

Service Manual

Portable Stereo CD System

Radio Cassette

RX-DS05


COMPACT
disc
DIGITAL AUDIO
MASH*
 multi-stage noise shaping

Colour

(K) : Black

Areas

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

Tape Deck: AR300 Mechanism Series
Traverse Deck: RAE0113Z Mechanism Series

Specifications

General:

Power Requirement:	AC; 230 – 240 V, 50 Hz
Battery	12 V (Eight UM-1, R20 / LR20 batteries)
Memory Back-up for Computer / Clock	6 V (Four UM-3, R6 / LR6 batteries)
Power Consumption:	25 W (AC only)
Power Output:	20 W (PMPO)
Speakers:	
Woofer	10 cm PM Dynamic speaker, 5.4Ω
Input:	
MIX MIC	5 mV, 200-600Ω, Ø3.5
Output:	PHONES; 32Ω, Ø3.5
Dimensions:	450 (W) × 191 (H) × 261 (D) mm (Top panel closed)
Weight:	4.8 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:

LW	144 – 288 kHz (9 kHz steps)
MW	522 – 1611 kHz (9 kHz steps)
FM	87.5 – 108.0 MHz (50 kHz steps)

Intermediate Frequency:

FM	10.7 MHz
LW/MW	459 kHz

Sensitivity:

LW	100 µV/m/ 0.5 mW H.P. output (Max.)
MW	126 µV/m/ 0.5 mW H.P. output (Max.)
FM	3.5 µV/ 0.5 mW H.P. output (-3 dB Limit Sens.)

Tape Recorder :

Frequency Range:

Normal	45 – 16,000 Hz
---------------	----------------

Recording System:

AC bias, AC erase

Tape Speed:

4.8 cm/s

Monitor System:

Variable sound monitor

Track System:

4-track, 2-channel, stereo recording and playback

*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.

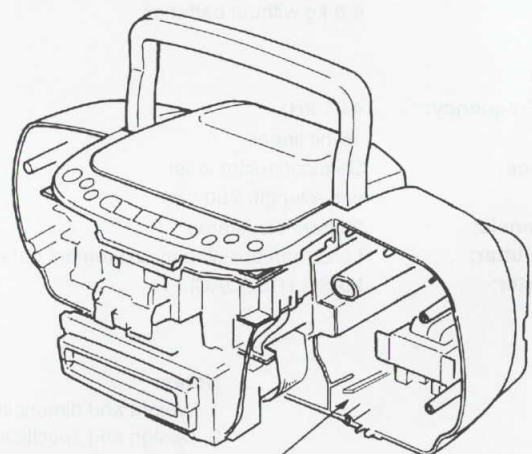
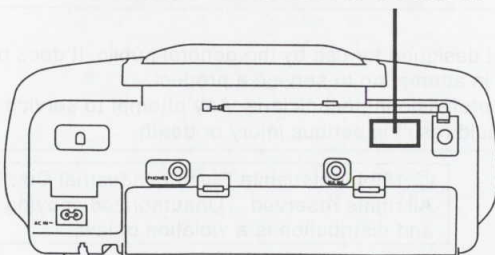
ACHTUNG: Dieses produkt enthält eine laserdiode. Im eingeschalteten zustand wird unsichtbare laserstrahlung von der lasereinheit adgestrahlt.
Wellenlänge: 780 nm
Maximale strahlungsleistung der lasereinheit: 100 μ W/VDE

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

1. Die lasereinheit nicht zerlegen, da die strahlung an der freigelegten laserdiode 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.



LUOKAN 1 LASERLAITE
KLASS 1 LASER APPARAT



DANGER	INVISIBLE LASER RADIATION WHEN OPEN. AVOID DIRECT EXPOSURE TO BEAM.
ADVARSEL	USYNLIG LASERSTRÅLING VED ÅBNING. NÅR SIKKERHEDSAFBRYDERE ER LIDT AF FUNKTION. UNDGÅ UDSTJÆLSE FOR STRÅLING.
VARO!	AVATTAESSA JA SUOJALUKITUS OHITETTÄESSÄ OLET ALTTIINA NÄKYMÄTÖNTÄ LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.
VARNING	OSYNLIG LASERSTRÅLNING NÅR DENNA DEL ÄR ÖPPNAD OCH SPÄRREN ÄR URKOPPLAD. BETRÄKTA EJ STRÅLEN.
ADVARSEL	USYNLIG LASERSTRÅLING NÅR DEKSEL APNES OG SIKKERHEDSLÅS BRYTES. UNNGÅ EKSPONERING FOR STRÅLEN.
VORSICHT	UNSICHTBARE LASERSTRALUNG, WENN ABDECKUNG GEÖFFNET. NICHT DEM STRAHL AUSSETZEN.

■ Caution for AC Mains Lead [for (EB) area]

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:

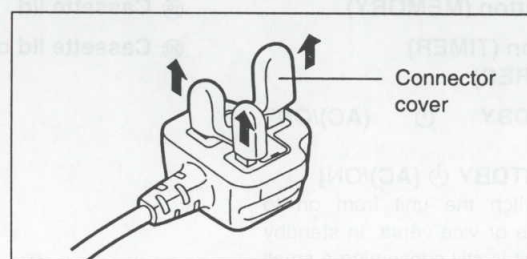
The wire which is coloured BLUE must be connected to the terminal in the plug which is marked with the letter N or coloured BLACK.

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 .

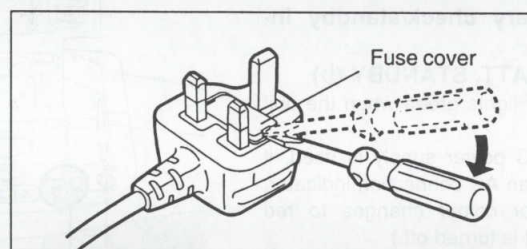
Before use

Remove the connector cover as follows.

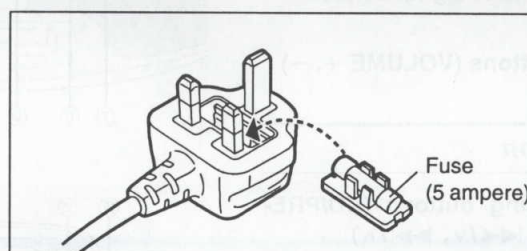


How to replace the fuse

1. Remove the fuse cover with a screwdriver.



2. Replace the fuse and attach the fuse cover.



Location of Controls

Common operations

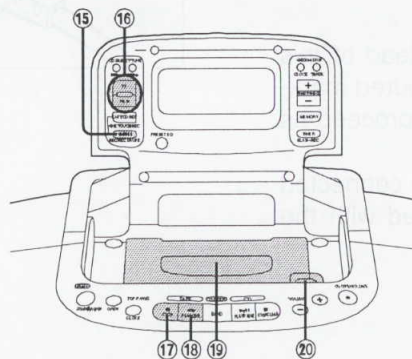
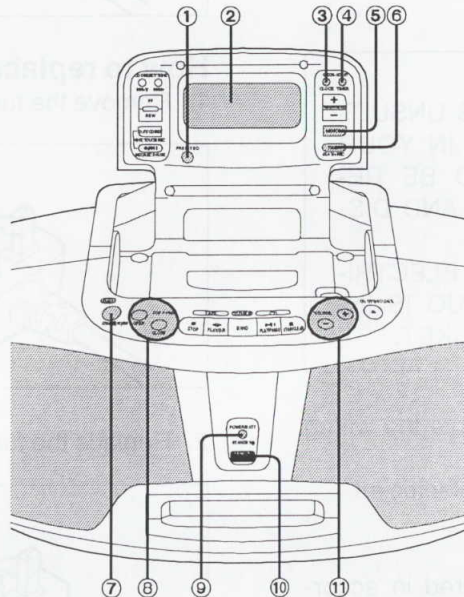
- ① Preset equalizer button (PRESET EQ)
- ② Display section
- ③ Clock check/adjust button (•CHECK/■ ADJUST, CLOCK)
- ④ Timer check/adjust button (•CHECK/■ ADJUST, TIMER)
- ⑤ Memory button (MEMORY)
- ⑥ Timer button (TIMER) (•PLAY ••REC)
- ⑦ Power/“STDBY”  (AC)/ON” switch
[POWER, STDBY  (AC)/ON]
Press 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.
- ⑧ Top panel open, close button (TOP PANEL OPEN, CLOSE)
- ⑨ Power/battery check/standby indicator (POWER/BATT, STANDBY )
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.
- ⑩ Remote control signal sensor (SENSOR)
- ⑪ Volume buttons (VOLUME +, -)

Tuner section

- ⑫ Preset tuning buttons (CD/PRESET TUNE , , , , )
- ⑬ Tuning buttons (TIME/TUNE/CD +, -)
- ⑭ Band button (BAND)

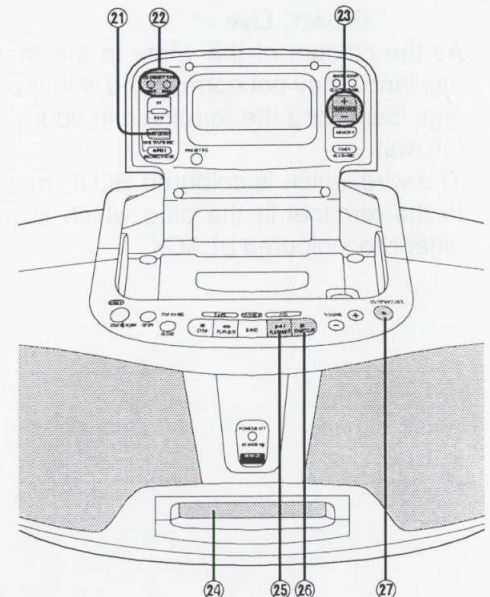
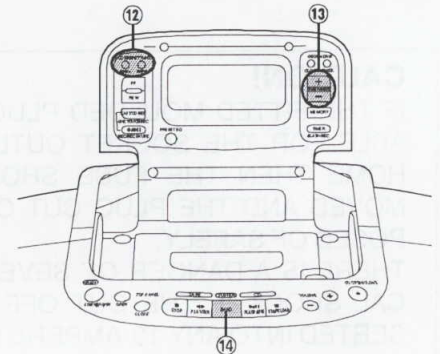
Cassette deck section

- ⑮ Rec/rec pause button (•/•  REC/REC PAUSE)
- ⑯ Fast forward/rewind button (FF, REW)
- ⑰ Tape stop button (■ STOP)
- ⑱ Playback/direction button (  PLAY/DIR)
- ⑲ Cassette lid
- ⑳ Cassette lid open lever



CD section

- ⑳ Easy CD record button (EASY CD REC)
- ㉑ Skip/search buttons (CD/PRESET TUNE , , , , )
- ㉒ +, - buttons (TIME/TUNE/CD +, -)
- ㉓ CD tray
- ㉔ Play/pause button (  PLAY/PAUSE)
- ㉕ CD stop button (■ STOP/CLEAR)
- ㉖ CD tray open/close button ( CD OPEN/CLOSE)



Common Operations

Opening the top panel

Press TOP PANEL OPEN to open the panel.

Press TOP PANEL CLOSE to close the panel.

When this unit is operated on battery power, the panel cannot be opened or closed by pressing OPEN or CLOSE on the remote control in the unit off mode. Turn the unit on first by pressing POWER before opening or closing the top panel.

Note

CD tray does not open or close even if you press OPEN or CLOSE while the top panel is moving (for approx. 4 seconds).

Beep tone

When one of the function buttons is pressed, one beep is heard to verify that the button has been properly operated. When one of the buttons has been pressed in error, two beeps are heard as a warning.

If you prefer not to have the beep tone function:

(Main unit only)

In the unit-off mode, press POWER while holding PRESET EQ down.

The "bEEP" display appears first followed by "OFF".

To resume the beep, repeat the same operation in the unit-off mode.

(The "bEEP" display appears first followed by "ON".)

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 CLOCK and hold until the time display starts flashing.

3 While the display is flashing; Press + or - to show desired time.

4 Press MEMORY.

(The clock now starts operating, and the display returns to its original status.)

To display the clock (when the unit is on):

Press CLOCK.

Selecting the Display

(Available only from the remote control)

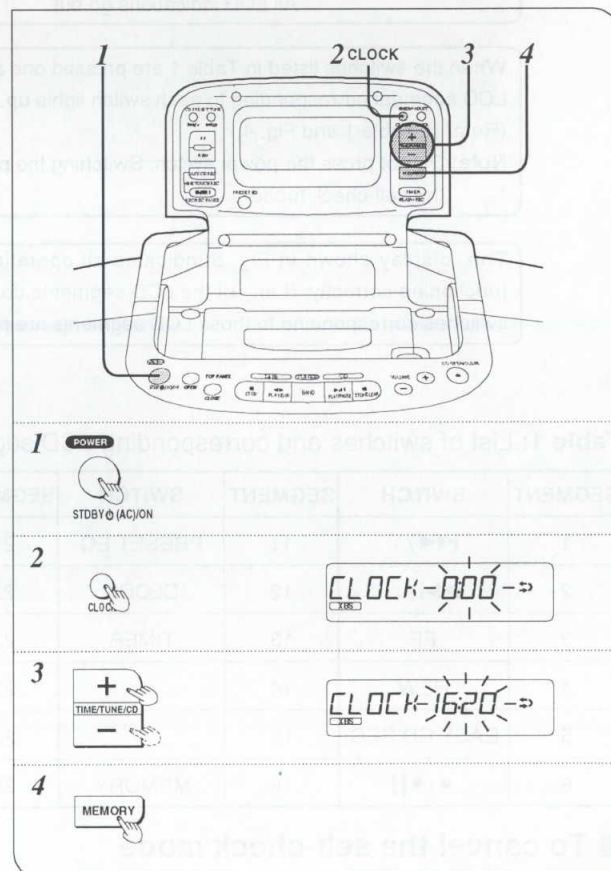
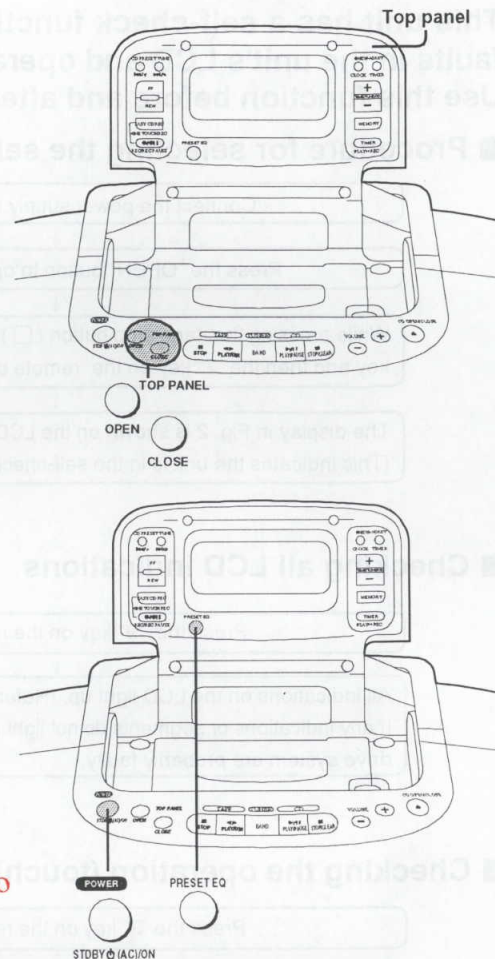
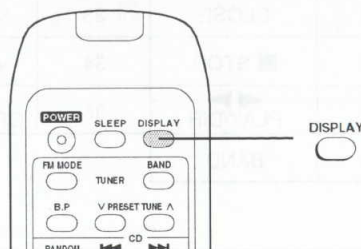
This operation comes in handy to check the present time during play or the tape counter display during recording.

Press DISPLAY.

→ Play status → Present time
→ Tape counter ←

(The display changes each time the button is pressed.)

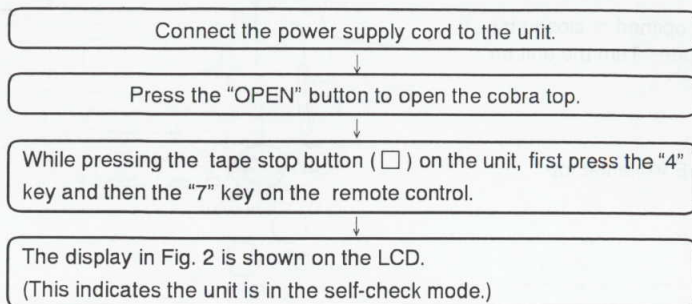
"---" appears on the tape counter display when a tape has not been loaded.



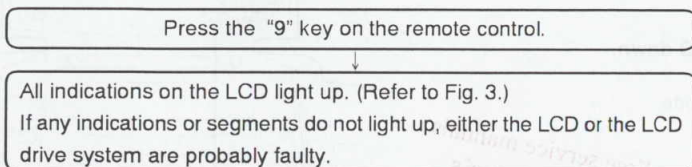
Self-Check Function

This unit has a self-check function that checks for faults in the unit's LCD and operation switches. Use this function before and after any repairs.

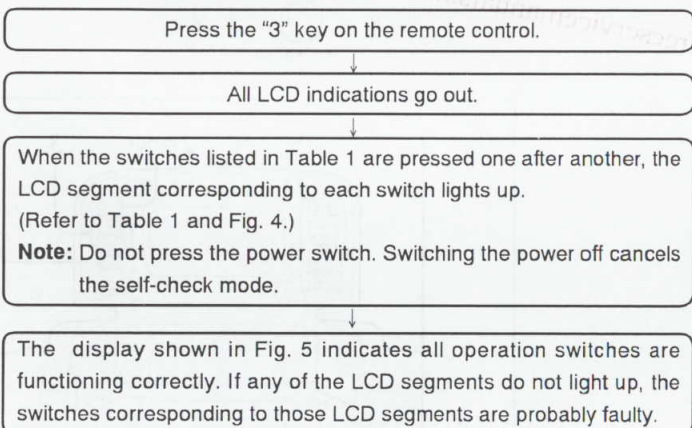
Procedure for selecting the self-check function



Checking all LCD indications



Checking the operation (touch) switches



Tape stop button (□)

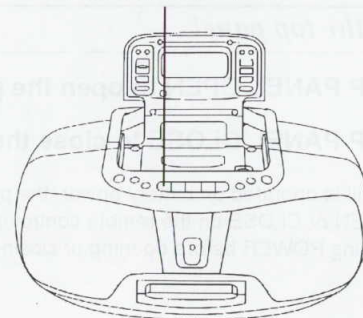


Fig 1

This display indicates the unit is in self-check mode.

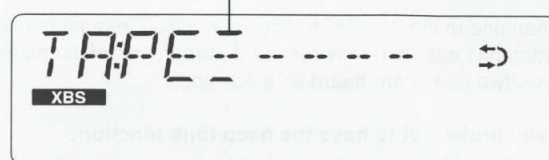


Fig 2



Fig 3



Fig 4

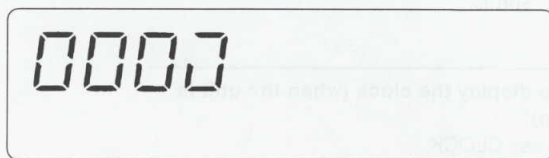


Fig 5

Table 1: List of switches and corresponding LCD segments

SEGMENT	SWITCH	SEGMENT	SWITCH	SEGMENT	SWITCH	SEGMENT	SWITCH
1	◀◀ / V	11	PRESET EQ	21	TIMER	31	▶ / II PLAY/PAUSE
2	▶▶ / ^	12	CLOCK	22	OPEN	32	■ STOP/CLEAR
3	FF	13	TIMER	23	CLOSE	33	VOLUME -
4	REW	14	+	24	■ STOP	34	VOLUME +
5	EASY CD REC	15	-	25	◀▶ PLAY/DIR	35	▲ OPEN/CLOSE
6	● / ● II	16	MEMORY	26	BAND		

To cancel the self-check mode

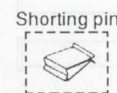
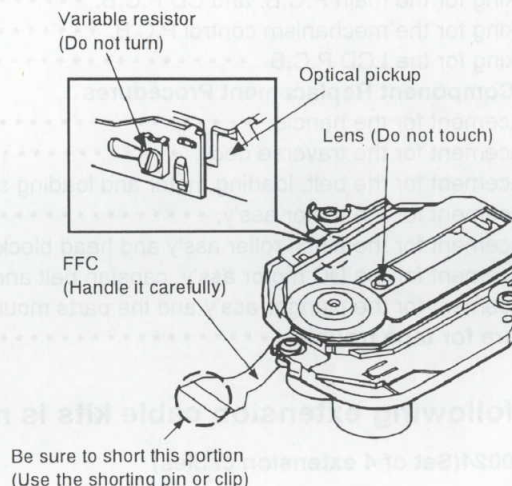
- The self-check mode can be canceled by pressing the CD stop button (■) on the remote control.

■ Handling Precautions for Traverse Deck

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

● Handling of traverse deck (optical pickup)

1. Do not subject the traverse deck (optical pickup) to static electricity as it is extremely sensitive to electrical shock.
2. To prevent the breakdown of the laser diode, an anti-static shorting pin is inserted into the flexible board (FFC board).
When removing or connecting the short pin, finish the job in as short time as possible.
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.

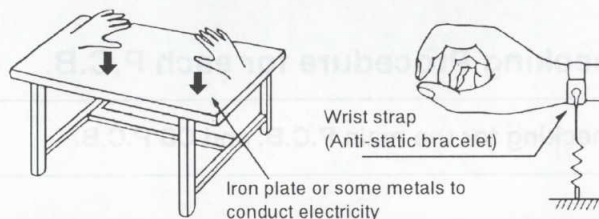


● Grounding for electrostatic breakdown prevention

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.

Contents

• Checking Procedure for each P.C.B.

- | | |
|--|--------|
| 1. Checking for the main P.C.B. and CD P.C.B. | page. |
| 2. Checking for the mechanism control P.C.B. | 8,9. |
| 3. Checking for the LCD P.C.B. | 9,10. |
| | 10,11. |

• Main Component Replacement Procedures

- | | |
|---|--------|
| 1. Replacement for the handle. | 11. |
| 2. Replacement for the traverse deck. | 11~13. |
| 3. Replacement for the belt, loading motor and loading switch. | 13. |
| 4. Replacement for the motor ass'y. | 14. |
| 5. Replacement for the pinch roller ass'y and head block. | 15. |
| 6. Replacement for the DC motor ass'y, capstan belt and fast forward belt. | 15,16. |
| 7. Replacement for the plunger ass'y and the parts mounted on mechanism P.C.B. | 16. |

• Measure for tape trouble 16.

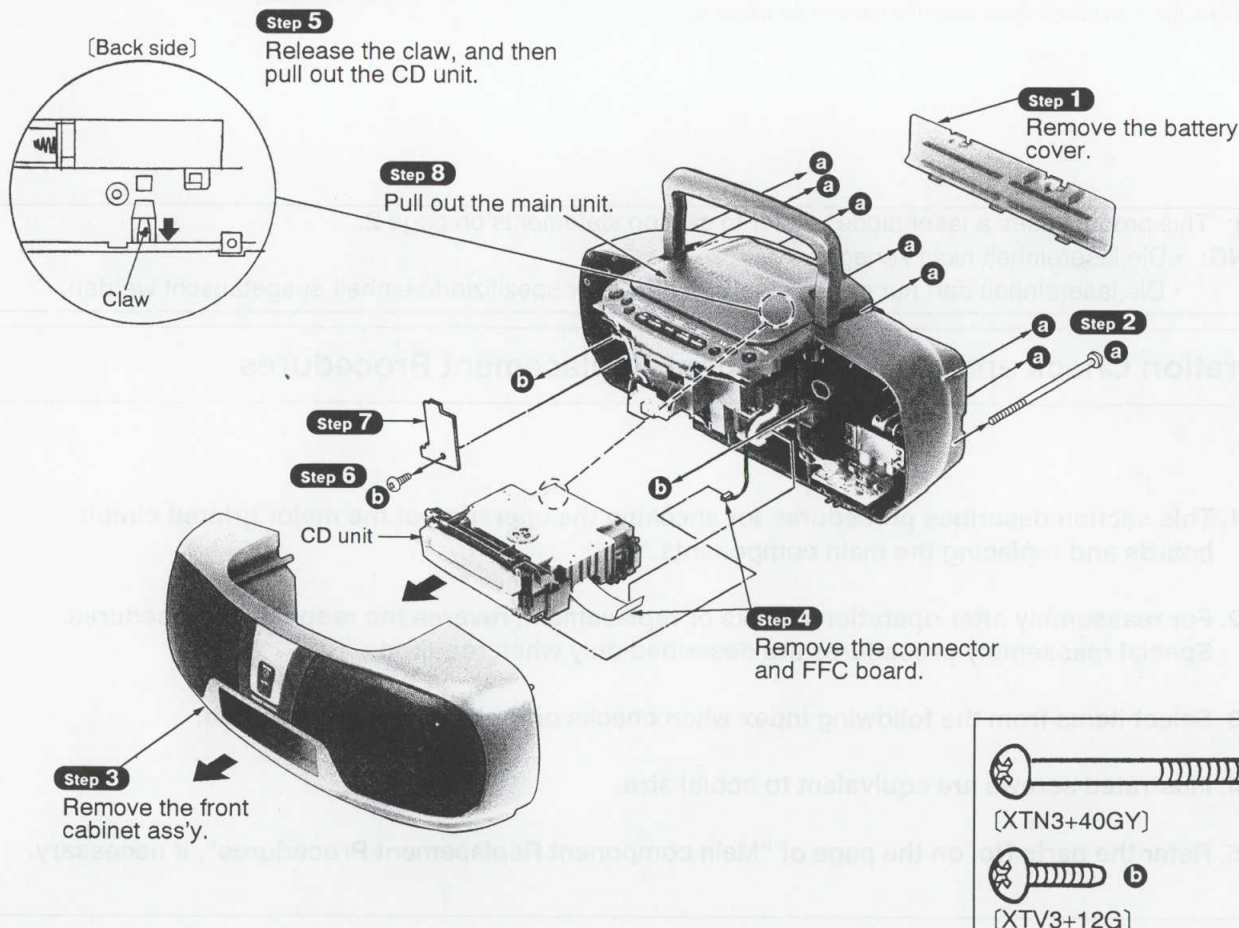
• The following extension cable kits is necessary to check and measure the unit's P.C.B.

