ORDER NO. ADB9708C2

Service Manual

Mini Cassette

Stereo Cassette Player RQ-S70

DOLBY SYSTEM *

Colour

(K)... Black Type

Area

Suffix for Model No.	Area	Colour
(E)	Europe.	(K)
(EB)	Great Britain.	

* Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation. "Dolby" and the double-D symbol are trade marks of Dolby Laboratories Licensing Corporation.

RQ-S60 MECHANISM SERIES (AR90)

SPECIFICATIONS

Power Requirement:	Battery; DC 1.5V one "AA" size battery (not included) (Panasonic UM-3/R6P, AM3/LR6 or equivalent) Rechargeable Battery; DC 1.2V with an included Panasonic Rechargeable Battery (RP-BP62EY) × 1 AC; with optional Panasonic AC adaptor RP-AC11E (E), RP-AC11EB (EB)
Power Output:	5mW+5mW
Input:	DC IN; 1.5V (⟐⊂⟐)
Output:	Headphones; 16Ω (mini jack Φ3.5)
Dimensions:	(W × H × D) 108.0 × 77.0 × 21.3mm
Weight:	181g (with rechargeable battery)
Charger: (E)	Input; AC 220V, 50Hz, 4W (RP-BC155EY-0) (included)
(EB)	Input; AC 240V, 50Hz, 4W (RP-BC155EBYA) (included)
	Output; DC 1.2V, 350mA
Frequency Response: (−6dB)	15~20,000Hz (with a normal tape) 15~20,000Hz (with a CrO_2 tape) 15~20,000Hz (with a Metal tape)
Motor:	Electrical governor motor
Track System:	4-track 2-channel stereo playback
Tape Speed:	4.8cm/s

Note: Design and specifications are subject to change without notice.
Weight and dimensions are approximate.

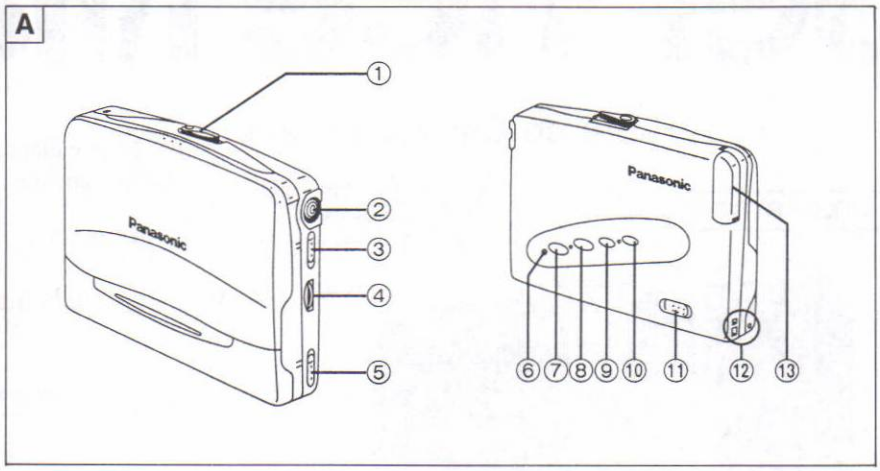
■ CONTENTS

Panasonic

■ LOCATIONS OF CONTROLS

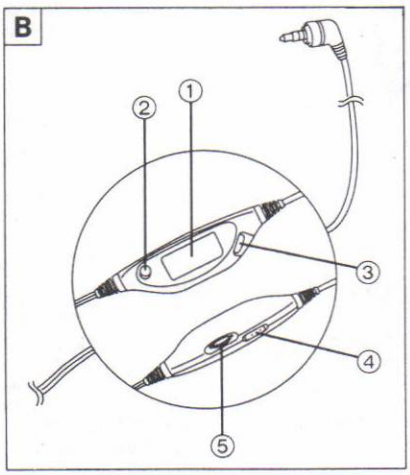
Main unit A

① **Cassette compartment cover open lever (OPEN)**
② **Headphones jack (🎧) mini jack ϕ3.5**
③ **Dolby noise reduction switch (DOLBY NR)**
④ **Volume control (VOLUME)**
⑤ **Reverse mode selector**
⑥ **Operation/battery check indicator (OPR/BATT)**
⑦ **Play/direction button (◄ ►)**
⑧ **Stop button (■)**
⑨ **Rewind button (REW TPS)**
⑩ **Fast forward button (FF TPS)**
⑪ **Hold switch (HOLD)**
Prevents unintended operation. You cannot activate front panel buttons when this switch is set to HOLD (Hold state).
Before using any of the front panel buttons, release the hold state.
⑫ **Connection part for battery case**
⑬ **Rechargeable battery compartment cover**



