

Service Manual

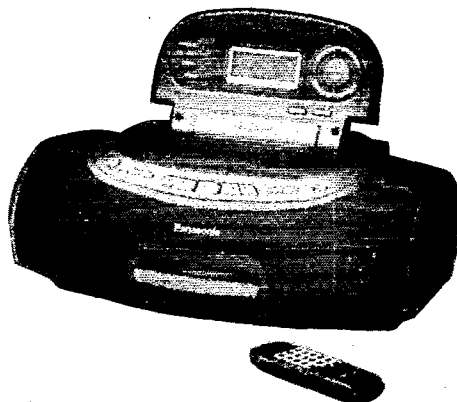
Portable Stereo CD System

Radio Cassette

RX-ED70

COMPACT
disc
DIGITAL AUDIO

MASH*
multi-stage noise shaping



Colour

(K) : Black

Areas

Suffix for Model No.	Area	Colour
(EG)	Europe and Germany	(K)
(EB)	Britain	

Tape Deck: AR2 Mechanism Series
Traverse Deck: RAE0150Z Mechanism Series

Specifications

General:

Power Requirement

AC 230 – 240 V, 50 Hz [for (EG) area]
240 V, 50 Hz [for (EB) area]

Battery 12 V (Eight UM-1 size, R20 / LR20 batteries)

Memory Back-up for Computer / Clock

6 V (Four UM-3 size, R6 / LR6 batteries)

Power Consumption 37 W (AC only)

Power Output 44 W (PMPO)

Speakers 10 cm PM Dynamic speaker, 2.7Ω

Jacks

Output PHONES: 32Ω, Ø3.5

Input MIX MIC: 5 mV, 200-600Ω, Ø3.5

Dimensions: 484 (W) × 180 (H) × 261 (D) mm
(Top panel closed)

Weight: 5.0 kg without batteries

CD Player:

Sampling Frequency: 44.1 kHz

Decoding: 16-bit linear

Beam Source: Semiconductor laser
(wavelength: 780 nm)

No. of Channels: 2 channels, stereo

Wow and Flutter: Less than possible measurement data

D/A Converter: MASH (1 bit DAC)

Radio :

Frequency Range:

FM 87.5 – 108.0 MHz (50 kHz steps)

LW 144 – 288 kHz (9 kHz steps)

MW 522 – 1611 kHz (9 kHz steps)

Intermediate Frequency:

FM 10.7 MHz

LW/MW 459 kHz

Sensitivity:

FM 3.1 μV/ 0.5 mW H.P. output
(-3 dB Limit Sens.)

LW 112 μV/m/ 0.5 mW H.P. output (Max.)

MW 84.2 μV/m/ 0.5 mW H.P. output (Max.)

Tape Recorder :

Track System: 4-track, 2-channel, stereo recording and playback

Monitor System: Variable sound monitor

Frequency Range:

Normal 30 ~ 16000 Hz

CrO₂ 30 ~ 17000 Hz

Recording System: AC bias, AC erase

Tape Speed: 4.8 cm/s

*MASH is a trademark of NTT.

Notes:

1. Weight and dimensions shown are approximate.
2. Design and specifications are subject to change without notice.

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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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.

Precaution of Laser Diode

CAUTION: This product utilizes a laser diode with the unit turned "on", invisible laser radiation is emitted from the pick up lens.
Wave length: 780 nm
Maximum output radiation power from pick up: 100 μ W/VDE

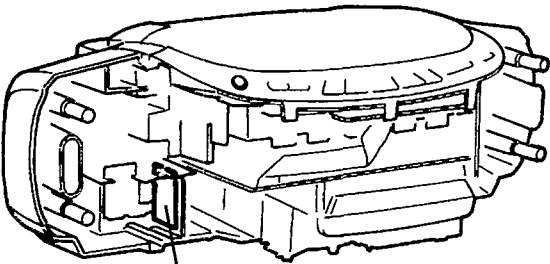
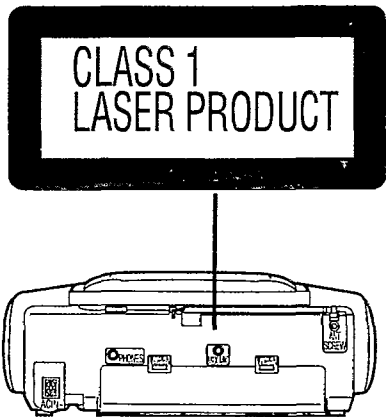
Laser radiation from the pick up unit is safety level, but be sure the followings:

- 1. Do not disassemble the 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 laserdioden. Im eingeschalteten zustand wird unsichtbare laserstrahlung von der lasereinheit adgestrahlt.
Wellenlänge: 780 nm
Maximale strahlungsleistung der lasereinheit: 100 μ W/VDE

Die strahlung an der lasereinheit ist ungefährlich, wenn folgende punkte beachtet werden:

- 1. Die lasereinheit nicht zerlegen, da die strahlung an der freigelegten laserdioden gefährlich ist.
- 2. Den werksseitig justierten einstellregler der lasereinheit nicht verstellen.
- 3. Nicht mit optischen instrumenten in die fokussierlinse blicken.
- 4. Nicht über längere zeit in die fokussierlinse blicken.



DANGER	INVISIBLE LASER RADIATION WHEN OPEN AVOID DIRECT EXPOSURE TO BEAM
ADVARSEL	USYMLIG LASERSTRÅLING HOS VED ÅBNING. HÅR SKNØRVEDSÅFRYRDYRE ER UD AF FUNKTION. UNØYKSÅKSTJELTSE FOR STRÅLING
VARO!	AVATTAESSA JA SUOJALUKUTUS OHITETTÄESSA OLET ALTTIINA NÄKYMÄTÖNÄ LASERSÄTELYLLE. ÄLÄ KATSO SÄTEESEEN
VARNING	ÖSYMLIG LASERSTRÅLING HÄR CENNA DEL ÄR ÖPPNAD OCH SPÄRREN ÄR LUKKOPPLAD. BETRÄKTA EJ STRÅLEN
ADVARSEL	USYMLIG LASERSTRÅLING HÄR DEKSEL ÅPNES OG SYNEREDES. ÅS BRUTES. UNØYKSÅKSTJELTSE FOR STRÅLEN
VORSICHT	UNSYCHTBARE LASERSTRÄHLUNG, WENN ABDECKUNG GEÖFFNET NICHT DEM STRAHL AUSSETZEN

(Inside of product)
(Indersiden at apparatet)
(Tuotteen sisällä)
(Apparatens insida)
(Produktets innsida)
(Im Inneren des Gerätes)

■ Caution for AC Main Lead

[(EB) area code model only]

For your safety, please read the following text carefully.

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

A 5-ampere fuse is fitted in this plug.

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

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

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

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

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

CAUTION!

IF THE FITTED MOULDED PLUG IS UNSUITABLE FOR THE SOCKET OUTLET IN YOUR HOME THEN THE FUSE SHOULD BE REMOVED AND THE PLUG CUT OFF AND DISPOSED OF SAFELY.

THERE IS A DANGER OF SEVERE ELECTRICAL SHOCK IF THE CUT OFF PLUG IS INSERTED INTO ANY 13-AMPERE SOCKET.

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

If in any doubt please consult a qualified electrician.

IMPORTANT

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

Blue: Neutral

Brown: Live

As the colours of the wires in the mains lead of this appliance 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 in the plug which is marked with the letter N or coloured BLACK.

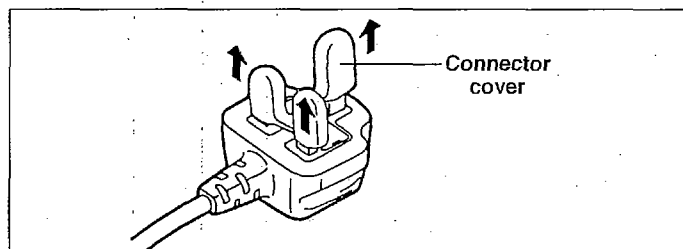
This apparatus was produced to BS 800.

The wire which is coloured BROWN must be connected to the terminal in the plug which is marked with the letter L or coloured RED.

Under no circumstances should either of these wires be connected to the earth terminal of the three pin plug, marked with the letter E or the Earth Symbol .

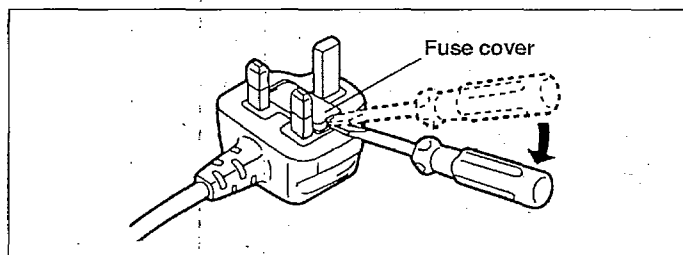
Before use

Removal the connector cover as follows.

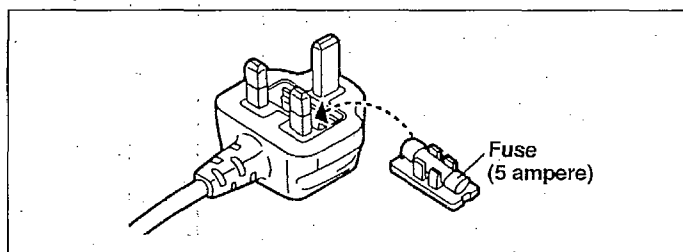


How to replace the fuse

1. Remove the fuse cover with a screwdriver.



2. Replace the fuse and attach the fuse cover.



Location of Controls

Basic/Tuner controls

- ① Preset equalizer button (PRESET EQ)
- ② Memory button [MEMORY (TUNE/CD)]
- ③ Timer time adjust button (TIMER ADJUST)
- ④ Time set/Tuning buttons
(CD/TUNE/TIME SET ►►/+, ◀◀/—)
- ⑤ Clock time adjust button (CLOCK ADJUST)
- ⑥ Preset tuning mode button and indicator
(PRESET TUNE MODE)
- ⑦ Timer button (TIMER)
- ⑧ Speakers (10 cm, 2.7 Ω)
- ⑨ Power "STDBY ⏻ (AC)/ON" switch
[POWER/BATT, STDBY ⏻ (AC)/ON]

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.

- ⑩ Power/battery check/standby indicator
[POWER/BATT, STDBY ⏻ (AC)/ON]

The indicator lights green when the unit is turned on.

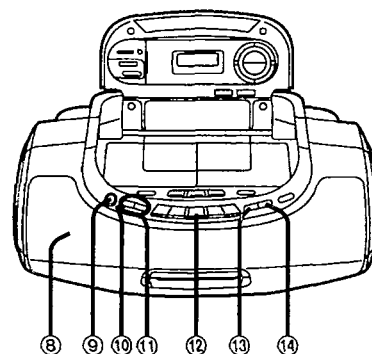
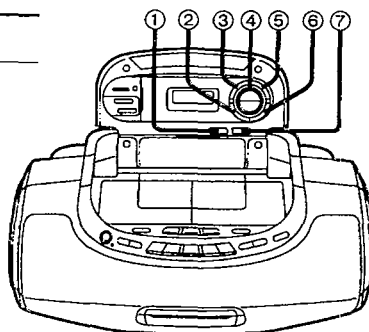
When the AC power supply is used, it functions as an AC connection indicator. (The indicator colour changes to red when the unit is turned off.)

When the unit is operated on batteries, it functions as a battery check indicator.

- ⑪ Volume control buttons (VOLUME +, —)
- ⑫ Band select button (BAND)
- ⑬ Top panel close button (CLOSE)
- ⑭ Top panel open button (OPEN)

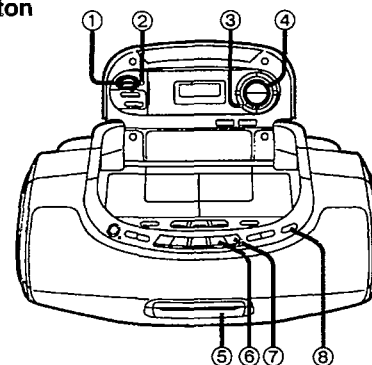
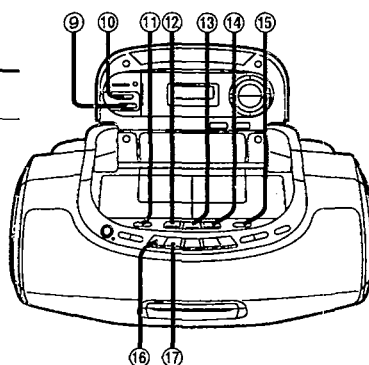
Cassette deck controls

- ⑨ Tape edit button (TAPE EDIT)
- ⑩ Rec/rec pause button (●/● II)
- ⑪ Deck 1 tape eject button (DECK 1 ▲)
- ⑫ Rewind/TPS button (REW [TPS])
- ⑬ Deck select button (DECK 1/2)
- ⑭ Fast forward/TPS button (FF [TPS])
- ⑮ Deck 2 tape eject button (DECK 2 ▲)
- ⑯ Tape stop button (■)
- ⑰ Tape play/direction button (◀▶)

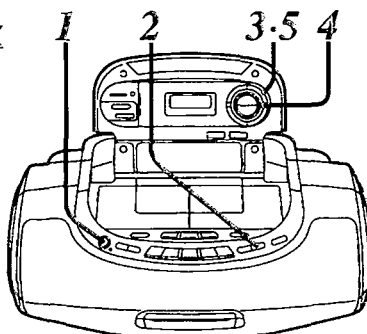


CD controls

- ① CD recording mode indicator (AUTO, 1 TRACK)
- ② CD rec mode button (CD REC MODE)
- ③ Program button [MEMORY (TUNE/CD)]
- ④ Skip/Search buttons
(CD/TUNE/TIME SET ►►/+, ◀◀/—)
- ⑤ CD tray
- ⑥ Play/pause button (►/II)
- ⑦ Stop/clear button (■/CLEAR)
- ⑧ CD tray open/close button
(▲ CD OPEN/CLOSE)



Setting the Clock



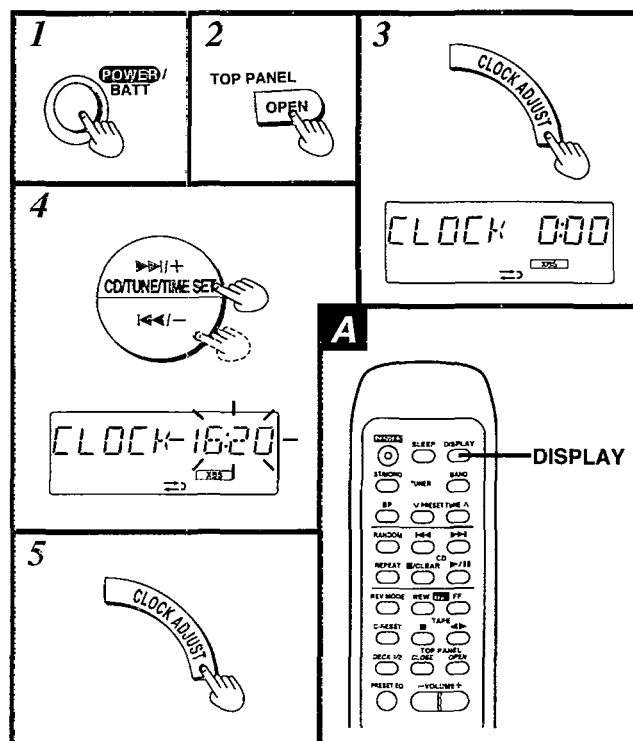
The clock has a 24-hour display.

Example: Setting the clock to 16:20;

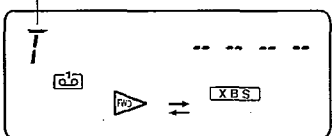
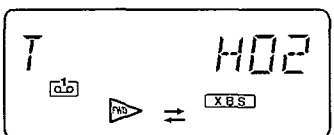
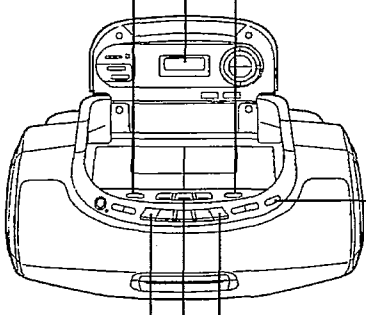
- 1 Press POWER.**
(This turns the unit on.)
- 2 Press TOP PANEL OPEN to open top panel.**
- 3 Press CLOCK ADJUST.**
- 4 Press ►►/+, ◀◀/— to show desired time.**
The time display can be changed in one minute units by tapping the buttons, and quickly by holding down the buttons.
- 5 While the time display is flashing; Press CLOCK ADJUST.**
(The clock now starts operating, and the display returns to its original status.)

To display the clock (when the unit is on):
(Available only from the remote control)

Press DISPLAY.



Self-Diagnostic Function

Display procedure	Display location
Cassette tapes to have ready: • Cassette tape with erasure-prevention tab removed on one side only (A or B) • Music cassette tape with erasure-prevention tabs intact on both sides (A and B) Note: In either case, rewind the cassette tape to near the middle. To enter the self-diagnostic mode 1. Connect the unit to the power supply and turn the power on. 2. Set reverse mode to "R". (Use the remote control attached to main unit, since the reverse mode cannot be set from the main unit.) 3. Check that there is no cassette tape in the tape compartment. 4. Hold down the tape deck stop button (□) for at least two seconds, and then keep pressing together with the tape deck FF/TPS button for another 2 seconds. "T" will then appear on the LCD display. (This indicates that the unit has switched from normal display mode to self-diagnostic mode.) To view the display • To view the self-diagnostic display for tape decks 1 and 2: 1. Load a cassette tape into tape deck 1 with the erasure-prevention tab removed on one side only (A or B). 2. Press the FF/TPS button, perform the fast-forward winding operation for about 5 seconds and then stop winding using the tape Stop button (□). 3. Remove the cassette tape, and load a music cassette (containing at least 4 seconds of music and both erasure-prevention tabs intact). 4. Press the Play button (◀▶). When play begins, press either the FF/TPS button or the REW/TPS, and perform the TPS (tape program search) operation in the direction in which the music is recorded. 5. After TPS operation has completed (when the beginning of music is found and the unit switches back to play mode), stop the tape by pressing the Stop button (□). 6. Repeat steps 1-5 above for tape deck 2. 7. If an error is detected when the tape deck Stop button (□) is pressed, a self-diagnostic display appears on the LCD display. (If no error occurs, the LCD display shows the tape counter.) If there is more than one error, the error display changes each time the tape deck Stop button (□) is pressed. To change between the self-diagnostic display for tape deck 1 and tape deck 2, press the tape deck select button (DECK 1/2). • To view the self-diagnostic display for the CD player: 1. Press the CD tray Open/Close button (▲) to open the CD tray. 2. After the tray has been fully open for about 5 seconds, press the CD tray Open/Close button (▲) again to close the CD tray. 3. Press the CD Stop button. (The unit will then enter CD mode.) 4. After about 5 seconds, press the tape Stop button (□). If there is an error, a self-diagnostic display appears on the LCD display. (If no error occurs, the LCD display shows the tape counter.) Note: If this procedure is performed for tape decks 1 and 2 and the CD player and an error occurs for each, the LCD display alternates between the self-diagnostic codes for tape decks 1 and 2 and the CD player each time the tape deck Stop button (□) is pressed. (If there is no error, the LCD display shows the tape counter.) To return to normal display mode • Press the power switch once to turn the power off, then press it again to turn the power back on. To view the self-diagnostic display once again, perform steps 1 to 4 of "Entering self-diagnostic mode" above, then press the tape Stop button (□). Clearing the self-diagnostic memory • The self-diagnostic error code is stored in memory. To clear memory, first correct the error, and then remove the batteries (including the clock/memory battery) and disconnect the AC power supply. Then, press and hold down the power supply button for at least 5 seconds. • Always be sure to clear memory after an error has been corrected.	This display indicates that the unit is in self-diagnostic mode.  Example of a self-diagnostic display   Display Tape deck REW/TPS button Tape deck FF/TPS button Tape deck stop button CD Stop button Deck 1/2 selection button CD tray open/close button

Display content Note: Items marked with (*) are automatically displayed, and do not require the procedure described in the section "Viewing the display."

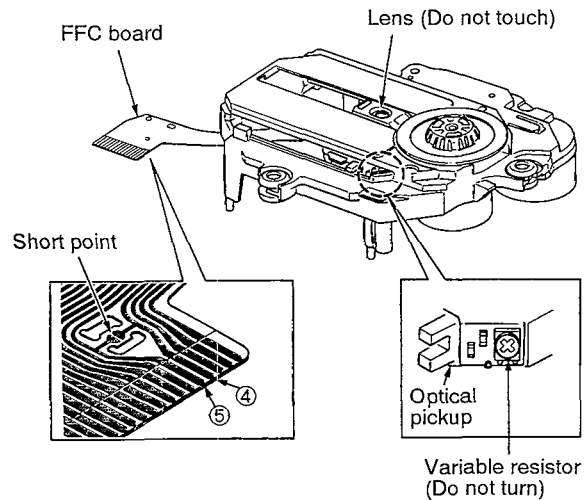
Display code	Symptom or condition	Cause and method of correction
* U01	When operating on batteries, power goes off immediately after being turned on.	The batteries are depleted. Replace with new batteries.
* U02	Power cannot be switched on.	Check the power cord (AC) or insert fresh batteries.
H01	Cassette deck does not operate correctly.	Faulty cassette deck mechanism mode detection switch (Deck 1: S951, Deck 2: S971) and plunger. (Check and replace)
H02	Unit does not record, or the unit goes into recording mode even when the erasure-prevention tabs have been removed from the cassette.	Faulty erasure-prevention tab detection switch (S974, S975) or short-circuit. (Check and replace)
H03	Tape does not play, even when the tape deck play button is pressed. The motor operates when the tape deck play button is pressed, even when no cassette is loaded in the deck.	Faulty tape detection switch (Deck 1: S952, Deck 2 : S972) or short-circuit. (Check and replace)
H15	The CD tray closes immediately after it is opened.	Faulty contact in the CD tray open detection switch (S790). (Check and replace)
H16	The CD tray opens immediately after it is closed.	Faulty contact of the CD tray close detection switch (S791). (Check and replace)
F01	When the tape Play button is pressed, the tape advances only slightly and then stops.	Reel pulse error. (Faulty Hall IC) (Check and replace)
F02	TPS (tape program search) does not work.	Faulty TPS signal detection or faulty plunger control. (Check and replace mechanism control IC)
F15	When the CD Play button is pressed when either the power is off, or from some function other than CD, it takes excessive time (5 seconds or more) for the CD to play.	Faulty traverse inner circumference position detection switch (S701). (Check and replace)
* F26	When the CD operation mode is selected by pressing the CD Stop button (□/CLEAR), "F26" is shown on the LCD display, and a CD does not play even when it has been loaded.	Communication error between servo-processor IC and microprocessor IC.
F75	When a CD is loaded, "NO DISC" is displayed and the CD does not play.	Faulty CD circuit power supply. (Faulty power supply IC or CD circuit power supply system.) (Check and replace) Flexible circuit board has become disconnected or broken wiring. (Check and replace) Faulty servo-processor IC. (Check and replace)

■ 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, pin ④ (LD) and pin ⑤ (GND) on flexible board (FFC board) are soldered to short. For connecting to the P.C.B., be sure to unsolder it for short time.
3. Take care not to apply excessive stress to the flexible board (FFC board).
4. Do not turn the variable resistor (laser power adjustment). It has already been adjusted.

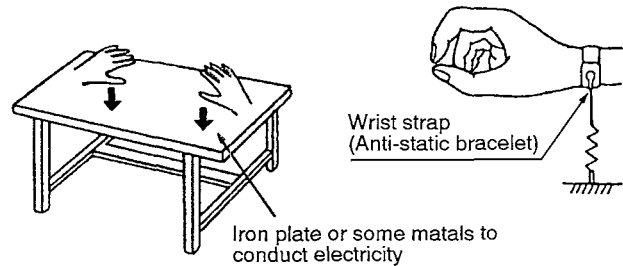


● Grounding for electrostatic breakdown prevention

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 placed, 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).



Warning: This product uses a laser diode. Refer to caution statements on page 2.

ACHTUNG: • Die Lasereinheit nicht zerlegen.

• Die Lasereinheit darf nur gegen eine vom Hersteller spezifizierte Einheit ausgetauscht werden.

■ Operation Check and Main Component Replacement Procedures

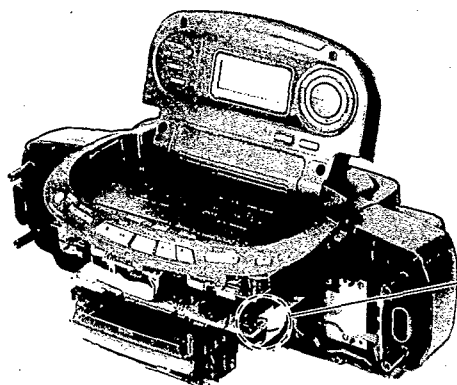
NOTE

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

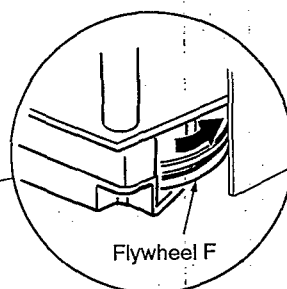
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5. Replacement for the pinch roller ass'y and head block.	17~20.
6. Replacement for the DC motor ass'y, capstan belt A, capstan belt B and fast forward belt.	

Measure for tape trouble

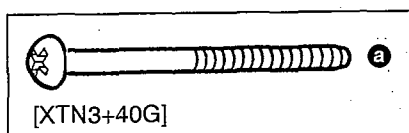


- If a cassette tape cannot be removed from the deck since the tape is caught by the capstan or pinch roller during playback or recording, rotate the flywheel F in the direction of the arrow to remove the tape.

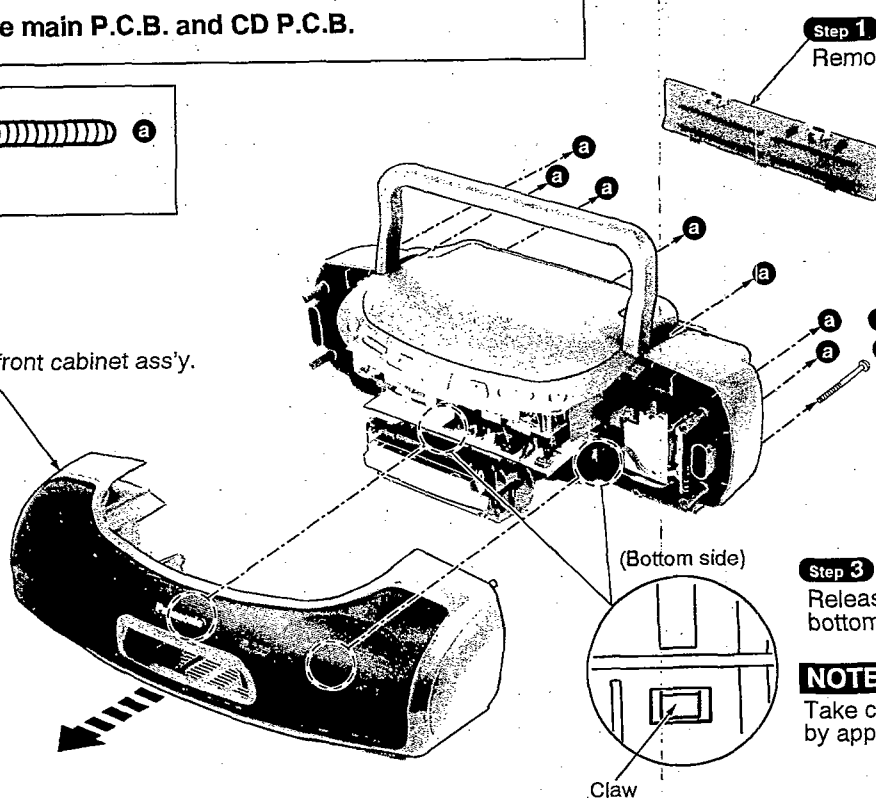


Checking procedure for each P.C.B.

1. Checking for the main P.C.B. and CD P.C.B.



Step 4
Remove the front cabinet ass'y.



Step 1
Remove the battery cover.

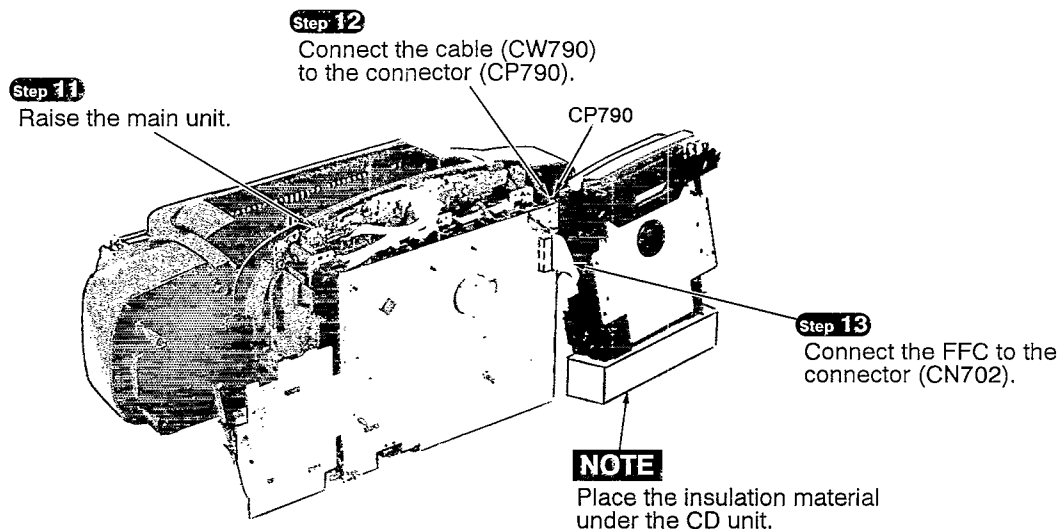
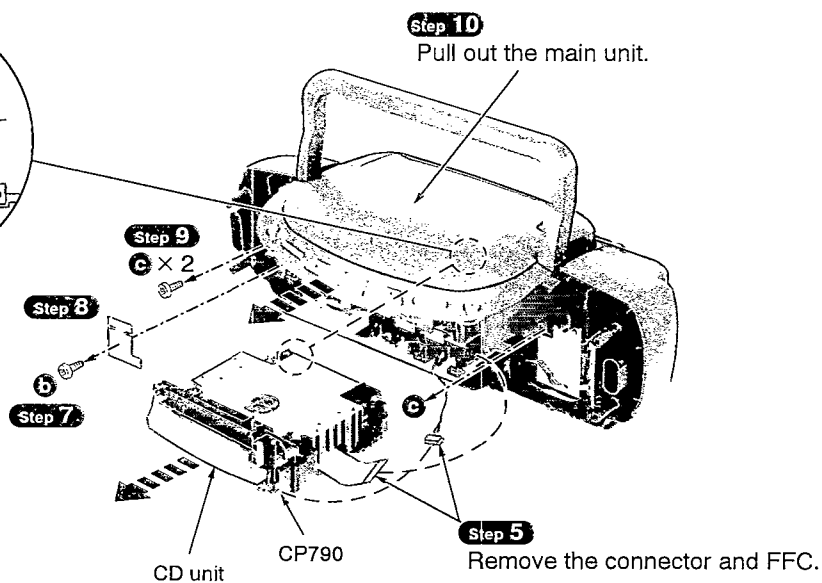
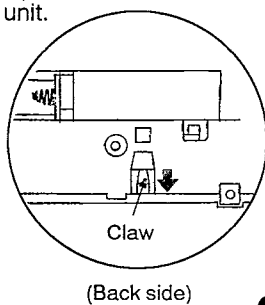
Step 2
a × 8

Step 3
Release the claws from bottom side. (2 points)

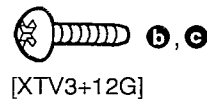
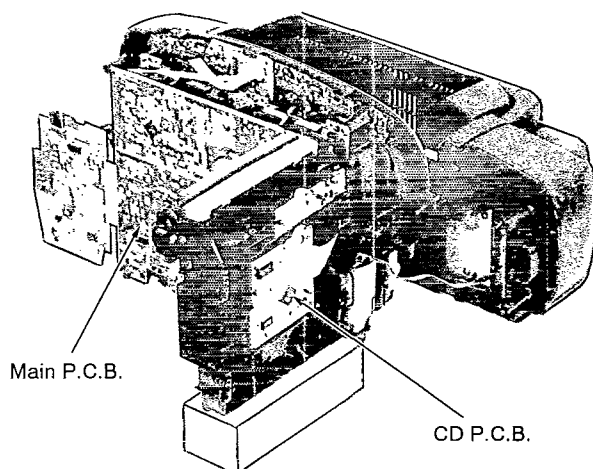
NOTE
Take care not to break the claw by applying excessive force.

Step 6

Release the claw, and then pull out the CD unit.