• RFKZ0024(Set of 4 extension cables)

	7Pin(Not for use)		9Pin(For mechanism control P.C.B. check)
	8Pin(Not for use)		10Pin(For mechanism control P.C.B. check)

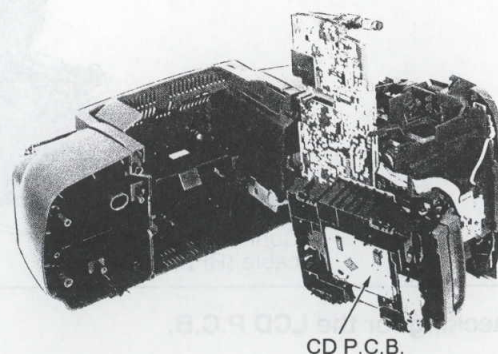
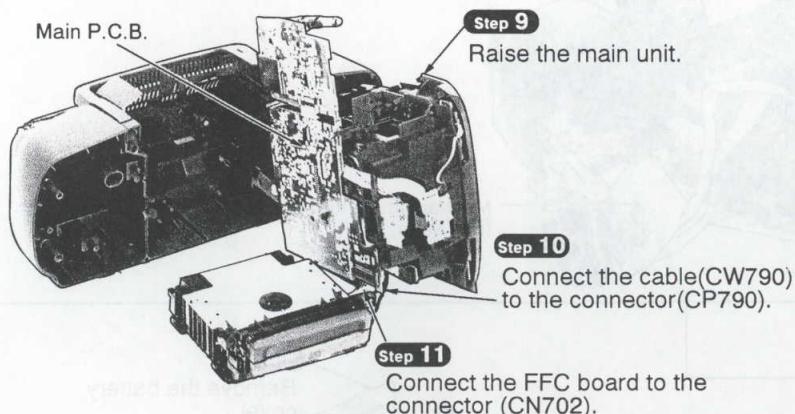
■ Checking Procedure for each P.C.B.

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

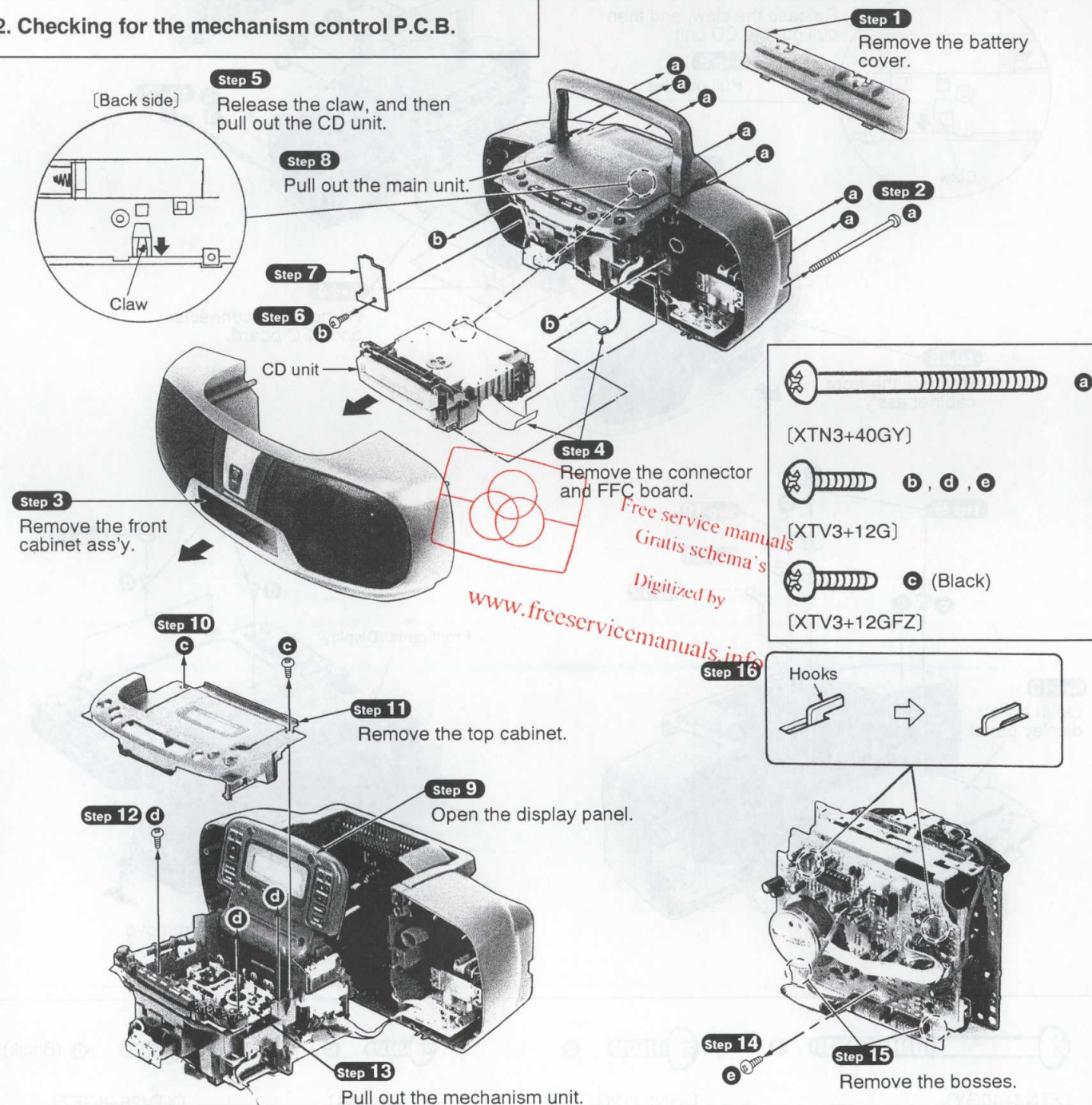


• Check the main P.C.B. in this condition.

• Check the CD P.C.B. in this condition.



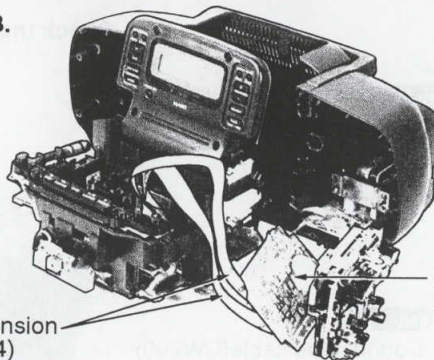
2. Checking for the mechanism control P.C.B.



- Check the mechanism control P.C.B. in this condition.

Step 17

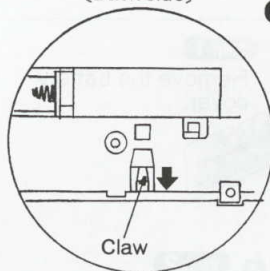
Connect the extension cable.(RFKZ0024)



Mechanism control P.C.B.
(Foil side)

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

[Back side]



Claw

Step 5

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

Step 8

Pull out the main unit.

Step 7**Step 6**

CD unit

Step 3

Remove the front cabinet ass'y.

Step 1

Remove the battery cover.

Step 2**Step 4**

Remove the connector and FFC board.

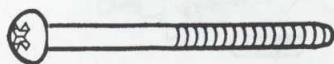
Step 9**Step 10****Step 11****Step 12****Step 15****Step 14****Step 13**

Open the display panel.

Front panel(Display)

Step 16

Release the claw, and then remove the front panel(Display).



a



b



c



d (Black)

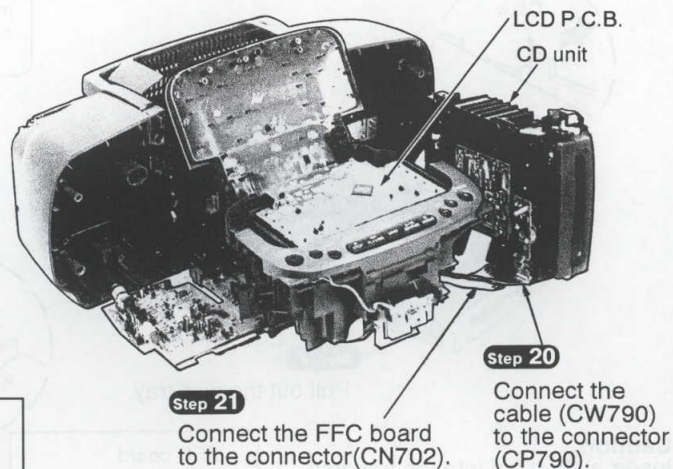
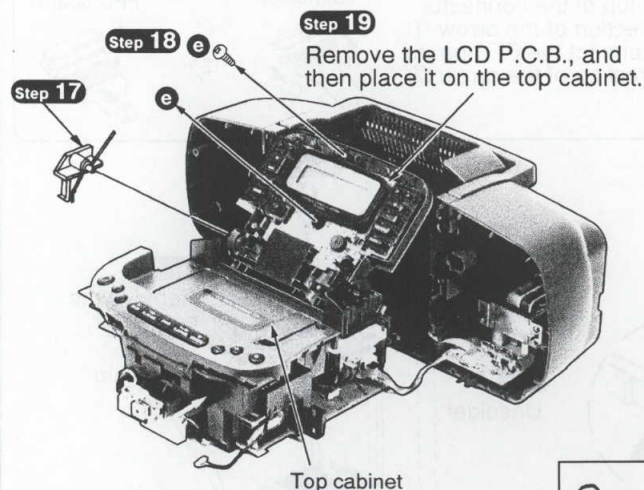
[XTN3+40GY]

[XTV3+12G]

[XTV26+8G]

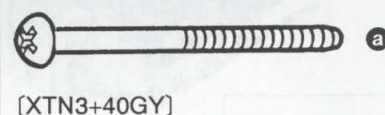
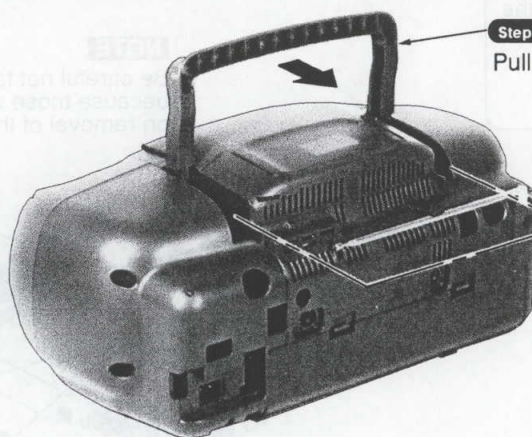
[XTV26+8GFZ]

• Check the LCD P.C.B. in this condition.



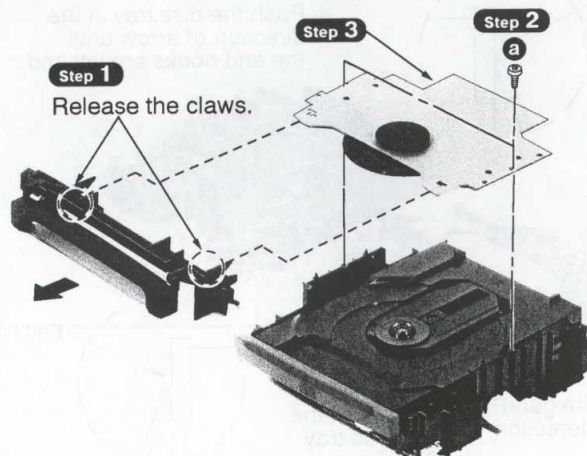
■ Main Component Replacement Procedures.

1. Replacement for the handle

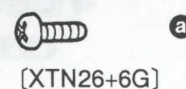
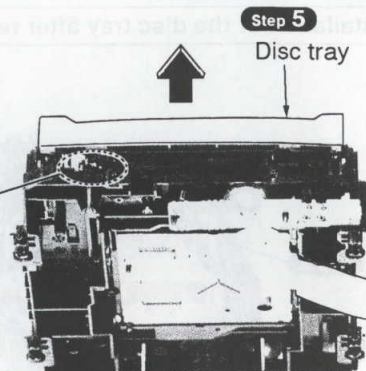
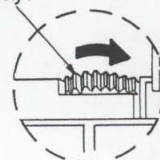


2. Replacement for the traverse deck

• Follow the item 1 (Step 1 ~ Step 5) in checking procedures for each P.C.B. on page 8.



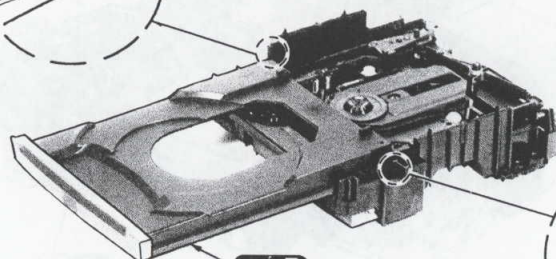
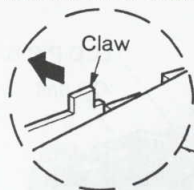
Step 4: Rotate the gear, and then pull out the disc tray.



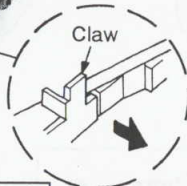
RX-DS05

Step 6

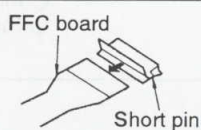
Release the claw.

**Step 7**

Pull out the disc tray.

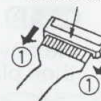
**Caution:**

Insert a short pin into the traverse unit FFC board.
(Refer to "Handling Precautions for Traverse Deck" on page 7.)



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

Top of the connector



FFC board

**Step 9**

b

b

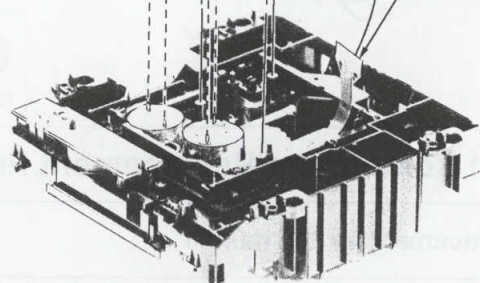
b

Step 10

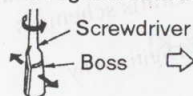
Remove the connector.

Step 8
Unsolder

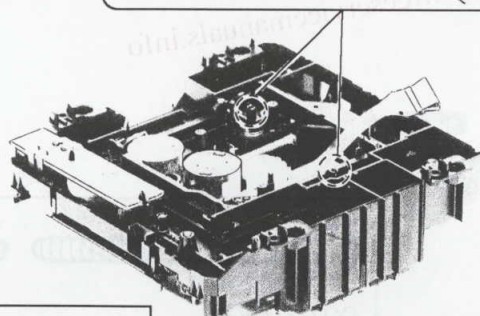
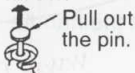
FFC board

**Step 11**

1. Widen the boss using a regular screwdriver.



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

**NOTE**

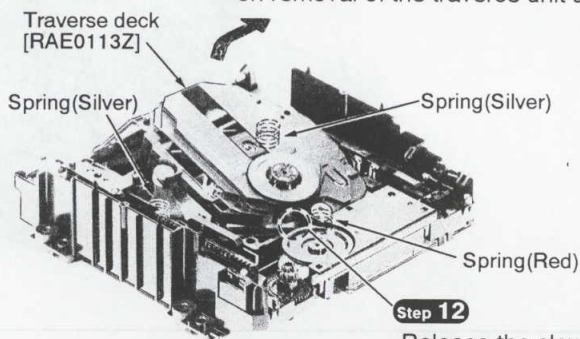
Be careful not to lose the 3 springs because those will also be removed on removal of the traverse unit ass'y.

Traverse deck
[RAE0113Z]

Spring(Silver)

Spring(Silver)

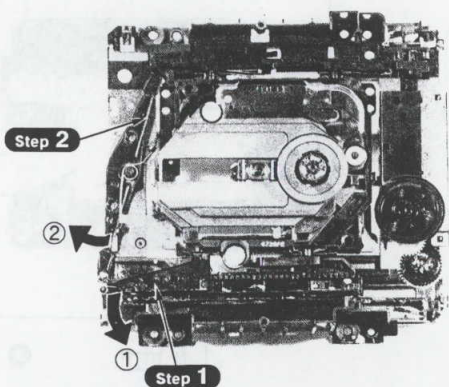
Spring(Red)

**Step 12**

Release the claw.



[XTV2+6G]

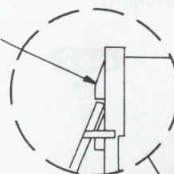
Installation of the disc tray after replacement**Step 2**

②

①

Step 1

End hook



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

③

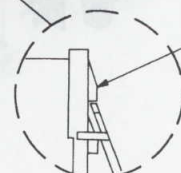
Step 3

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

Step 4

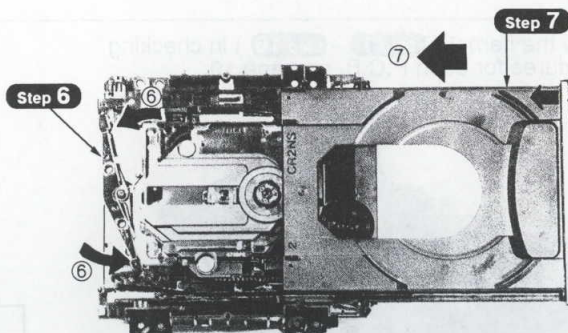
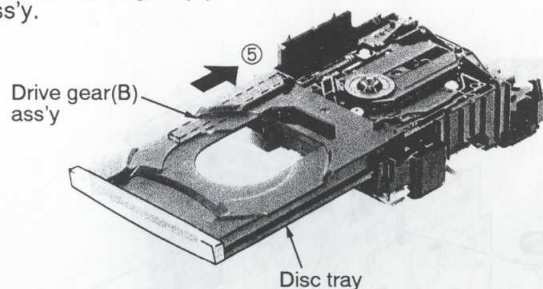
Install the disc tray.

End hook



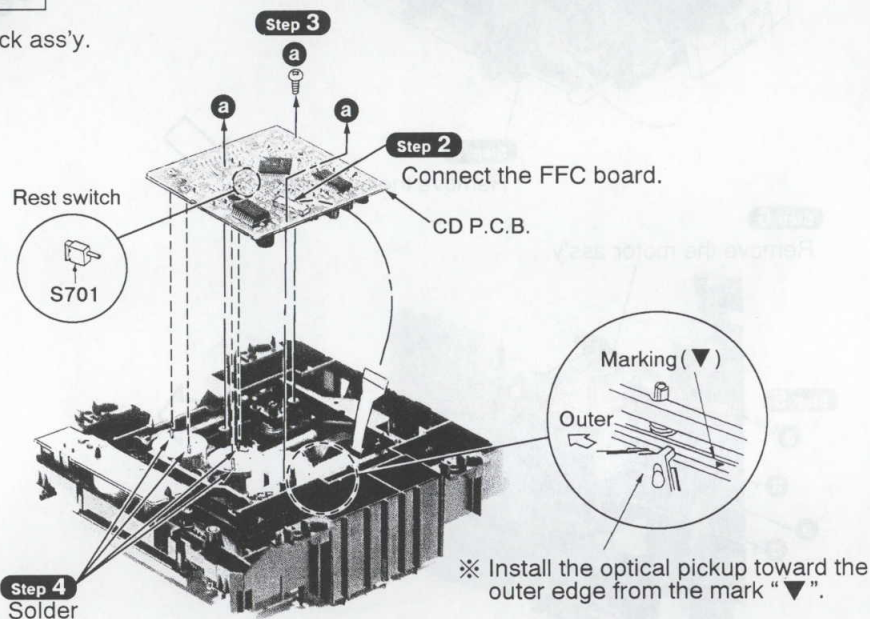
Step 5

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

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

Step 1 Install the CD P.C.B. in the traverse deck ass'y.

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.]

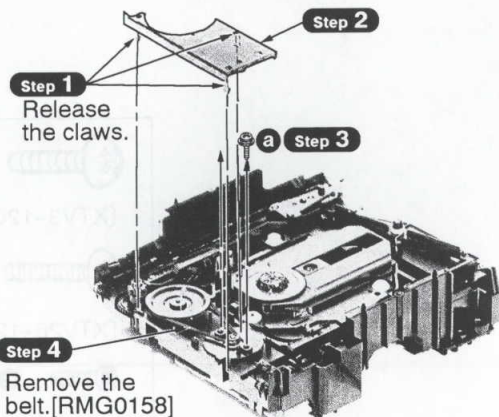


a

[XTV2+6G]

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

- Follow the item 1 (Step 1 ~ Step 5) in checking procedures of each P.C.B. on page 8.
- Follow the item 2 (Step 1 ~ Step 7) in main component procedures on pages 11 and 12.



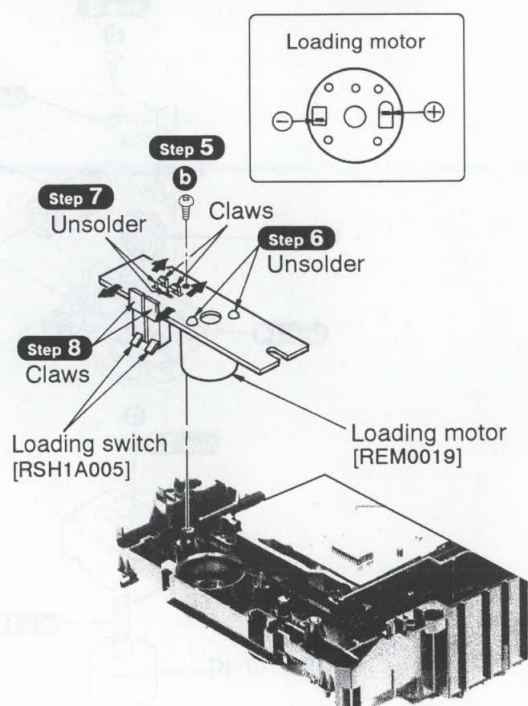
a

[XYN2+F6FZ]



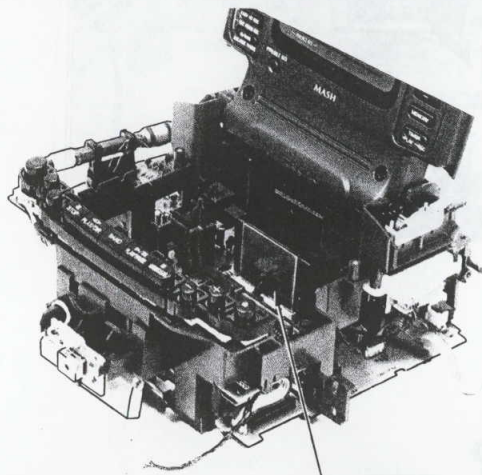
b

[XTN26+6G]



4. Replacement for the motor ass'y

- Follow the item 3 (**Step 1** ~ **Step 16**) in checking procedures for each P.C.B. on page 10.

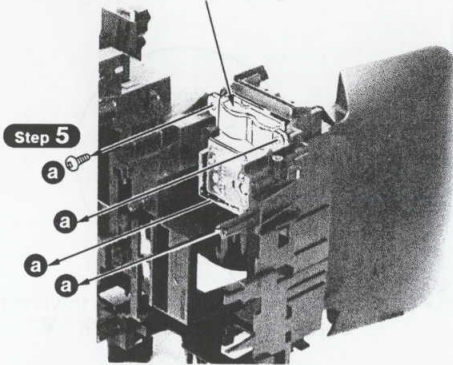


Step 1

Remove the connector.

Step 6

Remove the motor ass'y.



