

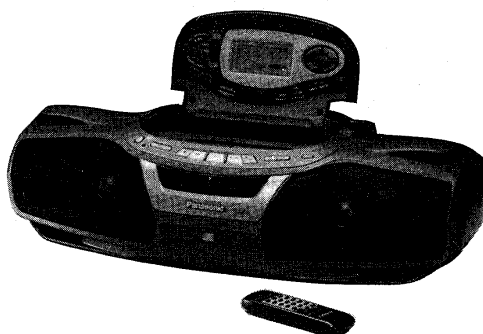
Service Manual

Portable Stereo CD System

Radio Cassette

RX-ED90

COMPACT
disc
 DIGITAL AUDIO

MASH*1
 multi-stage noise shaping


Colour

(K) : Black

Area

Suffix for Model No.	Area	Colour
(PP)	U.S.A. and Canada	(K)

Tape Deck: AR2 Mechanism Series

Traverse Deck: RAE0150Z Mechanism Series

■ Specifications

General:

Power Requirement

AC 120 V, 60 Hz
 Battery 15 V (Ten "D" size R20 / LR20 batteries)

Memory Back-up for Computer / Clock

6 V (Four "AA" size R6 / LR6 batteries)

Power Consumption

86 W (AC only)

Power Output

40 W (20 W × 2) (CPO max.)

Speakers

Woofer: 10 cm PM Dynamic speaker, 6 Ω
 Mid-range: 8 cm PM Dynamic speaker, 8 Ω
 Tweeter: 2 cm Ceramic speaker

Jacks

Output

PHONES: 32 Ω, Ø3.5

Input

LINE OUT: 316 mA, 4.7 kΩ, Ø3.5
 MIX MIC: 5 mV, 200 – 600 Ω, Ø3.5
 AUX: 316 mA, 47 kΩ, Ø3.5

Dimensions:

650 (W) × 187 (H) × 292 (D) mm
 (25⁹/₁₆" × 7¹/₂" × 11¹/₂")
 (Top panel closed)

Weight:

7.0 kg (15 lb 7 oz) 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 87.9 – 107.9 MHz (200 kHz steps)
 87.5 – 108.0 MHz (100 kHz steps)

AM

520 – 1710 kHz

Intermediate Frequency:

FM 10.7 MHz
 AM 450 kHz

Sensitivity:

FM 7 μV / 0.1 mW H.P. output
 (-3 dB Limit Sens.)
 AM 84 μV/m / 0.1 mW H.P. output (Max.)

Tape Recorder :

Track System:

4-track, 2-channel, stereo recording and playback
 Variable sound monitor

Monitor System:

Frequency Range:

Normal 30 – 16000 Hz
 CrO₂ 30 – 17000 Hz

Recording System:

AC bias, AC erase

Tape Speed:

4.8 cm/s (17⁸/₈ ips)

Notes:

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

*1MASH is a trademark of NTT.

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⚠ WARNING

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

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Safety Precautions (for U.S.A.)

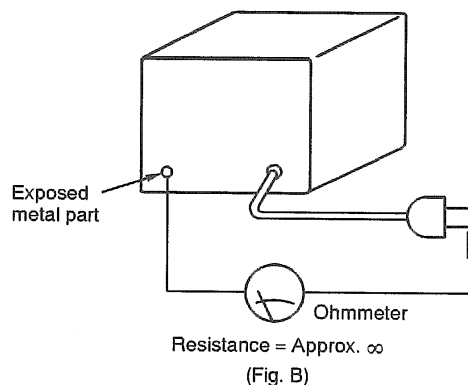
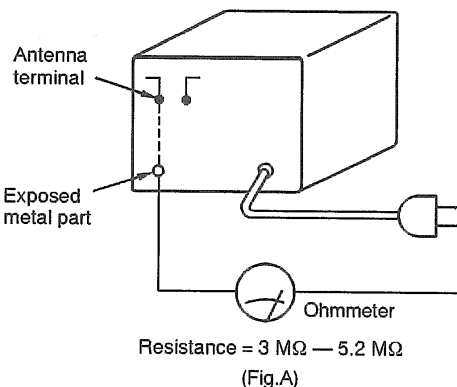
1. Before servicing, unplug the power cord to prevent an electric shock.
2. When replacing parts, use only manufacturer's recommended components for safety.
3. Check the condition of the power cord. Replace if wear or damage is evident.
4. After servicing, be sure to restore the lead dress, insulation barriers, insulation papers, shields, etc.
5. Before returning the serviced equipment to the customer, be sure to make the following insulation resistance test to prevent the customer from being exposed to a shock hazard.

INSULATION RESISTANCE TEST

1. Unplug the power cord and short the two prongs of the plug with a jumper wire.
2. Turn on the power switch.
3. Measure the resistance value with ohmmeter between the jumpered AC plug and each exposed metal cabinet part, such as screwheads antenna, control shafts, handle brackets, etc. Equipment with antenna terminals should read between 3 M Ω and 5.2 M Ω to all exposed parts. (Fig. A) Equipment without antenna terminals should read approximately infinity to all exposed parts. (Fig. B)

Note: Some exposed parts may be isolated from the chassis by design. These will read infinity.

4. If the measurement is outside the specified limits, there is a possibility of a shock hazard. The equipment should be repaired and rechecked before it is returned to the customer.



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

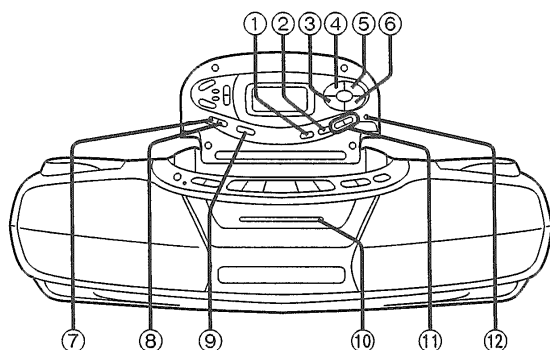
CAUTION: This product utilizes a laser diode with the unit turned "on", invisible laser radiation is emitted from the pick up lens.
Wave length: 780 nm
Maximum output radiation power from pick up: 100 μ W/VDE

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

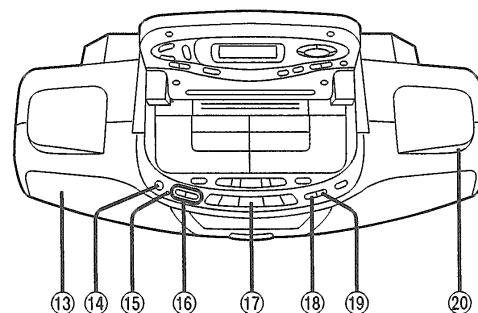
1. Do not disassemble the pick up unit, since radiation from exposed laser diode is dangerous.
2. Do not adjust the variable resistor on the pick up unit. It was already adjusted.
3. Do not look at the focus lens using optical instruments.
4. Recommend not to look at pick up lens for a long time.

■ Location of Controls

Basic/Tuner controls



No.	Name
①	Auxiliary input button (AUX)
②	Timer button (TIMER)
③	Memory button [MEMORY (TUNER/CD)]
④	Timer time adjust button (TIMER ADJUST)
⑤	Clock time adjust button (CLOCK ADJUST)
⑥	Tuning mode button (TUNE MODE)
⑦	Preset equalizer button (PRESET EQ)
⑧	S-XBS button (S-XBS)
⑨	Spatializer/Sound LED Demo button (SPATIALIZER/ DEMO)
⑩	Sound LEDs
⑪	Time set/Tuning buttons (CD/TUNE/TIME SET <=>/-, >=>/+)
⑫	Preset tuning indicator (PRESET TUNE)



No.	Name
⑬	Speakers (Woofer/Tweeter) (10 cm, 6 Ω/2 cm)
⑭	Power switch (POWER/BATT)
⑮	Power/battery check indicator (POWER/BATT)
⑯	Volume control buttons (VOLUME +, -)
⑰	Band select button (BAND)
⑱	Top panel close button (CLOSE)
⑲	Top panel open button (OPEN)
⑳	Shoulder-top speaker (8 cm, 8 Ω)

BATTERY SERVICE LIFE

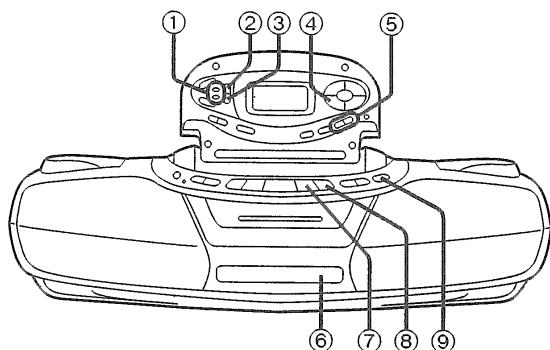
"D" size (R20/LR20) batteries

Approx. 3.7 hours of tape recording mode (EIAJ) with volume set at level 47

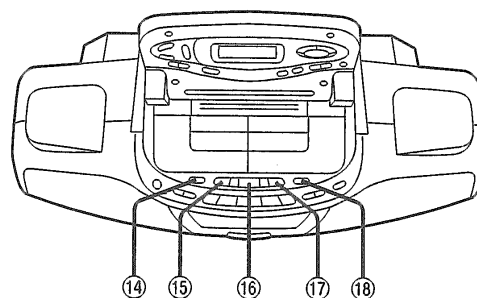
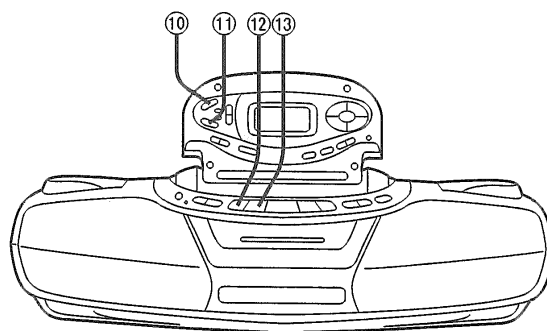
Approx. 1.6 hours of tape playback mode (EIAJ) with volume set at level 47

Approx. 1.4 hours of CD playback mode (EIAJ) with volume set at level 47

The above battery service life is measured according to the conditions set forth by EIAJ (Electronic Industries Association of Japan). As the battery service life varies with the method of operation and environmental conditions, use these values as reference.

CD controls

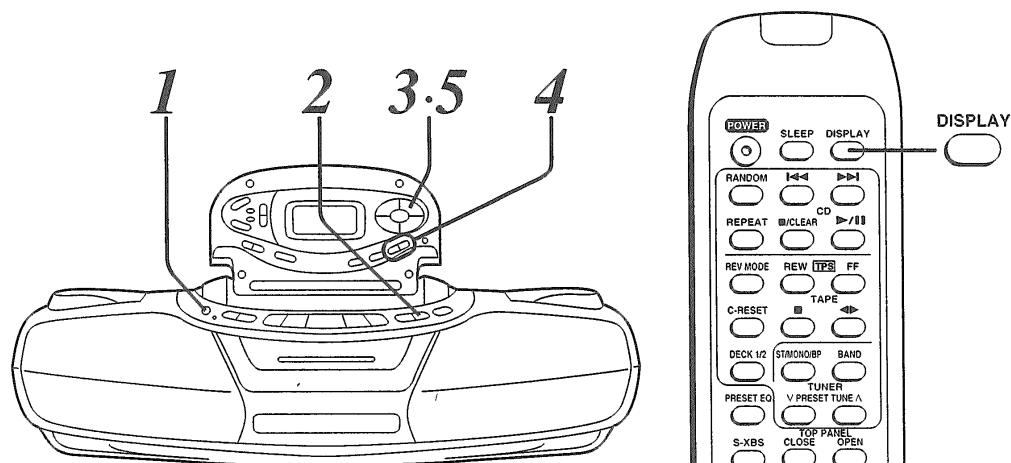
No.	Name
①	CD recording mode indicator (AUTO, 1 TRAC)
②	CD recording mode select button (CD REC MODE)
③	CD recording level select button (CD REC LEVEL)
④	Program button [MEMORY (TUNER/CD)]
⑤	Skip/Search buttons (CD/TUNE/TIME SET ◀◀/—, ▶▶/++)
⑥	CD tray
⑦	Play/pause button (▶/)
⑧	Stop/clear button (■/CLEAR)
⑨	CD tray open/close button (▲ CD OPEN/CLOSE)

Cassette deck controls

No.	Name
⑩	Rec/rec pause button (●/● REC/REC PAUSE)
⑪	Tape edit button (TAPE EDIT)
⑫	Tape stop button (■)
⑬	Tape play/direction button (◀ ▶)
⑭	Deck 1 tape eject button (DECK 1 ▲)
⑮	Rewind/TPS button (REW [TPS])
⑯	Deck select button (DECK 1/2)
⑰	Fast forward/TPS button (FF [TPS])
⑱	Deck 2 tape eject button (DECK 2 ▲)

■ Setting the Clock

The clock has a 12-hour display.



Example: Setting the clock to 4:20 P.M.:

1



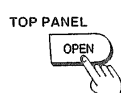
Press POWER.
(This turns the unit on.)

5



**While the time display is flashing;
Press CLOCK ADJUST.**
(The clock now starts operating, and the display returns to its original status.)

2



**Press TOP PANEL OPEN to
open top panel.**

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

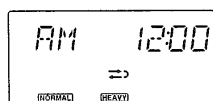


Press DISPLAY.

3



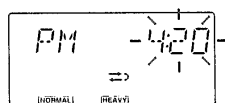
Press CLOCK ADJUST.



4



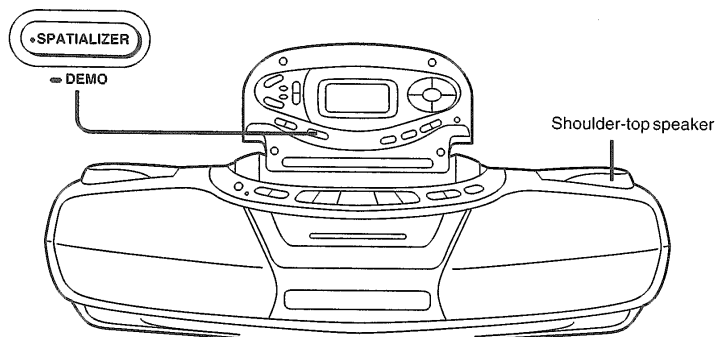
**Press >>>/+ or <<</- to
show desired time.**
The time display can be changed in one
minute units by tapping the buttons, and
quickly by holding down the buttons.



■ Using Sound-space Effects (SPATIALIZER)

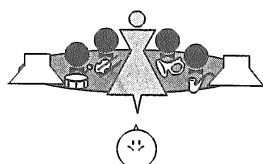
Using sound-space effects (SPATIALIZER)

With its shoulder-top speakers, this unit allows you to listen to music with a three-dimensional feel. Using the SPATIALIZER allows you to give the music an even greater depth and breadth. Compared to conventional surround sound, this system provides greater stability in the midrange (vocals and instruments). The SPATIALIZER sound can also be recorded on tape.



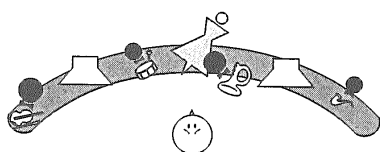
The SPATIALIZER effect

Normal stereo



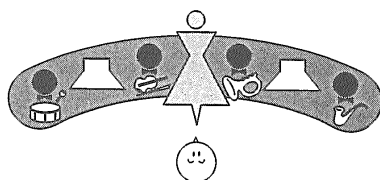
Conventional surround sound

Although the sound is broader, the sound positioning is not stable.

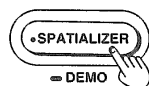


SPATIALIZER

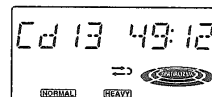
The sound has a broad feel, and the positions of the vocals, instruments, etc., are very stable.



SPATIALIZER playback and recording



Press •SPATIALIZER so that the  indicator lights, and then begin playback and recording.



Turning off the SPATIALIZER effect

Press •SPATIALIZER so that the  indicator turns off.

Notes

•Recording monaural audio

If the SPATIALIZER is turned on, the sound may be off balance to either the right or the left. Turn the SPATIALIZER off.

•Dubbing tapes

The SPATIALIZER effect cannot be turned on while dubbing tapes.

•Turning on the SPATIALIZER effect while playing back a tape that was already recorded with the SPATIALIZER effect

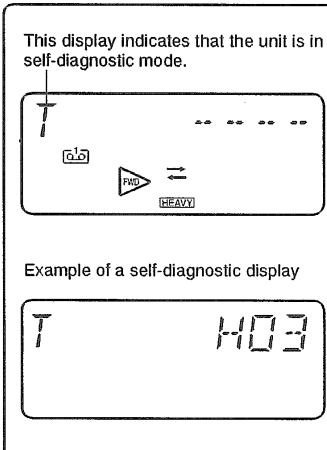
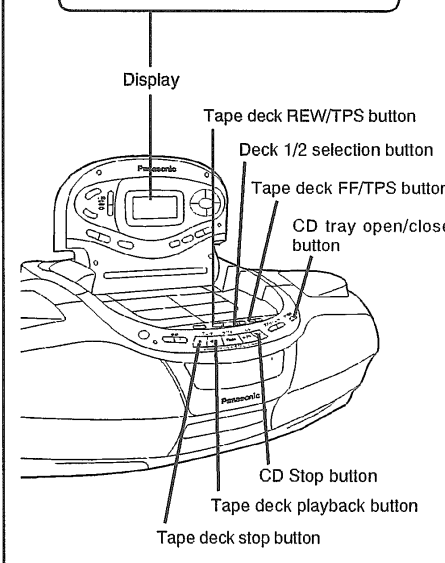
This will emphasize the effect. If the effect is too strong, turn it off.

•When listening through headphones

The SPATIALIZER effect will be less pronounced than when listening through speakers.

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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 "↔". (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  Labels in diagram: - Display - Tape deck REW/TPS button - Deck 1/2 selection button - Tape deck FF/TPS button - CD tray open/close button - CD Stop button - Tape deck playback button - Tape deck stop button

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

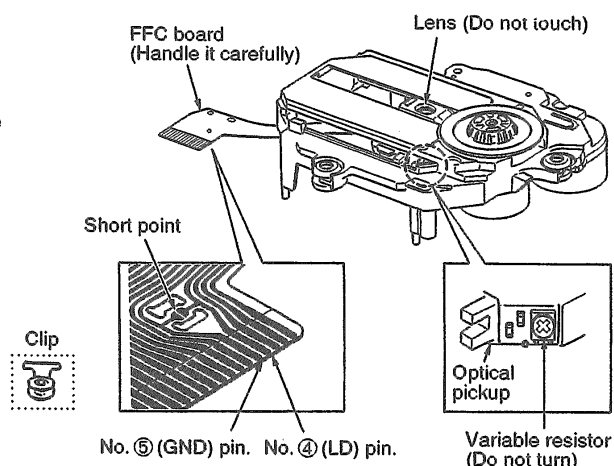
Display code	Symptom or condition	Cause and method of correction
* U01	When operating on batteries, power goes off immediately after being turned on.	The batteries are depleted. Replace with new batteries.
* U02	Power cannot be switched on.	Check the power cord (AC) or insert fresh batteries.
H01	Cassette 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 protect the laser diode against electrostatic breakdown, short the flexible board (FFC board) with a clip or similar object.
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.

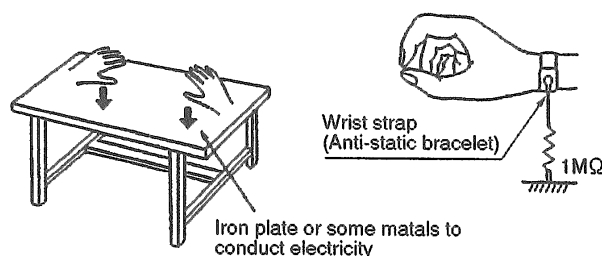


● Grounding for electrostatic breakdown prevention

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).



Caution when Replacing the Traverse Deck:

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

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

■ Operation Check and Main Component Replacement Procedures

NOTE

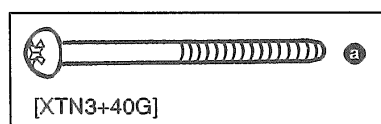
1. This section describes procedures for checking the operation of the major printed circuit boards and replacing the main components.
2. For reassembly after operation checks or replacement, reverse the respective procedures. Special reassembly procedures are described only when required.
3. Select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

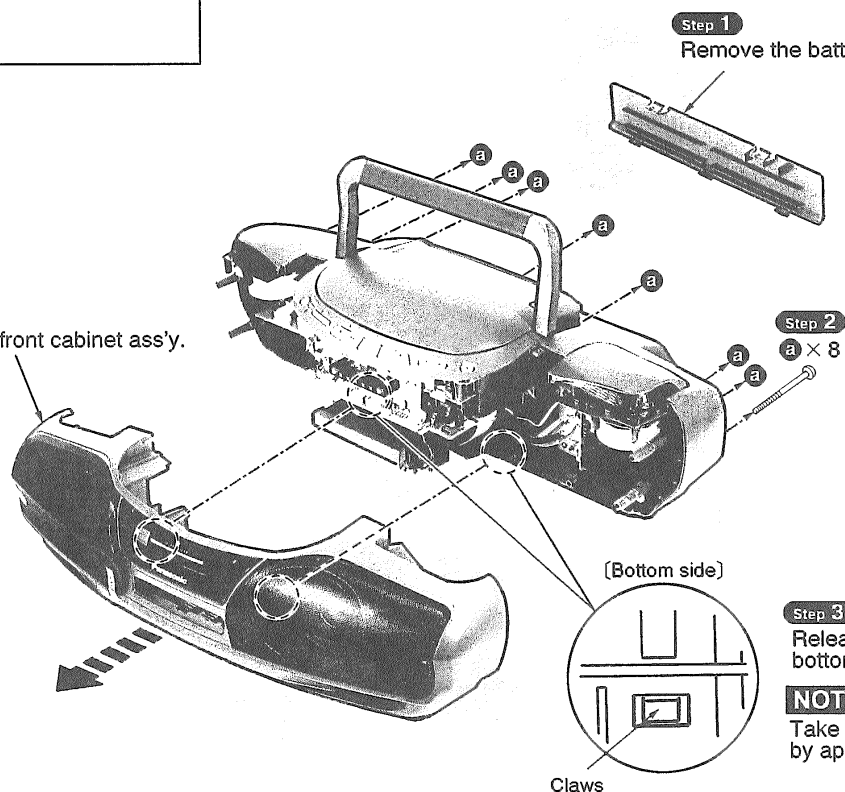
• Checking Procedure for each P.C.B.	Page.
1. Checking for the main P.C.B. and CD P.C.B..	9,10.
2. Checking for the tuner P.C.B..	11.
3. Checking for the LCD P.C.B..	11,12.
• Main Component Replacement Procedures	
1. Replacement for the handle.	13.
2. Replacement for the traverse deck.	13~16.
3. Replacement for the belt, loading motor and loading switch.	17.
4. Replacement for the power IC and regulator transistor.	17,18.
5. Replacement for the motor ass'y.	18,19.
6. Replacement for the pinch roller ass'y and head block.	19,20.
7. Replacement for the DC motor ass'y, capstan belt A, capstan belt B and fast forward belt.	20~23.
8. Replacement for the plunger ass'y and the parts mounted on mechanism P.C.B..	23,24.
• Measure for tape trouble	24.

■ 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.

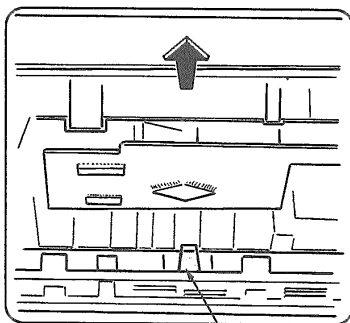
Step 2
a x 8

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.



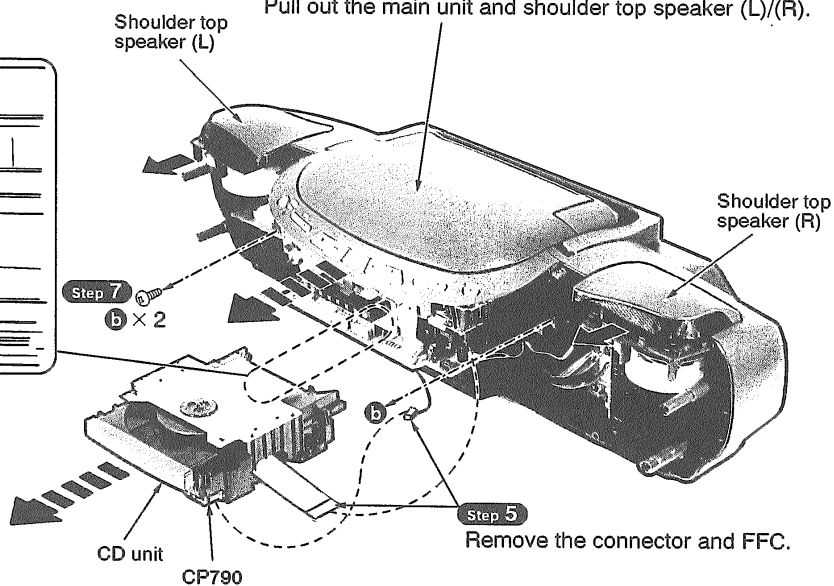
Claw



[XTV3+12G]

Step 8

Pull out the main unit and shoulder top speaker (L)/(R).



Step 7
b x 2

CD unit
CP790

Step 5

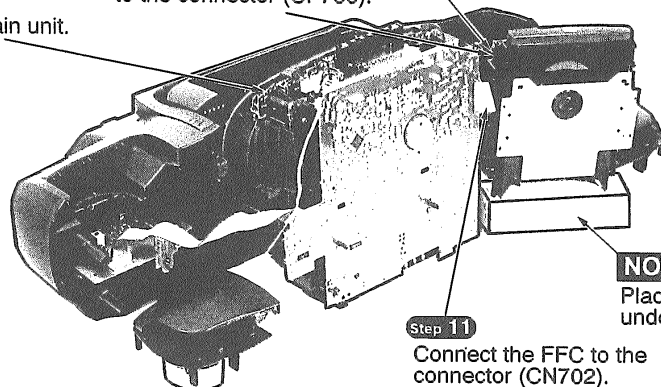
Remove the connector and FFC.

Step 10

Connect the cable (CW790) to the connector (CP790).

Step 9

Raise the main unit.



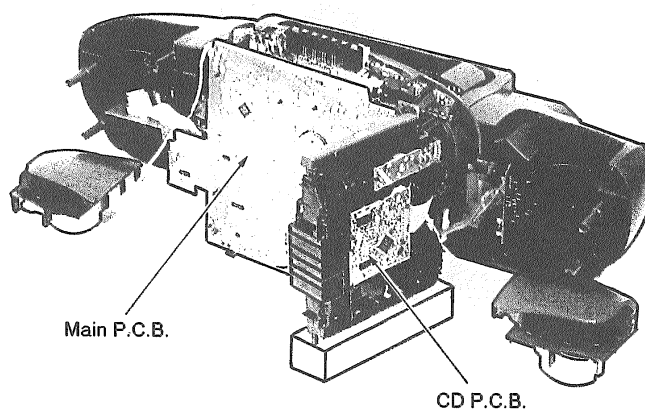
Step 11

Connect the FFC to the connector (CN702).

NOTE

Place the insulation material under the CD unit.

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



Main P.C.B.

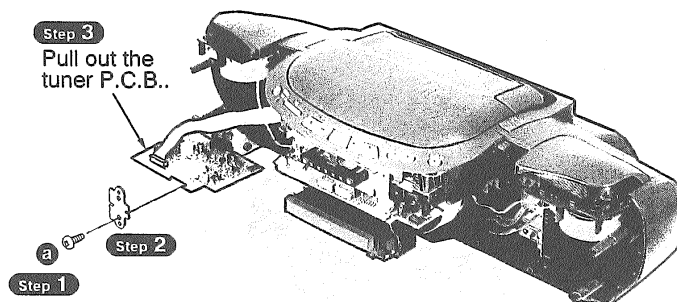
CD P.C.B.

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

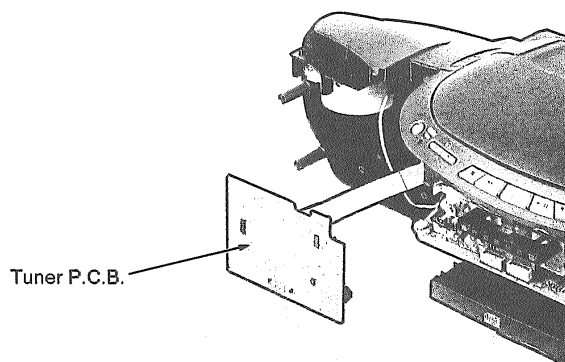


[XTV3+12G]

- Follow the item 1 (**Step 1** ~ **Step 4**) in checking procedures for each P.C.B. on page 9.



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



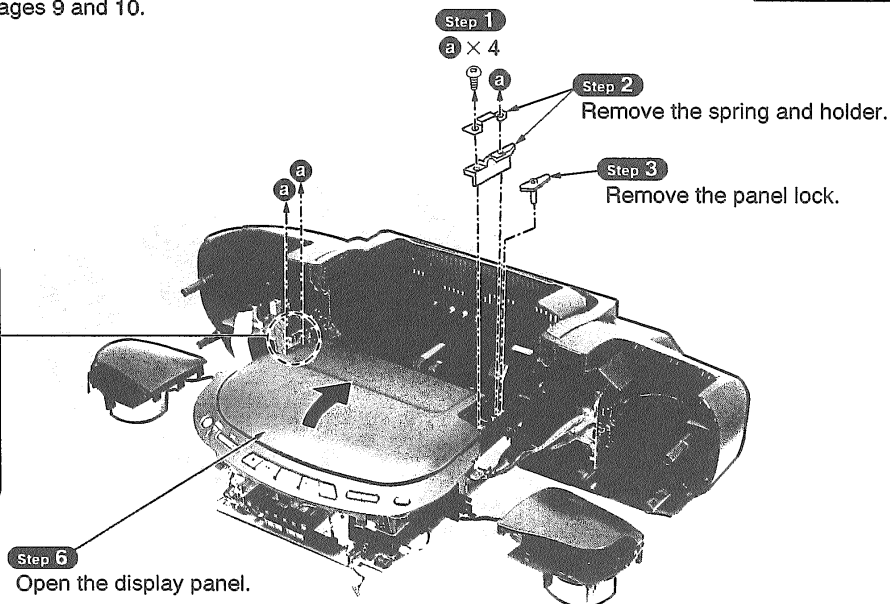
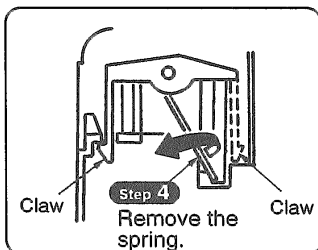
3. Checking for the LCD P.C.B.



[XTV26+8G]

- Follow the item 1 (**Step 1** ~ **Step 8**) in checking procedures for each P.C.B. on pages 9 and 10.

- Step 5**
Release the 2 claws.



Step 7 Remove the 4 rubbers.