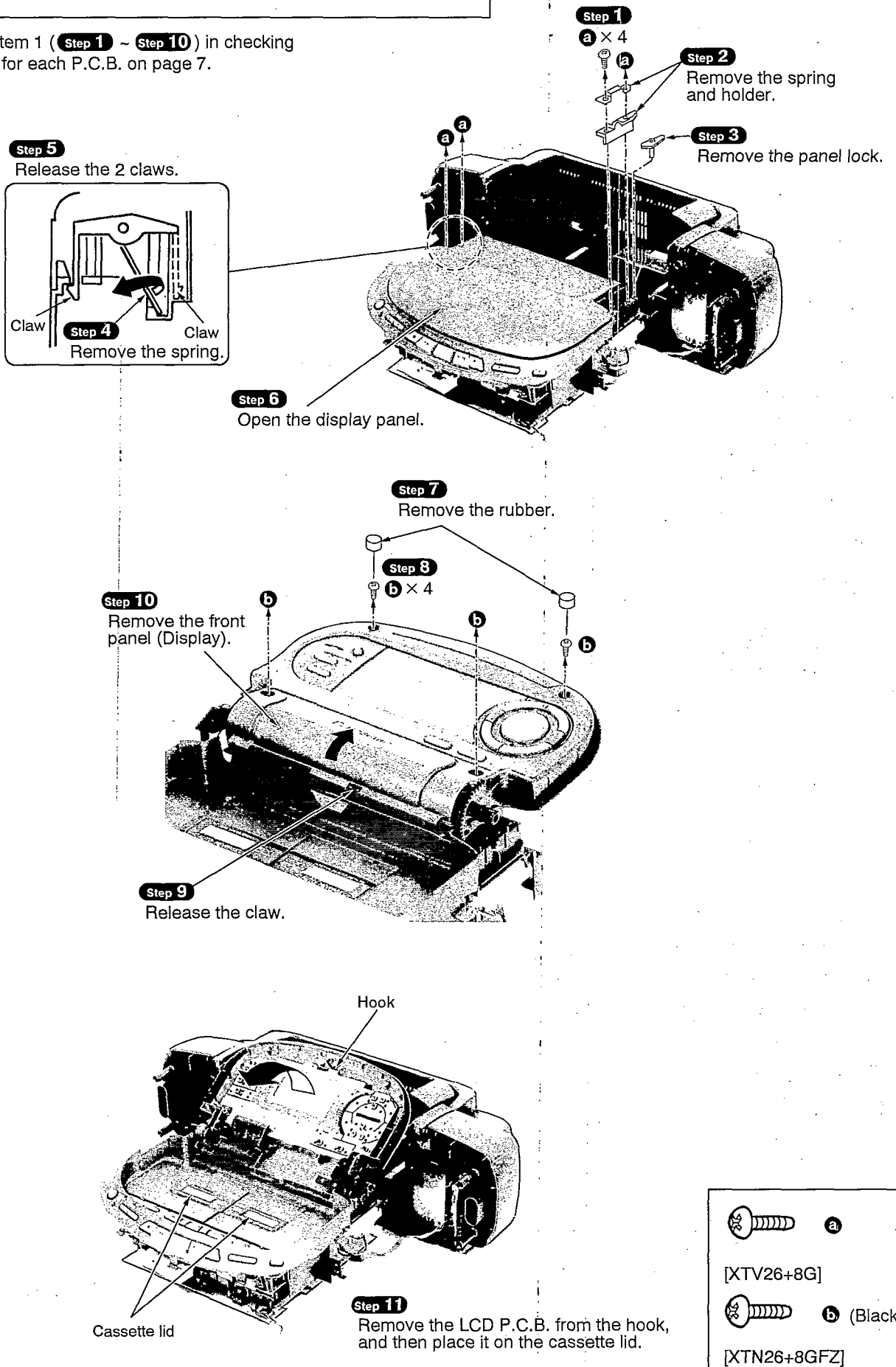


• Check the main P.C.B. and CD P.C.B. as shown below.



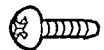
2. Checking for the LCD P.C.B.

- Follow the item 1 (**Step 1** ~ **Step 10**) in checking procedures for each P.C.B. on page 7.



a

[XTV26+8G]

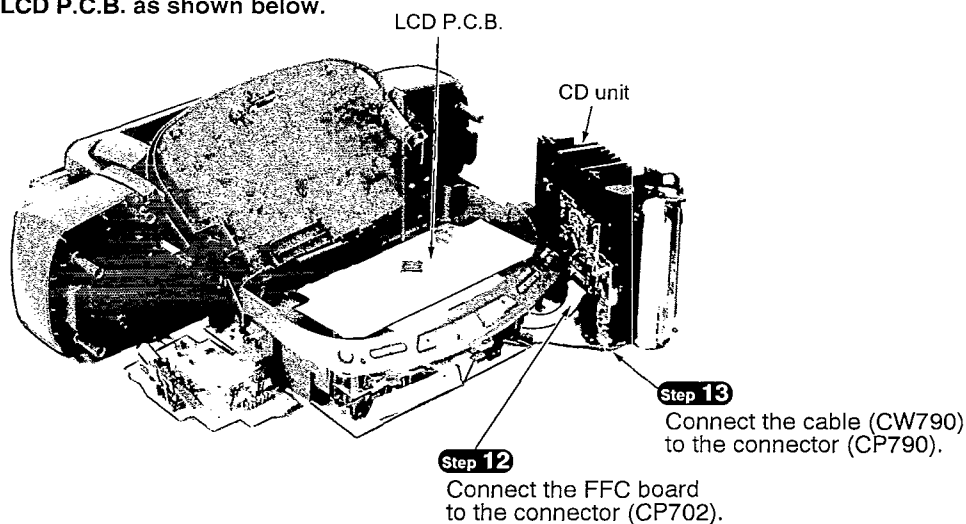


b

(Black)

[XTN26+8GFZ]

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

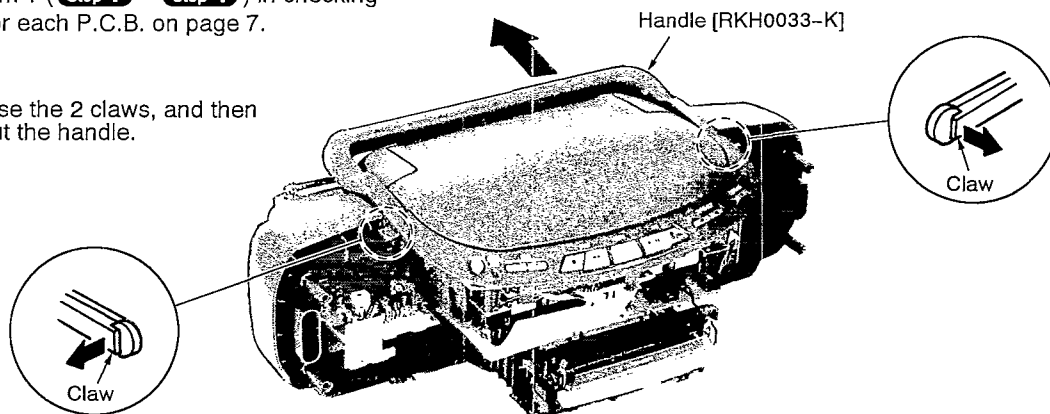


Main Component Replacement Procedures

1. Replacement for the handle

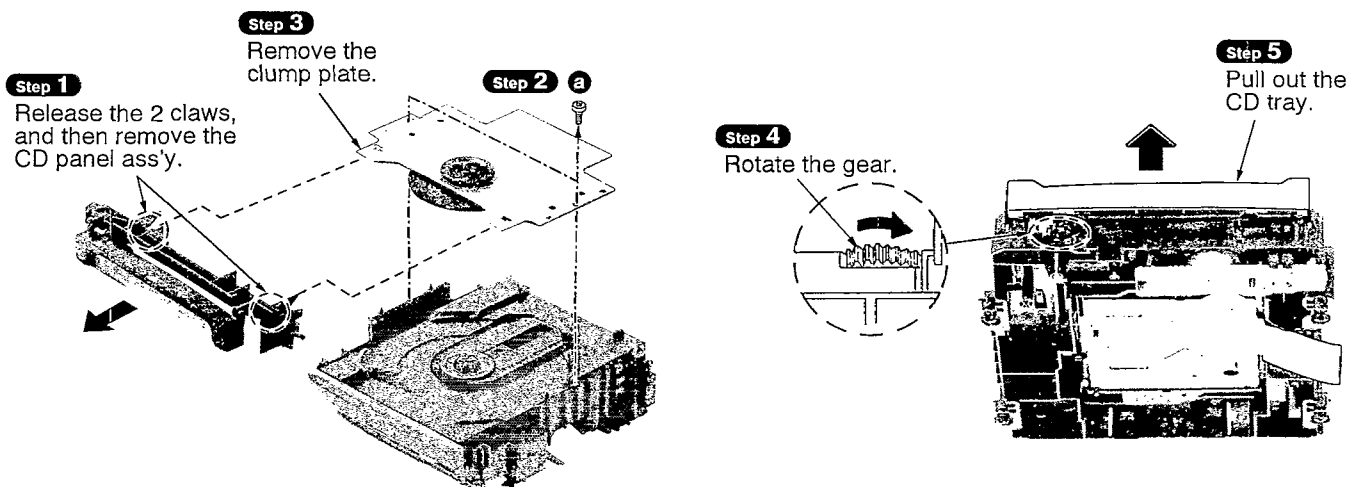
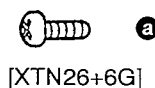
- Follow the item 1 (**Step 1** ~ **Step 4**) in checking procedures for each P.C.B. on page 7.

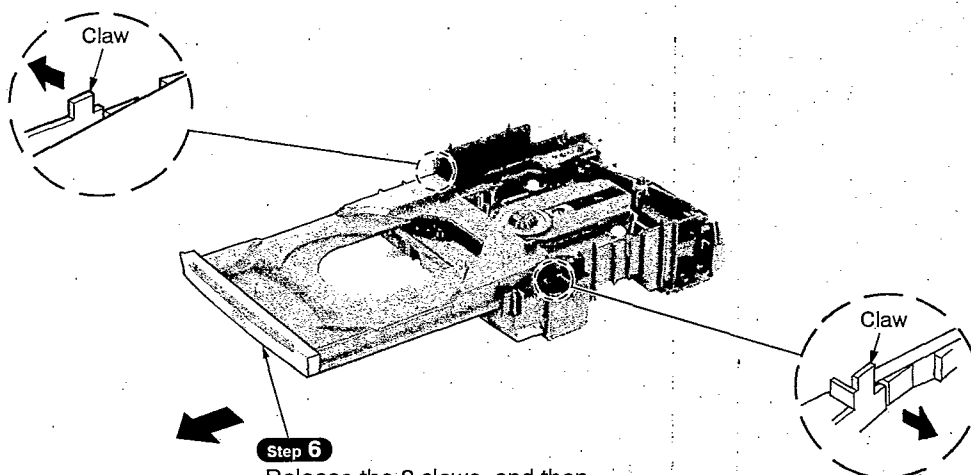
- Release the 2 claws, and then pull out the handle.



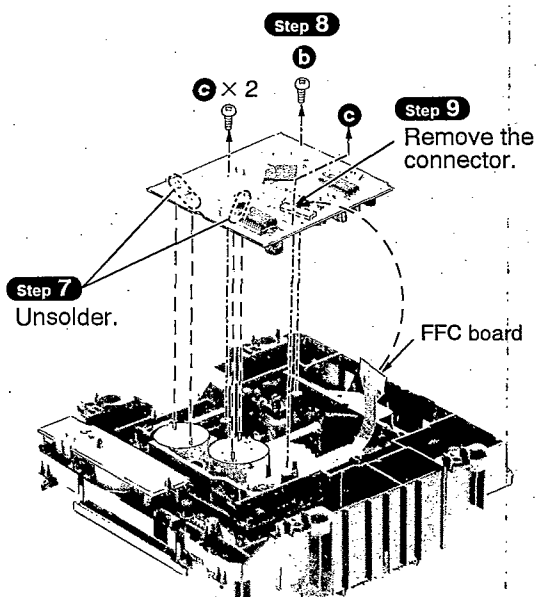
2. Replacement for the traverse deck

- Follow the item 1 (**Step 1** ~ **Step 6**) in checking procedures for each P.C.B. on pages 7 and 8.



**Step 6**

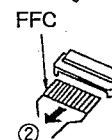
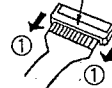
Release the 2 claws, and then pull out the disc tray.

**Caution:**

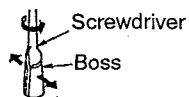
Solder the point between pin 4 (LD) and pin 5 (GND) of FFC board.
(Refer to "Handling Precautions for Traverse Deck" on page 6.)

※ Side the top of the connector in the direction of the arrow ① and disconnect of the FFC board in the direction of the arrow ②.

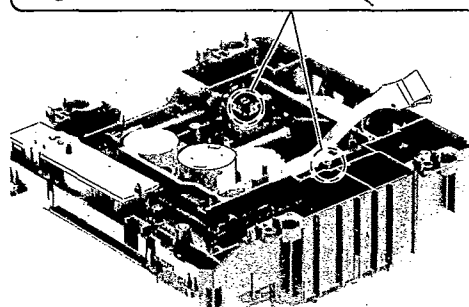
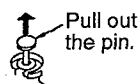
Top of connector

**Step 10**

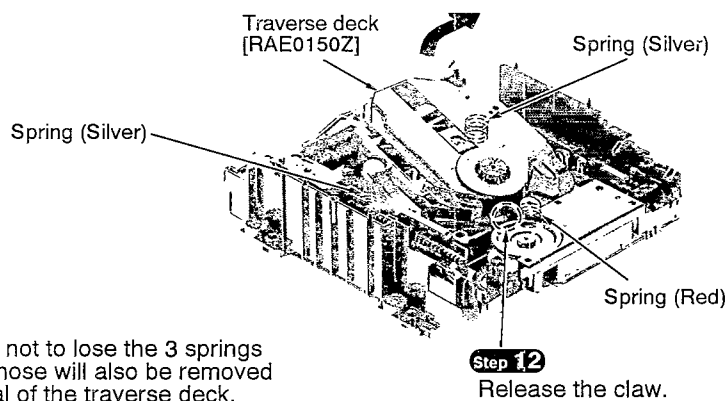
1. Widen the boss using a regular screwdriver.



2. Pull out the pin in the direction of the arrow.



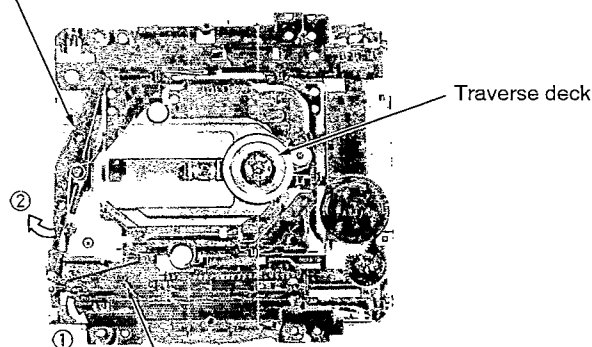
 **b**
[XTN2+6G]
 **c**
[XTV2+6G]

**NOTE**

Be careful not to lose the 3 springs because those will also be removed on removal of the traverse deck.

Installation of the disc tray after replacement**Step 2**

Operate the lever, and then locate the traverse deck to "UP" position.



End hook

※ Push the disc tray in the direction of arrow until the end hooks are latched.

Step 3

Move the drive gear (B) ass'y in the direction of arrow ③.

Step 4

Insert the disc tray.

End hook

Step 5

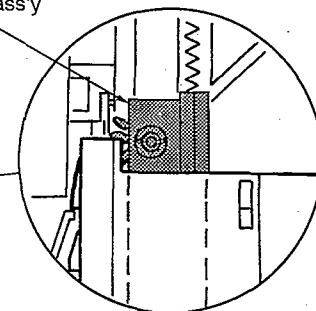
Hold the disc tray and slide the drive gear (B) ass'y.

Drive gear (B) ass'y

⑤

Disc tray

Drive gear (B) ass'y

**Step 6**

Operate the lever, and then locate the traverse deck to "DOWN" position.

Traverse deck

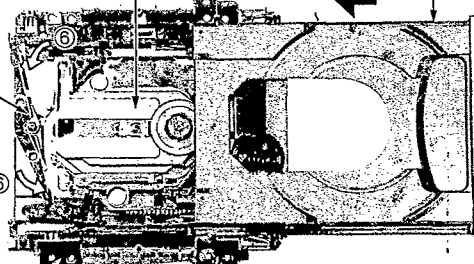
Lever

⑥

Step 7

Press the disc tray.

⑦



Installation of the CD P.C.B. after replacement

Step 3

Step 4
b × 2

a

b

Step 1

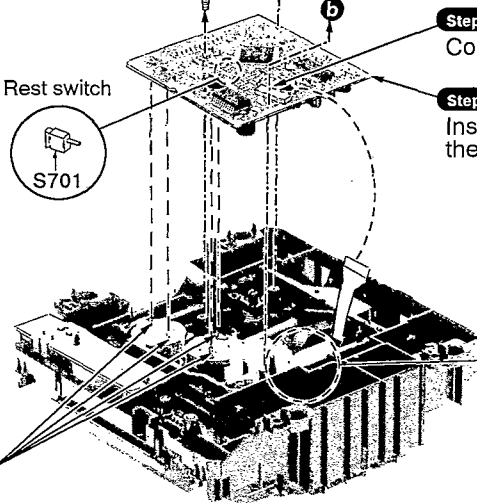
Connect the FFC board.

Step 2

Install the CD P.C.B. in the traverse deck.

Rest switch

S701

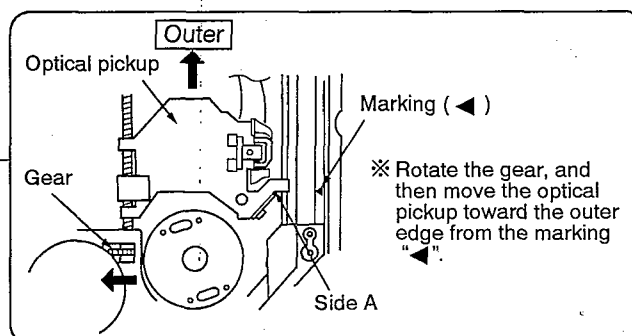
**Step 5**

Solder.

- a
 [XTN2+6G]
 b
 [XTV2+6G]

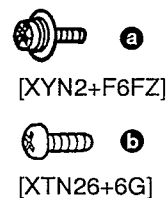
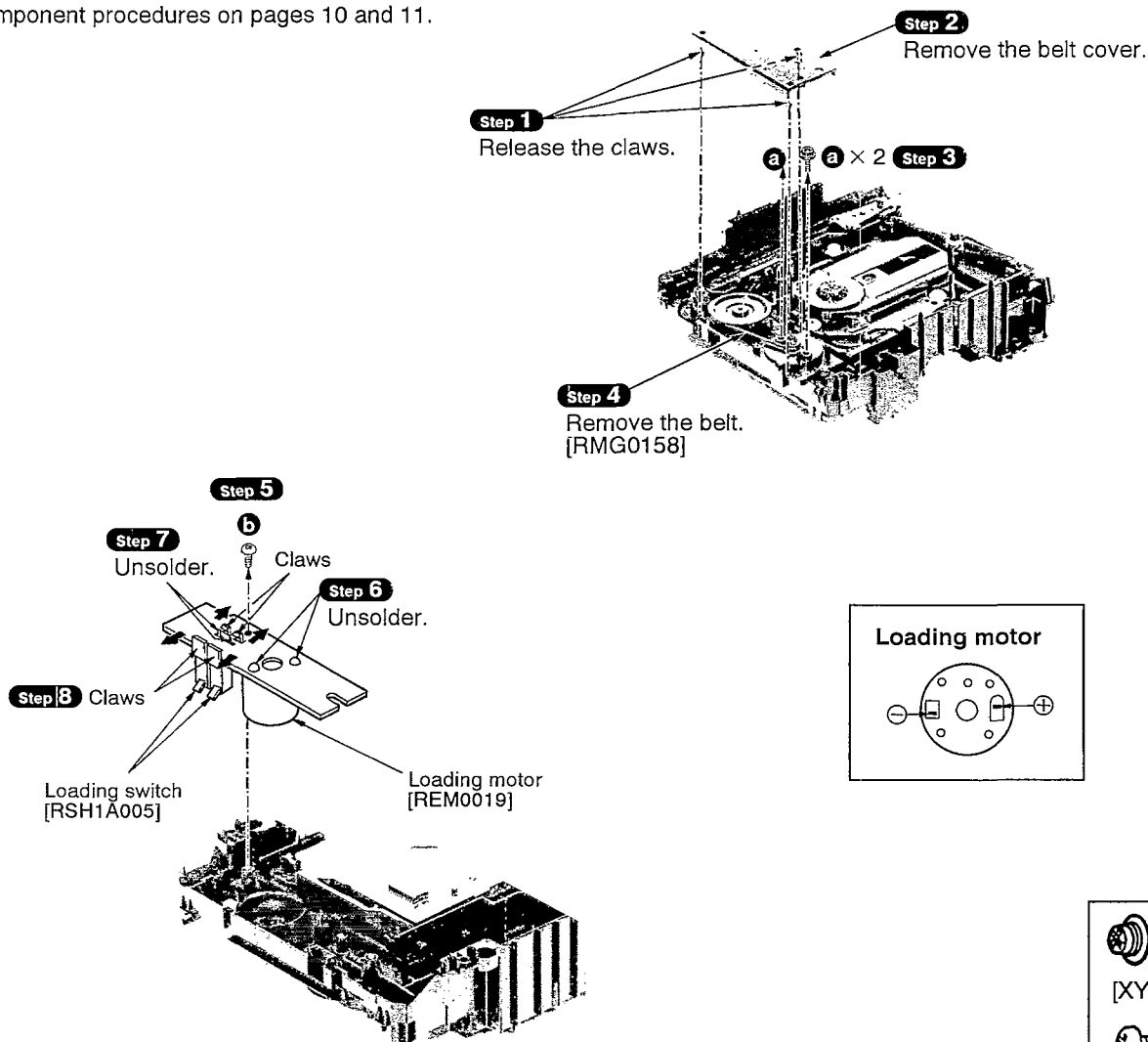
NOTE

Before installing the CD P.C.B., move the optical pickup toward the outer edge from the mark "▼". [Otherwise, the rest detect switch (S701) mounted on the CD P.C.B. may be damaged.]



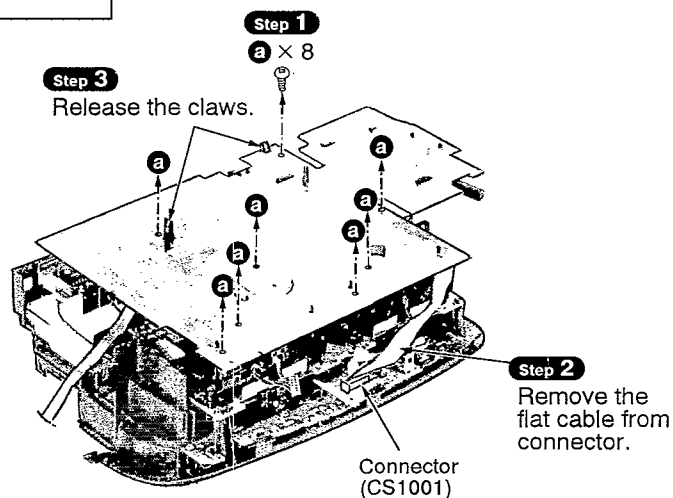
3. Replacement for the belt, loading motor and loading switch

- Follow the item 1 (**Step 1** ~ **Step 6**) in checking procedures for each P.C.B. on pages 7 and 8.
- Follow the item 2 (**Step 1** ~ **Step 7**) in main component procedures on pages 10 and 11.



4. Replacement for the motor ass'y

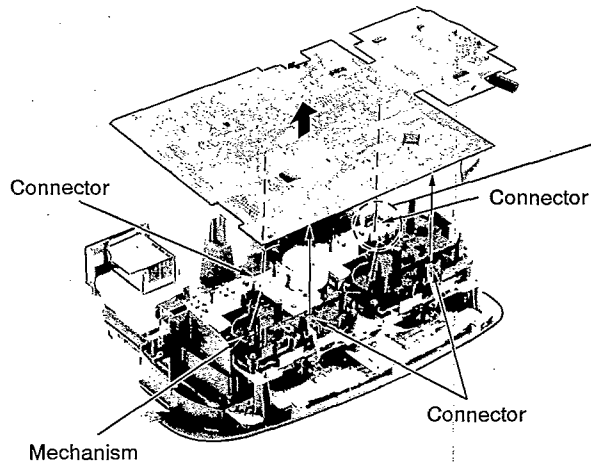
- Follow the item 1 (**Step 1** ~ **Step 10**) in checking procedures for each P.C.B. on pages 7 and 8.



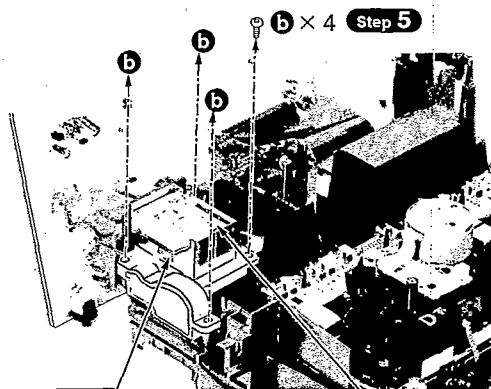
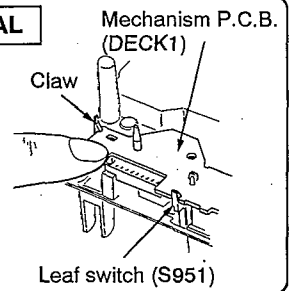
[XTBS26+10J]

Step 4

Lift the main P.C.B. in the direction of arrow.
(Be careful to remove the main P.C.B. because the mechanism is connected to 4 connectors.)

**NOTE FOR MAIN P.C.B. REMOVAL**

When removing the main P.C.B., press the mechanism P.C.B. with finger not to fall free. (Refer to figure right)
[Otherwise, the leaf switch (S951) may be damaged because the mechanism P.C.B. is removed at the same time when removing the mechanism P.C.B. connector.]

**Step 6**

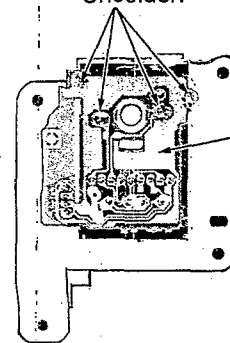
Remove the connector (CS1301).

Step 7

Remove the motor ass'y.

Step 8

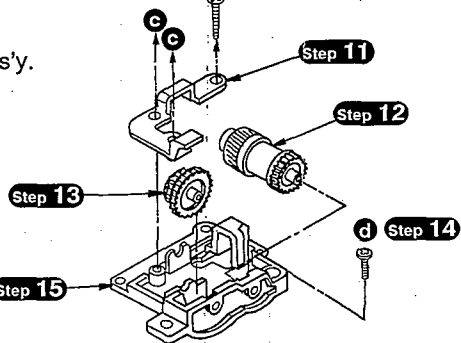
Unsolder.

**Step 9**

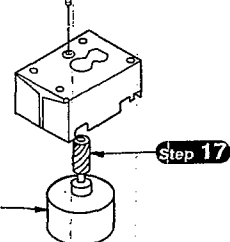
Remove the motor P.C.B.

Step 10

c x 3

**Step 16**

e



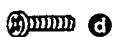
Motor ass'y
[RFKPXDT07-K]



[XTV3+12G]



[XTV26+12F]



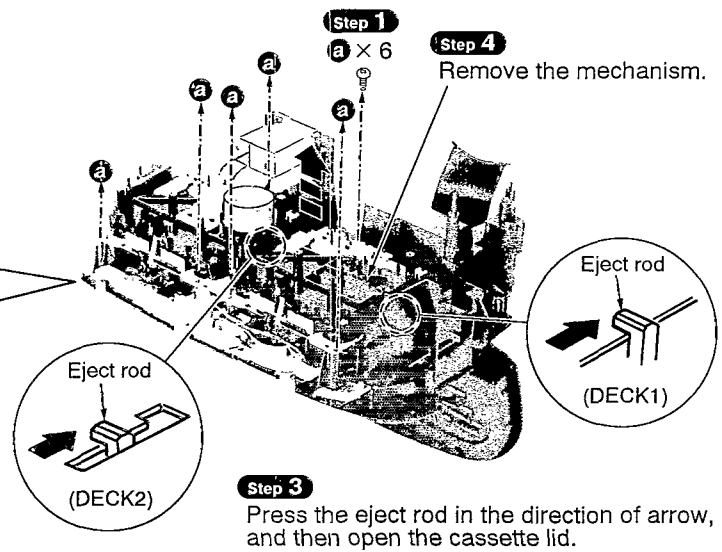
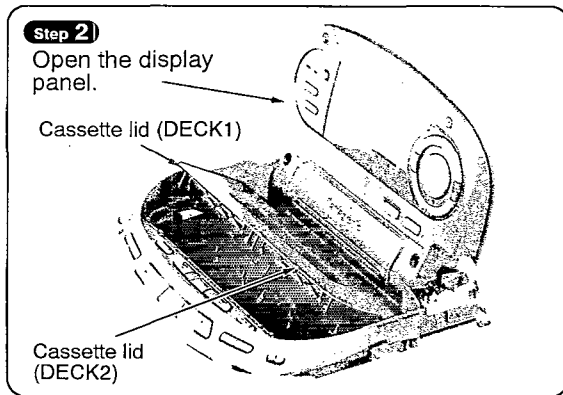
[XQN2+C6]



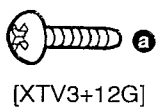
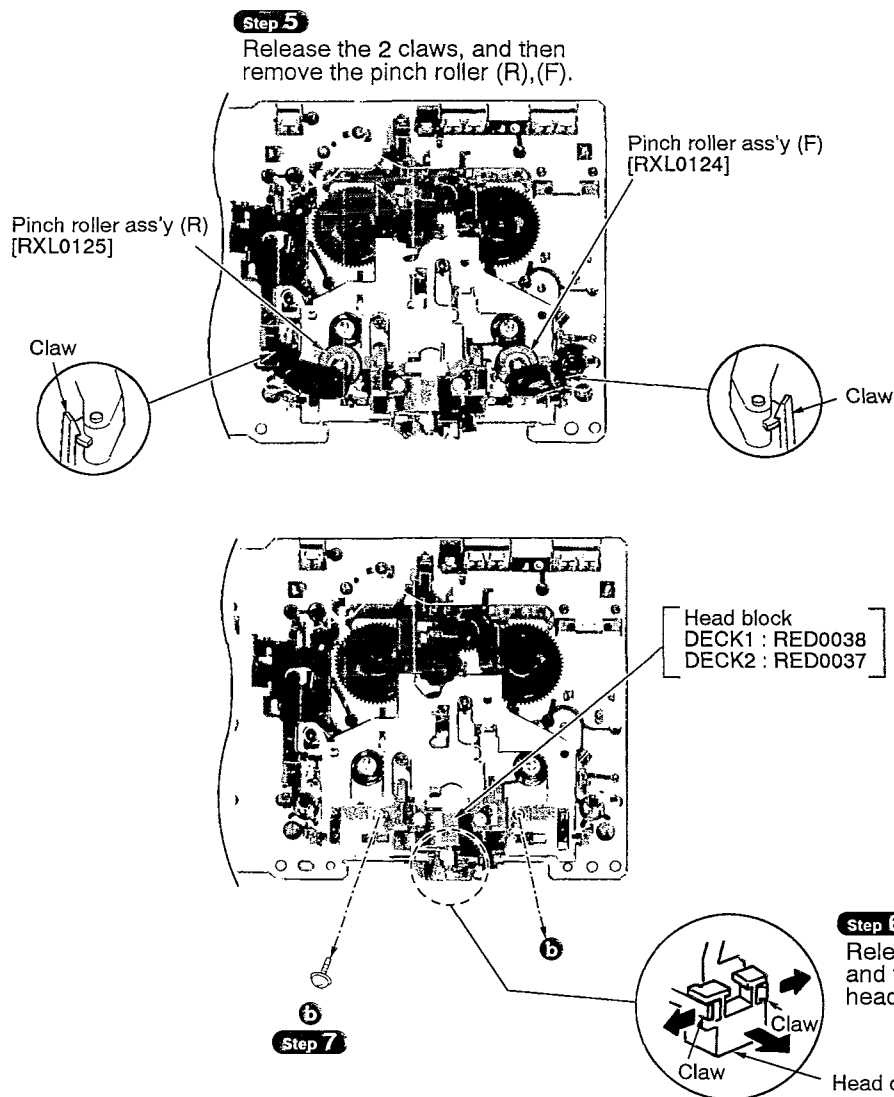
[XQN2+C3]

5. Replacement for the pinch roller ass'y and head block

- Follow the item 1 (**Step 1** ~ **Step 10**) in checking procedures for each P.C.B. on pages 7 and 8.
- Follow the item 4 (**Step 1** ~ **Step 4**) in main component procedures on pages 14 and 15.



※ The illustration below shows DECK2 mechanism.
For DECK1 mechanism, perform the same procedure as DECK2.

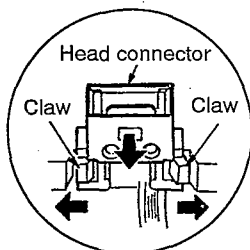


6. Replacement for the motor ass'y, capstan belt A, capstan belt B and fast forward belt

- Follow the item 1 (Step 1 ~ Step 10) in checking procedures for each P.C.B. on pages 7 and 8.
- Follow the item 4 (Step 1 ~ Step 4) in main component procedures on pages 14 and 15.

Step 1

Release the 2 claws, and then remove the head connector.



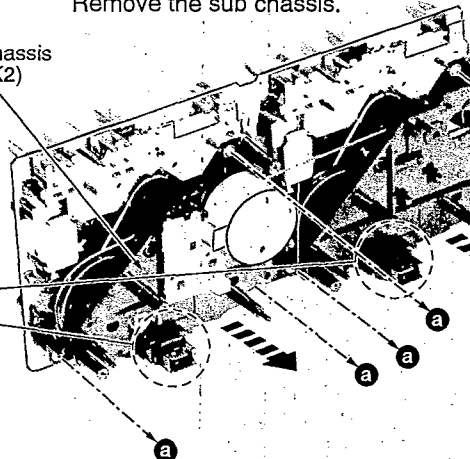
Step 3

Remove the sub chassis.

Sub chassis (DECK2)

Sub chassis (DECK1)

a × 6
Step 2



Capstan belt B [RDV0035]

Step 5 b × 2

b

Motor ass'y [REM0055]

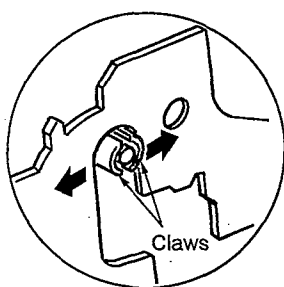
Step 4

Unsolder the terminals. (4 points)

Capstan belt A [RDV0034]

a
[XTW26+10S]

b
[RHD26022]



Step 6

Remove the Flywheel R.