Step 5

a

a

a

a

Step 3

Release the 5 claws.

Step 2

a

a

a

Claws a

Step 4

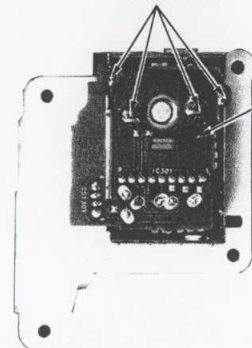
Remove the connector (CS1301).

Step 7

Unsolder

Step 8

Remove the motor P.C.B..



Step 9

b

Step 10

Step 11

Step 12

Step 14

Step 13

Step 15

Step 16

Motor ass'y
[RFKPxDT07-K]



a

[XTV3+12G]



b

[XTV26+12F]



c

[XQM2+C6]



d

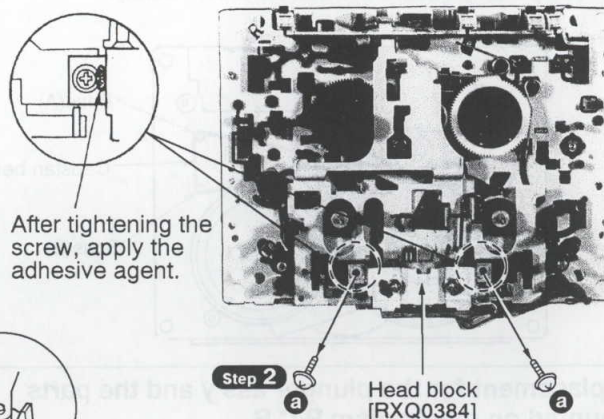
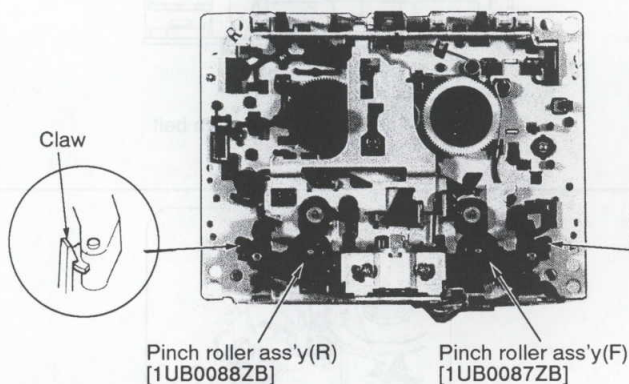
[XQN2+C3]

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

- Follow the item 2 (**Step 1** ~ **Step 13**) in checking procedures for each P.C.B. on page 9.

Step 1

Release the claws, and then remove the pinch roller ass'y.



Free service manuals
Gratis schema's
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6. Replacement for the DC motor ass'y, capstan belt and fast forward belt

- Follow the item 2 (**Step 1** ~ **Step 13**) in checking procedures for each P.C.B. on page 9.

Step 1

Unsolder the terminals.

Step 2

a

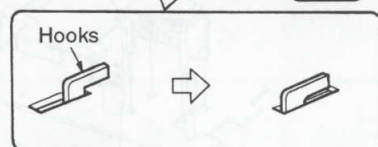
Step 3

Remove the connector.

Step 4

Release the bosses.

Step 5

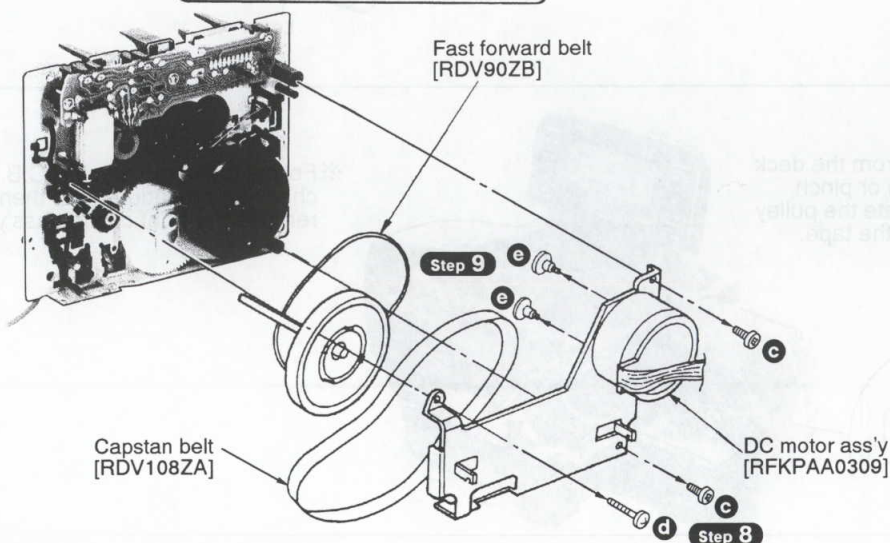


Step 7

Remove the mechanism chassis.

Step 6

b



[XTV3+12G]



[XTN26+6B]



[XTN26+7J]



[RHE5203ZA]

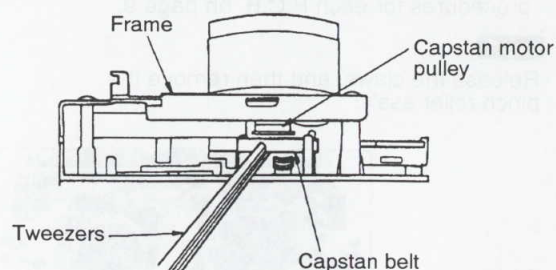
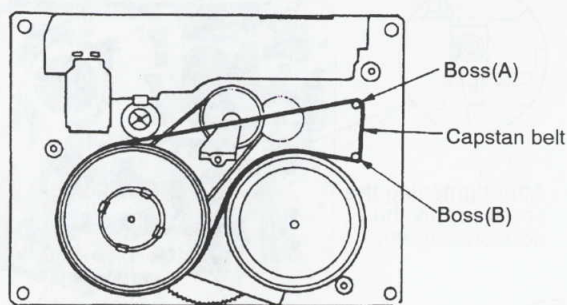


[RHD26002]

Installation of the capstan belt ass'y after replacement

Step 2 Secure the belt with the capstan motor pulley.

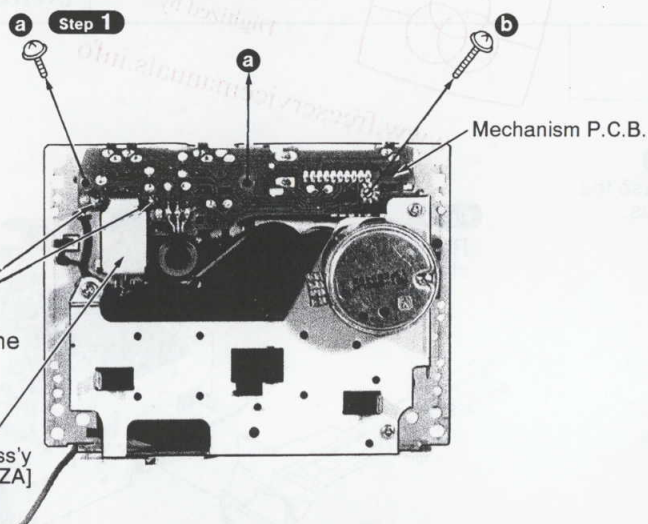
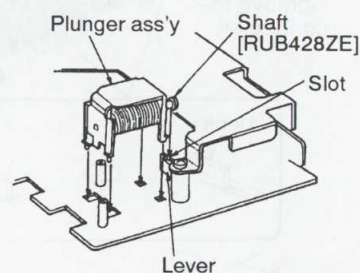
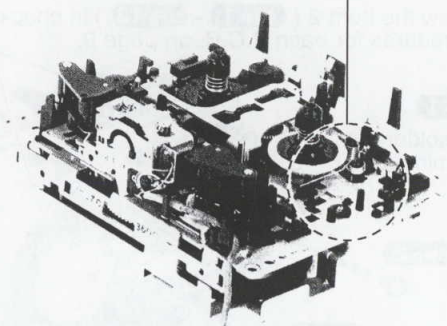
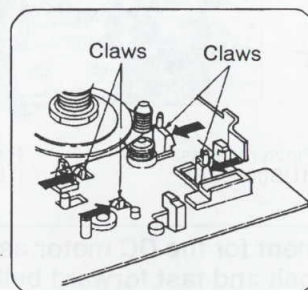
Step 1 Temporarily secure the belt as shown below.



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

- Follow the item 2 (**Step 1** ~ **Step 13**) in checking procedures for each P.C.B. on page 9.
- Follow the item 6 (**Step 1** ~ **Step 8**) in main component procedures on page 15.

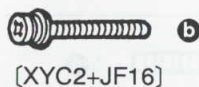
Step 3



NOTE

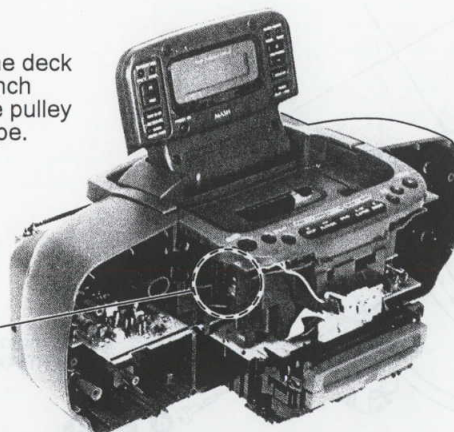
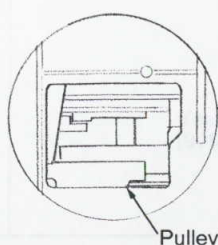
Notice for installing the plunger ass'y

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



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 pulley in the direction of the arrow to remove the tape.



※ Follow the item 1 each P.C.B. checking procedure, and then remove the front cabinet ass'y.

Schematic Diagram

	Page
A CD CIRCUIT	18, 19
I MAIN (1/2) CIRCUIT (TUNER)	20, 21
E CONNECTOR CIRCUIT	22
M LED CIRCUIT	22
F SENSOR CIRCUIT	22
G OPERATION CIRCUIT	22
H MOTOR CIRCUIT	22

	Page
I MAIN (2/2) CIRCUIT (MIC AMP/MUTING/ POWER SUPPLY/REGULATOR/ASP/POWER AMP)	22~25
J LOADING MOTOR CIRCUIT	25
K SPEAKER CONNECTOR CIRCUIT	25
L POWER SUPPLY CIRCUIT	25
B LCD CIRCUIT	26, 27
D MECHANISM CIRCUIT	27
C MECHANISM CONTROL CIRCUIT	27, 28

< CD circuit >

- S701A : Rest switch.

< Operation circuit >

- S701 : Power/standby switch. (POWER, STANDBY  (AC) / ON)
- S702 : Top panel open switch. (TOP PANEL OPEN)
- S703 : Top panel close switch. (TOP PANEL CLOSE)
- S704 : Tape stop switch. (■ STOP)
- S705 : Playback / direction switch. (◀▶ PLAY/DIR)
- S706 : Band switch. (BAND)
- S707 : Play / pause switch. (▶/|| PLAY/PAUSE)
- S708 : Stop / clear switch. (■ STOP/CLEAR)
- S709 : Volume switch. (VOLUME -)
- S710 : Volume switch. (VOLUME +)
- S711 : CD tray open / close switch. (▲ CD OPEN/CLOSE)

< Loading motor circuit >

- S790 : Disc tray close detect switch.
- S791 : Disc tray open detect switch.

< Power supply circuit >

- S901 : AC / DC select switch in "DC" position.

< LCD circuit >

- S801 : Skip / search / preset tuning switch. (◀◀ / ^)
- S802 : Skip / search / preset tuning switch. (▶▶ / v)
- S803 : Fast forward switch. (FF)
- S804 : Rewind switch. (REW)
- S805 : Easy CD record switch. (EASY CD REC)
- S806 : Recording / rec pause switch. (REC / REC PAUSE)
- S807 : Preset equalizer switch. (PRESET EQ)
- S809 : Clock check / adjust switch. (CHECK / ADJUST / CLOCK)
- S810 : Tim set / CD / tuning switch. (-)
- S811 : Tim set / CD / tuning switch. (+)
- S812 : Memory switch. (MEMORY)
- S813 : Timer switch. (TIMER)
- S814 : Timer check / adjust switch. (CHECK / ADJUST / TIMER)

< Mechanism control circuit >

- VR301 : Tape speed adjustment VR

< Mechanism circuit >

- S971 : Mode detect switch.
- S972 : Cassette tape insertion detect switch.
- S973 : Reverse side record prevention tab detect switch.
- S974 : Forward side record prevention tab detect switch.

• Battery current:

Vol. min...	290 mA (FM)	Vol. max...	600 mA (FM)
	280 mA (LW)		480 mA (LW)
	280 mA (MW)		500 mA (MW)
	340 mA (TAPE)		700 mA (TAPE)
	500 mA (CD)		1100 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 < > FM
 (()) CD || REC
 << >> HIGH SPEED EDIT

- 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.

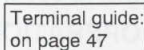
- This schematic diagram may be modified at any time with the development of new technology.

CD CIRCUIT

(Printed Circuit Board: on page 29)

: CD Signal Line

• : +B Line

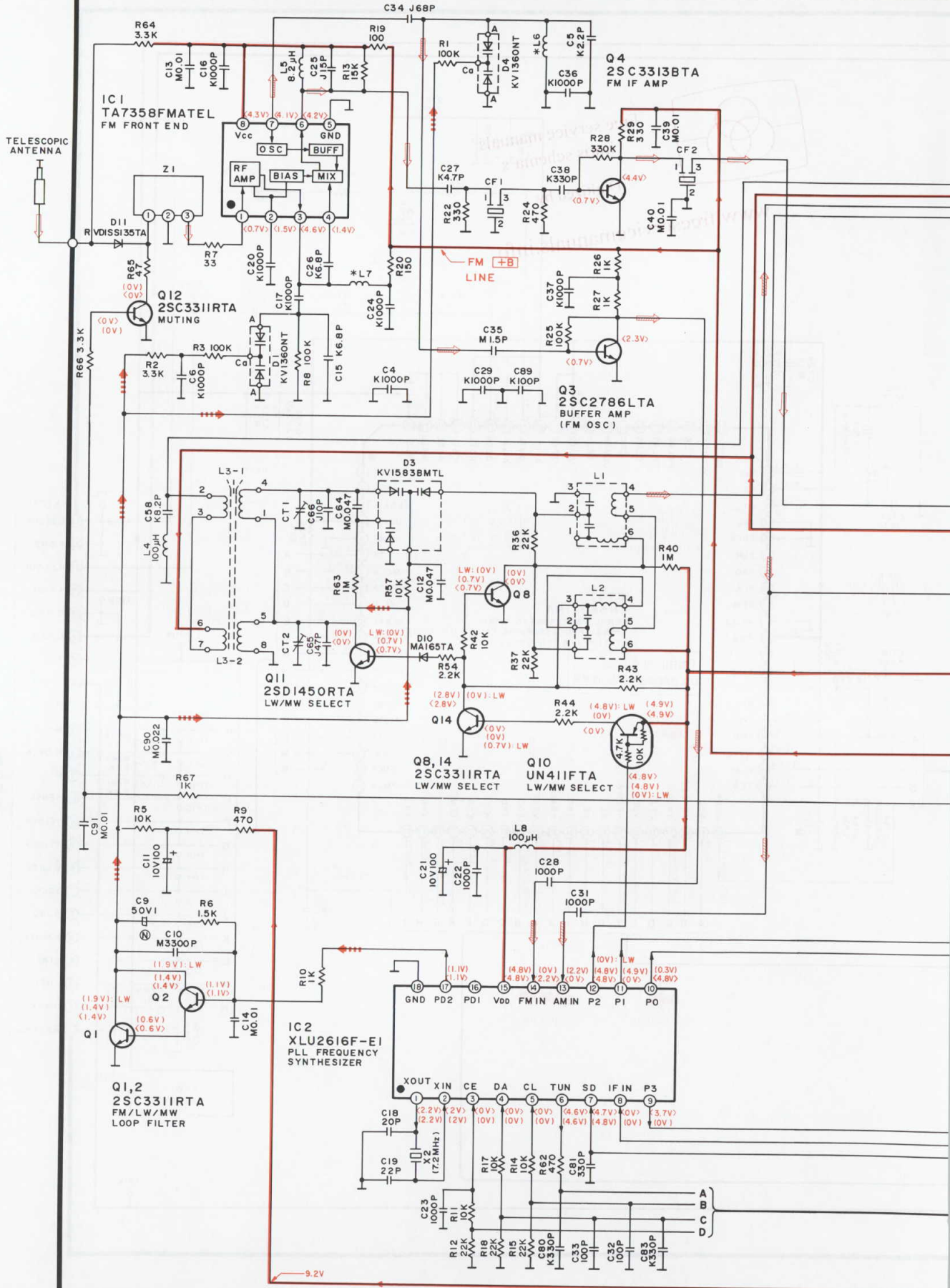


Terminal
guide:
on page 50



(Printed Circuit Board: on page 30)

(Printed Circuit Board: on page 30)



 : FM Signal Line
  : FM OSC Signal Line
  : MW/LW OSC Signal Line
 : FM/MW/LW Vcap Control Signal Line
 : +B Line

IC3
LA1832MS-TEL
 FM/AM IF AMP,
 DET & AM OSC,
 MIX/FM MPX

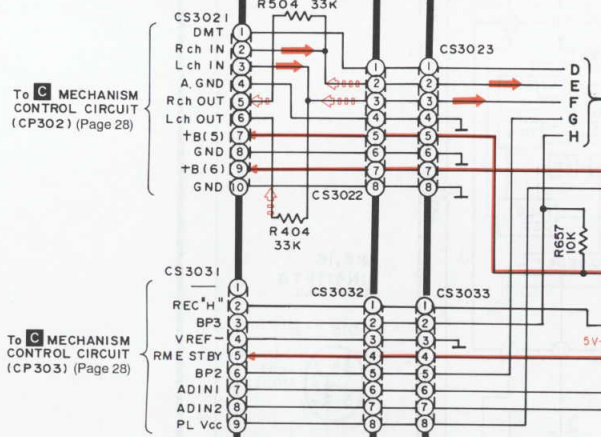
Q15,16
UN41IFTA
 SWITCHING

Q5
UN41IFTA
 POWER SUPPLY
 (FM: ON)

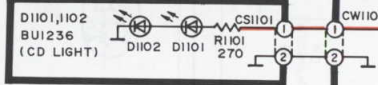
To **MAIN(2/2)**
 CIRCUIT (B)
 (Page 25)

I MAIN (2/2) CIRCUIT (MIC AMP/POWER SUPPLY/REGULATOR) (Printed Circuit Board: on page 30)

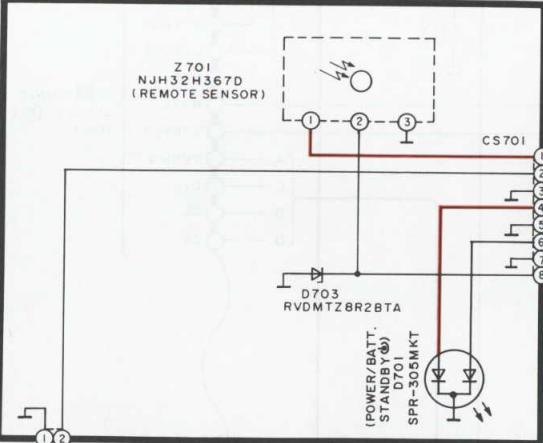
E CONNECTOR CIRCUIT (Printed Circuit Board: on page 29)



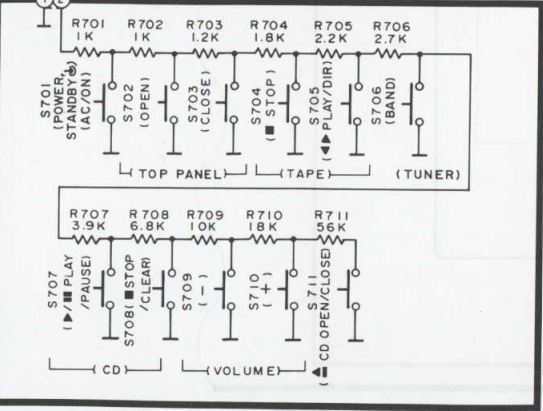
M LED CIRCUIT (Printed Circuit Board: on page 31)



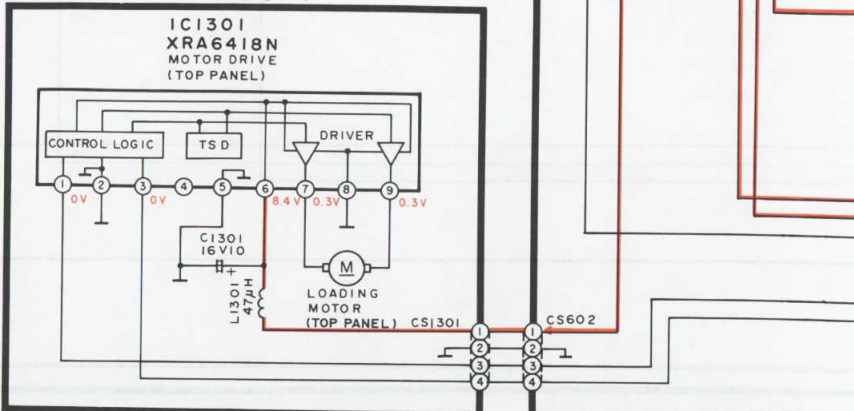
F SENSOR CIRCUIT (Printed Circuit Board: on page 29)



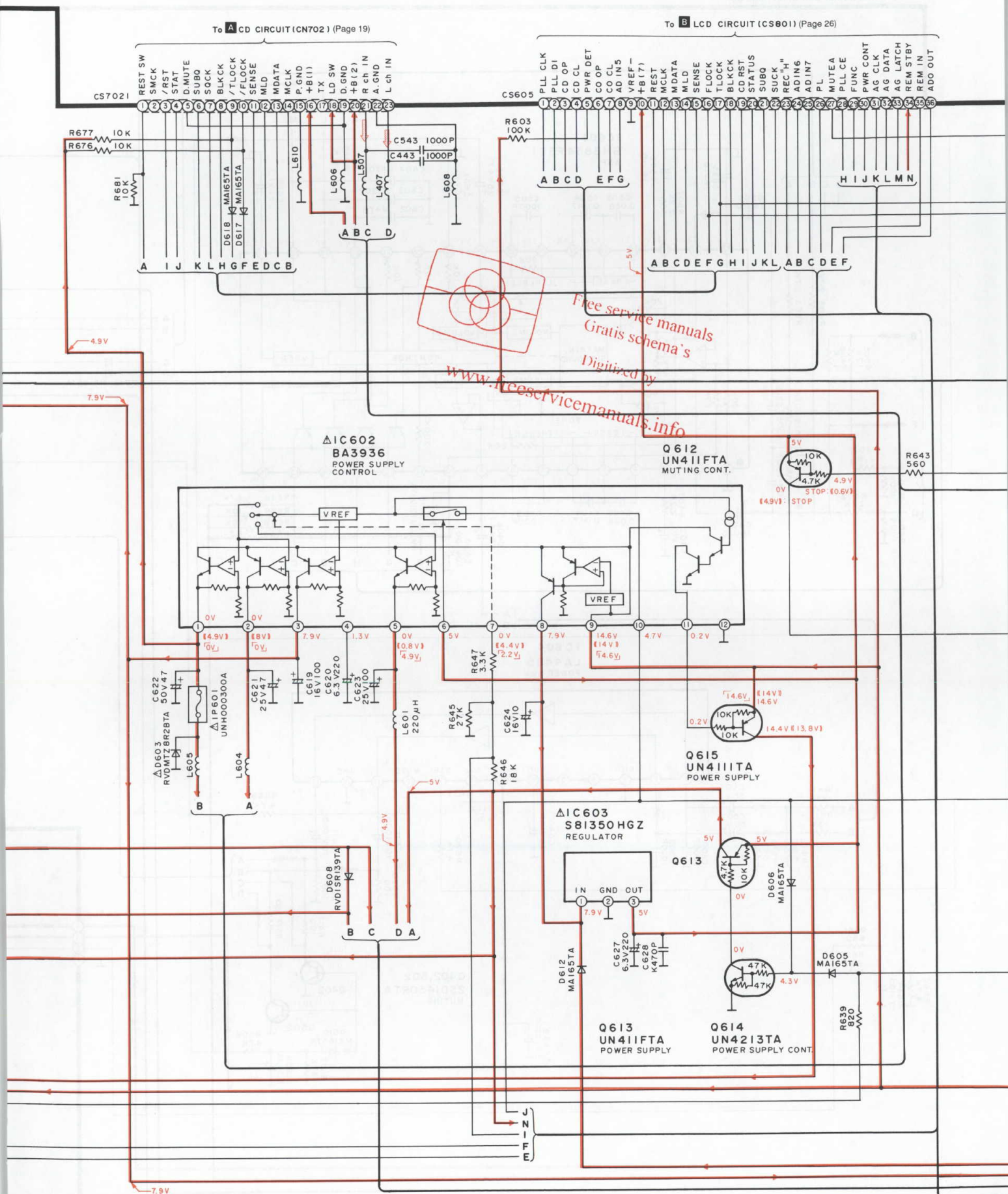
G OPERATION CIRCUIT (Printed Circuit Board: on page 31)