Stereo earphones with remote controller B

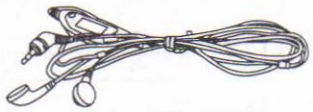
① **Display**
② **ASC equalizer button (ASC EQ)**
③ **Remote control button**
④ **Hold switch (HOLD)**
Prevents unintended operation. You cannot activate buttons on the remote controller when the switch is set to HOLD (Hold state).
⑤ **Volume control (VOLUME)**
Before using this control, be sure to adjust the volume control on the main unit "5–7" position.



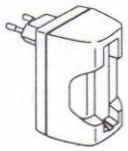
■ How to attach the cord clip C

Fit the cord securely into the groove in the clip.

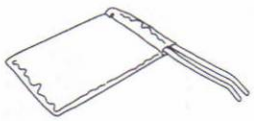
■ ACCESSORIES



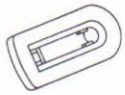
Stereo earphones with remote controller ..... 1 pc.
(RFEV111P-KS)



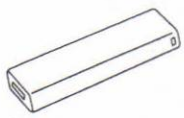
For (EB), the shape of the charger is different.
Charger ..... 1 pc.
(RP-BC155EY-0 (E)
RP-BC155EBYA (EB))



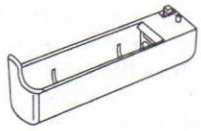
Carrying bag ..... 1 pc.
(RFC0006)



Cord clip ..... 1 pc.
(RGQ0090-K)



Rechargeable battery ..... 1 pc.
(RP-BP62EY)



Battery case ..... 1 pc.
(RFA0297-H)

■ POWER SOURCE

This player can operate on any of 3 different power sources:

1. Rechargeable battery (included)
2. Dry cell battery (not included)
3. AC adaptor (not included)

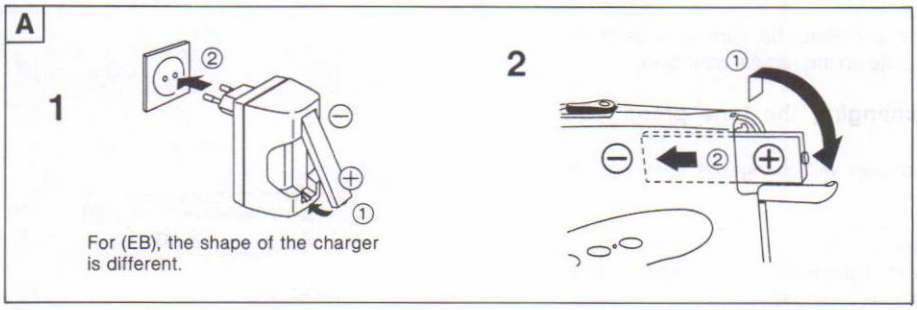
Rechargeable battery A

For its initial use after purchasing or after a long time interval (more than three months), be sure to recharge the rechargeable battery.

Normally 2 hours recharging will give approximately 4.5 hours tape playback (at 25°C).