Step 7

Release the claw, and then remove the winding belt and spring.

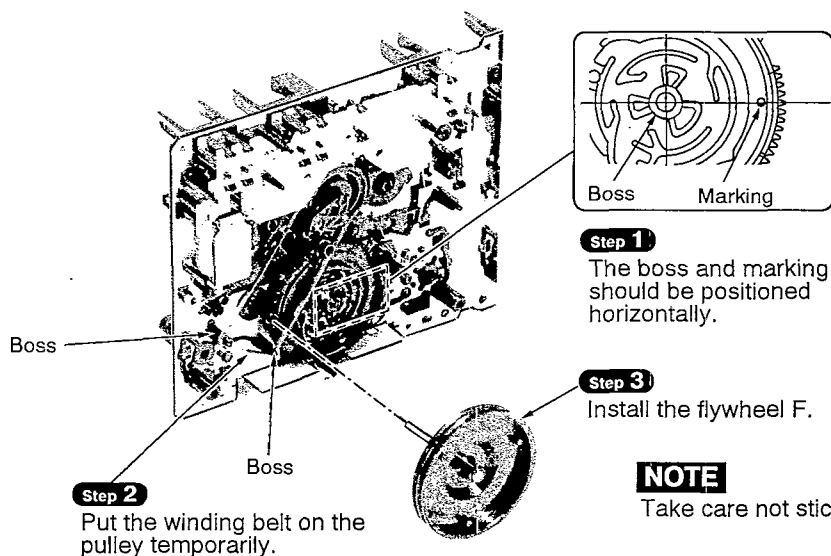
Winding belt [RDV0033-1]

Step 8

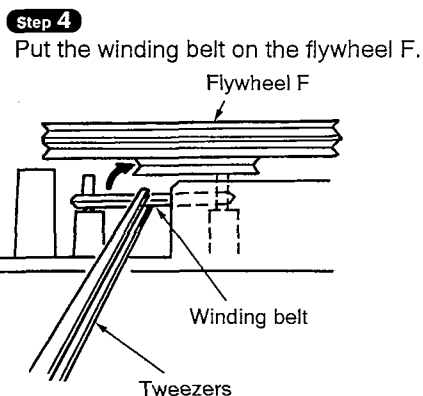
Remove the flywheel F.



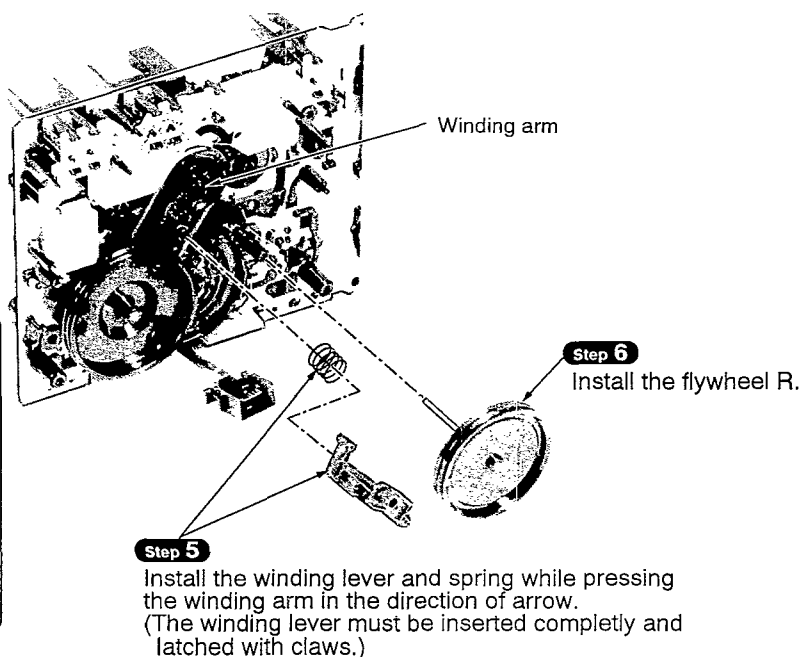
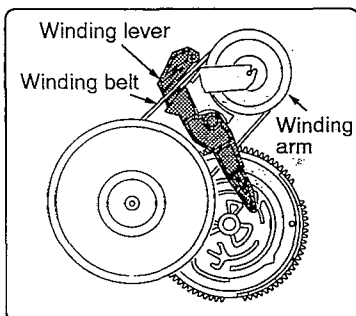
Installing the belt

**NOTE**

Take care not stick the grease on the belt.

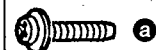
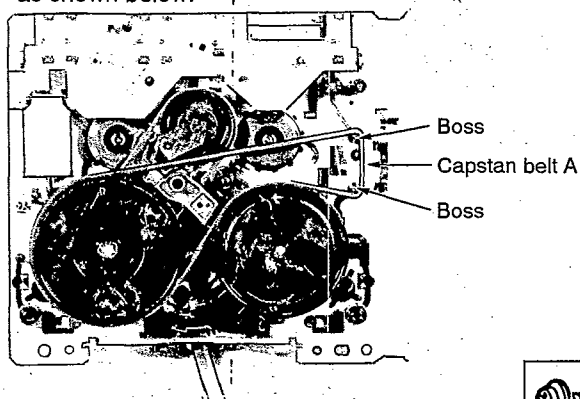
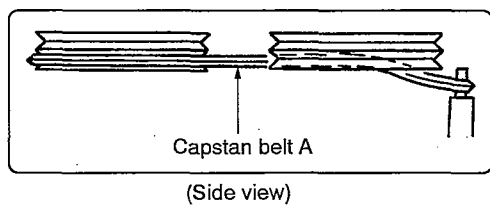
**NOTE**

The winding lever should be positioned as shown below.



Step 7

Put the capstan belt A temporarily as shown below.



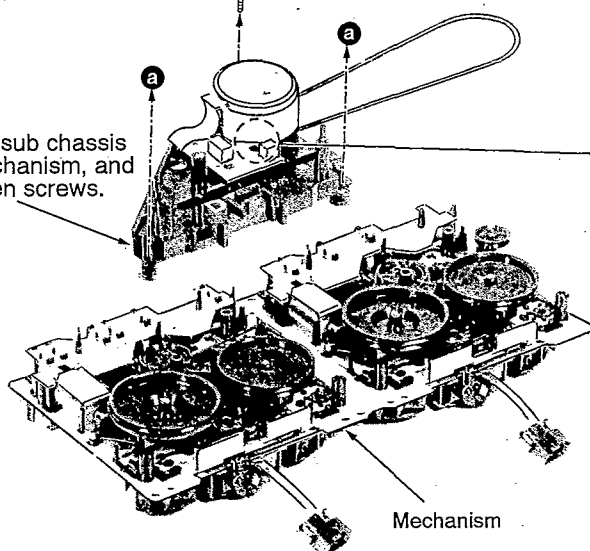
[XTW26+10S]

Step 10

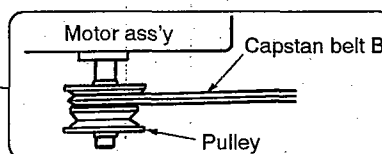
a × 3

Step 9

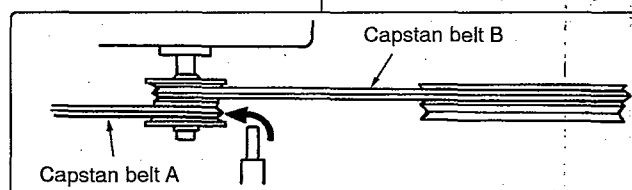
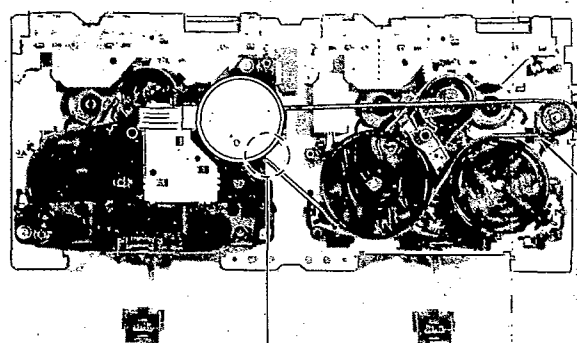
Install the sub chassis to the mechanism, and then tighten screws.

**Step 8**

Put the capstan belt B on the motor ass'y pulley

**Step 11**

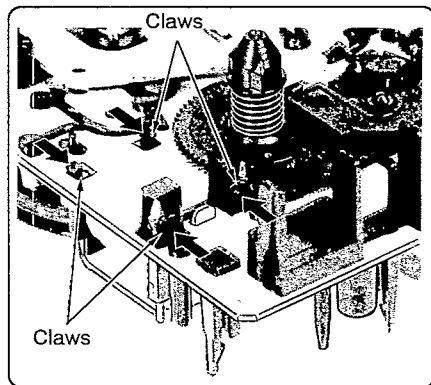
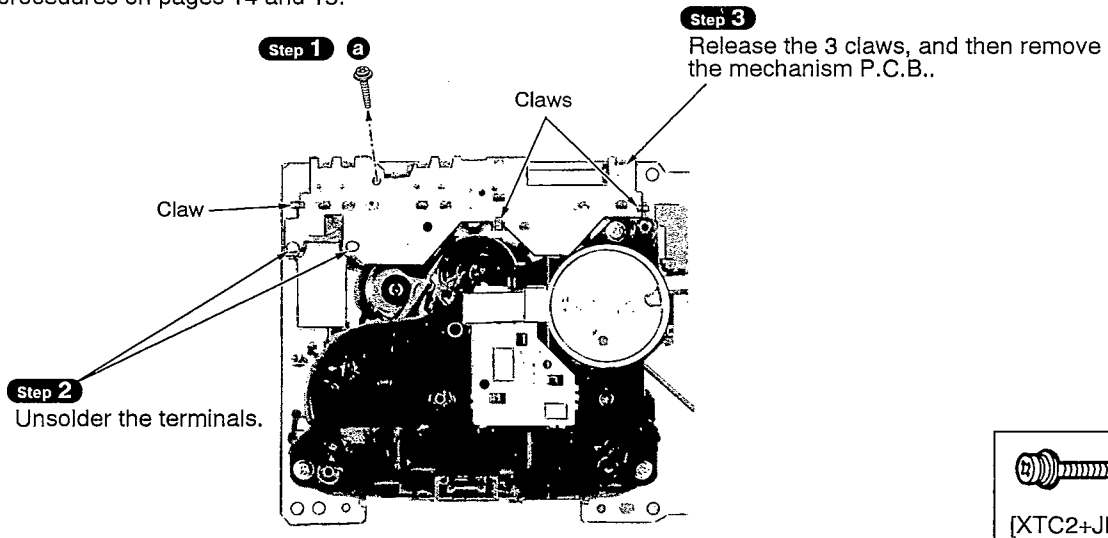
Put the capstan belt B as shown left.

**Step 12**

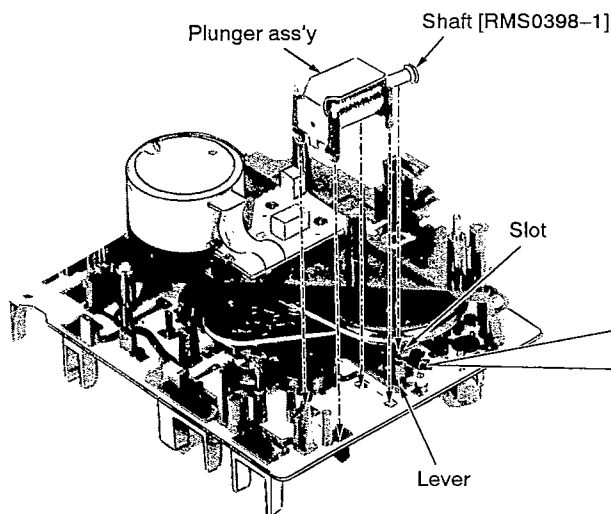
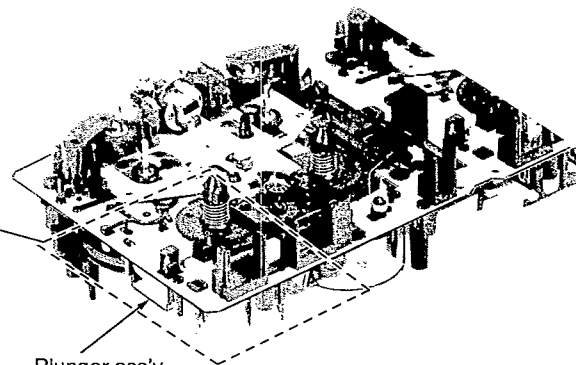
Put the capstan belt A on the motor ass'y pulley.

7. Replacement for the plunger ass'y and the parts mounted on mechanism P.C.B.

- Follow the item 1 (**Step 1** ~ **Step 10**) in checking procedures for each P.C.B. on pages 7 and 8.
- Follow the item 4 (**Step 1** ~ **Step 4**) in main component procedures on pages 14 and 15.

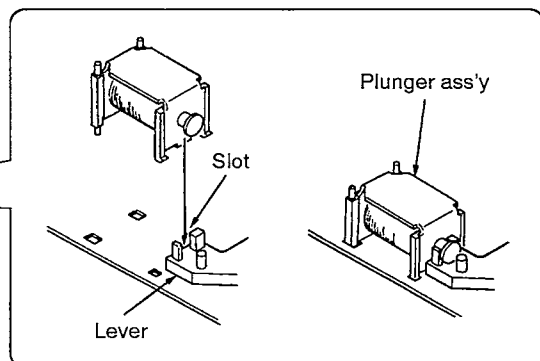


Step 4
Release the 4 claws.



NOTE

- Notice for installing the plunger ass'y**
- The shaft of plunger ass'y should be aligned with the slot of lever.



Schematic Diagram

	Page		Page
A CD circuit	22, 23	G Loading motor circuit.....	29
B LCD circuit	24	H Sensor circuit	29
C Main circuit.....	25 ~ 32	I Operation (1) circuit	29
D Mechanism circuit (DECK2)	28	J Operation (2) circuit	29
E Mechanism circuit (DECK1)	28	K Motor (Top panel) circuit	30
F Motor circuit	28	L Power supply circuit	32

Notes:

< CD circuit >

S701 : Rest switch.

< Loading motor circuit >

S790 : CD tray open detect switch.

S791 : CD tray close detect switch.

< LCD circuit >

S801 : Timer adjust switch. (TIMER ADJUST)

S802 : Preset equalizer switch. (PRESET EQ)

S803 : Timer switch. (TIMER)

(●...PLAY, ●●...REC)

S804 : Memory/program switch. [MEMORY (TUNE/CD)]

S805 : Skip/search/timer set/tuning switch. (CD/TUNE/TIME SET◀◀/~/)

S806 : Preset tuning mode switch. (PRESET TUNE MODE)

S807 : Clock time adjust switch. (CLOCK ADJUST)

S808 : Skip/search/timer set/tuning switch. (CD/TUNE/TIME SET▶▶/~/)

S809 : CD rec mode switch. (CD REC MODE)

S810 : Rec/rec pause switch. (●/●||)

S811 : Tape edit switch. (TAPE EDIT)

< Power supply circuit >

S901 : AC/DC select switch.

< Mechanism (DECK 1) circuit >

S951 : Mode detect switch.

S952 : Cassette tape detect switch.

S953 : CrO₂ tape detect switch.

< Mechanism (DECK 2) circuit >

S971 : Mode detect switch.

S972 : Cassette tape detect switch.

S973 : CrO₂ tape detect switch.

S974 : Rverse side record prevention tab detect switch.

S975 : Forward side recoed prevention tab detect switch.

< Motor (DECK) circuit >

VR981 : Tape speed adjustment VR.

< Operation (2) circuit >

S1001 : Power "STDBY⏻(AC)/ON" switch. [POWER/BATT, STANDBY⏻(AC)/ON]

S1011 : CD tray open/close switch. (▲ CD OPEN/CLOSE)

S1012 : DECK 1 tape eject switch. (DECK 1 ▲)

S1013 : Tape rewind/TPS switch. (REW/ [TPS])

S1014 : DECK select switch. (DECK 1/2)

S1015 : Tape fast forward /TPS switch. (FF/ [TPS])

S1016 : DECK 2 tape eject switch. (DECK 2 ▲)

< Operation (1) circuit >

S1002 : Volume down switch. (-)

S1003 : Volume up switch. (+)

S1004 : Tape stop switch. (■)

S1005 : Tape play/direction switch. (◀▶)

S1006 : Band select switch. (BAND)

S1007 : CD play/pause switch. (▶/||)

S1008 : CD stop/clear switch. (■/CLEAR)

S1009 : Top panel close switch. (CLOSE)

S1010 : Top panel open switch, (OPEN)

• Battery current:

Vol. min...370 mA (FM)

370 mA (LW)

370 mA (MW)

385 mA (TAPE)

520 mA (CD)

Vol. max...1020 mA (FM)

810 mA (LW)

820 mA (MW)

1580 mA (TAPE)

1960 mA (CD)

Measurement instruction

MW/LW: 74 dB/m, 30% Mod.

FM: 60 dB, 30% Mod.

TAPE: 315 Hz, 0 dB

CD: 1 kHz, 0 dB

• DC voltage measurements are taken with electronics voltmeter.

The negative terminal of the battery provides negative meter connection point.

No mark ... TAPE PLAYBACK [] TUNER

() MW/LW

(()) CD

< > FM

[] REC

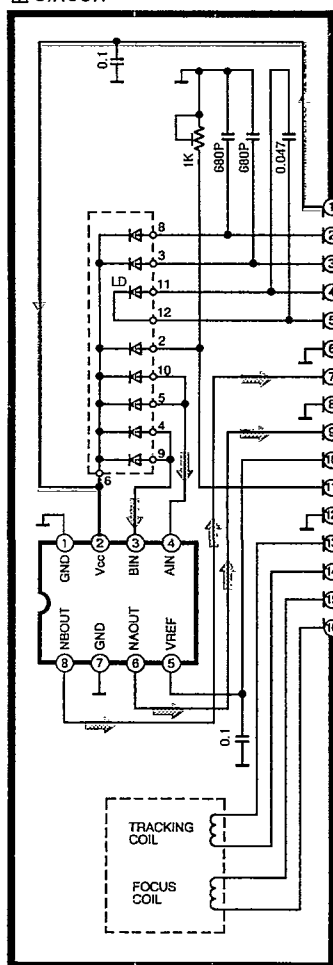
• Important safety notice

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

When replacing any of these components, use only manufacturer's specified parts.

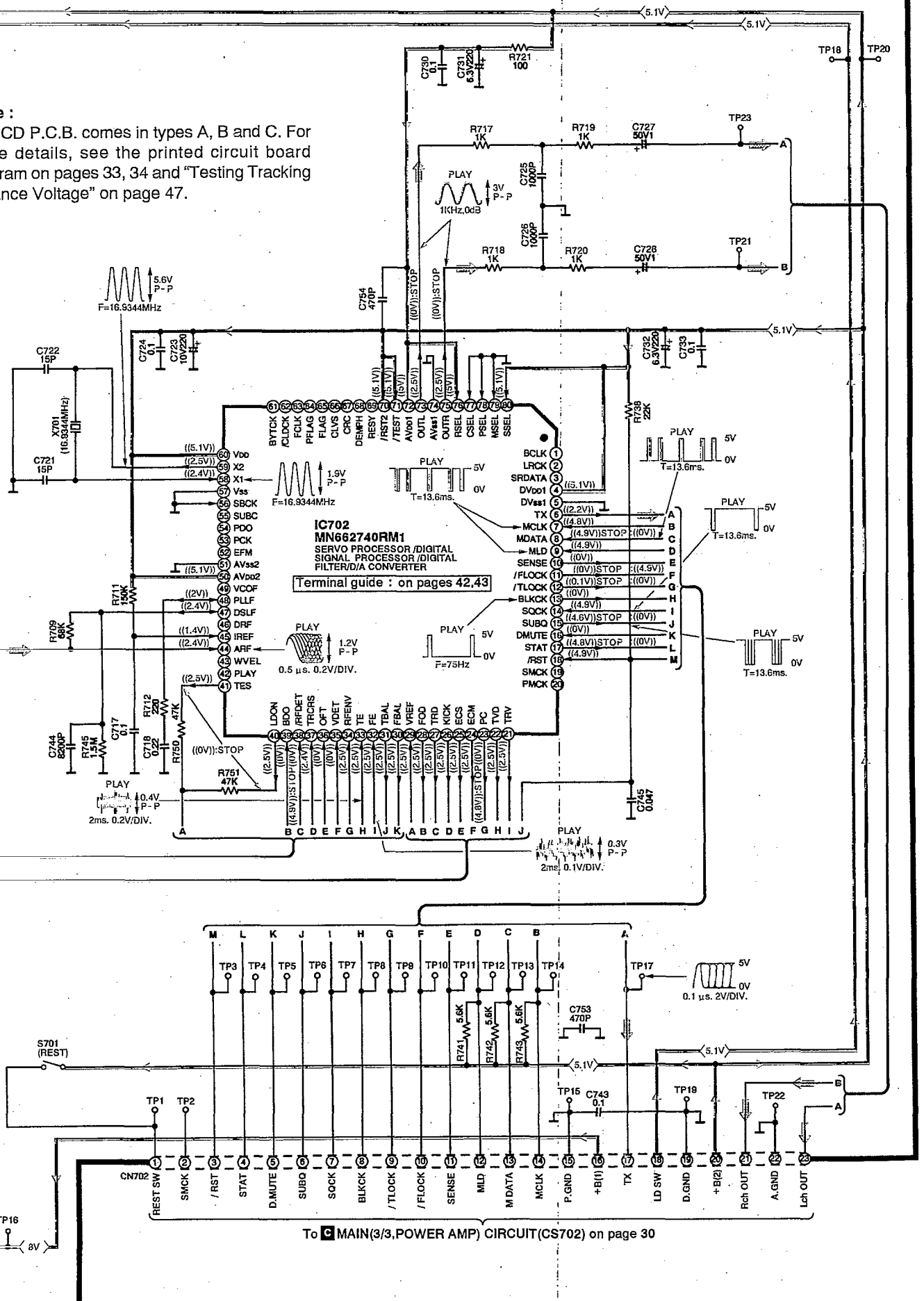
• This schematic diagram may be modified at any time with the development of new technology.

-  : CD Signal Line
-  : FM/AM/ V cap Control Signal Line
-  : Main Signal Line
-  : FM Signal Line
-  : Tape Signal Line
-  : AM OSC Signal Line
-  : Record Signal Line
-  : FM OSC Signal Line
-  : Mic Signal Line
-  : + B Line

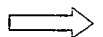


Note :

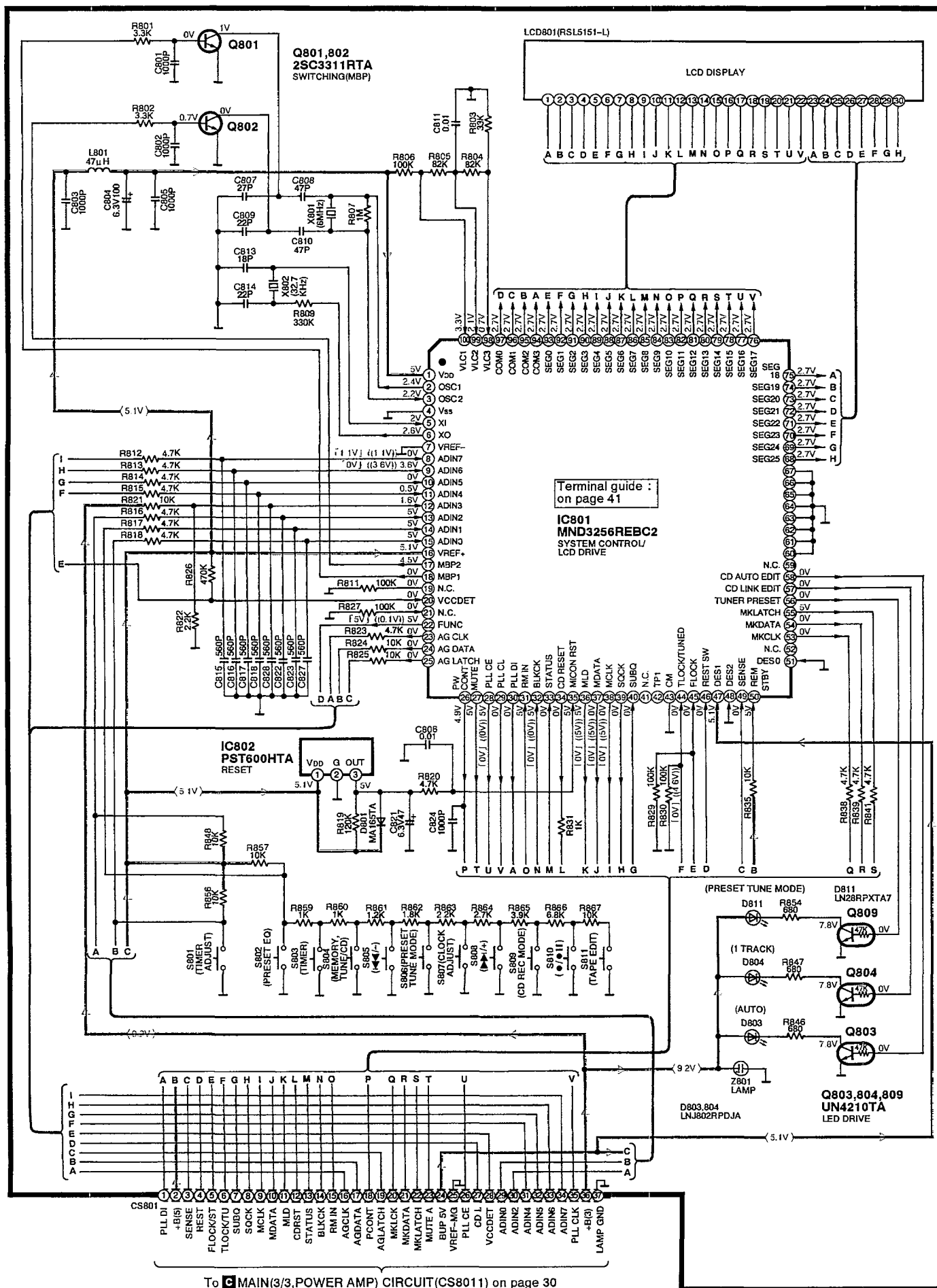
The CD P.C.B. comes in types A, B and C. For more details, see the printed circuit board diagram on pages 33, 34 and "Testing Tracking Balance Voltage" on page 47.



To MAIN(3/3, POWER AMP) CIRCUIT(CS702) on page 30

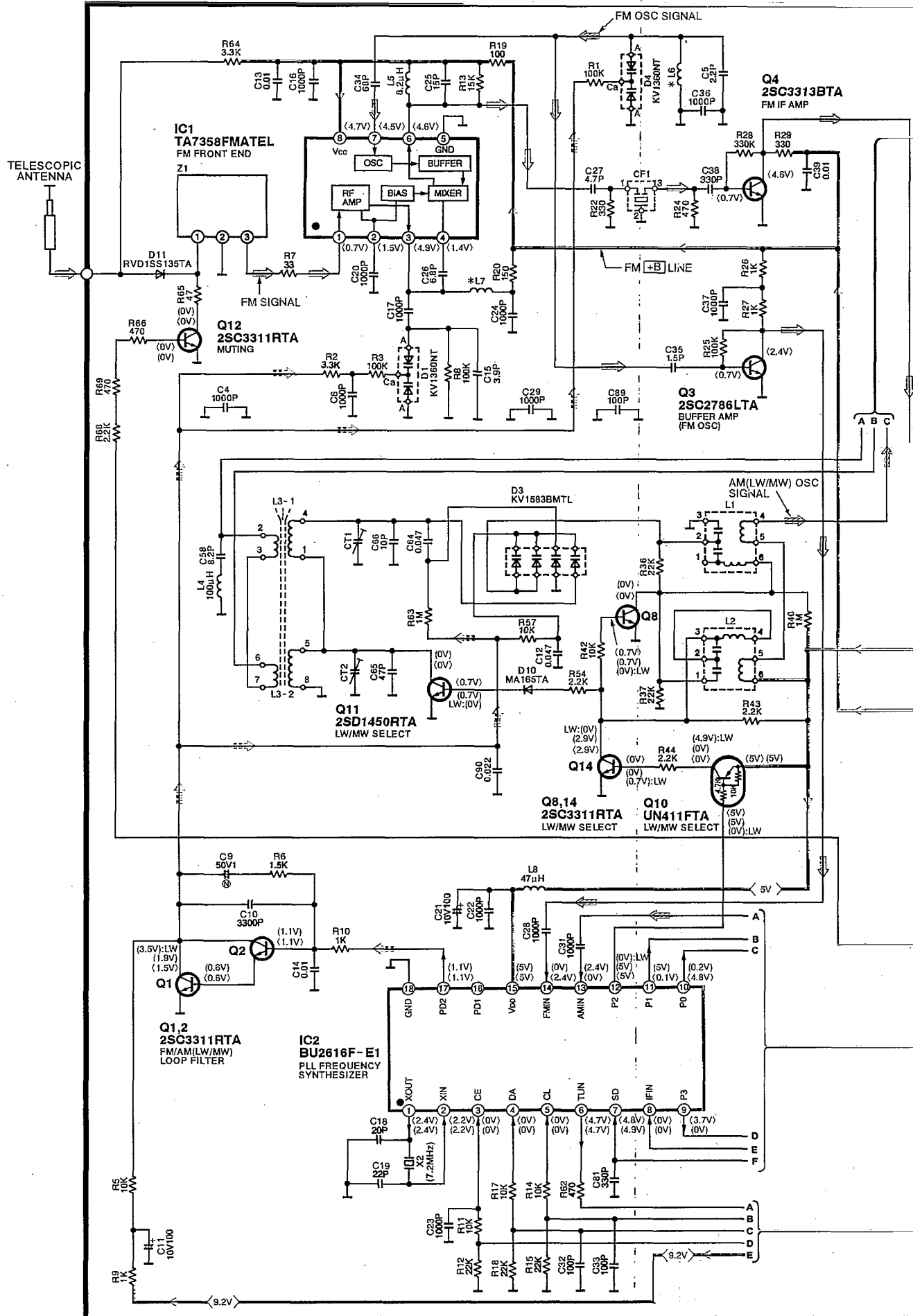


B LCD CIRCUIT (P.C.Board : on page 35)



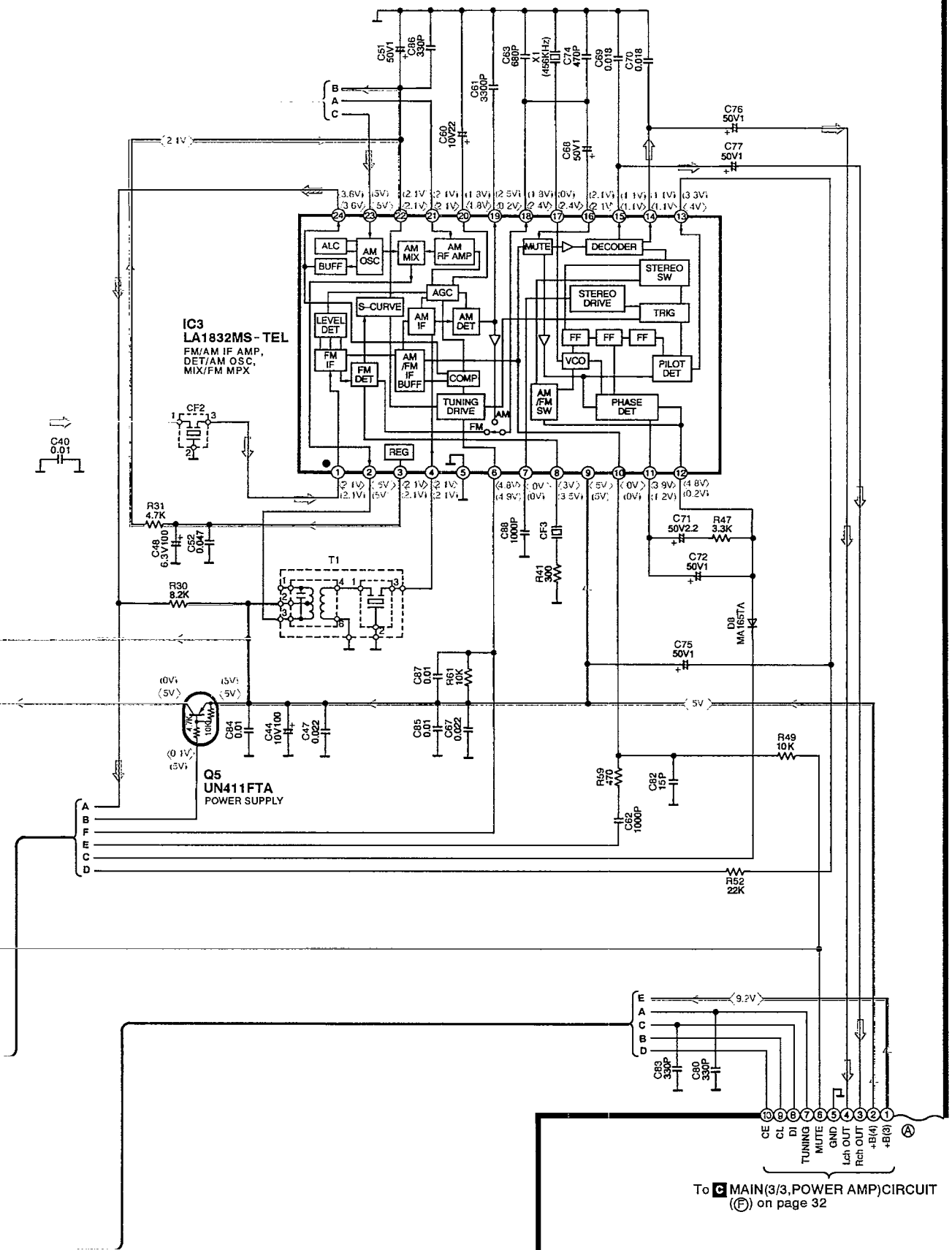
To **C** MAIN(3/3,POWER AMP) CIRCUIT(CS8011) on page 30