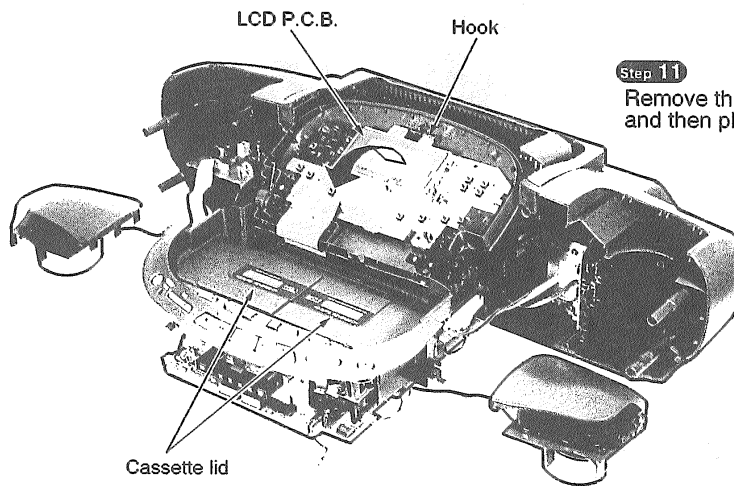
 (Black)

[XTN26+8GFZ]

Step 8
b × 4

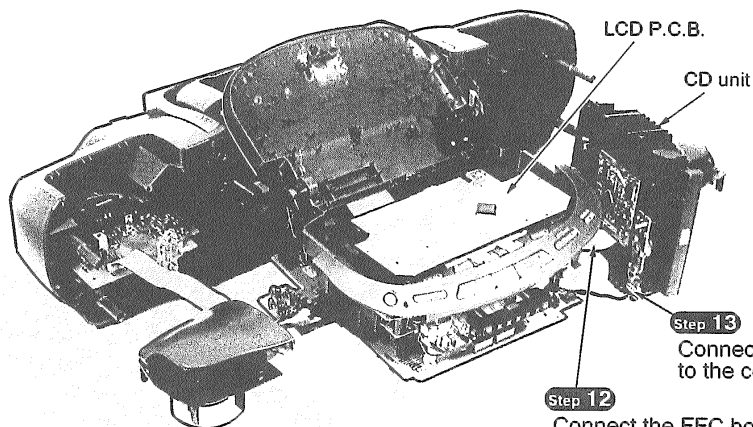
Step 10
Remove the front panel
(Display).

Step 9
Release the claw.



Step 11
Remove the LCD P.C.B from the hook,
and then place it on the cassette lid.

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

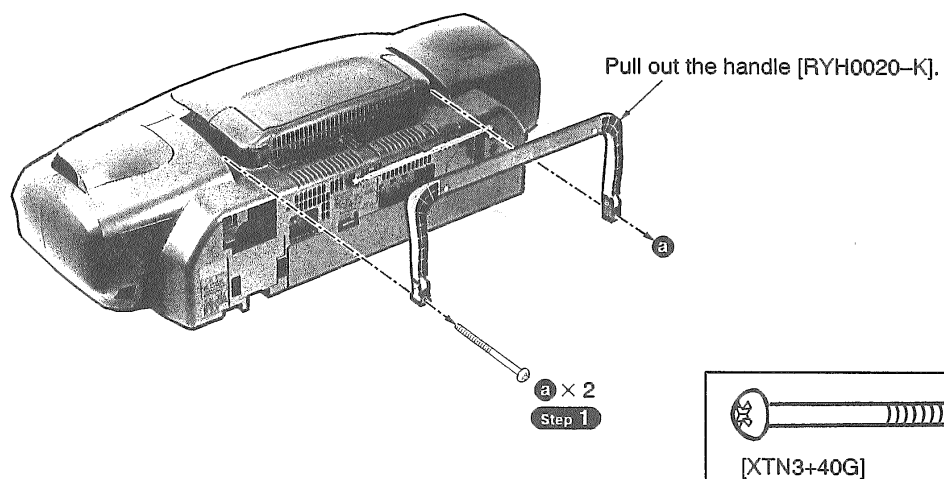


Step 12
Connect the FFC board
to the connector (CP702).

Step 13
Connect the cable (CW790)
to the connector (CP790).

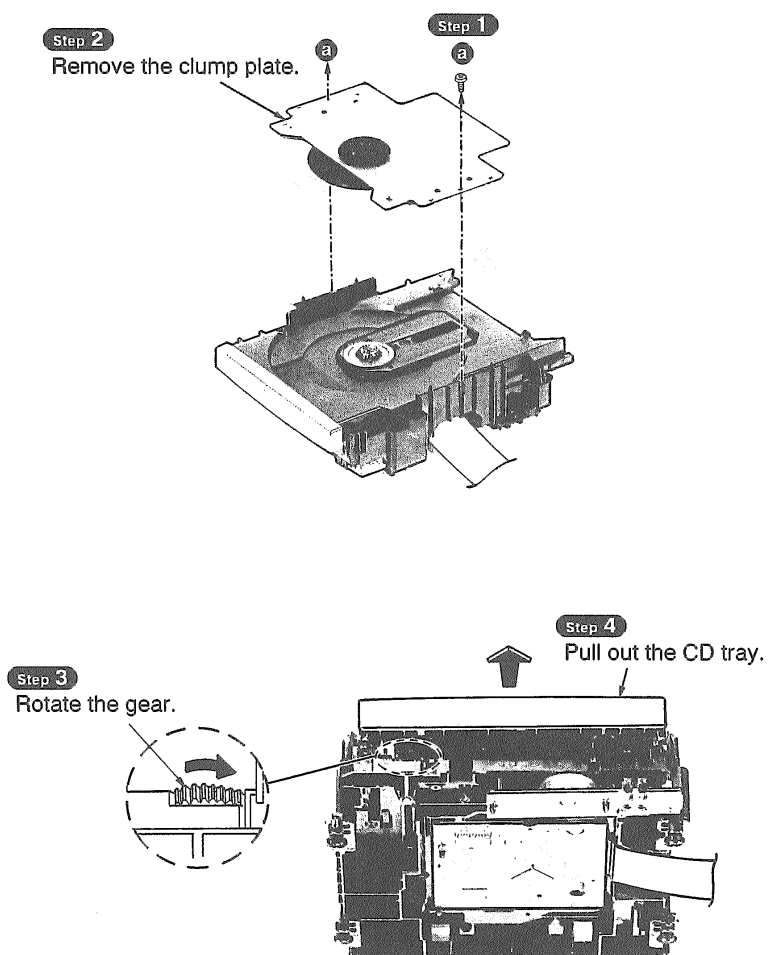
■ Main Component Replacement Procedures

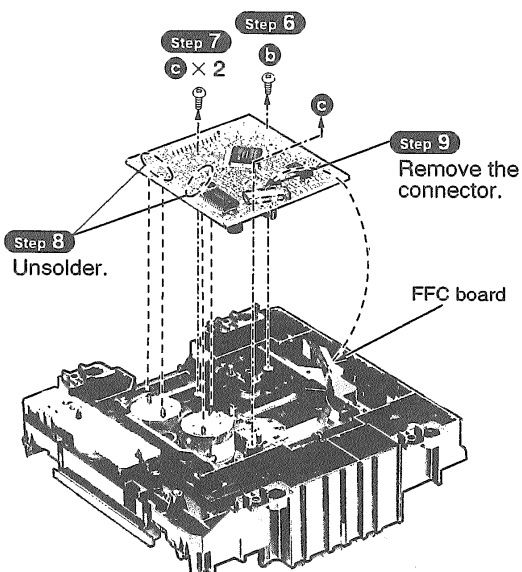
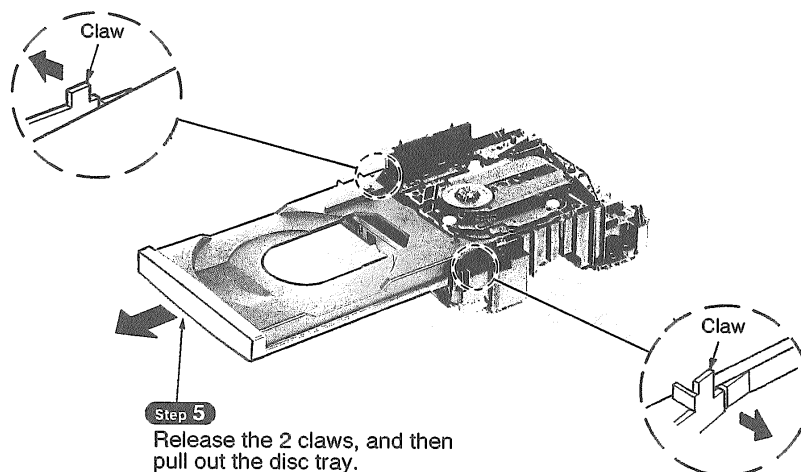
1. Replacement for the handle



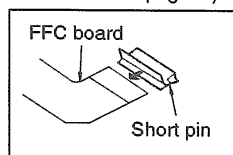
2. Replacement for the traverse deck

- Follow the item 1 (Step 1 ~ Step 6) in checking procedures for each P.C.B. on pages 9 and 10.



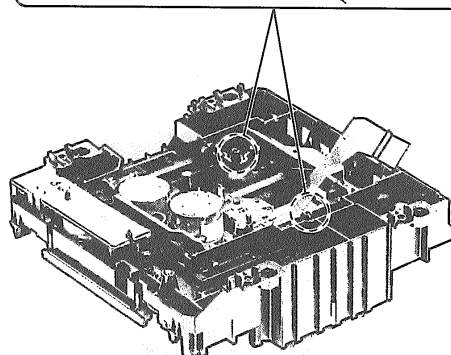
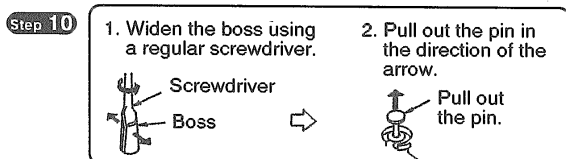
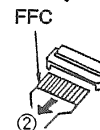
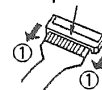


Caution:
Insert a short pin into the traverse unit FFC board.
(Refer to "Handling Precautions for Traverse Deck" on page 8.)



※ 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.

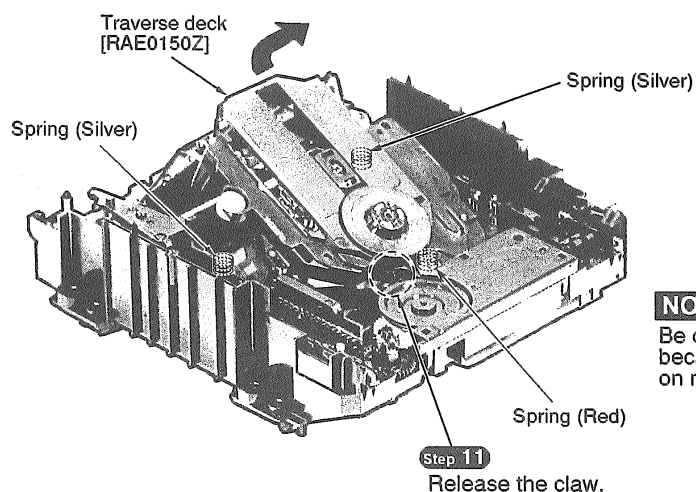
Top of connector



[XTV2+6G]



[XTV2+6G]

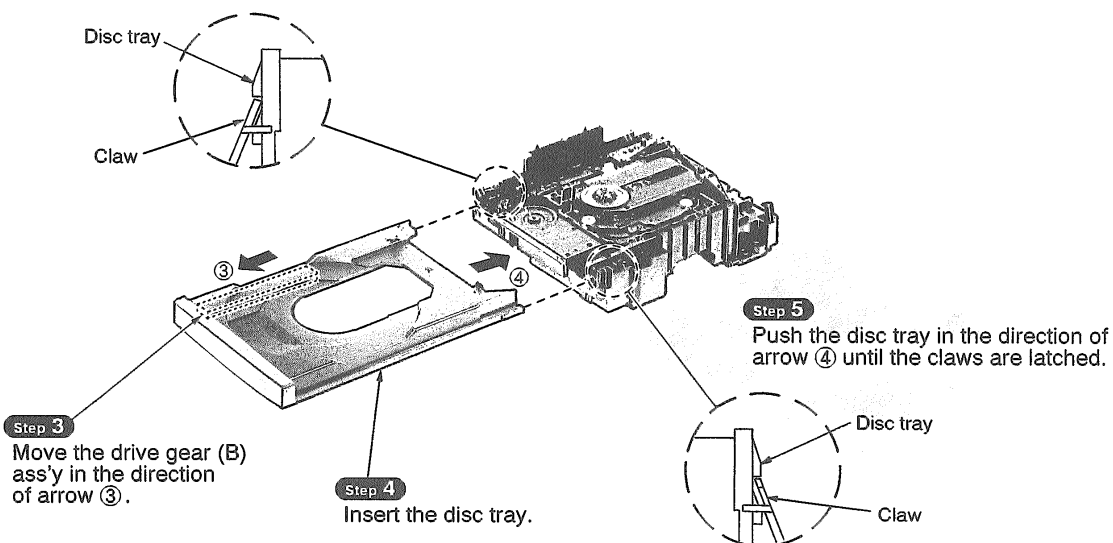
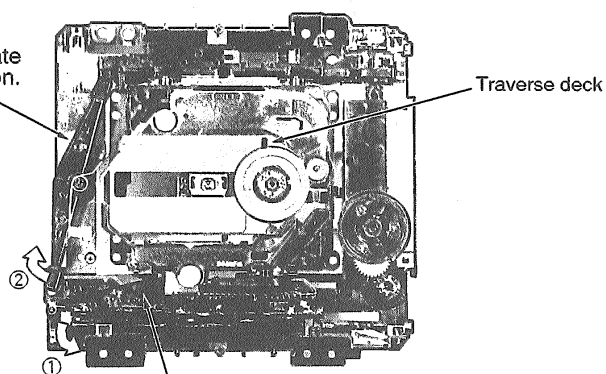
**NOTE**

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

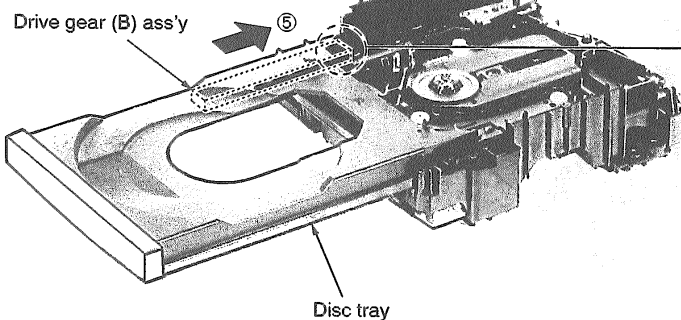
Step 2

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

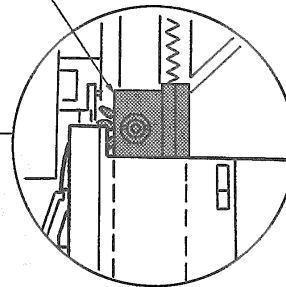


Step 6

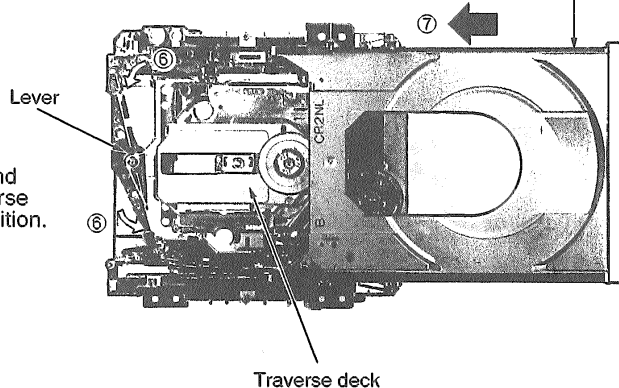
Hold the disc tray and slide the drive gear (B) ass'y.



Drive gear (B) ass'y

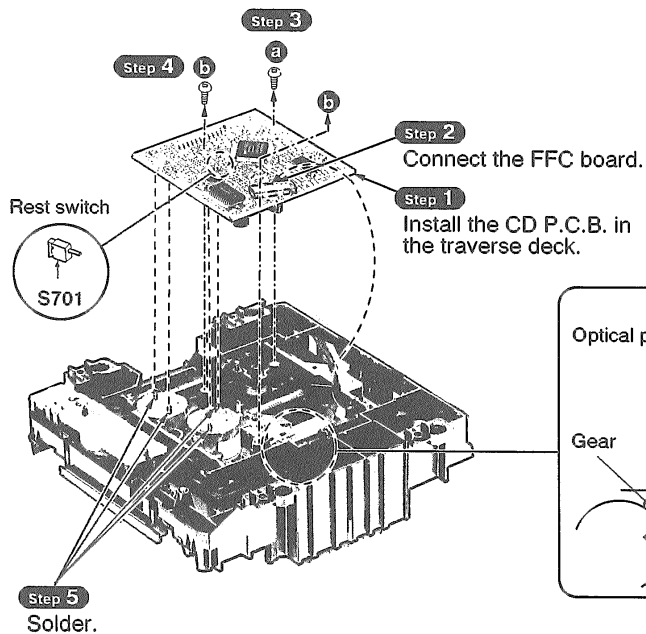
**Step 8**

Press the disc tray.

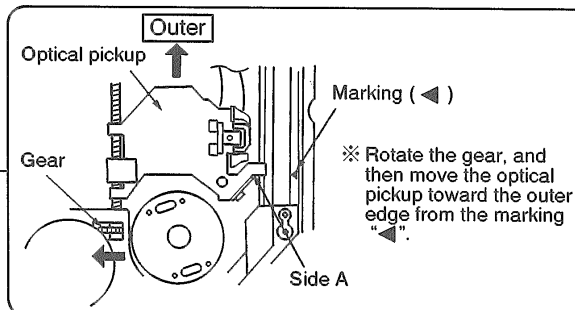
**Step 7**

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

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

**NOTE**

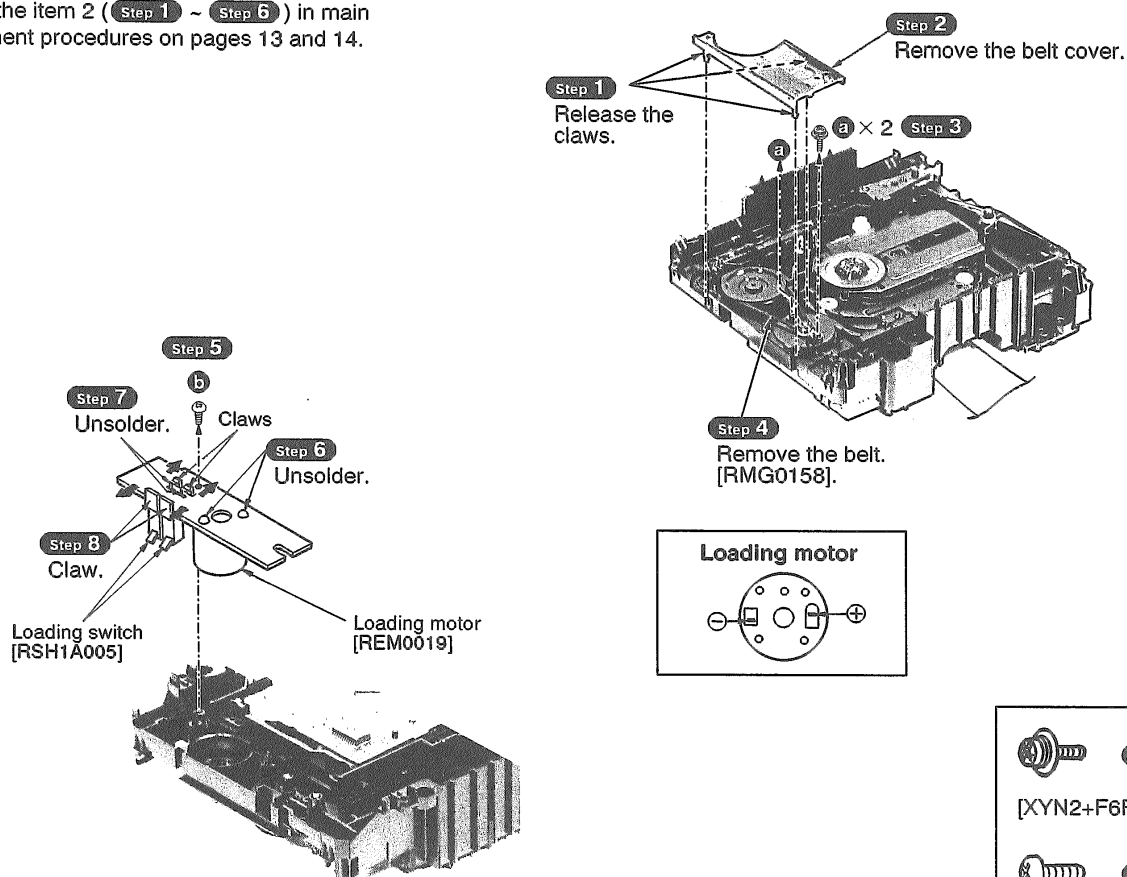
Before installing the CD P.C.B., move the optical pickup toward the outer edge from the mark "▼". [Otherwise, the rest detect switch (S701) mounted on the CD P.C.B. may be damaged.]



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

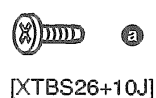
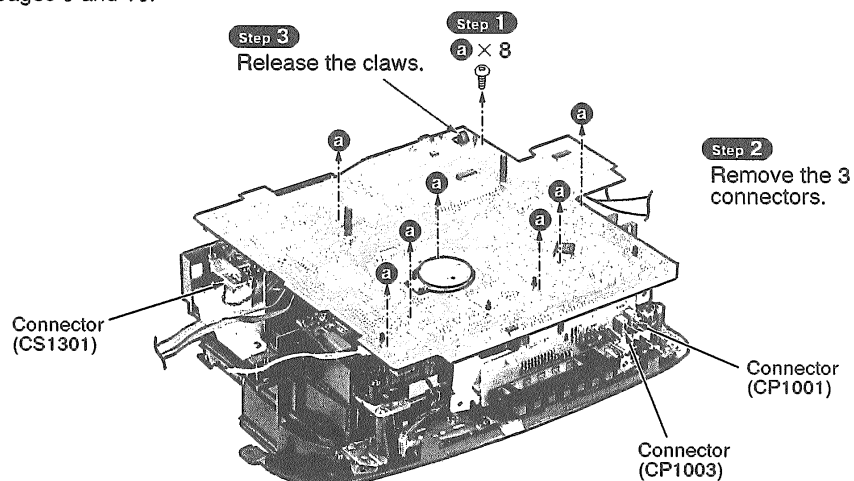
3. Replacement for the belt, loading motor and loading switch

- Follow the item 1 (Step 1 ~ Step 6) in checking procedures for each P.C.B. on pages 9 and 10.
- Follow the item 2 (Step 1 ~ Step 6) in main component procedures on pages 13 and 14.



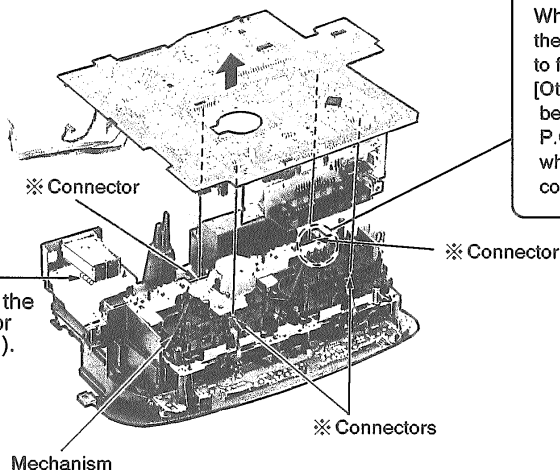
4. Replacement for the power IC and regulator transistor

- Follow the item 1 (Step 1 ~ Step 8) in checking procedures for each P.C.B. on pages 9 and 10.



Step 5

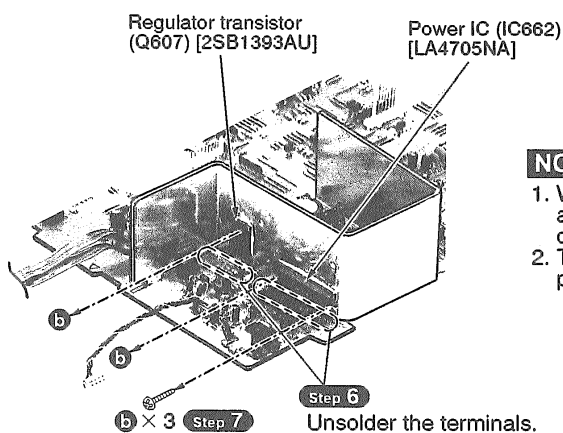
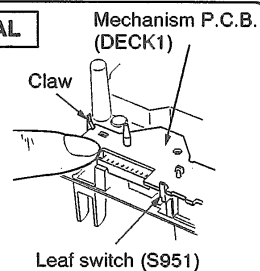
Lift the main P.C.B. in the direction of arrow.
 (※ Be careful to remove the main P.C.B. because the mechanism is connected to 4 connectors.)

**Step 4**

Remove the connector (CS1301).

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.]

**NOTE**

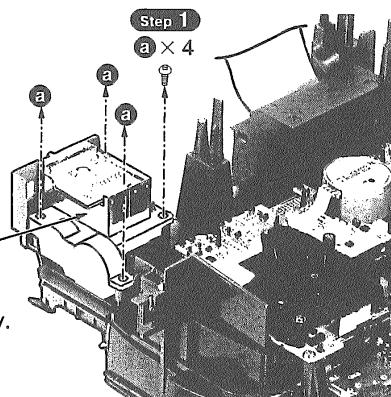
1. When mounting the power IC or regulator transistor, apply silicone compound (RFKX0002) to the rear side of power IC or regulator transistors.
2. Tighten enough the screws (b) after replacing the power IC and regulator transistor.

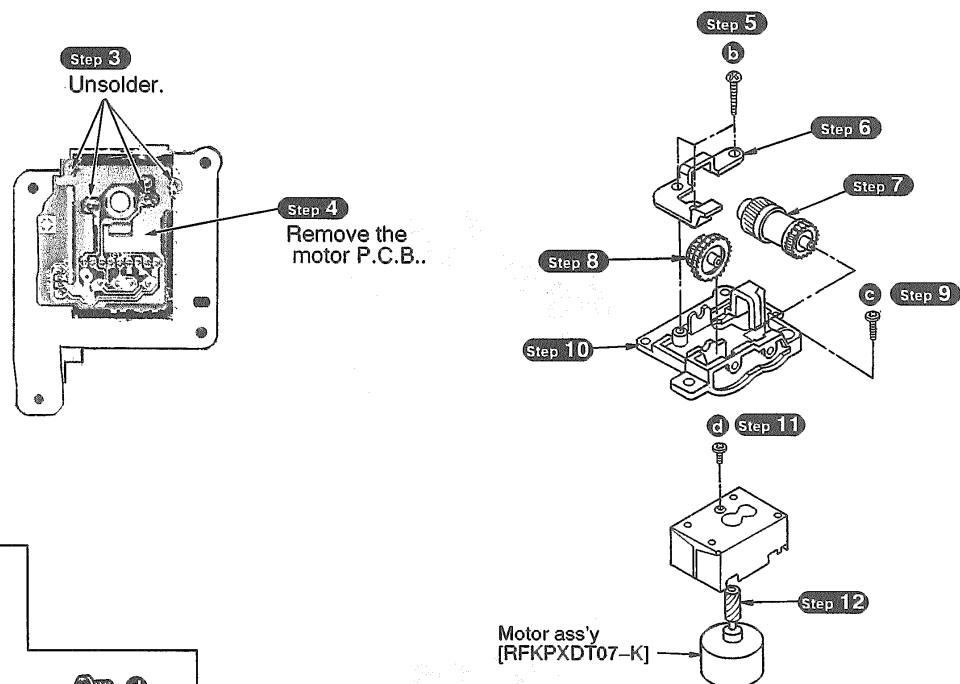
Step 6
 Unsolder the terminals.

5. Replacement for the motor ass'y

- Follow the item 1 (Step 1 ~ Step 8) in checking procedures for each P.C.B. on pages 9 and 10..
- Follow the item 4 (Step 1 ~ Step 4) in main component procedures on pages 17 and 18.

Step 2
 Remove the motor ass'y.





[XTV26+12F]



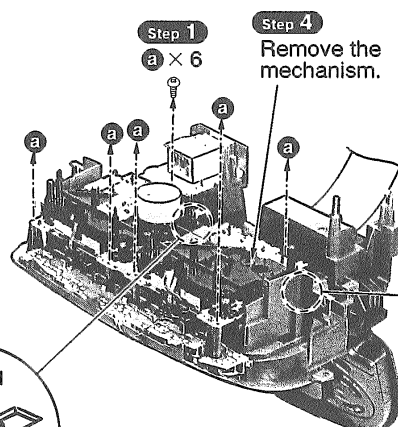
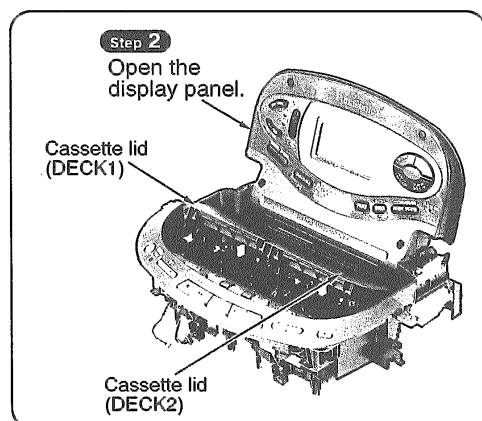
[XQN2+C6]



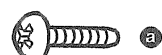
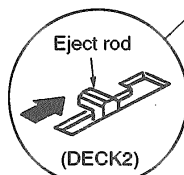
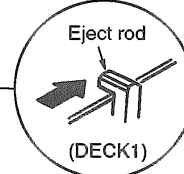
[XQN2+C3]

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

- Follow the item 1 (Step 1 ~ Step 8) in checking procedures for each P.C.B. on pages 9 and 10.
- Follow the item 4 (Step 1 ~ Step 4) in main component procedures on pages 17 and 18.



- Step 3 Press the eject rod in the direction of arrow, and then open the cassette lid.

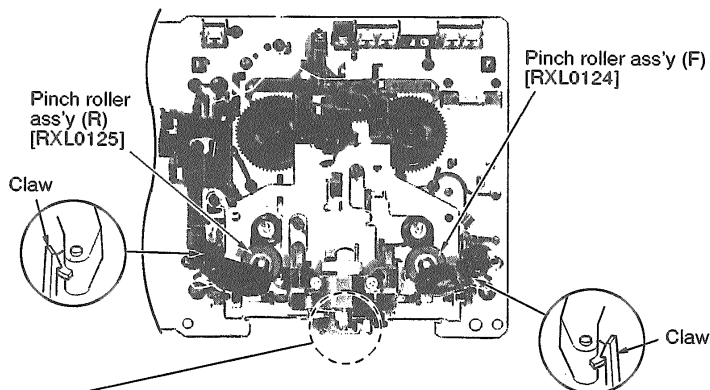


[XTV3+12G]

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

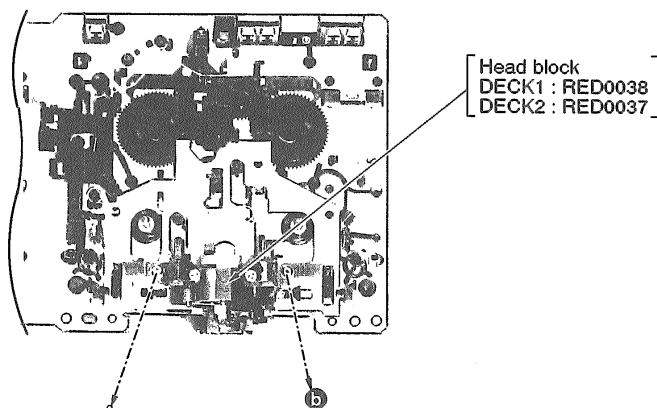
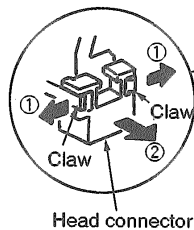
Step 5

Release the 2 claws, and then remove the pinch roller (R),(F).



Step 6

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



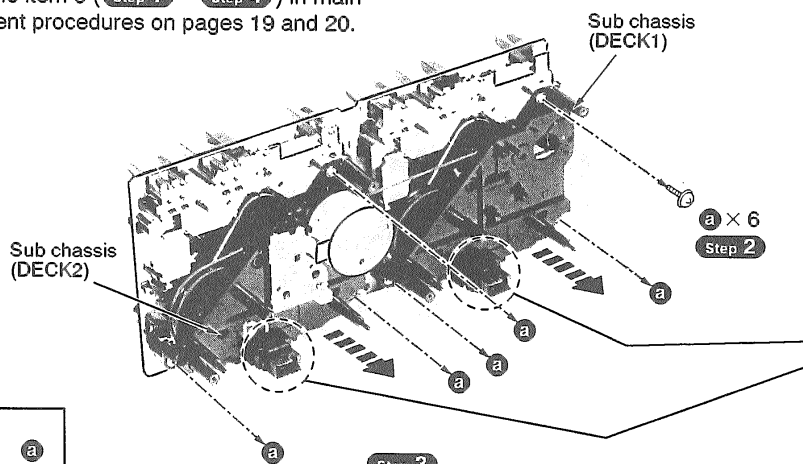
Step 7



[XTW2+5L]

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

- Follow the item 1 (**Step 1** ~ **Step 8**) in checking procedures for each P.C.B. on pages 9 and 10.
- Follow the item 4 (**Step 1** ~ **Step 4**) in main component procedures on pages 17 and 18.
- Follow the item 6 (**Step 1** ~ **Step 4**) in main component procedures on pages 19 and 20.