1 Recharge the rechargeable battery.

2 Insert the charged battery into the unit.

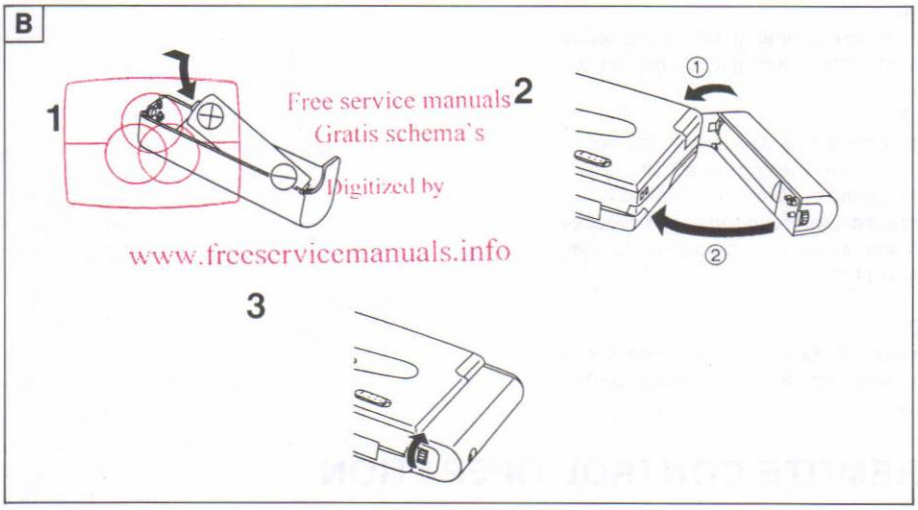


Dry cell battery B

1 Insert a R6/LR6 battery (UM-3 or equivalent, not included) into the battery case.

2 Attach to the unit.

3 Turn the screw until it locks.

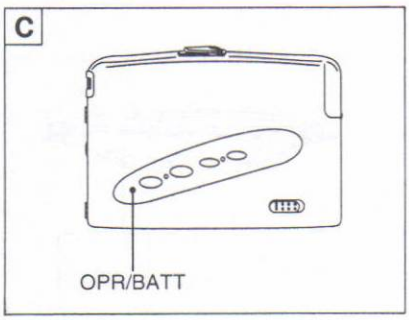


■ To extend the playback time

Install both types of battery (rechargeable and R6/LR6 battery) in the unit.

■ When the battery becomes weak C

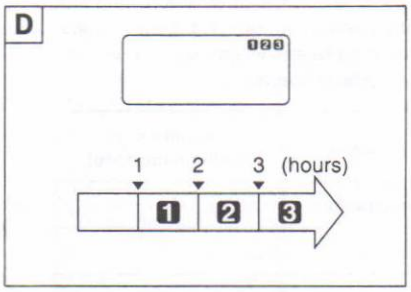
The OPR/BATT indicator will dim or turn off. Recharge the rechargeable battery or replace the dry cell battery with new one.



The included rechargeable battery can be recharged about 300 times. After that, its operation time becomes shortened. That's time for replacing the rechargeable battery.

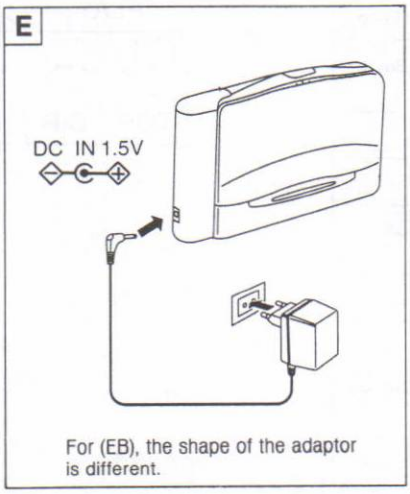
■ Use time indicator D

This unit sums up the total operation time after replacing the battery.
After three hours, the display will continue to show " 3 " until the battery runs down.



AC adaptor (optional) E

Attach the battery case to the unit and connect the optional AC adaptor (RP-AC11).



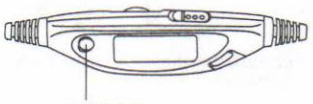
■ CHANGING THE TONE

You can select the tone quality at your desire.
Before operating, be sure to release the hold state on the remote controller.