C MAIN(1/3,TUNER)CIRCUIT (P.C.Board : on pages 36,37)



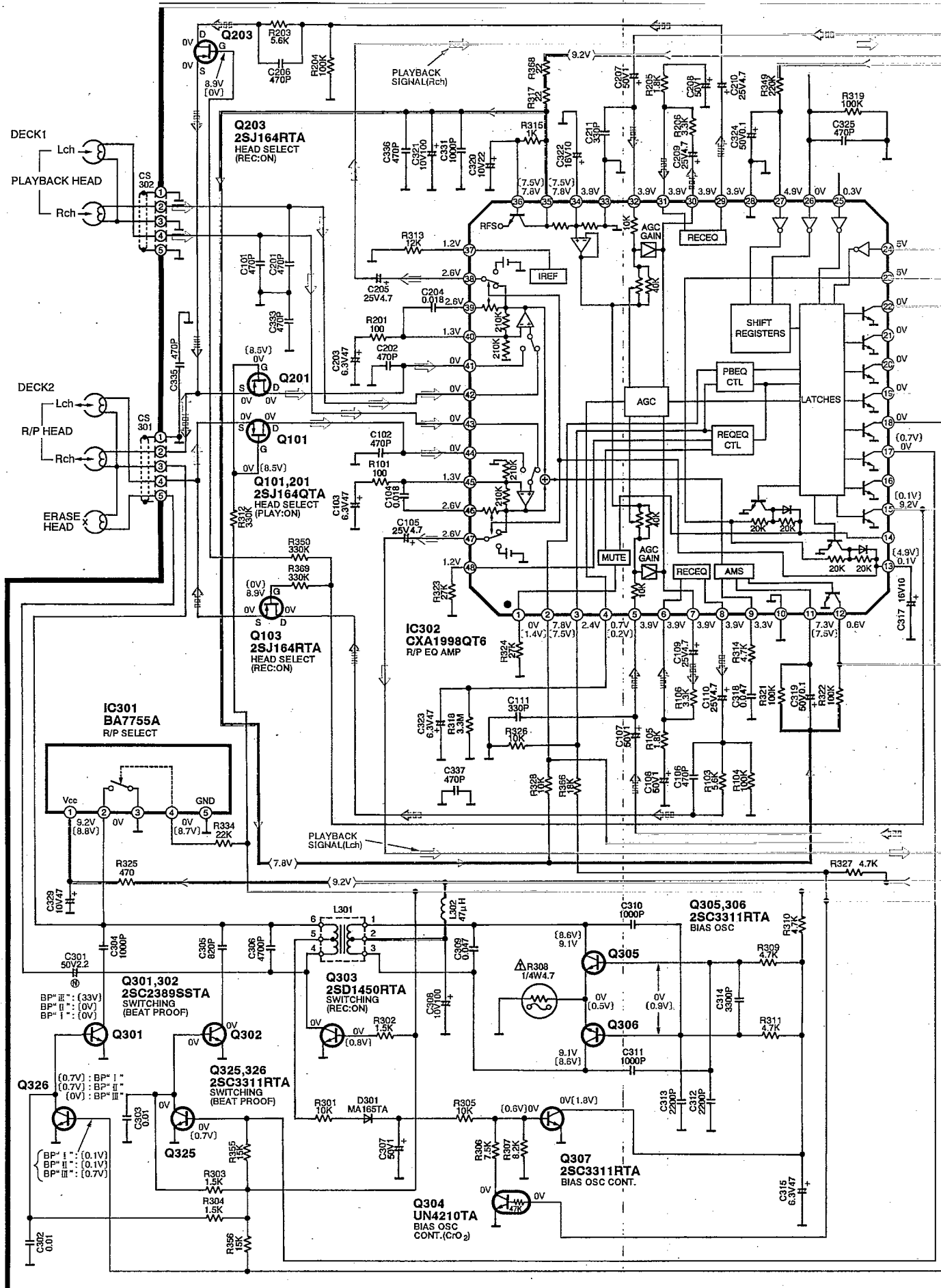
 : FM Signal Line

 : FM/AM/ V cap Control Signal Line

 : AM OSC Signal Line


To **C** MAIN(3/3, POWER AMP) CIRCUIT
(**E**) on page 32

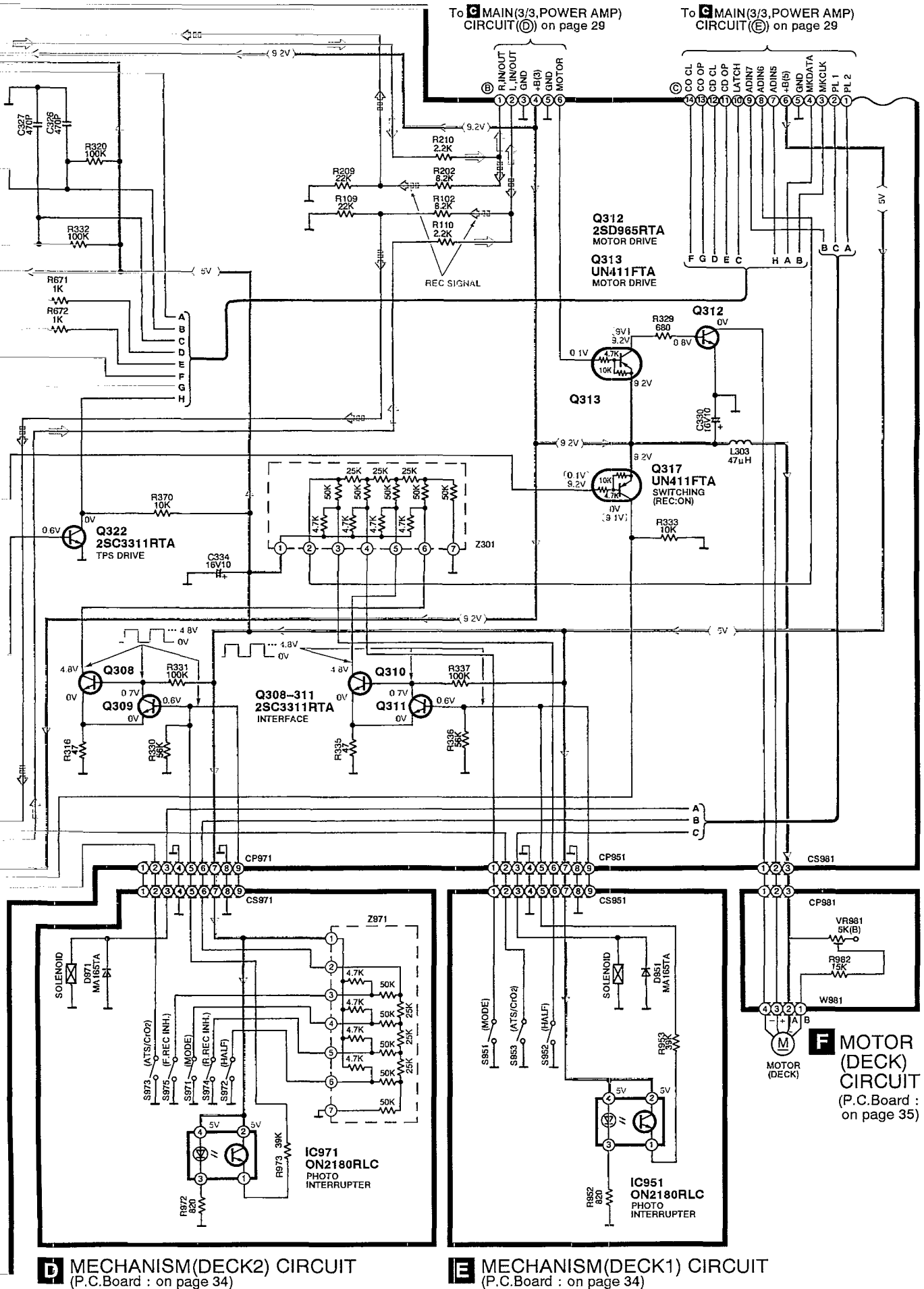
C MAIN(2/3,DECK) CIRCUIT (P.C.Board : on pages 36,37)



→ : Tape Signal Line
 → : Mic Signal Line

→ : Record Signal Line
 → : Main Signal Line

→ : CD Signal Line
 → : + B Line

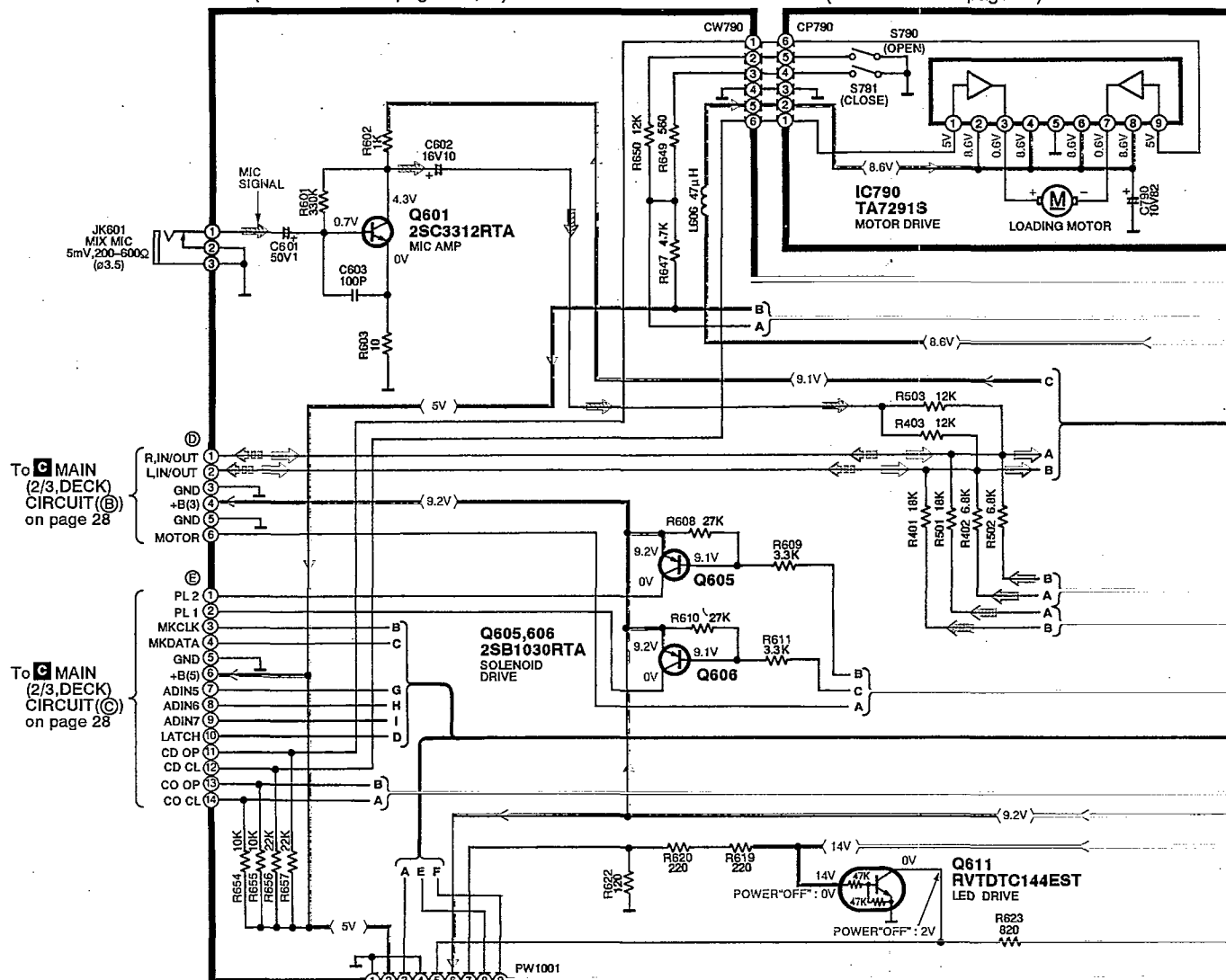


D MECHANISM(DECK2) CIRCUIT
 (P.C.Board : on page 34)

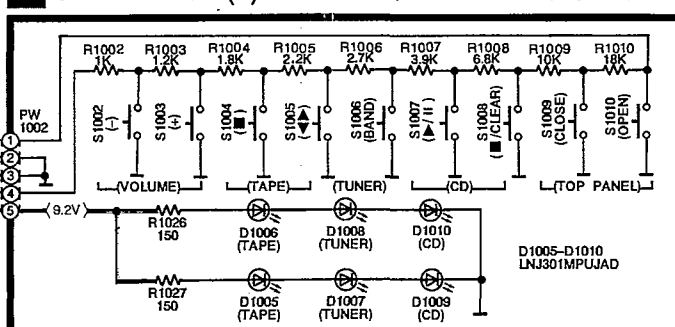
E MECHANISM(DECK1) CIRCUIT
 (P.C.Board : on page 34)

C MAIN(3/3,POWER AMP) CIRCUIT (P.C.Board : on pages 36,37)

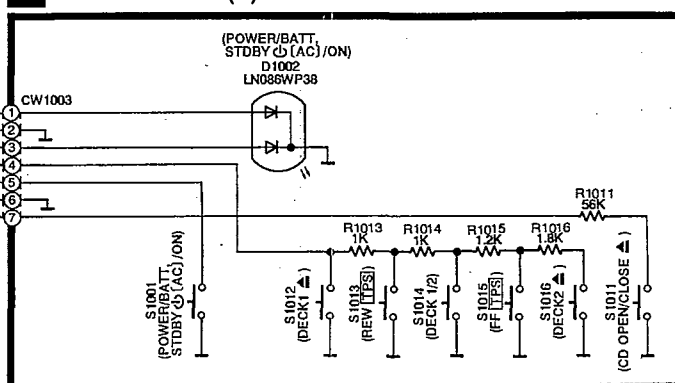
G LOADING MOTOR CIRCUIT (P.C.Board : on page 35)



I OPERATION(1) CIRCUIT (P.C.Board : on page 34)



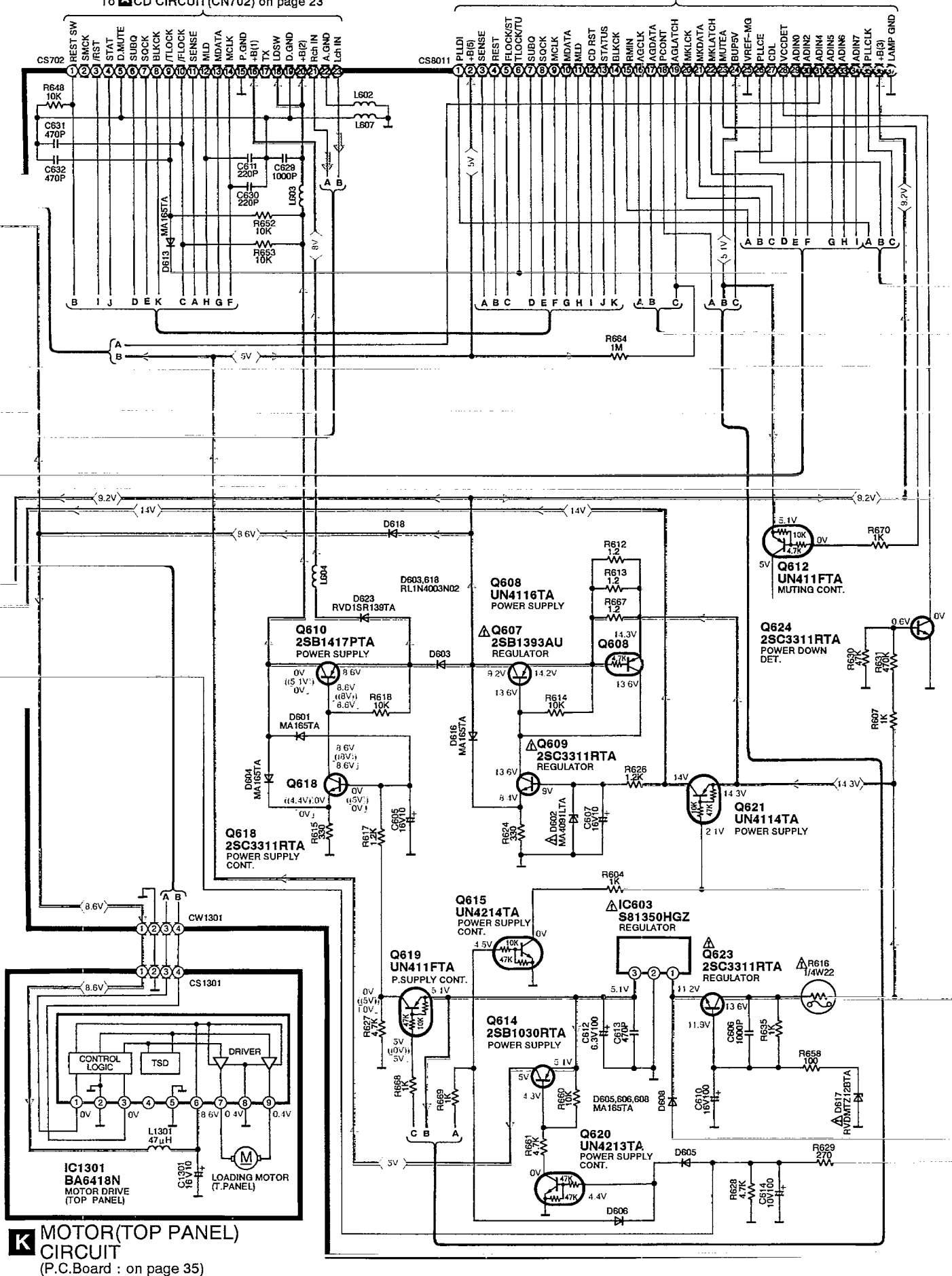
J OPERATION(2) CIRCUIT (P.C.Board : on page 38)



H SENSOR CIRCUIT (P.C.Board : on page 35)

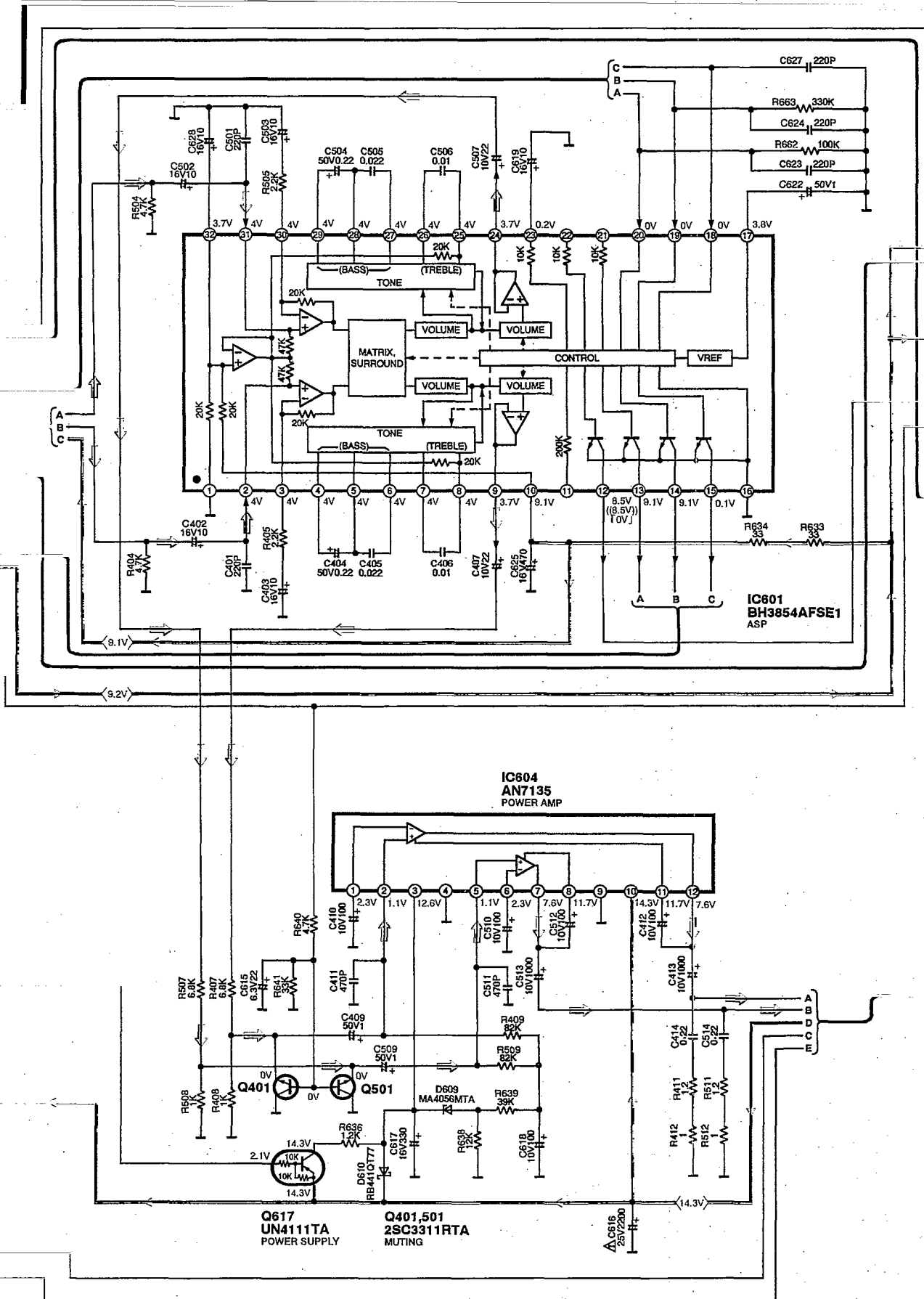
 : CD Signal Line

 : Main Signal Line

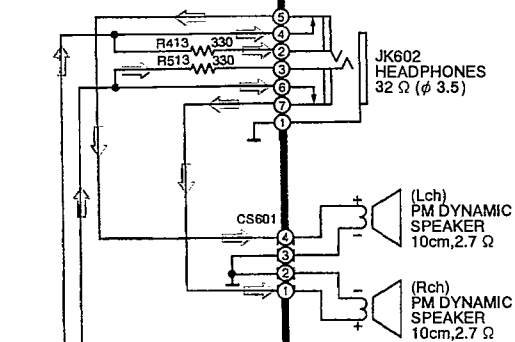
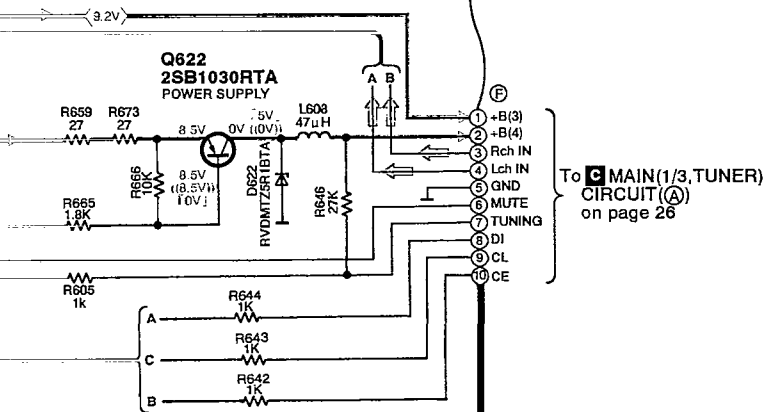
 : + B Line
To **A** CD CIRCUIT (CN702) on page 23To **B** CD CIRCUIT (CS801) on page 24

K MOTOR(TOP PANEL)
CIRCUIT
(P.C.Board : on page 35)

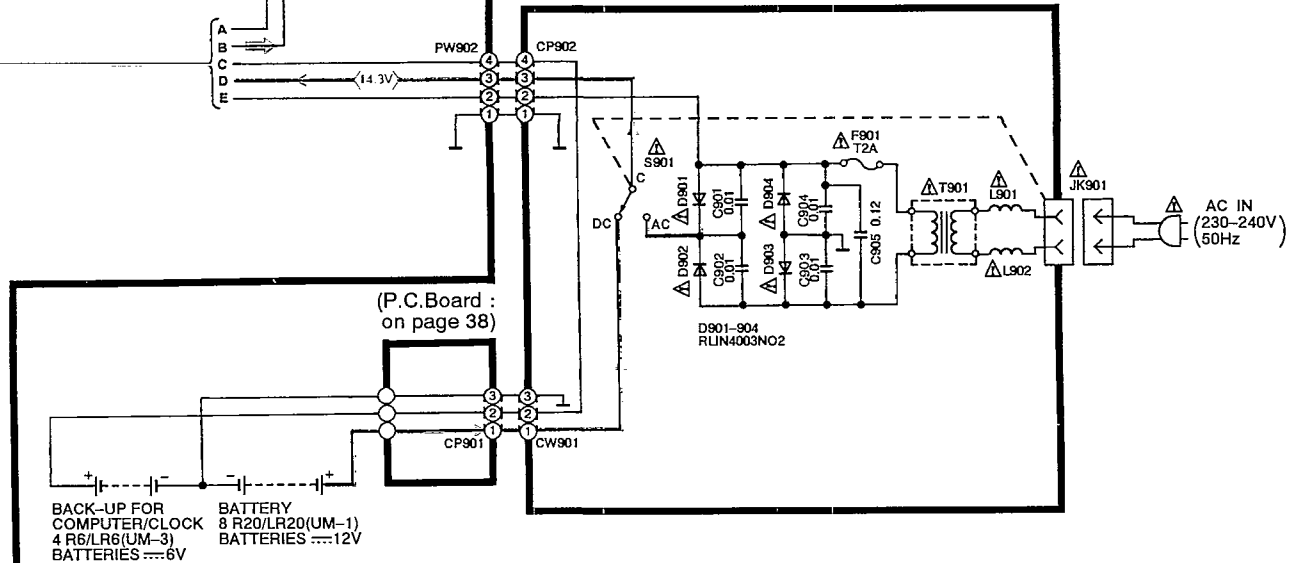
C MAIN(3/3,POWER AMP)CIRCUIT (P.C.Board : on pages 36,37)



 : Main Signal Line
 : + B Line

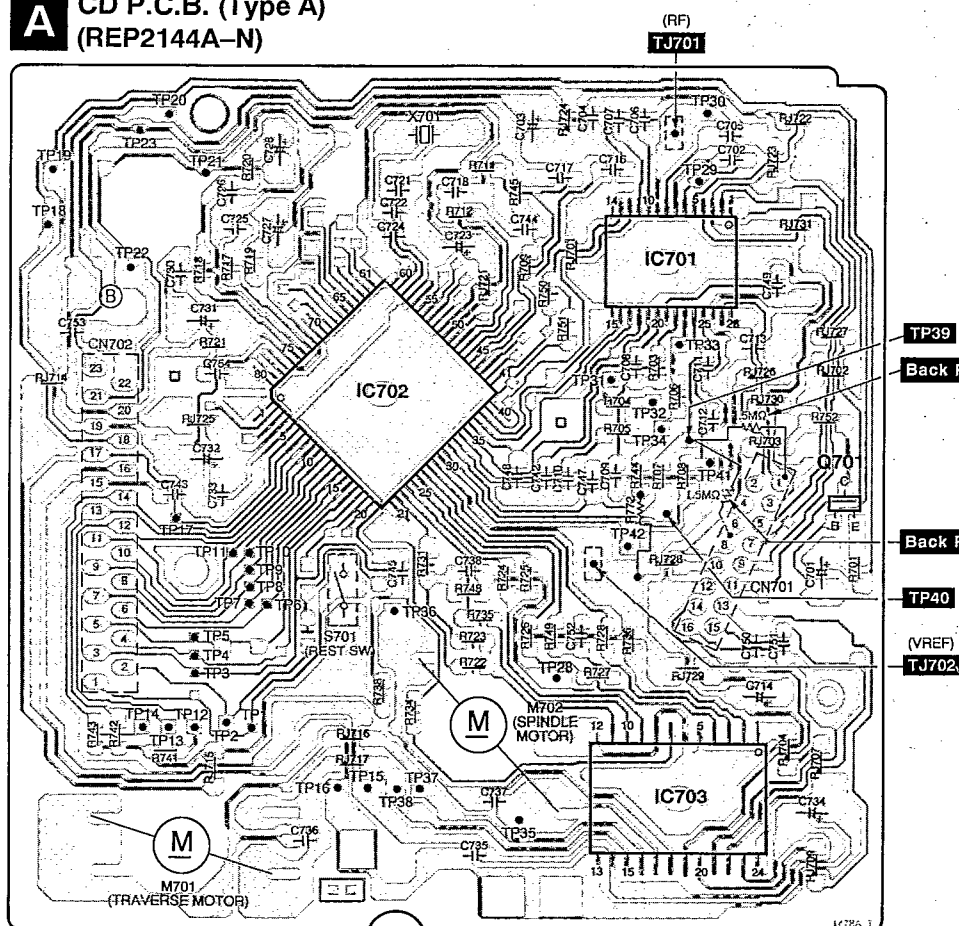


POWER SUPPLY CIRCUIT (P.C.Board : on page 38)

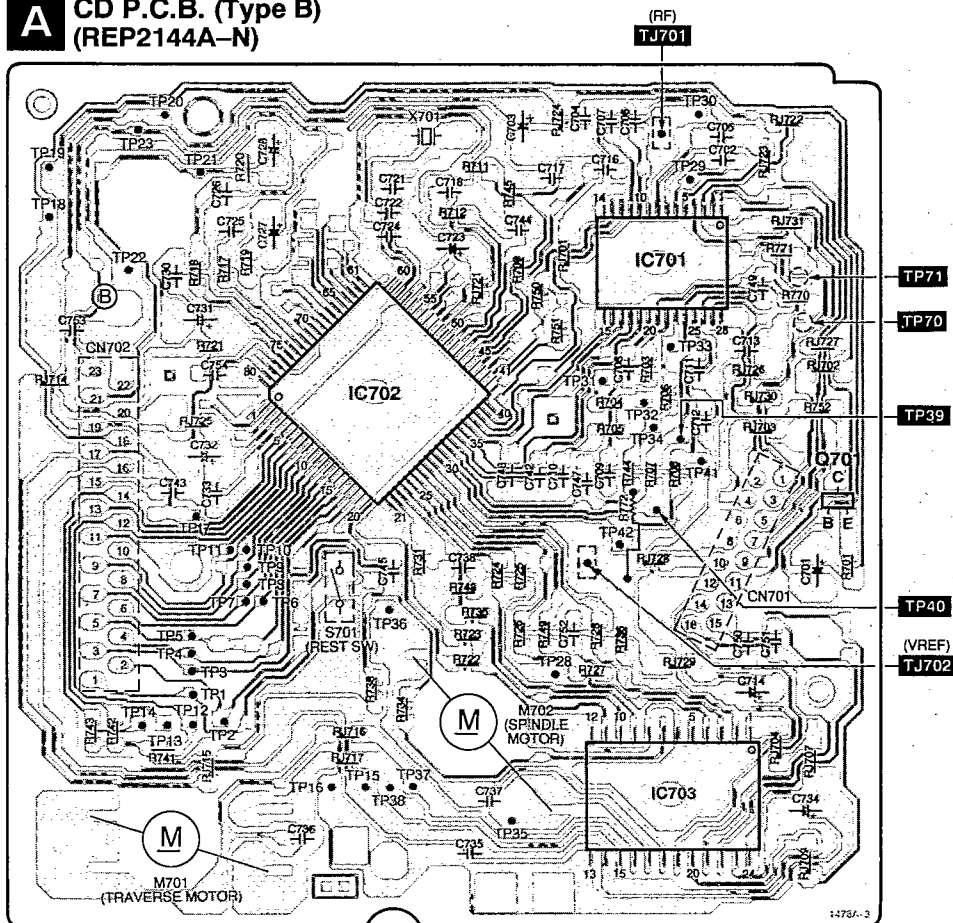


Printed Circuit Board Diagram

A CD P.C.B. (Type A) (REP2144A-N)



A CD P.C.B. (Type B) (REP2144A-N)



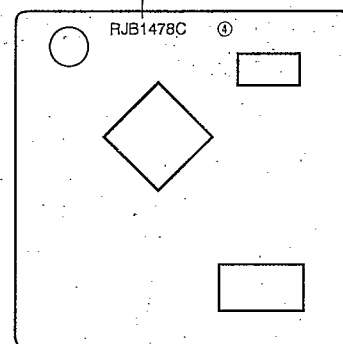
Note 1:

The CD P.C.B. comes in types A, B and C. These can be identified by the P.C.B. part number:

P.C.B. part no.	Type
RJB1478C ①	Type A
RJB1478C ③	Type B
RJB1478C ④	Type C

(There is no RJB1478C ②.)

Location of P.C.B. part number.



Note 2 :

CD P.C.B. type A includes two sub-types (**Back Res. 1** and **Back Res. 2**) with a resistor soldered to the rear side, and a third sub-type with no such resistor. For more details, see "Testing Tracking Balance Voltage" on page 47.