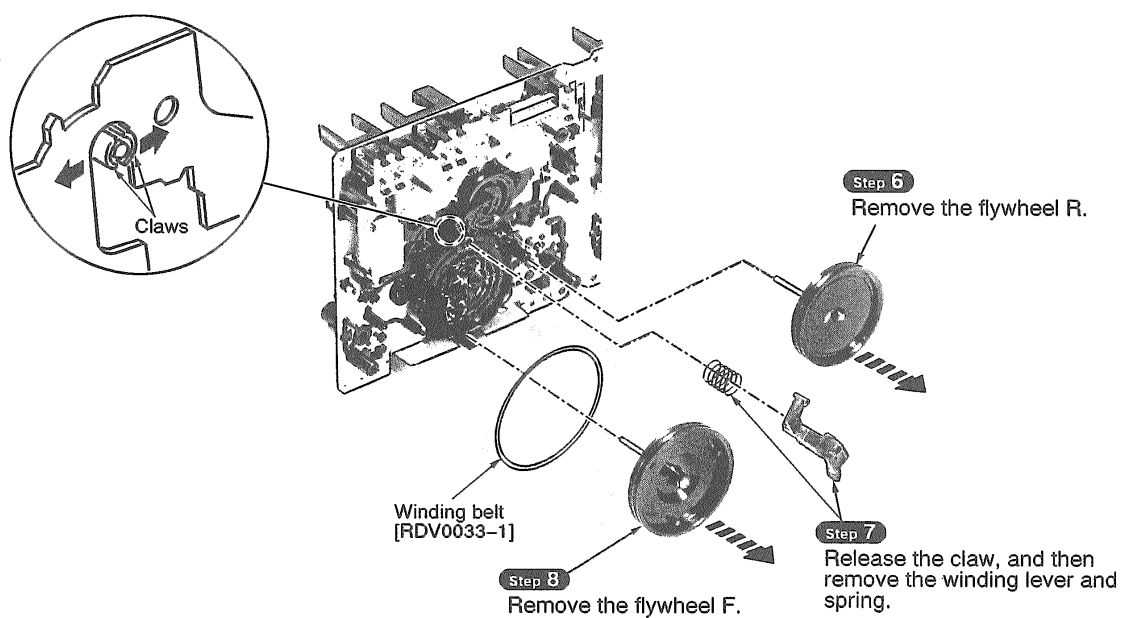
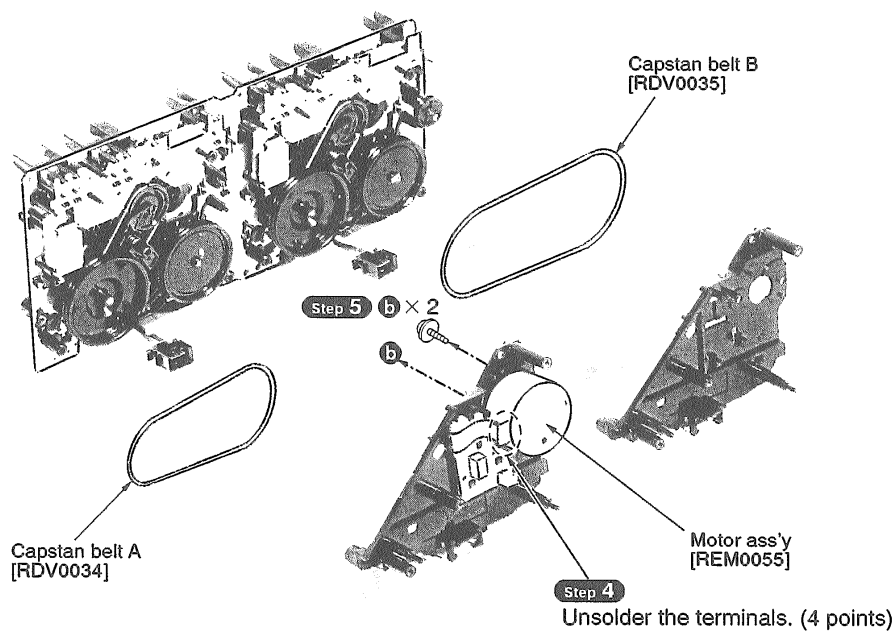


Step 3

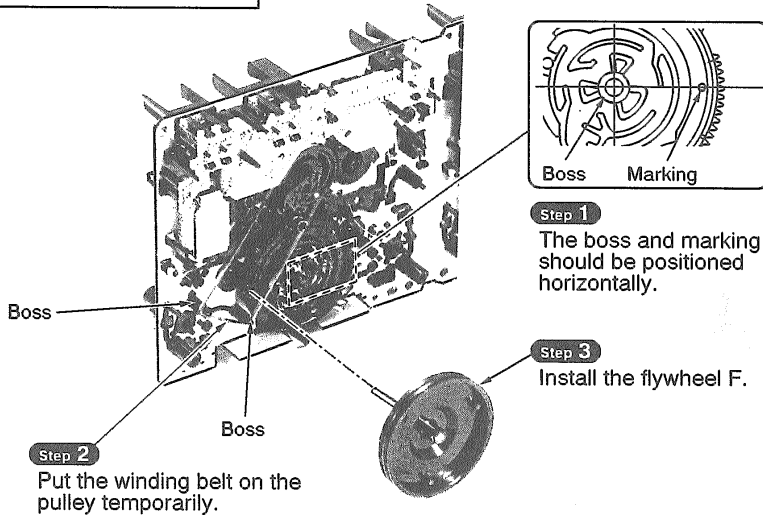
Remove the sub chassis (DECK1,DECK2).



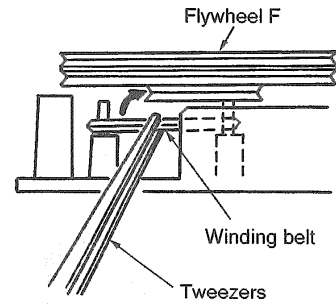
[XTW26+10S]



Installation of the belt

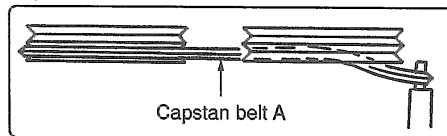
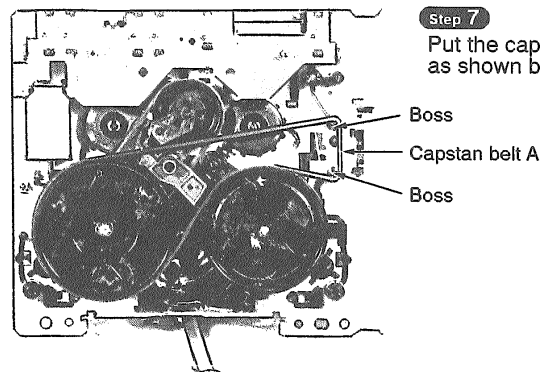
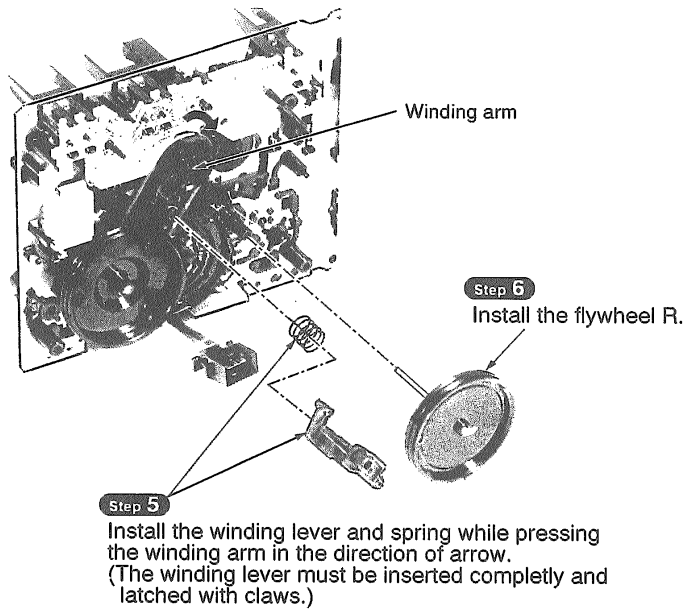
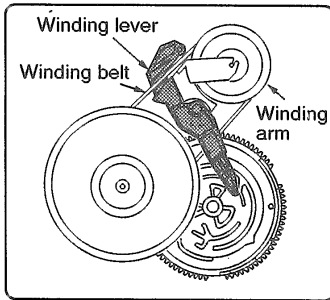


Step 4
Put the winding belt on the flywheel F.



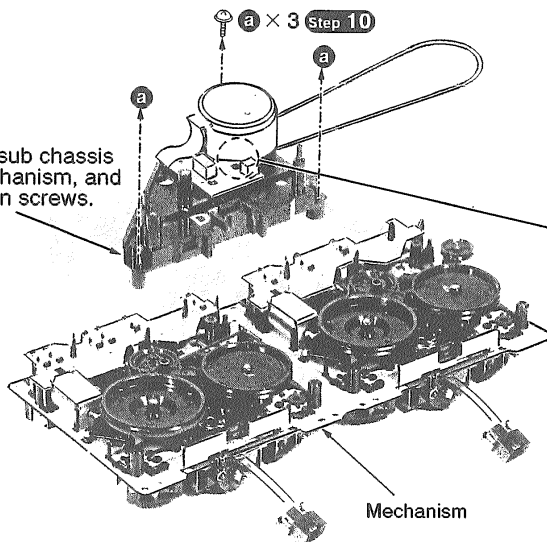
NOTE
Take care not stick the grease on the belt.

NOTE
The winding lever should be positioned as shown below.

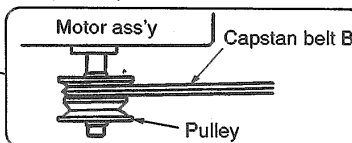


Step 9

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

**Step 8**

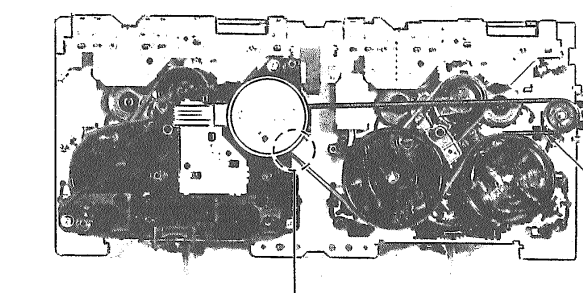
Put the capstan belt B on the motor ass'y pulley.



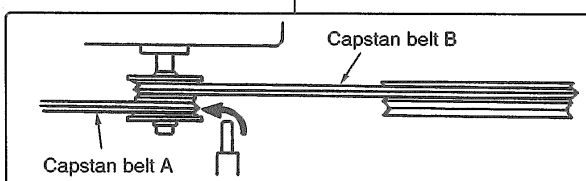
[XTW26+10S]

Step 11

Put the capstan belt B as shown left.

**Step 12**

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



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

- Follow the item 1 (**Step 1** ~ **Step 8**) in checking procedures for each P.C.B. on pages 9 and 10.
- Follow the item 4 (**Step 1** ~ **Step 4**) in main component procedures on pages 17 and 18.
- Follow the item 5 (**Step 1** ~ **Step 4**) in main component procedures on pages 18 and 19.

Step 1

a

Claws

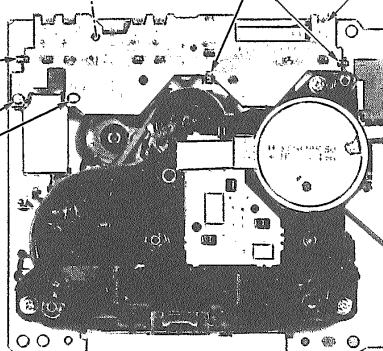
Step 3

Release the 3 claws, and then remove the mechanism P.C.B..

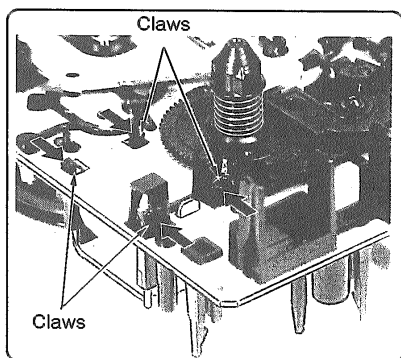
Claw

Step 2

Unsolder the terminals.

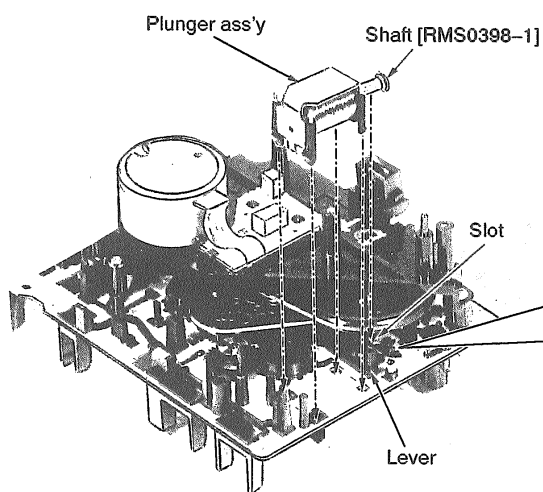
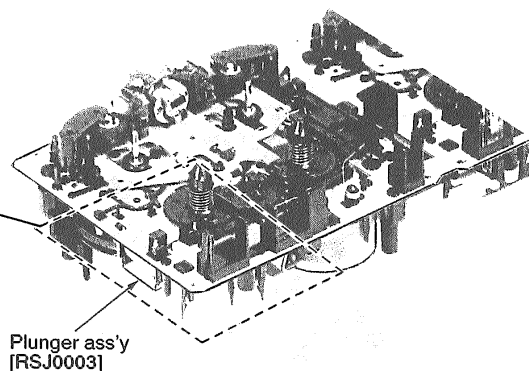


[XTC2+JF17]



Step 4

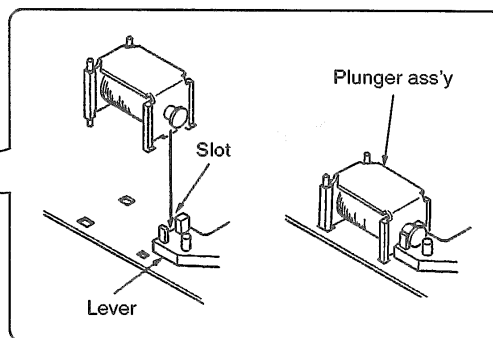
Release the 4 claws.



NOTE

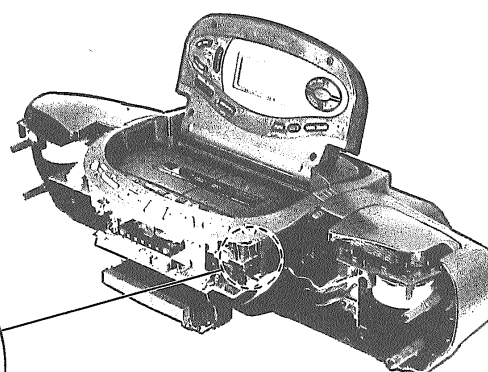
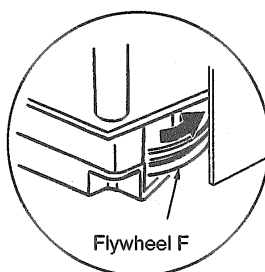
Notice for installing the plunger ass'y

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



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.



Schematic Diagram

	Page
A CD circuit	26, 27
B Tuner circuit	28, 29
C LCD circuit	30
D Main circuit	
(1/2, deck circuit)	31, 32
(2/2, power amp circuit)	34-38
E Mechanism (DECK2) circuit	32
F Mechanism (DECK1) 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 : S-XBS switch. (S-XBS)

S802 : Auxiliary input switch. (AUX)

S803 : Timer switch. (TIMER)

S804 : Skip/Search/Tuning/Time set switch.

(◀▶ / -)

S805 : Skip/Search/Tuning/Time set switch.

(▶▶ / +)

S806 : Memory/Program switch. (MEMORY, TUNER/CD)

S807 : Clock time adjust switch. (CLOCK ADJUST)

S808 : Tuning mode switch. (TUNE MODE)

S809 : Rec/Rec pause switch. (●/●, REC/REC PAUSE)

S810 : Tape edit switch. (TAPE EDIT)

S811 : CD recording level select switch. (CD REC LEVEL)

S812 : CD recording mode select switch. (CD REC MODE)

S813 : Preset equalizer switch. (PRESET EQ)

S814 : Timer time adjust switch. (TIMER ADJUST)

S815 : Spatializer/Sound LED demo switch.

(● SPATIALIZER/ ■ DEMO)

< 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 : Reverse side record prevention tab detect switch.

S975 : Forward side record prevention tab detect switch.

< Motor (Deck) circuit >

VR981 : Tape speed adjustment VR.

< Operation (1) circuit >

S1011 : Power switch. (POWER/BATT)

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

S1013 : Rewind/TPS switch. (REW/ [TPS])

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

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

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

S1017 : CD tray open/close switch. (▲ CD OPEN/CLOSE)

< Operation (2) circuit >

S1002 : Volume control switch. (VOLUME -)

S1003 : Volume control switch. (VOLUME +)

S1004 : Tape stop switch. (TAPE ■)

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

S1006 : Band select switch. (TUNER/BAND)

S1007 : Play/Pause switch. (CD ▶ / [])

S1008 : Stop Clear switch. (CD ■ / CLEAR)

S1009 : Top panel close switch. (TOP PANEL CLOSE)

S1010 : Top panel open switch. (TOP PANEL OPEN)

	Page
G Motor (Deck) circuit	32
H Loading motor circuit	33
I Motor (Top panel) circuit	33
J LED circuit	33
K Operation (1) circuit	33
L Operation (2) circuit	33
M Power supply circuit	38

Battery current:

Vol. min...	500 mA (FM)	Vol. max...	1470 mA (FM)
	500 mA (AM)		1840 mA (AM)
	540 mA (TAPE)		1810 mA (TAPE)
	680 mA (CD)		2430 mA (CD)

Measurement instruction

AM:	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
()	 AM	< >	 FM
(())	 CD	[]	 REC

Important safety notice

Components identified by  mark have special characteristics important for safety.

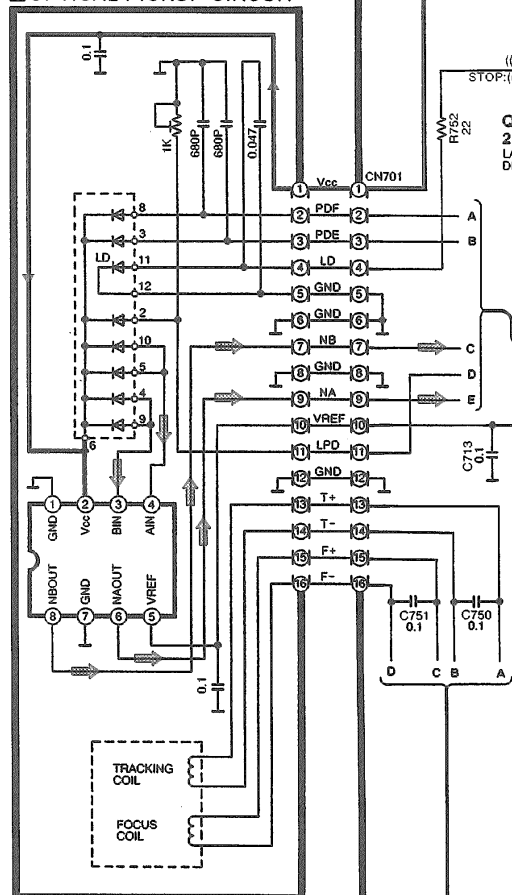
When replacing any of these components, use only manufacturer's specified parts.

• This schematic diagram may be modified at any time with the

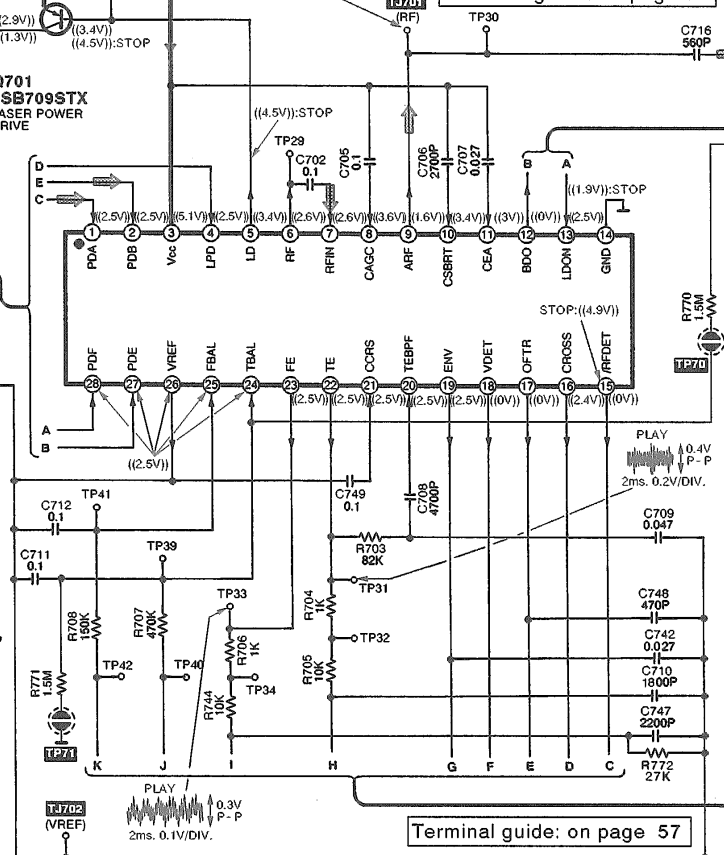
	: CD Signal Line
	: FM/AM/ V cap Control Signal Line
	: Main Signal Line
	: FM Signal Line
	: Tape Signal Line
	: AM OSC Signal Line
	: Record Signal Line
	: FM OSC Signal Line
	: Mic Signal Line
	: + B Line

A CD CIRCUIT (P.C.Board: on page 39)

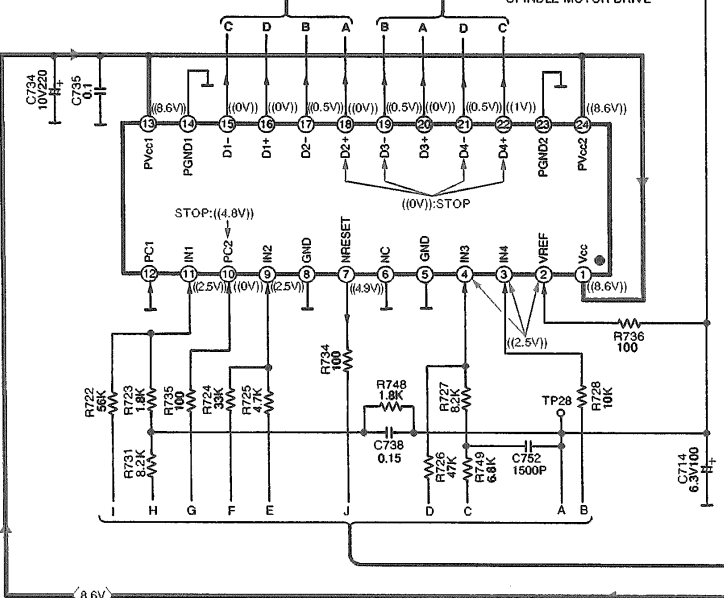
△ OPTICAL PICKUP CIRCUIT

Q701
2SB709STX
LASER POWER
DRIVEIC701
AN8835SBE1
SERVO AMP

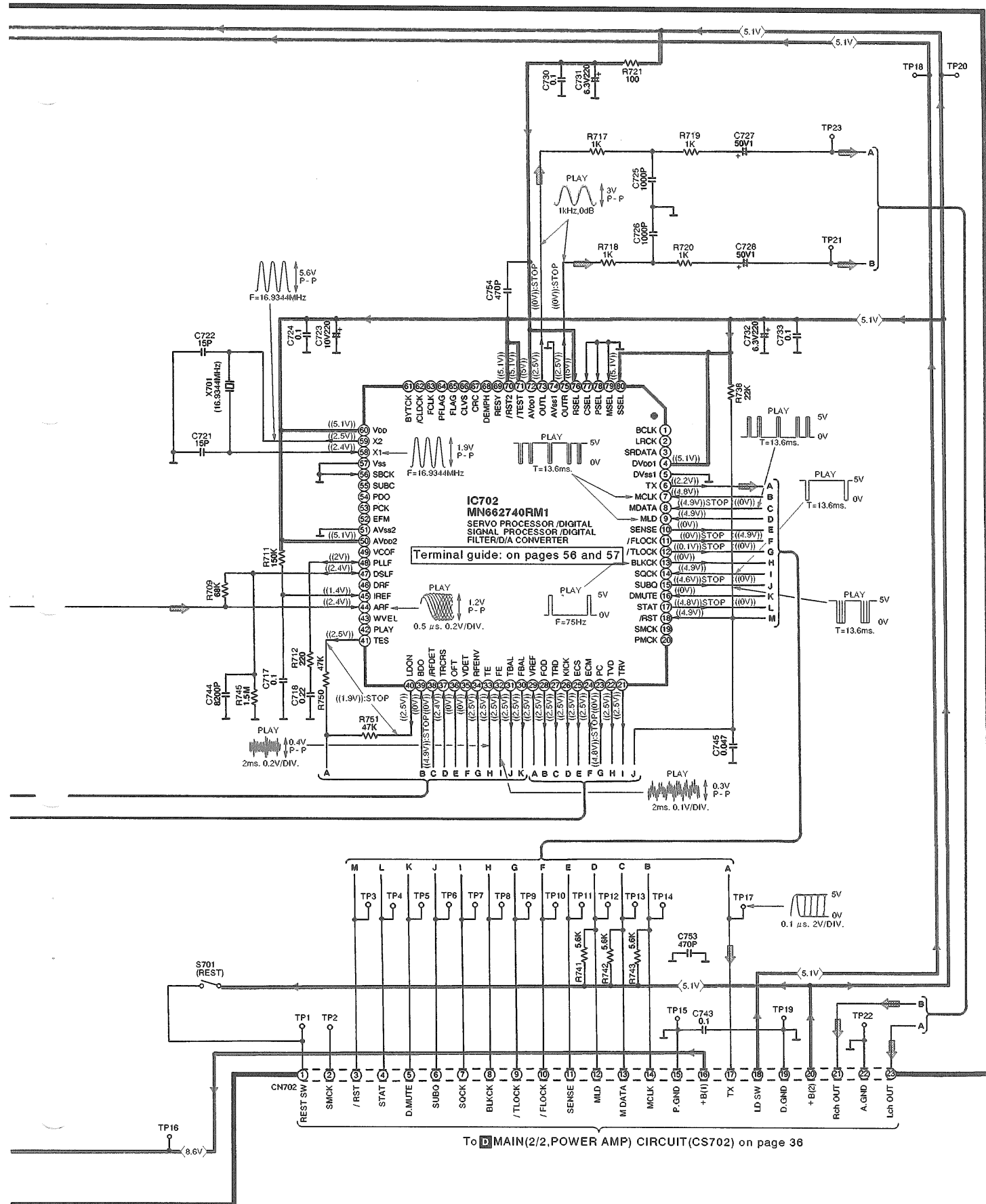
Terminal guide: on page 56



Terminal guide: on page 57

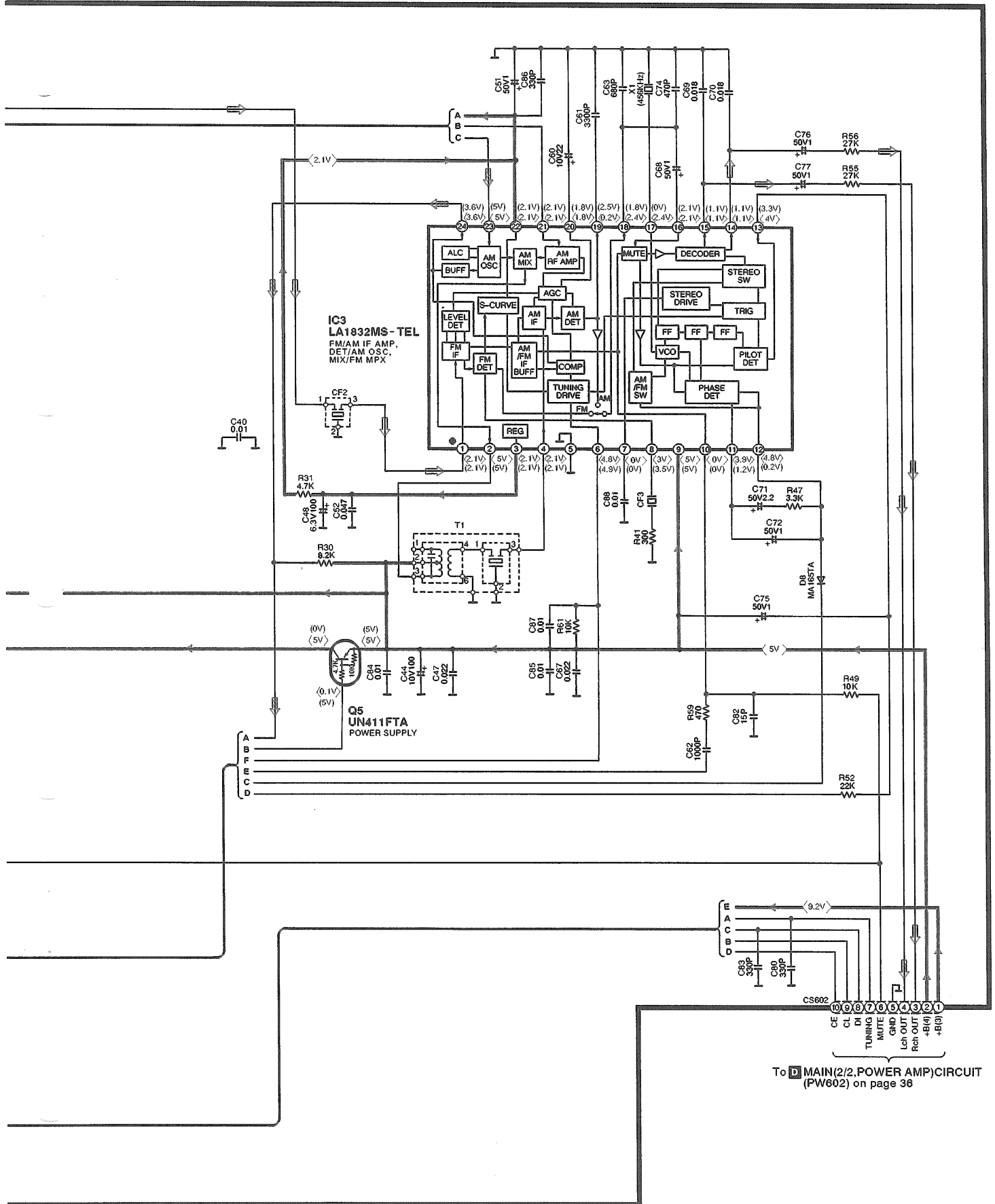
IC703
AN8389SE1FOCUS COIL / TRACKING COIL /
TRAVERSE MOTOR /
SPINDLE MOTOR DRIVEM702
SPINDLE
MOTORM701
TRAVERSE
MOTOR