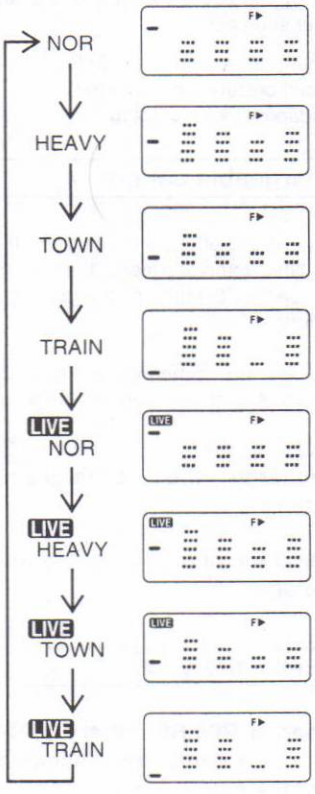
To changing the tone press ASC EQ.
The display will change as shown in the left.

NOR:
Ideal for listening to sound indoors or in other quiet locations
HEAVY (S-XBS):
Delivers a deep bass sound with a full measure of power for your listening enjoyment.
TOWN:
Gives a more natural quality to the sound when you are listening to music on the street.
TRAIN:
Lends a more natural quality to the sound when you are listening on a train. It also cuts down the audible level of sound which disturbs people around you and reduces strain and fatigue when you listen for long periods of time.

LIVE:
Adds gloss to the vocals and make feel as if you were hearing a live stage performance.



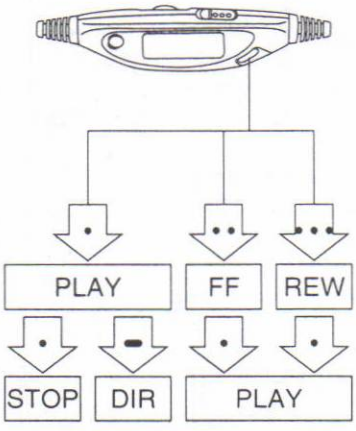
ASC EQ
(Amenity Sound Control Equalizer)

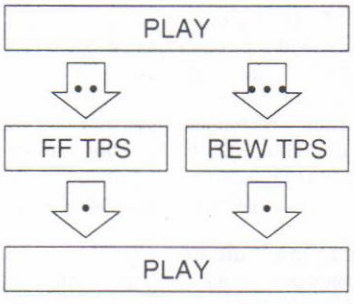


■ REMOTE CONTROL OPERATION

Remote control button changes the operation of this unit depending on when and how many times it is pressed.
The beep will be emitted each time the remote control button is pressed. Also, confirmation beeps will be emitted to confirm the proper operation.

Operation	Function (Confirmation beep)
In stop mode	
Press once.	Playback
Press twice.	FF (Beep Beep, Beep Beep)
Press three times.	REW (Beep Beep Beep, Beep Beep Beep)
In playback mode	
Press once.	Stop (Bee...p)
Press and hold.	Change the direction (Beep)
Press twice.	FF TPS (Beep Beep)
Press three times.	REW TPS (Beep Beep Beep)
During FF, REW or TPS	
Press once.	Resume playback





■ PROCEDURE FOR THE REPLACEMENT OF THE MECHANISM BLOCK

• How to replace the mechanism block

The mechanism block is supplied without other parts as a semi-assembly. The head block, motor and belt are supplied separately from the mechanism block.
If the mechanism block is exchanged as a replacement assembly, follow the preparation procedure below.

Preparation procedure

Remove the head block, motor and belt from the mechanism to be replaced and replace those parts to the new mechanism block.
(Refer to the "PROCEDURES FOR DISASSEMBLY OF THE MAIN PARTS ON THE MECHANISM".

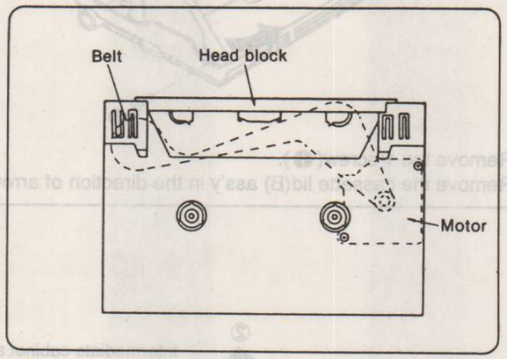


Fig. 1

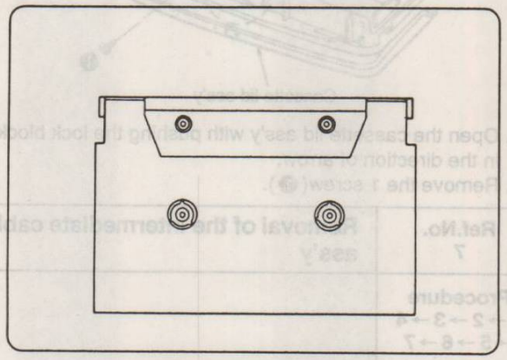


Fig. 2

Note: The adjustment of the mechanism block is unnecessary after replacement.

