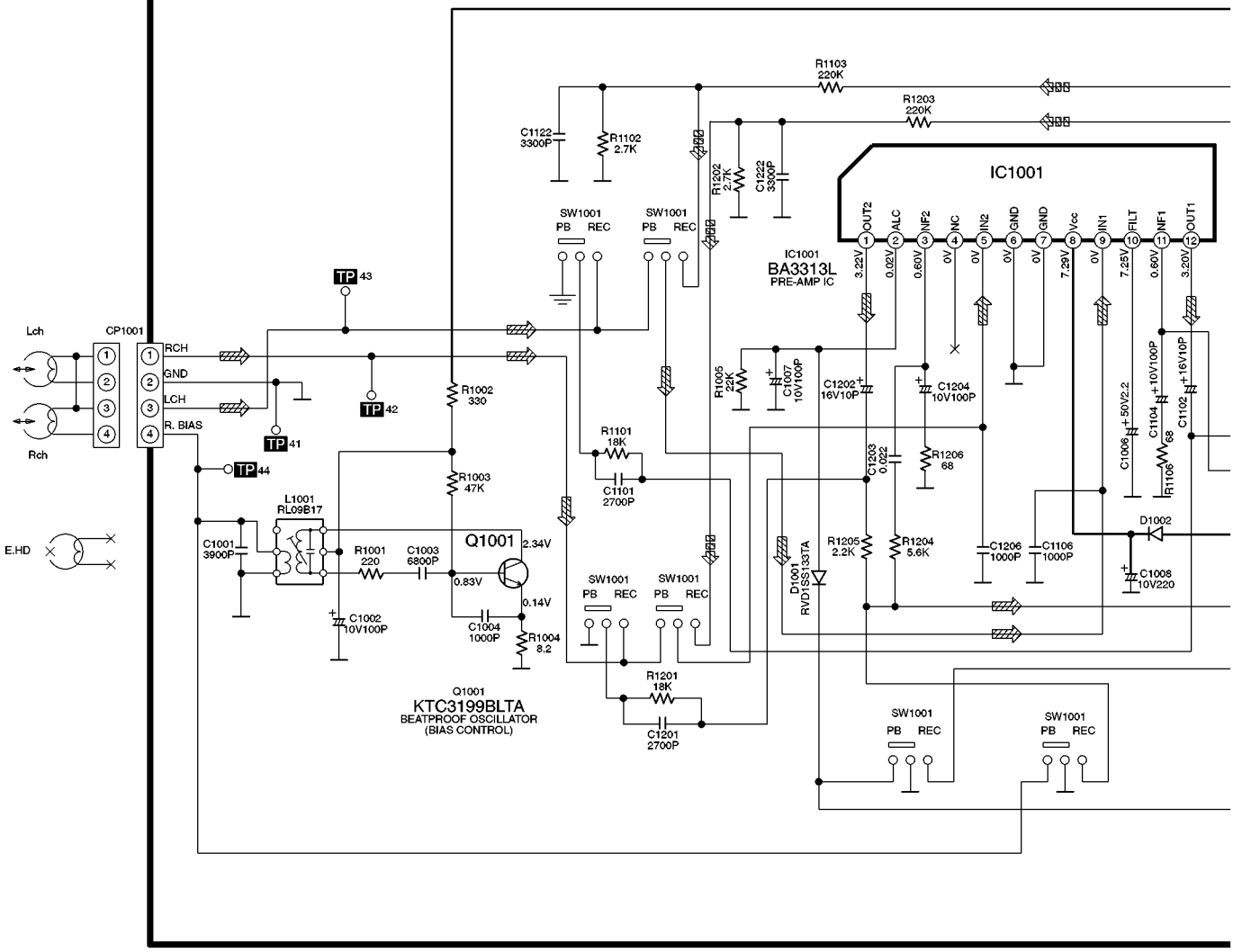
: AM/FM Signal line
: +B Signal line



SCHEMATIC DIAGRAM-5

I DECK CIRCUIT

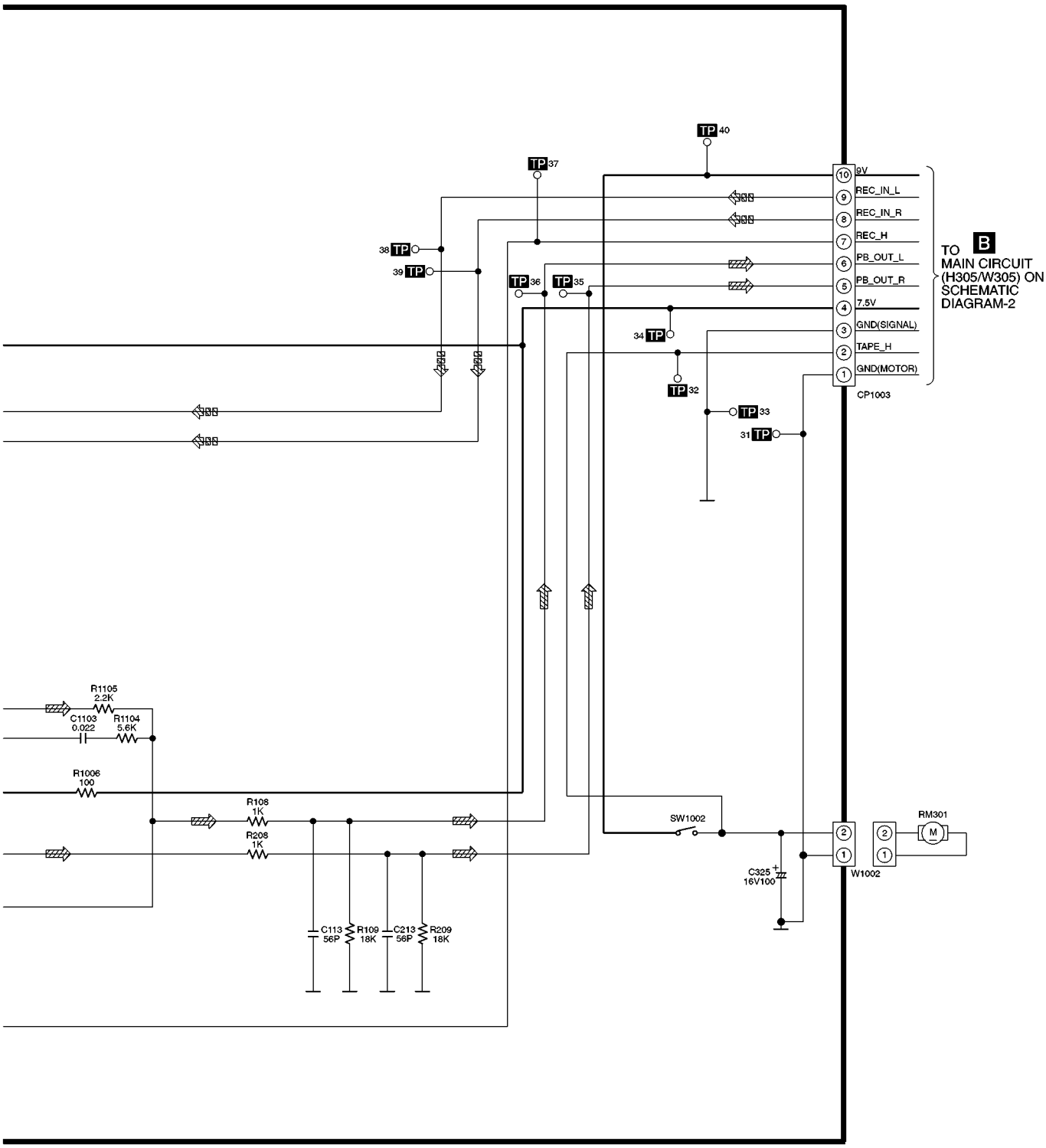
: Rec Signal line
: Playback Signal Line
: +B Signal Line