H MOTOR CIRCUIT (Printed Circuit Board: on page 31)



 : CD Signal Line
  : FM Signal Line
  : Tape Playback Signal Line
 : Record Signal Line
 : MIC Signal Line
 : Main Signal Line
 : +B Line

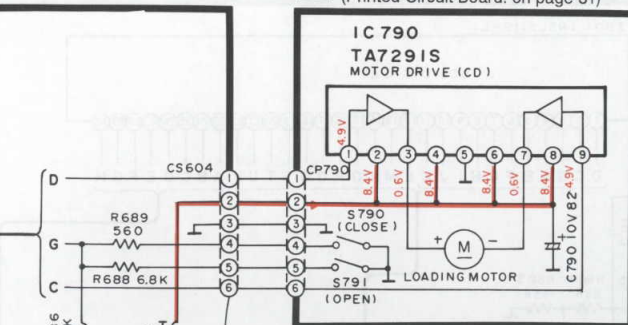


(Printed Circuit Board: on page 30)

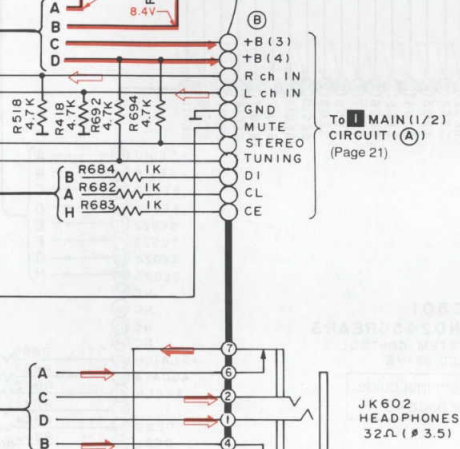


J LOADING MOTOR CIRCUIT

(Printed Circuit Board: on page 31)

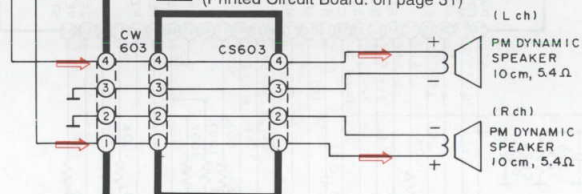


- : CD Signal Line
- : FM Signal Line
- : Tape Playback Signal Line
- : Record Signal Line
- : MIC Signal Line
- : Main Signal Line
- : +B Line



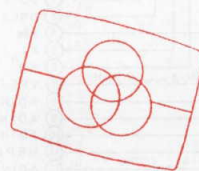
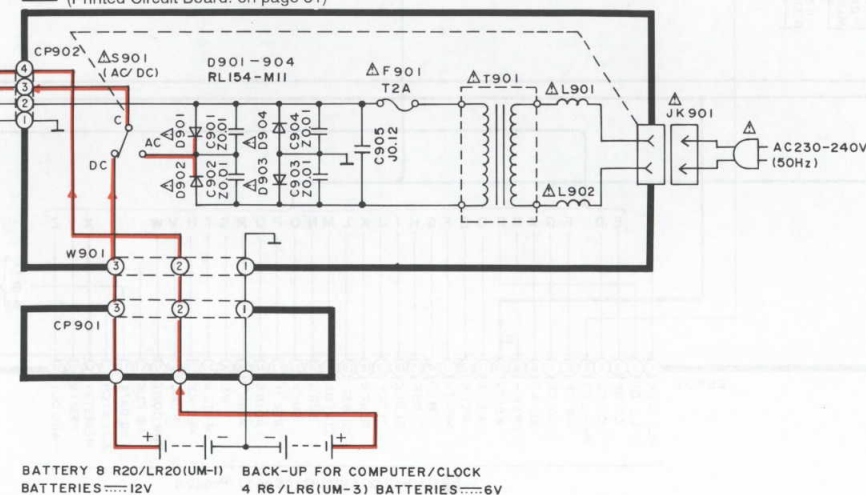
K SPEAKER CONNECTOR CIRCUIT

(Printed Circuit Board: on page 31)



L POWER SUPPLY CIRCUIT

(Printed Circuit Board: on page 31)



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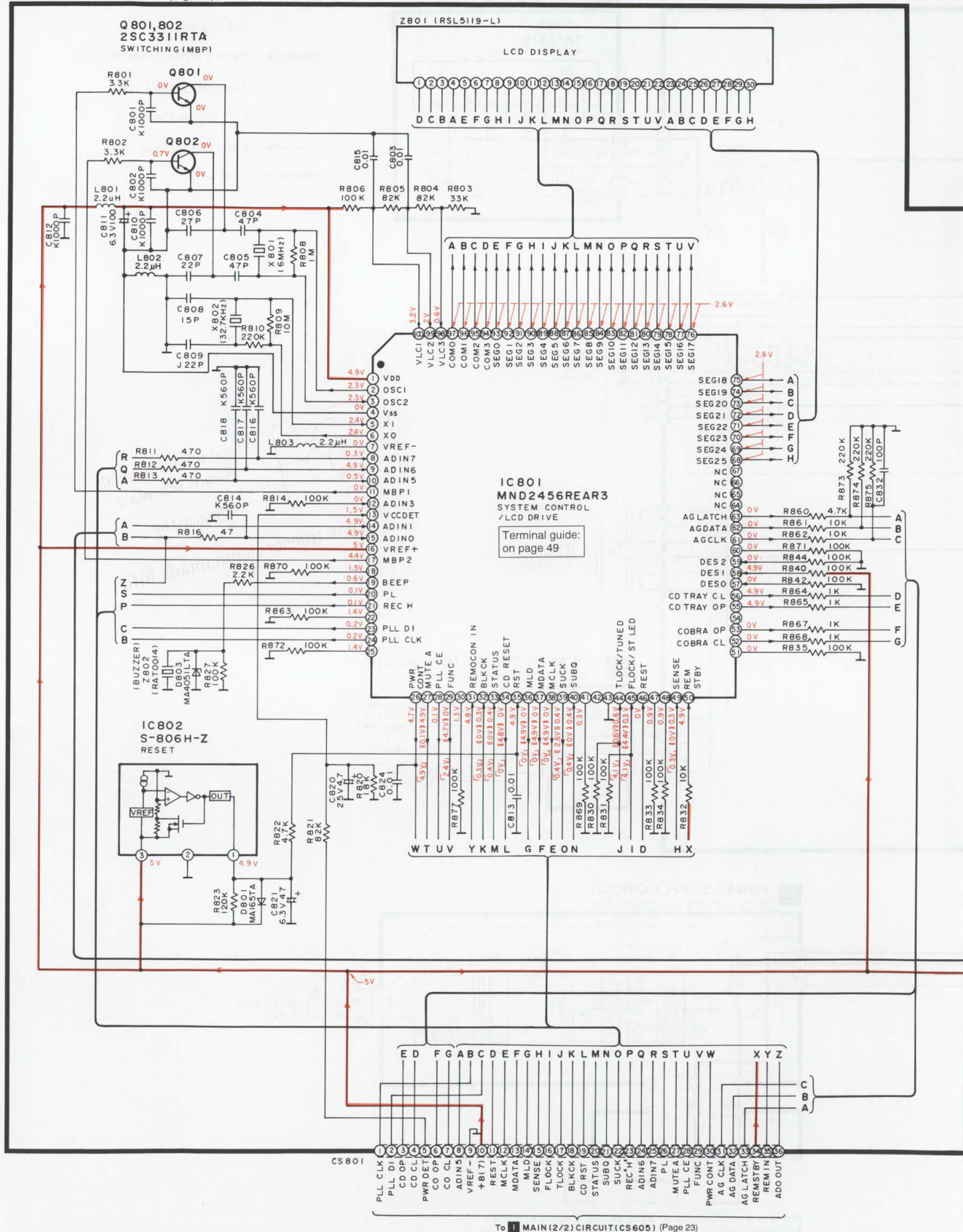
Digitized by
www.freeservicemanuals.info

 : Tape Playback Signal Line

 : Record Signal Line

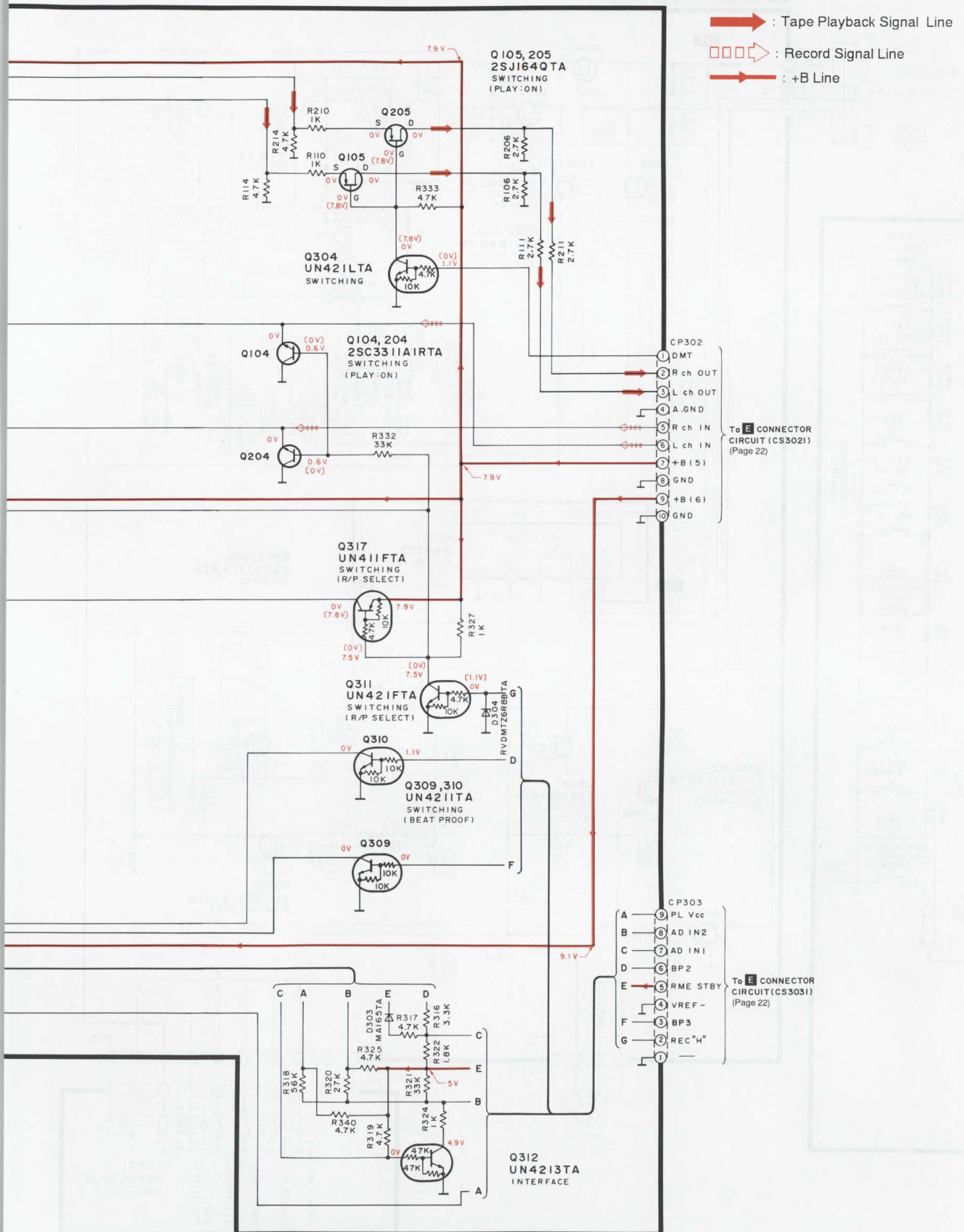
 : +B Line

B LCD CIRCUIT (Printed Circuit Board: on page 29)



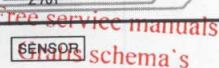
(Printed Circuit Board: on page 31)





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

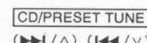
(RF)

POWER/BATT,STANDBY 

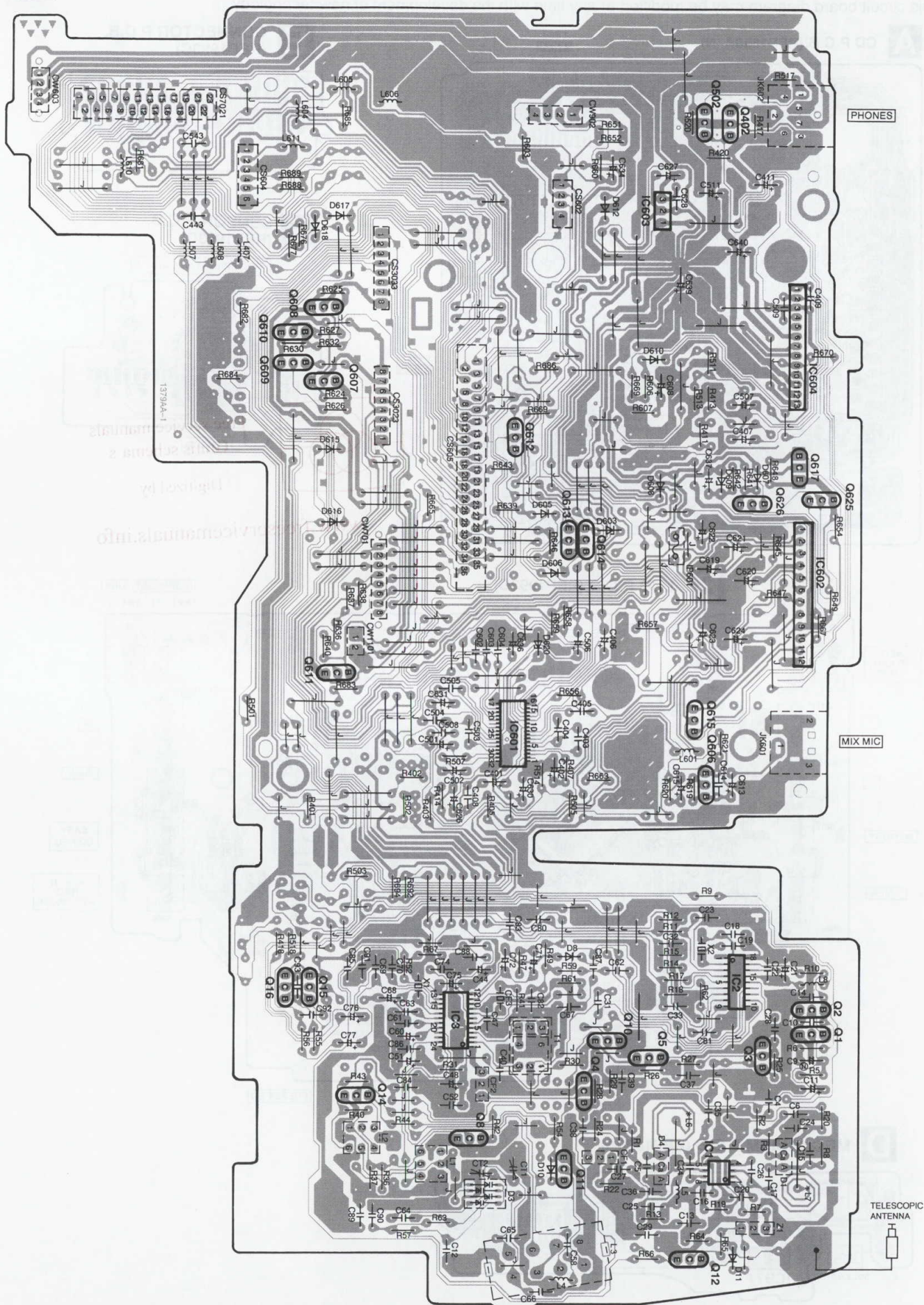
Digitized by

www.freeservicemanuals.info

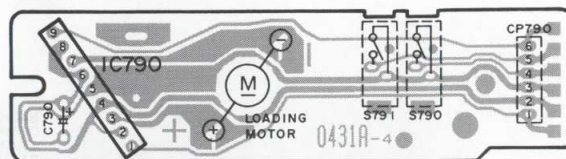
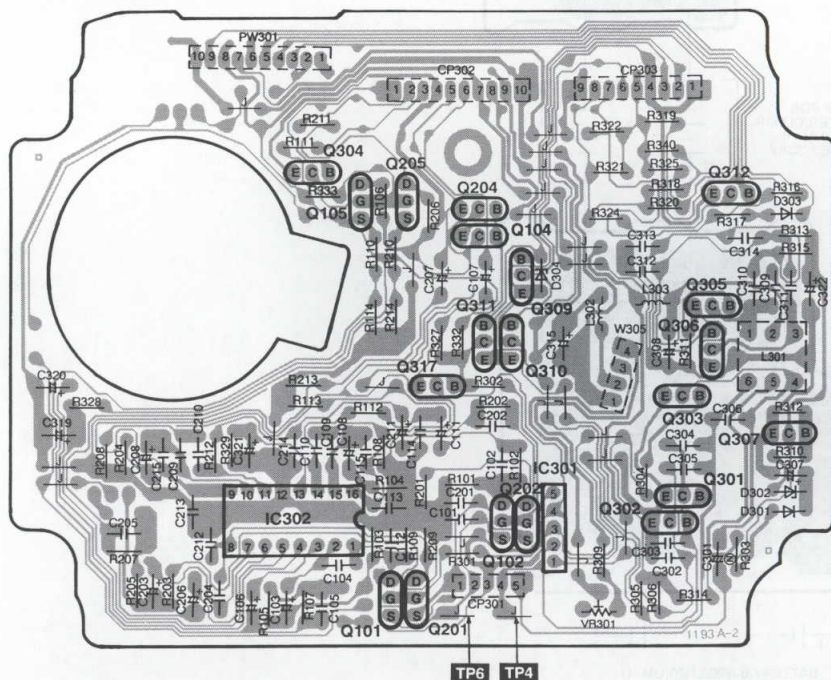
- CHECK/
-ADJUST,
CLOCK



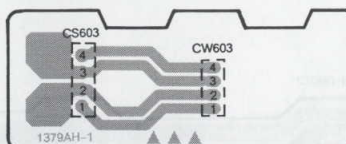
MAIN P.C.B.(REP1993C)



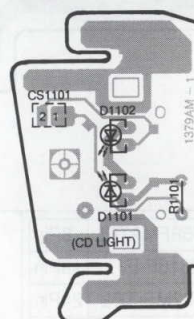
J **LOADING MOTOR P.C.B.**
(REP0767)



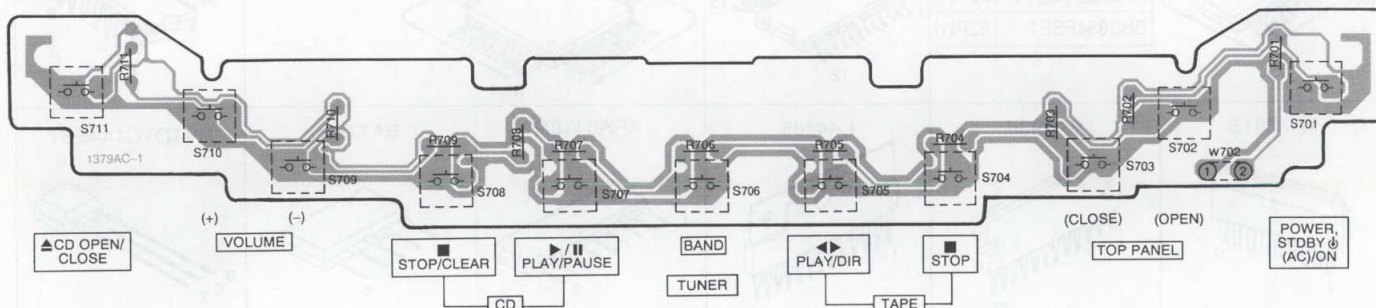
K SPEAKER CONNECTOR
P.C.B.(REP1993C)



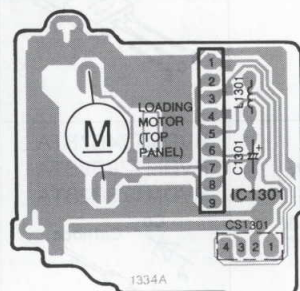
M LED P.C.B.
(REP1993C)



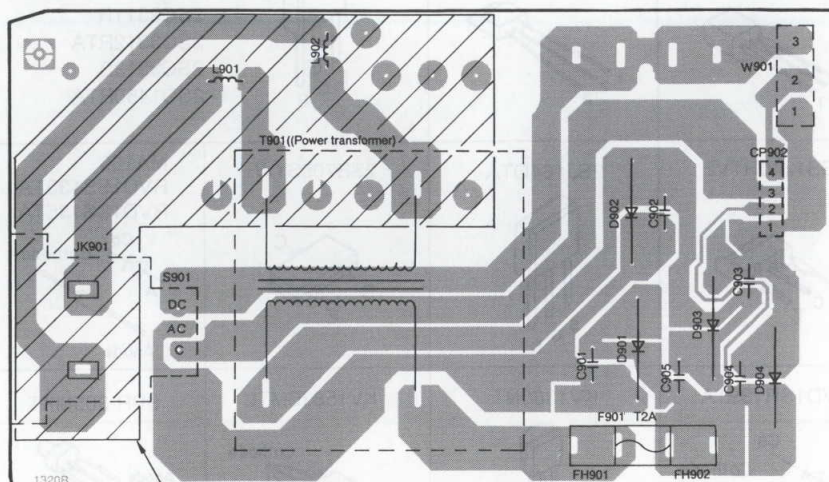
G OPERATION P.C.B.(REP1993C)



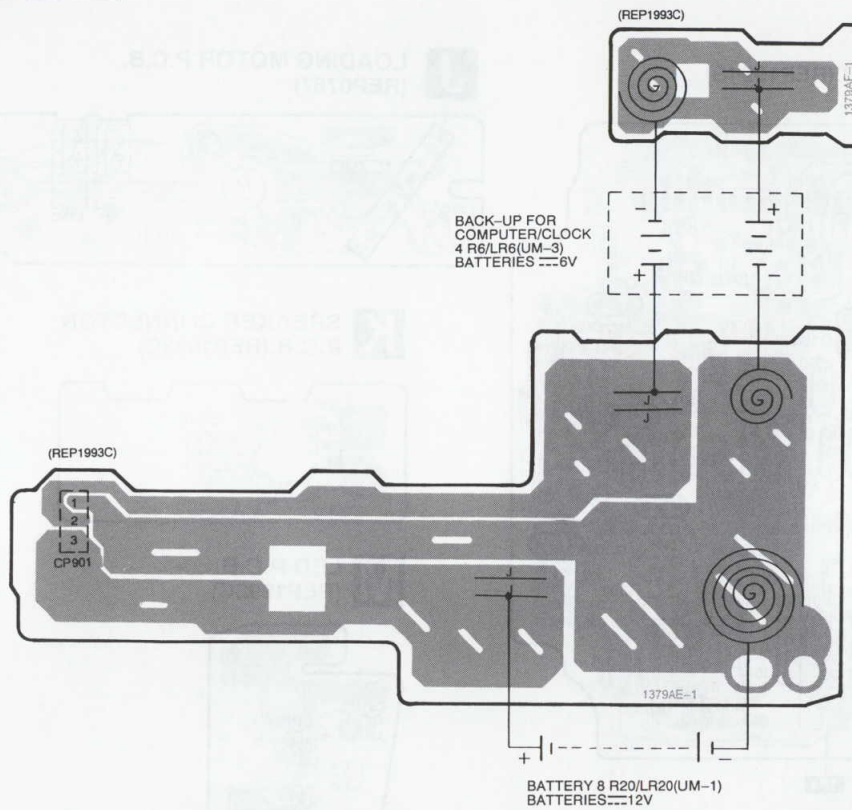
H MOTOR P.C.B.
(REP1977A)



POWER SUPPLY P.C.B.(REP1965B)