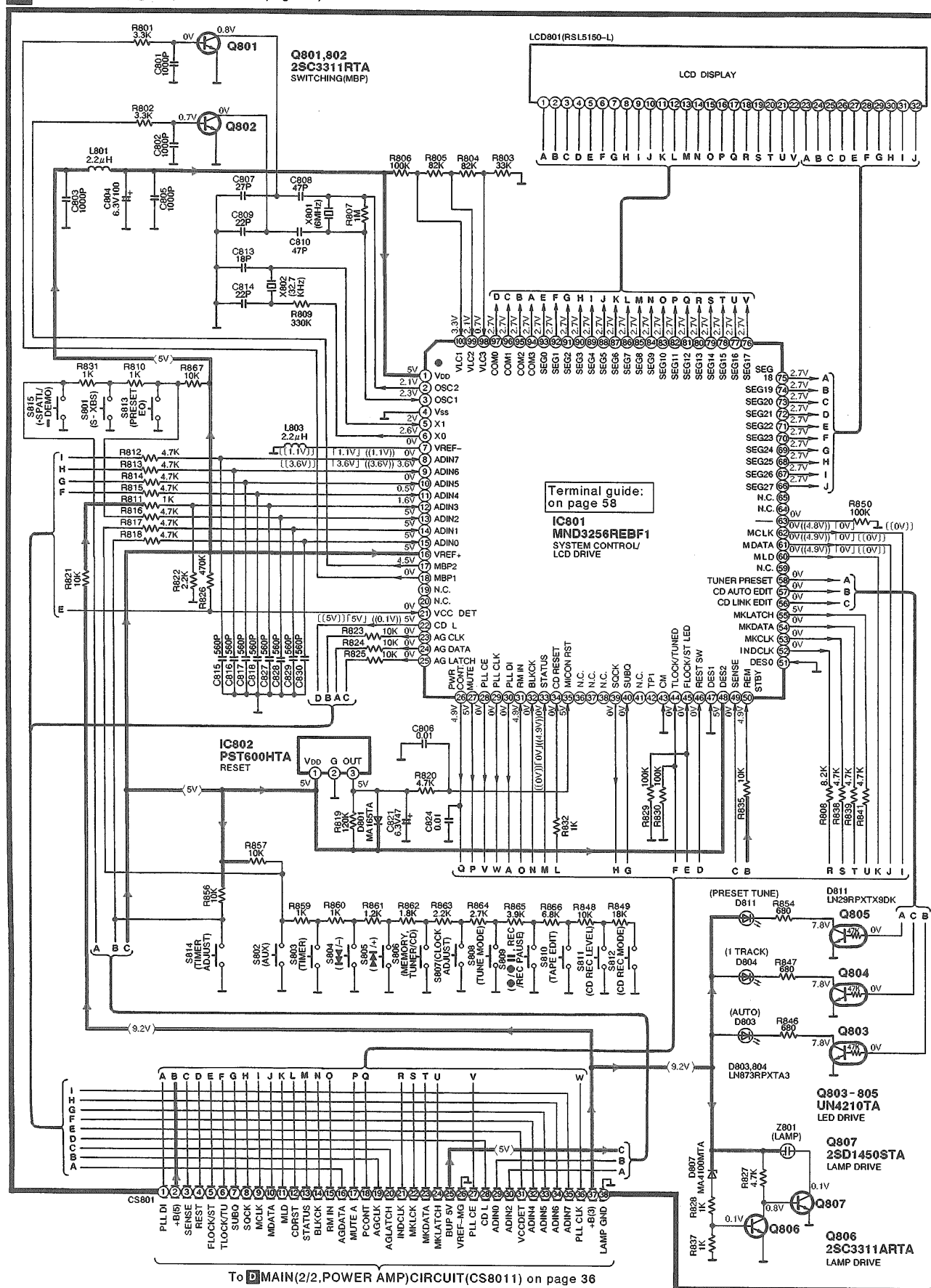
 : CD Signal Line

 : + B Line




 : FM Signal Line
  : AM (LW/MW) OSC Signal Line
  : FM OSC Signal Line
 : FM/AM V cap Control Signal Line
 : + B Line



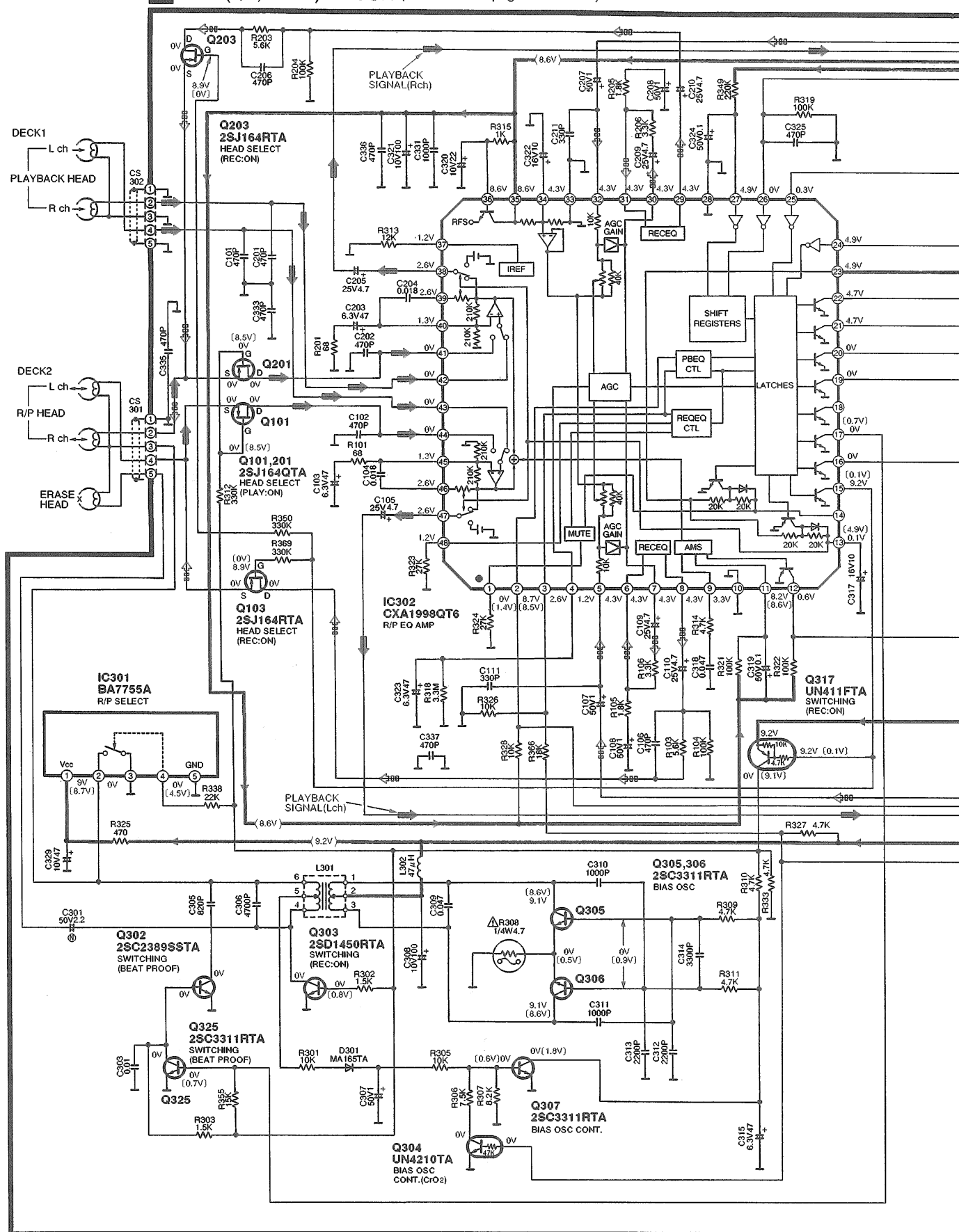


→ : Tape Signal Line

□□□□ : Record Signal Line

→ : + B Line

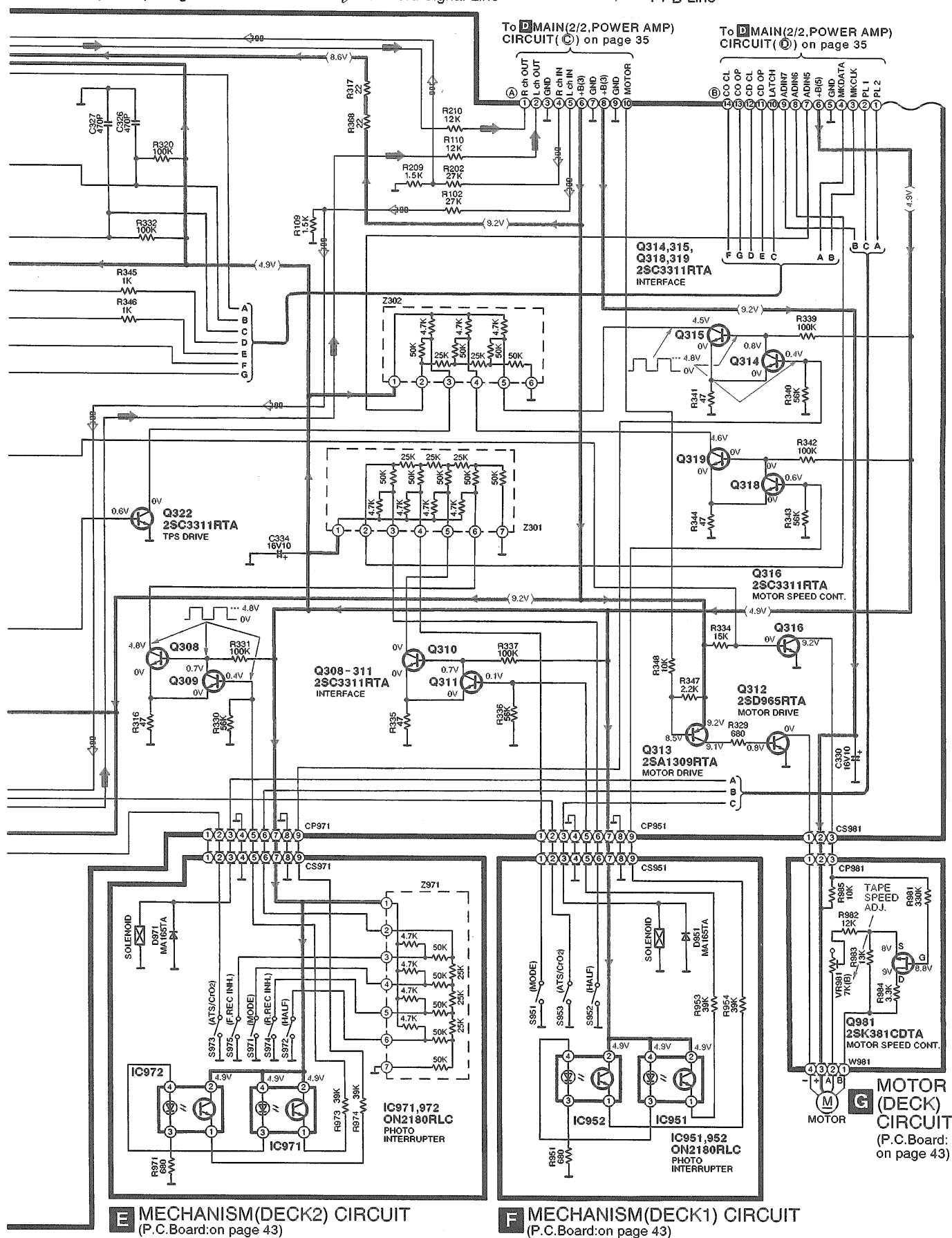
D MAIN(1/2,DECK)CIRCUIT (P.C.Board: on pages 42 and 43)



➡ : Tape Signal Line

□□□ : Record Signal Line

➡ : + B Line

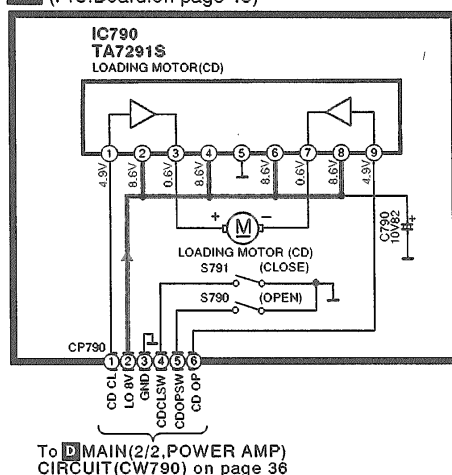


E MECHANISM(DECK2) CIRCUIT
(P.C.Board: on page 43)

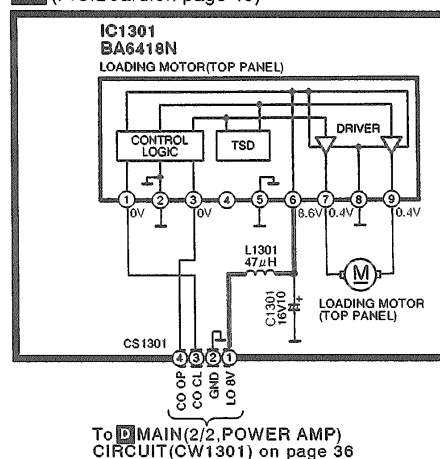
F MECHANISM(DECK1) CIRCUIT
(P.C.Board: on page 43)

G MOTOR (DECK) CIRCUIT
(P.C.Board: on page 43)

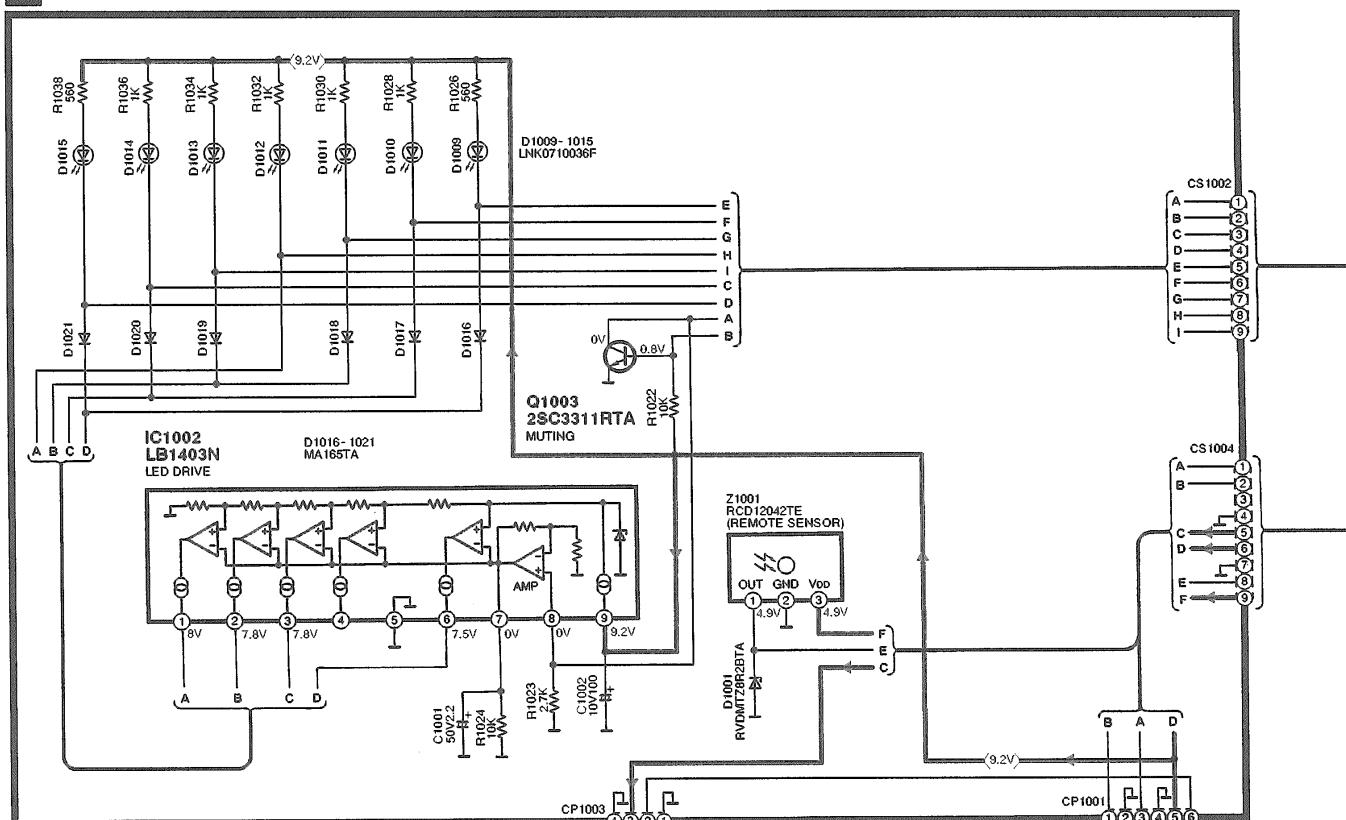
H LOADING MOTOR CIRCUIT (P.C.Board: on page 43)



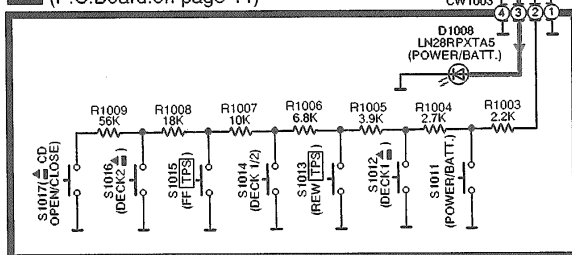
I MOTOR(TOP PANEL)CIRCUIT (P.C.Board: on page 43)



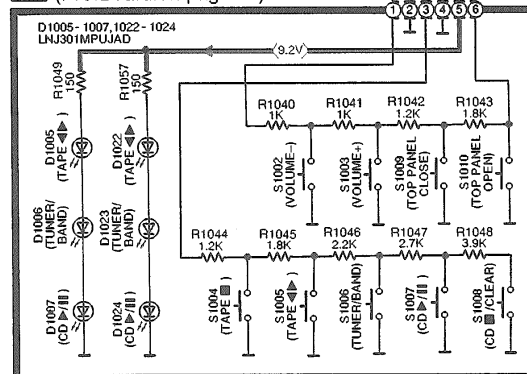
J LED CIRCUIT (P.C.Board: on page 41)



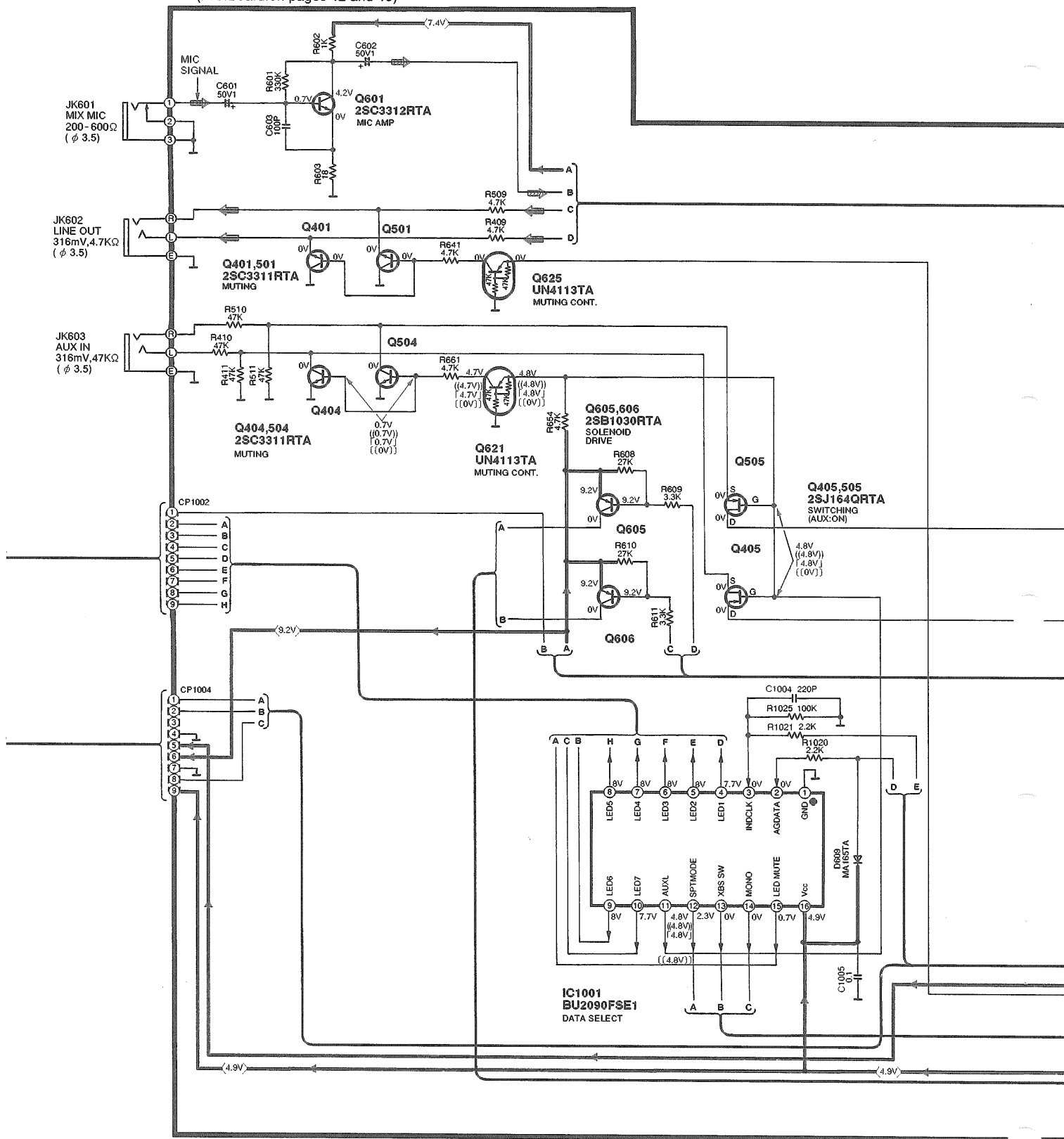
K OPERATION(1) CIRCUIT (P.C.Board: on page 44)

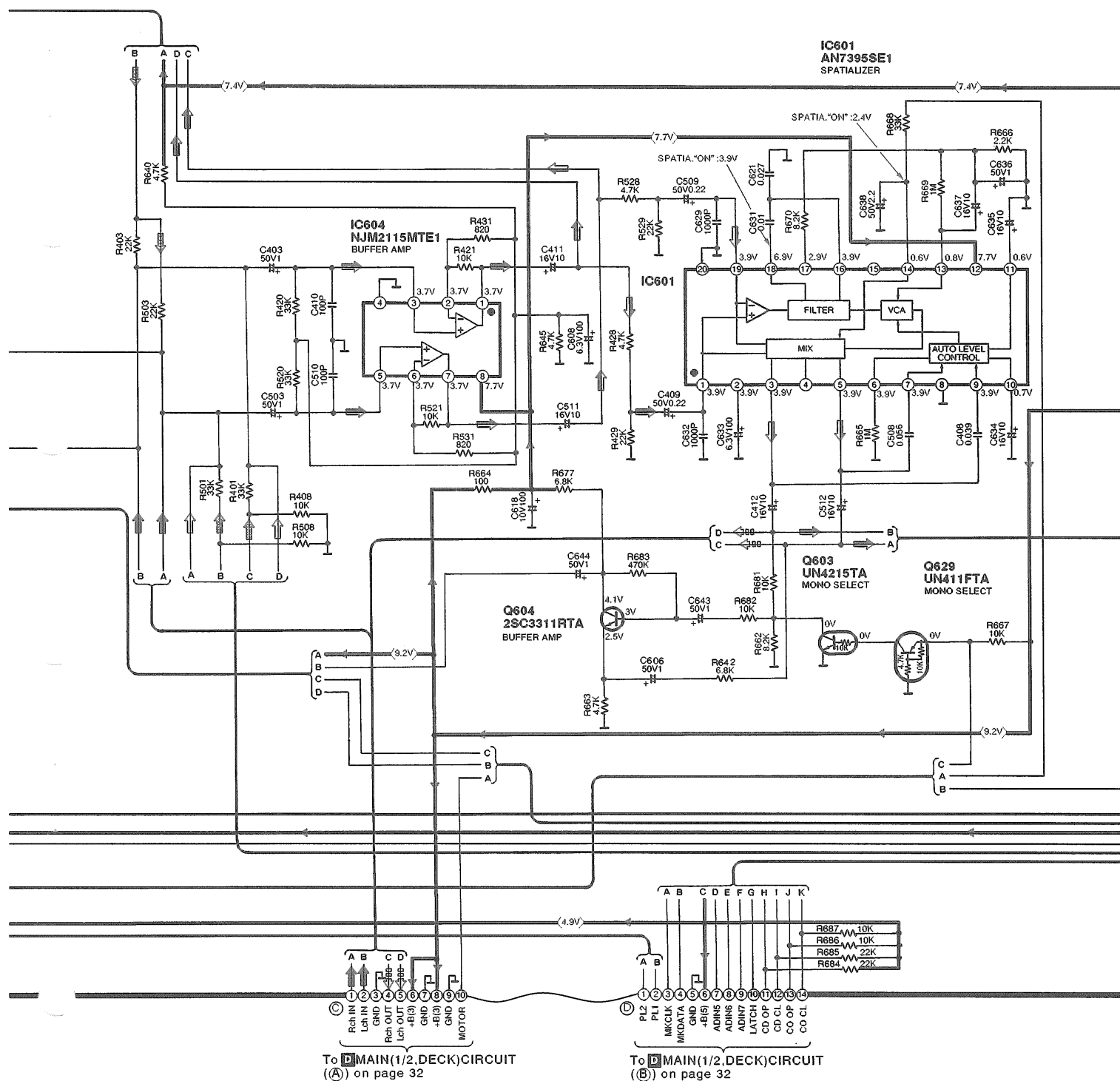
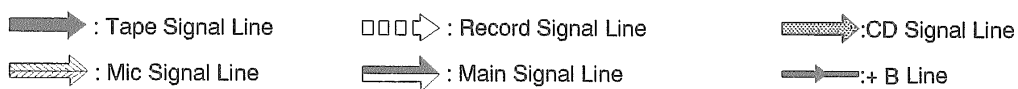


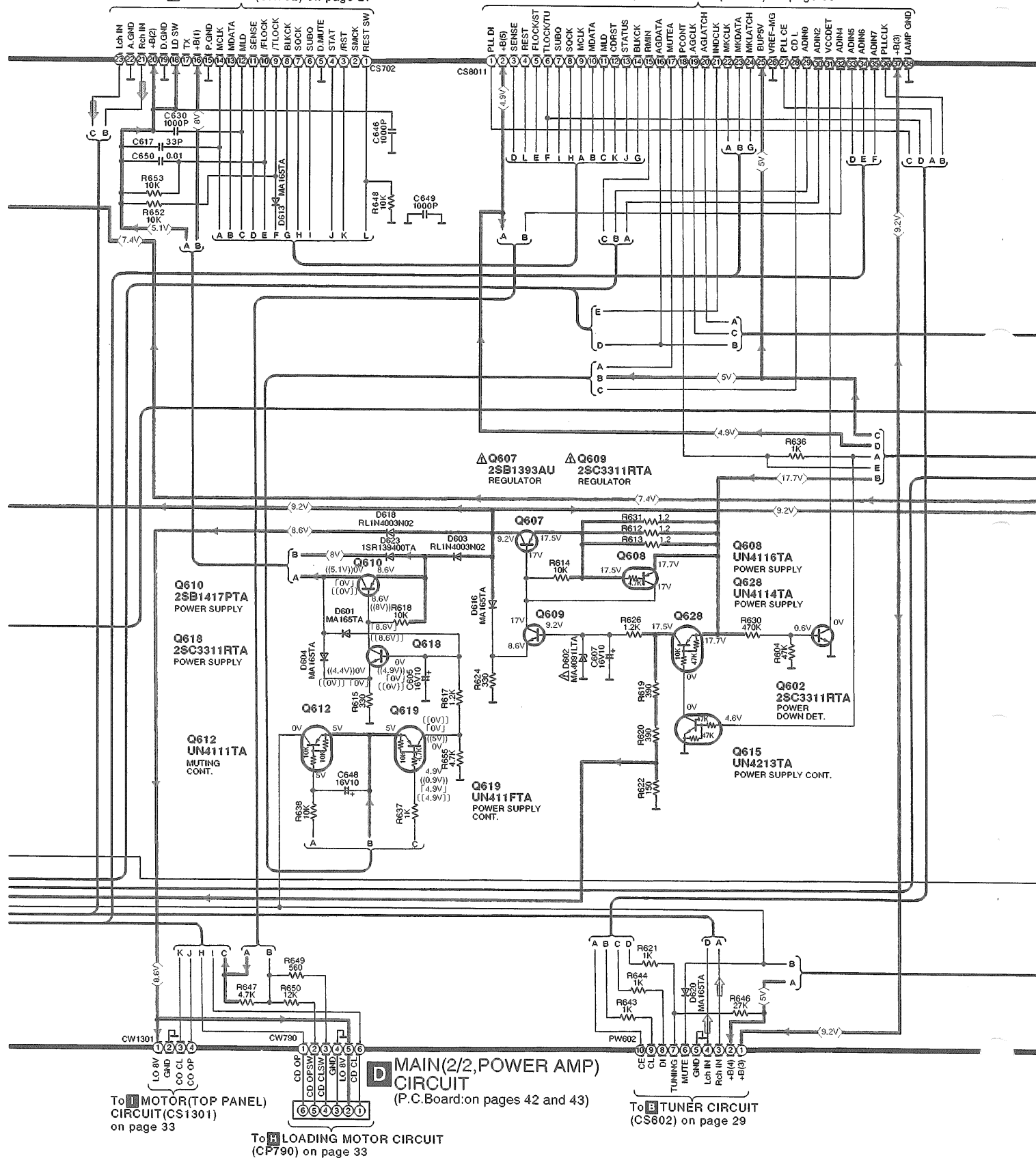
L OPERATION(2) CIRCUIT (P.C.Board: on page 40)

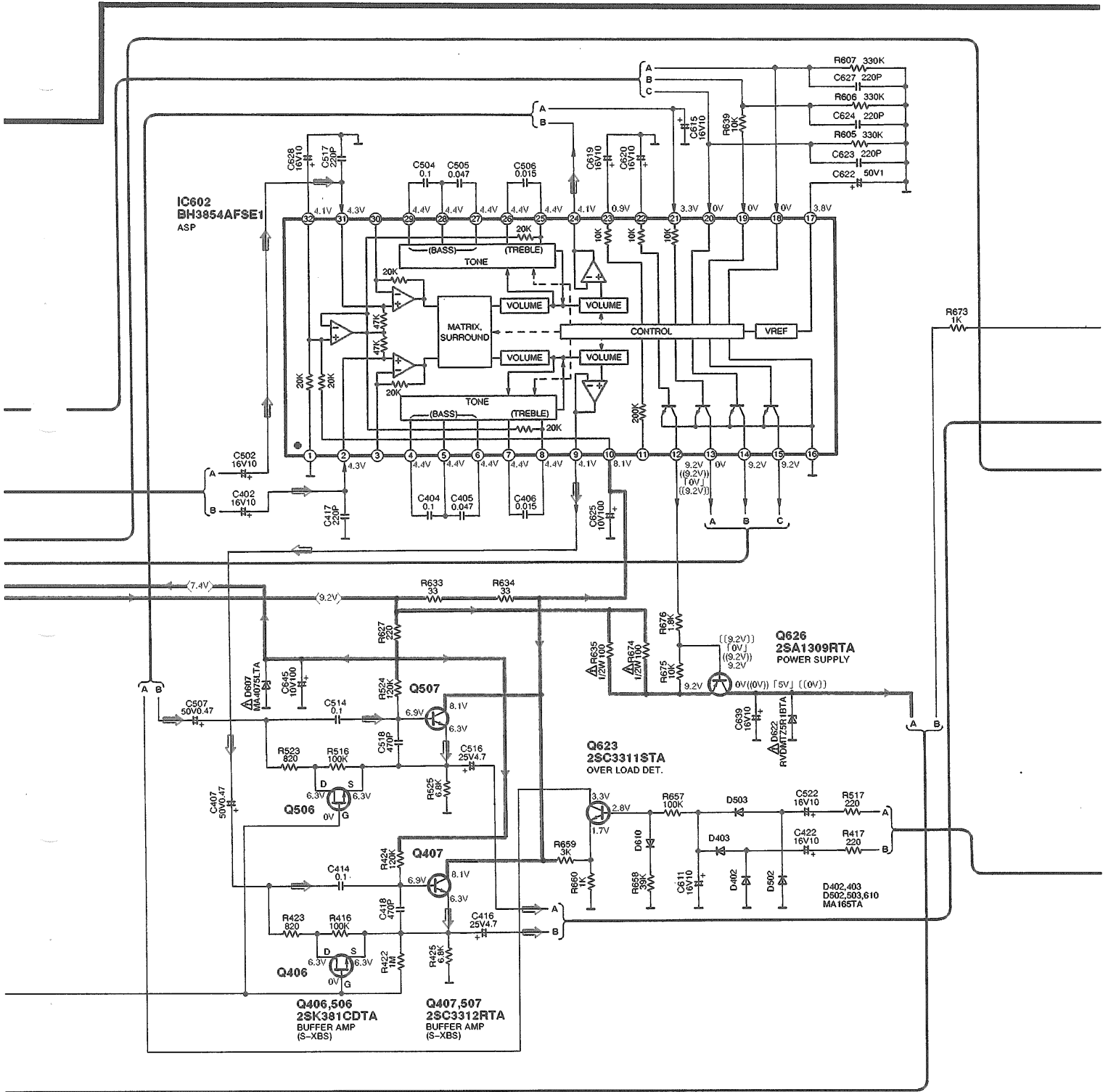


D MAIN(2/2,POWER AMP) CIRCUIT
(P.C.Board:on pages 42 and 43)