SCHEMATIC DIAGRAM-6

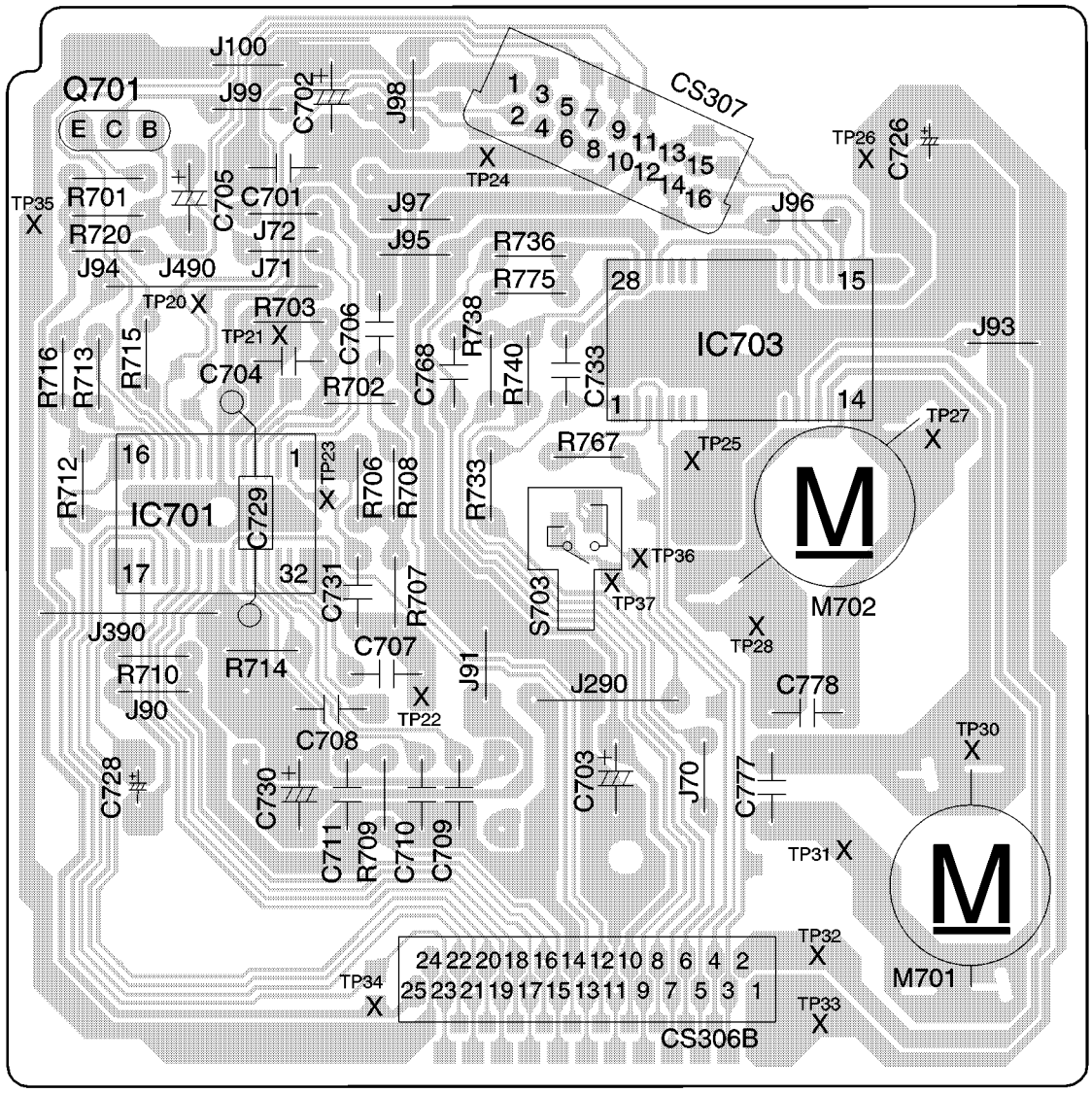
I DECK CIRCUIT

: Rec Signal line
: Playback Signal Line
: +B Signal Line

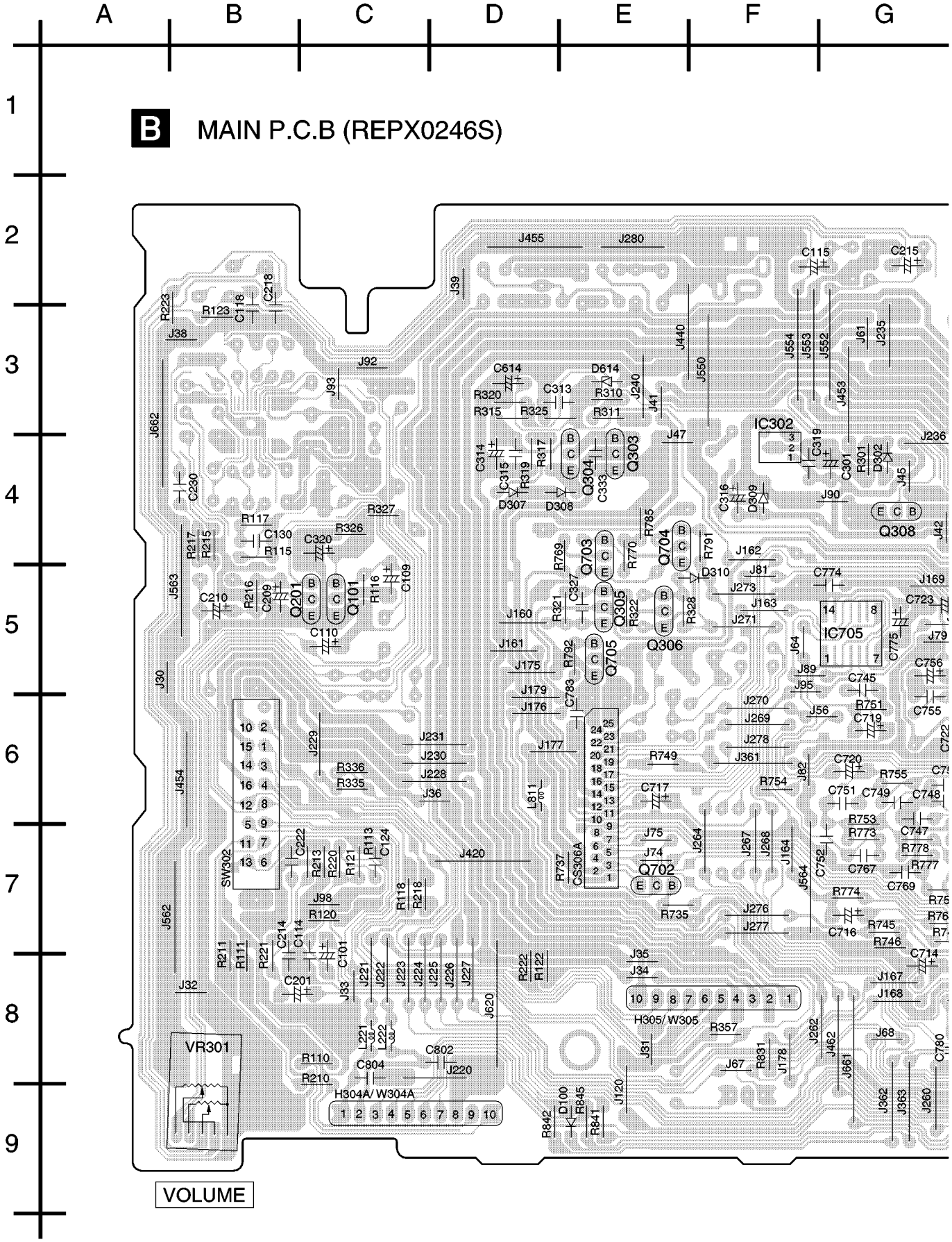


11 Printed Circuit Board

A CD SERVO P.C.B (REPX0247L)

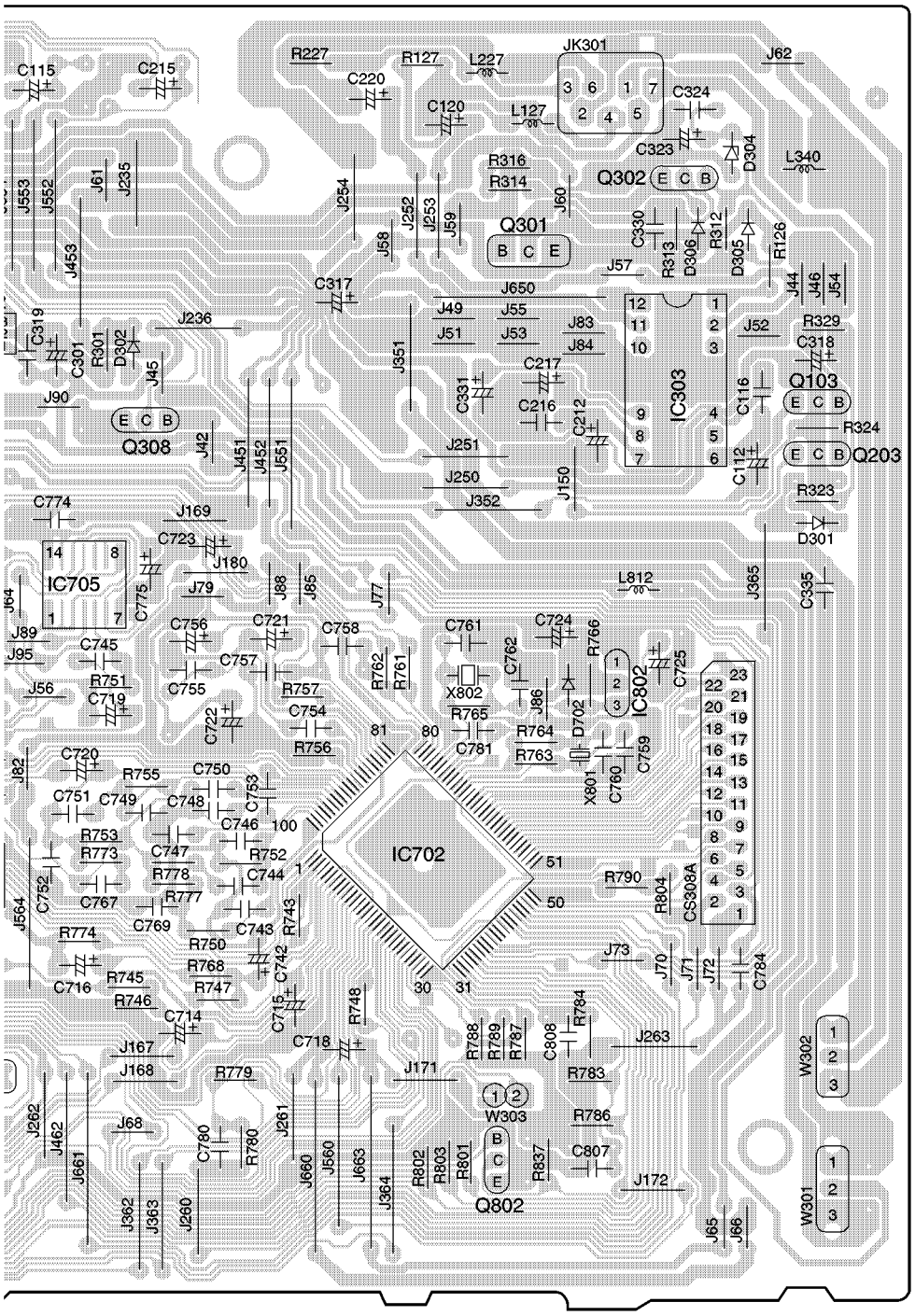


B MAIN P.C.B (REPX0246S)



G H I J K L M

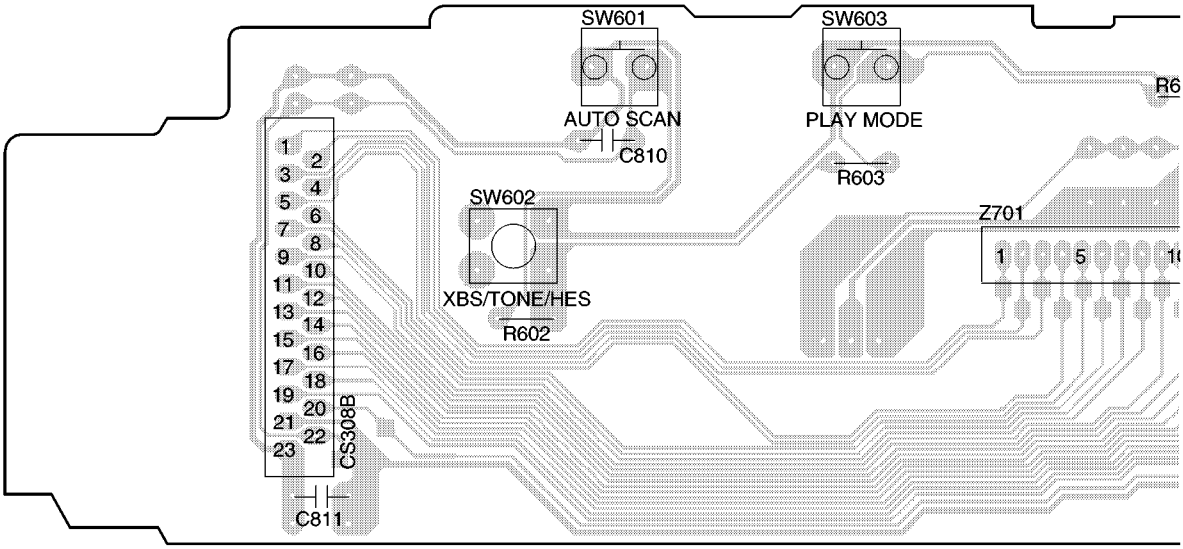
HEADPHONE



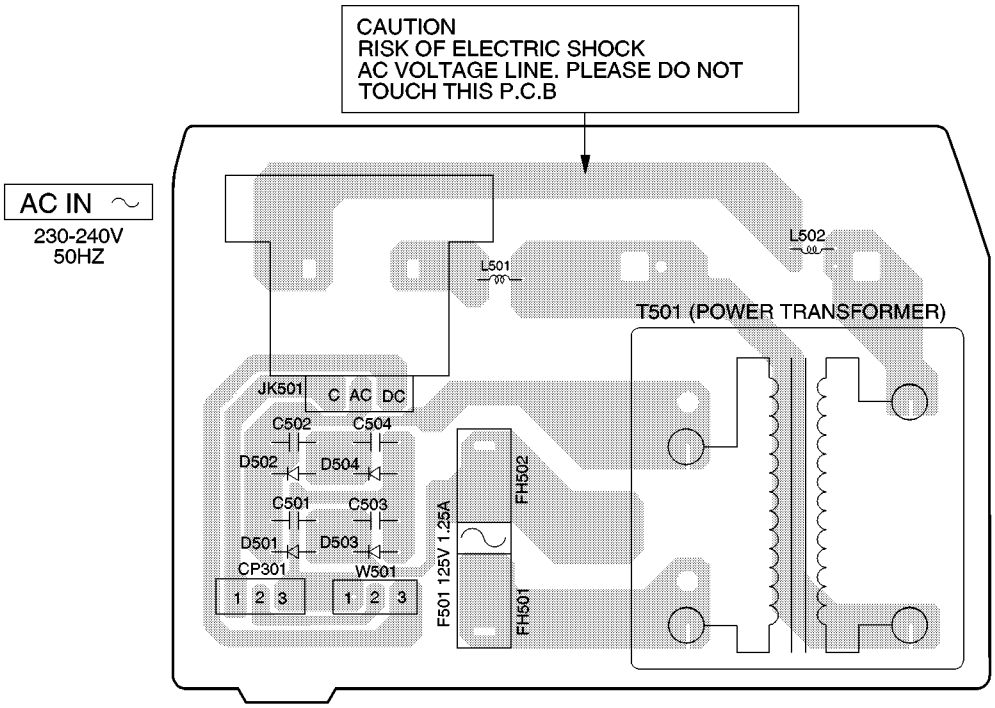
A B C D E F G

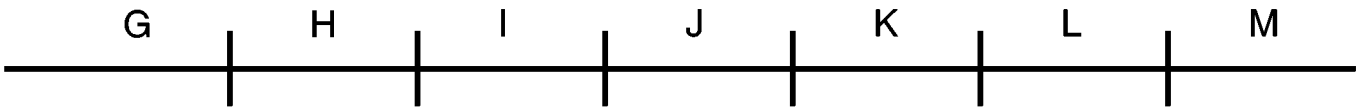
1 2 3 4 5 6 7 8 9

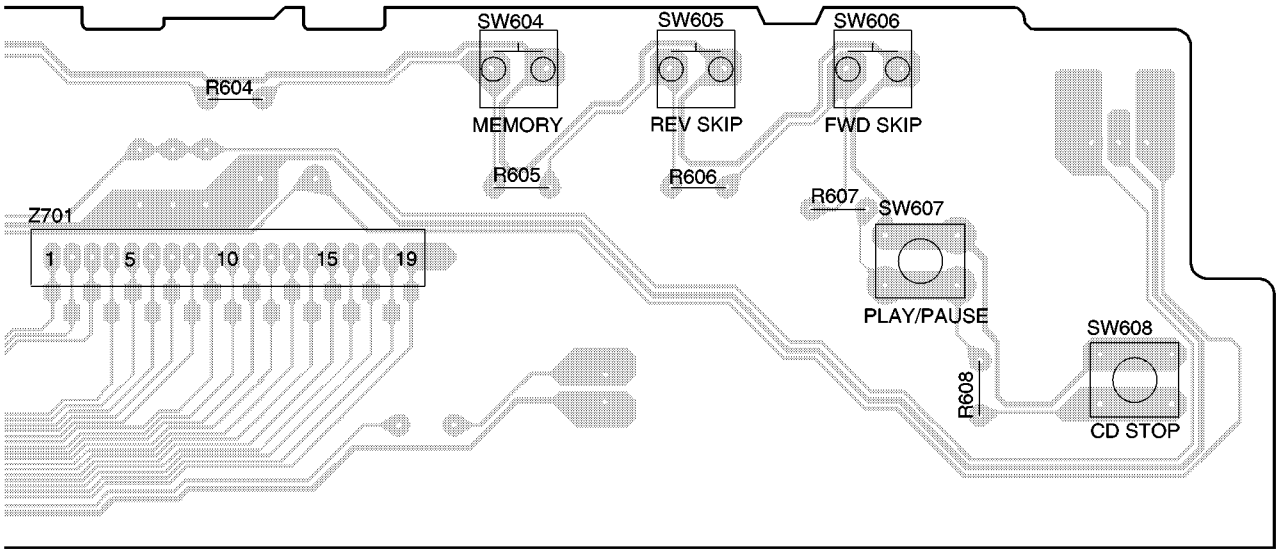
C PANEL P.C.B (REPX0246S)