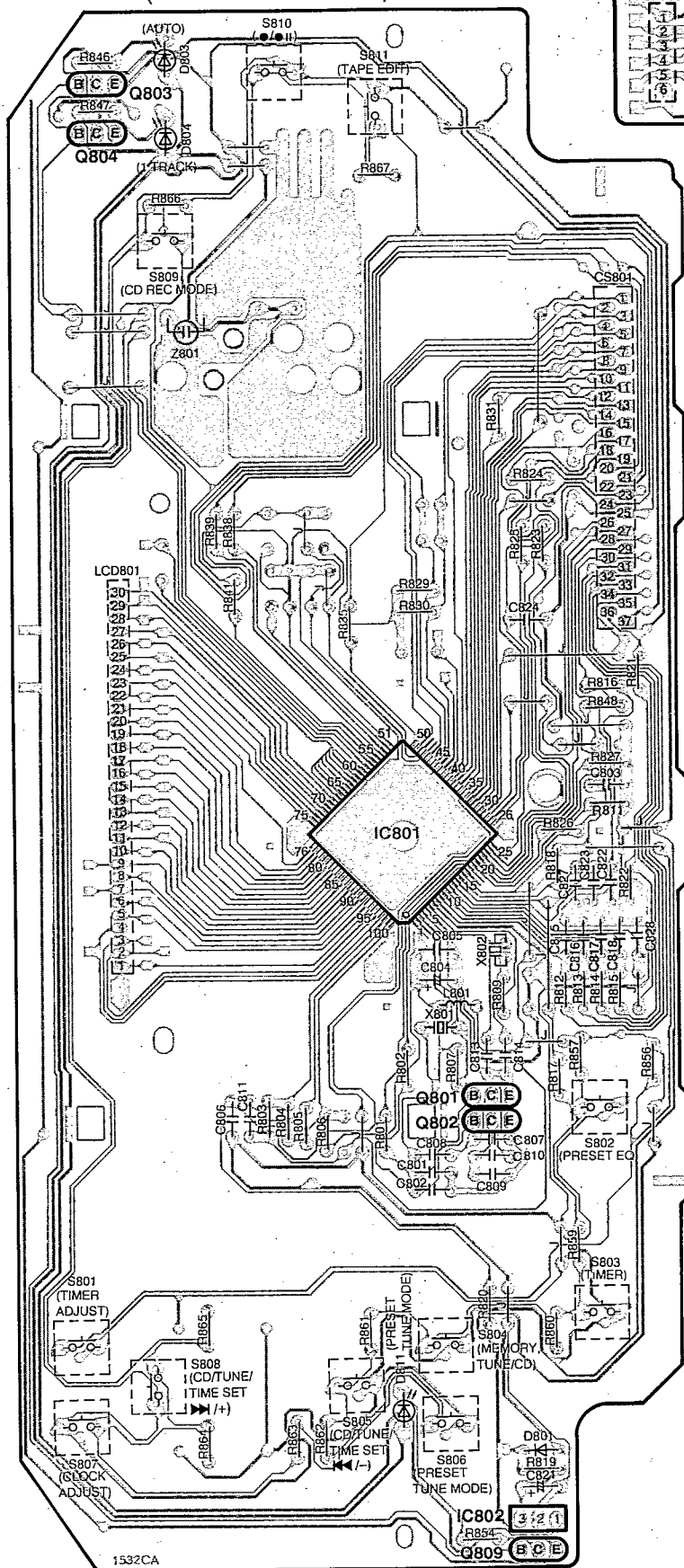
Note 3 :

CD P.C.B. types B and C include two sub-types with shorting pads (**TP70** or **TP71**) shorted to each other with a solder bridge, and a third sub-type the shorting pads of which are not shorted. For more details, see "Testing Tracking Balance Voltage" on page 47.

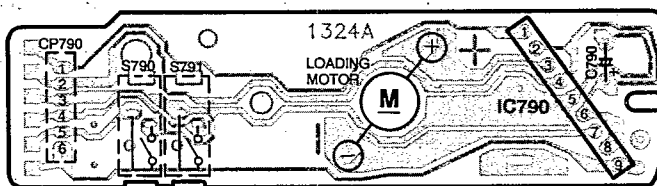
Note 4 :

- These circuit diagrams are for the pattern foil side.
- These circuit diagrams are subject to change for product improvement.

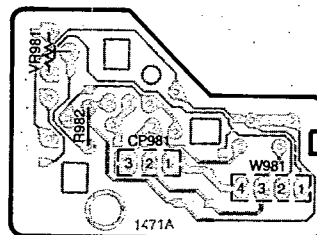
B LCD P.C.B.
(REP2203B-S...[EG]
REP2203E-S...[EB])



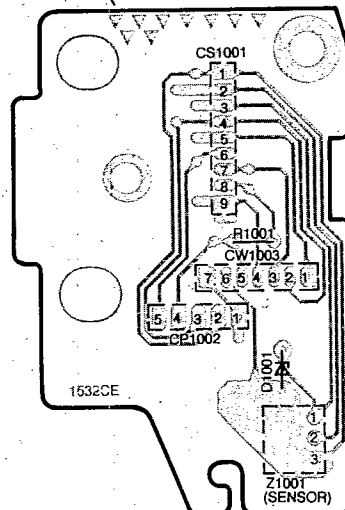
G LOADING MOTOR P.C.B.
(REP1960A)



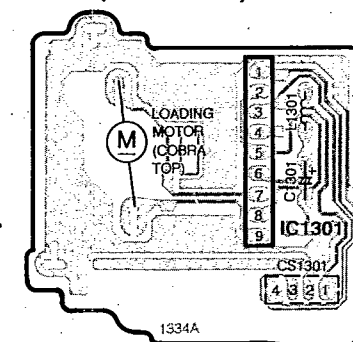
F MOTOR (DECK)
P.C.B. (REP2133A)

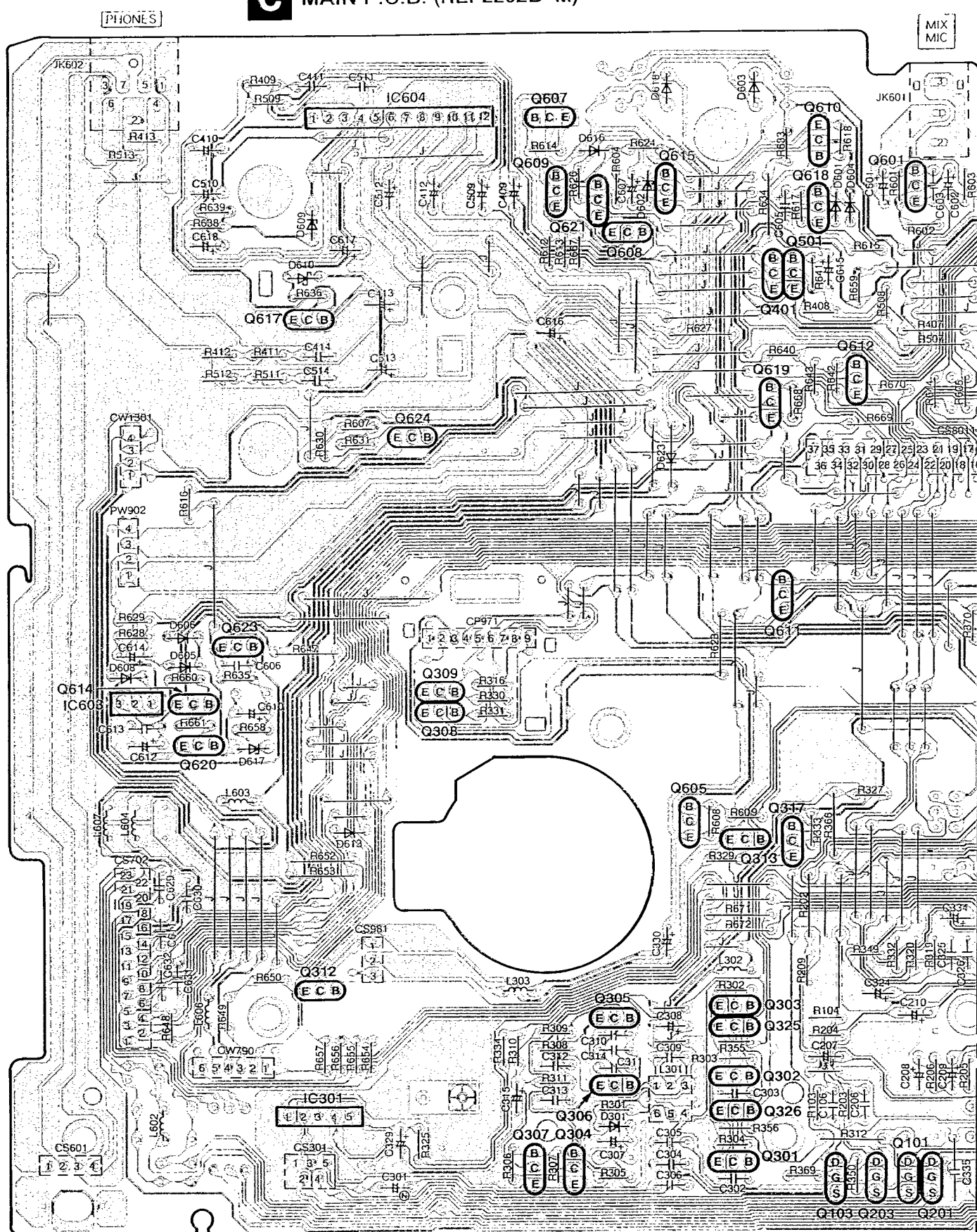


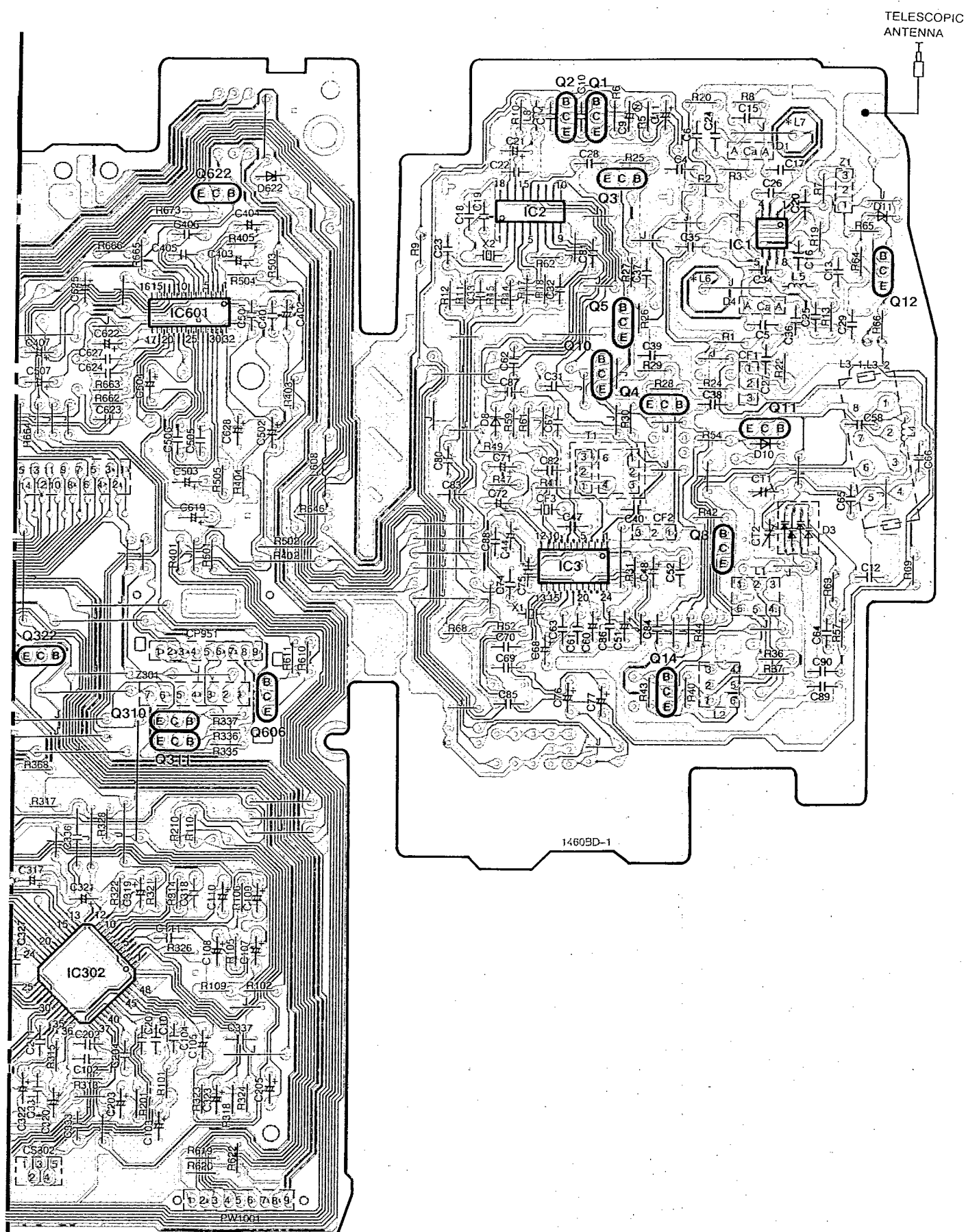
H SENSOR P.C.B.
(REP2203B-S...[EG]
REP2203E-S...[EB])



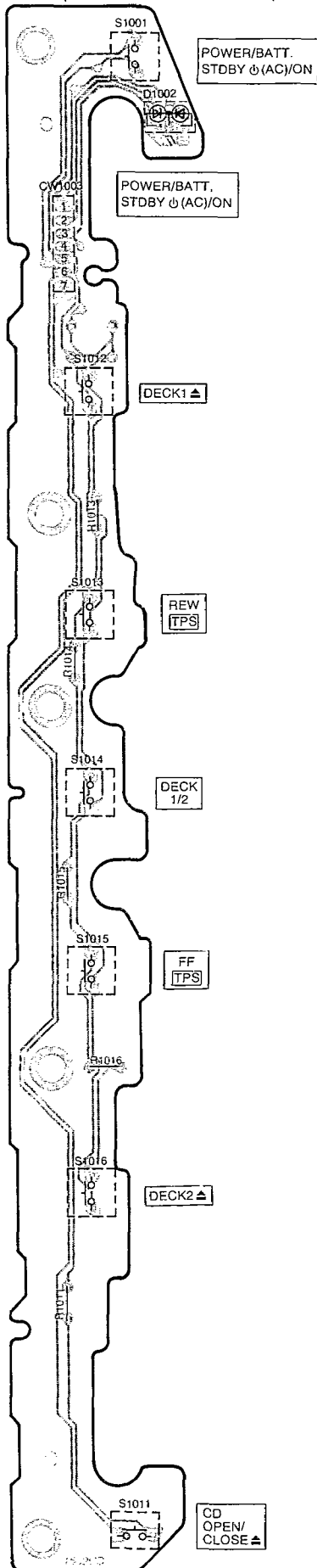
K MOTOR (TOP
PANEL) P.C.B.
(REP1977A)



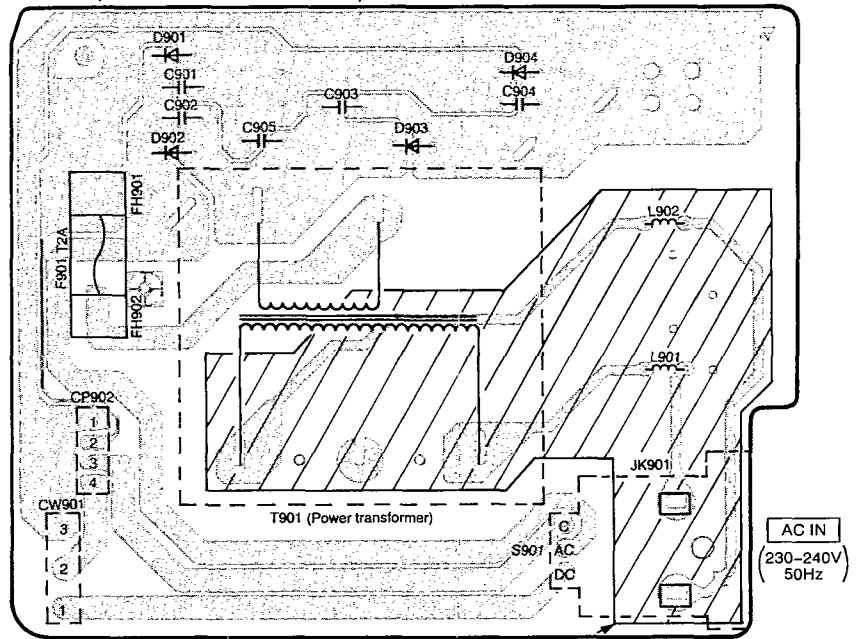
C MAIN P.C.B. (REP2202B-M)




J OPERATION(2) P.C.B. (REP2203B-S...[EG]) (REP2203E-S...[EB])

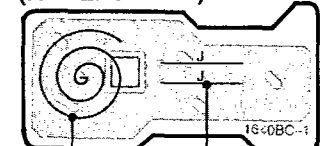


L POWER SUPPLY P.C.B. (REP2203B-S...[EG]) (REP2203E-S...[EB])



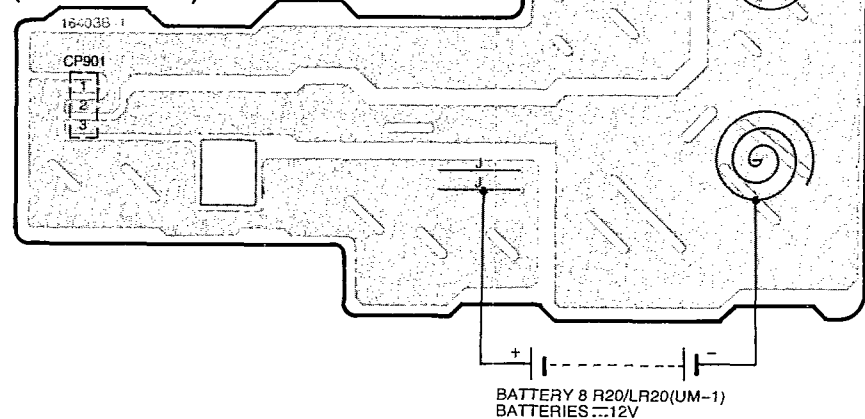
CAUTION
RISK OF ELECTRIC SHOCK
AC voltage line. Please do not
touch this portion.

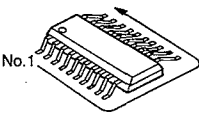
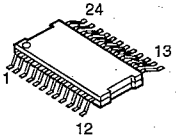
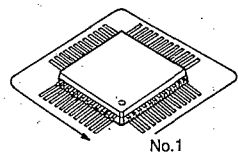
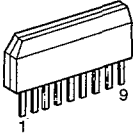
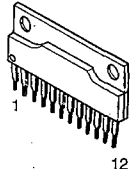
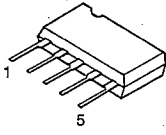
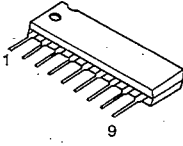
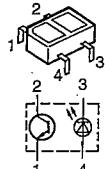
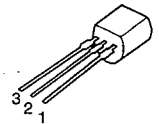
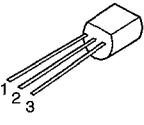
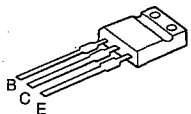
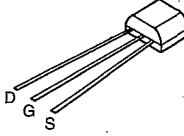
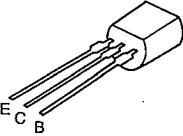
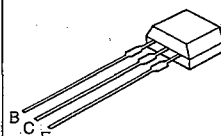
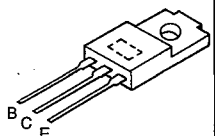
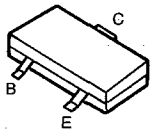
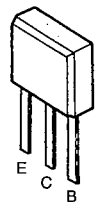
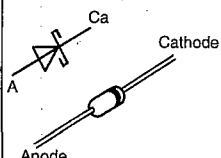
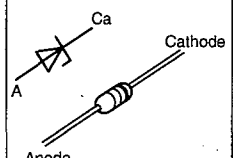
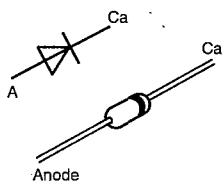
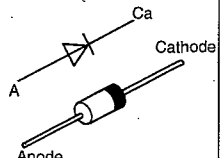
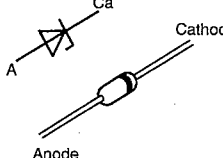
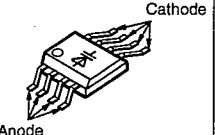
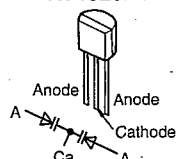
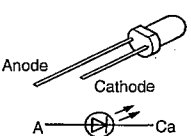
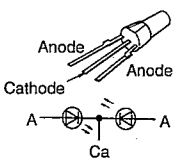
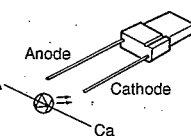
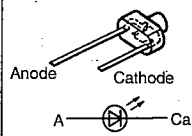
(REP2202B-M)



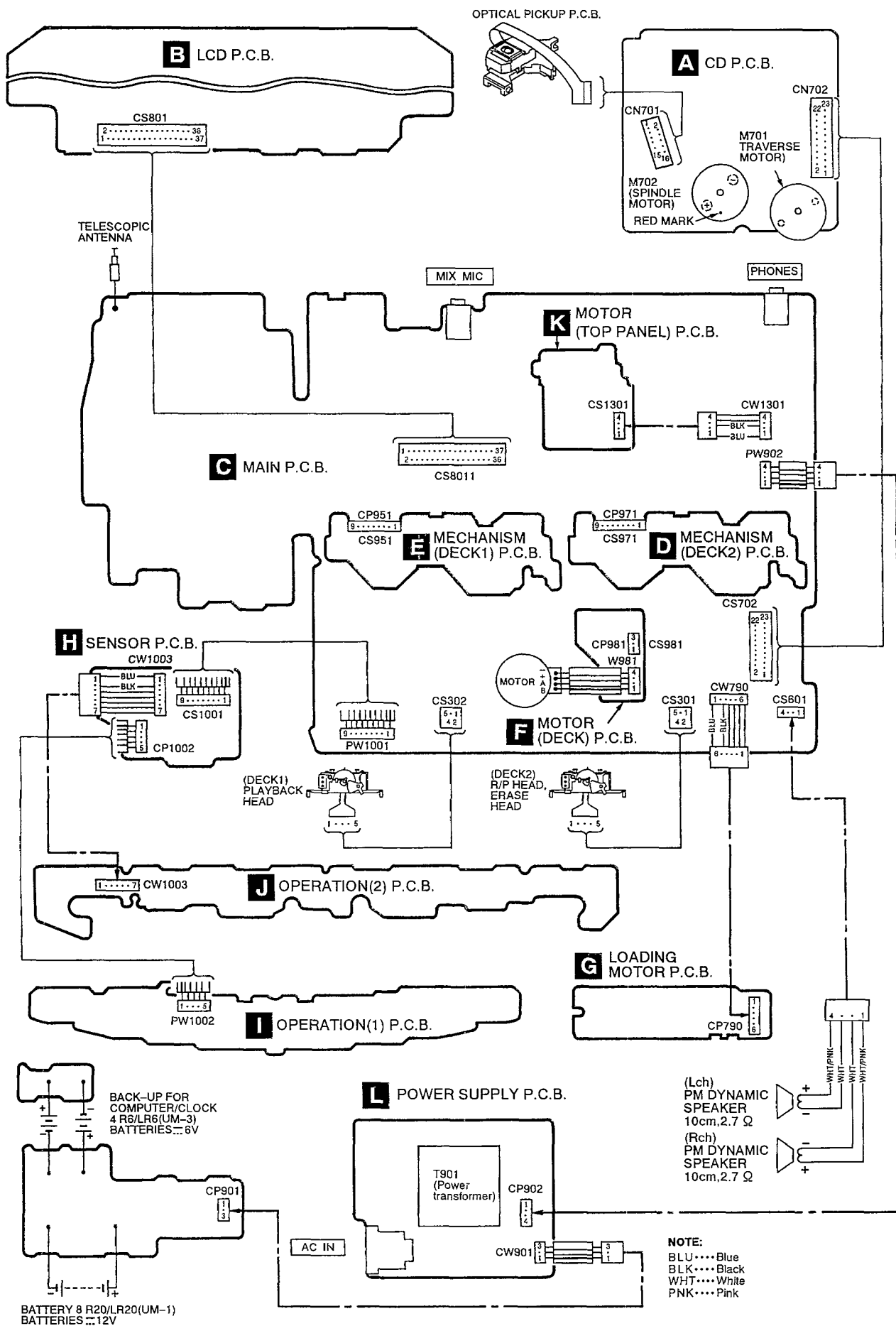
BACK-UP FOR COMPUTER/CLOCK
4 R6/LR6(UM-3) BATTERIES $\approx$ 6V

(REP2202B-M)



 <table><tr><td>TA7358FMATEL</td><td>8Pin</td></tr><tr><td>BU2616F-E1</td><td>18Pin</td></tr><tr><td>LA1832MS-TEL</td><td>24Pin</td></tr><tr><td>AN8835SBE1</td><td>28Pin</td></tr><tr><td>BH3854AFSE1</td><td>32Pin</td></tr></table>		TA7358FMATEL	8Pin	BU2616F-E1	18Pin	LA1832MS-TEL	24Pin	AN8835SBE1	28Pin	BH3854AFSE1	32Pin			 <table><tr><td>CXA1998QT6</td><td>48Pin</td></tr><tr><td>MN662740RM1</td><td>80Pin</td></tr><tr><td>MND3256REBC2</td><td>100Pin</td></tr></table>		CXA1998QT6	48Pin	MN662740RM1	80Pin	MND3256REBC2	100Pin
TA7358FMATEL	8Pin																				
BU2616F-E1	18Pin																				
LA1832MS-TEL	24Pin																				
AN8835SBE1	28Pin																				
BH3854AFSE1	32Pin																				
CXA1998QT6	48Pin																				
MN662740RM1	80Pin																				
MND3256REBC2	100Pin																				
TA7291S 	AN7135 	BA7755A 	BA6418N 	ON2180RLC 	S81350HGZ 																
PST600HTA 	2SB1417PTA 	2SJ164QTA 2SJ164RTA 	2SD965Q 	2SC2389SSTA RVTDTTC144EST 	2SB1393AU 																
2SB709S 		2SB1030QTA 2SC2786LTA 2SC3311R 2SC3312RTA 2SC3313B 2SD1450RTA UN411FTA	UN4111 UN4114TA UN4116 UN4210-S UN4213 UN4214TA	RB441QT77 	MA4056MTA MA4091LTA 																
MA165 RVD1SS133TA RVD1SS135TA 	RL1N4003N02 RVD1SR139TA 			RVDMTZ5R1BTA RVDMTZ8R2BTA RVDMTZ12BTA	KV1583BMTL 																
KV1360NT KV1520NT 	LN28RPXTA7 	LN086WP38 	LNJ802RPDJA 	LNJ301MPUJAD 																	

Wiring Connection Diagram



■ Function of IC Terminals

● IC802 (MND3256REBC2)

Pin No.	Terminal Name	I/O	Function
1	VDD	I	Power supply input (+5 V)
2	OSC1	O	6.0 MHz clock output
3	OSC2	I	6.0 MHz clock input
4	VSS	—	GND
5	XI	I	32 kHz clock input
6	XO	O	32 kHz clock output
7	VREF -	—	AD converter reference voltage (GND)
8	ADIN7	I	AD converter signal input (DECK2: REC INH F/REC INH R/MODE/HALF)
9	ADIN6	I	AD converter signal input (DECK1: HALF SW /MODE SW/REEL PULSE)
10	ADIN5	I	AD converter signal input (TPS)
11	ADIN4	I	AD converter signal input (CD TRAY OPEN CLOSE SW)
12	ADIN3	I	AD converter signal input (Power "on" detect)
13	ADIN2	I	AD converter signal input (Operation SW)
14	ADIN1	I	
15	ADIN0	I	
16	VREF +	—	AD converter reference voltage (VDD)
17	MBP2	O	Beat proof control signal output
18	MBP1	O	
19	NC	I	Connect to GND
20	VCC DET	I	VCC detect signal input
21	NC	I	Connect to GND
22	FUNC	O	Function control output
23	AGCLK	O	Serial clock output (for ASP)
24	AGDATA	O	Serial data output (for ASP)
25	AGLATCH	O	Latch signal output (for ASP)
26	PW CONT.	O	Power supply circuit control (H: Power ON)
27	MUTE	O	Muting control signal output (L: MUTE)
28	PLL CE	O	PLL tuner strobe signal output
29	PLL CL	O	PLL tuner clock output
30	PLL DI	O	PLL tuner control data signal output
31	RM IN	I	Remote control signal input

Pin No.	Terminal Name	I/O	Function
32	BLKCK	I	Sub code block clock input
33	STATUS	I	CD status signal input
34	CD RESET	O	CD reset signal output (L: RESET)
35	MICON RST	I	System reset signal input (L: RESET)
36	MLD	O	CD signal process strobe signal output
37	MDATA	O	CD signal process data output
38	MCLK	O	CD signal process clock signal output
39	SQCK	O	CD sub-code reading clock output
40	SUBQ	I	CD sub-code data input
41	NC	I	—
42	TP1	—	—
43	CM	I	1-chip microprocessor mode setting input (L: 1-chip)
44	TLOCK/ TUNED	I	CD tracking clock signal input (L: OK) / tuner receiving signal input (L: TUNED)
45	FLOCK/ST	I	CD focus lock signal input (L: FOCUS OK) / tuner stereo signal input (L: STEREO)
46	REST-SW	I	CD traverse position detection switch signal input (H: most inside position)
47, 48	DES1, DES2	I	—
49	SENSE	I	CD sense signal input (H: Detect)
50	STBY	I	Remote control sensor power control
51	DES0	—	—
52	NC	—	—
53	MKCLK	O	Deck control clock output
54	MKDATA	O	Deck control data output
55	MKLATCH	O	Deck control data latch output
56	TUNER PRESET	O	LED (PRESET TUNE MODE) drive output
57	CD LINK EDIT	O	LED (1 TRACK) drive output
58	CD AUTO EDIT	O	LED (AUTO) drive output
59	NC	—	—
60 ~ 67	—	—	Connect to GND
68 ~ 93	SEG25 ~ SEG0	O	LCD segment signal output
94 ~ 97	COM3 ~ COM0	O	LCD common signal output
98 ~ 100	VLC3 ~ VLC1	I	LCD bias reference voltage input

● IC701 (AN8835SBE1)

Pin No.	Terminal Name	I/O	Function
1	PDA	I	PD A channel signal input
2	PDB	I	PD A channel signal input
3	Vcc	I	Power supply connection
4	LPD	I	Laser PD connection
5	LD	O	Power supply for LD driving
6	RF	O	RF amplifier output
7	RFIN	I	RF amplifier input
8	CAGC	I	AGC loop filter connection
9	ARF	O	RF AGC output
10	CSBRT	I	Capacitor connection for RF detection
11	CEA	I	Capacitor connection for HPF amplifier
12	BDO	O	BDO output (H: Drop out)
13	LDON	I	ON/OFF input of LD APC (H: ON, L: OFF)
14	GND	—	Ground connection
15	/RFDET	O	RFDET output (L: RF detecton)
16	CROSS	O	CROSS output
17	DFTR	O	OFTR output
18	VDET	O	VDET output (H: V detection)
19	ENV	O	ENV output
20	TEBPF	I	Vibration detection input
21	CCRS	—	Capacitor connection for LPF
22	TE	O	Tracking error output
23	FE	O	Focus error output
24	TBAL	I	Tracking balance input
25	FBAL	I	Focus balance input
26	VREF	O	VREF output
27	PDE	I	PD E channel signal input
28	PDF	I	PD F channel signal input

● IC702 (MN662740RM1)

Pin No.	Terminal Name	I/O	Function
1	BCLK	O	Bit clock output for serial data (no used, open)
2	LRCK	O	L/R identification signal output (no used, open)
3	SRDATA	O	Serial data output (no used, open)
4	DVDD1	I	Power supply input (for digital circuit)
5	DVSS1	—	GND (for digital circuit)
6	TX	O	Digital audio interface signal output
7	MCLK	I	Microprocessor command clock signal input (Latches data at first transition)
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)
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 (fBLKCK = 75 Hz during normal playback)
14	SQCK	I	External clock signal input for sub-code Q resister
15	SUBQ	O	Sub-code Q code output
16	DMUTE	I	Muting input (H: Mute)
17	STAT	O	Status signal output (CRC, CUE, CLVS, TTSTVP, FCLV, SQCK)
18	/RST	I	Reset input (L: Reset)
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	PMCK	O	1/192-divided clock signal of crystal oscillating (fPMCK = 88.2 kHz) (no used, open)
21	TRV	O	Traverse forced feed output
22	TVD	O	Traverse drive output
23	PC	O	Spindle motor ON signal 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	Kick pulse output
27	TRD	O	Tracking 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)