To **A** CD CIRCUIT (CN702) on page 27To **C** LCD CIRCUIT (CS801) on page 30



□□□➡ : Record Signal Line

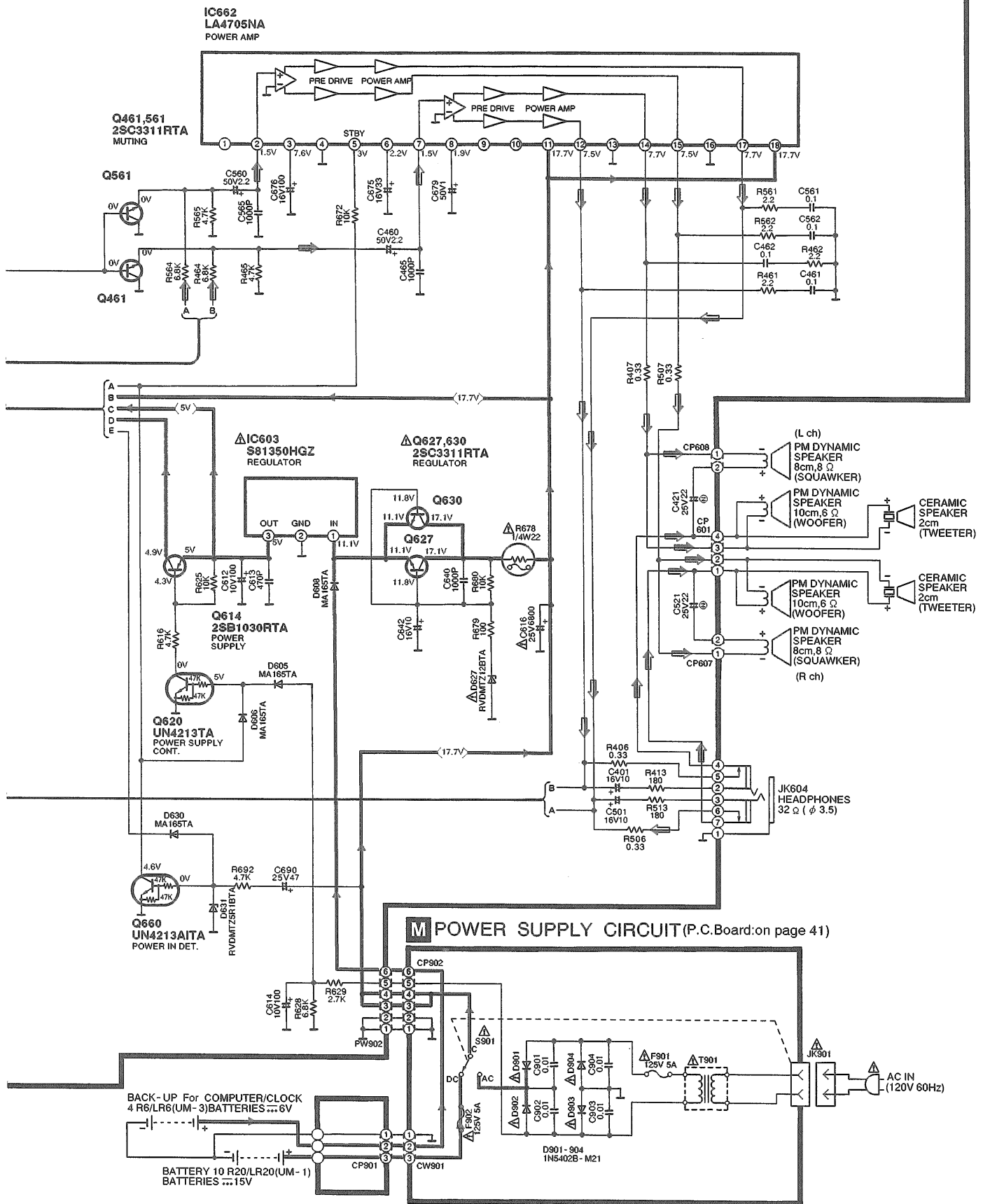
:CD Signal Line

 : Main Signal Line

→ :+ B Line

D MAIN(2/2,POWER AMP)CIRCUIT (P.C.Board: on pages 42 and 43)

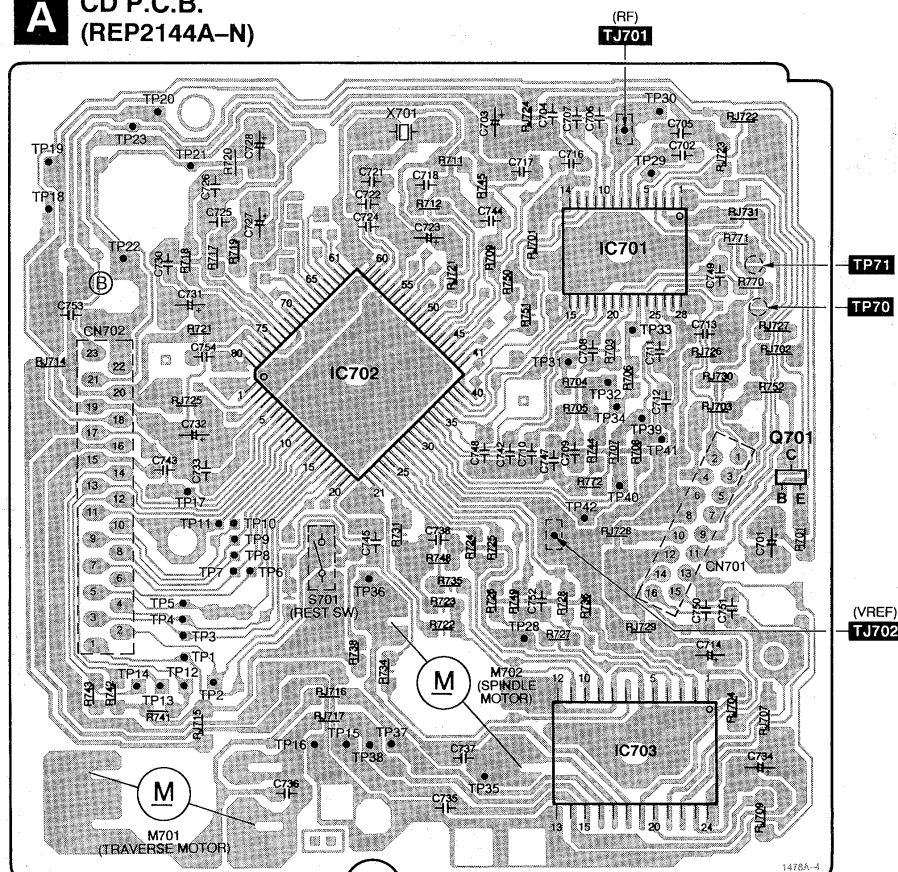
 : Main Signal Line

 : + B Line


Printed Circuit Board Diagram

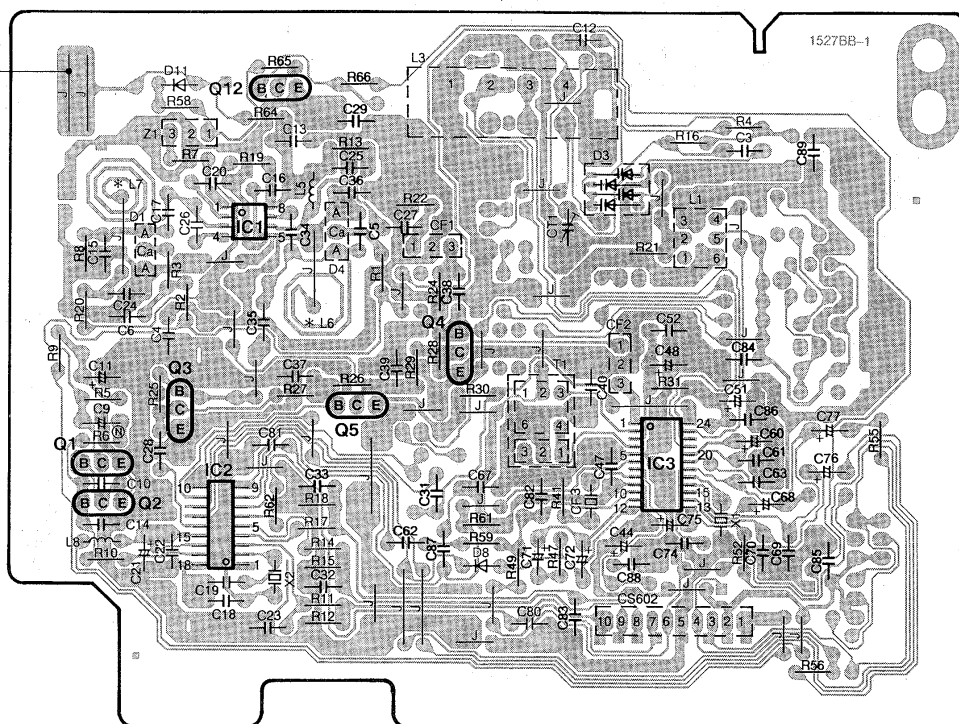
- This circuit board diagram may be modified at any time with the development of new technology.

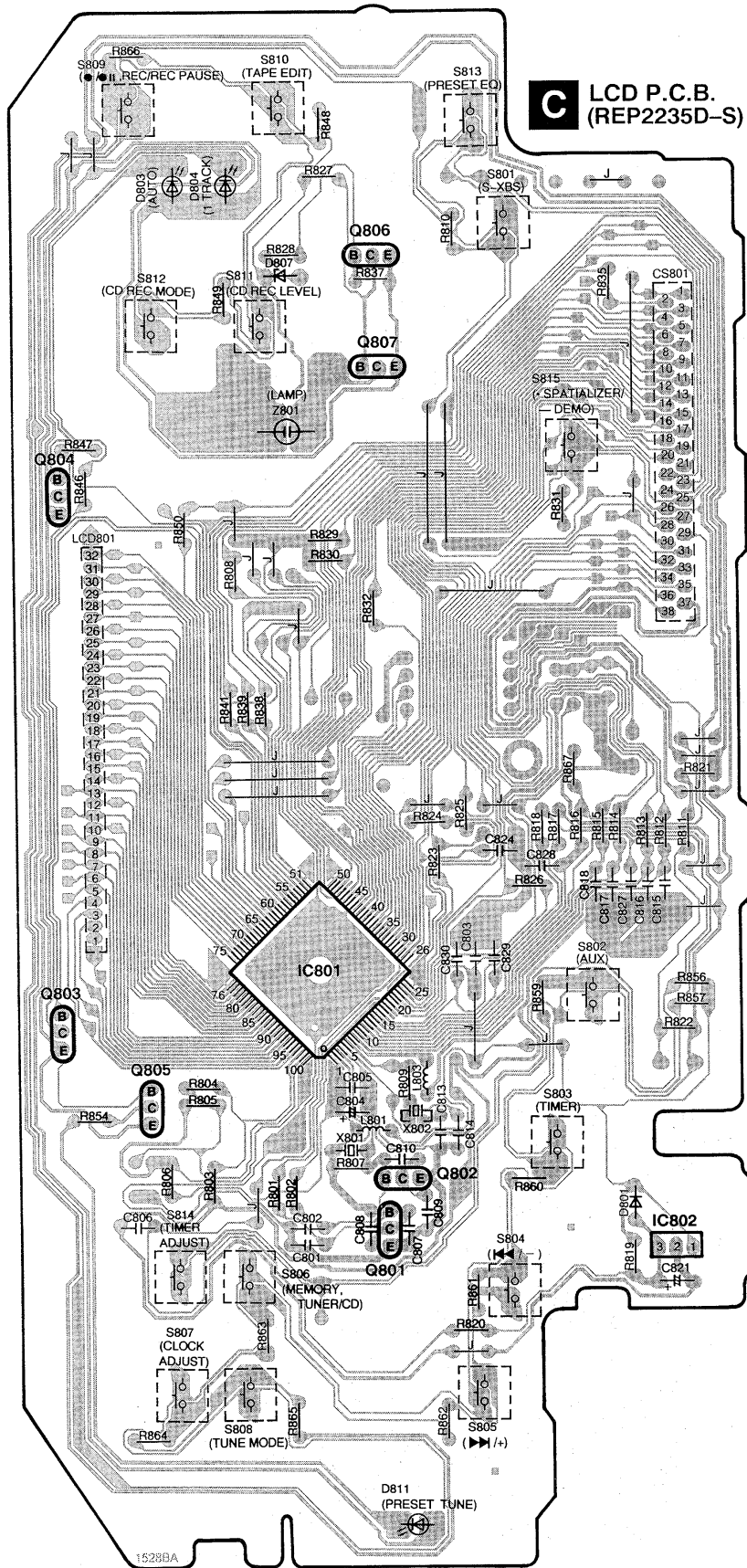
A CD P.C.B.
(REP2144A-N)



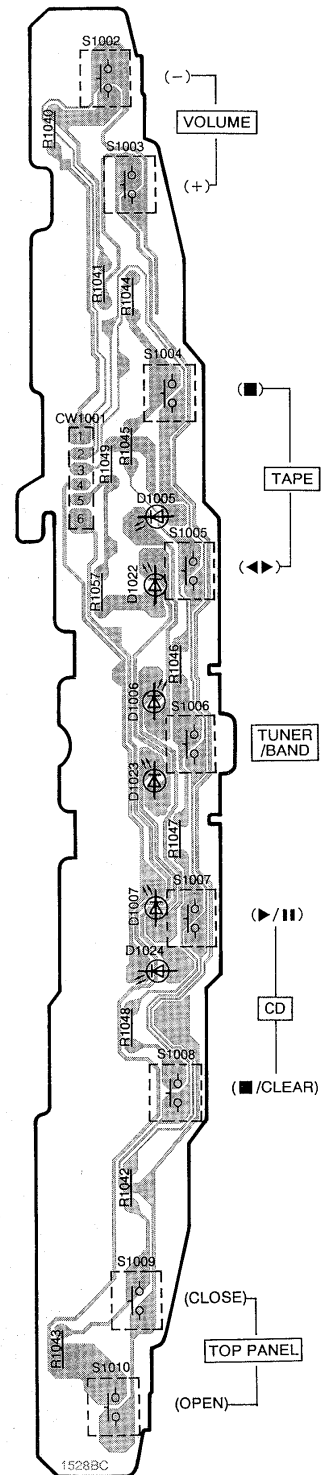
B TUNER P.C.B. (REP2234D-M)

TELESCOPIC
ANTENNA

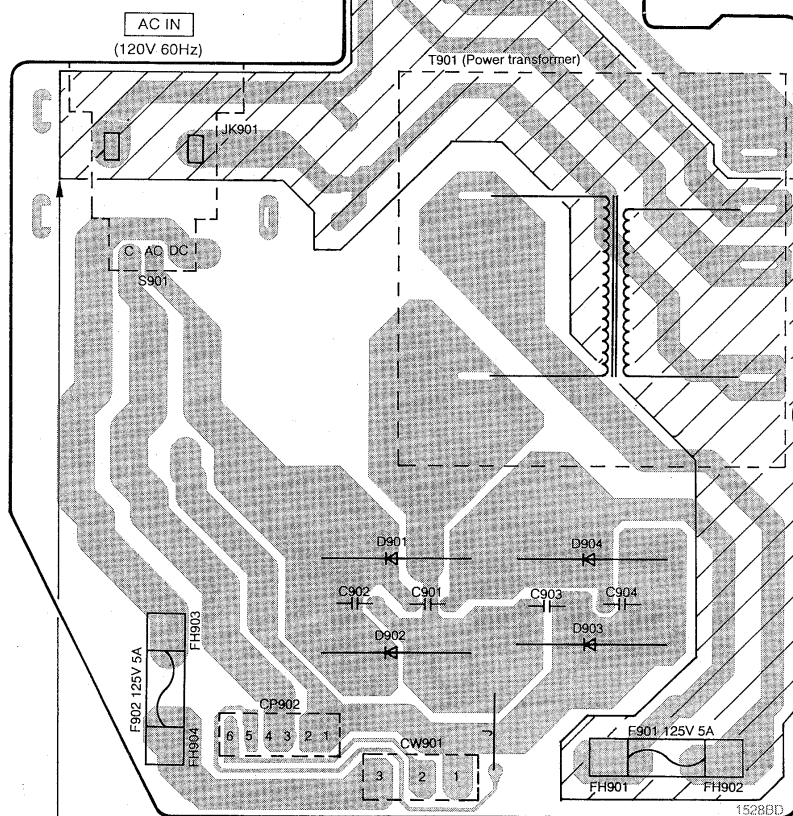




L OPERATION
(2) P.C.B. (REP2235D-S)

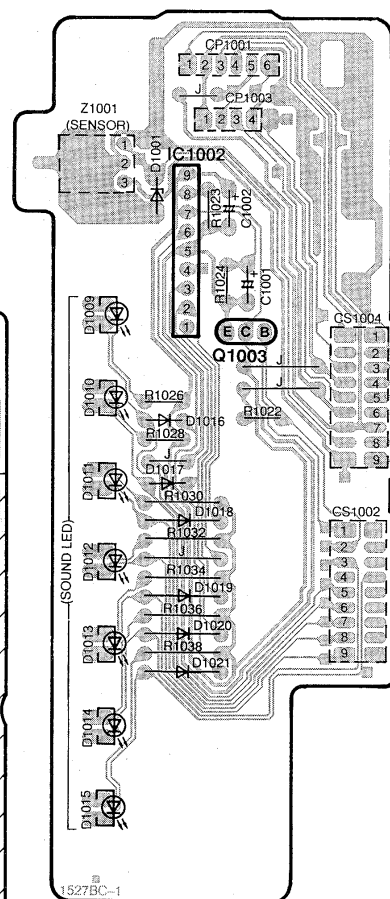


M POWER SUPPLY P.C.B. (REP2235D-S)

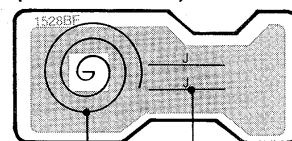


CAUTION
RISK OF ELECTRIC SHOCK
AC voltage line. Please do not
touch this portion.

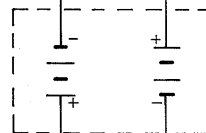
J LED P.C.B. (REP2234D-M)



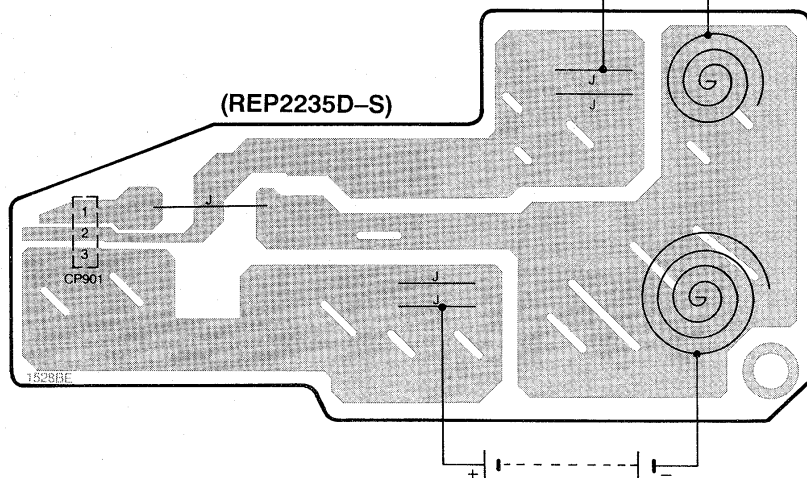
(REP2235D-S)



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



(REP2235D-S)



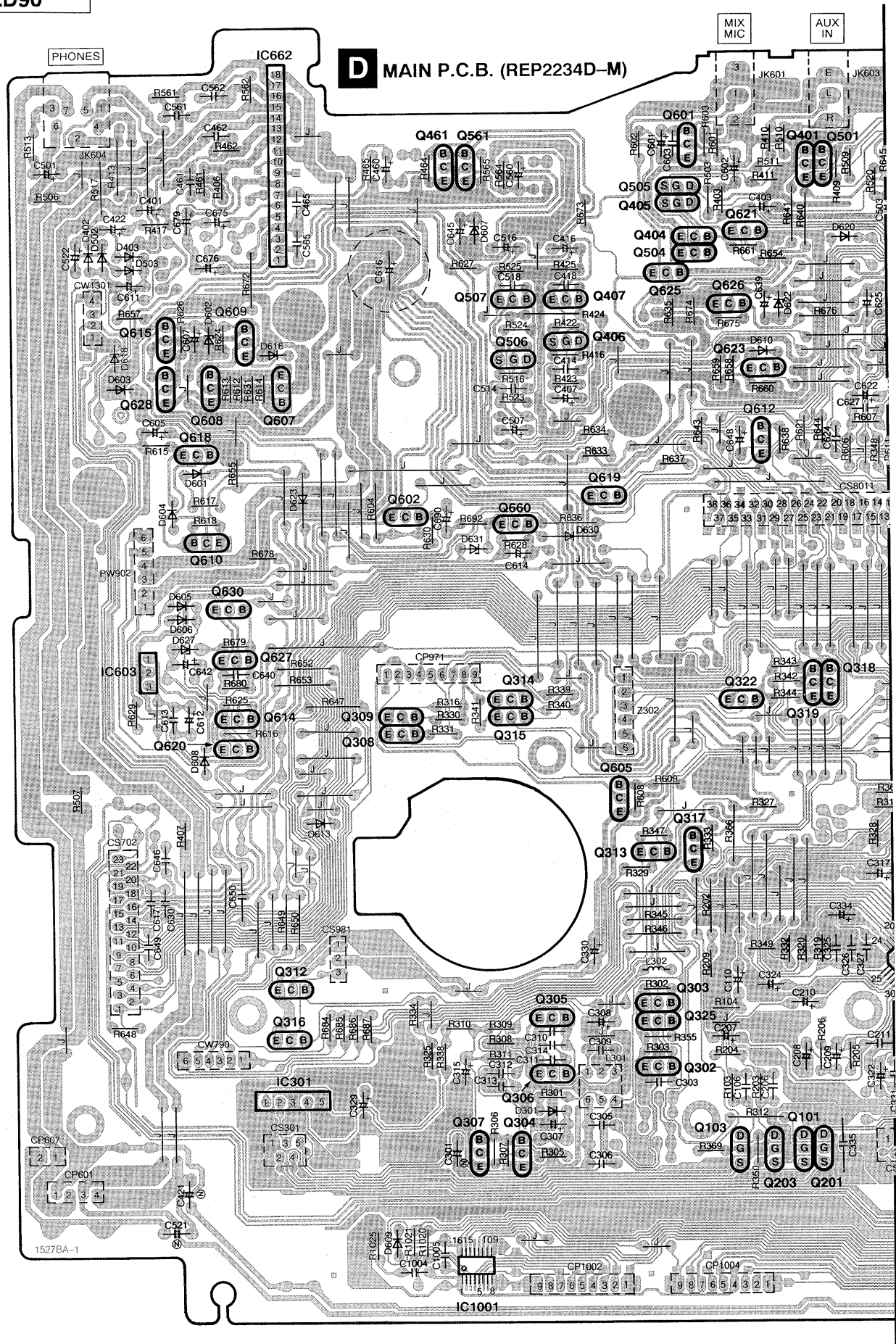
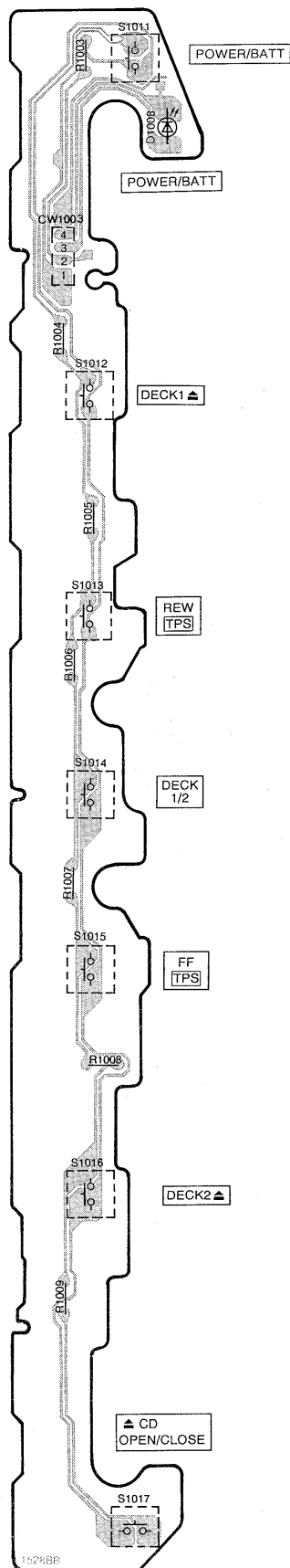


Diagram of the top panel of the 1334A circuit board. It shows a circular loading motor labeled 'M' connected to a 'LOADING MOTOR (TOP PANEL)'. On the right, there is a vertical strip of 9 pins labeled 1 through 9, with IC301 connected to pins 1, 2, 3, 4, 5, 6, 7, 8, and 9. Below this strip, there is a 4-pin connector labeled CS1301 with pins 4, 3, 2, and 1.

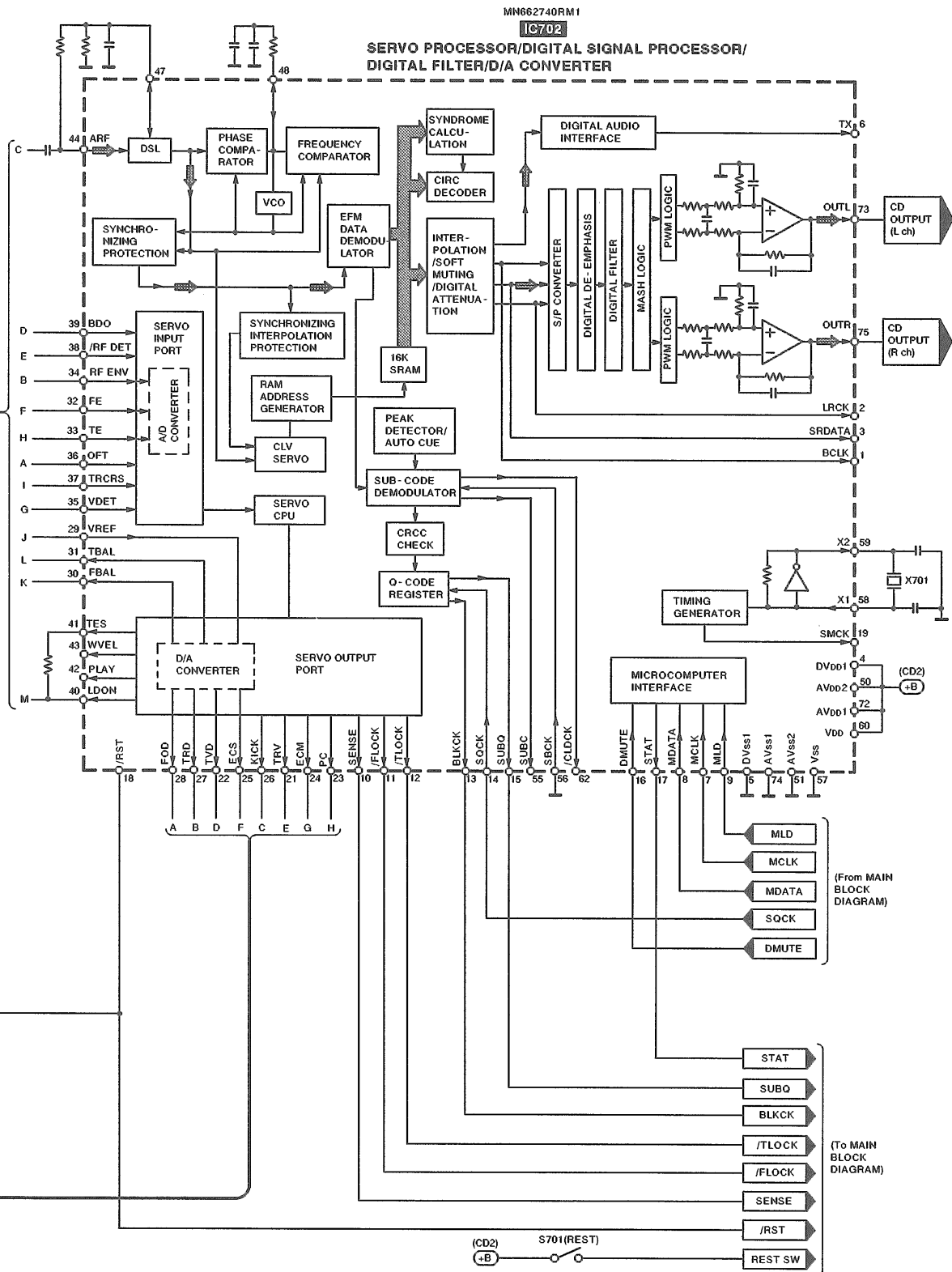
K OPERATION (1) P.C.B. (REP2235D-S)