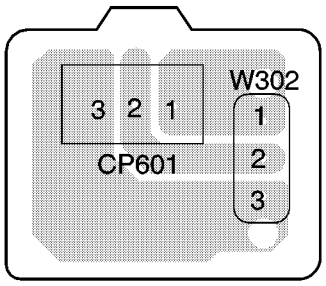
E POWER P.C.B (REPX0246S)

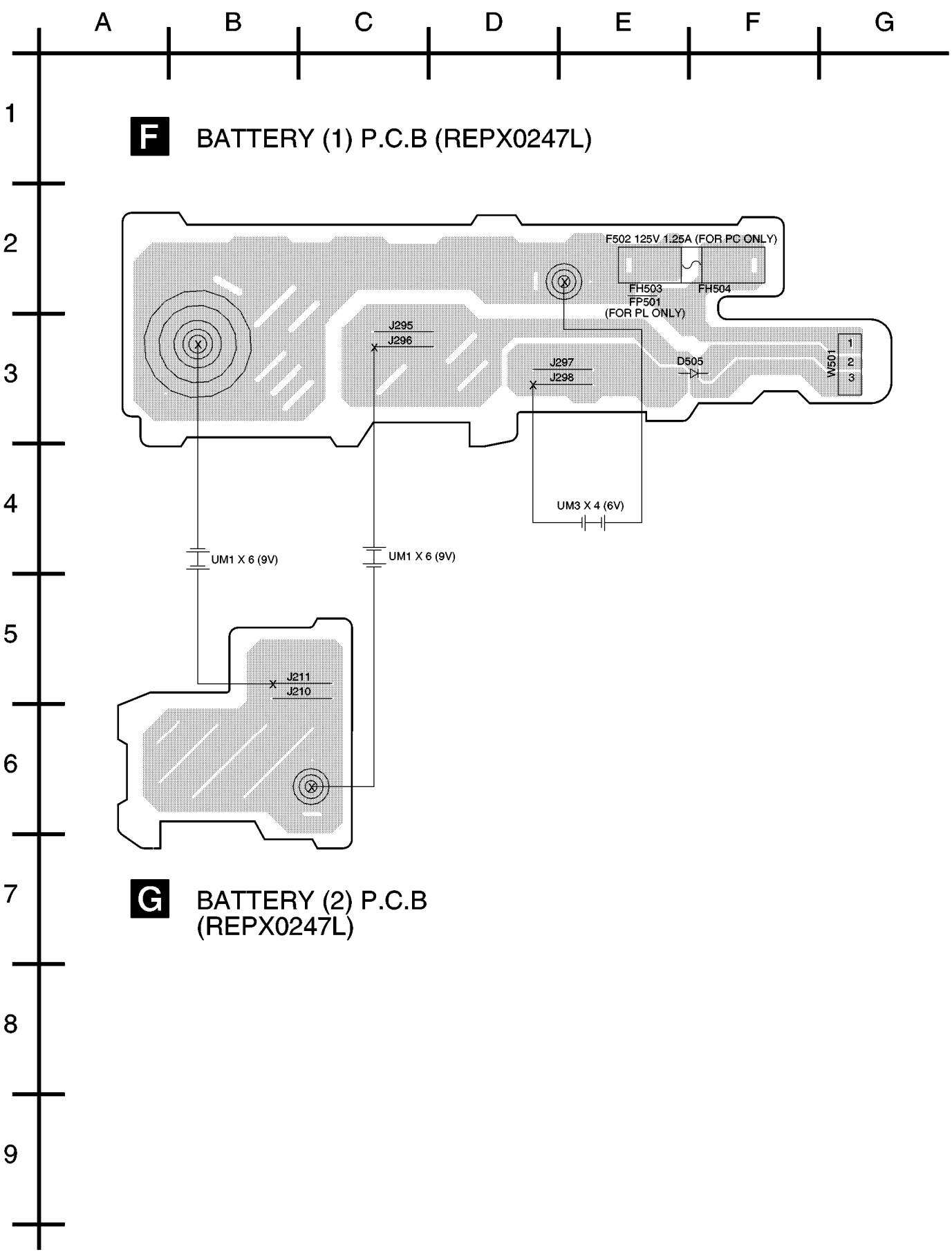




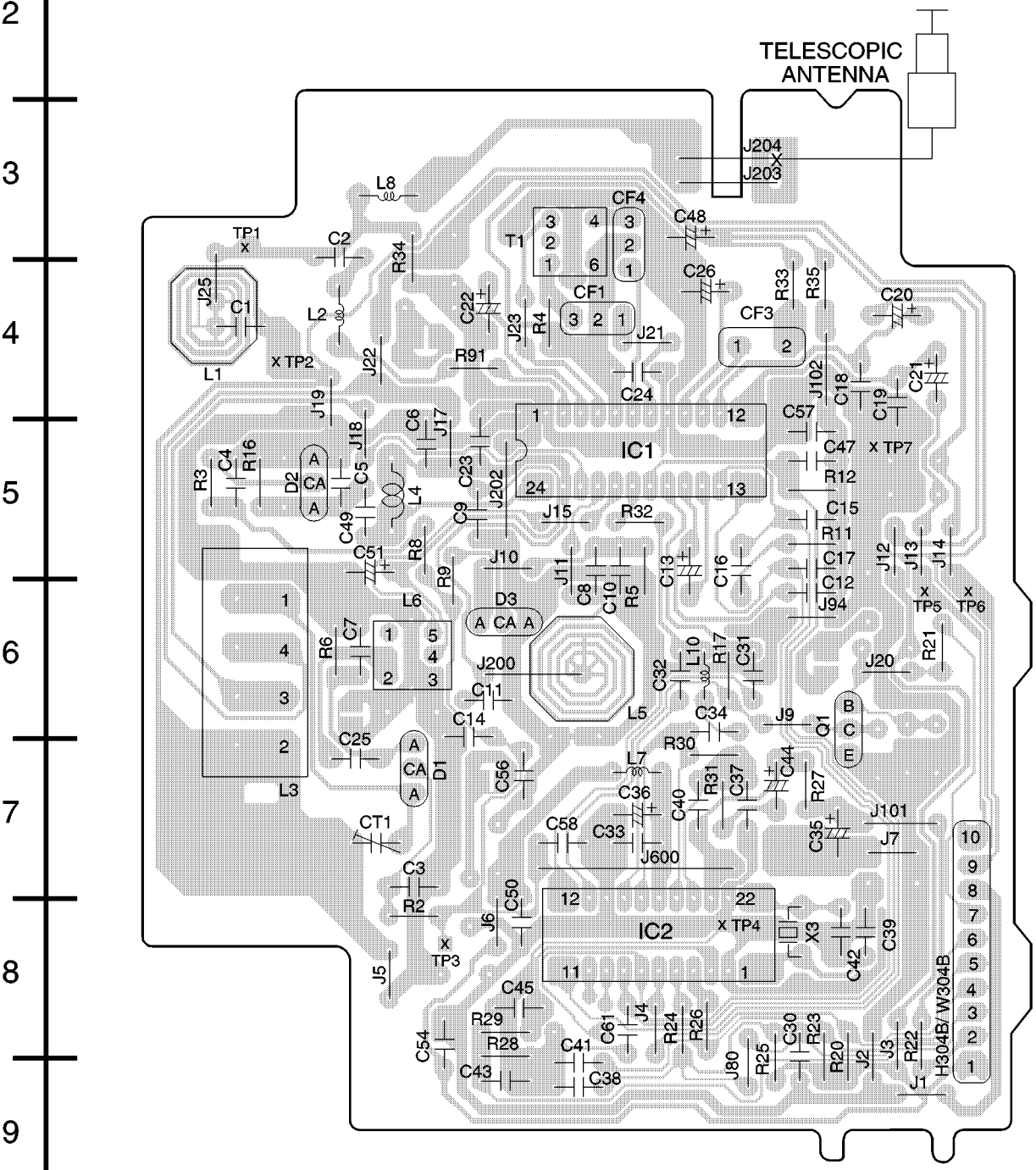


D SPEAKER TERMINAL P.C.B. (REPX0246S)

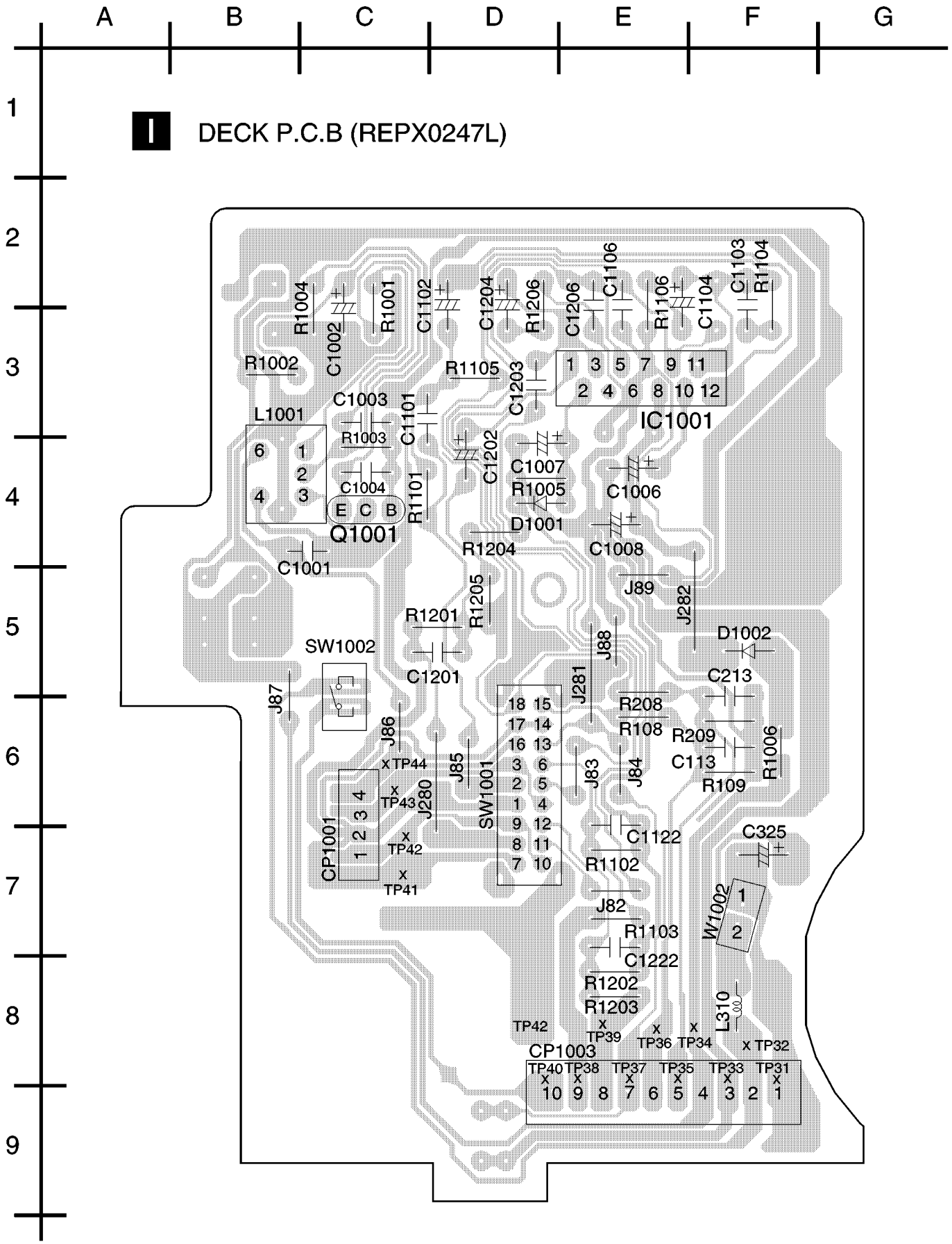



A
B
C
D
E
F
G
1
2
3
4
5
6
7
8
9
F
BATTERY (1) P.C.B (REPX0247L)
F502 125V 1.25A (FOR PC ONLY)
FH503
FH504
FP501
(FOR PL ONLY)
J295
J296
J297
J298
D505
W501
1
2
3
UM3 X 4 (6V)
UM1 X 6 (9V)
UM1 X 6 (9V)
J211
J210
G
BATTERY (2) P.C.B
(REPX0247L)