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



No.1	<table><tr><td>TA7358FMATEL</td><td>8Pin</td></tr><tr><td>XLU2616F-E1</td><td>18Pin</td></tr><tr><td>LA1832MS-TEL</td><td>24Pin</td></tr><tr><td>AN8802SCE1V</td><td>32Pin</td></tr><tr><td>BH3854FSE1</td><td>32Pin</td></tr></table>	TA7358FMATEL	8Pin	XLU2616F-E1	18Pin	LA1832MS-TEL	24Pin	AN8802SCE1V	32Pin	BH3854FSE1	32Pin	AN8389SE1 24 1 12 13	<table><tr><td>MN66271RA</td><td>80Pin</td></tr><tr><td>MND2456REAR3</td><td>100Pin</td></tr></table> No.1	MN66271RA	80Pin	MND2456REAR3	100Pin	TA8142AP 9 16 8 1
TA7358FMATEL	8Pin																	
XLU2616F-E1	18Pin																	
LA1832MS-TEL	24Pin																	
AN8802SCE1V	32Pin																	
BH3854FSE1	32Pin																	
MN66271RA	80Pin																	
MND2456REAR3	100Pin																	
TA7291S 1 9	BA3936 1 12	LA4485 1 13	XRA6418N 1 9	BA7755 1 5	RVTDTTC144EST B C E													
S-806H-Z S81350HGZ 3 2 1	DN6851ALB 1 2 3	E C B	2SC2786LTA 2SC3311AIRT 2SC3311AR 2SC3311R 2SC3312RTA 2SC3313B 2SD1450RTA	UN411FTA UN4111 UN4116 UN421FTA UN421LTA UN4211 UN4213	2SB1393AU B C E													
2SB1240RTV2 B C E	2SJ164QTA S G D	2SB709STW B C E	MA165 RVD1SS133TA RVD1SS135TA Ca Cathode Anode	MA4051-L MA4091LTA Ca Cathode Anode	RVDMTZ4R7BTA RVDMTZ6R8BTA RVDMTZ8R2BTA Ca Cathode Anode													
RVD1SR139TA Ca Cathode Anode	KV1360NT Anode Cathode Ca	KV1583BMTL Cathode Anode	SPR-305MKT Anode Cathode Ca	BU1236 Anode Cathode														



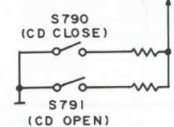
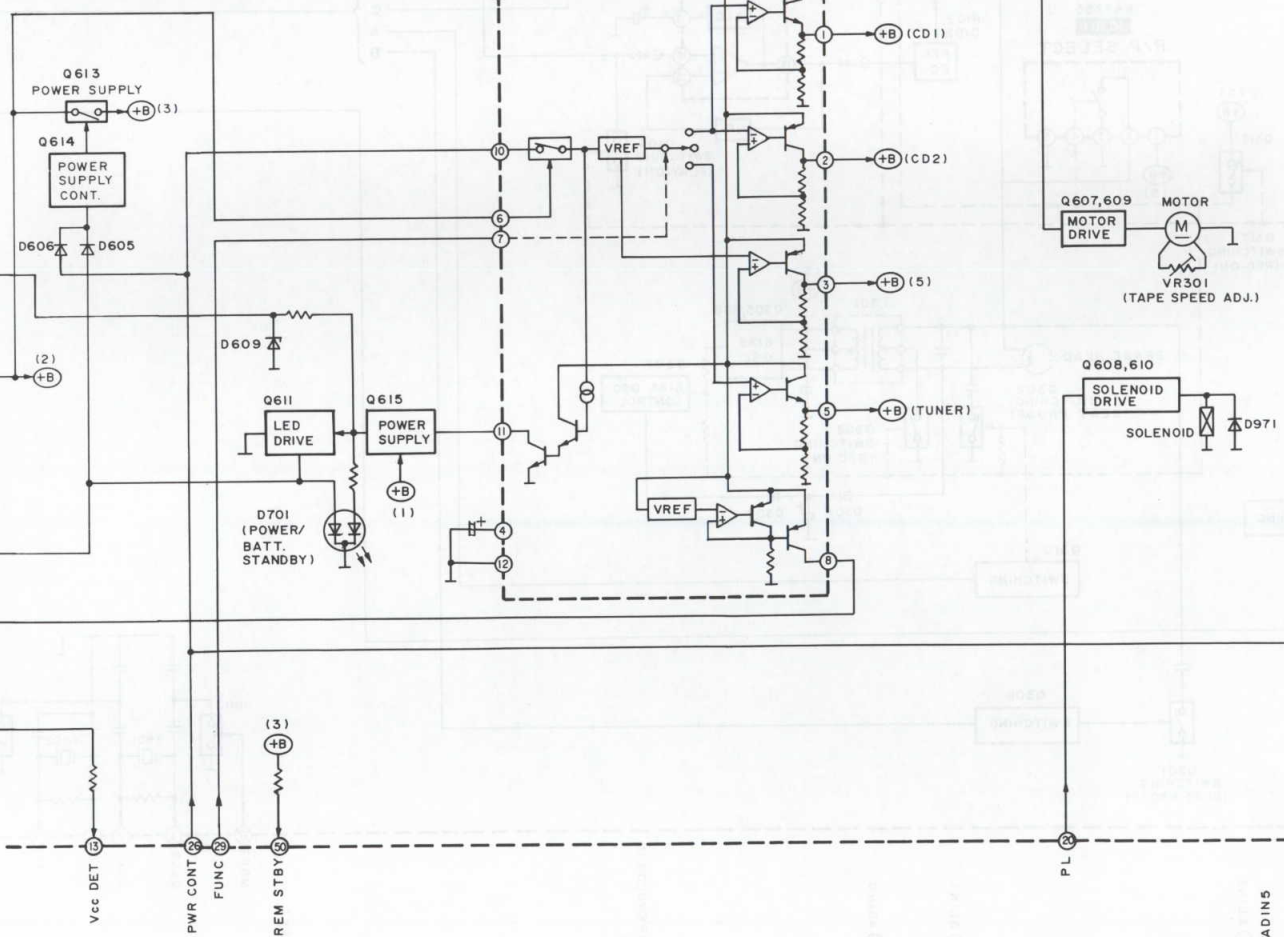


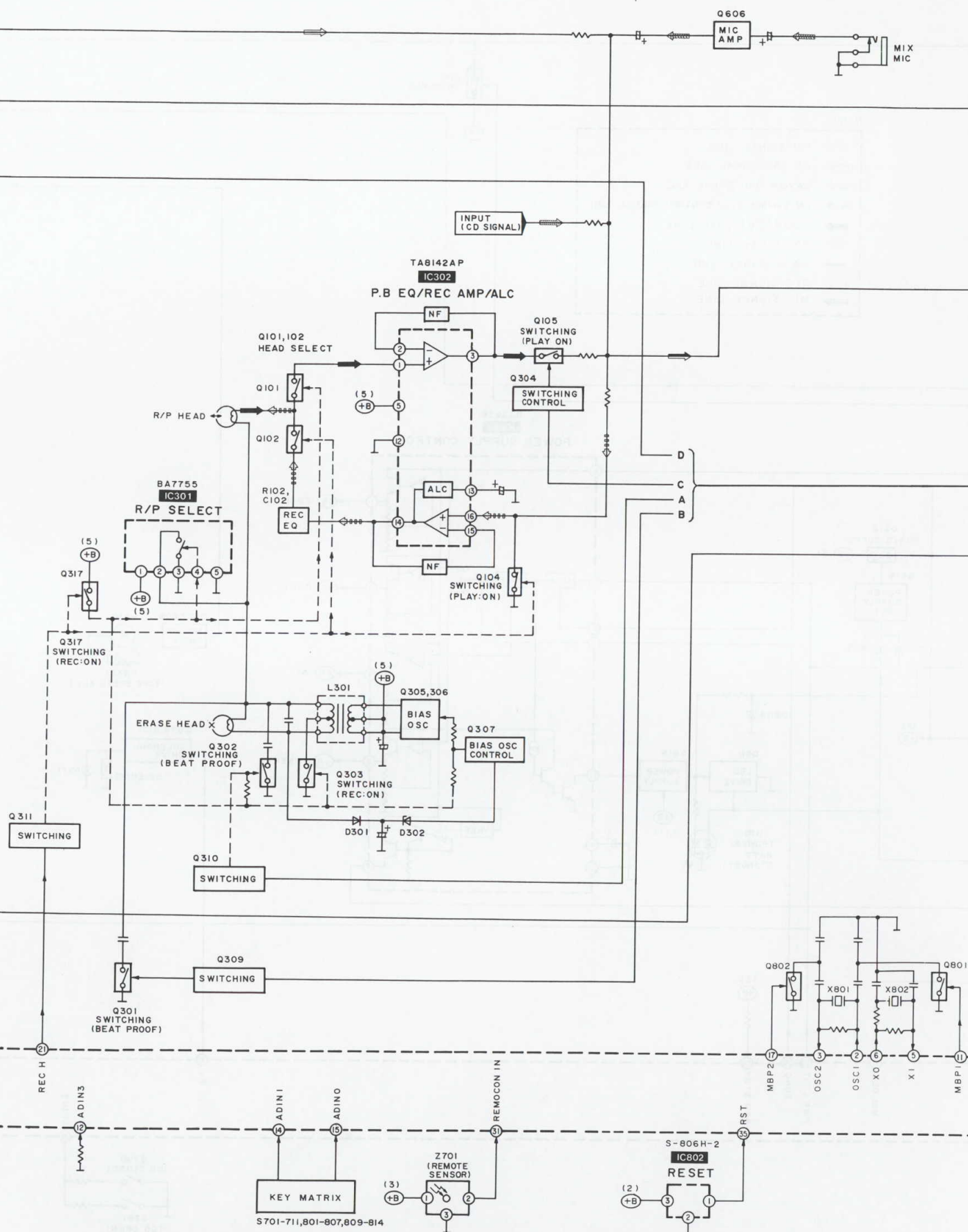
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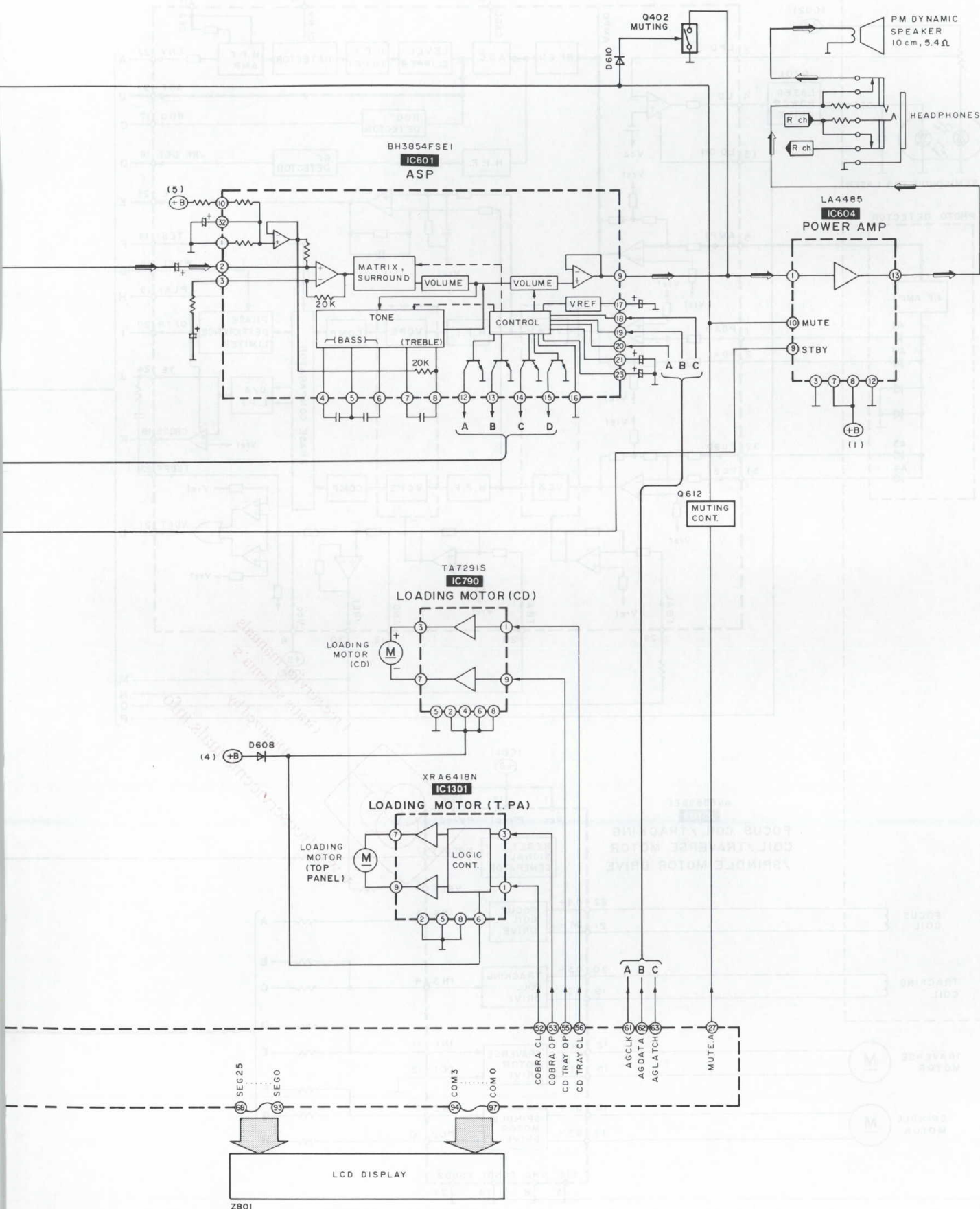
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- : FM OSC SIGNAL LINE
- : LW/MW OSC SIGNAL LINE
- : FM/LW/MW Vcap CONTROL SIGNAL LINE
- : PLAYBACK SIGNAL LINE
- : CD SIGNAL LINE
- : MAIN SIGNAL LINE
- : REC SIGNAL LINE
- : MIC SIGNAL LINE

BA3936
IC602

POWER SUPPLY CONTROL

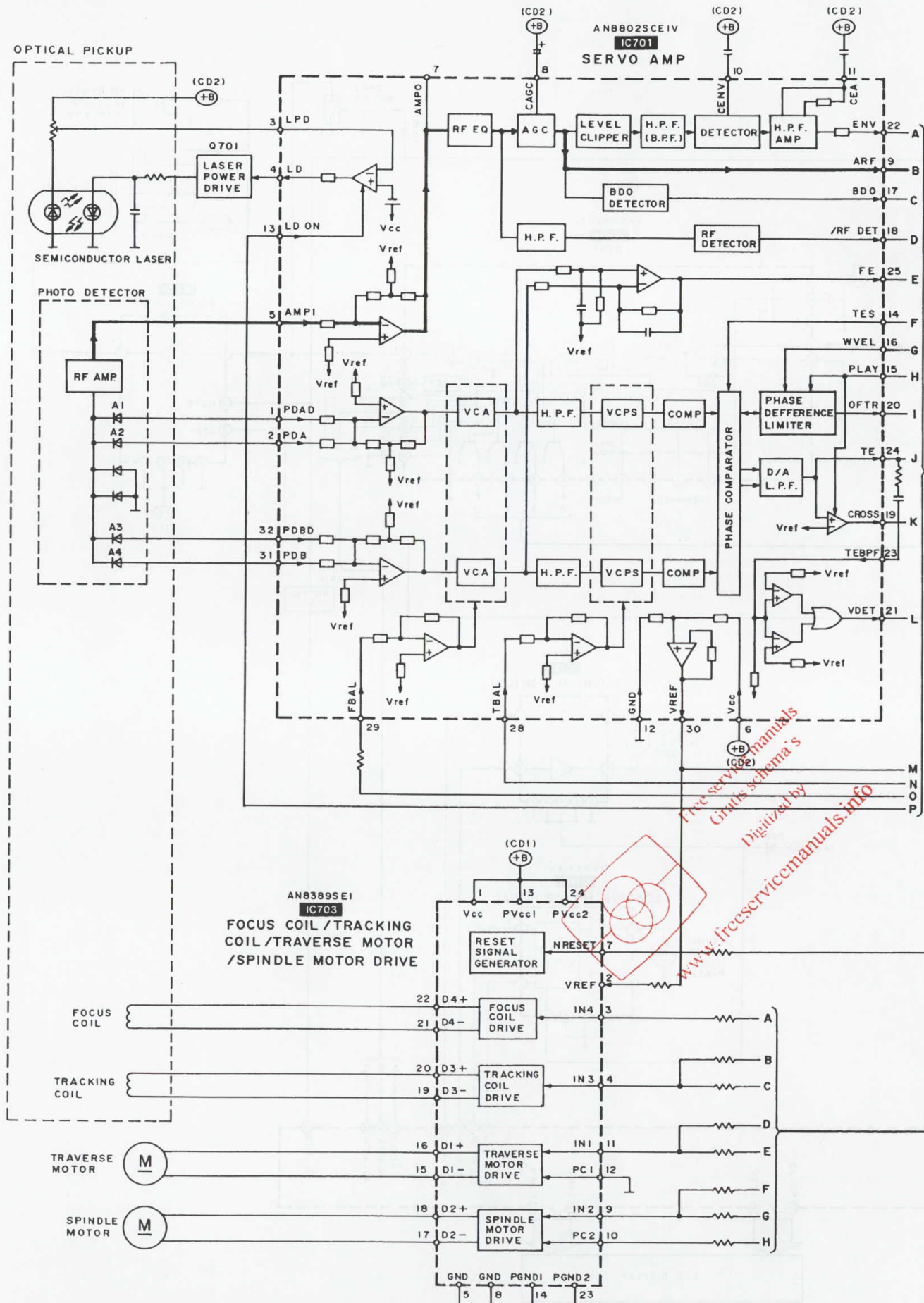






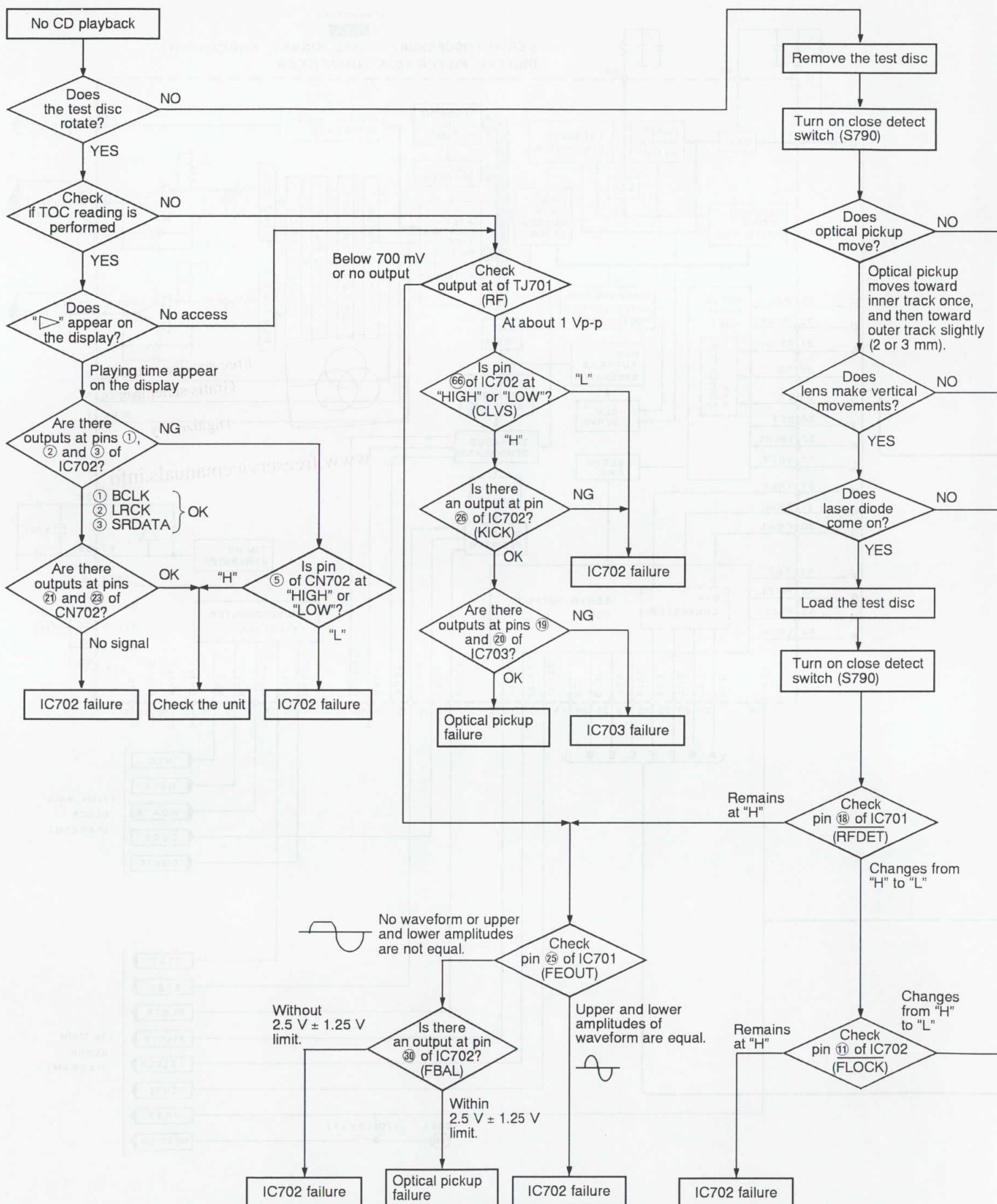
RX-DS05

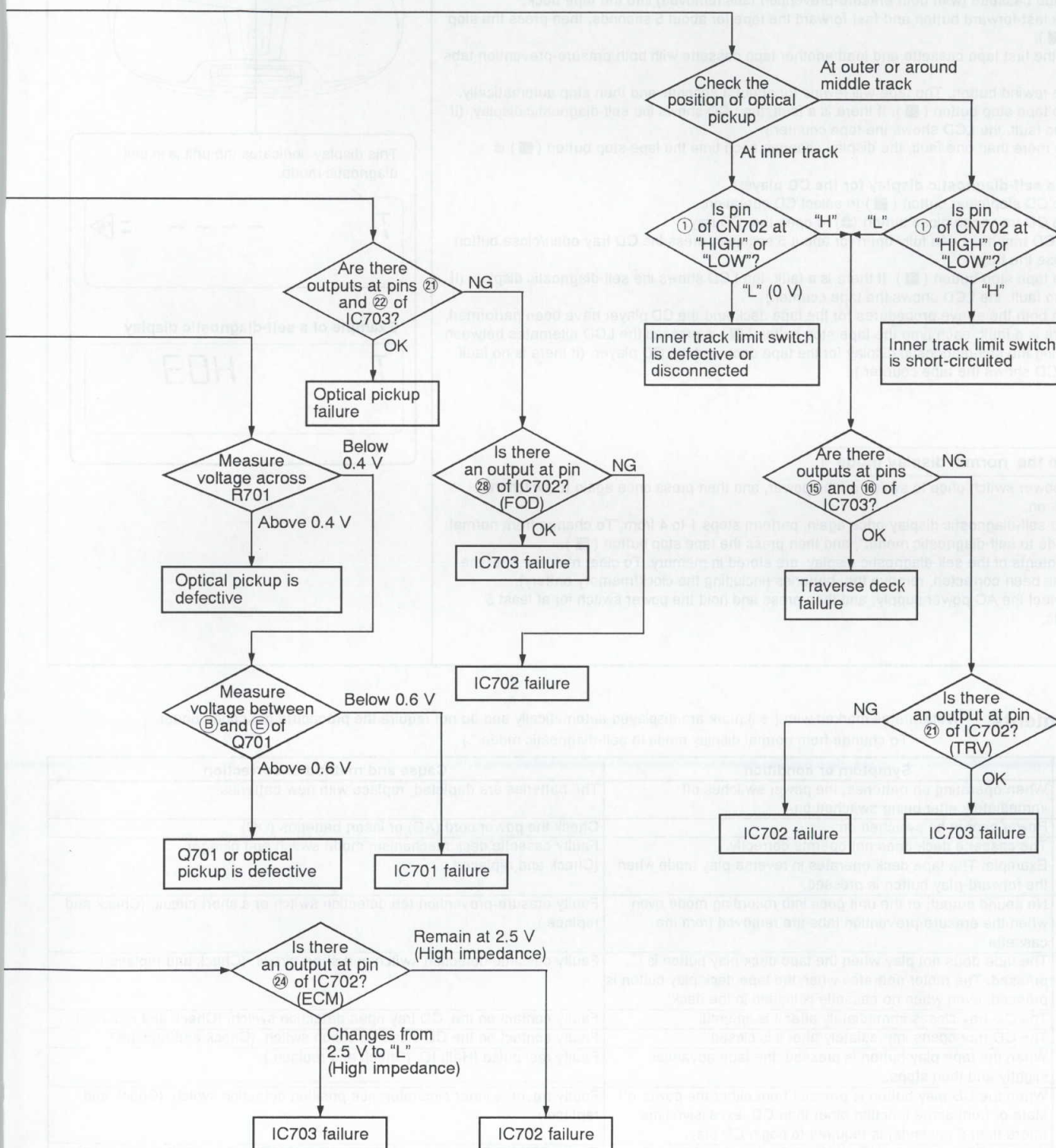
• CD Unit



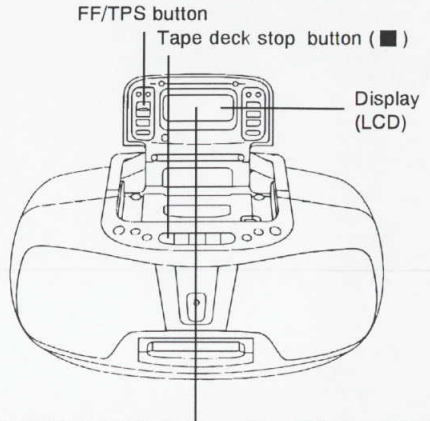
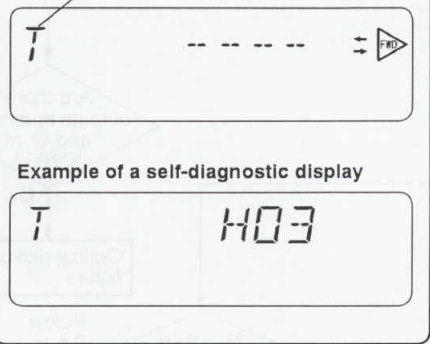


Troubleshooting Guide





Self-Diagnostic Display Function

Display procedure	Display location
To view the display • To change from normal display mode to self-diagnostic mode: 1. Connect the unit to the power supply and switch on the power. 2. Set the reverse mode to "↔". Use the remote control; reverse mode cannot be set from the unit controls. 3. Confirm there is no tape cassette in the tape deck. 4. Press and hold the tape stop button (■), and then also press and hold the fast-forward button for 2 seconds (without releasing the tape stop button). A beeping sound is heard and "T" is displayed (indicating the unit has changed from normal display mode to self-diagnostic mode.) • To view the self-diagnostic display for the tape deck: 1. Load a tape cassette (with both erasure-prevention tabs removed) into the tape deck. 2. Press the fast-forward button and fast-forward the tape for about 5 seconds, then press the stop button (■). 3. Remove the first tape cassette and load another tape cassette with both erasure-prevention tabs intact. 4. Press the rewind button. The tape will rewind for about 3 seconds and then stop automatically. 5. Press the tape stop button (■). If there is a fault, the LCD shows the self-diagnostic display. (If there is no fault, the LCD shows the tape counter.) If there is more than one fault, the display changes each time the tape stop button (■) is pressed. • To view the self-diagnostic display for the CD player: 1. Press the CD stop/clear button (■) to select CD operation. 2. Press the CD tray open/close button (▲) to open the CD tray. 3. After the CD tray has been fully open for about 5 seconds, press the CD tray open/close button (▲) to close the tray. 4. Press the tape stop button (■). If there is a fault, the LCD shows the self-diagnostic display. (If there is no fault, the LCD shows the tape counter.) Note: When both the above procedures for the tape deck and the CD player have been performed, if there is a fault, each time the tape stop button (■) is pressed the LCD alternates between showing the self-diagnostic display for the tape deck and the CD player. (If there is no fault, the LCD shows the tape counter.) To return to the normal display mode • Press the power switch once to switch off the power, and then press once again to switch the power back on. To view the self-diagnostic display once again, perform steps 1 to 4 from "To change from normal display mode to self-diagnostic mode:", and then press the tape stop button (■). Note: The contents of the self-diagnostic display are stored in memory. To clear memory after the fault has been corrected, remove the batteries (including the clock/memory battery), disconnect the AC power supply, and then press and hold the power switch for at least 5 seconds.	 This display indicates the unit is in self-diagnostic mode.  Example of a self-diagnostic display

Display contents (Note: Items marked with (*) mark are displayed automatically and do not require the procedure described under "To change from normal display mode to self-diagnostic mode:").