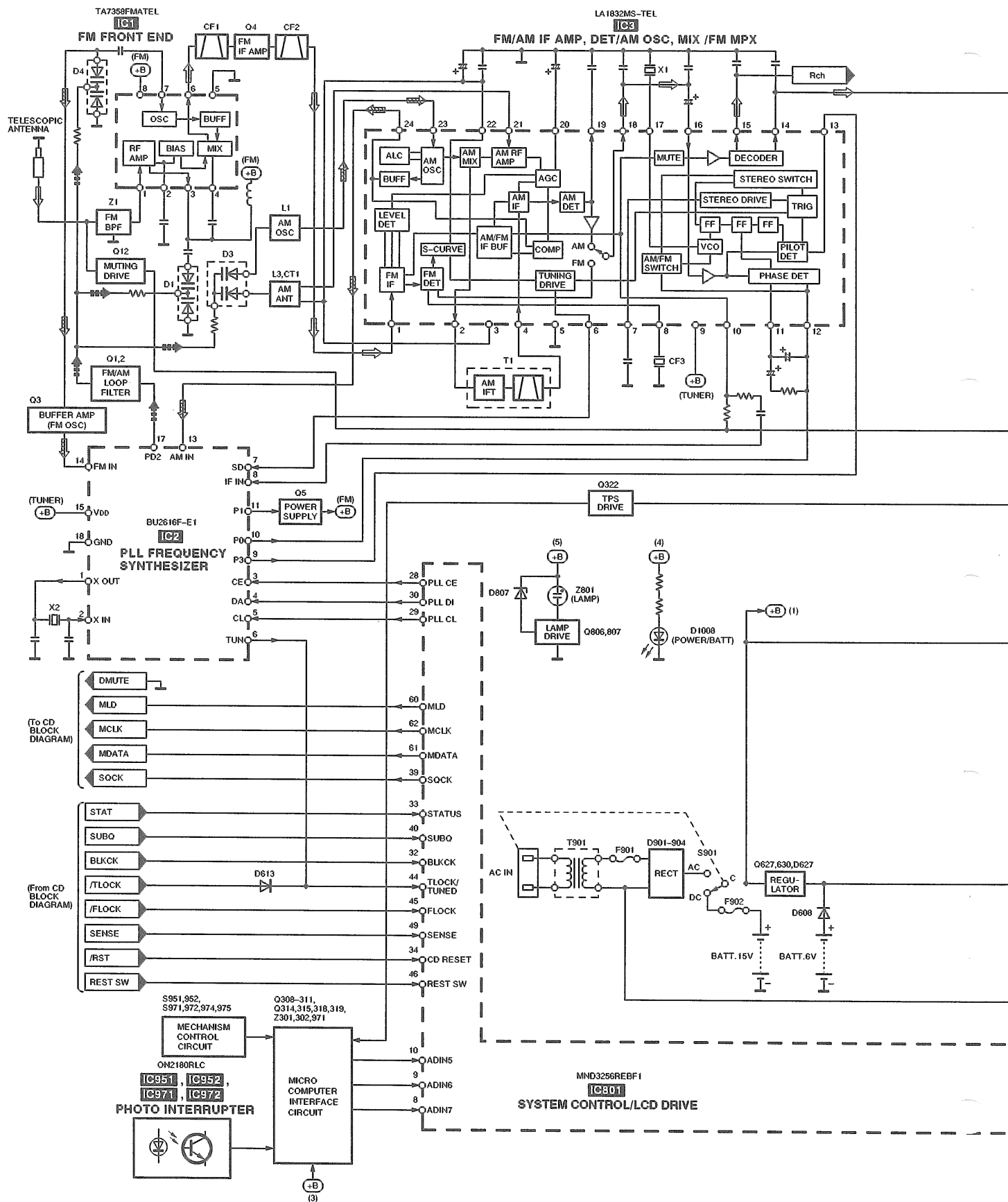
 No.1	TA7358FMATEL 8PIN		LA1832MS-TEL 24PIN	LB1403N TA7291S	LA4705NA
	NJM2115MT1 8PIN		AN8835SBE1 28PIN	 1 9	 1 18
	BU2090FSE1 16PIN		BH3854AFSE1 32PIN		
	BU2616F-E1 18PIN				
	AN7395SE1 20PIN				
 No.1	CXA1998QT6 48PIN	BA7755A		AN8389SE1	BA6418N
	MN662740RM1 80PIN	 1 5		 1 24 12	 1 9
	MND3256REBF1 100PIN				
0N2180RLC	PST600HTA	S81350HGZ	2SJ164QTA 2SJ164RTA 2SJ164QRTA 2SK381BCDTA		
 1 2 3 4	 1 2 3	 3 2 1	 D G S		
2SC2389SSTA	2SB1393AU	2SB709S	2SD965Q	2SB1417PTA	
 B C E	 B C E	 B C E	 E C B	 B C E	
 E C B	2SA1309R	2SC3313B	UN4210-S	1SR139400TA	
	2SB1030QTA	2SD1450RTA	UN4213AITA	MA165	
	2SC2786LTA	UN4111	UN4213	RVD1SS135TA	
	2SC3311A-Q	UN411FTA	UN4215		
	2SC3311R	UN4113			
	2SC3311AR	UN4114TA			
	2SC3312RTA	UN4116			
			 A Cathode Anode		
MA4100MTA	MA4075TA MA4091LTA	RVDMTZ5R1BTA RVDMTZ8R2BTA RVDMTZ12BTA	KV1583BMTL		
 A Cathode Anode	 A Cathode Anode	 A Cathode Anode	 Cathode Anode		
RL1N4003N02 1N5402B-M21	 Anode Cathode Ca	KV1360NT	LN29RPXTX9DK	LN28RPXTA5	
 A Cathode Ca		 Anode Cathode Ca	 Anode Cathode Ca	 Anode Cathode Ca	
LN873RPXTA3	LNJ301MPUJAD	LNK0710036F	 Anode Cathode Ca		
 Anode Cathode Ca	 Anode Cathode Ca	 Anode Cathode Ca	 Anode Cathode Ca		

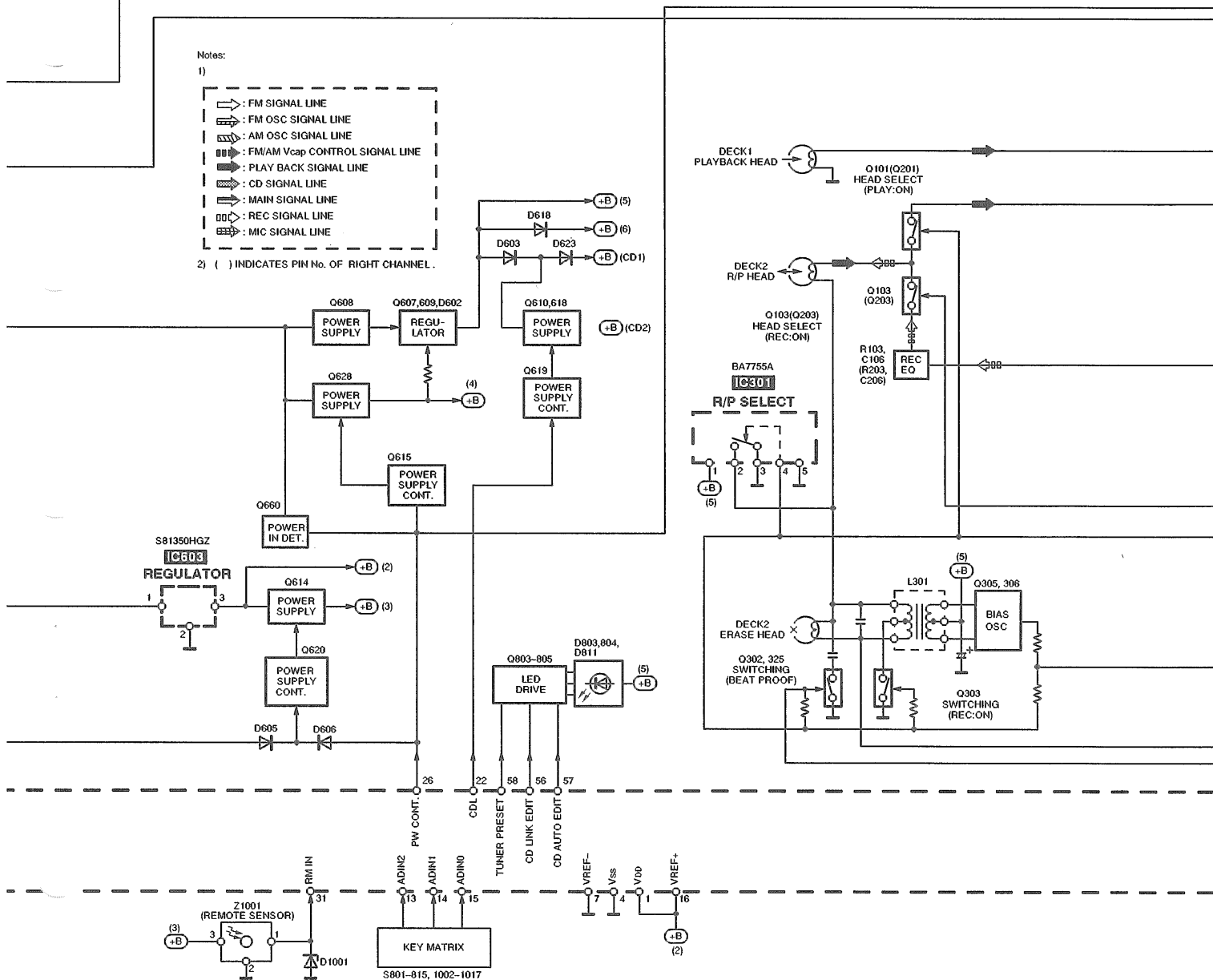


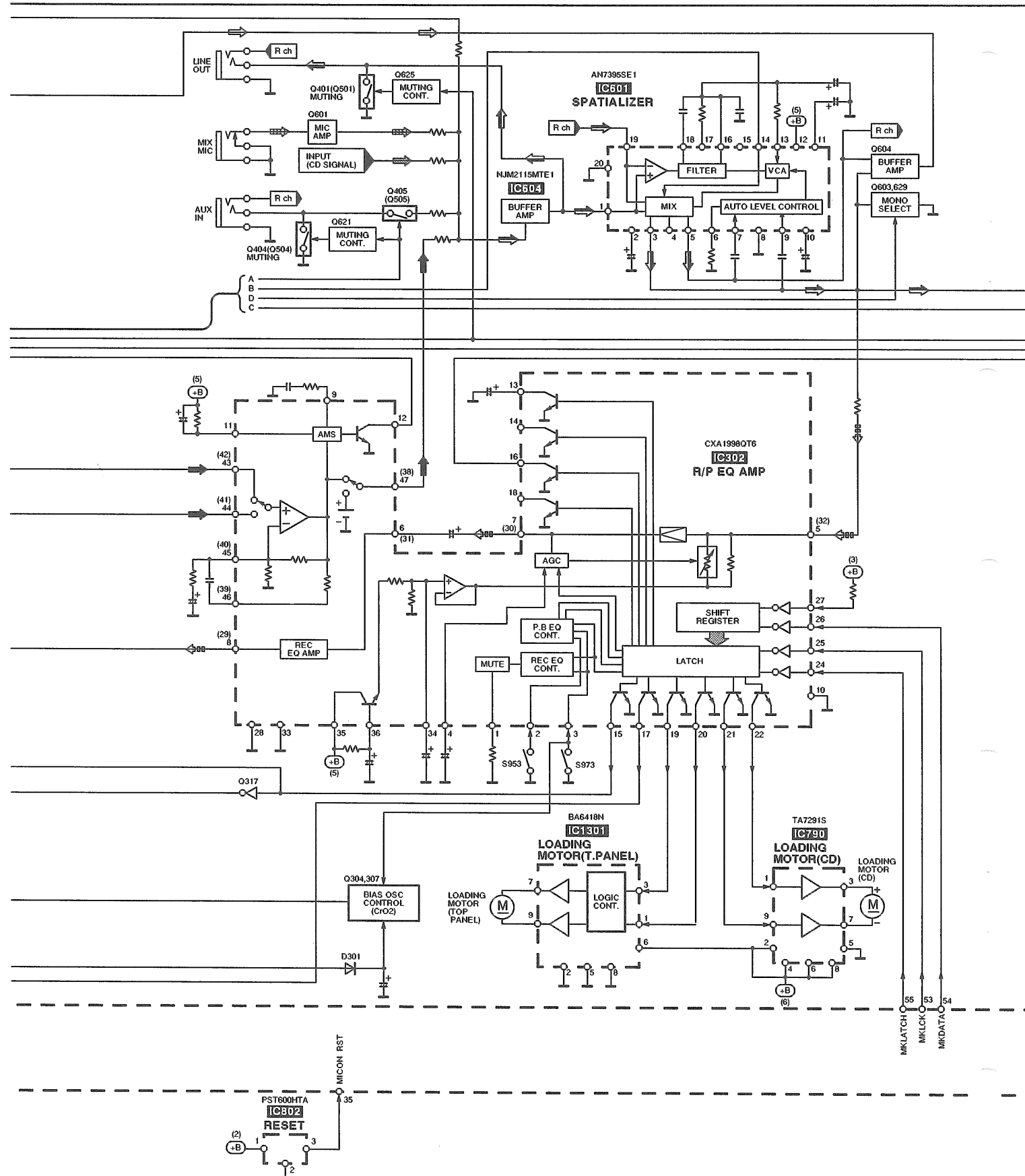


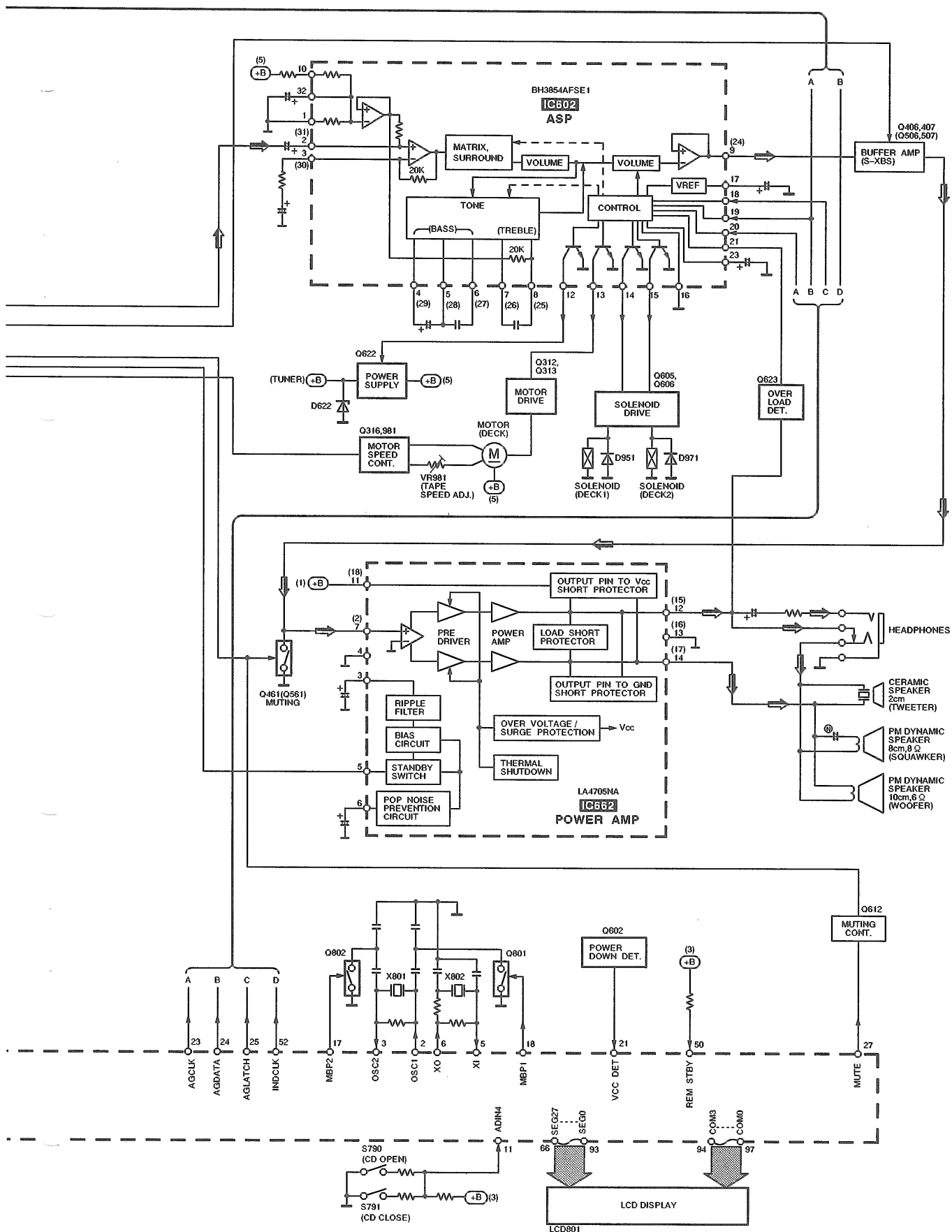


Block Diagram • Main Unit









■ 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 / AM
- Set volume level to 40.
- Output of signal generator should be no higher than necessary to obtain an output reading.

● AM-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.	600 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 (AM ANT Coil)	Adjust for maximum output. Adjust L3 by moving coil along the ferrite core.
"	1400 kHz	"	"	CT1 (AM ANT Trimmer)	Adjust for maximum output.

(*1) 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	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.

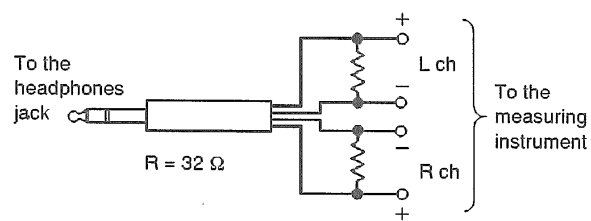


Fig. 1

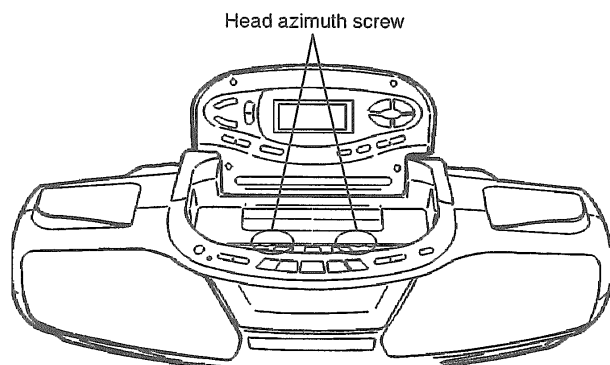


Fig. 3

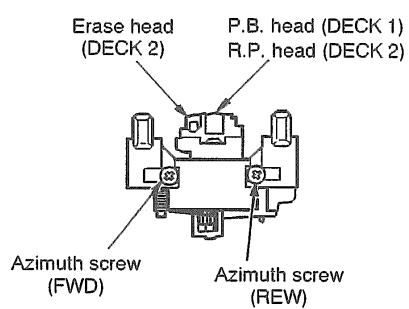


Fig. 4

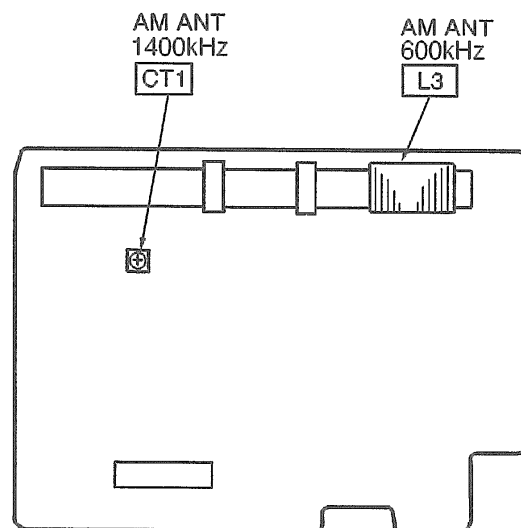


Fig. 2

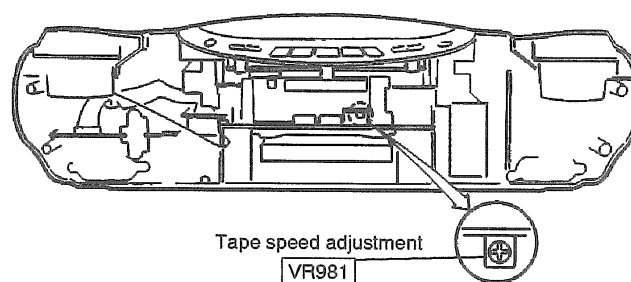
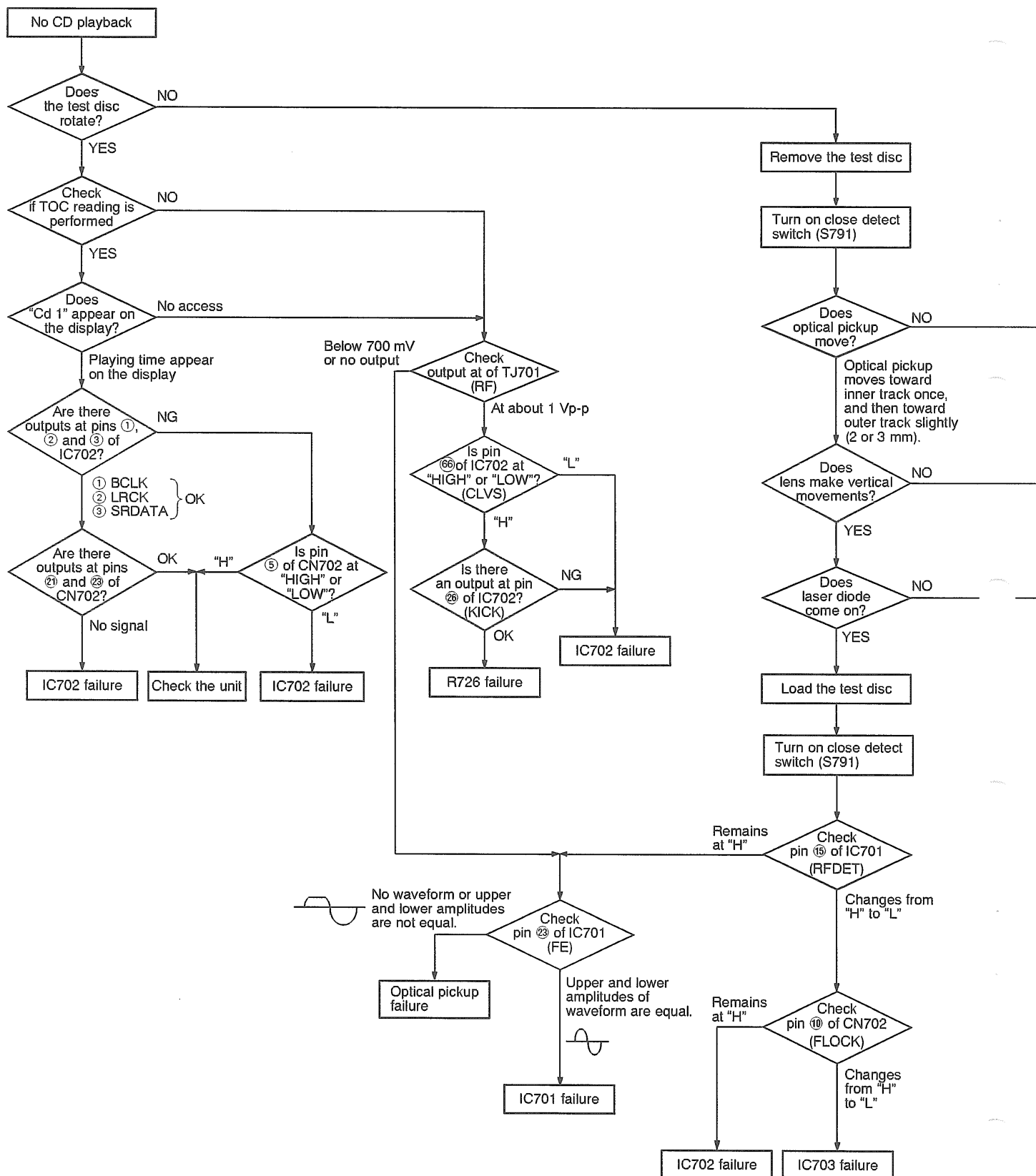
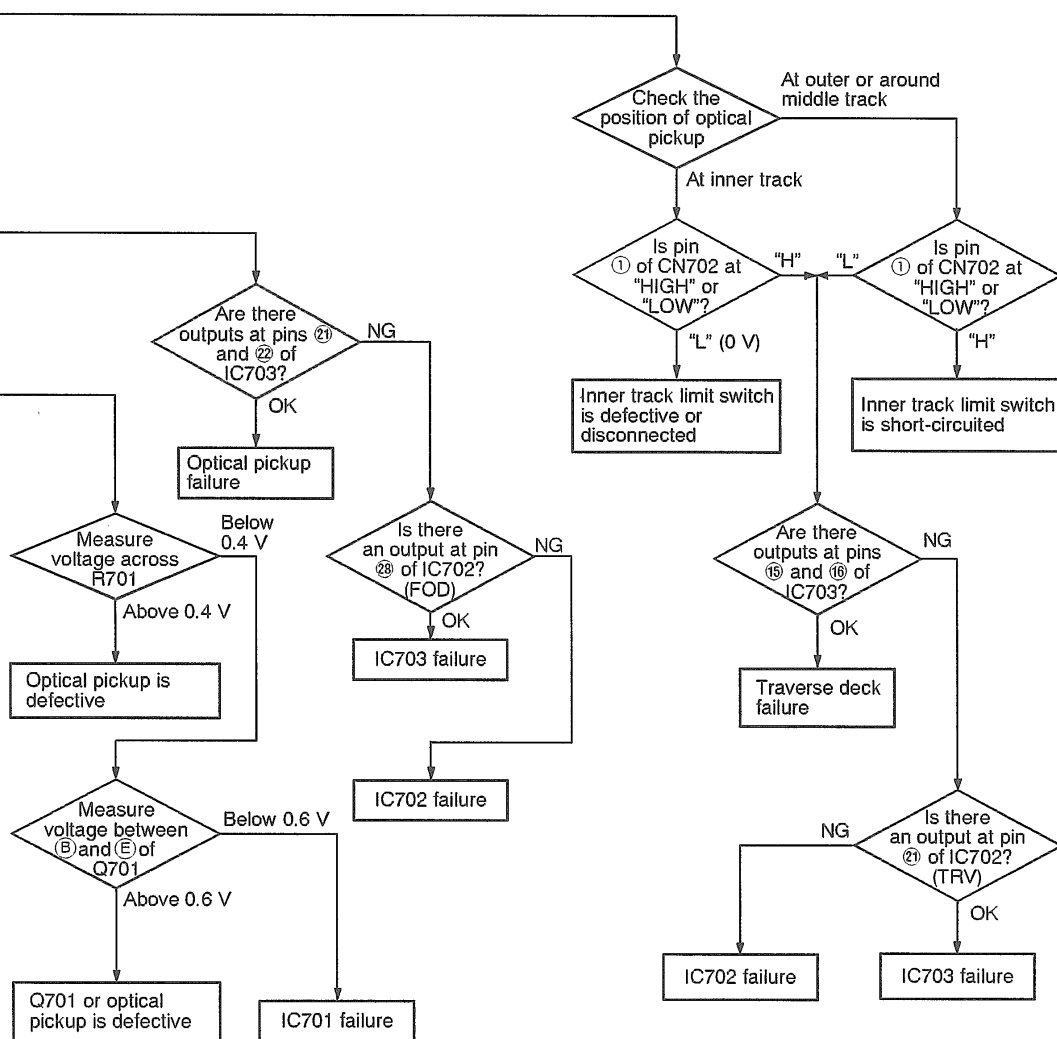


Fig. 5

Troubleshooting Guide





■ Function of IC Terminals

● 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 detector)
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	DSLFI	I/O	DSL loop filter
48	PLLFI	I/O	PLL loop filter
49	VCOFI	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

● IC801 (MND3256REBF1)

Pin No.	Terminal Name	I/O	Function
1	VDD	I	Power supply input (+5 V)
2	OSC2	O	6.0 MHz clock output
3	OSC1	I	6.0 MHz clock input
4	VSS	—	GND
5	XI	I	32.7 kHz clock input
6	XO	O	32.7 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/MODE, DECK1/2 REEL PULSE)
10	ADIN5	I	AD converter signal input (TPS, DECK1/2; REEL PULSE)
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	—	Not used
20	NC	—	Not used
21	VCC DET	I	VCC detect signal input
22	CD L	O	Function control output (CD: L TAPE/TUNER/AUX: I)
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	PWR 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 CLK	O	PLL tuner clock output
30	PLL DI	O	PLL tuner control data signal output
31	RM IN	I	Remote control signal input
32	BLKCK	I	Sub code block clock input

Pin No.	Terminal Name	I/O	Function
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)
36~38	NC	O	CD signal process strobe 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	DES1	I	—
48	DES2	I	+5V input
49	SENSE	I	CD sense signal input (H: Detect)
50	REM STBY	I	Remote control sensor power control
51	DES0	—	—
52	INDCLK	O	Serial clock output
53	MKCLK	O	Deck control clock output
54	MKDATA	O	Deck control data output
55	MKLATCH	O	Deck control data latch output
56	CD LINK EDIT	O	LED (1 TRACK) drive output
57	CD AUTO EDIT	O	LED (AUTO) drive output
58	TUNER PRESET	O	LED (PRESET TUNE MODE) drive output
59	NC	—	—
60	MLD	O	CD signal process strobe signal output
61	MDATA	O	CD signal process data output
62	MCLK	O	CD signal process clock signal output
63	—	—	Connect to GND
64,65	NC	—	Not used
66~93	SEG27 ~ SEG0	O	LCD segment signal output
94~97	COM3~COM0	I	LCD common signal output
98~100	VLC3~VLC1	I	LCD bias reference voltage input

■ 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)		Q322	2SC3311R	TRANSISTOR	
				Q325	2SC3311R	TRANSISTOR	
IC1	TA7358FMATEL	I. C, FM FRONT END		Q401	2SC3311R	TRANSISTOR	
IC2	BU2616F-E1	I. C, PLL FREQ. SYNTHESIZER		Q404	2SC3311R	TRANSISTOR	
IC3	LA1832MS-TEL	I. C, FM/AM IF AMP. DET/AM OSC		Q405	2SJ164QRTA	TRANSISTOR	
IC301	BA7755A	I. C, R/P SELECT		Q406	2SK381BCDTA	TRANSISTOR	
IC302	CXA1998QT6	I. C, R/P EQ AMP		Q407	2SC3312RTA	TRANSISTOR	
IC601	AN7395SE1	I. C, SPATIALIZER		Q461	2SC3311R	TRANSISTOR	
IC602	BH3854AFSE1	I. C, ASP		Q501	2SC3311R	TRANSISTOR	
IC603	S81350HGZ	I. C, REGULATOR	Δ	Q504	2SC3311R	TRANSISTOR	
IC604	NJM2115MT1	I. C, BUFFER AMP		Q505	2SJ164QRTA	TRANSISTOR	
IC662	LA4705NA	I. C, POWER AMP		Q506	2SK381BCDTA	TRANSISTOR	
IC701	AN8835SBE1	I. C, SERVO AMP		Q507	2SC3312RTA	TRANSISTOR	
IC702	MN662740RM1	I. C, SERVO/DIGITAL PROCESSOR		Q561	2SC3311R	TRANSISTOR	
IC703	AN8389SE1	I. C, COIL/MOTOR DRIVE		Q601	2SC3312RTA	TRANSISTOR	
IC790	TA7291S	I. C, LOADING MOTOR (CD)		Q602	2SC3311R	TRANSISTOR	
IC801	MND3256REBF1	I. C, SYSTEM CONTROL		Q603	UN4215	TRANSISTOR	
IC802	PST600HTA	I. C, RESET		Q604	2SC3311R	TRANSISTOR	
IC951, 952	ON2180RLC	I. C, PHOTO INTERRUPTER		Q605, 606	2SB1030QTA	TRANSISTOR	
IC971, 972	ON2180RLC	I. C, PHOTO INTERRUPTER		Q607	2SB1393AU	TRANSISTOR	Δ
IC1001	BU2090FSE1	I. C, DATA SELECT		Q608	UN4116	TRANSISTOR	
IC1002	LB1403N	I. C, LED DRIVE		Q609	2SC3311R	TRANSISTOR	Δ
IC1301	BA6418N	I. C, LOADING MOTOR (T. PANEL)		Q610	2SB1417PTA	TRANSISTOR	
		TRANSISTOR(S)		Q612	UN4111	TRANSISTOR	
Q1	2SC3311R	TRANSISTOR		Q614	2SB1030QTA	TRANSISTOR	
Q2	2SC3311R	TRANSISTOR		Q615	UN4213	TRANSISTOR	
Q3	2SC2786LTA	TRANSISTOR		Q618	2SC3311R	TRANSISTOR	
Q4	2SC3313B	TRANSISTOR		Q619	UN411FTA	TRANSISTOR	
Q5	UN411FTA	TRANSISTOR		Q620	UN4213	TRANSISTOR	
Q12	2SC3311R	TRANSISTOR		Q621	UN4113	TRANSISTOR	
Q101	2SJ164QTA	TRANSISTOR		Q623	2SC3311A-Q	TRANSISTOR	
Q103	2SJ164RTA	TRANSISTOR		Q625	UN4113	TRANSISTOR	
Q201	2SJ164QTA	TRANSISTOR		Q626	2SA1309R	TRANSISTOR	
Q203	2SJ164RTA	TRANSISTOR		Q627	2SC3311R	TRANSISTOR	Δ
Q302	2SC2389SSTA	TRANSISTOR		Q628	UN4114TA	TRANSISTOR	
Q303	2SD1450RTA	TRANSISTOR		Q629	UN411FTA	TRANSISTOR	
Q304	UN4210-S	TRANSISTOR		Q630	2SC3311R	TRANSISTOR	Δ
Q305-311	2SC3311R	TRANSISTOR		Q660	UN4213AITA	TRANSISTOR	
Q312	2SD965Q	TRANSISTOR		Q701	2SB709S	TRANSISTOR	
Q313	2SA1309R	TRANSISTOR		Q801, 802	2SC3311R	TRANSISTOR	
Q314-316	2SC3311R	TRANSISTOR		Q803-805	UN4210-S	TRANSISTOR	
Q317	UN411FTA	TRANSISTOR		Q806	2SC3311AR	TRANSISTOR	
Q318, 319	2SC3311R	TRANSISTOR		Q807	2SD1450RTA	TRANSISTOR	
				Q981	2SK381BCDTA	TRANSISTOR	
				Q1003	2SC3311R	TRANSISTOR	