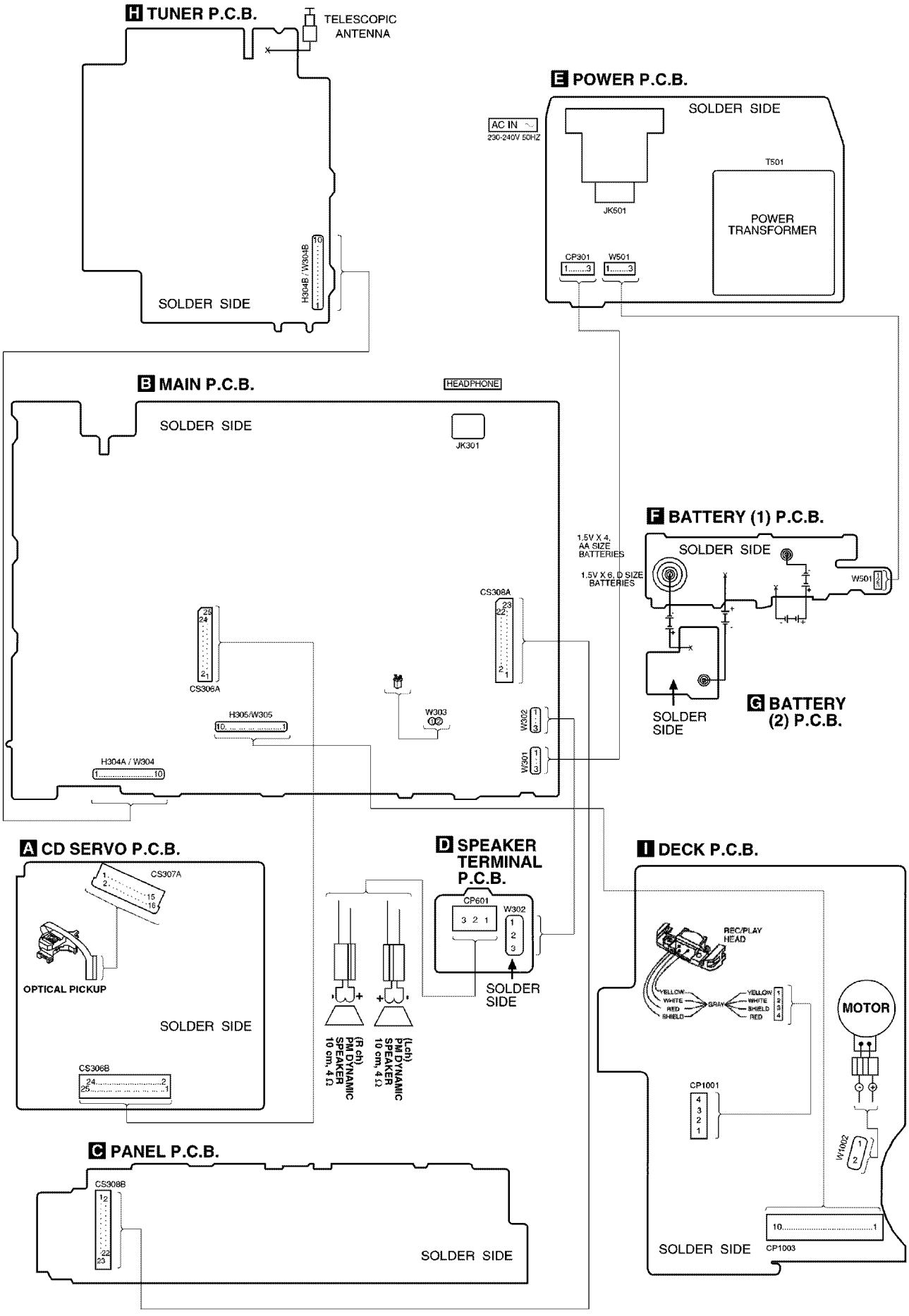
H TUNER P.C.B (REPX0246S)



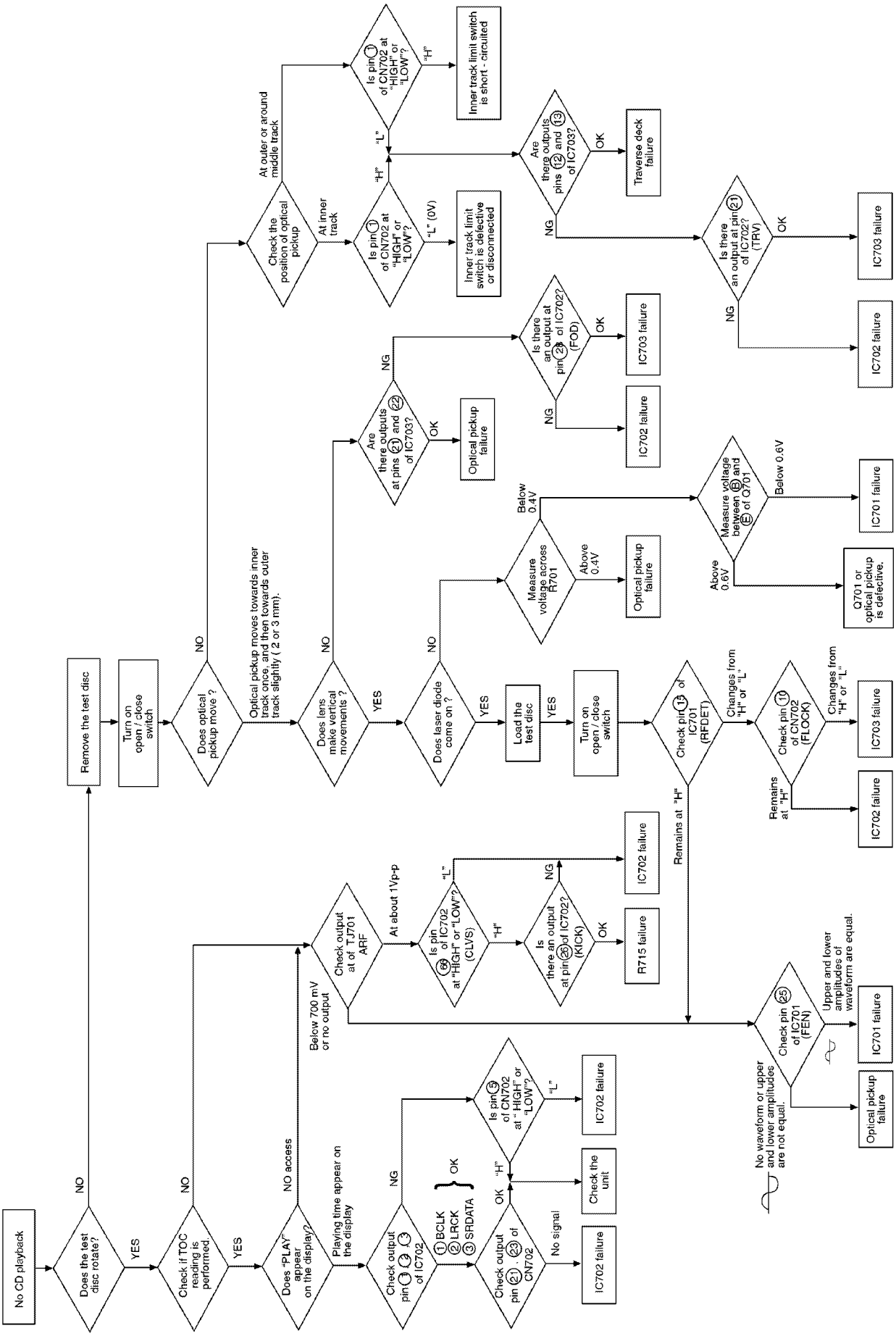
I DECK P.C.B (REPX0247L)



12 Wiring Connection Diagram



13 Troubleshooting Guide



14 Measurements and Adjustments

14.1. Tuner Section

READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT
1. Set volume control to maximum.
2. Set power source voltage to 9V.
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.	540 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.	1400 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.	87.9 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] L4 (FM ANT Coil)	Adjust for maximum output.

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

l HEAD AZIMUTH ALIGNMENT

Test Tape	lindicator (Electronic Voltmeter or Oscilloscope)	Adjustment	Remark
ATT-113CN (8 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.	Azimuth Screw (Shown in Fig.3)	1. Insert a test tape and start playback in the forward direction. 2. Adjust the azimuth screw for maximum waveform on the oscilloscope and the similar output on L and R channels. 3. When adjusting the azimuth in the reverse direction, repeat the adjustment several times because of a little slip on the forward direction side.

CAUTION :

l Please remove the screw-locking bond left on the head base when replacing the azimuth screw.

l After the adjustment, apply screwlock to the azimuth adjusting screw. (Screw-locking bond: RZZ0L01)

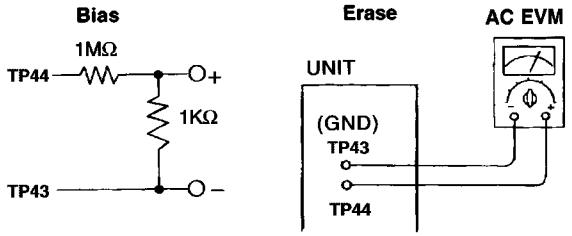
l TAPE SPEED ALIGNMENT

Test Tape	Equipment Connection Electronic Counter	Adjustment	Specification	Remarks
ATT-111N	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 ± 60 Hz	Play mode

I 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 " 1 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.

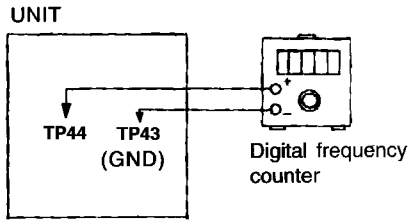
Bias voltage for Deck (Standard value) : 15.0mV ± 2.0mV



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 " 1 REC/STOP" key).
3. Adjust L1001 so that the output frequency is within the standard value.

Standard Value : 56kHz ± 7 kHz



14.2. CD Section

Alignment is unneccessary for CD section of this unit.

14.2.1. Alignment Points

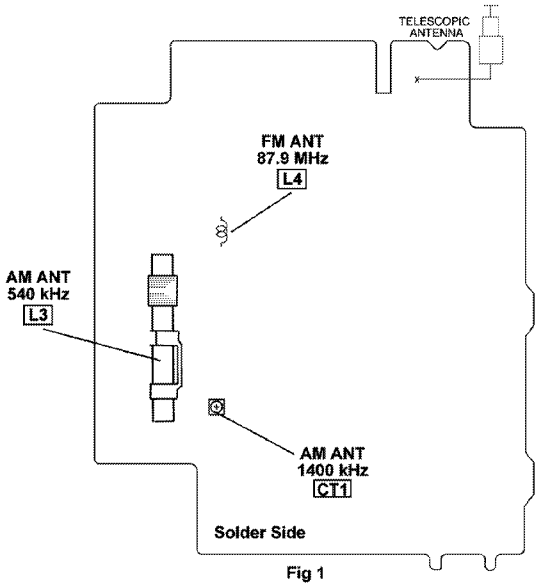


Fig 1

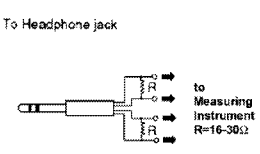


Fig. 2

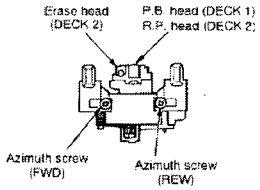


Fig. 3

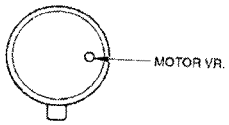
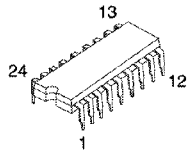
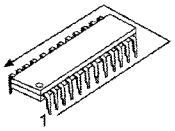
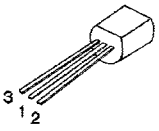
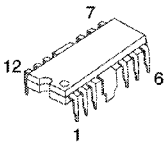
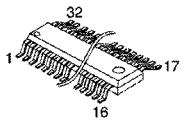
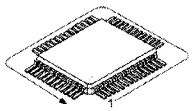
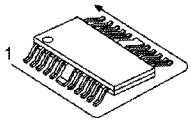
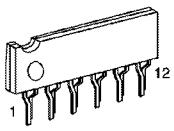
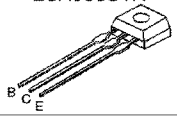
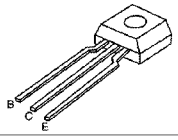
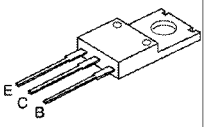
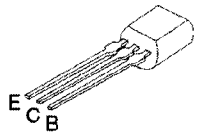
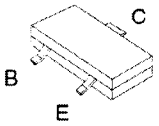
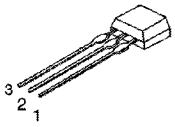
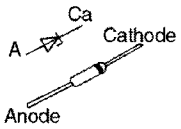
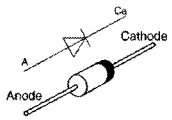
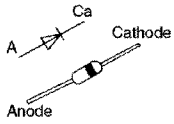


Fig. 4

15 Type Illustrations of ICs, Transistors & Diodes

TA2149N (24P) 	LC72121T (22P) 	S81233SGUP PST9127T 	LA4627 (12P) 	BA6770FS (32P) 	BU18527-0A (100P) 
BA5948FP (28P) 	BU4066BCF (14P) 	BA3313L (12P) 	KTC3199GRTA KTC3199BLTA KRA102MTA KRC102MTA 2SA933STA 	KTA1272YTA 	KTA1046 
KTA12710YTA 	2SA1037AKSTX 	SVC384T-AL SVC237-AS 	MTZJ6R2CTA MTZJ7R5ATA MTZJ3R3BTA		RL1N4003S-P 
RVD1SS133TA RB441QT-77 					