• How to replace the head block

The head and pinch roller are supplied together in the head block. The pinch roller is also supplied separately.

Preparation procedure

The head block for replacement is not supplied with a holder as shown in the figure below. Therefore, remove the holder from the block to be repaired and mount it to the new head block. Then, proceed to replace the head block.
(Refer to the "PROCEDURES FOR DISASSEMBLY OF THE MAIN PARTS ON THE MECHANISM".

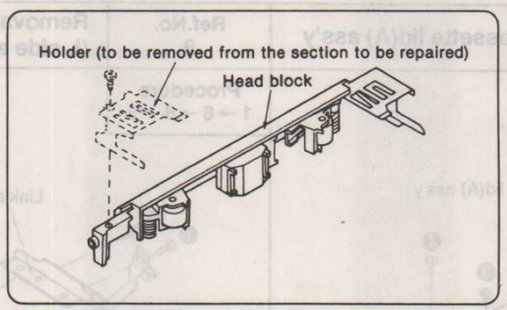


Fig. 3

Note: Head azimuth adjustment is unnecessary.

■ PROCEDURES FOR DISASSEMBLY OF THE MAIN PARTS ON THE MECHANISM

• How to remove the mechanism

Follow the procedures in Ref. Nos. 1~7 in the Disassembly Instructions. (See pages 7 and 8.)
※ After replacing the parts, refer to the notes for assembly. (See page 9 and 10.)

• How to remove the head block and pinch roller

1. Follow the procedures in Ref. Nos. 1 and 6 in the Disassembly Instructions, remove the bottom cabinet ass'y and cassette lid (B) ass'y. (See pages 7 and 8.)
2. Unsolder the head FPC. (7 points.) (See Fig. 4.)
3. Remove 2 screws (❶, ❷) in order to remove the head block. (See Fig. 5.)
4. Remove 2 washers. (See Fig. 6.)
5. Remove 2 springs in order to remove the pinch roller. (See Fig. 7.)

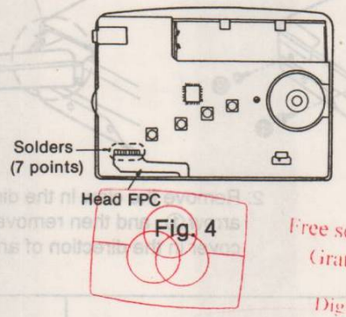


Fig. 4

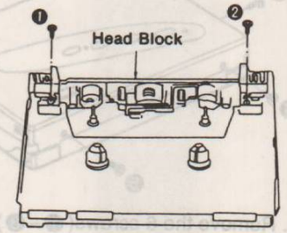


Fig. 5

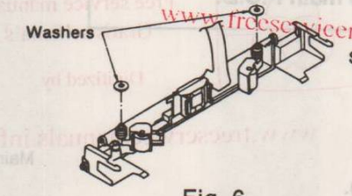


Fig. 6

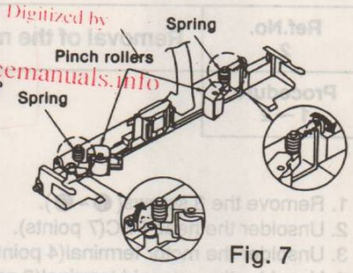


Fig. 7

• How to remove the motor and belt

1. Follow the procedures in Ref. Nos. 1 and 2 in the Disassembly Instructions. (See page 7.)
2. Remove 3 screws (❶~❸). (See Fig. 8.)
3. Remove the motor in the direction of the arrow. (See Fig. 9.)
4. Remove the coil P.C.B. from the motor. (See Fig. 10.)
5. Remove the belt from the motor. (See Fig. 10.)