Display code	Symptom or condition	Cause and method of correction
* U1	When operating on batteries, the power switches off immediately after being switched on.	The batteries are depleted; replace with new batteries.
* U02	Power cannot be switched on.	Check the power cord (AC) or insert batteries (DC).
* H01	The cassette deck does not operate correctly. Example: The tape deck operates in reverse-play mode when the forward-play button is pressed.	Faulty cassette deck mechanism mode switch and plunger. (Check and replace.)
H02	No sound output; or the unit goes into recording mode even when the erasure-prevention tabs are removed from the cassette.	Faulty erasure-prevention tab detection switch or a short-circuit. (Check and replace.)
H03	The tape does not play 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 cassette detection switch or a short-circuit. (Check and replace.)
H15	The CD tray closes immediately after it is opened.	Faulty contact on the CD tray open detection switch. (Check and replace.)
H16	The CD tray opens immediately after it is closed.	Faulty contact on the CD close detection switch. (Check and replace.)
F01	When the tape play button is pressed, the tape advances slightly and then stops.	Faulty reel pulse (Hall) IC. (Check and replace.)
F15	When the CD play button is pressed from either the power off state or from some function other than CD, excessive time (more than 5 seconds) is required to begin CD play.	Faulty traverse inner circumference position detection switch. (Check and replace.)
F75	When a CD is loaded, "NO DISC" is displayed and the CD cannot be played.	Faulty CD circuit power supply (power supply IC or CD circuit power supply system). (Check and replace.) Flexible circuit board disconnected or broken wiring. (Check and replace.) Faulty servo processor IC. (Check and replace.)

■ Measurements and Adjustments

< TUNER SECTION >

● ALIGNMENT INSTRUCTION

READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

- Set power source voltage to 15 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 (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.	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 15 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	SPECIFICATION	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.)	Maximum output	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 replace both azimuth adjustment screws (RHE5152ZB) and springs (RMB0331) used for the forward and reverse sides to new ones simultaneously when readjusting the head azimuth. (Shown in Fig. 3, 4.)
Even if you wish to readjust the head azimuth without replacing the screws and springs, a fine adjustment can not be done because of the screw-locking bond adhered to the azimuth screw and spring.
- Please remove the screw-locking bond left on the head base when replacing the azimuth screw.
- If you wish to readjust the head azimuth, be sure to adjust with adhering the cassette tape closely to the mechanism by pushing the center of cassette tape with your finger. (Shown in Fig. 5.)
- After the adjustment, apply screwlock to the azimuth adjusting screw. (Screw-locking bond: RZZ0L01)

• TAPE SPEED ALIGNMENT

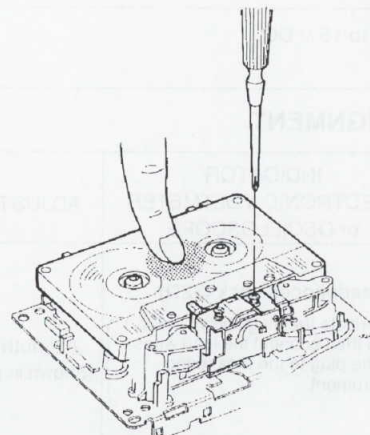
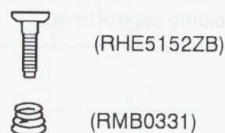
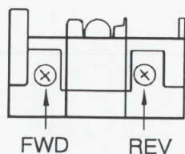
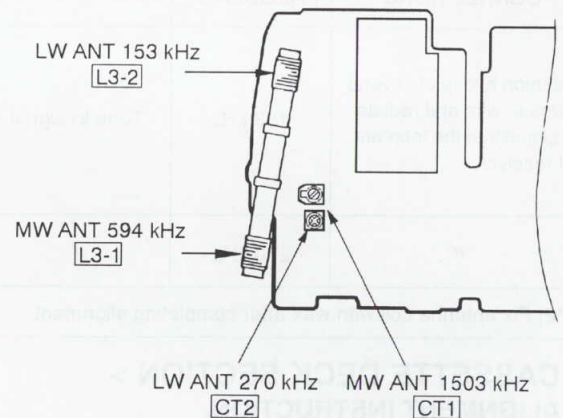
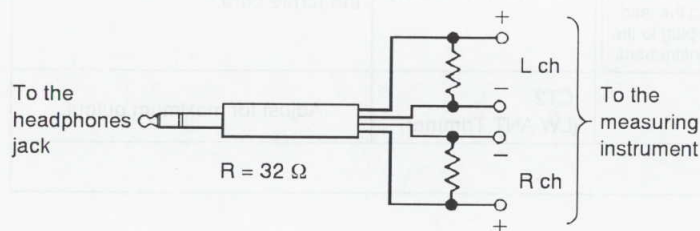
TEST TAPE	INDICATOR (FREQUENCY COUNTER)	ADJUSTMENT	REMARKS
QZZCWAT (3 kHz, -10 dB)	Headphones Jack (32Ω) (Fabricate the plug shown in Fig.1 and then connect the lead wires of the plug to the measuring instrument.)	VR301 (Shown in Fig. 6.)	(Specification : 3000 ± 40 Hz) 1. Insert a test tape (QZZCWAT) in DECK1 and start playback in forward direction. 2. Adjust VR301 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.

• RECORD BIAS CHECK

TEST TAPE	INDICATOR ELECTRONIC VOLTMETER or OSCILLOSCOPE	ADJUSTMENT	SPECIFICATION	REMARKS
Use Normal tape	TP6 (+) TP4 (-) (Shown in Fig. 7.)	—	16~19 mV	• Insert the tape with erase-prevention tabs in deck and start recording.

• ALIGNMENT POINTS

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



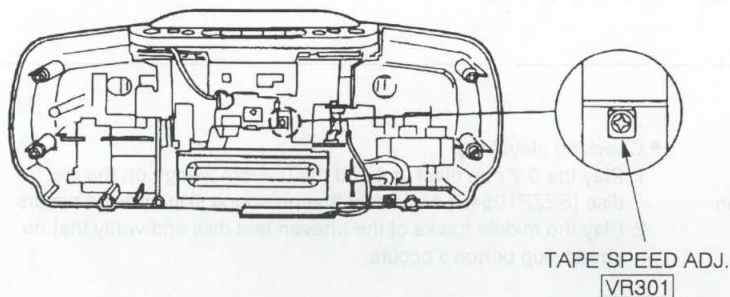
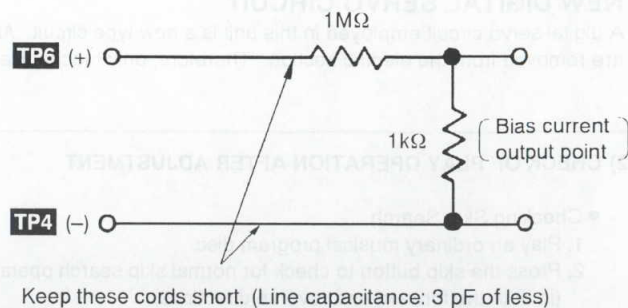


Fig. 6



- In order not to influence the bias oscillation, divide the voltage with 1 MΩ and 1 kΩ resistors, and measure the voltage across the 1 kΩ resistor.

Fig. 7

< CD SECTION >

Caution:

It is very dangerous to look at or touch the laser beam. (Laser radiation is invisible.)
With the unit turned "on", laser radiation is emitted from the pickup lens.
Avoid exposure to the laser beam, especially when performing adjustments.

• Preparation for Adjustment

1. Set up the unit following the procedure described in "Checking for the main P.C.B. and CD P.C.B.". (See page 9)
2. After completing the setup procedure, switch the unit off then switch it on again (to adjust the unit with the CD unit placed in an upright position).

Measuring Instruments and Special Tools

- Test disc
 1. Playability test disc (SZZP1054C)
 2. Uneven test disc (SZZP1056C)
- Hexagonal wrench (M2.0) (SZZP1101C)
- Oscilloscope

(1) MECHANICAL ADJUSTMENT

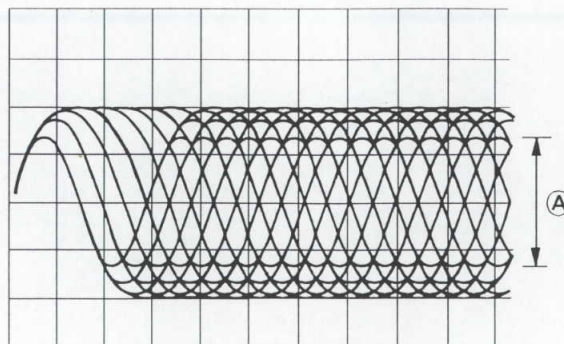
- When the traverse deck is replaced, making adjustments is not necessary. (The traverse deck ass'y is already adjusted.)
- Make adjustments to improve playability when the traverse deck has not been replaced. Make the electrical adjustments first.

1. Connect the oscilloscope's CH. 1 probe across **TJ701** (+) and **TJ702** (VREF) on the CD P.C.B.

Oscilloscope setting:

VOLT 200 mV
SWEEP 0.5 μsec
Input coupling AC

2. Switch the player power ON, and play track 19 on the test disc (SZZP1056C).
3. Leave the player in Play mode and place it as shown in the figure on the right.
4. Alternately adjust the two mechanical adjusting screws with the 2.0 mm allen wrench (SZZP1101C) until the RF signal amplitude on the oscilloscope is maximize. (Shown in Fig. 9)
5. After completing the adjustment, lock the mechanical adjustments with lock paint (RZZ0L01).



Ⓐ Maximize the amplitude.

● NEW DIGITAL SERVO CIRCUIT

A digital servo circuit employed in this unit is a new type circuit. All adjustment VRs, which are equipped with conventional digital servo circuits, are removed from the electric section. Therefore, only mechanical adjustments are necessary.

(2) CHECK OF PLAY OPERATION AFTER ADJUSTMENT

● Checking Skip Search

1. Play an ordinary musical program disc.
2. Press the skip button to check for normal skip search operation (in both the forward and reverse directions).

● Checking Manual Search

1. Play an ordinary musical program disc.
2. Press the manual search button to check for smooth manual search operations at either low or high speed (in both the forward and reverse directions).

● Checking playability

1. Play the 0.7 mm black dot and the 0.7 mm wedge on the test disc (SZZP1054C) and verify that no sound skip or noise occurs.
2. Play the middle tracks of the uneven test disc and verify that no sound skip or noise occurs.

● Locations of Adjustments

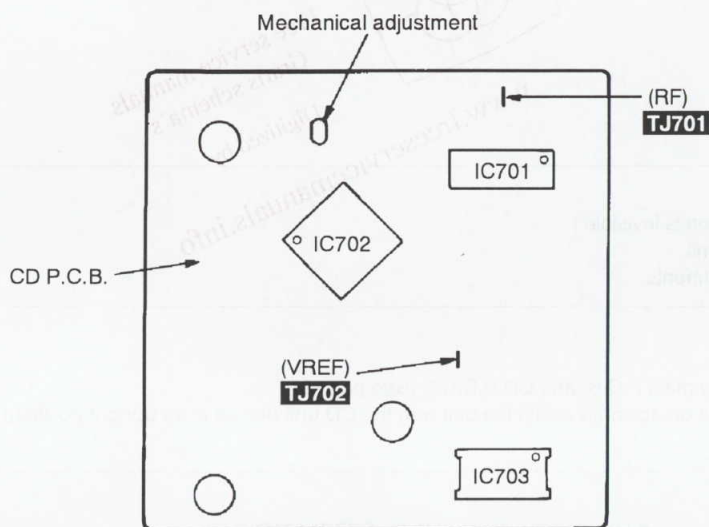


Fig. 8

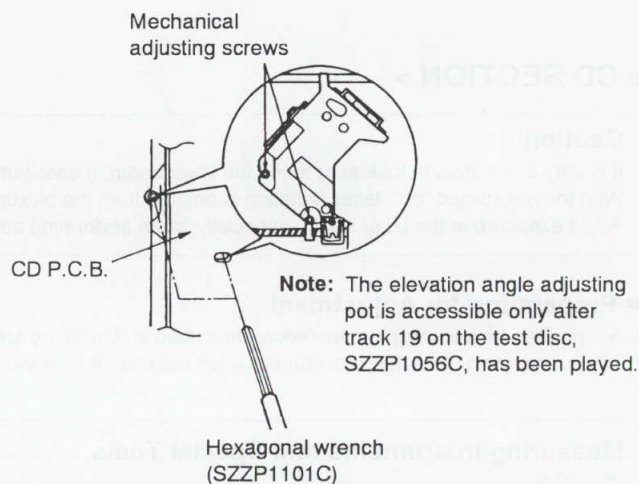


Fig. 9

■ Function of IC Terminals

●IC701 (AN8802SCE1V)

Pin No.	Terminal Name	I/O	Function
1	PDAD	I	PD A channel signal input with delay
2	PDA	I	PD A channel signal input without delay
3	LPD	I	Laser PD connection
4	LD	O	Power supply for LD driving
5	AMPI	I	RF amplifier input
6	Vcc	I	Power supply connection
7	AMPO	O	RF amplifier output (no use, open)
8	CAGC	I	AGC loop filter connection
9	ARF	O	RF AGC output
10	CENV	I	Capacitor connection for RF detection
11	CEA	I	Capacitor connection for HPF amplifier
12	GND	—	Ground connection
13	LDON	I	ON/OFF input of LD APC ("H": ON, "L": OFF)
14	TES	I	Tracking error shunt signal input ("H": shunt)
15	PLAY	I	Play signal input ("H": PLAY)
16	WVEL	I	WVEL control
17	BDO	O	BDO output
18	/RFDET	O	NRFDET output
19	CROSS	O	CROSS output
20	OFTR	O	OFTR output
21	VDET	O	VDET output
22	ENV	O	ENV output
23	TEBPF	I	Vibration detection input
24	TE	O	Tracking error output
25	FE	O	Focus error output
26	PTO	O	Potential amplifier output (no use, open)
27	PTI	I	Potential amplifier inversion input (no use, open)
28	TBAL	I	Tracking balance input
29	FBAL	I	Focus balance input
30	VREF	O	VREF output
31	PDB	I	PD B channel signal input without delay
32	PDBD	I	PD B channel signal input with delay

●IC702 (MN66271RA)

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 use, open)
3	SRDATA	O	Serial data output (no used, open)
4	DV _{DD} 1	I	Power supply input (for digital circuit)
5	DV _{SS} 1	—	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	Sence 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 register
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
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 use, 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

Pin No.	Terminal Name	I/O	Function
29	VREF	I	D/A (drive) output (TVD, ECS, TRD, FOD, FBAL, TBAL) Reference voltage input
30	FBAL	I	Focus balance adjustment output
31	TBAL	O	Tracking balance adjustment output
32	FE	I	Focus error signal input (analog input)
33	TE	I	Tracking error signal input (analog input)
34	RFENV	I	RF envelope signal input
35	VDET	I	Vibration detection signal input ("H": detection)
36	OFT	I	Off-track signal input ("H": off track)
37	TRCRS	I	Track cross signal input
38	/RFDET	I	RF detection signal input ("L": detection)
39	BDO	I	Dropout signal input ("H": Dropout)
40	LDON	O	Laser on signal 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)
44	ARF	I	RF signal input
45	IREF	I	Reference current input
46	DRF	—	DSL bias (no use, open)
47	DSLIF	I/O	DSL loop filter
48	PLLIF	I/O	PLL loop filter
49	VCOF	—	VCO loop filter (no use, open)
50	AVDD2	I	Power supply input (for analog circuit)
51	AVSS2	—	GND (for analog circuit)
52	EFM	—	EFM signal output (not use, open)
53	PCK	—	PLL extraction clock output (fPCK=4.321 MHz during normal playback) (no use, open)
54	PDO	—	Phase comparison signal of EFM and PCK signals (no use, open)
55	SUBC	—	Sub-code serial data output (no use, open)
56	SBCK	I	Clock input for sub-code serial data (no use, GND)
57	Vss	—	GND
58	X1	I	Crystal oscillating circuit input (f=16.9344 MHz)
59	X2	O	Crystal oscillation circuit output (f=16.9344 MHz)
60	VDD	I	Power supply input (for oscillating circuit)
61	BYTCK	—	Byte clock output (no use, open)

Pin No.	Terminal Name	I/O	Function
62	/CLDCK	—	Sub-code frame clock signal output (fCLDCK=7.35 kHz during normal playback) (no use, open)
63	FCLK	—	Crystal frame clock signal output (fFCLK=7.35 kHz, double=14.7 kHz)
64	PFLAG	—	Interpolation flag output ("H": Interpolation) (no use, open)
65	FLAG	—	Flage output (no use, open)
66	CLVS	—	Spindle servo phase synchronizing signal output ("H": CLV, "L": rough servo) (no use, open)
67	CRC	—	Sub-code CRC checked output ("H": OK, "L": NG) (no use, open)
68	DEMPH	—	De-emphasis ON signal output ("H": ON) (no use, open)
69	RESY	—	Frame resynchronizing signal output (no use, open)
70	/RST2	I	Reset input through MASH circuit ("L": Reset)
71	/TEST	I	Test input
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)
78	PSEL	—	Test input (normally, "L") (no use, GND)
79	MSEL	—	Output frequency switching for SMCK terminal "H": SMCK=8.4672 MHz "L": SMCK=4.2336 MHz (no use, GND)
80	SSEL	I	Output mode switching of SUBQ terminal ("H": Q code buffer mode)

● IC801 (MND2456REAR3)

Pin No.	Terminal Name	I/O	Function
1	VDD	—	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	X1	I	32 kHz clock input
6	X0	O	32 kHz clock output
7	VREF –	—	AD converter reference voltage (GND)
8	ADIN7	I	Leaf switch signal input (DECK)
9	ADIN6	I	Leaf switch signal input (DECK)
10	ADIN5	I	CD loading switch input
11	MBP1	O	Beat proof control signal output
12	ADIN3	—	—
13	VCC DET	I	Power detection signal input (L: ON)
14	ADIN1	I	AD converter signal input (operation switches)
15	ADIN0	I	AD converter signal input (operation switches)
16	VREF+	—	AD converter reference voltage (VDD)
17	MBP2	O	Beat proof control signal input
18	—	—	—
19	BEEP	O	Beep signal output
20	PL	O	Solenoid control signal output (H: ON)
21	RECH	O	Deck record mode control signal output (H: REC)
22	—	—	—
23	PLL DI	O	PLL tuner control data signal output
24	PLL CL	O	PLL tuner clock signal output
25	—	—	—
26	PWCNT	O	Power supply circuit control (H: POWER ON)
27	MUTE A	O	Muting control signal output (L: MUTE)
28	PLL CE	O	PLL tuner strobe signal output
29	FUNC	O	Function control signal output (TUNER: I, CD: H, TAPE: L)
30	—	—	—
31	REMOCON IN	I	Remote control signal input
32	BLKCK	I	Sub code block clock input
33	STATUS	I	CD status signal input
34	CD RESET	O	CD reset signal input (L: RESET)

Pin No.	Terminal Name	I/O	Function
35	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	SUCK	O	CD sub-code reading clock output
40	SUBQ	I	CD sub-code data input
41	—	—	—
42	—	—	—
43	GND	I	1-chip microprocessor mode setting input (L: 1-chip)
44	TLOCK/ TUNED	I	CD tracking clock signal input/tuner receiving signal input
45	FLOCK/ ST LED	I	CD focus lock signal input/tuner stereo signal input
46	REST	I	CD traverse position detection switch signal input (H: most inside position)
47	—	—	—
48	—	—	—
49	SENSE	I	CD sense signal input
50	REM STBY	I	Remote control sensor power control (H: ON, 4 MHz)
51	—	—	—
52	COBRA CL	O	Top panel close signal output
53	COBRA OP	O	Top panel open signal output
54	—	—	—
55	CD TRAY OP	O	CD tray open signal output
56	CD TRAY CL	O	CD tray close signal output
57	DES0	I	—
58	DES1	I	—
59	DES2	I	—
60	—	—	—
61	AG CLK	O	Serial clock output (for ASP)
62	AG DATA	O	Audio signal control data output (for ASP)
63	AG LATCH	O	Latch signal output (for ASP)
64~67	NC	—	—
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

•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	—	No connection
7	NRESET	I	Reset input
8	GND	—	Ground connection
9	IN2	I	Motor driver (2) input
10	PC2	I	PC2 (power cut) input
11	IN1	I	Motor driver (1) input
12	PC1	I	PC1 (power cut) input (no use, GND)
13	PVCC1	I	Power supply (1) for driver
14	PGND1	—	Ground connection (1) for driver
15	D1—	O	Motor driver (1) reverse-action output
16	D1+	O	Motor driver (1) forward-action output
17	D2—	O	Motor driver (2) reverse-action output
18	D2+	O	Motor driver (2) forward-action output
19	D3—	O	Motor driver (3) reverse-action output
20	D3+	O	Motor driver (3) forward-action output
21	D4—	O	Motor driver (4) reverse-action output
22	D4+	O	Motor driver (4) forward-action output
23	PGND2	—	Ground connection (2) for driver
24	PVCC2	I	Power supply (2) for driver

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 Ass'y: Supply period for three years from termination of production.