16 Terminal Functions of ICs

• IC701 (BA6770FS) RF Head Amp

Pin No.	Mark	I/O	Function
1	RF-	I	RF summing amplifier return input pin
2	LON	O	LOOP ON voltage output pin
3	BD	I	B+D input pin
4	AC	I	A+C input pin
5	TB	I	Tracking error bias input pin
6	FE+	I	Focus bias input pin
7	VB	O	Bias amplifier output pin
8	GND	-	GND pin
9	E	I	E input pin
10	F	I	F input pin
11	LD	O	APC amplifier outpin pin.Capacitor connection pin for APC phase compensation
12	PD	I	APC amplifier input pin
13	TE-	I	Tracking error I-V amplifier return input pin
14	TE+	I	R connection pin for Tracking error I-V amplifier gain adjustment
15	FE-	I	Focus error amplifier return input pin
16	DPB	O	RF amplitude voltage output pin
17	R/H	-	Capacitor connection pin for lamp wave/loop off
18	SC	-	R connection pin for scratch depth adjustment
19	TE	O	Tracking error output pin
20	FON	I	Focus on control pin
21	FOK	O	Focus OK comparator pin
22	FE	O	Focus error output pin
23	DEFECT	O	Defect signal output pin
24	MIRR	O	Mirror signal output pin
25	VCC	-	Power supply pin
26	EFM	O	EFM signal output pin
27	ASY	I	Auto asymmetry control input pin
28	BLH	-	Capacitor connection pin for bottom long hold
29	PLH	-	Capacitor connection pin for peak long hold
30	CAGC	-	Capacitor connection pin for AGC time constant
31	RFI	I	RF output capacity connection re-input pin
32	RFO	O	RF summing amplifier output pin

• IC702 (BU18527-0A) Microprocessor

Pin No.	Mark	I/O	Function
1	FDOUT	O	Focus drive out
2	JUMPO	O	Tracking jump out
3	TDOUT	O	Tracking drive out
4	SDIN	I	SDIN
5	SDOUT	O	SDOUT
6	CLVOUT	O	CLV Servo out
7	AVDD	-	Analog power source
8	LOUT	O	LCH audio out
9	VC	I	1-bit DAC bias
10	ROUT	O	RCH audio out
11	AGND	-	Analog ground
12	DGND	-	Digital ground
13	DPB_IN	-	No connection
14	CLV_IN	A-D	CLVIN
15	KEY_1	A-D	KEY 1 input
16	REG1	A-D	Region 1
17	P_DET	A-D	Power detect input
18	DVDD	-	Digital power source
19	TB_PWM	O	Tracking balance 8 bit power out
20	PLL_CLK	I/O	PLL CLOCK output
21	PLL_DI	I/O	PLL DATA output
22	PLL_DO	I/O	PLL IF count output
23	REMOCON_IN	I/O	Remote controller input
24	TONE	I/O	Tone control
25	VDD_CTL	I/O	VDD control
26	FB_PWM	I/O	Focus balance 8 bit power out
27	TEST0	-	No connection
28	TBR_ADJ	I	Track adjustment
29	FBR_ADJ	I/O	Focus adjustment
30	OPN_SW	I/O	Open/close switch
31	REST SW	I/O	CD limit SW input for the most inner point
32	SEL_IN	I/O	Selector input
33	CD_SEL	I/O	CD mode select in
34	TAPE_SEL	I/O	Tape mode select in
35	TUNER_SEL	I/O	Tuner mode select in
36	GND	I	To ground
37	P_CNT	I/O	Power control
38	REC_H	I/O	Record high
39	M_MUTE	I/O	M_MUTE
40	REG2	I/O	Region 2
41	REG3	I/O	Region 3
42	TG_ADJ	I/O	TG adjustment
43	T_MUTE	I/O	Tuner mute
44	REG_CTL	I/O	Region control
45	MUTE_A	I/O	Muting signals A
46	HES	I/O	Harmonic enhancer sound
47	PLL_CE	I/O	PLL Chip enable output
48	NEW DIF	I/O	New diffect
49~63	SEG14~ SEG0	I/O	LCD segment drive output
64~67	COM3~ COM0	I/O	LCD common drive output
68	DIGIOUT	-	No connection
69	DGND	-	Digital ground
70	XIN75	I	75 kHz OSC IN
71	XOUT75	O	75 kHz OSC OUT
72	TEST1	-	No connection
73	RESETB	I	System reset input
74	DVDD	-	Digital power source
75	XIN16M	I	16 MHz OSC IN
76	XOUT16M	O	16 MHz OSC OUT
77	DGND	-	Digital ground
78	ASY	O	EFM digital output
79	EYE	I	EFM signal output
80	MIRR	I	Mirror signal output
81	DEFECT	I	Defect signal input
82	AVDD	-	Analog power source
83	FCO	O	PLL FCO output
84	PCO	O	PLL PCO output
85	VC	I	Servo reference
86	ADPFI	I	PLL OP amplifer -ve input
87	ADPFO	-	PLL OP amplifer output
88	AGND	-	Analog ground
89	RVCO	I	Pin with VCO oscillation frequency setting resistance
90	FOK	I	Focus OK output
91	FEIN	I	Focus error
92	FCAP	O	Focus LPF capacitor connection
93	FON	O	Focus on
94	TEIN	I	Tracking error
95	ATS	I	Anti-shock input
96	TZC	I	Tracking zero cross input
97	TCAP	O	Tracking LPF capacitor connection

Pin No.	Mark	I/O	Function
98	COMPC	O	Error measurement values for various adjustments, analog output
99	ADJ 1	O	Tracking balance
100	ADJ 2	I	Tracking gain balance

・IC703 (BA5948FP) 4CH Drive

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

17 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.)

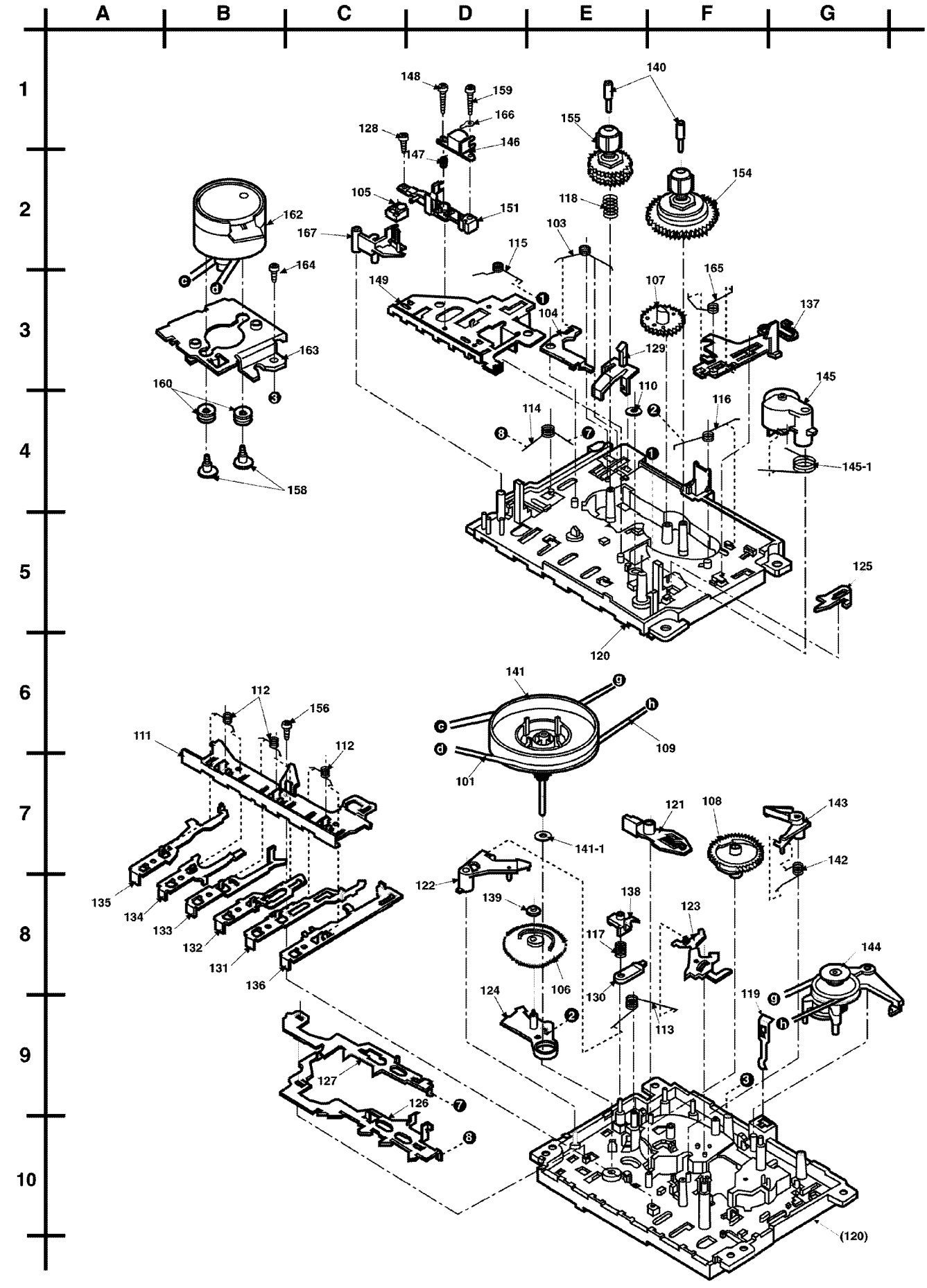
  Parts without these indications can be used for all areas.
- Warning: This product uses a laser diode. Refer to caution statements on "Precaution of Laser Diode".

  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.
- 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