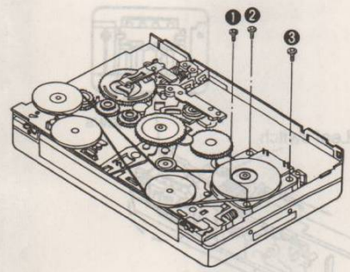


Fig. 8

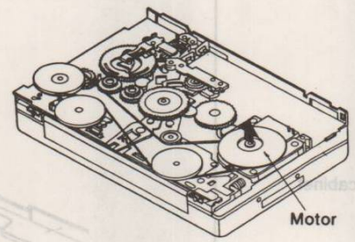


Fig. 9

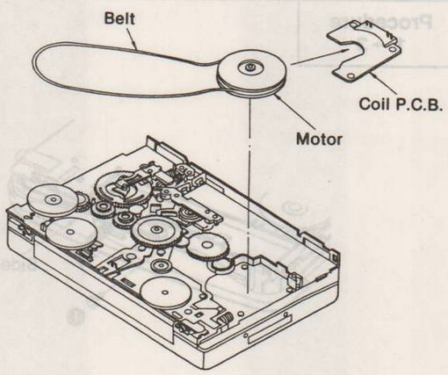
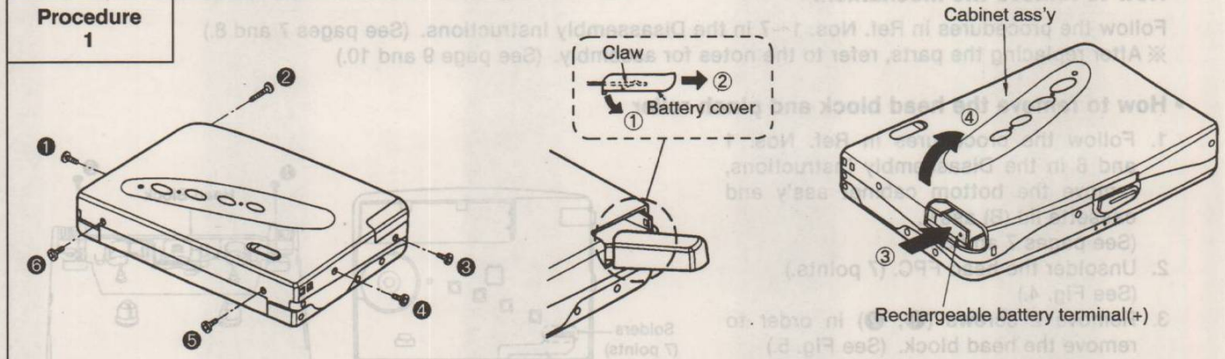


Fig. 10

■ DISASSEMBLY INSTRUCTIONS

Ref.No. 1 — Removal of the cabinet ass'y

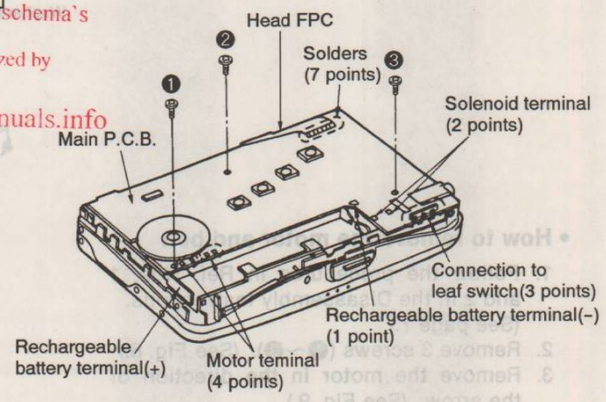
Procedure
1



1. Remove the 6 screws(❶~❻).
2. Remove the claw in the direction of arrow①, and then remove the battery cover in the direction of arrow②.
3. Remove the cabinet ass'y in the direction of arrow④, while pushing the rechargeable battery terminal(+) in the direction of arrow③.

Ref.No. 2 — Removal of the main P.C.B.