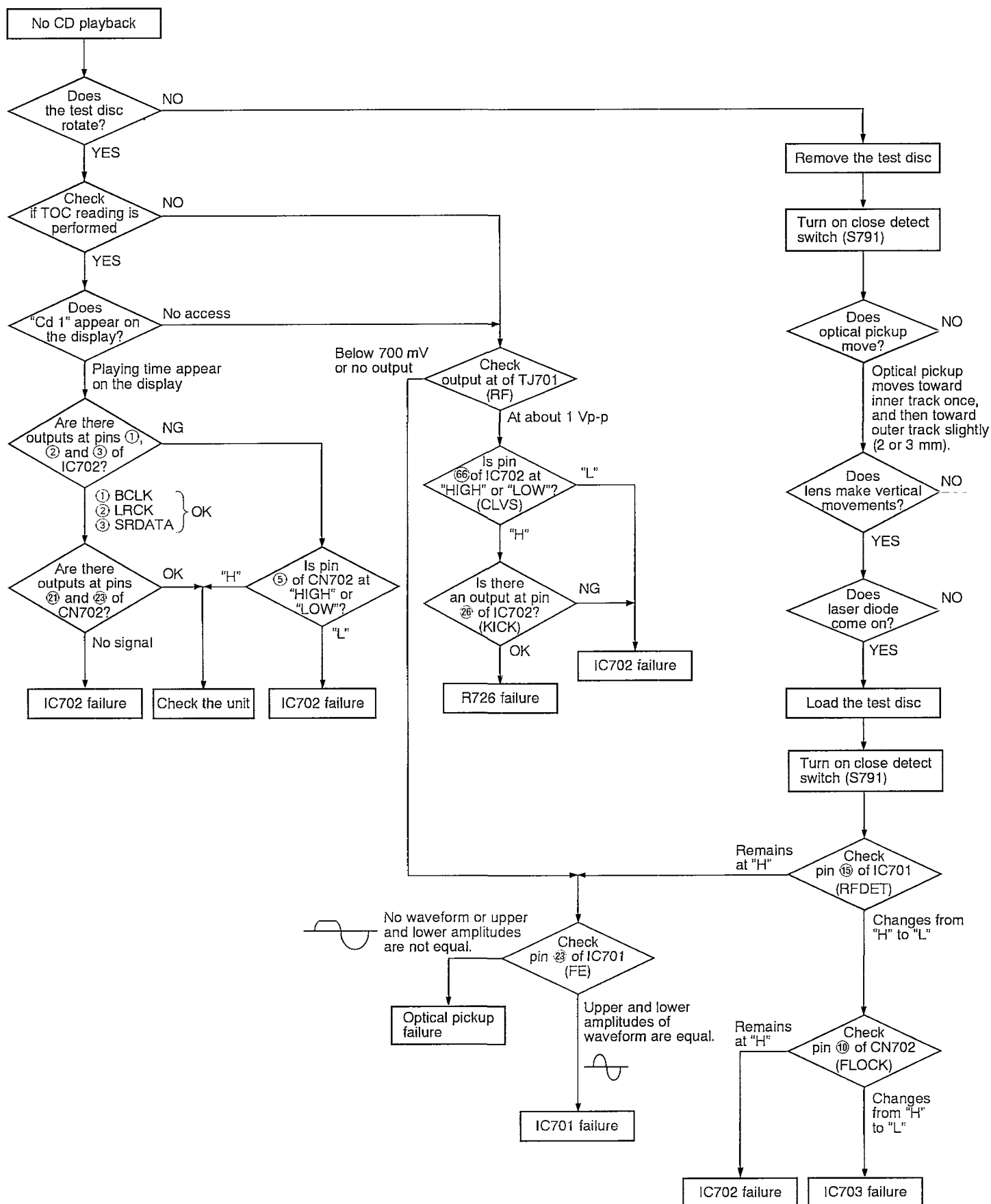
Pin No.	Terminal Name	I/O	Function
36	OFT	I	Off-track signal input (H: off track)
37	TRCRS	I	Track cross signal input
38	/RFDET	I	RF detection signal input (L: detection)
39	BDO	I	Dropout signal input (H: Drop out)
40	LDON	O	Laser on signal output (H: ON)
41	TES	O	Tracking error shunt signal output (H: shunt)
42	PLAY	O	Play signal out (H: PLAY)
43	WVEL	O	Double speed status signal output (H: Double speed) (no used, open)
44	ARF	I	RF signal input
45	IREF	I	Reference current input
46	DRF	I	DSL bias (no used, open)
47	DSLIF	I/O	DSL loop filter
48	PLLIF	I/O	PLL loop filter
49	VCOF	I/O	VCO loop filter (no used, open)
50	AVDD2	I	Power supply input (for analog circuit)
51	AVSS2	—	GND (for analog circuit)
52	EFM	O	EFM signal output (no used, open)
53	PCK	O	PLL extraction clock output (fPCK = 4.321 MHz during normal playback) (no used, open)
54	PDO	O	Phase comparison signal of EFM and PCK signals (no used, open)
55	SUBC	O	Sub-code serial data output (no used, open)
56	SBCK	I	Clock input for sub-code serial data (connect to GND)
57	VSS	—	GND
58	X1	I	Crystal oscillating circuit input (f = 16.9344 MHz)
59	X2	O	Crystal oscillating circuit output (f = 16.9344 MHz)
60	VDD	I	Power supply input (for oscillating circuit)
61	BYTCK	O	Byte clock output (no used, open)
62	/CLDCK	O	Sub-code frame clock signal output (fCLDCK = 7.35 kHz during normal playback) (no used, open)
63	FCLK	—	Crystal frame clock signal output (fFCLK = 7.35 kHz, double = 14.7 kHz) (no used, open)
64	IPFLAG	O	Interpolation flag output ("H": Interpolation) (no used, open)
65	FLAG	O	Flag output (no used, open)
66	CLVS	O	Spindle servo phase synchronizing signal output ("H": CLV, "L": rough servo) (no used, open)
67	CRC	O	Sub-code CRC checked output ("H": OK, "L": NG) (no used, open)
68	DEMPH	O	De-emphasis ON signal output ("H": ON) (no used, open)
69	RESY	O	Frame resynchronizing signal output (no used, open)
70	/RST2	I	Reset input through MASH circuit ("L": Reset)
71	/TEST	I	Test input (L: Test)

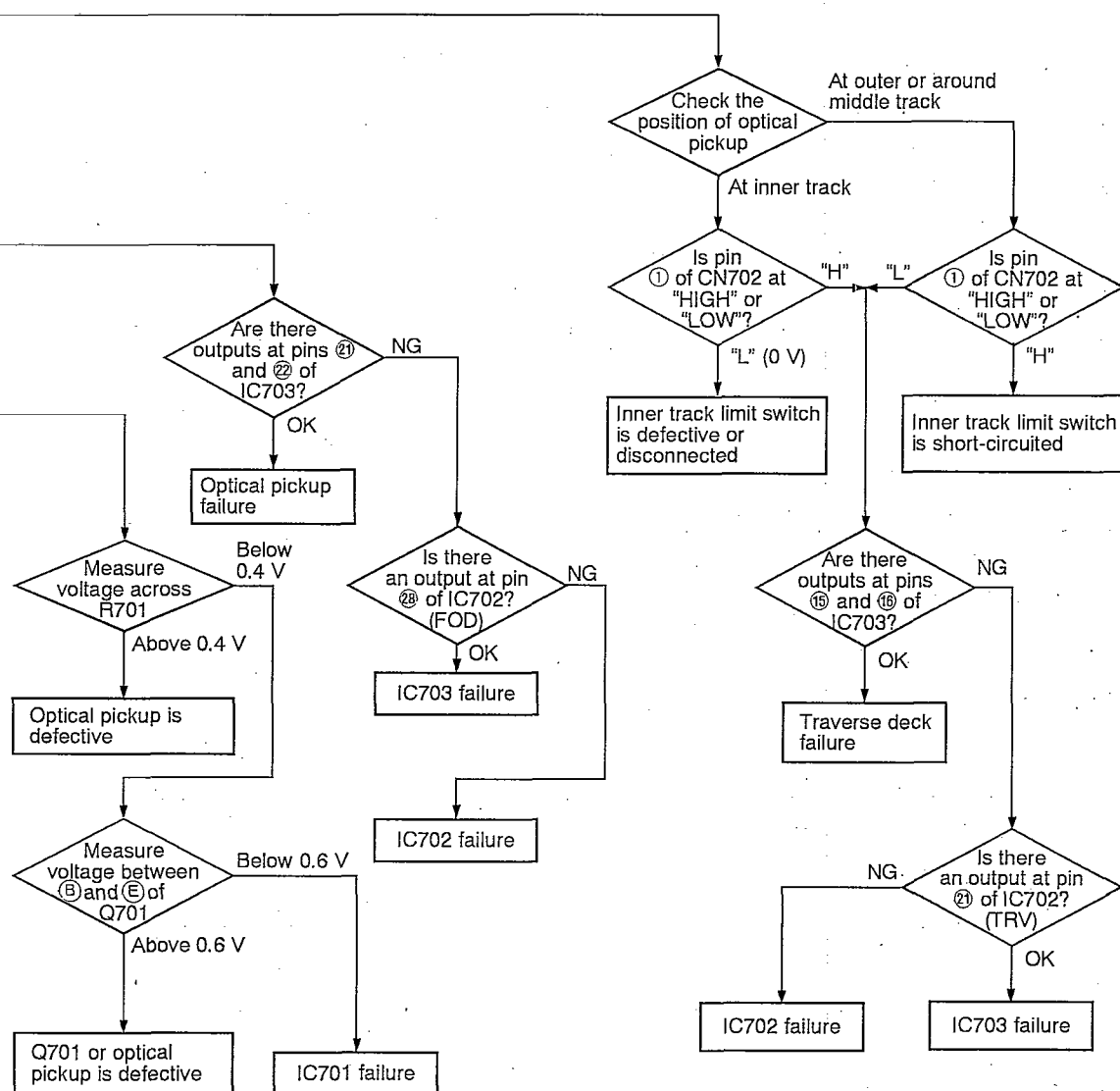
Pin No.	Terminal Name	I/O	Function
72	AVDD1	I	Power supply input (for analog circuit)
73	OUTL	O	Left channel audio signal output
74	AVSS1	—	GND
75	OUTR	O	Right channel audio signal output
76	RSEL	I	RF signal polarity assignment input (at "H" level: RSEL = "H") (at "L" level: RSEL = "L")
77	CSEL	I	Crystal oscillating frequency designation input ("L": 16.9344 MHz) ("H": 33.8688 MHz) (connect to GND)
78	PSEL	I	Test input (normally, "L") (connect to GND)
79	MSEL	I	Output frequency switching for SMCK terminal "H": SMCK = 8.4672 MHz "L": SMCK = 4.2336 MHz (connect to GND)
80	SSEL	I	Output mode switching of SUBQ terminal ("H": Q code buffer mode)

• IC703 (AN8389SE1)

Pin No.	Terminal Name	I/O	Function
1	Vcc	I	Power supply
2	VREF	I	VREF input
3	IN4	I	Motor driver (4) input
4	IN3	I	Motor driver (3) input
5	GND	—	Ground connection
6	NC	—	Ground connection
7	NRESET	I	Reset input
8	GND	—	Ground connection
9	IN2	I	Spindle motor driver (2) input
10	PC2	I	PC2 (power cut) input (H: IN2 power cut)
11	IN1	I	Traverse motor driver (1) input
12	PC1	I	PC1 (power cut) input (H: IN1 power cut)
13	PVcc1	I	Power supply (1) for driver
14	PGND1	—	Ground connection (1) for driver
15	D1-	O	Traverse motor driver (1) reverse-action output
16	D1+	O	Traverse motor driver (1) forward-action output
17	D2-	O	Spindle motor driver (2) reverse-action output
18	D2+	O	Spindle motor driver (2) forward-action output
19	D3-	O	Tracking actuator (3) reverse-action output
20	D3+	O	Tracking actuator (3) forward-action output
21	D4-	O	Focus actuator (4) reverse-action output
22	D4+	O	Focus actuator (4) forward-action output
23	PGND2	—	Ground connection (2) for driver
24	PVcc2	I	Power supply (2) for driver

Troubleshooting Guide





■ Measurements and Adjustments

< TUNER SECTION >

● ALIGNMENT INSTRUCTION

READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

- Set power source voltage to 12 V DC.
- Set power switch to ON.
- Set function switch to TUNER / MW, LW or FM.
- Set volume level to 40.
- Output of signal generator should be no higher than necessary to obtain an output reading.

● MW-RF ALIGNMENT

(The parts other than the ones listed below are aligned at the factory before they are supplied. Therefore, alignment of those parts is unnecessary when used for replacement.)

SIGNAL GENERATOR or SWEEP GENERATOR		RADIO DIAL SETTING	INDICATOR (ELECTRONIC VOLTMETER or OSCILLOSCOPE)	ADJUSTMENT (Shown in Fig. 2)	REMARKS
CONNECTIONS	FREQUENCY				
Fashion a loop of several turns of wire and radiate a signal into the loop ant. of receiver.	594 kHz	Tune to signal	Headphones Jack (32Ω) Fabricate the plug as shown in Fig.1 and then connect the lead wires of the plug to the measuring instrument.	(*1) L3-1 (MW ANT Coil)	Adjust for maximum output. Adjust L3-1 by moving coil along the ferrite core.
"	1503 kHz	"	"	CT1 (MW ANT Trimmer)	Adjust for maximum output.

(*1) Fix antenna coil with wax after completing alignment.

● LW-RF ALIGNMENT

SIGNAL GENERATOR or SWEEP GENERATOR		RADIO DIAL SETTING	INDICATOR (ELECTRONIC VOLTMETER or OSCILLOSCOPE)	ADJUSTMENT (Refer to Fig. 2)	REMARKS
CONNECTIONS	FREQUENCY				
Fashion a loop of several turns of wire and radiate a signal into the loop ant. of receiver.	153 kHz	Tune to signal	Headphones Jack (32Ω) Fabricate the plug as shown in Fig.1 and then connect the lead wires of the plug to the measuring instrument.	(*2) L3-2 (LW ANT Coil)	Adjust for maximum output. Adjust L3-2 by moving coil along the ferrite core.
"	270 kHz	"	"	CT2 (LW ANT Trimmer)	Adjust for maximum output.

(*2) Fix antenna coil with wax after completing alignment.

< CASSETTE DECK SECTION >

● ALIGNMENT INSTRUCTION

READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

- Set power source voltage to 12 V DC.
- Set power switch to ON.
- Set function switch to TAPE.
- Set volume control to 40.

● HEAD AZIMUTH ALIGNMENT

TEST TAPE	INDICATOR (ELECTRONIC VOLTMETER or OSCILLOSCOPE)	ADJUSTMENT	REMARKS
QZZCFM (8 kHz, -20 dB)	Headphones Jack (32Ω) Fabricate the plug shown in Fig.1 and then connect the lead wires of the plug to the measuring instrument.	Azimuth Screw (Shown in Fig. 3, 4.)	1. Insert the test tape (QZZCFM) 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 a several times because of a little slip on the forward direction side.

Caution:

- Please remove the screw-locking bond left on the head base when replacing the azimuth screw.
- After the adjustment, apply screwlock to the azimuth adjusting screw. (Screw-locking bond: RZZ0L01)

● TAPE SPEED ALIGNMENT

TEST TAPE	INDICATOR (FREQUENCY COUNTER)	ADJUSTMENT	REMARKS
QZZCWAT (3 kHz, -10 dB)	Headphones Jack (32Ω) Fabricate the plug shown in Fig.1 and then connect the lead wires of the plug to the measuring instrument.	VR981 (Shown in Fig.5)	(Specification : 3000 ± 80 Hz) 1. Insert a test tape (QZZCWAT) in DECK2 and start playback in forward direction. 2. Adjust VR981 until the frequency is set to 3000 ± 20 Hz on the frequency counter. 3. Check that the frequency is set to within ± 40 Hz for playback in forward direction after playback in reverse direction.

< CD SECTION >

Alignment is unnecessary to the CD section of this unit.

● ALIGNMENT POINTS

Please refer to Printed Circuit Board Diagram for test point locations.

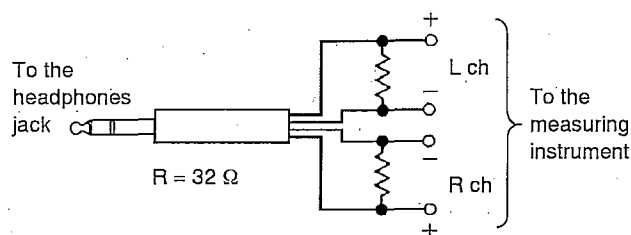


Fig. 1

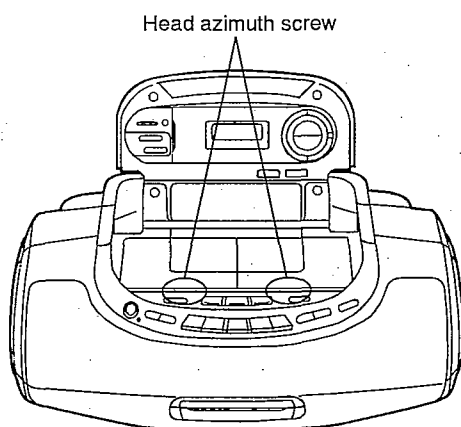


Fig. 3

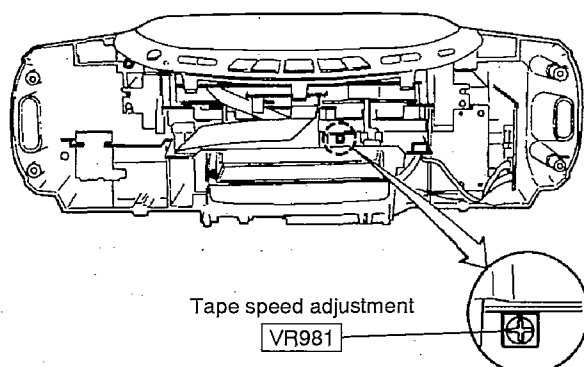


Fig. 5

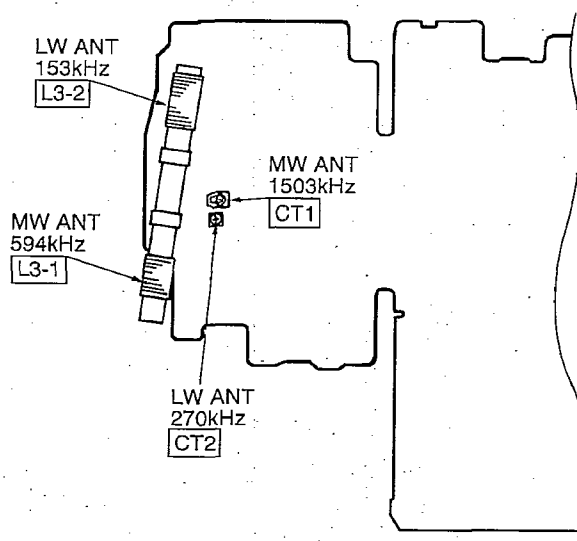


Fig. 2

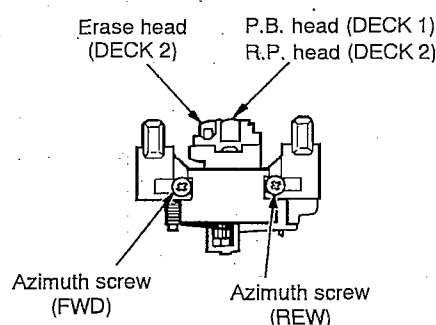


Fig. 4

■ Testing Tracking Balance Voltage

If the unit fails to read TOC information after the traverse deck or IC701 has been replaced, be sure to follow the steps described in the following paragraph, "Testing and Adjusting Tracking Balance Voltage."

Testing and Adjusting Tracking Balance Voltage

(Note: Before starting soldering work, be sure to turn the unit off.)

1. The CD P.C.B. (type A) includes two sub-types (**Back Res. 1** and **Back Res. 2**) with a resistor (1.5 MΩ) soldered to the rear side (there is also a third type without this kind of resistor). For the two sub-types with rear-side resistor, remove the resistor (1.5 MΩ). [For the location of the rear-side resistor, see the schematic diagram (page 22) and printed circuit board diagram (page 33).]
CD P.C.B. types B and C (see pages 33 and 34) include two sub-types with shorting pads (**TP70** or **TP71**) shorted to each other with a solder bridge (there also is a third sub-type the shorting pads of which are not shorted). For the former two sub-types, remove the shorting solder bridge. [For the location of the shorting pad, see the schematic diagram (page 22) and printed circuit board diagram (pages 33 and 34).]
2. Play back the test disc (SZP1056C).
3. Measure the voltage (tracking balance voltage) across test points **TP40** (+) and **TJ702** (VREF)(-).
4. Follow the actions outlined in the following tables. [For the locations of test points, see the schematic diagram (page 22) and printed circuit board diagram (pages 33 and 34).]

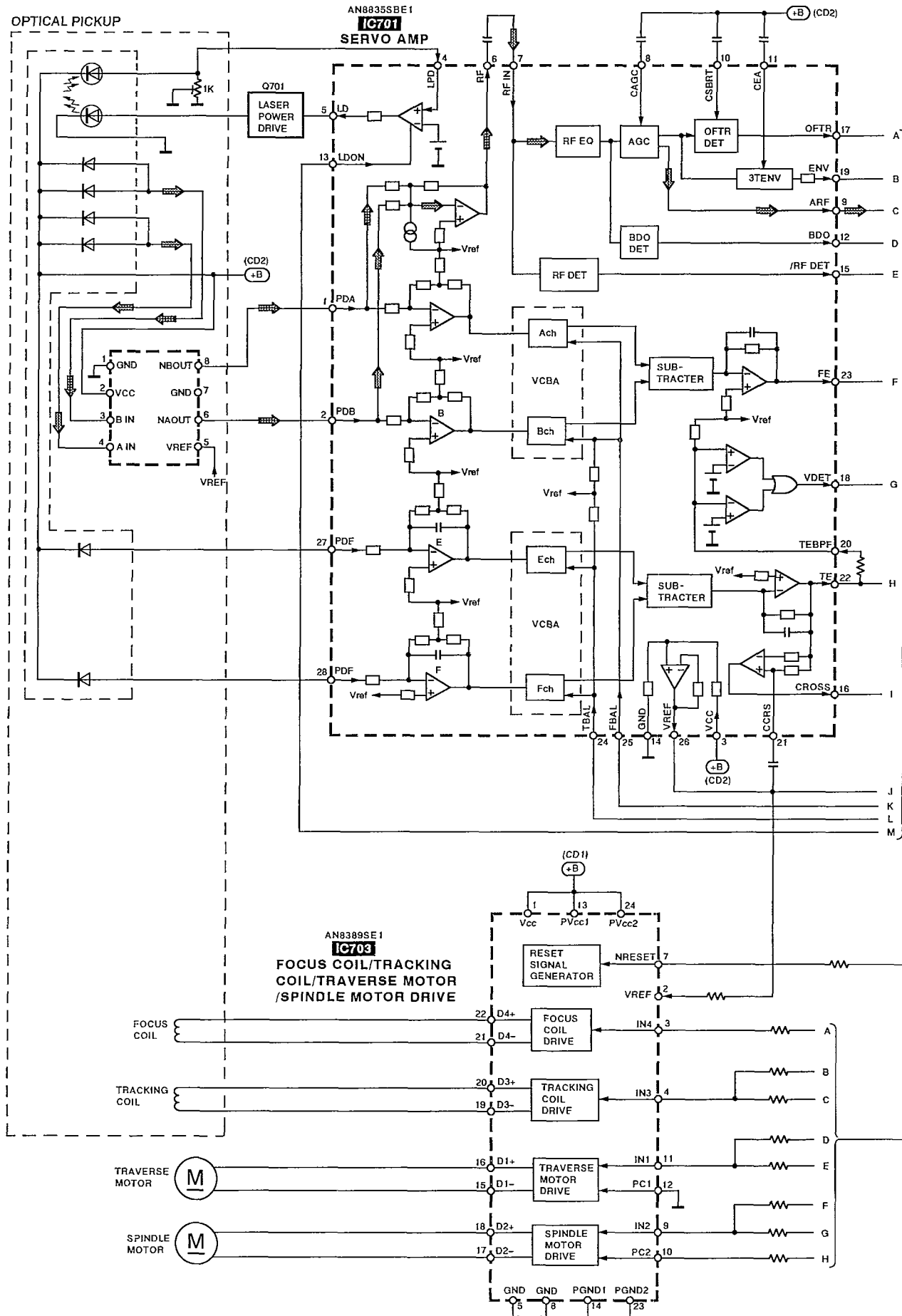
CD P.C.B. (type A)

Tracking balance voltage	Action
+0.61 V or more	Solder a 1.5 MΩ resistor across TP39 and pin ① of CN701.
Within ±0.6 V	No action needed.
-0.61 V or less	Solder a 1.5 MΩ resistor across TP39 and pin ⑧ of CN701.

CD P.C.B. (types B and C)

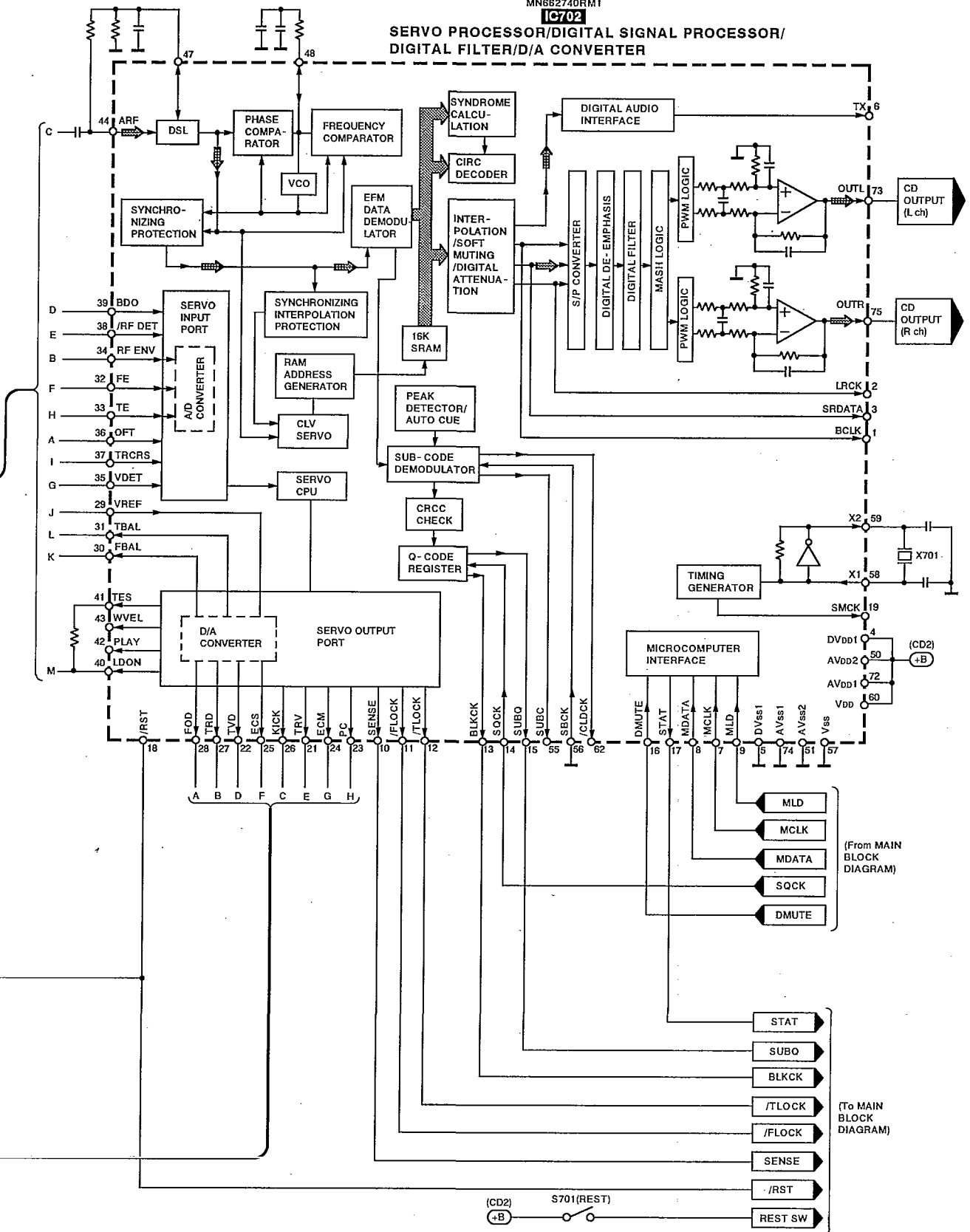
Tracking balance voltage	CD P.C.B. (types B and C)
+0.61 V or more	Short TP70 .
Within ±0.6 V	No action needed.
-0.61 V or less	Short TP71 .

■ Block Diagram • CD Unit



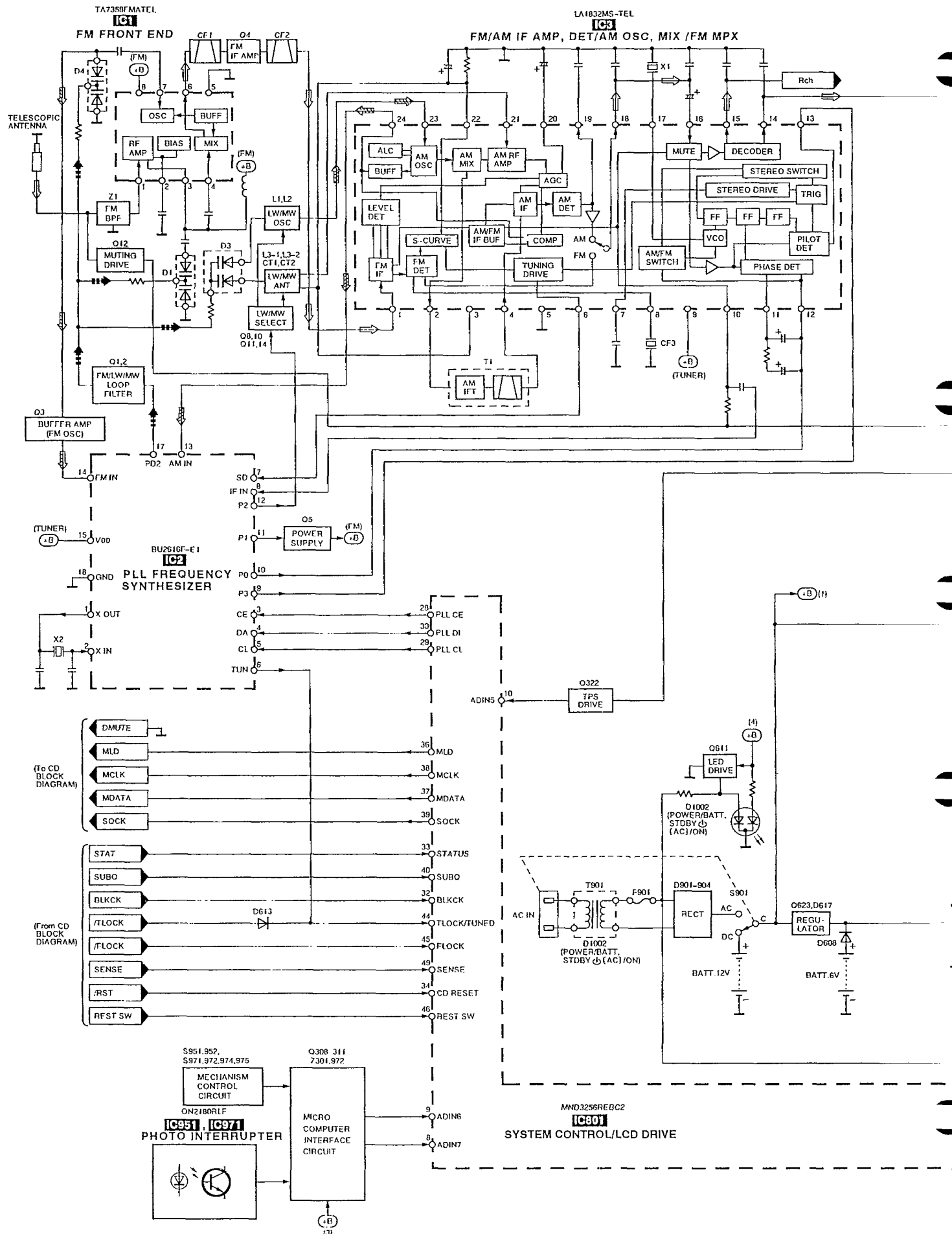
MN662740RM1

IC702

SERVO PROCESSOR/DIGITAL SIGNAL PROCESSOR/
DIGITAL FILTER/D/A CONVERTER

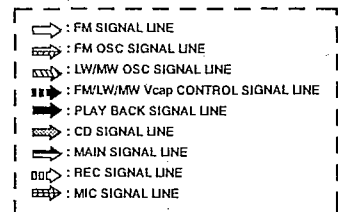
Note:
 : CD DIGITAL/ANALOG SIGNAL LINE

■ Block Diagram • Main Unit

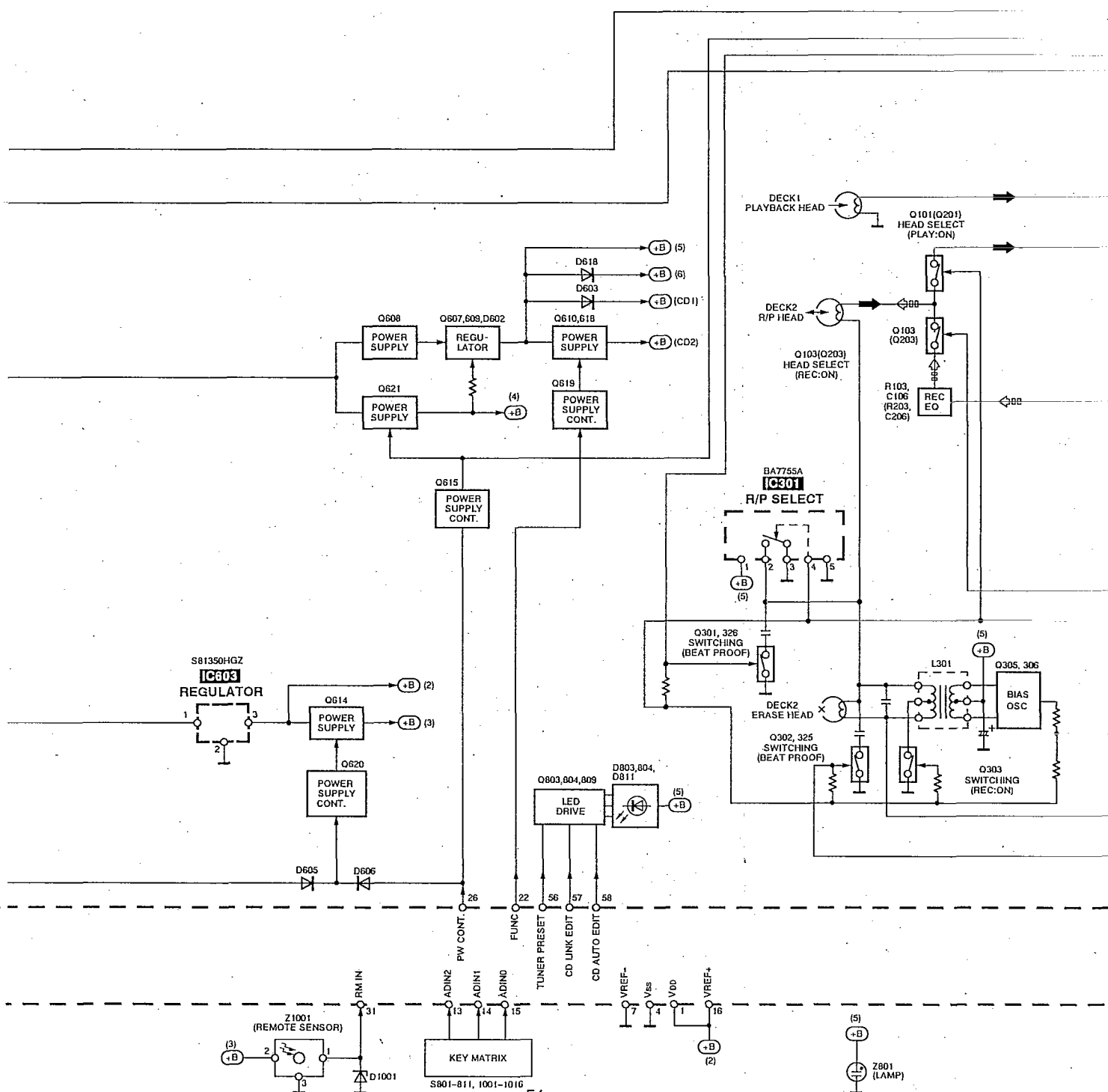


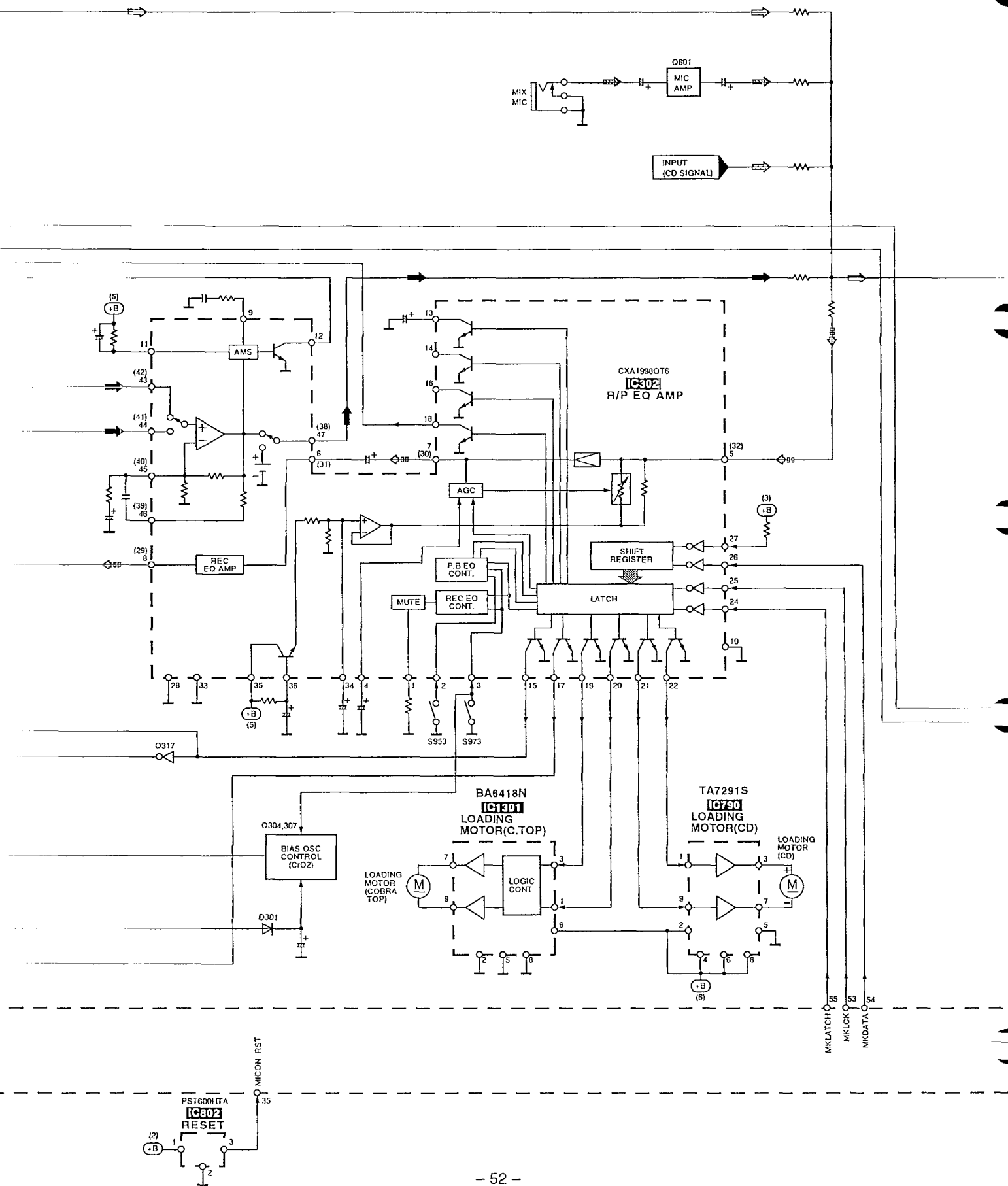
Notes:

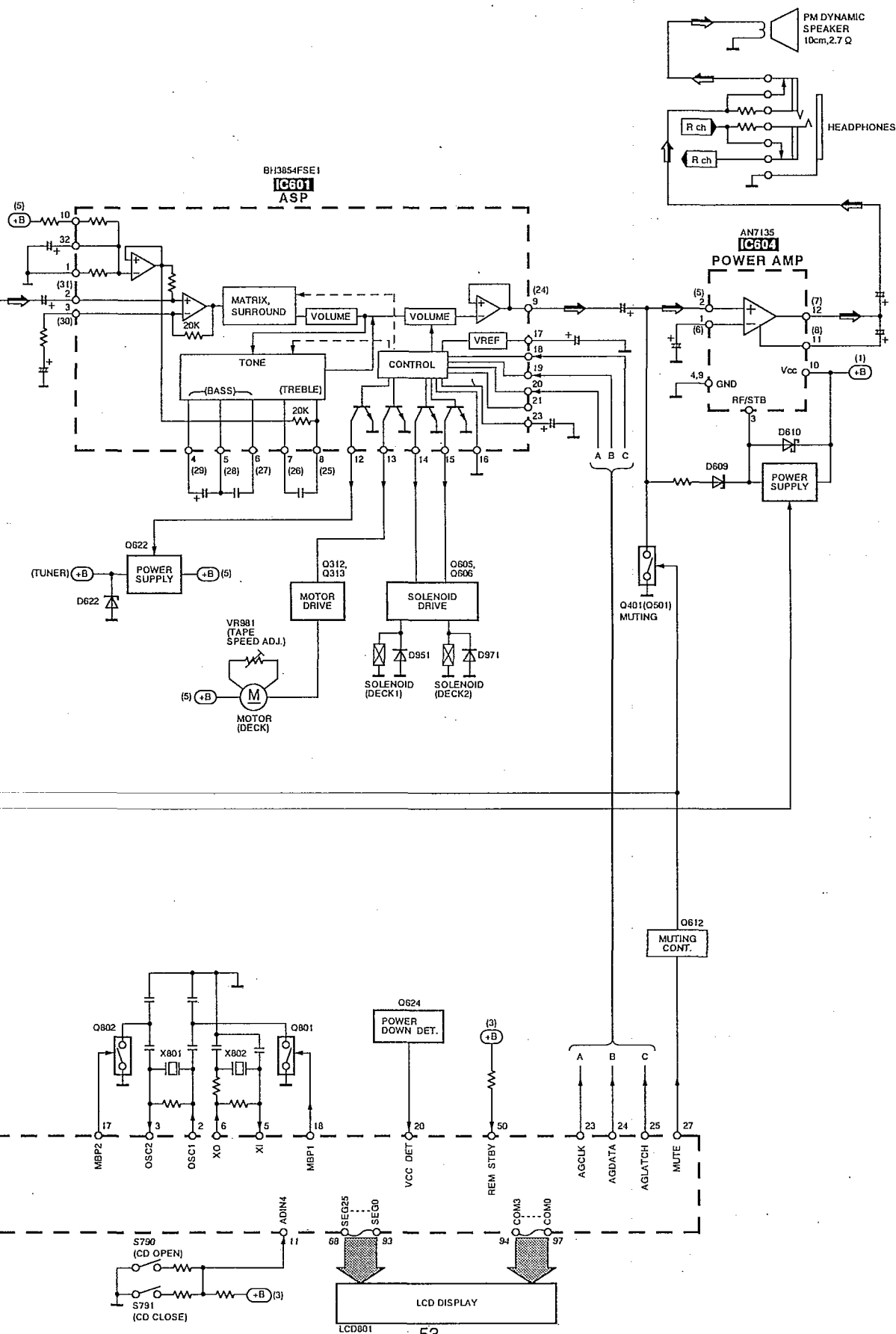
1)



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







■ Replacement Parts List

Notes: *Important safety notice.

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

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

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

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

Parts without these indications can be used for all areas.

*Remote Control Assy: Supply period for three years from termination of product on.

*Warning: This product uses a laser diode. Refer to caution statements on page 2.

*<VRD>: indicates parts that are supplied by Video Recorder Division.

*The "(SF)" mark denotes the standard part.

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
		INTEGRATED CIRCUIT(S)		Q401	2SC3311R	TRANSISTOR	
				Q501	2SC3311R	TRANSISTOR	
IC1	TA7358FMATEL	I. C, FM FRONT END		Q601	2SC3312RTA	TRANSISTOR	
IC2	BU2616F-E1	I. C, PLL FREQ. SYNTHESIZER		Q605, 606	2SB1030QTA	TRANSISTOR	
IC3	LA1832MS-TEL	I. C, FM/AM IF AMP. DET/AM OSC		Q607 Δ	2SB1393AU	TRANSISTOR	
IC301	BA7755A	I. C, R/P SELECT		Q608	UN4116	TRANSISTOR	
IC302	CXA1998QT6	I. C, R/P EQ AMP		Q609 Δ	2SC3311R	TRANSISTOR	
IC601	BH3854AFSE1	I. C, ASP		Q610	2SB1417PTA	TRANSISTOR	
IC603 Δ	S81350MGZ	I. C, REGULATOR		Q611	RVDTC144EST	TRANSISTOR	
IC604	AN7135	I. C, POWER AMP		Q612	UN411FTA	TRANSISTOR	
IC701	AN8835SBE1	I. C, SERVO AMP		Q614	2SB1030QTA	TRANSISTOR	
IC702	MN662740RM1	I. C, SERVO/DIGITAL PROCESSOR		Q615	UN4214TA	TRANSISTOR	
IC703	AN8389SE1	I. C, COIL/MOTOR DRIVE		Q617	UN4111	TRANSISTOR	
IC790	TA7291S	I. C, MOTOR DRIVE		Q618	2SC3311R	TRANSISTOR	
IC801	MND3256REBC2	I. C, SYSTEM CONTROL		Q619	UN411FTA	TRANSISTOR	
IC802	PST600HTA	I. C, RESET		Q620	UN4213	TRANSISTOR	
IC951	ON2180RLC	I. C, PHOTO INTERRUPTER		Q621	UN4114TA	TRANSISTOR	
IC971	ON2180RLC	I. C, PHOTO INTERRUPTER		Q622	2SB1030QTA	TRANSISTOR	
IC1301	BA6418N	I. C, MOTOR DRIVE		Q623 Δ	2SC3311R	TRANSISTOR	
		TRANSISTOR(S)		Q624	2SC3311R	TRANSISTOR	
				Q701	2SB709S	TRANSISTOR	
Q1	2SC3311R	TRANSISTOR		Q801, 802	2SC3311R	TRANSISTOR	
Q2	2SC3311R	TRANSISTOR		Q803, 804	UN4210-S	TRANSISTOR	
Q3	2SC2786LTA	TRANSISTOR		Q809	UN4210-S	TRANSISTOR	
Q4	2SC3313B	TRANSISTOR				DIODE(S)	
Q5	UN411FTA	TRANSISTOR					
Q8	2SC3311R	TRANSISTOR		D1	KV1360NT	DIODE	
Q10	UN411FTA	TRANSISTOR		D3	KV1583BMTL	DIODE	
Q11	2SD1450RTA	TRANSISTOR		D4	KV1360NT	DIODE	
Q12	2SC3311R	TRANSISTOR		D8	MA165	DIODE	
Q14	2SC3311R	TRANSISTOR		D10	MA165	DIODE	
Q101	2SJ164QTA	TRANSISTOR		D11	RVD1SS135TA	DIODE	
Q103	2SJ164RTA	TRANSISTOR		D301	MA165	DIODE	
Q201	2SJ164QTA	TRANSISTOR		D601	MA165	DIODE	
Q203	2SJ164RTA	TRANSISTOR		D602 Δ	MA4091LTA	DIODE	
Q301, 302	2SC2389SSTA	TRANSISTOR		D603	RL1N4003N02	DIODE	
Q303	2SD1450RTA	TRANSISTOR		D604-606	MA165	DIODE	
Q304	UN4210-S	TRANSISTOR		D608	MA165	DIODE	
Q305-311	2SC3311R	TRANSISTOR		D609	MA4056MTA	DIODE	
Q312	2SD965Q	TRANSISTOR		D610	RB441QT77	DIODE	
Q313	UN411FTA	TRANSISTOR		D613	MA165	DIODE	
Q317	UN411FTA	TRANSISTOR		D616	MA165	DIODE	
Q322	2SC3311R	TRANSISTOR		D617 Δ	RVDMTZ12BTA	DIODE	
Q325, 326	2SC3311R	TRANSISTOR		D618	RL1N4003N02	DIODE	
				D622	RVDMTZ5R1BTA	DIODE	

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
D623	RVD1SR139TA	DIODE					
D801	MA165	DIODE		X1	RSXZ456KM01	OSCILLATOR (456KHz)	
D803, 804	LNJ802RPDJA	LED		X2	RSXC7M20S04T	OSCILLATOR (7. 2MHz)	
D811	LN28RPXTA7	LED		X701	RSXB16M9J02T	OSCILLATOR (16. 9344MHZ)	
D901-904△	RL1N4003N02	DIODE		X801	RSXZ6M00M01T	OSCILLATOR (6MHZ)	
D951	MA165	DIODE		X802	RSXD32K7S03	OSCILLATOR (32. 7KHz)	
D971	MA165	DIODE				FUSE (S)	
D1001	RVDMTZ8R2BTA	DIODE					
D1002	LN086WP38	LED					
D1005-1010	LNJ301MPUJAD	LED		F901 △	XBA2C20TB0	FUSE, 250V, T2A	
		VARIABLE RESISTOR				SWITCH (ES)	
VR981	RRN6B05B53TA	V. R, TAPE SPEED		S701	RSM0006-P	SW, REST	
		COMPONENT COMBINATION (S)		S790	RSH1A005	SW, OPEN	
				S791	RSH1A005	SW, CLOSE	
Z1	RXABPWB6A	COMPONENT COMBINATION		S801	EVQ21405R	SW, TIMER /ADJUST	
Z301	EXBF7L355SYV	COMPONENT COMBINATION		S802	EVQ21405R	SW, PRESET EQ	
Z801	XAMR135	LAMP		S803	EVQ21405R	SW, TIMER	
Z971	EXBF7L355SYV	COMPONENT COMBINATION		S804	EVQ21405R	SW, MEMORY TUNE/CD	
Z1001	RCDGP1U28YD	REMOTE SENSOR		S805	EVQ21405R	SW, CD/TUNE/TIME SET (-)	
		COIL (S)		S806	EVQ21405R	SW, PRESET TUNE MODE	
				S807	EVQ21405R	SW, CLOCK ADJUST	
				S808	EVQ21405R	SW, CD/TUNE/TIME SET (+)	
L1	RL02B011-T	COIL		S809	EVQ21405R	SW, CD REC MODE	
L2	RL01B004-T	COIL		S810	EVQ21405R	SW, REC/PAUSE	
L3	RLV6C012-0	COIL		S811	EVQ21405R	SW, TAPE EDIT	
L4	RLQA101JT1-Y	COIL		S901 △	RJJ1SE01-H	SW, AC/DC (JK901)	
L5	RLQA8R2JT1-Y	COIL		S951	RSH1A018-1U	SW, MODE (DECK1)	
L8	RLQA470JT1-Y	COIL		S952	RSH1A019-2U	SW, HALF (DECK1)	
L301	RL08B003-K	COIL		S953	RSH1A019-2U	SW, ATS/C+02 (DECK1)	
L302, 303	RLQA470JT1-Y	COIL		S971	RSH1A018-1U	SW, MODE (DECK2)	
L602-604	RL1500050T-Y	COIL		S972	RSH1A019-2U	SW, HALF (DECK2)	
L606	RLQA470JT1-Y	COIL		S973	RSH1A019-2U	SW, ATS/C+02 (DECK2)	
L607	RL1500050T-Y	COIL		S974	RSH1A019-2U	SW, R REC 1NH (DECK2)	
L608	RLQA470JT1-Y	COIL		S975	RSH1A019-2U	SW, F. REC 1NH (DECK2)	
L801	RLQA470JT1-Y	COIL		S1001	EVQPTA05Q	SW, POWER	
L901, 902	RL1500050T-Y	COIL	△	S1002	EVQ21405R	SW, VOLUME (-)	
L1301	RLQB470KTA-Y	COIL		S1003	EVQ21405R	SW, VOLUME (+)	
		TRANSFORMER (S)		S1004	EVQPTA05Q	SW, TAPE STOP	
				S1005	EVQPTA05Q	SW, TAPE PLAY	
				S1006	EVQPTA05Q	SW, TUNER (BAND)	
T1	RL12Z019-T	TRANSFORMER		S1007	EVQPTA05Q	SW, CD PLAY	
T901 △	RTP1U1B005-X	POWER TRANSFORMER		S1008	EVQPTA05Q	SW, CD STOP/CLEAR	
		FILTER (S)		S1009	EVQ21405R	SW, TOP PANEL (CLOSE)	
				S1010	EVQ21405R	SW, TOP PANEL (OPEN)	
				S1011	EVQPTA05Q	SW, CD OPEN/CLOSE	
CF1, 2	RLFFETMLA02D	CERAMIC FILTER		S1012	EVQ21405R	SW, DECK1 OPEN/CLOSE	
CF3	RLFDFT14AD	DISCRIMINATOR		S1013	EVQ21405R	SW, REW/TPS	
		OSCILLATOR (S)		S1014	EVQ21405R	SW, DECK 1/2	
				S1015	EVQ21405R	SW, FF/TPS	
				S1016	EVQ21405R	SW, DECK2 OPEN/CLOSE	

[illegible]

Notes : * Capacity values are in microfarads (uF) unless specified otherwise, P=Pico-farads (pF) F=Farads (F)
 * Resistance values are in ohms, unless specified otherwise, 1K=1,000 (01M) , 1M=1,000k (01M)

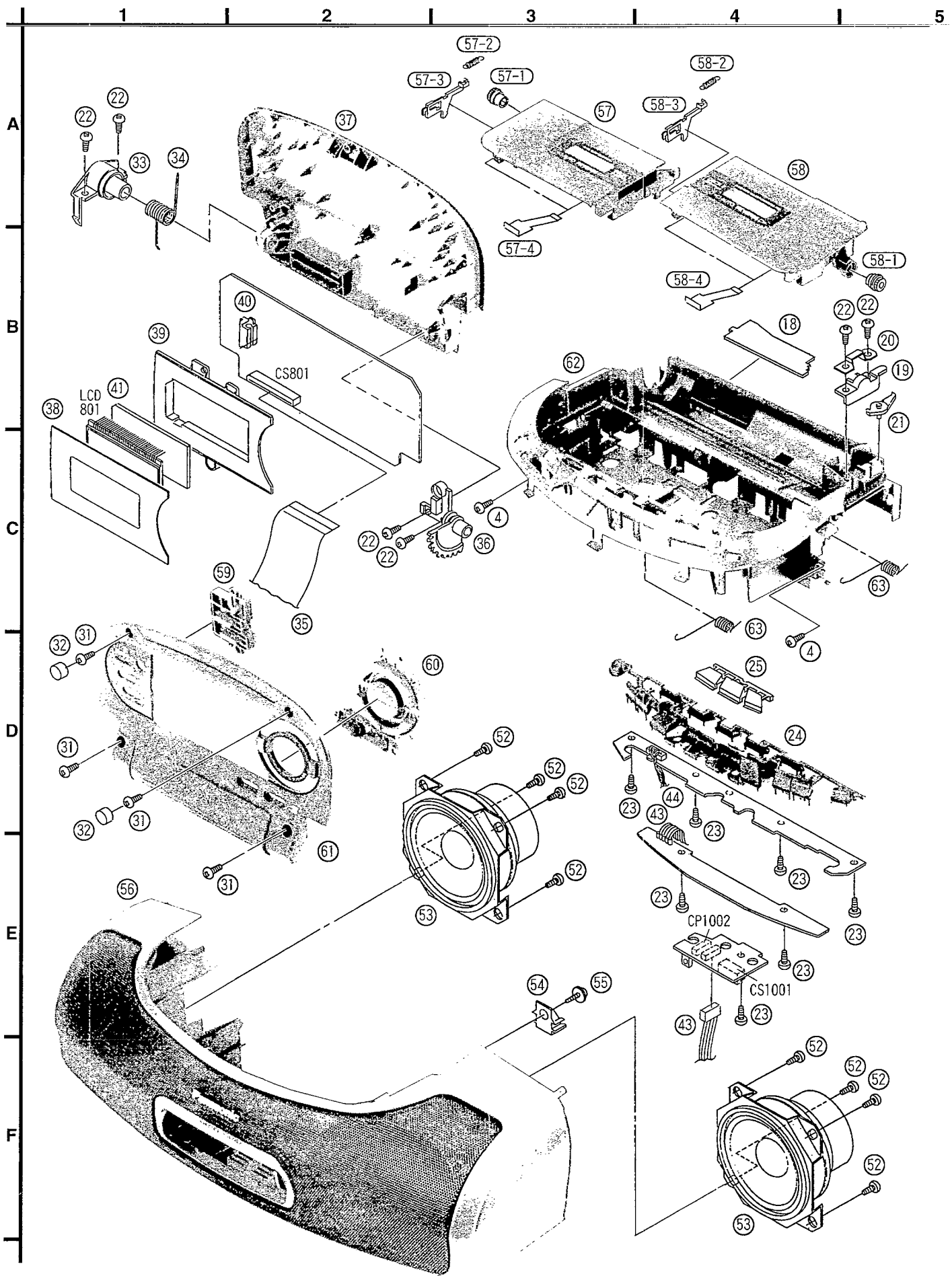
Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks
		RESISTORS	R102	ERDS2TJ822	1/4W 8.2K	R370	ERDS2TJ103	1/4W 10K
			R103	ERDS2TJ562	1/4W 5.6K	R401	ERDS2TJ183T	1/4W 18K
			R104	ERDS2TJ104	1/4W 100K	R402	ERDS2TJ682T	1/4W 6.8K
R1	ERDS2TJ104	1/4W 100K	R105	ERDS2TJ182	1/4W 1.8K	R403	ERDS2TJ123	1/4W 12K
R2	ERDS2TJ332	1/4W 3.3K	R106	ERDS2TJ332	1/4W 3.3K	R404	ERDS2TJ472	1/4W 4.7K
R3	ERDS2TJ104	1/4W 100K	R109	ERDS2TJ223	1/4W 22K	R405	ERDS2TJ222	1/4W 2.2K
R5	ERDS2TJ103	1/4W 10K	R110	ERDS2TJ222	1/4W 2.2K	R407	ERDS2TJ682T	1/4W 6.8K
R6	ERDS2TJ152	1/4W 1.5K	R201	ERDS2TJ101	1/4W 100	R408	ERDS2TJ102	1/4W 1K
R7	ERDS2TJ330	1/4W 33	R202	ERDS2TJ822	1/4W 8.2K	R409	ERDS2TJ823T	1/4W 82K
R8	ERDS2TJ104	1/4W 100K	R203	ERDS2TJ562	1/4W 5.6K	R411	ERDS2TJ1R2	1/4W 1.2
R9	ERDS2TJ102	1/4W 1K	R204	ERDS2TJ104	1/4W 100K	R412	ERDS2TJ1R0	1/4W 1.0
R10	ERDS2TJ102	1/4W 1K	R205	ERDS2TJ182	1/4W 1.8K	R413	ERDS2TJ331	1/4W 330
R11	ERDS2TJ103	1/4W 10K	R206	ERDS2TJ332	1/4W 3.3K	R501	ERDS2TJ183T	1/4W 18K
R12	ERDS2TJ223	1/4W 22K	R209	ERDS2TJ223	1/4W 22K	R502	ERDS2TJ682T	1/4W 6.8K
R13	ERDS2TJ153	1/4W 15K	R210	ERDS2TJ222	1/4W 2.2K	R503	ERDS2TJ123	1/4W 12K
R14	ERDS2TJ103	1/4W 10K	R301	ERDS2TJ103	1/4W 10K	R504	ERDS2TJ472	1/4W 4.7K
R15	ERDS2TJ223	1/4W 22K	R302-304	ERDS2TJ152	1/4W 1.5K	R505	ERDS2TJ222	1/4W 2.2K
R17	ERDS2TJ103	1/4W 10K	R305	ERDS2TJ103	1/4W 10K	R507	ERDS2TJ682T	1/4W 6.8K
R18	ERDS2TJ223	1/4W 22K	R306	ERDS2TJ752T	1/4W 7.5K	R508	ERDS2TJ102	1/4W 1K
R19	ERDS2TJ101	1/4W 100	R307	ERDS2TJ822	1/4W 8.2K	R509	ERDS2TJ823T	1/4W 82K
R20	ERDS2TJ151	1/4W 150	R308 Δ	ERD2FCVJ4R7T	1/4W 4.7	R511	ERDS2TJ1R2	1/4W 1.2
R22	ERDS2TJ331	1/4W 330	R309-311	ERDS2TJ472	1/4W 4.7K	R512	ERDS2TJ1R0	1/4W 1.0
R24	ERDS2TJ471	1/4W 470	R312	ERDS2TJ334	1/4W 330K	R513	ERDS2TJ331	1/4W 330
R25	ERDS2TJ104	1/4W 100K	R313	ERDS2TJ123	1/4W 12K	R601	ERDS2TJ334	1/4W 330K
R26, 27	ERDS2TJ102	1/4W 1K	R314	ERDS2TJ472	1/4W 4.7K	R602	ERDS2TJ102	1/4W 1K
R28	ERDS2TJ334	1/4W 330K	R315	ERDS2TJ102	1/4W 1K	R603	ERDS2TJ100	1/4W 10
R29	ERDS2TJ331	1/4W 330	R316	ERDS2TJ470	1/4W 47	R604, 605	ERDS2TJ102	1/4W 1K
R30	ERDS2TJ822	1/4W 8.2K	R317	ERDS2TJ220T	1/4W 22	R607	ERDS2TJ102	1/4W 1K
R31	ERDS2TJ472	1/4W 4.7K	R318	ERDS2TJ335T	1/4W 3.3M	R608	ERDS2TJ273	1/4W 27K
R36, 37	ERDS2TJ223	1/4W 22K	R319-322	ERDS2TJ104	1/4W 100K	R609	ERDS2TJ332	1/4W 3.3K
R40	ERDS2TJ105T	1/4W 1M	R323, 324	ERDS2TJ273	1/4W 27K	R610	ERDS2TJ273	1/4W 27K
R41	ERDS2TJ301T	1/4W 300	R325	ERDS2TJ471	1/4W 470	R611	ERDS2TJ332	1/4W 3.3K
R42	ERDS2TJ103	1/4W 10K	R326	ERDS2TJ103	1/4W 10K	R612, 613	ERDS2TJ1R2	1/4W 1.2
R43, 44	ERDS2TJ222	1/4W 2.2K	R327	ERDS2TJ472	1/4W 4.7K	R614	ERDS2TJ103	1/4W 10K
R47	ERDS2TJ332	1/4W 3.3K	R328	ERDS2TJ103	1/4W 10K	R615	ERDS2TJ331	1/4W 330
R49	ERDS2TJ103	1/4W 10K	R329	ERDS2TJ681	1/4W 680	R616 Δ	ERD2FCVG220T	1/4W 22
R52	ERDS2TJ223	1/4W 22K	R330	ERDS2TJ563	1/4W 56K	R617	ERDS2TJ122	1/4W 1.2K
R54	ERDS2TJ222	1/4W 2.2K	R331, 332	ERDS2TJ104	1/4W 100K	R618	ERDS2TJ103	1/4W 10K
R57	ERDS2TJ103	1/4W 10K	R333	ERDS2TJ103	1/4W 10K	R619, 620	ERDS2TJ221	1/4W 220
R59	ERDS2TJ471	1/4W 470	R334	ERDS2TJ223	1/4W 22K	R622	ERDS2EJ121	1/4W 120
R61	ERDS2TJ103	1/4W 10K	R335	ERDS2TJ470	1/4W 47	R623	ERDS2TJ821	1/4W 820
R62	ERDS2TJ471	1/4W 470	R336	ERDS2TJ563	1/4W 56K	R624	ERDS2TJ331	1/4W 330
R63	ERDS2TJ105T	1/4W 1M	R337	ERDS2TJ104	1/4W 100K	R626	ERDS2TJ122	1/4W 1.2K
R64	ERDS2TJ332	1/4W 3.3K	R349	ERDS2TJ224T	1/4W 220K	R627, 628	ERDS2TJ472	1/4W 4.7K
R65	ERDS2TJ470	1/4W 47	R350	ERDS2TJ334	1/4W 330K	R629	ERDS2TJ271	1/4W 270
R66	ERDS2TJ471	1/4W 470	R355, 356	ERDS2TJ153	1/4W 15K	R630	ERDS2TJ473	1/4W 47K
R68	ERDS2TJ222	1/4W 2.2K	R366	ERDS2TJ183T	1/4W 18K	R631	ERDS2TJ474	1/4W 470K
R69	ERDS2TJ471	1/4W 470	R368	ERDS2TJ220T	1/4W 22	R633, 634	ERDS2TJ330	1/4W 33
R101	ERDS2TJ101	1/4W 100	R369	ERDS2TJ334	1/4W 330K	R635	ERDS2TJ102	1/4W 1K

Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks
R636	ERDS2TJ122	1/4W 1.2K	R750, 751	ERJ6GEYJ473V	1/10W 47K	R1013, 1014	ERDS2TJ102	1/4W 1K
R638	ERDS2TJ123	1/4W 12K	R752	ERJ8GEYJ220V	1/8W 22	R1015	ERDS2TJ122	1/4W 1.2K
R639	ERDS2TJ393	1/4W 39K	R770, 771	ERJ6GEYJ155V	1/10W 1.5M	R1016	ERDS2TJ182	1/4W 1.8K
R640	ERDS2TJ472	1/4W 4.7K	R772	ERJ6GEYJ273V	1/10W 27K	R1026, 1027	ERDS2TJ151	1/4W 150
R641	ERDS2TJ333	1/4W 33K	R801, 802	ERDS2TJ332	1/4W 3.3K			CHIP JUMPER(S)
R642-644	ERDS2TJ102	1/4W 1K	R803	ERDS2TJ333	1/4W 33K			
R646	ERDS2TJ273	1/4W 27K	R804, 805	ERDS2TJ823T	1/4W 82K			
R647	ERDS2TJ472	1/4W 4.7K	R806	ERDS2TJ104	1/4W 100K	RJ701-704	ERJ8GEYOR00A	CHIP JUMPER
R648	ERDS2TJ103	1/4W 10K	R807	ERDS2TJ105T	1/4W 1M	RJ707	ERJ8GEYOR00A	CHIP JUMPER
R649	ERDS2TJ561	1/4W 560	R809	ERDS2TJ334	1/4W 330K	RJ709	ERJ8GEYOR00A	CHIP JUMPER
R650	ERDS2TJ123	1/4W 12K	R811	ERDS2TJ104	1/4W 100K	RJ714-717	ERJ8GEYOR00A	CHIP JUMPER
R652-655	ERDS2TJ103	1/4W 10K	R812-818	ERDS2TJ472	1/4W 4.7K	RJ721-731	ERJ6GEYOR00A	CHIP JUMPER
R656, 657	ERDS2TJ223	1/4W 22K	R819	ERDS2TJ124T	1/4W 120K			TEST JUMPER(S)
R658	ERDS2TJ101	1/4W 100	R820	ERDS2TJ472	1/4W 4.7K			
R659	ERDS2TJ270T	1/4W 27	R821	ERDS2TJ103	1/4W 10K	TJ701, 702	EYF8CU	TEST JUMPERS
R660	ERDS2TJ103	1/4W 10K	R822	ERDS2TJ222	1/4W 2.2K			CAPACITORS
R661	ERDS2TJ472	1/4W 4.7K	R823	ERDS2TJ472	1/4W 4.7K			
R662	ERDS2TJ104	1/4W 100K	R824, 825	ERDS2TJ103	1/4W 10K			
R663	ERDS2TJ334	1/4W 330K	R826	ERDS2TJ474	1/4W 470K			
R664	ERDS2TJ105T	1/4W 1M	R827	ERDS2TJ104	1/4W 100K	C4	RCBS1H102KBY	50V 1000P
R665	ERDS2TJ182	1/4W 1.8K	R829, 830	ERDS2TJ104	1/4W 100K	C5	ECBT1H2R2KC5	50V 2.2P
R666	ERDS2TJ103	1/4W 10K	R831	ERDS2TJ102	1/4W 1K	C6	RCBS1H102KBY	50V 1000P
R667	ERDS2TJ1R2	1/4W 1.2	R835	ERDS2TJ103	1/4W 10K	C9	ECEA1HK010B	50V 1U
R668-672	ERDS2TJ102	1/4W 1K	R838, 839	ERDS2TJ472	1/4W 4.7K	C10	ECBT1C332MR5	16V 3300P
R673	ERDS2TJ270T	1/4W 27	R841	ERDS2TJ472	1/4W 4.7K	C11	ECEA1AU101	10V 100U
R701	ERJ6GEYJ4R7V	1/10W 4.7	R846, 847	ERDS2TJ681	1/4W 680	C12	ECFR1C473MR	16V 0.047U
R703	ERJ6GEYJ823	1/10W 82K	R848	ERDS2TG103T	1/4W 10K	C13	ECFR1C103MR	16V 0.01U
R704	ERJ6GEYJ102A	1/10W 1K	R854	ERDS2TJ681	1/4W 680	C14	ECBT1C103MS5	16V 0.01U
R705	ERJ6GEYJ103V	1/10W 10K	R856, 857	ERDS2TG103T	1/4W 10K	C15	ECBT1H3R9KC5	50V 3.9P
R706	ERJ6GEYJ102A	1/10W 1K	R859, 860	ERDS2TJ102	1/4W 1K	C16, 17	RCBS1H102KBY	50V 1000P
R707	ERJ6GEYJ474V	1/10W 470K	R861	ERDS2TJ122	1/4W 1.2K	C18	ECBT1H200JC5	50V 20P
R708	ERJ6GEYJ154V	1/10W 150K	R862	ERDS2TJ182	1/4W 1.8K	C19	ECBT1H220JC5	50V 22P
R709	ERJ6GEYJ683V	1/10W 68K	R863	ERDS2TJ222	1/4W 2.2K	C20	RCBS1H102KBY	50V 1000P
R711	ERJ6GEYJ154V	1/10W 150K	R864	ERDS2TJ272T	1/4W 2.7K	C21	ECEA1AU101	10V 100U
R712	ERJ6GEYJ221V	1/10W 220	R865	ERDS2TJ392T	1/4W 3.9K	C22-24	RCBS1H102KBY	50V 1000P
R717-720	ERJ6GEYJ102A	1/10W 1K	R866	ERDS2TJ682T	1/4W 6.8K	C25	ECBT1H150JC5	50V 15P
R721	ERJ6GEYJ101V	1/10W 100	R867	ERDS2TJ103	1/4W 10K	C26	ECBT1H6R8KC5	50V 6.8P
R722	ERJ6GEYJ563V	1/10W 56K	R952	ERDS2TJ821	1/4W 820	C27	ECBT1H4R7KC5	50V 4.7P
R723	ERJ6GEYJ182V	1/10W 1.8K	R953	ERDS2TJ393	1/4W 39K	C28, 29	RCBS1H102KBY	50V 1000P
R724	ERJ6GEYJ333V	1/10W 33K	R972	ERDS2TJ821	1/4W 820	C31	RCBS1H102KBY	50V 1000P
R725	ERJ6GEYJ472V	1/10W 4.7K	R973	ERDS2TJ393	1/4W 39K	C32, 33	ECBT1H101KB5	50V 100P
R726	ERJ6GEYJ473V	1/10W 47K	R982	ERDS2TJ153	1/4W 15K	C34	ECBT1H680J5	50V 68P
R727	ERJ6GEYJ822V	1/10W 8.2K	R1001, 1002	ERDS2TJ102	1/4W 1K	C35	ECBT1H1R5M5	50V 1.5P
R728	ERJ6GEYJ103V	1/10W 10K	R1003	ERDS2TJ122	1/4W 1.2K	C36, 37	RCBS1H102KBY	50V 1000P
R731	ERJ6GEYJ822V	1/10W 8.2K	R1004	ERDS2TJ182	1/4W 1.8K	C38	ECBT1H331KB5	50V 330P
R734-736	ERJ6GEYJ101V	1/10W 100	R1005	ERDS2TJ222	1/4W 2.2K	C39, 40	ECBT1C103MS5	16V 0.01U
R738	ERJ6GEYJ223V	1/10W 22K	R1006	ERDS2TJ272T	1/4W 2.7K	C44	ECEA1AU101	10V 100U
R741-743	ERJ6GEYJ562V	1/10W 5.6K	R1007	ERDS2TJ392T	1/4W 3.9K	C47	ECFR1C223MR	16V 0.022U
R744	ERJ6GEYJ103V	1/10W 10K	R1008	ERDS2TJ682T	1/4W 6.8K	C48	ECEA0JU101B	6.3V 100U
R745	ERJ6GEYJ155V	1/10W 1.5M	R1009	ERDS2TJ103	1/4W 10K	C51	ECEA1HKA010B	50V 1U
R748	ERJ6GEYJ182V	1/10W 1.8K	R1010	ERDS2TJ183T	1/4W 18K	C52	ECFR1C473MR	16V 0.047U
R749	ERJ6GEYJ682V	1/10W 6.8K	R1011	ERDS2TJ563	1/4W 56K	C58	ECBT1H8R2KC5	50V 8.2P

Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks
C60	ECEA1AKA220B	10V 22U	C318	ECFR1C473MR	16V 0.047U	C618	RCE1AU101BG	10V 100U
C61	ECBT1C332MR5	16V 3300P	C319	ECEA1HKA0R1B	50V 0.1U	C619	RCE1CKA100BG	16V 10U
C62	RCBS1H102KBY	50V 1000P	C320	ECEA1AKA220B	10V 22U	C622	ECEA1HKA010B	50V 1U
C63	ECBA1H681KB5	50V 680P	C321	RCE1AKA101BG	10V 100U	C623, 624	ECBT1H221KB5	50V 220P
C64	ECFR1C473MR	16V 0.047U	C322	RCE1CKA100BG	16V 10U	C625	ECEA1CU471B	16V 470U
C65	ECBT1H470J5	50V 47P	C323	RCE0JKA470BG	6.3V 47U	C627	ECBT1H221KB5	50V 220P
C66	ECBT1H100JC5	50V 10P	C324	ECEA1HKA0R1B	50V 0.1U	C628	RCE1CKA100BG	16V 10U
C67	ECFR1C223MR	16V 0.022U	C325-327	ECBT1H471KB5	50V 470P	C629	ECBT1H102KB5	50V 1000P
C68	ECEA1HKA010B	50V 1U	C329	ECEA1AKA470B	10V 47U	C630	ECBT1H221KB5	50V 220P
C69, 70	ECFR1C183MR	16V 0.018U	C330	RCE1CKA100BG	16V 10U	C631, 632	ECBT1H471KB5	50V 470P
C71	ECEA1HKA2R2B	50V 2.2U	C331	ECBT1H102KB5	50V 1000P	C701	ECEA0JKA330I	6.3V 33U
C72	ECEA1HKA010B	50V 1U	C333	ECBT1H471KB5	50V 470P	C702	ECUZNE104MBN	25V 0.1U
C74	ECBT1H471KB5	50V 470P	C334	RCE1CKA100BG	16V 10U	C703	ECEA0JKA101I	6.3V 100U
C75-77	ECEA1HKA010B	50V 1U	C335-337	ECBT1H471KB5	50V 470P	C704, 705	ECUZNE104MBN	25V 0.1U
C80, 81	ECBT1H331KB5	50V 330P	C401	ECBT1H221KB5	50V 220P	C706	ECUV1H272KBN	50V 2700P
C82	ECBT1H150JC5	50V 15P	C402, 403	RCE1CKA100BG	16V 10U	C707	ECUV1E273KBN	25V 0.027U
C83	ECBT1H331KB5	50V 330P	C404	ECEA1HKA22B	50V 0.22U	C708	ECUE1H472KBN	50V 4700P
C84, 85	ECBT1C103MS5	16V 0.01U	C405	ECFR1C223MR	16V 0.022U	C709	ECUE1C473KBN	16V 0.047U
C86	ECBT1H331KB5	50V 330P	C406	ECFR1C103MR	16V 0.01U	C710	ECUV1H182KBN	50V 1800P
C87	ECBT1C103MS5	16V 0.01U	C407	ECEA1AKA220B	10V 22U	C711, 712	ECUWNE104ZFN	25V 0.1U
C88	RCBS1H102KBY	50V 1000P	C409	ECEA1HKA010B	50V 1U	C713	ECUV1C104MBM	16V 0.1U
C89	ECBT1H101KB5	50V 100P	C410	RCE1AKA101BG	10V 100U	C714	ECEA0JKA101I	6.3V 100U
C90	ECBT0J223MS5	6.3V 0.022U	C411	ECBT1H471KB5	50V 470P	C716	ECUE1H561KBN	50V 560P
C101, 102	ECBT1H471KB5	50V 470P	C412	RCE1AKA101BG	10V 100U	C717	ECUWNE104ZFN	25V 0.1U
C103	RCE0JKA470BG	6.3V 47P	C413	ECEA1AU102B	10V 1000U	C718	ECUVNC224KBN	16V 0.22U
C104	ECFR1C183KR	16V 0.018U	C414	ECQV1H224JM3	50V 0.22U	C721, 722	ECUV1H150JCN	50V 15P
C105	ECEA1EKA4R7B	25V 4.7U	C501	ECBT1H221KB5	50V 220P	C723	ECEA1AKA221I	10V 220U
C106	ECBT1H471KB5	50V 470P	C502, 503	RCE1CKA100BG	16V 10U	C724	ECUV1C104MBM	16V 0.1U
C107, 108	ECEA1HKA010B	50V 1U	C504	ECEA1HKA22B	50V 0.22U	C725, 726	ECUE1H102KBN	50V 1000P
C109, 110	ECEA1EKA4R7B	25V 4.7U	C505	ECFR1C223MR	16V 0.022U	C727, 728	ECEA1HPK010I	50V 1U
C111	ECBT1H331KB5	50V 330P	C506	ECFR1C103MR	16V 0.01U	C730	ECUWNE104ZFN	25V 0.1U
C201, 202	ECBT1H471KB5	50V 470P	C507	ECEA1AKA220B	10V 22U	C731, 732	ECEA0JKA221I	6.3V 220U
C203	RCE0JKA470BG	6.3V 47P	C509	ECEA1HKA010B	50V 1U	C733	ECUZNE104MBN	25V 0.1U
C204	ECFR1C183KR	16V 0.018U	C510	RCE1AKA101BG	10V 100U	C734	ECEA1AKA221I	10V 220U
C205	ECEA1EKA4R7B	25V 4.7U	C511	ECBT1H471KB5	50V 470P	C735-737	ECUWNE104ZFN	25V 0.1U
C206	ECBT1H471KB5	50V 470P	C512	RCE1AKA101BG	10V 100U	C738	ECUV1C154KBN	16V 0.15U
C207, 208	ECEA1HKA010B	50V 1U	C513	ECEA1AU102B	10V 1000U	C742	ECUV1E273KBN	25V 0.027U
C209, 210	ECEA1EKA4R7B	25V 4.7U	C514	ECQV1H224JM3	50V 0.22U	C743	ECUWNE104ZFN	25V 0.1U
C211	ECBT1H331KB5	50V 330P	C601	ECEA1HKA010B	50V 1U	C744	ECUE1E822KBN	25V 8200P
C301	ECEA1HN2R2	50V 2.2U	C602	RCE1CKA100BG	16V 10U	C745	ECUE1C473KBN	16V 0.047U
C302, 303	ECBT1C103MS5	16V 0.01U	C603	ECBT1H101KB5	50V 100P	C747	ECUE1H222KBN	50V 2200P
C304	ECQP2A102JZT	100V 1000P	C605	RCE1CKA100BG	16V 10U	C748	ECUV1H471KBM	50V 470P
C305	ECQP2A821JZT	100V 820P	C606	ECBT1H102KB5	50V 1000P	C749	ECUZNE104MBN	20V 0.1U
C306	ECQP2A472JZT	100V 4700P	C607	RCE1CKA100BG	16V 10U	C750	ECUV1C104MBM	16V 0.1U
C307	ECEA1HKA010B	50V 1U	C610	RCE1CU101BG	16V 100U	C751	ECUZNE104MBN	25V 0.1U
C308	RCE1AU101BG	10V 100U	C611	ECBT1H221KB5	50V 220P	C752	ECUE1H152KBN	50V 1500P
C309	ECQV1H473JM3	50V 0.047U	C612	ECEA0JU101B	6.3V 100U	C753	ECUV1H471KBM	50V 470P
C310, 311	ECBT1H102KB5	50V 1000P	C613	ECBT1H471KB5	50V 470P	C754	ECUE1H471KBN	50V 470P
C312, 313	ECBT1C222MR5	16V 2200P	C614	RCE1AU101BG	10V 100U	C790	ECA1AKF820E	10V 82U
C314	ECBT1C332MR5	16V 3300P	C615	ECEA0JKA220B	6.3V 22U	C801-803	RCBS1H102KBY	50V 1000P
C315	RCE0JKA470BG	6.3V 47U	C616	ECA1EM222E	25V 2200U	C804	ECEA0JKA101B	6.3V 100U
C317	RCE1CKA100BG	16V 10U	C617	RCE1CU331BG	16V 330U	C805	RCBS1H102KBY	50V 1000P

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET PARTS		50	RWJ1109150XX	FLAT CABLE (PW1001/9P)	
1	RGK0763-K	ORNAMENT		51	XTV3+10F	SCREW	
2	XTN3+40G	SCREW		52	XTV3+10G	SCREW	
3	RKK0073-K	BATTERY COVER		53	EAS10P371A6	SPEAKER	
4	XTV3+12G	SCREW		54	REX0766	WIRE ASS'Y (SP)	
5	REQ0153	SPACER		55	RHD30044	SCREW	
6	REED663	FFC		56	RYK0577-K	FRONT CABINET ASS'Y	
7	XTBS26+8J	SCREW		57	RYF0368-K1	CASSETTE PANEL (L)	
8	RSC0437	SHIELD CASE		57-1	RDG0183	GEAR	
9	REQ0151A	BATTERY P. C. B (MAIN)		57-2	RMB0448	SPRING	
10	REQ0152	BATTERY P. C. B (BACK-UP)		57-3	RMM0147	ROD	
11	XEARR175ED-Y	TELESCOPIC ANTENNA		57-4	RUS757ZA	SPRING	
12	XYN3+F12FY	SCREW		58	RYF0369-K1	CASSETTE PANEL (R)	
13	RMN0297	TERMINAL		58-1	RDG0183	GEAR	
14	RJC91005	BATTERY TERMINAL		58-2	RMB0448	SPRING	
16	RKH0033-K	HANDLE		58-3	RMM0147	ROD	
17	RKS0219C-K	REAR CABINET	(EG)	58-4	RUS757ZA	SPRING	
17	RKS0219B-K	REAR CABINET	(EB)	59	RGU1298A-K	BUTTON, REC MODE	
18	REQ0154	SPACER		60	RGU1299A-K	BUTTON, TIMER	
19	RDB0057	HOLDER		61	RKF0457A-K	FRONT PANEL (DISPLAY)	
20	RMC0252	SPRING		62	RKQ0189A-K	TOP CABINET	
21	RMRO699-K	PANEL LOCK		63	RME0193	SPRING	
22	XTV26+8G	SCREW		64	RMB0374	SPRING	
23	XTV26+8G	SCREW		65	RMM0124	CAM	
24	RGU1297A-K	BUTTON, FUNCTION 1		66	RGP0499-K	PANEL	
25	RGU1316A-Q	BUTTON, FUNCTION 2		67	RMK0260-1	PANEL HOLDER	
26	RFKPXDT07-K	MOTOR ASS'Y		68	RGC0008-W	REFLECTOR	
27	RDG0250A	GEAR		69	RMK0261	CHASSIS	
28	RFKNXDT07-K	CLUTCH		70	RMRO801-W	ANGLE	
29	RDG0289	GEAR		71	RSC0387	SHIELD	
30	RMC0253	CLIP		72	XQN2+C3	SCREW	
31	XTN26+8GFZ	SCREW		73	XQN2+C6	SCREW	
32	RMG0249-K1	RUBBER		74	XTV26+12F	SCREW	
33	RDB0063-1	SHAFT					
34	RMB0449	SPRING					
35	REED662	FFC					
36	RMS0330	GEAR					
37	RKF0456-K	REAR PANEL (DISPLAY)					
38	RGP0502A-K	PANEL, LCD					
39	RMN0347	HOLDER					
40	RDL0034	FILTER					
41	RGL0291-Q	PANEL, LIGHT					
42	REX0767	WIRE ASS'Y (CW901/3P)					
43	REX0768Y	WIRE ASS'Y (CW1003/7P)					
44	REX0790	WIRE ASS'Y (PW1002/5P)					
45	REX0763Y	WIRE ASS'Y (CW1301/4P)					
46	REX0764	WIRE ASS'Y (PW902/4P)					
47	REX0617Y	WIRE ASS'Y (CW790/6P)					
48	RJC511YB	BATTERY TERMINAL (MAIN)					
49	RJC751ZA	BATTERY TERMINAL (BACK-UP)					

Cabinet Parts Location



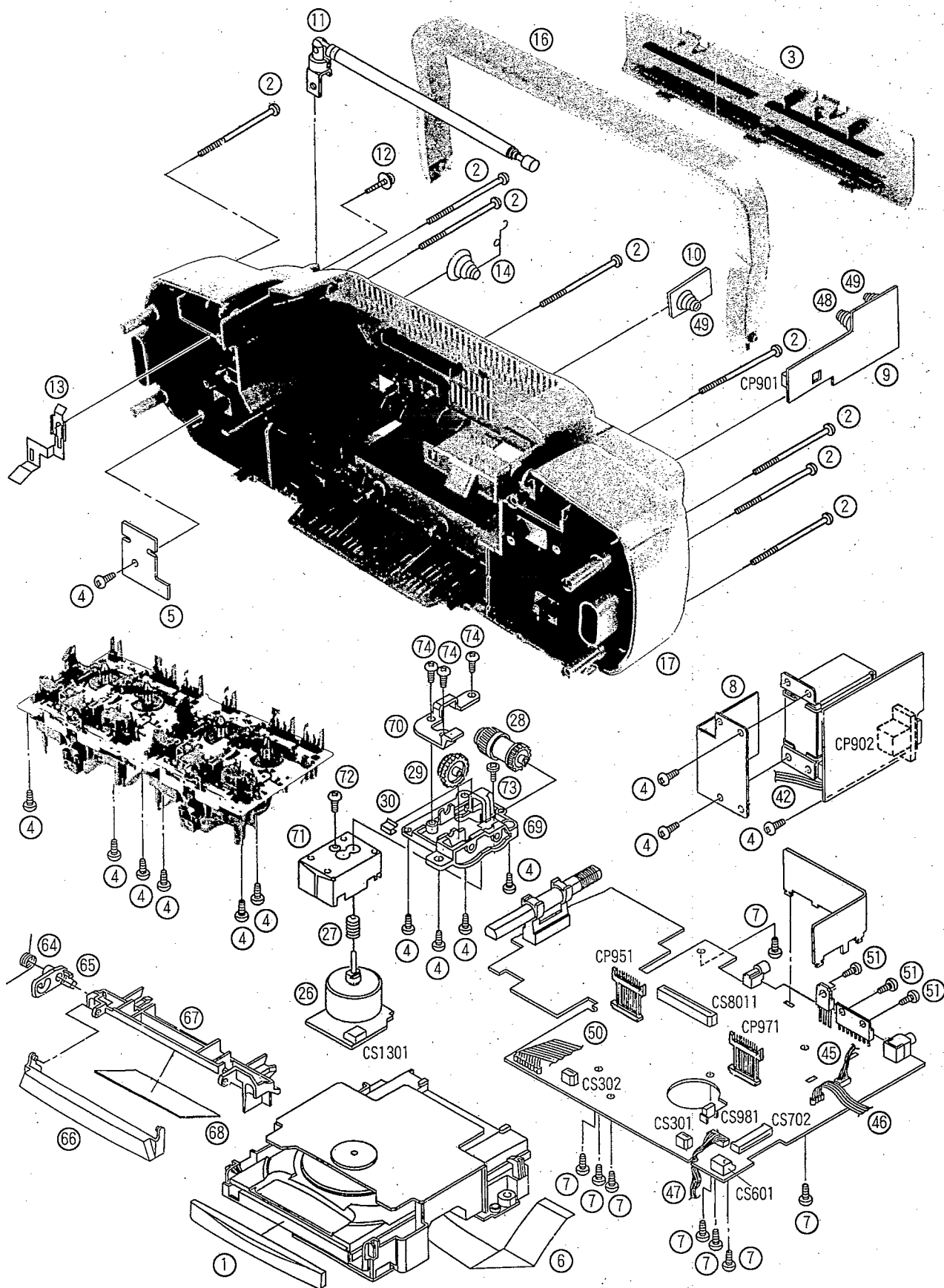
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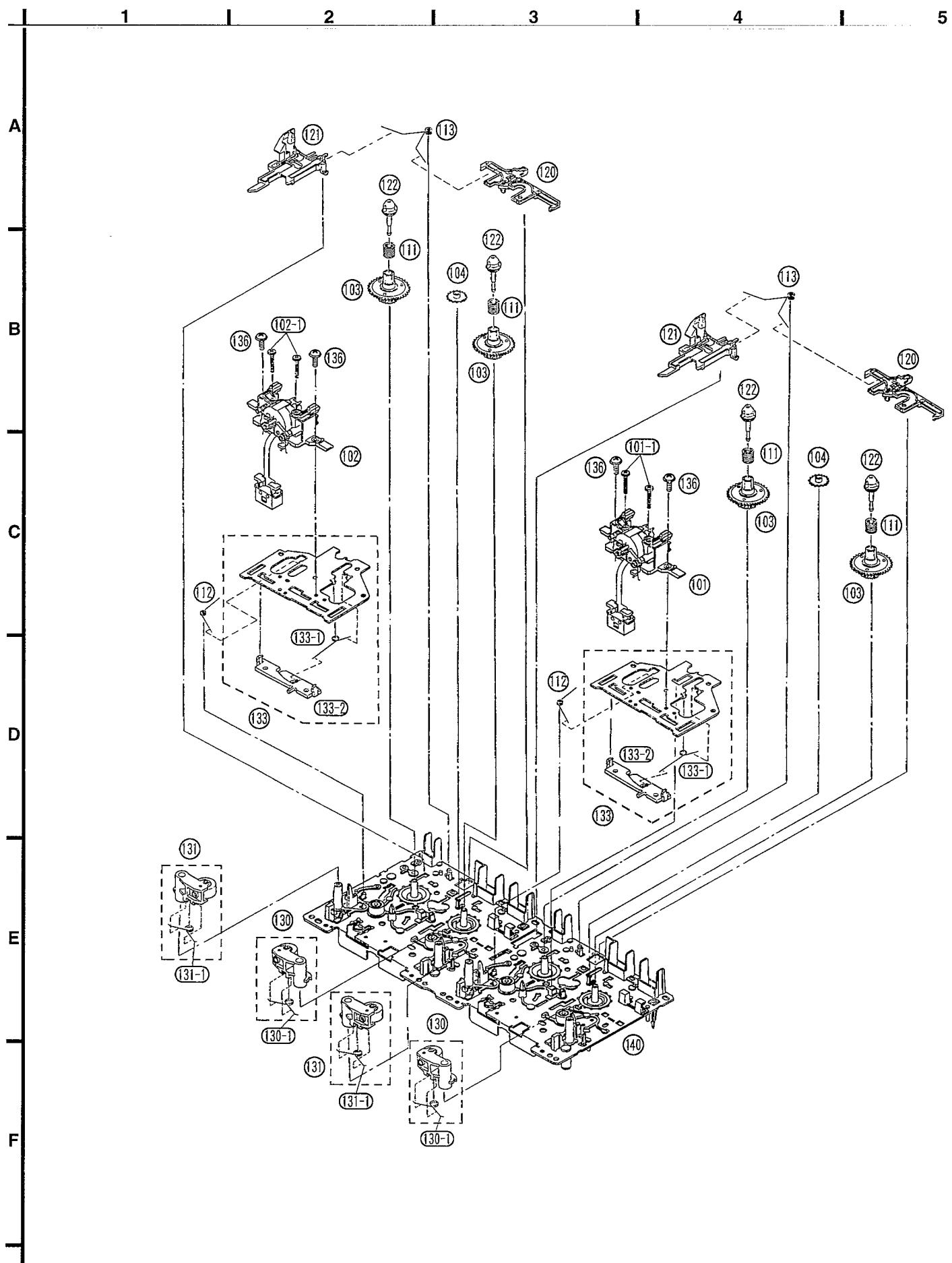
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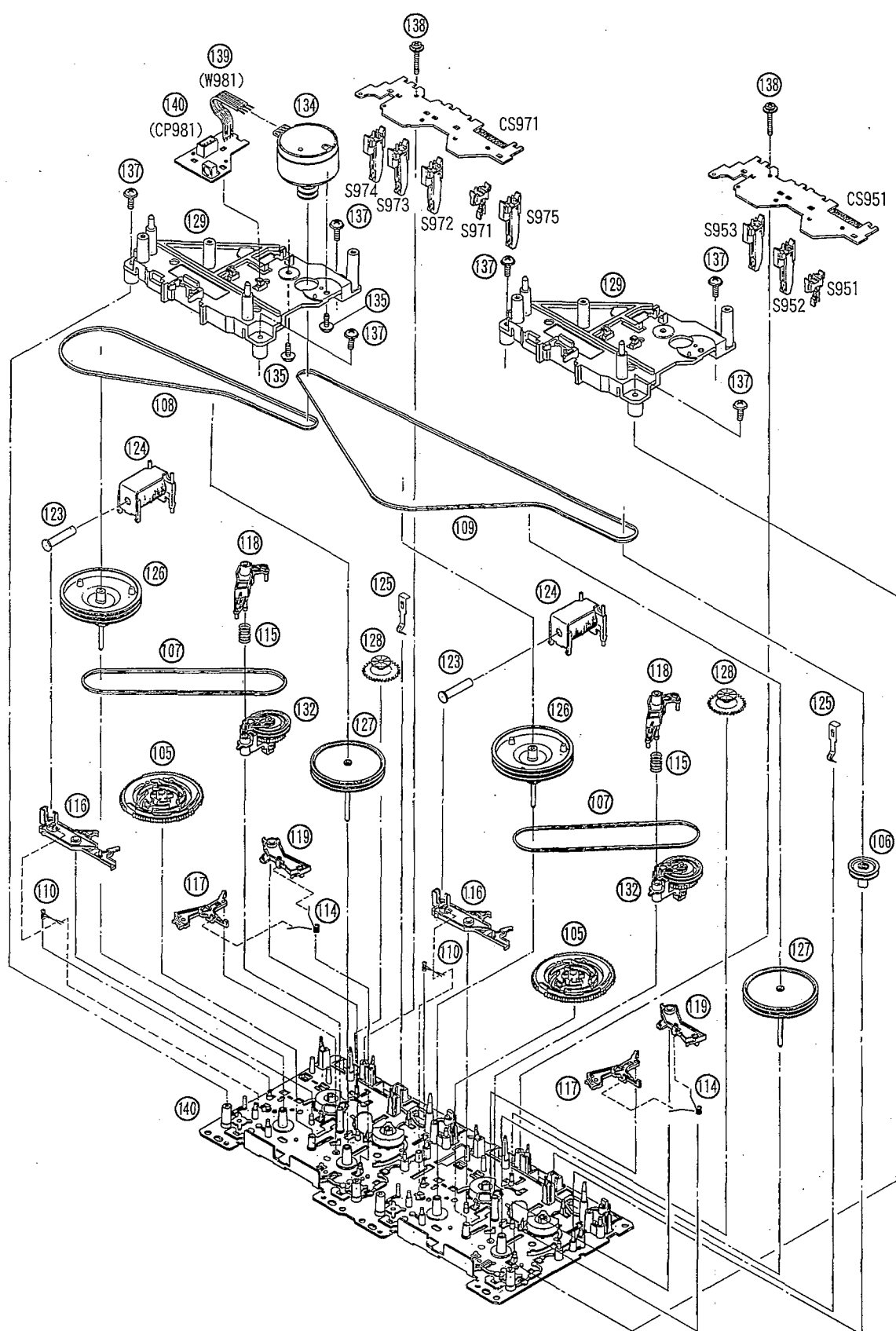
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Mechanism Parts Location



Ref. No.	Part No.	Part Name & Description	Remarks
		MECHANISM PARTS	
101	RED0037	HEAD BLOCK(R/P)	
102	RED0038	HEAD BLOCK(P.B)	
102-1	RHD17015	SCREW	
103	RDG0300	REEL TABLE ASS'Y	
104	RDG0301	GEAR	
105	RDK0026	GEAR	
106	RDR0029	PULLEY	
107	RDV0033-1	BELT 1	
108	RDV0034	BELT 2	
109	RDV0035	BELT 3	
110	RJW147ZA	SPRING	
111	RMB0400	SPRING	
112	RMB0403	SPRING	
113	RMB0404	SPRING	
114	RMB0406	SPRING	
115	RMB0408	SPRING	
116	RML0370	LEVER	
117	RML0371	LEVER	
118	RML0372	LEVER	
119	RML0374	LEVER	
120	RMM0131	ROD	
121	RMM0133	ROD	
122	RMQ0519	REEL CAP	
123	RMS0398-1	SHAFT	
124	RSJ0003	PLUNGER ASS'Y	
125	RUS6092C	SPRING	
126	RXF0049	FLYWHEEL ASS'Y	
127	RXF0050	FLYWHEEL ASS'Y	
128	RXG0040	GEAR	
129	RMK0283	SUB CHASSIS	
130	RXL0124	PINCH ROLLER ASS'Y	
130-1	RMB0401	SPRING	
131	RXL0125	PINCH ROLLER ASS'Y	
131-1	RMB0402	SPRING	
132	RXL0126	ARM	
133	RXQ0412	CHASSIS ASS'Y	
133-1	RMB0405	SPRING	
133-2	RMM0132	ROD	
134	REM0055	MOTOR ASS'Y	
135	RHD26022	SCREW	
136	XTW2+5L	SCREW	
137	XTW26+10S	SCREW	
138	XYC2+JF17	SCREW	
139	RWJ4704050CK	FLAT CABLE (W981)	
140	RFKJXED70-K	MAIN CHASSIS ASS'Y	

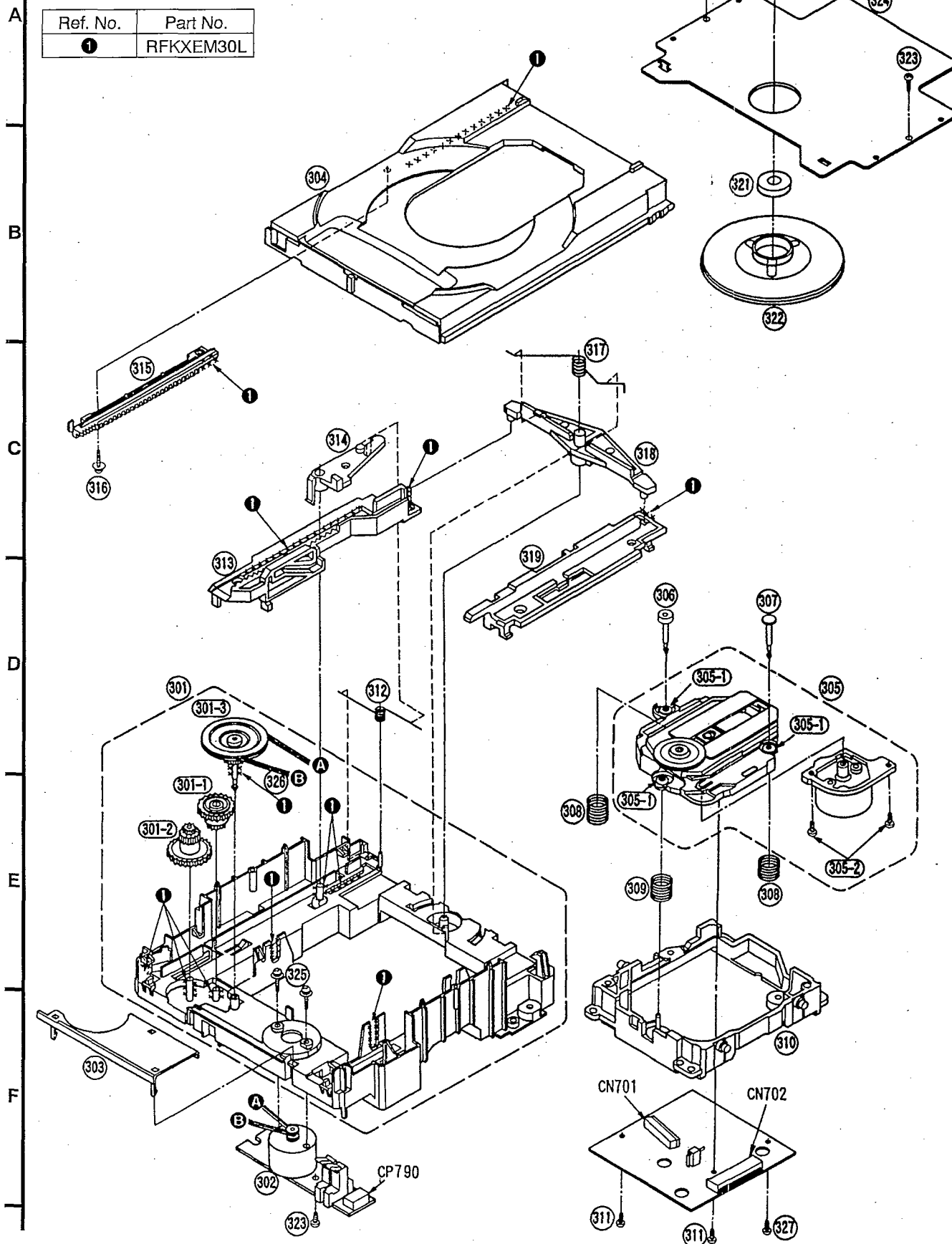
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Loading Unit Parts Location

Note:

When changing mechanism parts, apply the specified grease to areas marked "× ×" as shown in the drawing.

Ref. No.	Part No.
1	RFXXEM30L



Ref. No.	Part No.	Part Name & Description	Remarks
		PACKING MATERIALS	
P1	RPG2838	GIFT BOX	(EG)
P1	RPG2839	GIFT BOX	(EB)
P2	RPN0933	PAD	
P3	RPH0099	SHEET	
P4	RPQ0603	SPACER	

Ref. No.	Part No.	Part Name & Description	Remarks
		ACCESSORIES	
A1	RAK-RX415WH	REMOTE CONTROLLER	
A1-1	RKK0080-K	BATTERY COVER	
A2 △	RJA0019-2K	AC POWER CORD	(EG)
A2 △	VJA0733	AC POWER CORD	(EB) <VRD>
A4	RQT3273-B	INSTRUCTIONS MANUAL	(EB)
A4	RFKSXED70EGK	INSTRUCTIONS MANUAL ASS'Y	(EG)

■ Packaging