17.1. Deck Mechanism (RAA0942-X)

17.1.1. Deck Mechanism Parts Location

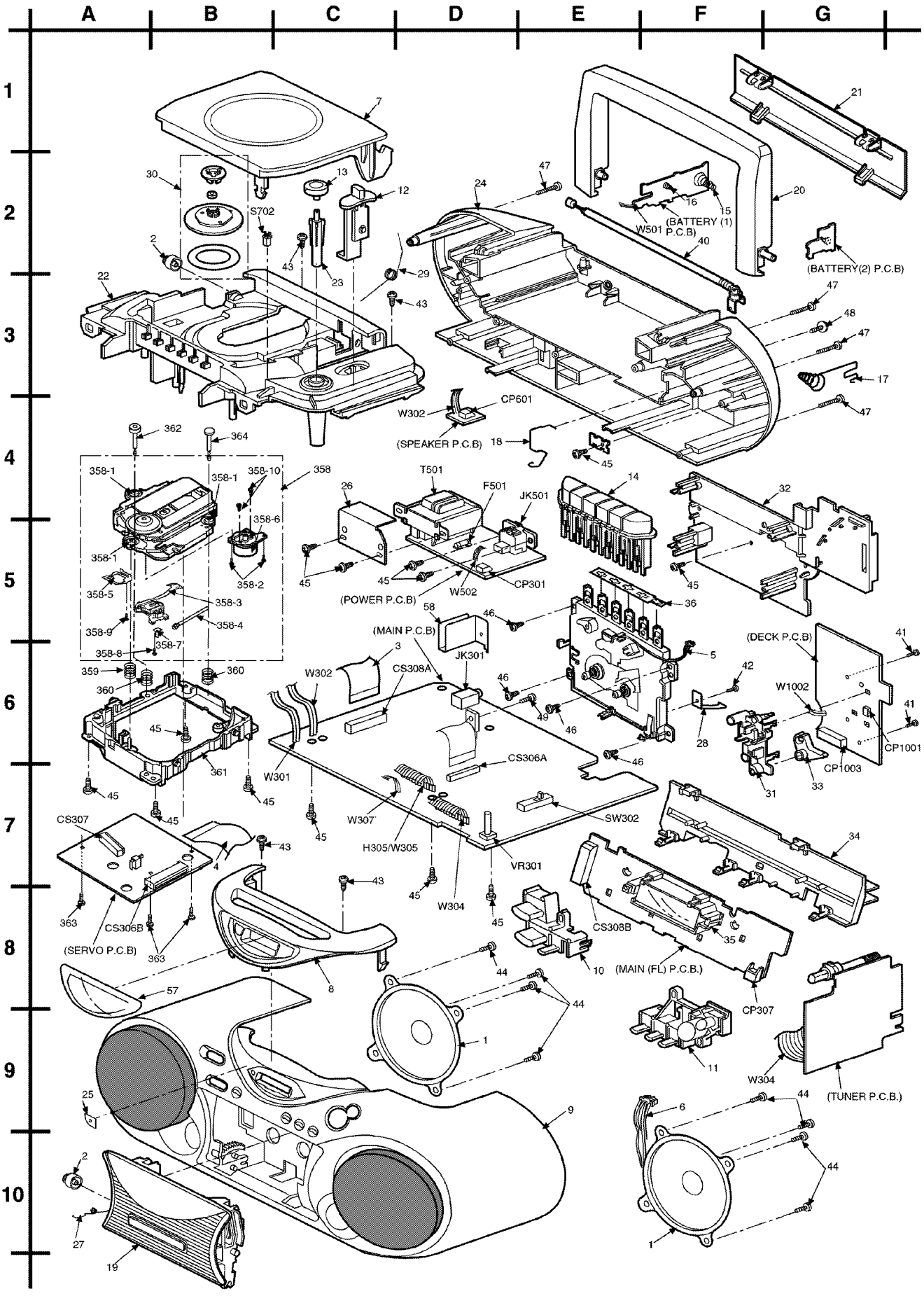


17.1.2. Deck Mechansim Part Lists

Ref. No.	Part No.	Part Name & Description	Remarks
		CASSETTE DECK	
101	RDV0021	MAIN BELT 'D'	[M]
103	RMB0109-1	BRAKE SPRING	[M]
104	RML0116	BRAKE	[M]
105	RBR2CY009	ERASE HEAD	[M]
106	RDG0057-1	IDLER GEAR	[M]
107	RDG0059	FF RELAY GEAR	[M]
108	RDK0005-1	CAM GEAR	[M]
109	RDV0006-1	RF BELT	[M]
110	RHW16009	CAPSTAN WASHER	[M]
111	RMA0109	BACK PLATE	[M]
112	RMB0043-1	ROD OPERATION SPRING	[M]
113	RMB0045	A.S. SPRING	[M]
114	RMB0046-1	LOCK PLATE SPRING	[M]
115	RMB0047	HEAD PANEL SPRING	[M]
116	RMB0048-1	IDLER LEVER SPRING	[M]
117	RMB0053	PAUSE LEVER SPRING	[M]
118	RMB0125	BACK TENSION SPRING	[M]
119	RMC0061	PACK SPRING	[M]
120	RFKRCT090P-K	CHASSIS ASS'Y	[M]
121	RML0071-1	SWING LEVER	[M]
122	RML0072-1	AS RELEASE LEVER	[M]
123	RML0073-1	AS PROTECT LEVER	[M]
124	RML0074-1	IDLER LEVER	[M]
125	RML0076	EJECT SELECTION LEVE	[M]
126	RML0077-1	LOCK PLATE	[M]
127	RML0078	FUNCTION PLATE	[M]
128	XTN2+4F	EARTH LUG SCREW	[M]
129	RML0081-2	RECORD SAFETY LEVER	[M]
130	RML0082	PAUSE LEVER	[M]
131	RMM0023-1	PLAY ROD	[M]
132	RMM0024	REW ROD	[M]
133	RMM0025	FF ROD	[M]
134	RMM0026	STOP ROD	[M]
135	RMM0027	PAUSE ROD	[M]
136	RMM0028	REC ROD	[M]
137	RMM0029-1	EJECT SLIDE LEVER	[M]
138	RMR0211-1	PAUSE BUSH	[M]
139	RMR0227	IDLER GEAR BUSH	[M]
140	RMS0055-1	REEL SHAFT	[M]
141	RXF0020	FLYWHEEL ASSY	[M]
141-1	RHW21008	FLYWHEEL WASHER	[M]
142	RMB0044	TRIGGER SPRING	[M]
143	RML0075	TRIGGER LEVER	[M]
144	RXP0014	RF CLUTCH ASSY	[M]
145	RXP0015	PINCH ROLLER ASSY	[M]
145-1	RMB0049	PINCH ARM SPRING	[M]
146	RBR4CM005-T	R/P HEAD	[M]
147	RMB0059	AZIMUT SPRING	[M]
148	RHD20049	AZIMUT SCREW	[M]
149	RMA1080	HEAD PANEL	[M]
151	RMR0149	HEAD BASE	[M]
154	RXR0004	TAKE UP REEL ASSY	[M]
155	RXR0005	SUPPLY REEL ASSY	[M]
156	XTN2+6J	BACK PLATE SCREW	[M]
158	RHD26002	MOTOR SCREW	[M]
159	XTN2+8F	R/P SCREW	[M]
160	RMG0102-1	MOTOR RUB. CUSHION	[M]
162	RFKPXD13PC-A	DC MOTOR ASS'Y	[M]
163	RMA0108	MOTOR BK	[M]
164	XTN26+8J	MOTOR BK SCREW	[M]
165	RME0098-2	E SLIDE LEVER SPRING	[M]
166	RJR0033	EARTH LUG	[M]
167	RML0080	ERASE HEAD ARM	[M]

17.2. Cabinet & CD Loading Mechanism

17.2.1. Cabinet & CD Loading Machanism Parts Location



17.2.2. Cabinet & CD Loading Machanism Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET AND CHASSIS	
1	RAS10P30-P	SPEAKER	[M]
2	RDG0288	DAMPER GEAR	[M]
3	REEX0109	PANEL TO MAIN FFC	[M]
4	REEX0110	25P CD FFC WIRE	[M]
5	REXX0141-J	TAPE HEAD WIRE	[M]
6	REXX0244-J	SPEAKER WIRE	[M]
7	RGKX0075A-S	CD LID	[M]
8	RGKX0114-S	LCD ORNAMENT	[M]
9	RFKGXD14PC-S	FRONT CABINET ASS'Y	[M]S
9	RFKGXD17EB-A	FRONT CABINET ASS'Y	[M]A
10	RGUX0393-A	OPERATION BUTTON (L)	[M]A
10	RGUX0393-S	OPERATION BUTTON (L)	[M]S
11	RGUX0394-A	OPERATION BUTTON (R)	[M]A
11	RGUX0394-S	OPERATION BUTTON (R)	[M]S
12	RGVX0022-H	FUNCTION KNOB	[M]
13	RGWX0058-H	VOLUME KNOB	[M]
14	RGZX0038-H	MECHA BUTTON	[M]
15	RJC511XB	BATTERY TERMINAL	[M]
16	RJC70031ZC	BATTERY TERMINAL	[M]
17	RJCX0005	BATTERY TERMINAL	[M]
18	RJRX0009	ANTENNA TERMINAL	[M]
19	RKFX0096B-S	CASS LID	[M]S
19	RKFX0096C-A	CASS LID	[M]A
20	RKHX0014-1H	HANDLE	[M]
21	RKK318ZC-H	BATTERY COVER	[M]
22	RKQX0012B-1H	TOP CABINET	[M]
23	RKQX0013	VOLUME KNOB FIXTURE	[M]
24	RFKHXD17EB-S	BACK CABINET ASS'Y	[M]
24	RFKHXD17E-S	BACK CABINET ASS'Y	[M]
24	RKSX0040Q-H	BACK CABINET	[M]
25	RKWX0151-A	REMOTE SENSOR PANEL	[M]A
25	RKWX0151-Q	REMOTE SENSOR PANEL	[M]S
26	RMA1007	SHIELD PLATE	[M]
27	RMB0347-1	OPEN SPRING	[M]
28	RMC0312	R/P PLATE	[M]
29	RMEX0009	CD OPEN SPRING	[M]
30	RFKNXDT39GCK	CD HOLDER ASS'Y	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
31	RMK0338-1	PCB CHASSIS	[M]
32	RMKX0049	MECHA CHASSIS	[M]
33	RML0462	R/P LEVER	[M]
34	RMNX0042	PCB HOLDER	[M]
35	RMNX0043	LCD HOLDER	[M]
36	RMXX0002-1	SPACER	[M]
40	XEARR210CA-S	ROD ANTENNA	[M]
41	XTN2+14G	SCREW	[M]
42	XTN2+3F	SCREW	[M]
43	XTN3+12GFZ	SCREW (TOP CAB)	[M]
44	XTV3+10G	SCREW (SPEAKER)	[M]
45	XTV3+12G	SCREW	[M]
46	XTV3+16G	SCREW	[M]
47	XTV3+20G	REAR CAB SCREW	[M]
48	XYN3+F15FY	SCREW	[M]
49	XTV3+6F	SCREW	[M]
57	RKWX0171B-Q	LCD PANEL	[M]A
57	RKWX0171-Q	LCD PANEL	[M]S
58	RMYX0059	HEAT SINK	[M]
		TRAVERSE DECK	
358	RAE0152Z-1C	TRAVERSE	[M]
358-1	SHGD113-1	FLOATING CUSHION	[M]
358-10	XQS17+A35FZ	SCREW	[M]
358-2	SNSD38	TRV MOTOR ASS'Y SCRE	[M]
358-3	RAF0150A-1	OPTICAL PICKUP	[M]
358-4	RDG0247	DRIVE GEAR	[M]
358-5	RDG0248	INTERMEDIATE GEAR	[M]
358-6	RXQ0339	TRAVERSE MOTOR ASS'Y	[M]
358-7	RXQ0304-1	PLATE NUT ASS'Y	[M]
358-8	XQN17+CG5	NUT PLATE ASS'Y SCRE	[M]
358-9	XQS2+A3FZ	SCREW	[M]
359	RME0142	FLOATING SPRING A	[M]
360	RME0109	FLOATING SPRING B	[M]
361	RMR0698-K1	TRAVERSE CHASSIS	[M]
362	RMS0627	FIXED PIN B	[M]
363	XTN2+6G	SCREW	[M]
364	RMS0350	FIXED PIN A	[M]