*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)					
IC1	TA7358FMATEL	I. C, FM FRONT END		Q610	2SC3311AIRTA	TRANSISTOR	
IC2	XLU2616F-E1	I. C, PLL FREQ. SYNTH.		Q611	RVDTTC144EST	TRANSISTOR	
IC3	LA1832MS-TEL	I. C, FM/AM IF AMP		Q612, 613	UN411FTA	TRANSISTOR	
IC301	BA7755	I. C, R/P SELECT		Q614	UN4213	TRANSISTOR	
IC302	TA8142AP	I. C, P. B EQ/REC AMP/ALC		Q615	UN4111	TRANSISTOR	
IC601	BH3854FSE1	I. C, ASP		Q617	2SB1393AU	TRANSISTOR	Δ
IC602	BA3936	I. C, POWER SUPPLY CONTROL	Δ	Q625	UN4116	TRANSISTOR	
IC603	S81350HGZ	I. C, REGULATOR	Δ	Q626	2SC3311AIRTA	TRANSISTOR	Δ
IC604	LA4485	I. C, POWER AMP		Q801, 802	2SC3311R	TRANSISTOR	
IC790	TA7291S	I. C, MOTOR DRIVE				DIODE(S)	
IC801	MND2456REAR3	I. C, SYSTEM CONT. /LCD DRIVE		D1	KV1360NT	DIODE	
IC802	S-806H-Z	I. C, RESET		D3	KV1583BMTL	DIODE	
IC971	DN6851ALB	I. C, HALL		D4	KV1360NT	DIODE	
IC1301	XRA6418N	I. C, MOTOR DRIVE		D8	MA165	DIODE	
		TRANSISTOR(S)		D10	MA165	DIODE	
Q1, 2	2SC3311R	TRANSISTOR		D11	RVD1SS135TA	DIODE	
Q3	2SC2786LTA	TRANSISTOR		D301	MA165	DIODE	
Q4	2SC3313B	TRANSISTOR		D302	RVDMTZ4R7BTA	DIODE	
Q5	UN411FTA	TRANSISTOR		D303	MA165	DIODE	
Q8	2SC3311R	TRANSISTOR		D304	RVDMTZ6R8BTA	DIODE	
Q10	UN411FTA	TRANSISTOR		D603	RVDMTZ8R2BTA	DIODE	Δ
Q11	2SD1450RTA	TRANSISTOR		D605-607	MA165	DIODE	
Q12	2SC3311R	TRANSISTOR		D608	RVD1SR139TA	DIODE	
Q14	2SC3311R	TRANSISTOR		D609	MA4091LTA	DIODE	Δ
Q15, 16	UN411FTA	TRANSISTOR		D610	MA165	DIODE	
Q101, 102	2SJ164QTA	TRANSISTOR		D612	MA165	DIODE	
Q104	2SC3311AIRTA	TRANSISTOR		D615-618	MA165	DIODE	
Q105	2SJ164QTA	TRANSISTOR		D620	RVDMTZ10BTA	DIODE	Δ
Q201, 202	2SJ164QTA	TRANSISTOR		D701	SPR-305MKT	LED	
Q204	2SC3311AIRTA	TRANSISTOR		D703	RVDMTZ8R2BTA	DIODE	
Q205	2SJ164QTA	TRANSISTOR		D801	MA165	DIODE	
Q301, 302	2SC3311AR	TRANSISTOR		D803	MA4051-L	DIODE	
Q303	2SD1450RTA	TRANSISTOR		D901-904	RL154M11	DIODE	
Q304	UN421LTA	TRANSISTOR		D971	RVD1SS133TA	DIODE	
Q305, 306	2SC3311AR	TRANSISTOR		D1101, 1102	BU1236	LED	
Q307	2SC3311AIRTA	TRANSISTOR				IC PROTECTOR	
Q309, 310	UN4211	TRANSISTOR		IP601	UNH00300A	IC PROTECTOR	Δ
Q311	UN421FTA	TRANSISTOR				VARIABLE RESISTOR(S)	
Q312	UN4213	TRANSISTOR		VR301	RRN6B05B73TA	V. R, TAPE SPEED	
Q317	UN411FTA	TRANSISTOR				COMPONENT COMBINATION(S)	
Q402	2SD1450RTA	TRANSISTOR		Z1	RXABPWBGA	COMPONENT COMBINATION	
Q502	2SD1450RTA	TRANSISTOR		Z701	NJH32H367A	REMOTE SENSOR	
Q606	2SC3312RTA	TRANSISTOR		Z801	RSL5119-L	LCD	
Q607, 608	2SB1240RTV2	TRANSISTOR		Z802	RAT0014	BUZZER	
Q609	UN421FTA	TRANSISTOR				COIL(S)	
				L1	RL02B011-T	COIL	

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
L2	RL01B004-T	COIL		S811	EVQ21405R	SW, (+)	
L3	RLV6C012-0	COIL		S812	EVQ21405R	SW, MEMORY	
L4	ELEXT101KA9	COIL		S813	EVQ21405R	SW, TIMER	
L5	RLQZP8R2JT-Y	COIL		S814	EVQ21405R	SW, CHECK	
L8	ELEXT101KA9	COIL		S901	RJJ1SE01-H	SW, AC/DC (JK901)	△
L301	RL08C002M-T	COIL		S971	RSH1A892D-U	SW, MODE	
L302	RL1500050T-Y	COIL		S972	RSH1A90YD-U	SW, HALF	
L303	RLQZB470KT-D	COIL		S973	RSH1A90YD-U	SW, R. REC INH.	
L407	RL1500050T-Y	COIL		S974	RSH1A90YD-U	SW, F. REC INH.	
L507	RL1500050T-Y	COIL				CONNECTOR(S)	
L601	RLQB221JTA-Y	COIL		CP301	RJP5G18ZA	SOCKET (5P)	
L604-606	RL1500050T-Y	COIL		CP302	RJT028W010-2	CONNECTOR (10P)	
L608	RL1500050T-Y	COIL		CP303	RJT028W009-2	CONNECTOR (9P)	
L610	RL1500050T-Y	COIL		CP901	RJT029W003-1	CONNECTOR (3P)	
L611	RLQB470KTA-Y	COIL		CP902	RJT029W004	CONNECTOR (4P)	
L801-803	ELEXT2R2KA9	COIL		CS602	REX0631Y	CONNECTOR (4P)	
L901, 902	RL1500050T-Y	COIL	△	CS603	RJT060B04	CONNECTOR (4P)	
L1301	RLQB470KTA-Y	COIL		CS604	REX0632Y	CONNECTOR (6P)	
		TRANSFORMER (S)		CS605	RJS1A6836	SOCKET (36P)	
T1	RL12Z014-T	TRANSFORMER		CS701	RJS8T7ZA	SOCKET (8P)	
T901	RTP1U1B003-C	POWER TRANSFORMER	△	CS801	RJS1A6836	SOCKET (36P)	
		FILTER(S)		CS1101	RJP2G17ZA	SOCKET (2P)	
CF1, 2	RLFFETMLA02D	FM CERAMIC FILTER		CS1301	RJP4G17ZA	SOCKET (4P)	
CF3	RLFDFT12DD	FM DISCRIMINATOR		CS3021	RJU028W010	SOCKET (10P)	
		OSCILLATOR(S)		CS3022	RJU057W008	SOCKET (8P)	
X1	RSX2456KM01	OSCILLATOR (456KHz)		CS3023	RJT057W008-1	CONNECTOR (8P)	
X2	RSXC7M20S04T	OSCILLATOR (7. 2MHz)		CS3031	RJU028W009-1	SOCKET (9P)	
X801	RSX26M00M01T	OSCILLATOR (6MHz)		CS3032	RJU057W008	SOCKET (8P)	
X802	RSXD32K7S03	OSCILLATOR (32. 7KHz)		CS3033	RJT057W008-1	CONNECTOR (8P)	
		FUSE (S)		CS7021	RJS1A6723-Q	SOCKET (23P)	
F901	XBA2C20TB0	FUSE, 250V, T2A	△			VARIABLE CAPACITOR(S)	
		SWITCH(ES)		CT1	RCV10AF1T-S	TRIMMER CAPACITOR	
S701	EVQ21405R	SW, POWER		CT2	ECRLA030E53R	TRIMMER CAPACITOR	
S702	EVQ21405R	SW, OPEN				JACK(S)	
S703	EVQ21405R	SW, CLOSE		JK601	RJJD3M6ZB-C	MIX MIC	
S704	EVQ21405R	SW, STOP (TAPE)		JK602	RJJ37TK01-C	HEADPHONES	
S705	EVQ21405R	SW, PLAY/REV (TAPE)		JK901	RJJ1SE01-H	JACK, AC IN (S901)	△
S706	EVQ21405R	SW, FM/AM (RADIO)				FUSE HOLDER(S)	
S707	EVQ21405R	SW, PLAY/PAUSE (CD)		FH901, 902	SJT390	FUSE HOLDER	
S708	EVQ21405R	SW, STOP/CLEAR (CD)					
S709	EVQ21405R	SW, VOLUME (-)					
S710	EVQ21405R	SW, VOLUME (+)					
S711	EVQ21405R	SW, CD OPEN/CLOSE					
S801	EVQ21405R	SW, CD/PRESET TUNING					
S802	EVQ21405R	SW, CD/PRESET TUNING					
S803	EVQ21405R	SW, FF					
S804	EVQ21405R	SW, REW					
S805	EVQ21405R	SW, AUTO CD REC					
S806	EVQ21405R	SW, STOP/PAUSE					
S807	EVQ21405R	SW, PRESET EQ					
S809	EVQ21405R	SW, ADJUST					
S810	EVQ21405R	SW, (-)					

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

Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks
		RESISTORS	R102	ERDS2TJ153	1/4W 15K	R329	ERDS2TJ335T	1/4W 3.3M
			R103	ERDS2TJ560T	1/4W 56	R332	ERDS2TJ333	1/4W 33K
			R104	ERDS2TJ681	1/4W 680	R333	ERDS2TJ472	1/4W 4.7K
R1	ERDS2TJ104	1/4W 100K	R105	ERDS2TJ103	1/4W 10K	R340	ERDS2TJ472	1/4W 4.7K
R2	ERDS2TJ332	1/4W 3.3K	R106	ERDS2TJ272T	1/4W 2.7K	R401	ERDS2TJ104	1/4W 100K
R3	ERDS2TJ104	1/4W 100K	R107	ERDS2TJ334	1/4W 330K	R402	ERDS2TJ273	1/4W 27K
R5	ERDS2TJ103	1/4W 10K	R108	ERDS2TJ822	1/4W 8.2K	R403	ERDS2TJ272T	1/4W 2.7K
R6	ERDS2TJ152	1/4W 1.5K	R109	ERDS2TJ223	1/4W 22K	R404	ERDS2TJ333	1/4W 33K
R7	ERDS2TJ330	1/4W 33	R110	ERDS2TJ102	1/4W 1K	R405	ERDS2TJ123	1/4W 12K
R8	ERDS2TJ104	1/4W 100K	R111	ERDS2TJ272T	1/4W 2.7K	R407	ERDS2TJ222	1/4W 2.2K
R9	ERDS2TJ471	1/4W 470	R112	ERDS2TJ470	1/4W 47	R411	ERDS2TJ333	1/4W 33K
R10	ERDS2TJ102	1/4W 1K	R113	ERDS2TJ392T	1/4W 3.9K	R413	ERDS2TJ562	1/4W 5.6K
R11	ERDS2TJ103	1/4W 10K	R114	ERDS2TJ472	1/4W 4.7K	R414	ERDS2TJ472	1/4W 4.7K
R12	ERDS2TJ223	1/4W 22K	R201	ERDS2TJ474	1/4W 470K	R417	ERDS2TJ181T	1/4W 180
R13	ERDS2TJ153	1/4W 15K	R202	ERDS2TJ153	1/4W 15K	R418	ERDS2TJ472	1/4W 4.7K
R14	ERDS2TJ103	1/4W 10K	R203	ERDS2TJ560T	1/4W 56	R420	ERDS2TJ101	1/4W 100
R15	ERDS2TJ223	1/4W 22K	R204	ERDS2TJ681	1/4W 680	R501	ERDS2TJ104	1/4W 100K
R17	ERDS2TJ103	1/4W 10K	R205	ERDS2TJ103	1/4W 10K	R502	ERDS2TJ273	1/4W 27K
R18	ERDS2TJ223	1/4W 22K	R206	ERDS2TJ272T	1/4W 2.7K	R503	ERDS2TJ272T	1/4W 2.7K
R19	ERDS2TJ101	1/4W 100	R207	ERDS2TJ334	1/4W 330K	R504	ERDS2TJ333	1/4W 33K
R20	ERDS2TJ151	1/4W 150	R208	ERDS2TJ822	1/4W 8.2K	R505	ERDS2TJ123	1/4W 12K
R22	ERDS2TJ331	1/4W 330	R209	ERDS2TJ223	1/4W 22K	R507	ERDS2TJ222	1/4W 2.2K
R24	ERDS2TJ471	1/4W 470	R210	ERDS2TJ102	1/4W 1K	R511	ERDS2TJ333	1/4W 33K
R25	ERDS2TJ104	1/4W 100K	R211	ERDS2TJ272T	1/4W 2.7K	R513	ERDS2TJ562	1/4W 5.6K
R26, 27	ERDS2TJ102	1/4W 1K	R212	ERDS2TJ470	1/4W 47	R514	ERDS2TJ472	1/4W 4.7K
R28	ERDS2TJ334	1/4W 330K	R213	ERDS2TJ392T	1/4W 3.9K	R517	ERDS2TJ181T	1/4W 180
R29	ERDS2TJ331	1/4W 330	R214	ERDS2TJ472	1/4W 4.7K	R518	ERDS2TJ472	1/4W 4.7K
R30	ERDS2TJ822	1/4W 8.2K	R301	ERDS2TJ474	1/4W 470K	R520	ERDS2TJ101	1/4W 100
R31	ERDS2TJ472	1/4W 4.7K	R302	ERDS2TJ104	1/4W 100K	R603	ERDS2TJ104	1/4W 100K
R36, 37	ERDS2TJ223	1/4W 22K	R303	ERDS2TJ103	1/4W 10K	R606	ERDS2TJ472	1/4W 4.7K
R40	ERDS2TJ105T	1/4W 1M	R304-306	ERDS2TJ182	1/4W 1.8K	R607	ERDS2TJ333	1/4W 33K
R41	ERDS2TJ301T	1/4W 300	R309	ERDS2TJ123	1/4W 12K	R619	ERDS2TJ334	1/4W 330K
R42	ERDS2TJ103	1/4W 10K	R310	ERDS2TJ472	1/4W 4.7K	R620	ERDS2TJ102	1/4W 1K
R43, 44	ERDS2TJ222	1/4W 2.2K	R311	ERDS2TJ477T	1/4W 4.7	R621	ERDS2TJ180T	1/4W 18
R47	ERDS2TJ332	1/4W 3.3K	R312	ERDS2TJ103	1/4W 10K	R624, 625	ERDS2TJ273	1/4W 27K
R49	ERDS2TJ103	1/4W 10K	R313	ERDS2TJ472	1/4W 4.7K	R626	ERDS2TJ681	1/4W 680
R52	ERDS2TJ223	1/4W 22K	R314	ERDS2TJ682T	1/4W 6.8K	R627	ERDS2TJ102	1/4W 1K
R54	ERDS2TJ222	1/4W 2.2K	R315	ERDS2TJ472	1/4W 4.7K	R630	ERDS2TJ103	1/4W 10K
R55, 56	ERDS2TJ272T	1/4W 2.7K	R316	ERDS2TJ332	1/4W 3.3K	R632	ERDS2TJ103	1/4W 10K
R57	ERDS2TJ103	1/4W 10K	R317	ERDS2TJ472	1/4W 4.7K	R636, 637	ERDS2TJ151	1/4W 150
R59	ERDS2TJ471	1/4W 470	R318	ERDS2TJ563	1/4W 56K	R638	ERDS2EJ121	1/4W 120
R61	ERDS2TJ103	1/4W 10K	R319	ERDS2TJ472	1/4W 4.7K	R639	ERDS2TJ821	1/4W 820
R62	ERDS2TJ471	1/4W 470	R320	ERDS2TJ273	1/4W 27K	R640	ERDS2TJ151	1/4W 150
R63	ERDS2TJ105T	1/4W 1M	R321	ERDS2TJ333	1/4W 33K	R641	ERDS2TJ331	1/4W 330
R64	ERDS2TJ332	1/4W 3.3K	R322	ERDS2TJ182	1/4W 1.8K	R642	ERDS2TJ101	1/4W 100
R65	ERDS2TJ470	1/4W 47	R324	ERDS2TJ102	1/4W 1K	R643	ERDS2TJ561	1/4W 560
R66	ERDS2TJ332	1/4W 3.3K	R325	ERDS2TJ472	1/4W 4.7K	R645	ERDS2TJ273	1/4W 27K
R67	ERDS2TJ102	1/4W 1K	R327	ERDS2TJ102	1/4W 1K	R646	ERDS2TJ183T	1/4W 18K
R101	ERDS2TJ474	1/4W 470K	R328	ERDS2TJ101	1/4W 100	R647	ERDS2TJ332	1/4W 3.3K

Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks
R648	ERDS2TJ103	1/4W 10K	R840	ERDS2TJ104	1/4W 100K	C39, 40	ECBT1C103MS5	16V 0.01U
R649	ERDS2TJ1R5T	1/4W 1.5	R842	ERDS2TJ104	1/4W 100K	C44	ECEA1AU101	10V 100U
R651, 652	ERDS2TJ681	1/4W 680	R844	ERDS2TJ104	1/4W 100K	C47	ECFR1C223MR	16V 0.022U
R654	ERDS2TJ1R5T	1/4W 1.5	R845	ERDS2TJ272T	1/4W 2.7K	C48	ECEAJU101B	6.3V 100U
R656, 657	ERDS2TJ103	1/4W 10K	R846	ERDS2TJ392T	1/4W 3.9K	C51	ECEA1HKA010B	50V 1U
R658	ERDS2TJ472	1/4W 4.7K	R847	ERDS2TJ682T	1/4W 6.8K	C52	ECFR1C473MR	16V 0.047U
R659	ERDS2TJ103	1/4W 10K	R848	ERDS2TJ103	1/4W 10K	C58	ECBT1H8R2KC5	50V 8.2P
R660	ERDS2TJ472	1/4W 4.7K	R849	ERDS2TJ183T	1/4W 18K	C60	ECEA1AKA220B	10V 22U
R663	ERDS2TJ820	1/4W 82	R850	ERDS2TJ563	1/4W 56K	C61	ECBT1C332MR5	16V 3300P
R665	ERDS2TJ472	1/4W 4.7K	R851	ERDS2TJ222	1/4W 2.2K	C62	RCBS1H102KBY	50V 1000P
R667	ERDS2TJ122	1/4W 1.2K	R852	ERDS2TJ182	1/4W 1.8K	C63	ECBA1H681KB5	50V 680P
R669	ERDS2TJ472	1/4W 4.7K	R853	ERDS2TJ122	1/4W 1.2K	C64	ECFR1C473MR	16V 0.047U
R670	ERDS2TJ473	1/4W 47K	R854, 855	ERDS2TJ102	1/4W 1K	C65	ECBT1H470J5	50V 47P
R676, 677	ERDS2TJ103	1/4W 10K	R860	ERDS2TJ472	1/4W 4.7K	C66	ECBT1H100JC5	50V 10P
R681	ERDS2TJ103	1/4W 10K	R861, 862	ERDS2TJ103	1/4W 10K	C67	ECFR1C223MR	16V 0.022U
R682-684	ERDS2TJ102	1/4W 1K	R863	ERDS2TJ104	1/4W 100K	C68	ECEA1HKA010B	50V 1U
R685	ERDS2TJ1R5T	1/4W 1.5	R864, 865	ERDS2TJ102	1/4W 1K	C69, 70	ECFR1C183MR	16V 0.018U
R686	ERDS2TJ472	1/4W 4.7K	R867, 868	ERDS2TJ102	1/4W 1K	C71	ECEA1HKA2R2B	50V 2.2U
R688	ERDS2TJ682T	1/4W 6.8K	R869-872	ERDS2TJ104	1/4W 100K	C72	ECEA1HKA010B	50V 1U
R689	ERDS2TJ561	1/4W 560	R873-875	ERDS2TJ224T	1/4W 220K	C74	ECBT1H471KB5	50V 470P
R692	ERDS2TJ472	1/4W 4.7K	R876	ERDS2TJ470	1/4W 47	C75-77	ECEA1HKA010B	50V 1U
R694	ERDS2TJ472	1/4W 4.7K	R877	ERDS2TJ104	1/4W 100K	C80, 81	ECBT1H331KB5	50V 330P
R701, 702	ERDS2TJ102	1/4W 1K	R1101	ERDS2TJ271	1/4W 270	C82	ECBT1H150JC5	50V 15P
R703	ERDS2TJ122	1/4W 1.2K				C83	ECBT1H331KB5	50V 330P
R704	ERDS2TJ182	1/4W 1.8K			CAPACITORS	C84, 85	ECBT1C103MS5	16V 0.01U
R705	ERDS2TJ222	1/4W 2.2K				C86	ECBT1H331KB5	50V 330P
R706	ERDS2TJ272T	1/4W 2.7K	C4	RCBS1H102KBY	50V 1000P	C87	ECBT1C103MS5	16V 0.01U
R707	ERDS2TJ392T	1/4W 3.9K	C5	ECBT1H2R2KC5	50V 2.2P	C88	RCBS1H102KBY	50V 1000P
R708	ERDS2TJ682T	1/4W 6.8K	C6	RCBS1H102KBY	50V 1000P	C89	ECBT1H101KB5	50V 100P
R709	ERDS2TJ103	1/4W 10K	C9	ECEA1HKN010B	50V 1U	C90	ECBT0J223MS5	6.3V 0.022U
R710	ERDS2TJ183T	1/4W 18K	C10	ECBT1C332MR5	16V 3300P	C91	ECBT1C103MS5	16V 0.01U
R711	ERDS2TJ563	1/4W 56K	C11	ECEA1AKA101B	10V 100U	C92, 93	ECBT0J223MS5	6.3V 0.022U
R801, 802	ERDS2TJ332	1/4W 3.3K	C12	ECFR1C473MR	16V 0.047U	C101	ECBT1H101KB5	50V 100P
R803	ERDS2TJ333	1/4W 33K	C13	ECFR1C103MR	16V 0.01U	C102	ECBT1C152KR5	16V 1500P
R804, 805	ERDS2TJ823T	1/4W 82K	C14	ECBT1C103MS5	16V 0.01U	C103	ECEAJU330	6.3V 33U
R806	ERDS2TJ104	1/4W 100K	C15	ECBT1H6R8KC5	50V 6.8P	C104	ECBT1H331KB5	50V 330P
R808	ERDS2TJ105T	1/4W 1M	C16, 17	RCBS1H102KBY	50V 1000P	C105	ECFR1C153KR	16V 0.015U
R809	ERDS2TJ106T	1/4W 10M	C18	ECBT1H200JC5	50V 20P	C106	ECEA1EKA4R7B	25V 4.7U
R810	ERDS2TJ224T	1/4W 220K	C19	ECBT1H220JC5	50V 22P	C107	ECEA1HKA010B	50V 1U
R811-813	ERDS2TJ471	1/4W 470	C20	RCBS1H102KBY	50V 1000P	C108	ECEAJU470B	6.3V 47U
R814	ERDS2TJ104	1/4W 100K	C21	ECEA1AKA101B	10V 100U	C109, 110	ECBT1H221KB5	50V 220P
R816	ERDS2TJ470	1/4W 47	C22-24	RCBS1H102KBY	50V 1000P	C111	ECEA1EKA4R7B	25V 4.7U
R817, 818	ERDS2TG103T	1/4W 10K	C25	ECBT1H150JC5	50V 15P	C112	ECBT1H821KB5	50V 820P
R820	ERDS2TJ183T	1/4W 18K	C26	ECBT1H6R8KC5	50V 6.8P	C113, 114	ECBT1H102KB5	50V 1000P
R821	ERDS2TJ823T	1/4W 82K	C27	ECBT1H4R7KC5	50V 4.7P	C115	ECBT1H101KB5	50V 100P
R822	ERDS2TJ472	1/4W 4.7K	C28, 29	RCBS1H102KBY	50V 1000P	C201	ECBT1H101KB5	50V 100P
R823	ERDS2TJ124T	1/4W 120K	C31	RCBS1H102KBY	50V 1000P	C202	ECBT1C152KR5	16V 1500P
R826	ERDS2TJ222	1/4W 2.2K	C32, 33	ECBT1H101KB5	50V 100P	C203	ECEAJU330	6.3V 33U
R827	ERDS2TJ104	1/4W 100K	C34	ECBT1H680J5	50V 68P	C204	ECBT1H331KB5	50V 330P
R830, 831	ERDS2TJ104	1/4W 100K	C35	ECBT1H1R5M5	50V 1.5P	C205	ECFR1C153KR	16V 0.015U
R832	ERDS2TJ103	1/4W 10K	C36, 37	RCBS1H102KBY	50V 1000P	C206	ECEA1EKA4R7B	25V 4.7U
R833-835	ERDS2TJ104	1/4W 100K	C38	ECBT1H331KB5	50V 330P	C207	ECEA1HKA010B	50V 1U

Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks			
C208	ECEA0JU470B	6. 3V 47U	C622	ECEA1HU470	50V 47U			
C209, 210	ECBT1H221KB5	50V 220P	C623	ECEA1EU101	25V 100U			
C211	ECEA1EKA4R7B	25V 4. 7U	C624	ECEA1CU100	16V 10U			
C212	ECBT1H821KB5	50V 820P	C626	ECEA1CU100	16V 10U			
C213, 214	ECBT1H102KB5	50V 1000P	C627	ECEA0JU221	6. 3V 220U			
C215	ECBT1H101KB5	50V 100P	C628	ECBT1H471KB5	50V 470P			
C301	ECEA1HN010	50V 1U	C630	ECEA1AU101	10V 100U			
C302, 303	ECBT1C103MS5	16V 0. 01U	C631	ECEA1CKA100B	16V 10U			
C304	ECQP2A821JZT	100V 820P	C634	ECEA1AU101	10V 100U			
C305	ECQP2A681JZT	100V 680P	C636	ECEA1HKA010B	50V 1U			
C306	ECQP2A562JZT	100V 5600P	C637	ECEA1CU100	16V 10U			
C307	ECEA1HKA010B	50V 1U	C639△	ECA1EM332E	25V 3300U			
C308	ECEA1AU101	10V 100U	C640	ECEA1CU101	16V 100U			
C309	ECQB1H223JF3	50V 0. 022U	C801, 802	RCBS1H102KBY	50V 1000P			
C310, 311	ECBT1H102KB5	50V 1000P	C803	ECBT1C103MS5	16V 0. 01U			
C312, 313	ECBT1C222MR5	16V 2200P	C804, 805	ECBT1H470J5	50V 47P			
C314	ECBT1C332MR5	16V 3300P	C806	ECBT1H270J5	50V 27P			
C315	ECEA1EU101	25V 100U	C807	ECBT1H220JC5	50V 22P			
C319	ECEA1AU221	10V 220U	C808	ECBT1H150JC5	50V 15P			
C320	ECEA1HKA3R3B	50V 3. 3U	C809	ECBT1H220JC5	50V 22P			
C321	ECEA0JKA220B	6. 3V 22U	C810	RCBS1H102KBY	50V 1000P			
C322	ECEA0JU101B	6. 3V 100U	C811	ECEA0JKS101B	6. 3V 100U			
C401, 402	ECEA1CU100	16V 10U	C812	RCBS1H102KBY	50V 1000P			
C403	ECFR1C683KR	16V 0. 068U	C813	ECBT1C103MS5	16V 0. 01U			
C404	ECFR1C473KR	16V 0. 047U	C814	ECBT1H561KB5	50V 560P			
C405	RCBS1H102KBY	50V 1000P	C815	ECBT1C103MS5	16V 0. 01U			
C406	ECEA1EKA4R7B	25V 4. 7U	C816-818	ECBT1H561KB5	50V 560P			
C407	ECEA1HKA010B	50V 1U	C820	ECEA1EKA4R7B	25V 4. 7U			
C408	ECBT1H221KB5	50V 220P	C821	ECEA0JKA470B	6. 3V 47U			
C409	RCBS1H102KBY	50V 1000P	C824	ECBT1C103MS5	16V 0. 01U			
C411	ECEA1AU102B	10V 1000U	C828	ECBT1H561KB5	50V 560P			
C443	RCBS1H102KBY	50V 1000P	C829	ECBT1H101KB5	50V 100P			
C501, 502	ECEA1CU100	16V 10U	C832	ECBT1H101KB5	50V 100P			
C503	ECFR1C683KR	16V 0. 068U	C901-904	ECKW1H103ZF5	50V 0. 01U			
C504	ECFR1C473KR	16V 0. 047U	C905	ECQV1H124JZ	50V 0. 1U			
C505	RCBS1H102KBY	50V 1000P	C971	ECBT1H101KB5	50V 100P			
C506	ECEA1EKA4R7B	25V 4. 7U	C1301	ECEA1CU100	16V 10U			
C507	ECEA1HKA010B	50V 1U						
C508	ECBT1H221KB5	50V 220P						
C509	RCBS1H102KBY	50V 1000P						
C511	ECEA1AU102B	10V 1000U						
C543	RCBS1H102KBY	50V 1000P						
C602	ECBT1H470J5	50V 47P						
C603	ECBT1H221KB5	50V 220P						
C604	ECBT1H471KB5	50V 470P						
C608	ECEA0JKA330B	6. 3V 33U						
C613	ECEA1HKA010B	50V 1U						
C614	ECBT1H101KB5	50V 100P						
C615	ECEA1HKA010B	50V 1U						
C619	ECEA1CU101	16V 100U						
C620	ECEA0JU221	6. 3V 220U						
C621	ECEA1EU470	25V 47U						

● CD Circuit

Ref. No.	Part No.	Part Name & Description	Remarks				
		INTEGRATED CIRCUIT(S)					
IC701	AN8802SCE1V	IC, SERVO AMP					
IC702	MN66271RA	IC, SERVO PROCESSOR					
IC703	AN8389SE1	IC, COIL/MOTOR DRIVE					
		TRANSISTOR(S)					
Q701	2SB709S	TRANSISTOR					
		OSCILLATOR(S)					
X701	RSXZ16M9M02T	OSCILLATOR(16.9344MHz)					
		SWITCH(ES)					
S701	RSM0006-P	SW, REST					
		CONNECTOR					
CN701	RJU035T016-1	CONNECTOR(16P)					
CN702	RJS1A6723-1Q	CONNECTOR(23P)					

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

Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks
		RESISTORS	R739	ERJ6GEYJ681V	1/10W 680	C708	ECUE1H472KBN	50V 4700P
			R741-743	ERJ6GEYJ562V	1/10W 5.6K	C709	ECUE1C473KBN	16V 0.047U
			R744	ERJ6GEYJ103V	1/10W 10K	C710	ECUE1H152KBN	50V 1500P
R701	ERJ6GEYJ100	1/10W 10	R745	ERJ6GEYJ155V	1/10W 1.5M	C711, 712	ECUW1E104ZFN	25V 0.1U
R702	ERJ6GEYJ471V	1/10W 470	R748	ERJ6GEYJ182V	1/10W 1.8K	C713	ECUV1C104MBM	16V 0.1U
R703	ERJ6GEYJ823	1/10W 82K	R749	ERJ8GEYJ103V	1/8W 10K	C714	ECEA0JKA101I	6.3V 100U
R704	ERJ6GEYJ102A	1/10W 1K			CHIP JUMPER	C715	ECEA0JKA470I	6.3V 47U
R705	ERJ6GEYJ103V	1/10W 10K				C716	ECUE1H561KBN	50V 560P
R706	ERJ6GEYJ102A	1/10W 1K				C717	ECUW1E104ZFN	25V 0.22U
R707	ERJ6GEYJ473V	1/10W 47K	RJ701-704	ERJ8GEYOR00A	1/8W 0.00	C718	ECUV1C224KBM	16V 0.22U
R708	ERJ6GEYJ104V	1/10W 100K	RJ707-709	ERJ8GEYOR00A	1/8W 0.00	C721, 722	ECUE1H270JCN	50V 27P
R709	ERJ6GEYJ683V	1/10W 68K	RJ714-717	ERJ8GEYOR00A	1/8W 0.00	C723	ECEA1AKA221I	10V 220U
R711	ERJ6GEYJ154V	1/10W 150K	RJ721	ERJ6GEYOR00A	1/10W 0.00	C724	ECUV1C104MBM	16V 0.1U
R712	ERJ6GEYJ221V	1/10W 220	RJ724-726	ERJ6GEYOR00A	1/10W 0.00	C725, 726	ECUE1H102KBN	50V 1000P
R714	ERJ6GEYOR00A	1/10W 0.00			TEST JUMPER	C727, 728	ECEA1HPK010I	50V 1U
R717-720	ERJ6GEYJ102A	1/10W 1K				C730	ECUW1E104ZFN	25V 0.1U
R721	ERJ6GEYJ101V	1/10W 100	TJ701, 702	EYF8CU		C731, 732	ECEA0JK221I	6.3V 220U
R722	ERJ6GEYJ563V	1/10W 56K			CAPACITORS	C733	ECUZ1E104MBN	25V 0.1U
R723	ERJ6GEYJ182V	1/10W 1.8K				C734	ECEA1AKA221I	10V 220U
R724	ERJ6GEYJ333V	1/10W 33K				C735-737	ECUW1E104ZFN	25V 0.1U
R725	ERJ6GEYJ472V	1/10W 4.7K				C738	ECUV1C154KBN	16V 0.15U
R726	ERJ6GEYJ473V	1/10W 47K	C701	ECEA0JKA220	6.3V 22U	C742	ECUV1E273KBN	25V 0.027U
R727	ERJ6GEYJ103V	1/10W 10K	C702	ECEA1HKA010I	50V 1U	C743	ECUW1E104ZFN	25V 0.1U
R728	ERJ6GEYJ392V	1/10W 3.9K	C703	ECEA0JKA101I	6.3V 100U	C744	ECUE1E822KBN	16V 8200P
R730	ERJ6GEYJ331V	1/10W 330	C704	ECUZ1E104MBN	25V 0.1U	C745	ECUE1C473MBN	50V 0.047U
R731	ERJ6GEYJ392V	1/10W 3.9K	C705	ECEA1HKA010I	50V 1U	C746	ECUE1H050DCN	50V 5P
R734-736	ERJ6GEYJ101V	1/10W 100	C706	ECUE1H101JCN	50V 100P	C747	ECUE1H222KBN	50V 2200P
R738	ERJ6GEYJ223V	1/10W 22K	C707	ECUV1E273KBN	25V 0.027U	C748	ECUV1H471KBM	50V 470P

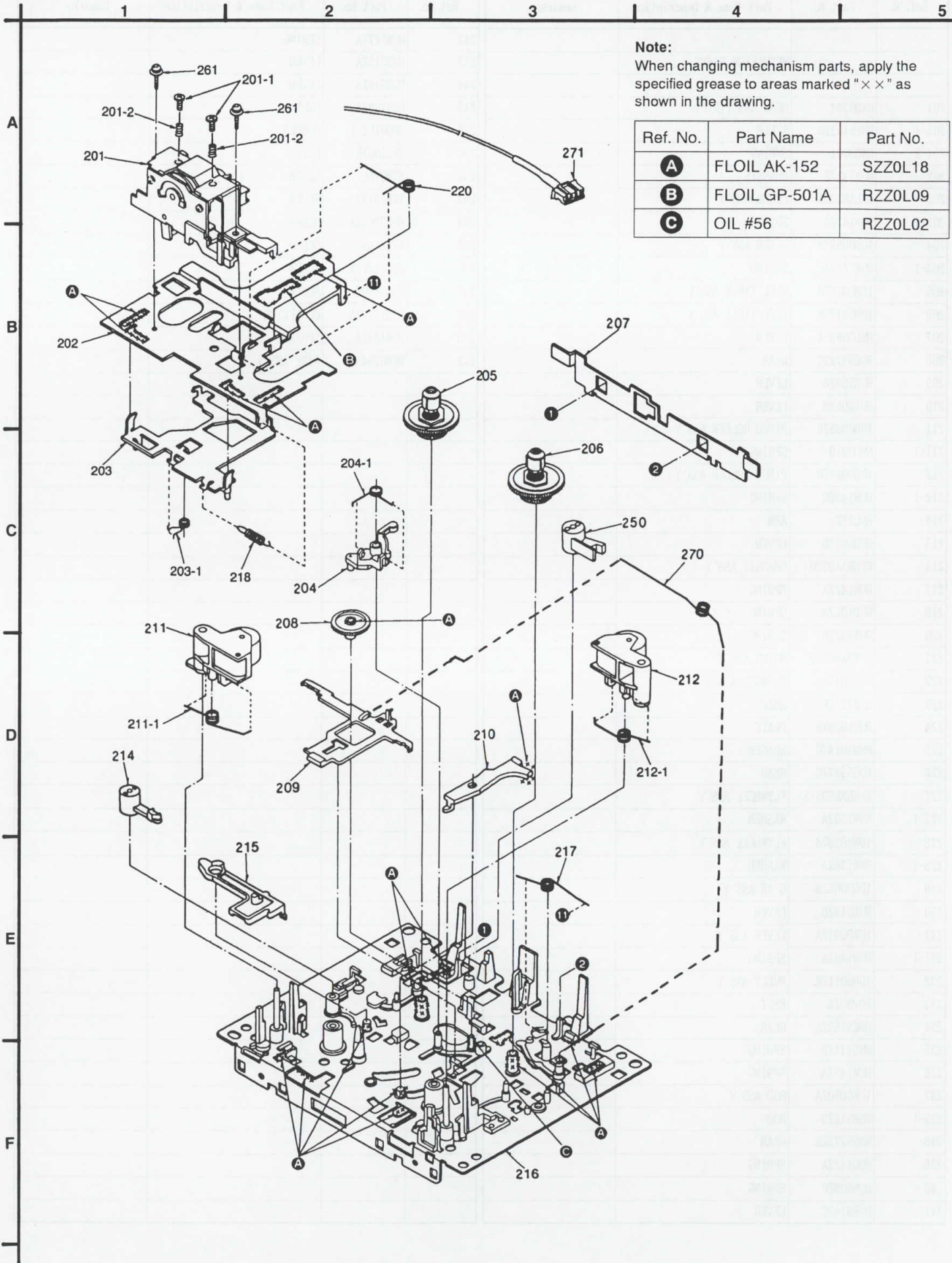
Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
		MECHANISM PARTS		242	RUW147ZA	SPRING	
				243	RUB515ZA	LEVER	
				244	RUB509ZA	LEVER	
201	RXQ0384	HEAD ASS'Y (R/P)		245	RDV108ZA	BELT	
201-1	RHE51522B	SCREW		249	RMG0102-1	RUBBER	
201-2	RMB0331	SPRING		250	RNL180ZB	LEVER	
202	RUA793ZF	CHASSIS		261	XTW2+6L	SCREW	
203	RZLAR300A	LEVER ASS'Y		263	XTN26+7J	SCREW	
203-1	RUW143ZA	SPRING		264	RHE5203ZA	SCREW	
204	IUB0089ZA	LEVER ASS'Y		265	XTW2+8S	SCREW	
204-1	RUW148ZA	SPRING		266	XYC2+JF16	SCREW	
205	1DM00182B	REEL TABLE ASS'Y		267	RHD26002	SCREW	
206	1DM00172B	REEL TABLE ASS'Y		268	RJS10T7ZA	CONNECTOR	
207	RML0069-1	LEVER		270	RUW144ZA	SPRING	
208	RDG57722C	GEAR		271	REX0294-1	WIRE ASS'Y	
209	RUB5082B	LEVER					
210	RUB5062B	LEVER					
211	IUB00882B	PINCH ROLLER ASS'Y					
211-1	RMB0310	SPRING					
212	IUB00872B	PINCH ROLLER ASS'Y					
212-1	RUW1402C	SPRING					
214	RNL12D	ARM					
215	RUB5032D	LEVER					
216	RFKRAA0320	CHASSIS ASS'Y					
217	RUW142ZA	SPRING					
218	RUD105ZA	SPRING					
220	RUW139ZA	SPRING					
221	RFKPAA0309	MOTOR ASS'Y					
222	IUE0015ZA	PLUNGER ASS'Y					
223	RUB428ZE	SHAFT					
224	RUL1030YB	PLATE					
225	RMD50142C	SPACER					
226	RDG59272G	GEAR					
227	RFKRXDS35-K	FLYWHEEL ASS'Y					
227-1	RNW139ZA	WASHER					
228	1DW00382B	FLYWHEEL ASS'Y					
228-1	RNW138ZA	WASHER					
229	1DG00062B	GEAR ASS'Y					
230	RUB5132D	LEVER					
231	IUB0091ZA	LEVER ASS'Y					
231-1	RUW146ZA	SPRING					
232	1DR00112B	PULLY ASS'Y					
233	RDV902B	BELT					
234	RDG5769ZA	GEAR					
235	RUQ1112B	SPRING					
236	RUW145ZA	SPRING					
237	IUB0090ZA	ROD ASS'Y					
237-1	RUB5122B	ROD					
238	RDG57732B	GEAR					
239	RUQ112ZA	SPRING					
240	RUS6092C	SPRING					
241	RUB5142C	LEVER					

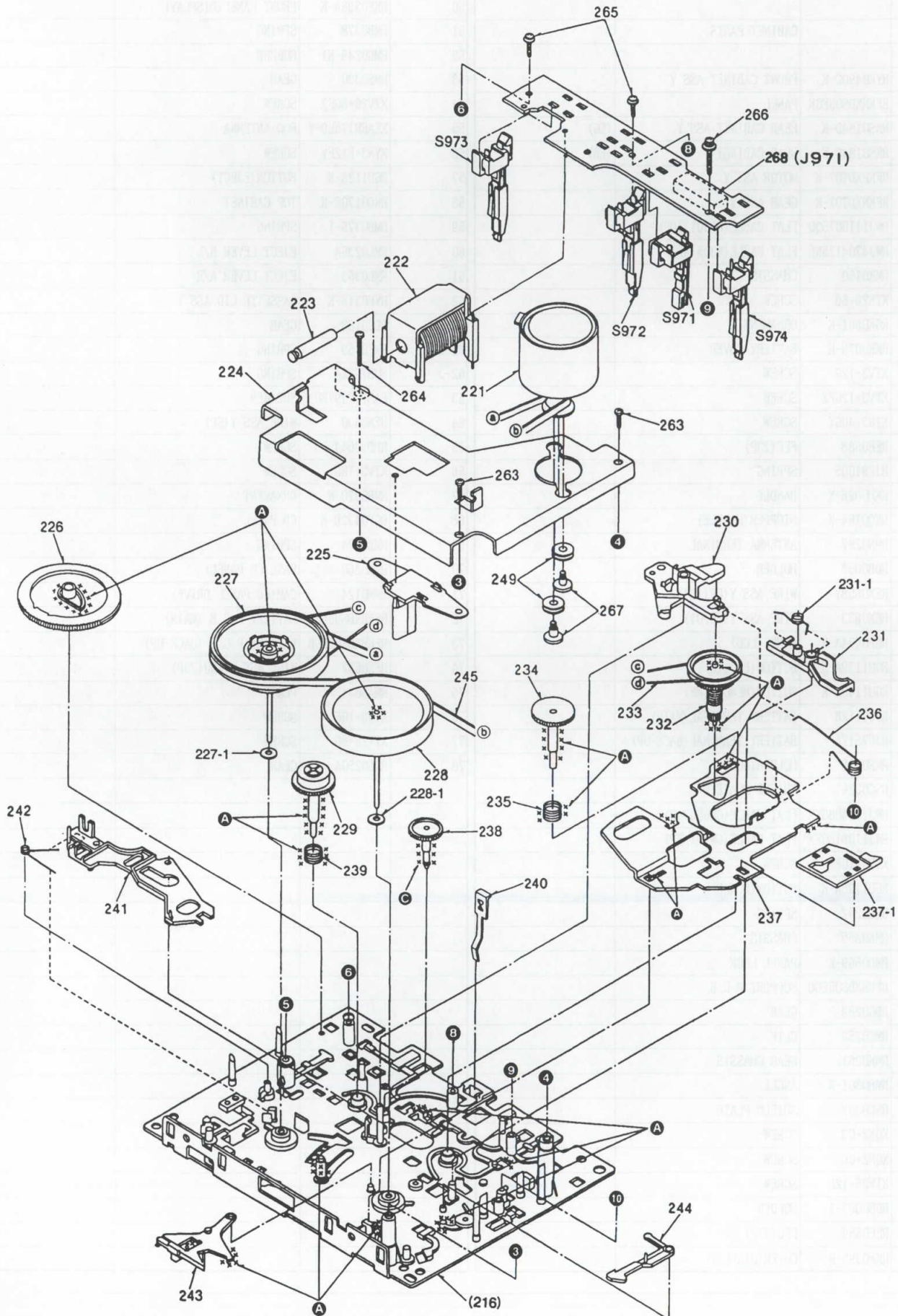
Mechanism Parts Location

Note:

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

Ref. No.	Part Name	Part No.
A	FLOIL AK-152	SZZ0L18
B	FLOIL GP-501A	RZZ0L09
C	OIL #56	RZZ0L02





Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET PARTS	
1	RYK0490C-K	FRONT CABINET ASS'Y	
1-1	RFKNXDS05EGK	PANEL	
2	RKS0184D-K	REAR CABINET ASS'Y	(EG)
2	RKS0184C-K	REAR CABINET	(EB)
3	RFKPXDT07-K	MOTOR ASS'Y	
4	RFKNXDT07-K	GEAR ASS'Y	
5	RWJ1110075QQ	FLAT CABLE (PW301/10P)	
6	RWJ4704125KR	FLAT CABLE (W305/4P)	
7	RMK0160	CHASSIS	
8	XTN26+6B	SCREW	
9	RGK0661-K	ORNAMENT	
10	RKK0073-K	BATTERY COVER	
11	XTV3+12G	SCREW	
12	XTV3+12GFZ	SCREW	
13	XTN3+40GY	SCREW	
14	REE0588	FFC (23P)	
15	RJC91005	SPRING	
16	RKH0026-K	HANDLE	
17	RKQ0164-K	STOPPER (HANDLE)	
18	RMN0297	ANTENNA TERMINAL	
19	RDB0057	HOLDER	
20	REX0658Y	WIRE ASS'Y (CW1101)	
22	REX0633	WIRE ASS'Y (CW701)	
23	RGP0434A-K	PANEL (LCD)	
24	RGU1139A-K	BUTTON (EQ etc)	
25	RGU1140A-K	BUTTON (MEMO/TIME)	
26	RJC5112B	BATTERY TERMINAL (MAIN)	
27	RJC7512A	BATTERY TERMINAL (BACK-UP)	
28	RMN0296	HOLDER (LCD)	
30	RSC0326	SHIELD PLATE 2	
31	RWJ1104080XX	FLAT CABLE (CW603/4P)	
32	RWJ1108180XX	FLAT CABLE (CW701/8P)	
33	XTV3+10F	SCREW	
34	RGU1138A-K	BUTTON (POWER)	
35	RMCO252	SPRING	
36	RMK0265	CHASSIS	
37	RMRO699-K	PANEL LOCK	
38	RFKBXDS05EGC	SUPPORT P. C. B.	
39	RDG0289	GEAR	
40	RMCO253	CLIP	
41	RMK0261	GEAR CHASSIS	
42	RMRO801-W	ANGLE	
43	RSC0387	SHIELD PLATE	
44	XQN2+C3	SCREW	
45	XQN2+C6	SCREW	
46	XTV26+12F	SCREW	
47	RDB0063-1	HOLDER	
48	REE0589	FFC (37P)	
49	RKF0395-K	COVER (DISPLAY)	

[illegible]

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

Ref. No.	Part No.
1	RFKXEM30L

Ref. No.	Part No.	Part Name & Description	Remarks
		PACKING MATERIALS	
P1	RPG2255	GIFT BOX	(EG)
P1	RPG2256	GIFT BOX	(EB)
P2	RPH0099	PROTECTION COVER	
P3	RPN0838	PAD ASS'Y	
		ACCESSORIES	
A1	RAK-RX402WH	REMOTE CONTROLLER	
A1-1	RKK0080-K	BATTERY COVER	
A2	RJA0019-2K	AC POWER CORD	(EG)
A2	VJA0733	AC POWER CORD	△ (EB) <VRD>
A3	RQT2897-G	INSTRUCTIONS MANUAL	(EG)
A3	RQT2896-B	INSTRUCTIONS MANUAL	(EB)
A4	RQT2898-E	INSTRUCTIONS MANUAL	(EG)

Ref. No.	Part No.	Part Name & Description	Remarks
		GREASE OR JIG/TOOL	
SA1	RFKZ0024	EXTENSION CABLE	
SA2	QZZCFM	TEST TAPE (AZIMUTH/FREQ. etc.)	
SA3	QZZCWAT	TEST TAPE (TAPE SPEED etc.)	
SA4	QZZCRA	BLANK TAPE (NORMAL POSITION)	
SA5	SZZP1054C	TEST DISC (PLAYABILITY)	
SA6	SZZP1056C	TEST DISC (UNEVEN)	
SA7	SZZP1101C	HEXAGONAL WRENCH	
SA8	RZZOL01	SCREW LOCKING BOND	
SA9	RFKXEM30L	GREASE (CD MECHANISM)	
SA10	SZZOL18	FLOIL	
SA11	RZZOL09	FLOIL	
SA12	RZZOL02	OIL	

Note: The reference number SA represent the grease and tool used for this unit.

A2

A3, A4

A1

Pad (C)

Pad (D)

Pad (A)

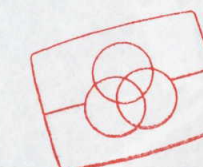
Pad (B)

P2

P1

P3: Pad (A), (B), (C), (D) ass'y

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