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
		DIODE (S)				COIL (S)	
D1	KV1360NT	DIODE		L1	RL02B012-T	COIL	
D3	KV1583BMTL	DIODE		L3	RLV2C022-0	COIL	
D4	KV1360NT	DIODE		L5	RLQA8R2JT1-Y	COIL	
D8	MA165	DIODE		L8	ELEXT101KA9	COIL	
D11	RVD1SS135TA	DIODE		L301	RL08B003-K	COIL	
D301	MA165	DIODE		L302	RLQA470JT1-Y	COIL	
D402, 403	MA165	DIODE		L801	ELEXT2R2KA9	COIL	
D502, 503	MA165	DIODE		L803	ELEXT2R2KA9	COIL	
D601	MA165	DIODE		L1301	RLQB470KTA-Y	COIL	
D602	MA4091LTA	DIODE	△			TRANSFORMER (S)	
D603	RL1N4003N02	DIODE					
D604-606	MA165	DIODE					
D607	MA4075TA	DIODE	△	T1	RL122010-T	TRANSFORMER	
D608-610	MA165	DIODE		T901	RTP1L1C006-W	POWER TRANSFORMER	△
D613	MA165	DIODE				FILTER (S)	
D616	MA165	DIODE					
D618	RL1N4003N02	DIODE					
D620	MA165	DIODE		CF1, 2	RLFFETMLA02D	CERAMIC FILTER	
D622	RVDMTZ5R1BTA	DIODE	△	CF3	RLFDFT14AD	DISCRIMINATOR	
D623	1SR139400TA	DIODE					
D627	RVDMTZ12BTA	DIODE	△			OSCILLATOR (S)	
D630	MA165	DIODE					
D631	RVDMTZ5R1BTA	DIODE		X1	RSXZ456KM01	OSCILLATOR (456kHz)	
D801	MA165	DIODE		X2	RSXC7M20S04T	OSCILLATOR (7. 2MHz)	
D803, 804	LN873RPXTA3	LED		X701	RSXZ16M9M01T	OSCILLATOR (16. 9344MHz)	
D807	MA4100MTA	DIODE		X801	RSXZ6M00M01T	OSCILLATOR (6MHz)	
D811	LN29RPXTX9DK	LED		X802	RSXD32K7S03	OSCILLATOR (32. 7kHz)	
D901-904	1N5402B-M21	DIODE	△				
D951	MA165	DIODE				FUSE (S)	
D971	MA165	DIODE					
D1001	RVDMTZ8R2BTA	DIODE		F901, 902	XBA1C50NBAL	FUSE 125V 5A	△
D1005-1007	LNJ301MPUJAD	LED					
D1008	LN28RPXTA5	LED				SWITCH (ES)	
D1009	LNK0710036F	LED (D1009-D1015)					
D1016-1021	MA165	DIODE		S701	RSM0006-P	SW, REST	
D1022-1024	LNJ301MPUJAD	LED		S790	RSH1A005	SW, OPEN	
				S791	RSH1A005	SW, CLOSE	
		VARIABLE RESISTOR (S)		S801	EVQ21405R	SW, S-XBS	
				S802	EVQ21405R	SW, AUX	
VR981	RRN6B05B75TA	V. R, TAPE SPEED		S803	EVQ21405R	SW, TIMER	
				S804	EVQ21405R	SW, R. SEARCH/-	
		COMPONENT COMBINATION (S)		S805	EVQ21405R	SW, F. SEARCH/+	
				S806	EVQ21405R	SW, MEMORY. TUNER/CD	
Z1	RXABPWB6A	COMPONENT COMBINATION		S807	EVQ21405R	SW, CLOCK ADJUST	
Z301	EXBF7L355SYV	COMPONENT COMBINATION		S808	EVQ21405R	SW, PRESET TUNER MODE	
Z302	EXBF6L306SYV	COMPONENT COMBINATION		S809	EVQ21405R	SW, REC/REC PAUSE	
Z801	XAMR135	LAMP		S810	EVQ21405R	SW, TAPE EDIT	
Z971	EXBF7L355SYV	COMPONENT COMBINATION		S811	EVQ21405R	SW, CD REC LEVEL	
Z1001	RCD12042TE	REMOTE SENSOR		S812	EVQ21405R	SW, CD REC MODE	
				S813	EVQ21405R	SW, PRESET EQ	

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
S814	EVQ21405R	SW, TIMER ADJUST		CS1301	RJP4G172A	CONNECTOR(4P)	
S815	EVQ21405R	SW, SPATIALIZER/DEMO		CS8011	RJS1A6838	CONNECTOR(38P)	
S901	RJJ1SM02-H	SW, AC/DC (JK901)	△	CN701	RJU035T016	CONNECTOR(16P)	
S951	RSH1A018-1U	SW, MODE (DECK1)		CN702	RJS1A6723-1Q	CONNECTOR(23P)	
S952	RSH1A019-2U	SW, HALF (DECK1)				VARIABLE CAPACITOR(S)	
S953	RSH1A019-2U	SW, ATS/CRO2 (DECK1)					
S971	RSH1A018-1U	SW, MODE (DECK2)		CT1	RCV10AF1T-S	TRIMMER CAPACITOR	
S972	RSH1A019-2U	SW, HALF (DECK2)				FUSE HOLDER(S)	
S973	RSH1A019-2U	SW, ATS/Cr02 (DECK2)					
S974	RSH1A019-2U	SW, R. REC INH(DECK2)					
S975	RSH1A019-2U	SW, F. REC INH(DECK2)		FH901-904	EYF52BC	FUSE HOLDER	
S1002	EVQ21405R	SW, VOLUME -				DISPLAY(S)	
S1003	EVQ21405R	SW, VOLUME +					
S1004	EVQ21405R	SW, TAPE STOP					
S1005	EVQ21405R	SW, TAPE PLAY		LCD801	RSL5150-L	LCD	
S1006	EVQ21405R	SW, TUNER/BAND				JACK(S)	
S1007	EVQ21405R	SW, CD PLAY/PAUSE					
S1008	EVQ21405R	SW, CD STOP/CLEAR		JK601	RJJ33MR01-H	MIX MIC	
S1009	EVQ21405R	SW, TOP PANEL CLOSE		JK602	RJJ33T01	LINE OUT	
S1010	EVQ21405R	SW, TOP PANEL OPEN		JK603	RJJ33T01	AUX IN	
S1011	EVQ21405R	SW, POWER		JK604	RJJ37TK01-C	HEADPHONES	
S1012	EVQ21405R	SW, DECK1 OPEN/CLOSE		JK901	RJJ1SM02-H	AC INLET(S901)	△
S1013	EVQ21405R	SW, REW(TPS)					
S1014	EVQ21405R	SW, DECK 1/2					
S1015	EVQ21405R	SW, FF (TPS)					
S1016	EVQ21405R	SW, DECK2 OPEN/CLOSE					
S1017	EVQ21405R	SW, CD OPEN/CLOSE					
		CONNECTOR(S)					
CP601	RJT060B04	CONNECTOR(4P)					
CP607	RJT029W02V-1	CONNECTOR(2P)					
CP608	RJT029W002-1	CONNECTOR(2P)					
CP790	RJP6G172A	CONNECTOR(6P)					
CP901	RJT029W003-1	CONNECTOR(3P)					
CP902	RJT029W006-1	CONNECTOR(6P)					
CP951	RJT071H09A	CONNECTOR(9P)					
CP971	RJT071H09A	CONNECTOR(9P)					
CP981	RJT094W03	CONNECTOR(3P)					
CP1001	RJP6G182A	CONNECTOR(6P)					
CP1002	RJT057W009-1	CONNECTOR(9P)					
CP1003	RJP4G182A	CONNECTOR(4P)					
CP1004	RJT057W009-1	CONNECTOR(9P)					
CS301, 302	RJS1A6805	CONNECTOR(5P)					
CS602	RJS1A5210	CONNECTOR(10P)					
CS702	RJS1A6723-Q	CONNECTOR(23P)	<M>				
CS801	RJS1A6838	CONNECTOR(38P)					
CS951	RJU071H09M	CONNECTOR(9P)					
CS971	RJU071H09M	CONNECTOR(9P)					
CS981	SJS50378JQ	CONNECTOR(3P)					
CS1002	RJU057W009	CONNECTOR(9P)					
CS1004	RJU057W009	CONNECTOR(9P)					

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)

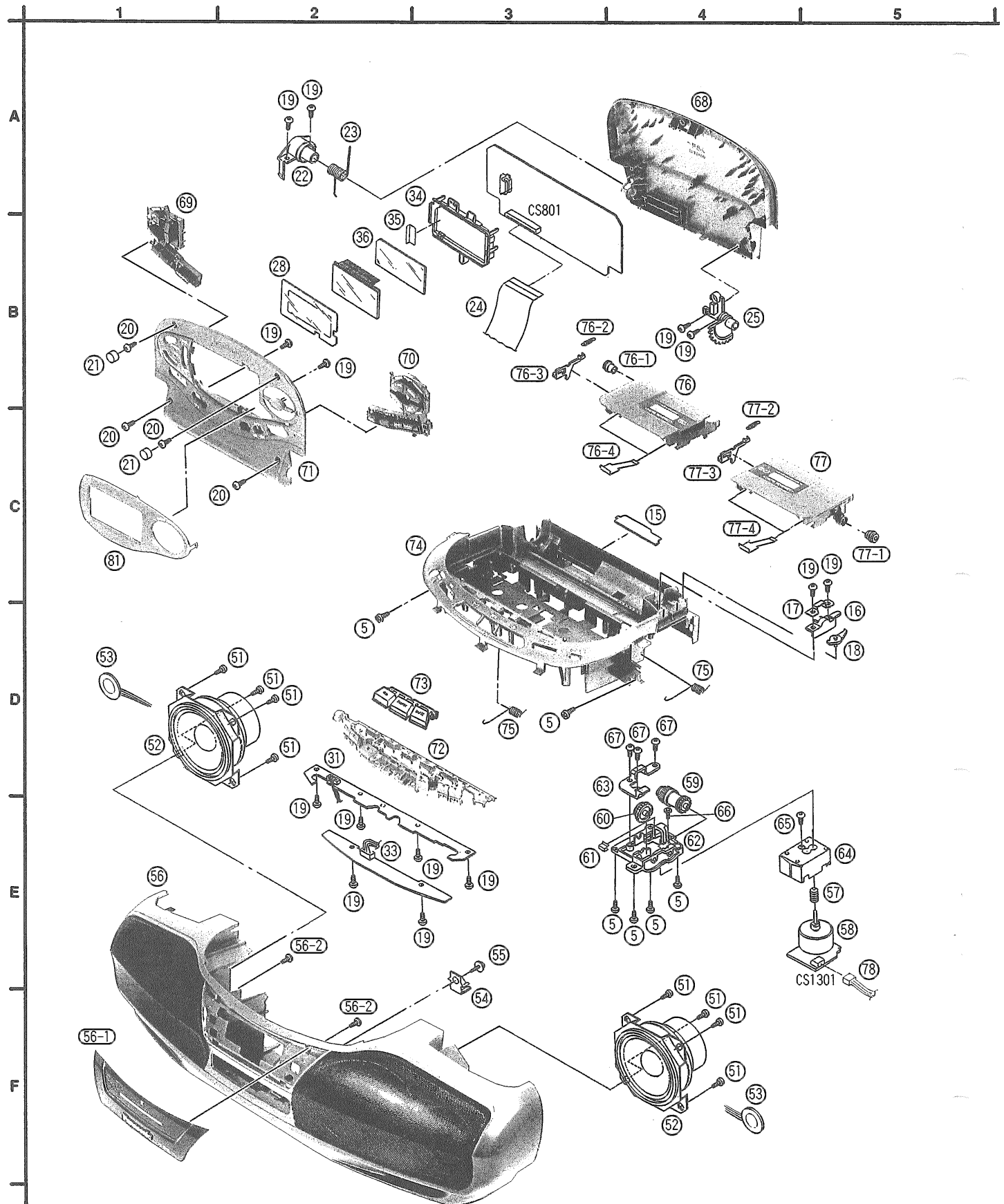
Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks
		RESISTORS	R109	ERDS2TJ152	1/4W 1.5K	R350	ERDS2TJ334	1/4W 330K
			R110	ERDS2TJ123	1/4W 12K	R355	ERDS2TJ153	1/4W 15K
			R201	ERDS2TJ680T	1/4W 68	R366	ERDS2TJ183T	1/4W 18K
R1	ERDS2TJ104	1/4W 100K	R202	ERDS2TJ273	1/4W 27K	R368	ERDS2TJ220T	1/4W 22
R2	ERDS2TJ332	1/4W 3.3K	R203	ERDS2TJ562	1/4W 5.6K	R369	ERDS2TJ334	1/4W 330K
R3	ERDS2TJ104	1/4W 100K	R204	ERDS2TJ104	1/4W 100K	R401	ERDS2TJ333	1/4W 33K
R4, 5	ERDS2TJ103	1/4W 10K	R205	ERDS2TJ182	1/4W 1.8K	R403	ERDS2TJ223	1/4W 22K
R6	ERDS2TJ152	1/4W 1.5K	R206	ERDS2TJ332	1/4W 3.3K	R406, 407	ERX1SJR33	1W 0.33
R7	ERDS2TJ330	1/4W 33	R209	ERDS2TJ152	1/4W 1.5K	R408	ERDS2TJ103	1/4W 10K
R8	ERDS2TJ104	1/4W 100K	R210	ERDS2TJ123	1/4W 12K	R409	ERDS2TJ472	1/4W 4.7K
R9	ERDS2TJ471	1/4W 470	R301	ERDS2TJ103	1/4W 10K	R410, 411	ERDS2TJ473	1/4W 47K
R10	ERDS2TJ102	1/4W 1K	R302, 303	ERDS2TJ152	1/4W 1.5K	R413	ERDS2TJ181T	1/4W 180
R11	ERDS2TJ103	1/4W 10K	R305	ERDS2TJ103	1/4W 10K	R416	ERDS2TJ104	1/4W 100K
R12	ERDS2TJ223	1/4W 22K	R306	ERDS2TJ752T	1/4W 7.5K	R417	ERDS2TJ221	1/4W 220
R13	ERDS2TJ153	1/4W 15K	R307	ERDS2TJ822	1/4W 8.2K	R420	ERDS2TJ333	1/4W 33K
R14	ERDS2TJ103	1/4W 10K	R308 △	ERD2FCVJ4R7T	1/4W 4.7	R421	ERDS2TJ103	1/4W 10K
R15	ERDS2TJ223	1/4W 22K	R309-311	ERDS2TJ472	1/4W 4.7K	R422	ERDS2TJ105T	1/4W 1M
R16	ERDS2TJ105T	1/4W 1M	R312	ERDS2TJ334	1/4W 330K	R423	ERDS2TJ821	1/4W 820
R17	ERDS2TJ103	1/4W 10K	R313	ERDS2TJ123	1/4W 12K	R424	ERDS2TJ124T	1/4W 120K
R18	ERDS2TJ223	1/4W 22K	R314	ERDS2TJ472	1/4W 4.7K	R425	ERDS2TJ682T	1/4W 6.8K
R19	ERDS2TJ101	1/4W 100	R315	ERDS2TJ102	1/4W 1K	R428	ERDS2TJ472	1/4W 4.7K
R20	ERDS2TJ151	1/4W 150	R316	ERDS2TJ470	1/4W 47	R429	ERDS2TJ223	1/4W 22K
R21	ERDS2TJ104	1/4W 100K	R317	ERDS2TJ220T	1/4W 22	R431	ERDS2TJ821	1/4W 820
R22	ERDS2TJ331	1/4W 330	R318	ERDS2TJ335T	1/4W 3.3M	R461, 462	ERDS2TJ2R2T	1/4W 2.2
R24	ERDS2TJ471	1/4W 470	R319-322	ERDS2TJ104	1/4W 100K	R464	ERDS2TJ682T	1/4W 6.8K
R25	ERDS2TJ104	1/4W 100K	R323, 324	ERDS2TJ273	1/4W 27K	R465	ERDS2TJ472	1/4W 4.7K
R26, 27	ERDS2TJ102	1/4W 1K	R325	ERDS2TJ471	1/4W 470	R501	ERDS2TJ333	1/4W 33K
R28	ERDS2TJ334	1/4W 330K	R326	ERDS2TJ103	1/4W 10K	R503	ERDS2TJ223	1/4W 22K
R29	ERDS2TJ331	1/4W 330	R327	ERDS2TJ472	1/4W 4.7K	R506, 507	ERX1SJR33	1W 0.33
R30	ERDS2TJ822	1/4W 8.2K	R328	ERDS2TJ103	1/4W 10K	R508	ERDS2TJ103	1/4W 10K
R31	ERDS2TJ472	1/4W 4.7K	R329	ERDS2TJ681	1/4W 680	R509	ERDS2TJ472	1/4W 4.7K
R41	ERDS2TJ301T	1/4W 300	R330	ERDS2TJ563	1/4W 56K	R510, 511	ERDS2TJ473	1/4W 47K
R47	ERDS2TJ332	1/4W 3.3K	R331, 332	ERDS2TJ104	1/4W 100K	R513	ERDS2TJ181T	1/4W 180
R49	ERDS2TJ103	1/4W 10K	R333	ERDS2TJ472	1/4W 4.7K	R516	ERDS2TJ104	1/4W 100K
R52	ERDS2TJ223	1/4W 22K	R334	ERDS2TJ153	1/4W 15K	R517	ERDS2TJ221	1/4W 220
R55, 56	ERDS2TJ273	1/4W 27K	R335	ERDS2TJ470	1/4W 47	R520	ERDS2TJ333	1/4W 33K
R58	ERDS2TJ101	1/4W 100	R336	ERDS2TJ563	1/4W 56K	R521	ERDS2TJ103	1/4W 10K
R59	ERDS2TJ471	1/4W 470	R337	ERDS2TJ104	1/4W 100K	R523	ERDS2TJ821	1/4W 820
R61	ERDS2TJ103	1/4W 10K	R338	ERDS2TJ223	1/4W 22K	R524	ERDS2TJ124T	1/4W 120K
R62	ERDS2TJ471	1/4W 470	R339	ERDS2TJ104	1/4W 100K	R525	ERDS2TJ682T	1/4W 6.8K
R64	ERDS2TJ332	1/4W 3.3K	R340	ERDS2TJ563	1/4W 56K	R528	ERDS2TJ472	1/4W 4.7K
R65	ERDS2TJ470	1/4W 47	R341	ERDS2TJ470	1/4W 47	R529	ERDS2TJ223	1/4W 22K
R66	ERDS2TJ332	1/4W 3.3K	R342	ERDS2TJ104	1/4W 100K	R531	ERDS2TJ821	1/4W 820
R101	ERDS2TJ680T	1/4W 68	R343	ERDS2TJ563	1/4W 56K	R561, 562	ERDS2TJ2R2T	1/4W 2.2
R102	ERDS2TJ273	1/4W 27K	R344	ERDS2TJ470	1/4W 47	R564	ERDS2TJ682T	1/4W 6.8K
R103	ERDS2TJ562	1/4W 5.6K	R345, 346	ERDS2TJ102	1/4W 1K	R565	ERDS2TJ472	1/4W 4.7K
R104	ERDS2TJ104	1/4W 100K	R347	ERDS2TJ222	1/4W 2.2K	R601	ERDS2TJ334	1/4W 330K
R105	ERDS2TJ182	1/4W 1.8K	R348	ERDS2TJ103	1/4W 10K	R602	ERDS2TJ102	1/4W 1K
R106	ERDS2TJ332	1/4W 3.3K	R349	ERDS2TJ224T	1/4W 220K	R603	ERDS2TJ180T	1/4W 18

Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks
R604	ERDS2TJ473	1/4W 47K	R672	ERDS2TJ103	1/4W 10K	R812-818	ERDS2TJ472	1/4W 4. 7K
R605-607	ERDS2TJ334	1/4W 330K	R673	ERDS2TJ102	1/4W 1K	R819	ERDS2TJ124T	1/4W 120K
R608	ERDS2TJ273	1/4W 27K	R674 Δ	ERDS1FVJ101T	1/2W 100	R820	ERDS2TJ472	1/4W 4. 7K
R609	ERDS2TJ332	1/4W 3. 3K	R675	ERDS2TJ103	1/4W 10K	R821	ERDS2TJ103	1/4W 10K
R610	ERDS2TJ273	1/4W 27K	R676	ERDS2TJ182	1/4W 1. 8K	R822	ERDS2TJ222	1/4W 2. 2K
R611	ERDS2TJ332	1/4W 3. 3K	R677	ERDS2TJ682T	1/4W 6. 8K	R823-825	ERDS2TJ103	1/4W 10K
R612, 613	ERDS2TJ1R2	1/4W 1. 2	R678 Δ	ERD2FCVG220T	1/4W 22	R826	ERDS2TJ474	1/4W 470K
R614	ERDS2TJ103	1/4W 10K	R679	ERDS2TJ101	1/4W 100	R827	ERDS2TJ472	1/4W 4. 7K
R615	ERDS2TJ331	1/4W 330	R680-682	ERDS2TJ103	1/4W 10K	R828	ERDS2TJ102	1/4W 1K
R616	ERDS2TJ472	1/4W 4. 7K	R683	ERDS2TJ474	1/4W 470K	R829, 830	ERDS2TJ104	1/4W 100K
R617	ERDS2TJ122	1/4W 1. 2K	R684, 685	ERDS2TJ223	1/4W 22K	R831, 832	ERDS2TJ102	1/4W 1K
R618	ERDS2TJ103	1/4W 10K	R686, 687	ERDS2TJ103	1/4W 10K	R835	ERDS2TJ103	1/4W 10K
R619, 620	ERDS2TJ391	1/4W 390	R692	ERDS2TJ472	1/4W 4. 7K	R837	ERDS2TJ102	1/4W 1K
R621	ERDS2TJ102	1/4W 1K	R701	ERJ6GEYJ4R7V	1/10W 4. 7	R838, 839	ERDS2TJ472	1/4W 4. 7K
R622	ERDS2TJ151	1/4W 150	R703	ERJ6GEYJ823	1/10W 82K	R841	ERDS2TJ472	1/4W 4. 7K
R624	ERDS2TJ331	1/4W 330	R704	ERJ6GEYJ102A	1/10W 1K	R846, 847	ERDS2TJ681	1/4W 680
R625	ERDS2TJ103	1/4W 10K	R705	ERJ6GEYJ103V	1/10W 10K	R848	ERDS2TJ103	1/4W 10K
R626	ERDS2TJ122	1/4W 1. 2K	R706	ERJ6GEYJ102A	1/10W 1K	R849	ERDS2TJ183T	1/4W 18K
R627	ERDS2TJ221	1/4W 220	R707	ERJ6GEYJ474V	1/10W 470K	R850	ERDS2TJ104	1/4W 100K
R628	ERDS2TJ682T	1/4W 6. 8K	R708	ERJ6GEYJ154V	1/10W 150K	R854	ERDS2TJ681	1/4W 680
R629	ERDS2TJ272T	1/4W 2. 7K	R709	ERJ6GEYJ683V	1/10W 68K	R856, 857	ERDS2TG103T	1/4W 10K
R630	ERDS2TJ474	1/4W 470K	R711	ERJ6GEYJ154V	1/10W 150K	R859, 860	ERDS2TJ102	1/4W 1K
R631	ERDS2TJ1R2	1/4W 1. 2	R712	ERJ6GEYJ221V	1/10W 220	R861	ERDS2TJ122	1/4W 1. 2K
R633, 634	ERDS2TJ330	1/4W 33	R717-720	ERJ6GEYJ102A	1/10W 1K	R862	ERDS2TJ182	1/4W 1. 8K
R635 Δ	ERDS1FVJ101T	1/2W 100	R721	ERJ6GEYJ101V	1/10W 100	R863	ERDS2TJ222	1/4W 2. 2K
R636, 637	ERDS2TJ102	1/4W 1K	R722	ERJ6GEYJ563V	1/10W 56K	R864	ERDS2TJ272T	1/4W 2. 7K
R638, 639	ERDS2TJ103	1/4W 10K	R723	ERJ6GEYJ182V	1/10W 1. 8K	R865	ERDS2TJ392T	1/4W 3. 9K
R640, 641	ERDS2TJ472	1/4W 4. 7K	R724	ERJ6GEYJ333V	1/10W 33K	R866	ERDS2TJ682T	1/4W 6. 8K
R642	ERDS2TJ682T	1/4W 6. 8K	R725	ERJ6GEYJ472V	1/10W 4. 7K	R867	ERDS2TG103T	1/4W 10K
R643, 644	ERDS2TJ102	1/4W 1K	R726	ERJ6GEYJ473V	1/10W 47K	R951	ERDS2TJ681	1/4W 680
R645	ERDS2TJ472	1/4W 4. 7K	R727	ERJ6GEYJ822V	1/10W 8. 2K	R953, 954	ERDS2TJ393	1/4W 39K
R646	ERDS2TJ273	1/4W 27K	R728	ERJ6GEYJ103V	1/10W 10K	R971	ERDS2TJ681	1/4W 680
R647	ERDS2TJ472	1/4W 4. 7K	R731	ERJ6GEYJ822V	1/10W 8. 2K	R973, 974	ERDS2TJ393	1/4W 39K
R648	ERDS2TJ103	1/4W 10K	R734-736	ERJ6GEYJ101V	1/10W 100	R981	ERDS2TJ334	1/4W 330K
R649	ERDS2TJ561	1/4W 560	R738	ERJ6GEYJ223V	1/10W 22K	R982	ERDS2TJ123	1/4W 12K
R650	ERDS2TJ123	1/4W 12K	R741-743	ERJ6GEYJ562V	1/10W 5. 6K	R983	ERDS2TJ133T	1/4W 13K
R652, 653	ERDS2TJ103	1/4W 10K	R744	ERJ6GEYJ103V	1/10W 10K	R984	ERDS2TJ332	1/4W 3. 3K
R654, 655	ERDS2TJ472	1/4W 4. 7K	R745	ERJ6GEYJ155V	1/10W 1. 5M	R985	ERDS2TJ103	1/4W 10K
R657	ERDS2TJ104	1/4W 100K	R748	ERJ6GEYJ182V	1/10W 1. 8K	R1003	ERDS2TJ222	1/4W 2. 2K
R658	ERDS2TJ393	1/4W 39K	R749	ERJ6GEYJ682V	1/10W 6. 8K	R1004	ERDS2TJ272T	1/4W 2. 7K
R659	ERDS2TJ302	1/4W 3K	R750, 751	ERJ6GEYJ473V	1/10W 47K	R1005	ERDS2TJ392T	1/4W 3. 9K
R660	ERDS2TJ102	1/4W 1K	R752	ERJ8GEYJ220V	1/8W 22	R1006	ERDS2TJ682T	1/4W 6. 8K
R661	ERDS2TJ472	1/4W 4. 7K	R770, 771	ERJ6GEYJ155V	1/10W 1. 5M	R1007	ERDS2TJ103	1/4W 10K
R662	ERDS2TJ822	1/4W 8. 2K	R772	ERJ6GEYJ273V	1/10W 27K	R1008	ERDS2TJ183T	1/4W 18K
R663	ERDS2TJ472	1/4W 4. 7K	R801, 802	ERDS2TJ332	1/4W 3. 3K	R1009	ERDS2TJ563	1/4W 56K
R664	ERDS2TJ101	1/4W 100	R803	ERDS2TJ333	1/4W 33K	R1020, 1021	ERDS2TJ222	1/4W 2. 2K
R665	ERDS2TJ105T	1/4W 1M	R804, 805	ERDS2TJ823T	1/4W 82K	R1022	ERDS2TJ103	1/4W 10K
R666	ERDS2TJ222	1/4W 2. 2K	R806	ERDS2TJ104	1/4W 100K	R1023	ERDS2TJ272T	1/4W 2. 7K
R667	ERDS2TJ103	1/4W 10K	R807	ERDS2TJ105T	1/4W 1M	R1024	ERDS2TJ103	1/4W 10K
R668	ERDS2TJ333	1/4W 33K	R808	ERDS2TJ822	1/4W 8. 2K	R1025	ERDS2TJ104	1/4W 100K
R669	ERDS2TJ105T	1/4W 1M	R809	ERDS2TJ334	1/4W 330K	R1026	ERDS2TJ561	1/4W 560
R670	ERDS2TJ822	1/4W 8. 2K	R810, 811	ERDS2TJ102	1/4W 1K	R1028	ERDS2TJ102	1/4W 1K

Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks
R1030	ERDS2TJ102	1/4W 1K	C32, 33	ECBT1H101KB5	50V 100P	C310, 311	ECBT1H102KB5	50V 1000P
R1032	ERDS2TJ102	1/4W 1K	C34	ECBT1H680J5	50V 68P	C312, 313	ECBT1C222MR5	16V 2200P
R1034	ERDS2TJ102	1/4W 1K	C35	ECBT1H1R5M5	50V 1.5P	C314	ECBT1C332MR5	16V 3300P
R1036	ERDS2TJ102	1/4W 1K	C36, 37	RCBS1H102KBY	50V 1000P	C315	ECEA0JKA470B	6.3V 47U
R1038	ERDS2TJ561	1/4W 560	C38	ECBT1H331KB5	50V 330P	C317	ECEA1CKA100B	16V 10U
R1040, 1041	ERDS2TJ102	1/4W 1K	C39, 40	ECBT1C103MS5	16V 0.01U	C318	ECFR1C473MR	16V 0.047U
R1042	ERDS2TJ122	1/4W 1.2K	C44	RCE1AU101BG	10V 100U	C319	ECEA1HKA0R1B	50V 0.1U
R1043	ERDS2TJ182	1/4W 1.8K	C47	ECFR1C223MR	16V 0.022U	C320	ECEA1AKA220B	10V 22U
R1044	ERDS2TJ122	1/4W 1.2K	C48	RCE0JU101BG	6.3V 100U	C321	ECEA1AKA101B	10V 100U
R1045	ERDS2TJ182	1/4W 1.8K	C51	ECEA1HKA010B	50V 1U	C322	ECEA1CKA100B	16V 10U
R1046	ERDS2TJ222	1/4W 2.2K	C52	ECFR1C473MR	16V 0.047U	C323	ECEA0JKA470B	6.3V 47U
R1047	ERDS2TJ272T	1/4W 2.7K	C60	ECEA1AKA220B	10V 22U	C324	ECEA1HKA0R1B	50V 0.1U
R1048	ERDS2TJ392T	1/4W 3.9K	C61	ECBT1C332MR5	16V 3300P	C325-327	ECBT1H471KB5	50V 470P
R1049	ERDS2TJ151	1/4W 150	C62	RCBS1H102KBY	50V 1000P	C329	ECEA1AKA470B	10V 47U
R1057	ERDS2TJ151	1/4W 150	C63	ECBA1H681KB5	50V 680P	C330	ECEA1CKA100B	16V 10U
		CHIP JUMPER(S)	C67	ECFR1C223MR	16V 0.022U	C331	ECBT1H102KB5	50V 1000P
			C68	ECEA1HKA010B	50V 1U	C333	ECBT1H471KB5	50V 470P
			C69, 70	ECFR1C183MR	16V 0.018U	C334	ECEA1CKA100B	16V 10U
RJ701-704	ERJ8GEY0R00A	CHIP JUMPER	C71	ECEA1HKA2R2B	50V 2.2U	C335-337	ECBT1H471KB5	50V 470P
RJ707	ERJ8GEY0R00A	CHIP JUMPER	C72	ECEA1HKA010B	50V 1U	C401, 402	ECEA1CKA100B	16V 10U
RJ709	ERJ8GEY0R00A	CHIP JUMPER	C74	ECBT1H471KB5	50V 470P	C403	ECEA1HKA010B	50V 1U
RJ714-717	ERJ8GEY0R00A	CHIP JUMPER	C75-77	ECEA1HKA010B	50V 1U	C404	ECFR1C104KR	16V 0.1U
RJ721-731	ERJ6GEY0R00A	CHIP JUMPER	C80, 81	ECBT1H331KB5	50V 330P	C405	ECFR1C473KR	16V 0.047U
		TEST JUMPERS	C82	ECBT1H150JC5	50V 15P	C406	ECBT0J153MS5	6.3V 0.015U
			C83	ECBT1H331KB5	50V 330P	C407	RCE1HKA47BG	50V 0.47U
			C84, 85	ECBT1C103MS5	16V 0.01U	C408	ECFR1C393KR	16V 0.039U
TJ701, 702	EYF8CU	TEST JUMPERS	C86	ECBT1H331KB5	50V 330P	C409	ECEA1HKA2R2B	50V 0.22U
		CAPACITORS	C87, 88	ECBT1C103MS5	16V 0.01U	C410	ECBT1H101KB5	50V 100P
			C89	ECBT1H101KB5	50V 100P	C411, 412	ECEA1CKA100B	16V 10U
			C101, 102	ECBT1H471KB5	50V 470P	C414	ECFR1C104KR	16V 0.1U
C3	ECFR1C473MR	16V 0.047U	C103	ECEA0JKA470B	6.3V 47U	C416	ECEA1EKA4R7B	25V 4.7U
C4	RCBS1H102KBY	50V 1000P	C104	ECFR1C183KR	16V 0.018U	C417	ECBT1H221KB5	50V 220P
C5	ECBT1H2R2KC5	50V 2.2P	C105	ECEA1EKA4R7B	25V 4.7U	C418	ECBT1H471KB5	50V 470P
C6	RCBS1H102KBY	50V 1000P	C106	ECBT1H471KB5	50V 470P	C421	ECEA1EN220SB	25V 22U
C9	ECEA1HKN010B	50V 1U	C107, 108	ECEA1HKA010B	50V 1U	C422	ECEA1CKA100B	16V 10U
C10	ECBT1C332MR5	16V 3300P	C109, 110	ECEA1EKA4R7B	25V 4.7U	C460	RCE1HU2R2BG	50V 2.2U
C11	RCE1AU101BG	10V 100U	C111	ECBT1H331KB5	50V 330P	C461, 462	ECQV1H104JM3	50V 0.1U
C12	ECFR1C223MR	16V 0.022U	C201, 202	ECBT1H471KB5	50V 470P	C465	ECBT1H102KB5	50V 1000P
C13	ECFR1C103MR	16V 0.01U	C203	ECEA0JKA470B	6.3V 47U	C501, 502	ECEA1CKA100B	16V 10U
C14	ECBT1C103MS5	16V 0.01U	C204	ECFR1C183KR	16V 0.018U	C503	ECEA1HKA010B	50V 1U
C15	ECBT1H3R9KC5	50V 3.9P	C205	ECEA1EKA4R7B	25V 4.7U	C504	ECFR1C104KR	16V 0.1U
C16, 17	RCBS1H102KBY	50V 1000P	C206	ECBT1H471KB5	50V 470P	C505	ECFR1C473KR	16V 0.047U
C18	ECBT1H200JC5	50V 20P	C207, 208	ECEA1HKA010B	50V 1U	C506	ECBT0J153MS5	6.3V 0.015U
C19	ECBT1H220JC5	50V 22P	C209, 210	ECEA1EKA4R7B	25V 4.7U	C507	RCE1HKA47BG	50V 0.47U
C20	RCBS1H102KBY	50V 1000P	C211	ECBT1H331KB5	50V 330P	C508	ECFR1C563KR	16V 0.056U
C21	ECEA1AKA101B	10V 100U	C301	ECEA1HN2R2	50V 2.2U	C509	ECEA1HKA2R2B	50V 0.22U
C22-24	RCBS1H102KBY	50V 1000P	C303	ECBT1C103MS5	16V 0.01U	C510	ECBT1H101KB5	50V 100P
C25	ECBT1H150JC5	50V 15P	C305	ECQP2A821JZT	100V 820P	C511, 512	ECEA1CKA100B	16V 10U
C26	ECBT1H6R8KC5	50V 6.8P	C306	ECQP2A472JZT	100V 4700P	C514	ECFR1C104KR	16V 0.1U
C27	ECBT1H4R7KC5	50V 4.7P	C307	ECEA1HKA010B	50V 1U	C516	ECEA1EKA4R7B	25V 4.7U
C28, 29	RCBS1H102KBY	50V 1000P	C308	RCE1AU101BG	10V 100U	C517	ECBT1H221KB5	50V 220P
C31	RCBS1H102KBY	50V 1000P	C309	ECQV1H473JM3	50V 0.047U	C518	ECBT1H471KB5	50V 470P

Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks
C521	ECEA1EN220SB	25V 22U	C706	ECUV1H272KBN	50V 2700P	C1005	ECFR1C104MR	16V 0.1U
C522	ECEA1CKA100B	16V 10U	C707	ECUV1E273KBN	25V 0.027U	C1301	ECEA1CU100	16V 10U
C560	RCE1HU2R2BG	50V 2.2U	C708	ECUE1H472KBN	50V 4700P			
C561, 562	ECQV1H104JM3	50V 0.1U	C709	ECUE1C473KBN	16V 0.047U			
C565	ECBT1H102KB5	50V 1000P	C710	ECUV1H182KBN	50V 1800P			
C601, 602	ECEA1HKA010B	50V 1U	C711, 712	ECUWNE104ZFN	25V 0.1U			
C603	ECBT1H101KB5	50V 100P	C713	ECUV1C104MBM	16V 0.1U			
C605	ECEA1CKA100B	16V 10U	C714	ECEA0JKA101I	6.3V 100U			
C606	ECEA1HKA010B	50V 1U	C716	ECUE1H561KBN	50V 560P			
C607	ECEA1CKA100B	16V 10U	C717	ECUWNE104ZFN	25V 0.1U			
C608	RCE0JU101BG	6.3V 100U	C718	ECUVNC224KBN	16V 0.22U			
C611	ECEA1CKA100B	16V 10U	C721, 722	ECUV1H150JCN	50V 15P			
C612	RCE1AU101BG	10V 100U	C723	ECEA1AKA221I	10V 220U			
C613	ECBT1H471KB5	50V 470P	C724	ECUV1C104MBM	16V 0.1U			
C614	RCE1AU101BG	10V 100U	C725, 726	ECUE1H102KBN	50V 1000P			
C615	ECEA1CKA100B	16V 10U	C727, 728	ECEA1HPK010I	50V 1U			
C616△	ECA1EM682E	25V 6800U	C730	ECUWNE104ZFN	25V 0.1U			
C617	ECBT1H330J5	50V 33P	C731, 732	ECEA0JKA221I	6.3V 220U			
C618	RCE1AU101BG	10V 100U	C733	ECUZNE104MBN	25V 0.1U			
C619, 620	ECEA1CKA100B	16V 10U	C734	ECEA1AKA221I	10V 220U			
C621	ECFR1C273KR	16V 0.027U	C735-737	ECUWNE104ZFN	25V 0.1U			
C622	ECEA1HKA010B	50V 1U	C738	ECUV1C154KBN	16V 0.15U			
C623, 624	ECBT1H221KB5	50V 220P	C742	ECUV1E273KBN	25V 0.027U			
C625	RCE1AU101BG	10V 100U	C743	ECUWNE104ZFN	25V 0.1U			
C627	ECBT1H221KB5	50V 220P	C744	ECUE1E822KBN	25V 8200P			
C628	ECEA1CKA100B	16V 10U	C745	ECUE1C473KBN	16V 0.047U			
C629, 630	ECBT1H102KB5	50V 1000P	C747	ECUE1H222KBN	50V 2200P			
C631	ECFR1C103KR	16V 0.01U	C748	ECUV1H471KBM	50V 470P			
C632	ECBT1H102KB5	50V 1000P	C749	ECUZNE104MBN	25V 0.1U			
C633	RCE0JU101BG	6.3V 100U	C750	ECUV1C104MBM	16V 0.1U			
C634, 635	ECEA1CKA100B	16V 10U	C751	ECUZNE104MBN	25V 0.1U			
C636	ECEA1HKA010B	50V 1U	C752	ECUE1H152KBN	50V 1500P			
C637	ECEA1CKA100B	16V 10U	C753	ECUV1H471KBM	50V 470P			
C638	ECEA1HKA2R2B	50V 2.2U	C754	ECUE1H471KBN	50V 470P			
C639	ECEA1CKA100B	16V 10U	C801-803	ECBT1H102KB5	50V 1000P			
C640	ECBT1H102KB5	50V 1000P	C804	ECEA0JKA101B	6.3V 100U			
C642	ECEA1CKA100B	16V 10U	C805	ECBT1H102KB5	50V 1000P			
C643, 644	ECEA1HKA010B	50V 1U	C806	ECBT1C103MS5	16V 0.01U			
C645	ECEA1AKA101B	10V 100U	C807	ECBT1H270J5	50V 27P			
C646	ECBT1H102KB5	50V 1000P	C808	ECBT1H470J5	50V 47P			
C648	ECEA1CKA100B	16V 10U	C809	ECBT1H220JC5	50V 22P			
C649	ECBT1H102KB5	50V 1000P	C810	ECBT1H470J5	50V 47P			
C650	ECBT1C103MS5	16V 0.01U	C813	ECBT1H180JC5	50V 18P			
C675	RCE1CU330BG	16V 33U	C814	ECBT1H220JC5	50V 22P			
C676	RCE1CU101BG	16V 100U	C815-818	ECBT1H561KB5	50V 560P			
C679	ECEA1HKA010B	50V 1U	C821	ECEA0JKA470B	6.3V 47U			
C690	ECEA1EU470	25V 47U	C824	ECBT1C103MS5	16V 0.01U			
C790	ECA1AKF820E	10V 82U	C827-830	ECBT1H561KB5	50V 560P			
C701	ECEA0JKA330I	6.3V 33U	C901-904	ECKR1H103ZF5	50V 0.01U			
C702	ECUZNE104MBN	25V 0.1U	C1001	ECEA1HKA2R2B	50V 2.2U			
C703	ECEA0JKA101I	6.3V 100U	C1002	RCE1AU101BG	10V 100U			
C704, 705	ECUZNE104MBN	25V 0.1U	C1004	ECBT1H221KB5	50V 220P			

Cabinet Parts Location

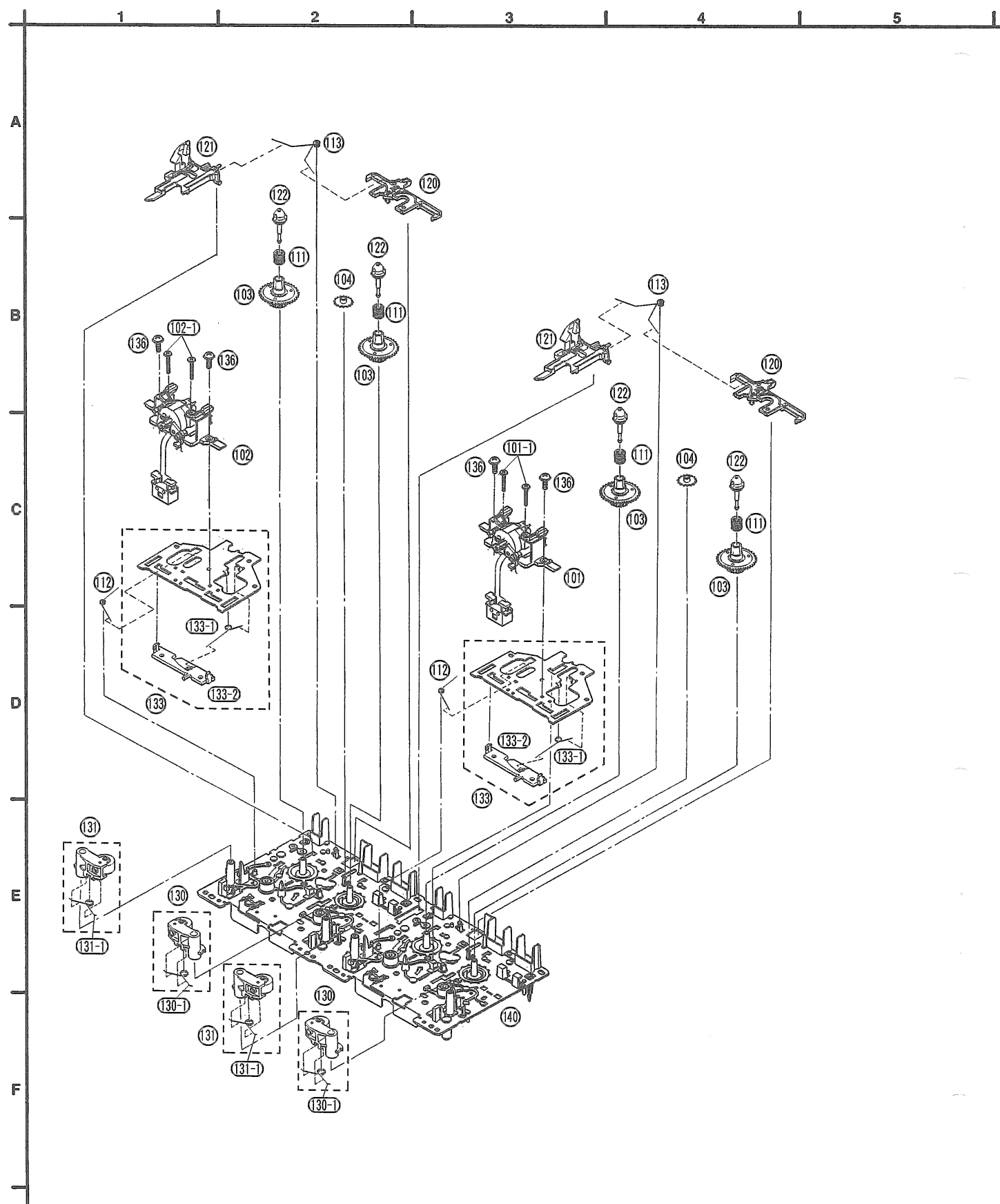




Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET PARTS		51	XTV3+10G	SCREW	
				52	EAS10P372A6	SPEAKER (WOOFER)	
				53	EFBS55C41A6	TWEETER	
1	RKS0223E-K	REAR CABINET		54	REX0786	WIRE ASS' Y	
2	RKK0041-K	BATTERY COVER		55	RHD30044	SCREW	
3	XTN3+40G	SCREW		56	RYK0601B-K	FRONT CABINET ASS' Y	
4	RGK0496-1K	CD ORNAMENT PLATE		56-1	RFK0XED90-K	FRONT PANEL ASS' Y	
5	XTV3+12G	SCREW		56-2	XTV26+8G	SCREW	
6	REED0685	FFC		57	RDG0250A	GEAR	
7	REQ0156	SPACER		58	RFKPXDT07-K	MOTOR ASS' Y	
8	REQ0161A	BATT. PCB (MAIN)		59	RFK0XDT07-K	GEAR ASS' Y	
9	REQ0162	BATT. PCB (BACK-UP)		60	RDG0289	GEAR	
10	XEARR175ED-Y	ROD ANTENNA		61	RMC0253	CLIP	
11	XYN3+F12FY	SCREW		62	RMK0261	CHASSIS	
12	RJR0158	ANT. TERMINAL		63	RMR0801-W	ANGLE	
13	RJC91005	BATT. TERMINAL		64	RSC0387	SHIELD CASE	
14	REQ0159	SPACER		65	XQN2+C3	SCREW	
15	REQ0154	SPACER		66	XQN2+C6	SCREW	
16	RDB0057	HOLDER		67	XTV26+12F	SCREW	
17	RMC0252	SPRING		68	RKF0456-K	REAR CABINET (DISPLAY)	
18	RMR0699-K	LOCK PECE		69	RGU1328A-K	BUTTON, TAPE EDIT	
19	XTV26+8G	SCREW		70	RGU1329A-K	BUTTON, TIMER ADJ.	
20	XTN26+8GFZ	SCREW		71	RKF0466A-K	FRONT CABINET (DISPLAY)	
21	RMG0249-K1	RUBBER		72	RGU1297A-K	SP BUTTON, FUNCTION 1	
22	RDB0063-1	SHAFT		73	RGU1316A-Q	BUTTON, FUNCTION 2	
23	RMB0488	SPRING		74	RKQ0189B-K	TOP CABINET	
24	REED0680	FFC		75	RME0193	SPRING	
25	RMS0330	GEAR		76	RYF0368-K1	CASSETTE HOLDER (L) ASS' Y	
26	XTBS26+10J	SCREW		76-1	RDG0183	GEAR	
28	RGPO517A-Q	LCD PANEL		76-2	RMB0448	SPRING	
29	RJC511YB	BATTERY TERMINAL (MAIN)		76-3	RMM0147	ROD	
30	RJC751ZA	BATTERY TERMINAL (BACK-UP)		76-4	RUS757ZA	SPRING	
31	REX0787Y	WIRE ASS' Y (CW1003/5P)		77	RYF0369-K1	CASSETTE HOLDER (R) ASS' Y	
32	REX0807	WIRE ASS' Y (CW901/3P)		77-1	RDG0183	GEAR	
33	REX0806Y	WIRE ASS' Y (CW1001/6P)		77-2	RMB0448	SPRING	
34	RMN0362	HOLDER		77-3	RMM0147	ROD	
35	RDL0034	FILTER		77-4	RUS757ZA	SPRING	
36	RGLO259-Q	LIGHT PANEL		78	REX0814Y	WIRE ASS' Y (CW1301/4P)	
37	XTV3+10F	SCREW		79	REX0789	WIRE ASS' Y (PW902/6P)	
38	REX0617Y	WIRE ASS' Y (CW790/6P)		80	RWJ1110260XX	FLAT CABLE (PW602/10P)	
39	RMN0360	COVER		81	RGK0779B-H	ORNAMENT	
40	XTN26+8GFZ	SCREW		82	RMK0307	CHASSIS	
41	EAS8PH339B6	SPEAKER (MID)					
42	REX0785	WIRE ASS' Y					
43	RGK0782-K	SP. ORNAMENT (R) 1					
44	RGK0784-K	SP. ORNAMENT (R) 2					
45	RGMO111-K	NET (R)					
46	REX0805	WIRE ASS' Y					
47	RGK0781-K	SP. ORNAMENT (L) 1					
48	RGK0783-K	SP. ORNAMENT (L) 2					
49	RGMO110-K	NET (L)					
50	RYHD020-K	HANDLE					

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
		MECHANISM PARTS				LOADING UNIT	
102	RED0037	HEAD BLOCK(R/P)		301	RFKJXD70-K	LOADING CHASSIS ASS'Y	
102	RED0038	HEAD BLOCK(P. B)		301-1	RDG0142	GEAR	
102-1	RHD17015	SCREW		301-2	RDG0193	GEAR	
103	RDG0300	REEL TABLE ASS'Y		301-3	RDP0065	PULLY	
104	RDG0301	GEAR		302	REM0019	MOTOR	
105	RDK0026	GEAR		303	RMK0255	BELT COVER	
106	RDR0029	PULLEY		304	RGQ0144-K	DISC TRAY	
107	RDV0033-1	BELT 1		305 △	RAE0150Z	TRAVERSE DECK	
108	RDV0034	BELT 2		305-1	SHG0113-1	RUBBER(A)	
109	RDV0035	BELT 3		305-2	SNSD38	SCREW	
110	RJW1472A	SPRING		306	RMS0350	PIN(B)	
111	RMB0400	SPRING		307	RMS0123-1	PIN(A)	
112	RMB0403	SPRING		308	RME0109	SPRING(A)	
113	RMB0404	SPRING		309	RME0142	SPRING(B)	
114	RMB0406	SPRING		310	RMR0698-K	TRAVERSE CHASSIS	
115	RMB0408	SPRING		311	XTV2+6G	SCREW	
116	RML0370	LEVER		312	RME0063	SPRING	
117	RML0371	LEVER		313	RMM0079-1	SLIDE PLATE (A)	
118	RML0372	LEVER		314	RML0178-1	LEVER	
119	RML0374	LEVER		315	RFKNLPG440-K	GEAR ASS'Y(B)	
120	RMM0131	ROD		316	RHD20009-1	SCREW	
121	RMM0133	ROD		317	RME0087	SPRING	
122	RMQ0519	REEL CAP		318	RML0349	LEVER	
123	RMS0398-1	SHAFT		319	RMM0059-1	SLIDE PLATE (B)	
124	RSJ0003	PLUNGER ASS'Y		320	RMR0334	HOLDER	
125	RUS6092C	SPRING		321	RIM245ZA	MAGNET	
126	RXF0049	FLYWHEEL ASS'Y		322	RXQ0380	MAGNET HOLDER	
127	RXF0050	FLYWHEEL ASS'Y		323	XTN26+6G	SCREW	
128	RXG0040	GEAR		324	RMA0793	CLAMPER	
129	RMK0283	SUB CHASSIS		325	XYN2+F6FZ	SCREW	
130	RXL0124	PINCH ROLLER ASS'Y		326	RMG0158	BELT	
130-1	RMB0401	SPRING		327	XTN26+6G	SCREW	
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	XVC2+JF17	SCREW					
139	RWJ4704050CK	FLAT CABLE(W981)					
140	RFKJXD70-K	MAIN CHASSIS ASS'Y					

Mechanism Parts Location



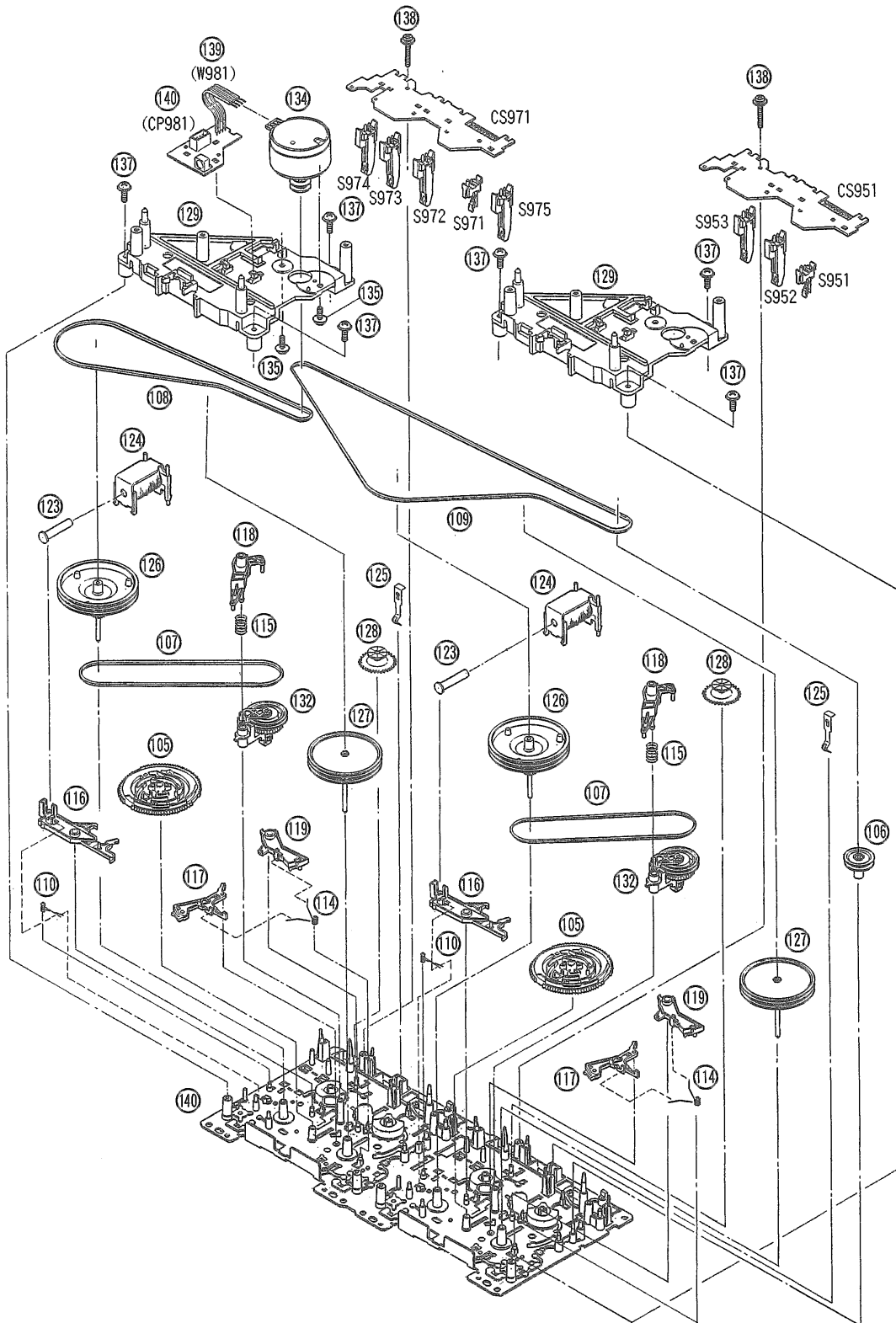
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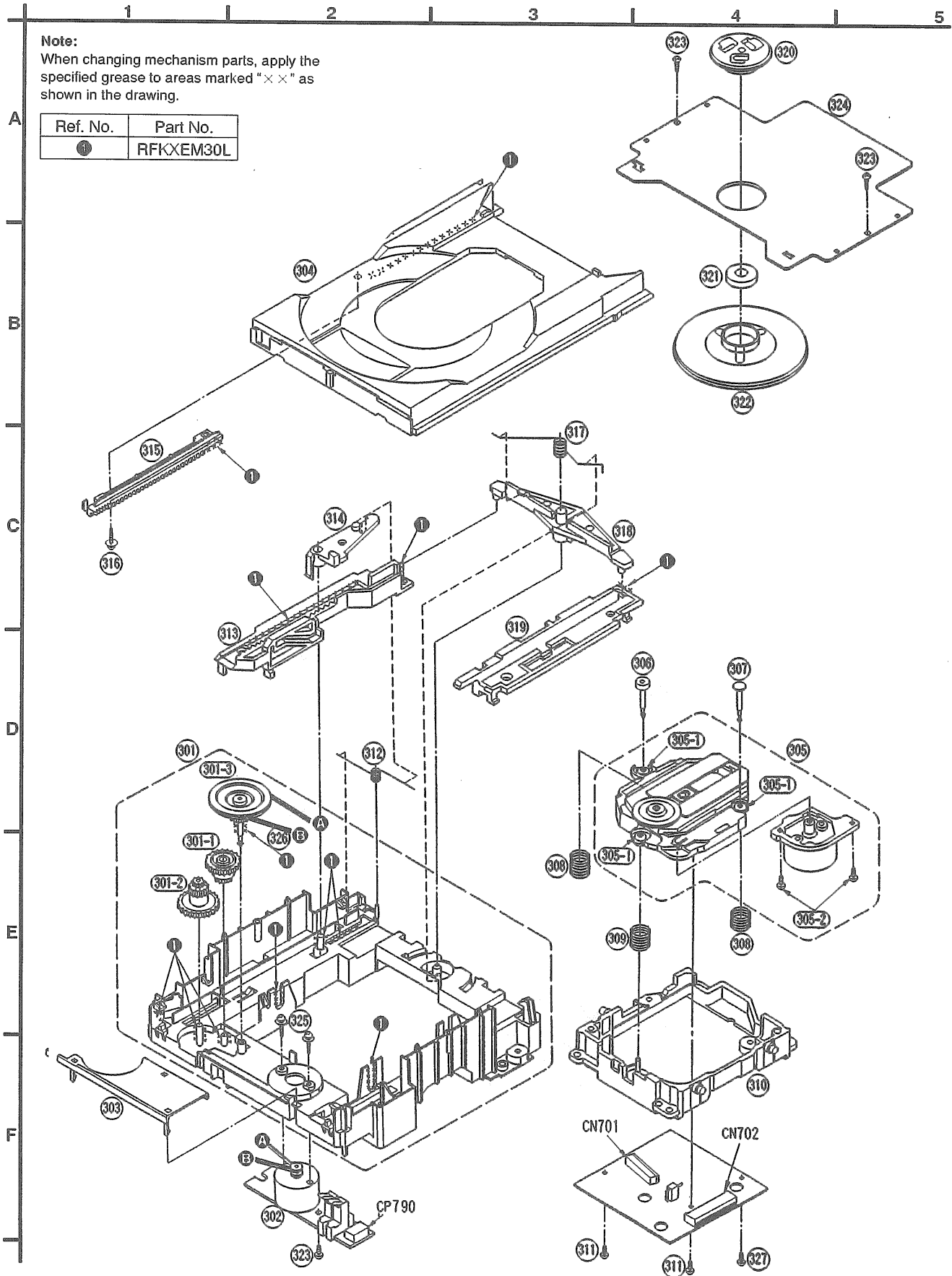


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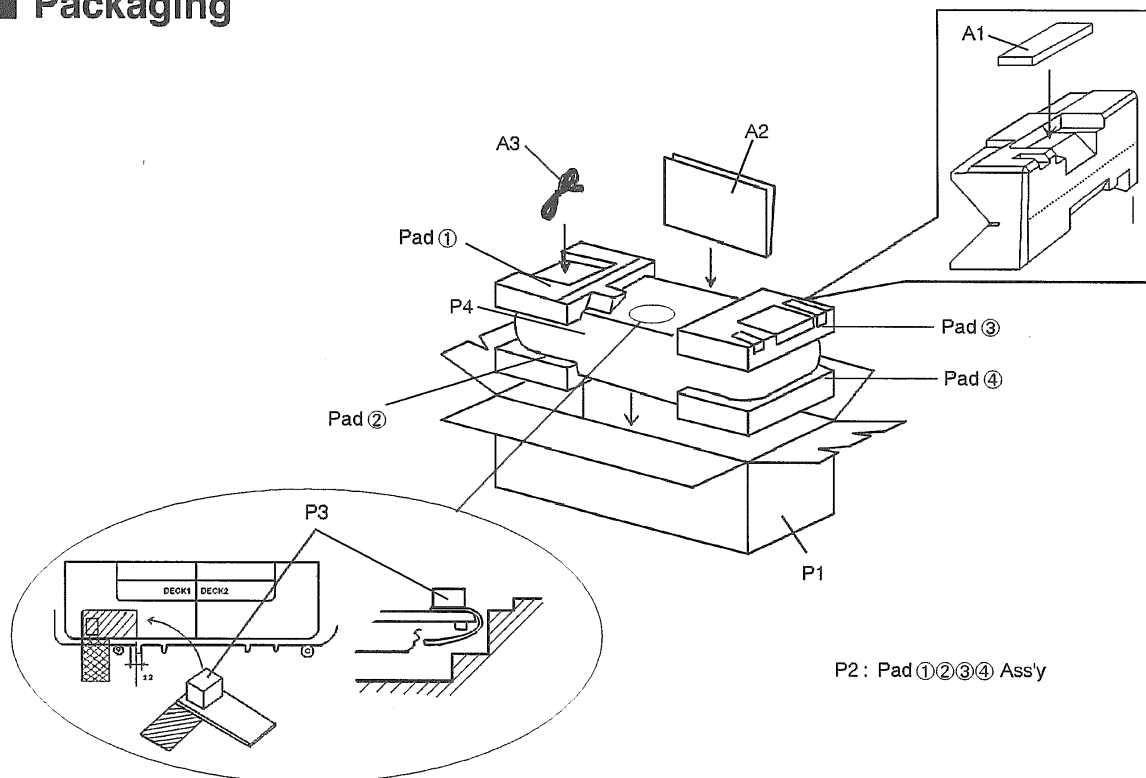
Note:

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

Ref. No.	Part No.
①	RFKXEM30L



■ Packaging



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

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
		PACKING MATERIALS				ACCESSORIES	
P1	RPG2836	GIFT BOX		A1	RAK-RX416WH	REMOTE CONTROLLER	
P2	RPN0932-1	PAD		A1-1	RKK0080-K	BATTERY COVER	
P3	RPQ0621	SPACER		A2	RFKSKED90PPK	INSTRUCTION MANUAL ASS'Y	
P4	RPH0099	SHEET		A3	SJA172	AC POWER CORD	△
						JIG/TOOL	
				SA1	QZZCWAT	TEST TAPE (TAPE SPEED etc.)	
				SA2	QZZCFM	TEST TAPE (AZIMUTH/FREQ.)	
				SA3	RFXEM30L	GREASE (CD MECHANISM)	