17.3. Components Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		P.C.B.	
	REPX0247L	DECK P.C.B./CD SERVO P.C.B./BATTERY (1) P.C.B./BATTERY (2) P.C.B.	[M]RTL
	REPX0246S	TUNER P.C.B./PANEL P.C.B./POWER P.C.B./SPEAKER TERMINAL P.C.B./MAIN P.C.B.	[M]RTL
		INTEGRATED CIRCUITS	
IC1	TA2149N	IC TUNER	[M]
IC2	LC72121T	IC PLL	[M]
IC302	S81233SGUP	IC 3.3V REGULATOR	[M] ⚠
IC303	LA4627	IC POWER AMP	[M]
IC701	BA6770FS	IC RF HEAD AMP	[M]
IC702	BU18527-0A	IC MICRO-P	[M]
IC703	BA5948FP	IC 4 CH DRIVE	[M]
IC705	BU4066BCF	IC ANALOG SW	[M]
IC802	PST9127T	IC RESET	[M]
IC1001	BA3313L	IC PRE AMP	[M]
		TRANSISTORS	
Q1	KRC102MTA	TRANSISTOR	[M]
Q98	2SA1037AKSTX	TRANSISTOR	[M]
Q99	2SA1037AKSTX	TRANSISTOR	[M]
Q101	KTC3199GRTA	TRANSISTOR	[M]
Q103	KTC3199GRTA	TRANSISTOR	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
Q201	KTC3199GRTA	TRANSISTOR	[M]
Q203	KTC3199GRTA	TRANSISTOR	[M]
Q301	KTA1046	TRANSISTOR	[M]
Q302	KTC3199BLTA	TRANSISTOR	[M] ⚠
Q303	KTA12710YTA	TRANSISTOR	[M]
Q304	KTC3199BLTA	TRANSISTOR	[M]
Q305	KTA12710YTA	TRANSISTOR	[M]
Q306	KTC3199GRTA	TRANSISTOR	[M]
Q308	KRA102MTA	TRANSISTOR	[M]
Q701	2SA933STA	TRANSISTOR	[M]
Q702	KTC3199GRTA	TRANSISTOR	[M]
Q703	KTC3199GRTA	TRANSISTOR	[M]
Q704	KTC3199GRTA	TRANSISTOR	[M]
Q705	KTA1272YTA	TRANSISTOR	[M]
Q802	KTC3199GRTA	TRANSISTOR	[M]
Q1001	KTC3199BLTA	TRANSISTOR	[M]
		DIODES	
D1	SVC384T-AL	DIODE	[M]
D2	SVC237-AS	DIODE	[M]
D3	SVC237-AS	DIODE	[M]
D100	RVD1SS133TA	DIODE	[M]
D301	RVD1SS133TA	DIODE	[M]
D302	RVD1SS133TA	DIODE	[M]
D304	MTZJ7R5ATA	DIODE	[M] ⚠
D305	RVD1SS133TA	DIODE	[M]
D306	RVD1SS133TA	DIODE	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
D307	RVD1SS133TA	DIODE	[M]
D308	RVD1SS133TA	DIODE	[M]
D309	MTZJ6R2CTA	DIODE	[M] ⚠
D310	RB441QT-77	DIODE	[M]
D501	RL1N4003S-P	DIODE	[M] ⚠
D502	RL1N4003S-P	DIODE	[M] ⚠
D503	RL1N4003S-P	DIODE	[M] ⚠
D504	RL1N4003S-P	DIODE	[M] ⚠
D505	RVD1SS133TA	DIODE	[M]
D614	MTZJ3R3BTA	DIODE	[M]
D702	RVD1SS133TA	DIODE	[M]
D1001	RVD1SS133TA	DIODE	[M]
D1002	RB441QT-77	DIODE	[M]
		VARIABLE RESISTORS	
VR301	RRV12B05B14V	VR VOLUME	[M]
		SWITCHES	
S702	RSP1A026-Q	INTERLOCK SWITCH	[M]
S703	RSH1A053-U	SW REST	[M]
		SWITCHES	
SW302	RSS3D006-G	SW FUNCTION	[M]
SW601	EVQ21405R	SW AUTO SCAN	[M]
SW602	EVQPAD05R	SW XBS/TONE/HES	[M]
SW603	EVQ21405R	SW PLAY MODE	[M]
SW604	EVQ21405R	SW MEMORY	[M]
SW605	EVQ21405R	SW REV SKIP	[M]
SW606	EVQ21405R	SW FWD SKIP	[M]
SW607	EVQPAD05R	SW PLAY/PAUSE	[M]
SW608	EVQPAD05R	SW CD STOP	[M]
SW1001	RSP2F003-B	SW PUSH	[M]
SW1002	RSH1A013-3I	SW LEAF	[M]
CP601	RJP3G9YA	CONNECTOR	[M]
CP1001	RJP4G17ZA	4P CONNECTOR	[M]
CP1003	RJS10T6ZA	10P MECHA TO MAIN	[M]
CS306A	RJS2A5625-1	25P CONNECTOR	[M]
CS306B	RJS2A5725-1	25P CONNECTOR	[M]
CS307	RJS2A8616	16P FFC CONNECTOR	[M]
CS308A	RJS1A6823-J	23P FPC CONNECTOR	[M]
CS308B	RJS1A6723-J	23P FPC CONNECTOR	[M]
		TRIMMER	
CT1	RCVFMA10T01S	TRIMMER CAPACITOR	[M]
		COILS & TRANSFORMERS	
L2	RLQY30S1W-F	FM COIL	[M]
L3	RLV2C050-0	FERRITE ANTENNA	[M]
L4	RLD4Y45-F	COIL	[M]
L6	RL02B136	AM OSC COIL	[M]
L7	RLQA101KT-G	INDUCTOR	[M]
L8	RLQY30S1W-F	FM COIL	[M]
L10	RLQAR47KT-G	COIL	[M]
L127	RLQA221KT-G	COIL	[M]
L221	RLQA100KT-G	INDUCTOR	[M]
L222	RLQA100KT-G	INDUCTOR	[M]
L227	RLQA221KT-G	COIL	[M]
L340	RLL500050T-Y	COIL	[M]
L501	RLL500050T-Y	COIL	[M]
L502	RLL500050T-Y	COIL	[M]
L811	RLQB3R3KT-1Y	COIL	[M]
L812	RLQB3R3KT-1Y	COIL	[M]
L1001	RL09B17	BIAS OSC COIL	[M]
T1	RLI2B019-T	AM IFT	[M]
T501	RTP1K1B010-X	TRANSFORMER	[M] ⚠
		COMPONENT COMBINATION	
Z701	RSL5278-G	LCD	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
		CERAMIC FILTERS	
CF1	J0B1075A0101	FM CF	[M]
CF3	RLFDFT26AT	FM DISCRIMINATOR	[M]
CF4	RLFCFA459L4B	AM FILTER	[M]
		OSCILLATORS	
X3	RSXD7M20C01	CRYSTAL OSCILLATOR	[M]
X801	RSXD75K0E02	CRYSTAL OSCILLATOR	[M]
X802	RSXZ16M9Z01T	CRYSTAL OSCILLATOR	[M]
		FUSES	
F501	K5D122BK0004	FUSE	[M] ⚠
		FUSE HOLDERS	
FH501	RJF0028	FUSECLIP	[M]
FH502	RJF0028	FUSECLIP	[M]
		FUSE PROTECTOR	
FP501	K5G202AA0003	FUSE PROTECTOR	[M] ⚠
		HOLDERS	
H301	RJS1A5503	3P HOLDER	[M]
H302	RJS1A5503	3P HOLDER	[M]
H305	RJS1A5510	WIRE HOLDER	[M]
		JACKS	
JK301	RJJ37TK09	JK PHONE	[M]
JK501	RJJ1SE01-X	JK AC INLET (SW501)	[M] ⚠
		WIRES	
W301	REXX0218-1	WIRE	[M]
W301	RWJ8903190SS	WIRE	[M]
W302	RWJ8903135ES	REMOTE SENSOR TO MAI	[M]
W304	RWJ0110160SS	TUNER TO MAIN WIRE	[M]
W305	RWJ0110165QQ	DECK TO MAIN WIRE	[M]
W501	RWJ8903190SS	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]
R32	ERDS2TJ331T	330 1/4W	[M]
R33	ERDS2TJ121T	120 1/4W	[M]
R34	ERDS2TJ104T	100K 1/4W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R35	ERDS2TJ221T	220 1/4W	[M]
R91	ERDS2TJ680T	68 1/4W	[M]
R100	ERDS2TJ104T	100K 1/4W	[M]
R108	ERDS2TJ102T	1K 1/4W	[M]
R110	ERDS2TJ272T	2.7K 1/4W	[M]
R111	ERDS2TJ822T	8.2K 1/4W	[M]
R113	ERDS2TJ183T	18K 1/4W	[M]
R115	ERDS2TJ472T	4.7K 1/4W	[M]
R116	ERDS2TJ102T	1K 1/4W	[M]
R117	ERDS2TJ471T	470 1/4W	[M]
R118	ERDS2TJ823T	82K 1/4W	[M]
R120	ERDS2TJ153T	15K 1/4W	[M]
R121	ERDS2TJ471T	470 1/4W	[M]
R122	ERDS2TJ274T	270K 1/4W	[M]
R123	ERDS2TJ472T	4.7K 1/4W	[M]
R126	ERDS2TJ562T	5.6K 1/4W	[M]
R127	ERDS2TJ181T	180 1/4W	[M]
R208	ERDS2TJ102T	1K 1/4W	[M]
R210	ERDS2TJ272T	2.7K 1/4W	[M]
R211	ERDS2TJ822T	8.2K 1/4W	[M]
R213	ERDS2TJ183T	18K 1/4W	[M]
R215	ERDS2TJ472T	4.7K 1/4W	[M]
R216	ERDS2TJ102T	1K 1/4W	[M]
R217	ERDS2TJ471T	470 1/4W	[M]
R218	ERDS2TJ823T	82K 1/4W	[M]
R220	ERDS2TJ153T	15K 1/4W	[M]
R221	ERDS2TJ471T	470 1/4W	[M]
R222	ERDS2TJ274T	270K 1/4W	[M]
R223	ERDS2TJ472T	4.7K 1/4W	[M]
R227	ERDS2TJ181T	180 1/4W	[M]
R301	ERD2FCVG220T	22 1/4W	[M]
R310	ERDS2TJ333T	33K 1/4W	[M]
R311	ERDS2TJ392T	3.9K 1/4W	[M]
R312	ERDS2TJ222T	2.2K 1/4W	[M]
R313	ERDS2TJ473T	47K 1/4W	[M]
R314	ERDS2TJ331T	330 1/4W	[M]
R315	ERDS2TJ122T	1.2K 1/4W	[M]
R316	ERDS2TJ331T	330 1/4W	[M]
R317	ERDS2TJ151T	150 1/4W	[M]
R319	ERDS2TJ151T	150 1/4W	[M]
R320	ERDS2TJ472T	4.7K 1/4W	[M]
R321	ERDS2TJ103T	10K 1/4W	[M]
R322	ERDS2TJ101T	100 1/4W	[M]
R323	ERDS2TJ152T	1.5K 1/4W	[M]
R324	ERDS2TJ333T	33K 1/4W	[M]
R325	ERDS2TJ103T	10K 1/4W	[M]
R326	ERDS2TJ223T	22K 1/4W	[M]
R327	ERDS2TJ223T	22K 1/4W	[M]
R328	ERDS2TJ103T	10K 1/4W	[M]
R329	ERDS2TJ152T	1.5K 1/4W	[M]
R335	ERDS2TJ103T	10K 1/4W	[M]
R336	ERDS2TJ122T	1.2K 1/4W	[M]
R357	ERDS2TJ224T	220K 1/4W	[M]
R602	ERDS2TJ102T	1K 1/4W	[M]
R603	ERDS2TJ102T	1K 1/4W	[M]
R604	ERDS2TJ152T	1.5K 1/4W	[M]
R605	ERDS2TJ222T	2.2K 1/4W	[M]
R606	ERDS2TJ332T	3.3K 1/4W	[M]
R607	ERDS2TJ472T	4.7K 1/4W	[M]
R608	ERDS2TJ822T	8.2K 1/4W	[M]
R701	ERDS2TJ100T	10 1/4W	[M]
R702	ERDS2TJ103T	10K 1/4W	[M]
R703	ERDS2TJ472T	4.7K 1/4W	[M]
R706	ERDS2TJ103T	10K 1/4W	[M]
R707	ERDS2TJ103T	10K 1/4W	[M]
R708	ERDS2TJ332T	3.3K 1/4W	[M]
R709	ERDS2TJ104T	100K 1/4W	[M]
R710	ERDS2TJ223T	22K 1/4W	[M]
R712	ERDS2TJ273T	27K 1/4W	[M]
R713	ERDS2TJ224T	220K 1/4W	[M]
R714	ERDS2TJ393T	39K 1/4W	[M]
R715	ERDS2TJ102T	1K 1/4W	[M]
R716	ERDS2TJ273T	27K 1/4W	[M]
R720	ERDS2TJ104T	100K 1/4W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R733	ERDS2TJ103T	10K 1/4W	[M]
R735	ERDS2TJ103T	10K 1/4W	[M]
R736	ERDS2TJ153T	15K 1/4W	[M]
R737	ERDS2TJ102T	1K 1/4W	[M]
R738	ERDS2TJ303T	30K 1/4W	[M]
R740	ERDS2TJ103T	10K 1/4W	[M]
R743	ERDS2TJ124T	120K 1/4W	[M]
R745	ERDS2TJ472T	4.7K 1/4W	[M]
R746	ERDS2TJ472T	4.7K 1/4W	[M]
R747	ERDS2TJ392T	3.9K 1/4W	[M]
R748	ERDS2TJ272T	2.7K 1/4W	[M]
R749	ERDS2TJ153T	15K 1/4W	[M]
R750	ERDS2TJ104T	100K 1/4W	[M]
R751	ERDS2TJ472T	4.7K 1/4W	[M]
R752	ERDS2TJ513T	51K 1/4W	[M]
R753	ERDS2TJ153T	15K 1/4W	[M]
R754	ERDS2TJ272T	2.7K 1/4W	[M]
R755	ERDS2TJ224T	220K 1/4W	[M]
R756	ERDS2TJ103T	10K 1/4W	[M]
R757	ERDS2TJ511T	510 1/4W	[M]
R761	ERDS2TJ823T	82K 1/4W	[M]
R762	ERDS2TJ102T	1K 1/4W	[M]
R763	ERDS2TJ155T	1.5M 1/4W	[M]
R764	ERDS2TJ104T	100K 1/4W	[M]
R765	ERDS2TJ105T	1M 1/4W	[M]
R766	ERDS2TJ333T	33K 1/4W	[M]
R767	ERDS2TJ153T	15K 1/4W	[M]
R768	ERDS2TJ102T	1K 1/4W	[M]
R769	ERDS2TJ101T	100 1/4W	[M]
R770	ERDS2TJ103T	10K 1/4W	[M]
R773	ERDS2TJ822T	8.2K 1/4W	[M]
R774	ERDS2TJ513T	51K 1/4W	[M]
R775	ERDS2TJ153T	15K 1/4W	[M]
R777	ERDS2TJ104T	100K 1/4W	[M]
R778	ERDS2TJ472T	4.7K 1/4W	[M]
R779	ERDS2TJ822T	8.2K 1/4W	[M]
R780	ERDS2TJ102T	1K 1/4W	[M]
R783	ERDS2TJ102T	1K 1/4W	[M]
R784	ERDS2TJ102T	1K 1/4W	[M]
R785	ERDS2TJ103T	10K 1/4W	[M]
R786	ERDS2TJ334T	330K 1/4W	[M]
R787	ERDS2TJ334T	330K 1/4W	[M]
R788	ERDS2TJ103T	10K 1/4W	[M]
R789	ERDS2TJ103T	10K 1/4W	[M]
R790	ERDS2TJ103T	10K 1/4W	[M]
R791	ERDS2TJ103T	10K 1/4W	[M]
R792	ERDS2TJ472T	4.7K 1/4W	[M]
R801	ERDS2TJ473T	47K 1/4W	[M]
R802	ERDS2TJ473T	47K 1/4W	[M]
R803	ERDS2TJ473T	47K 1/4W	[M]
R804	ERDS2TJ103T	10K 1/4W	[M]
R831	ERDS2TJ103T	10K 1/4W	[M]
R837	ERDS2TJ333T	33K 1/4W	[M]
R841	ERDS2TJ102T	1K 1/4W	[M]
R842	ERDS2TJ102T	1K 1/4W	[M]
R845	ERDS2TJ102T	1K 1/4W	[M]
R1001	ERDS2TJ221T	220 1/4W	[M]
R1002	ERDS2TJ331T	330 1/4W	[M]
R1003	ERDS2TJ473T	47K 1/4W	[M]
R1004	ERDS2TJ8R2T	8.2 1/4W	[M]
R1005	ERDS2TJ223T	22K 1/4W	[M]
R1006	ERDS2TJ101T	100 1/4W	[M]
R1101	ERDS2TJ183T	18K 1/4W	[M]
R1102	ERDS2TJ272T	2.7K 1/4W	[M]
R1103	ERDS2TJ224T	220K 1/4W	[M]
R1104	ERDS2TJ562T	5.6K 1/4W	[M]
R1105	ERDS2TJ222T	2.2K 1/4W	[M]
R1106	ERDS2TJ680T	68 1/4W	[M]
R1201	ERDS2TJ183T	18K 1/4W	[M]
R1202	ERDS2TJ272T	2.7K 1/4W	[M]
R1203	ERDS2TJ224T	220K 1/4W	[M]
R1204	ERDS2TJ562T	5.6K 1/4W	[M]
R1205	ERDS2TJ222T	2.2K 1/4W	[M]
R1206	ERDS2TJ680T	68 1/4W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
		CAPACITORS	
C1	ECBT1H470J5	47P 50V	[M]
C2	ECBT1H100JC5	10P 50V	[M]
C3	ECFR1C223MR	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	RCBS1H102KBY	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	ECA1HM100BV	10 50V	[M]
C14	ECBT1H102KB5	1000P 50V	[M]
C15	ECFR1C683KR	0.068 16V	[M]
C16	ECFR1C823MR	0.082 16V	[M]
C17	ECFR1C823MR	0.082 16V	[M]
C18	ECFR1C333KR	0.033 16V	[M]
C19	ECFR1C333KR	0.033 16V	[M]
C20	RCE1HM010BP	1P 50V	[M]
C21	RCE1HM010BP	1P 50V	[M]
C22	ECA1HMR47BV	0.47 50V	[M]
C23	ECFR1C333KR	0.033 16V	[M]
C24	ECFR1C333KR	0.033 16V	[M]
C25	ECQP2A621JZT	620P 100V	[M]
C26	ECA1HM4R7BV	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	ECA1AM101BV	100 10V	[M]
C36	ECA1AM101BV	100 10V	[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	RCE1HM2R2BP	2.2P 50V	[M]
C45	ECBT1H102KB5	1000P 50V	[M]
C47	ECFR1C104KR	0.1 16V	[M]
C48	RCE1HM010BP	1P 50V	[M]
C49	ECBT1H102KB5	1000P 50V	[M]
C50	ECBT1H102KB5	1000P 50V	[M]
C51	RCE1HM010BP	1P 50V	[M]
C54	ECBT1H102KB5	1000P 50V	[M]
C56	ECBT1H102KB5	1000P 50V	[M]
C57	ECBT1H223KB5	0.022 50V	[M]
C58	ECBT1H102KB5	1000P 50V	[M]
C61	ECBT1H221KB5	220P 50V	[M]
C101	RCE1HM010BP	1P 50V	[M]
C109	ECA1HM0R1BV	0.1 50V	[M]
C110	RCE1HMR22BP	0.22P 50V	[M]
C112	RCE1HM2R2BP	2.2P 50V	[M]
C113	ECBT1H560J5	56P 50V	[M]
C114	ECBT1H102KB5	1000P 50V	[M]
C115	RCE1HM010BP	1P 50V	[M]
C116	ECBT1H102KB5	1000P 50V	[M]
C118	ECBT1C332KR5	3300P 16V	[M]
C120	ECA1AM471B	470 10V	[M] ⚠
C124	ECBT1C332MR5	3300P 16V	[M]
C130	ECBT1H153KB5	0.015 50V	[M]
C201	RCE1HM010BP	1P 50V	[M]
C209	ECA1HM0R1BV	0.1 50V	[M]
C210	RCE1HMR22BP	0.22P 50V	[M]
C212	RCE1HM2R2BP	2.2P 50V	[M]
C213	ECBT1H560J5	56P 50V	[M]
C214	ECBT1H102KB5	1000P 50V	[M]
C215	RCE1HM010BP	1P 50V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C216	ECBT1H102KB5	1000P 50V	[M]
C217	ECA1AM101BV	100 10V	[M]
C218	ECBT1C332KR5	3300P 16V	[M]
C220	ECA1AM471B	470 10V	[M]
C222	ECBT1C332MR5	3300P 16V	[M]
C230	ECBT1H153KB5	0.015 50V	[M]
C301	ECA1EM470BV	47 25V	[M]
C313	ECBT1H561KB5	560P 50V	[M]
C314	ECA1EM470BV	47 25V	[M]
C315	ECBT1H102KB5	1000P 50V	[M]
C316	ECA1AM101BV	100 10V	[M]
C317	ECA1EM222EV	22 25V	[M] ⚠
C318	RCE1CM220BP	20 16V	[M]
C319	ECBT1H102KB5	1000P 50V	[M]
C320	RCE1CM220BP	20 16V	[M]
C323	RCE1CM220BP	20 16V	[M]
C324	ECBT1H102KB5	1000P 50V	[M]
C325	ECEA1CKA101B	100 16V	[M]
C327	ECBT1H102KB5	1000P 50V	[M]
C330	ECFR1C104KR	0.1 16V	[M]
C331	ECA1HM4R7BV	4.7 50V	[M]
C333	ECBT1E103ZF5	0.01 25V	[M]
C335	RCQB2A102JTM	1000P 100V	[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]
C614	ECA1HM3R3BV	3.3 50V	[M]
C701	ECBT1H104KB5	0.1 50V	[M]
C702	ECEA1AKA101B	100 10V	[M]
C703	ECEA1HKA010B	1 50V	[M]
C704	ECBT1H103KB5	0.01 50V	[M]
C705	ECEA1CKA470B	47 16V	[M]
C706	ECBT1H270J5	27P 50V	[M]
C707	ECBT1C392KR5	3900P 16V	[M]
C708	ECBT1H105ZF5	1 50V	[M]
C709	ECBT1H471KB5	470P 50V	[M]
C710	ECBT1H104KB5	0.1 50V	[M]
C711	ECBT1H104KB5	0.1 50V	[M]
C714	ECA1HM0R1BV	0.1 50V	[M]
C715	ECA1HM100BV	10 50V	[M]
C716	ECA1CM330BV	33 16V	[M]
C717	RCE1HM2R2BP	2.2P 50V	[M]
C718	ECA1HM100BV	10 50V	[M]
C719	RCE1HM010BP	1P 50V	[M]
C720	ECA1HM3R3BV	3.3 50V	[M]
C721	RCE1HM2R2BP	2.2P 50V	[M]
C722	RCE1CM220BP	20 16V	[M]
C723	ECA1HMR47BV	0.47 50V	[M]
C724	RCE1CM220BP	20 16V	[M]
C725	RCE1HM2R2BP	2.2P 50V	[M]
C726	ECEA1AKA221I	220 10V	[M]
C728	ECEA1HKA2R2I	2.2 50V	[M]
C729	ECBT1H105ZF5	10 50V	[M]
C730	ECEA1CKA470B	47 16V	[M]
C731	ECBT1H3R3KC5	3.3P 50V	[M]
C733	ECBT1H104KB5	0.1 50V	[M]
C742	ECA1HM0R1BV	0.1 50V	[M]
C743	ECQV1H474JZ3	0.47 50V	[M]
C744	ECBT1E473ZF5	0.047 25V	[M]
C745	RCQB2A103KTM	0.01 100V	[M]
C746	ECBT1C103MS5	0.01 16V	[M]
C747	ECBT1C103MS5	0.01 16V	[M]
C748	ECQV1H224JZ3	0.22 50V	[M]
C749	ECBT1C103MS5	0.01 16V	[M]
C750	ECBT1H102KB5	1000P 50V	[M]
C751	ECFR1C104KR	0.1 16V	[M]
C752	ECBT1H333KB5	0.033 50V	[M]
C753	ECQV1H224JZ3	0.22 50V	[M]
C754	ECBT1H471KB5	470P 50V	[M]
C755	ECBT1H102KB5	1000P 50V	[M]
C756	RCE1HMR22BP	0.22P 50V	[M]
C757	ECFR1C104KR	0.1 16V	[M]
C758	ECBT1H270J5	27P 50V	[M]

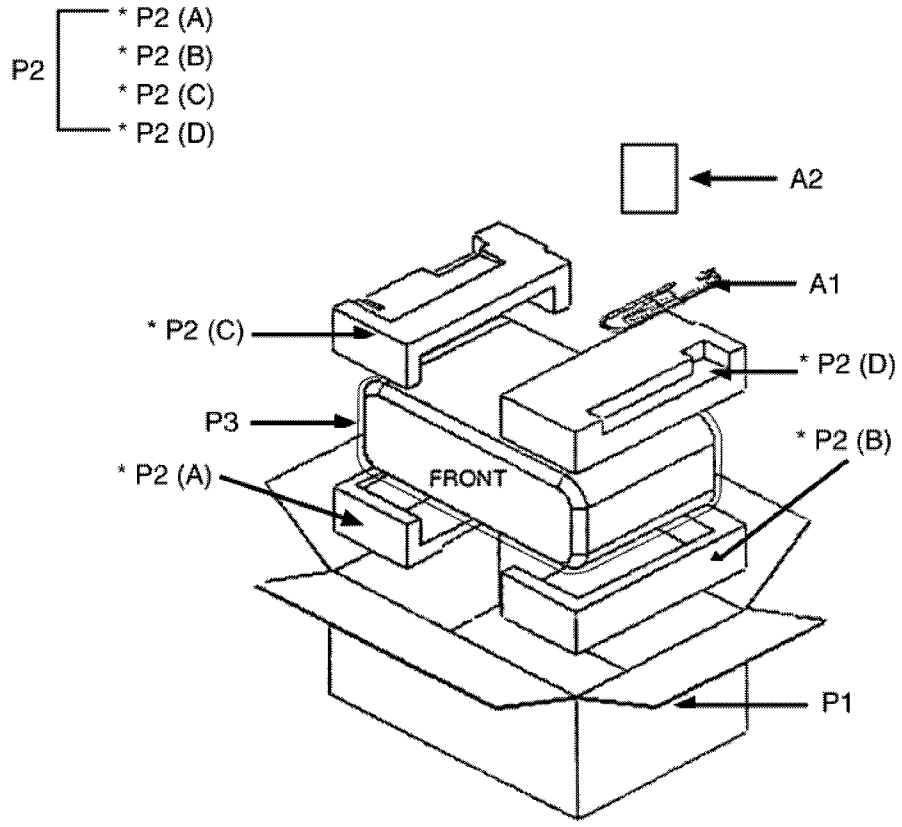
Ref. No.	Part No.	Part Name & Description	Remarks
C759	ECBT1H220J5	22P 50V	[M]
C760	ECBT1H220J5	22P 50V	[M]
C761	ECBT1H220J5	22P 50V	[M]
C762	ECBT1H220J5	22P 50V	[M]
C767	ECBT1H153KB5	0.015 50V	[M]
C768	ECBT1C682KR5	6800P 16V	[M]
C769	ECQV1H474JZ3	0.47 50V	[M]
C774	ECFR1C104KR	0.1 16V	[M]
C775	ECA1EM470BV	47 25V	[M]
C777	ECBT1H104KB5	0.1 50V	[M]
C778	ECBT1H104KB5	0.1 50V	[M]
C780	ECBT1H561KB5	560P 50V	[M]
C781	ECBT1C103MS5	0.01 16V	[M]
C783	RCQB2A102JTM	1000P 100V	[M]
C784	ECBT1C103MS5	0.01 16V	[M]
C802	ECBT1H102KB5	1000P 50V	[M]
C804	ECFR1C104KR	0.1 16V	[M]
C807	ECBT1H102KB5	1000P 50V	[M]
C808	ECBT1H102KB5	1000P 50V	[M]
C810	ECBT1H102KB5	1000P 50V	[M]
C811	ECBT1H102KB5	1000P 50V	[M]
C1001	RCQB2A392KM	3900P 100V	[M]
C1002	RCE1AM101BP	100P 10V	[M]
C1003	ECBT1C682KR5	6800P 16V	[M]
C1004	ECBT1H102KB5	1000P 50V	[M]
C1006	ECEA1HKA2R2B	2.2 50V	[M]
C1007	RCE1AM101BP	100P 10V	[M]
C1008	ECA1AM221BV	220 10V	[M]
C1101	ECBT1C272MR5	2700P 16V	[M]
C1102	ECA1CM100BV	10P 16V	[M]
C1103	ECBT1H223KB5	0.022 50V	[M]
C1104	RCE1AM101BP	100P 10V	[M]
C1106	ECBT1H102KB5	1000P 50V	[M]
C1122	ECBT1C332MR5	3300P 16V	[M]
C1201	ECBT1C272MR5	2700P 16V	[M]
C1202	ECA1CM100BV	10 16V	[M]
C1203	ECBT1H223KB5	0.022 50V	[M]
C1204	RCE1AM101BP	100P 10V	[M]
C1206	ECBT1H102KB5	1000P 50V	[M]
C1222	ECBT1C332MR5	3300P 16V	[M]

17.4. Packing Materials & Accessories Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		PACKING MATERIALS	
P1	RPGX0903	PACKING CABE	[M]EB-S EG-S
P1	RPGX0904	PACKING CASE	[M]EB-A EG-A
P1	RPGX0905	PACKING CASE	[M]E-S
P1	RPGX0906	PACKING CASE	[M]E-A
P2	RPNX0124	POLYFOAM	[M]
P3	RPH0131	MIRAMAT SHEET	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
		ACCESSORIES	
A1	RJA0019-2K	AC CORD (SF)	[M]EG E ⚠
A1	RJA0053-2X	AC CORD	[M]EB ⚠
A2	RQT6324-D	O/I BOOK (Ge)(It)(Fr)	[M]EG
A2	RQT6325-H	O/I BOOK (Du)(Da)(Sw)	[M]EG
A2	RQT6341-B	O/I BOOK (En)	[M]EB E
A2	RQT6342-E	O/I BOOK (Sp)(Ru)(Cz)(Po)	[M]E

17.5. Packaging

ACCESSORIES CASE

A3 : O/I BOOK