Procedure
1→2

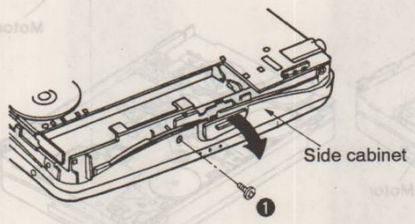


1. Remove the 3 screws(❶~❸).
2. Unsolder the head FPC(7 points).
3. Unsolder the motor terminal(4 points).
4. Unsolder the solenoid terminal(2 points).
5. Unsolder the rechargeable battery terminal(-)(1 point).
6. Unsolder the connection between leaf switch and main P.C.B.(3 points).

Note: When the main P.C.B. is removed, the rechargeable battery terminal(+) will also be removed.

Ref.No. 3 — Removal of the side cabinet

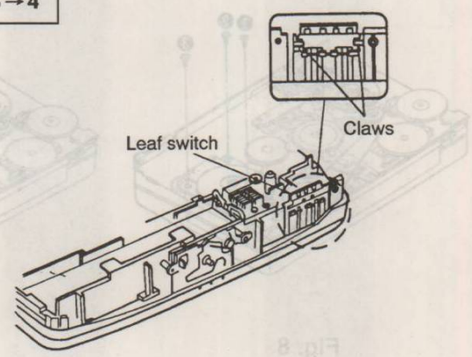
Procedure
1→3



1. Remove the 1 screw(❶).
2. Remove the side cabinet in the direction of arrow.

Ref.No. 4 — Removal of the leaf switch

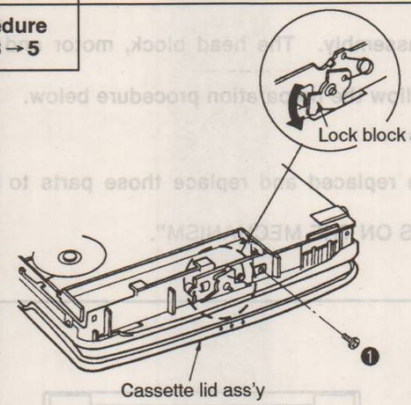
Procedure
1→2→3→4



• Release 2 claws and remove the leaf switch.

Ref.No. 5 — Removal of the lock block ass'y

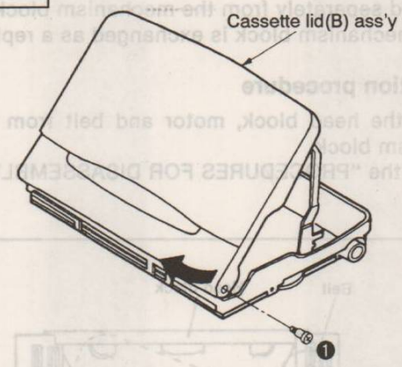
Procedure
1→3→5



1. Open the cassette lid ass'y with pushing the lock block ass'y in the direction of arrow.
2. Remove the 1 screw(❶).

Ref.No. 6 — Removal of the cassette lid(B) ass'y

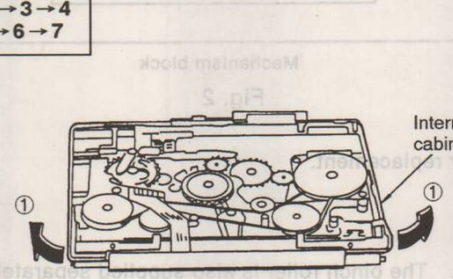
Procedure
1→6



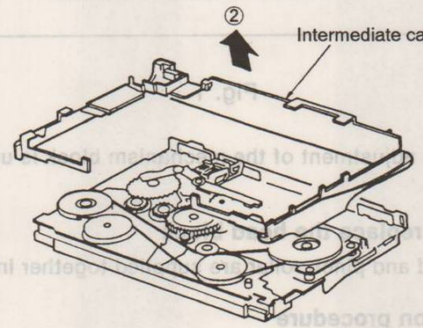
1. Remove the 1 screw(❶).
2. Remove the cassette lid(B) ass'y in the direction of arrow.

Ref.No. 7 — Removal of the intermediate cabinet ass'y

Procedure
1→2→3→4→5→6→7



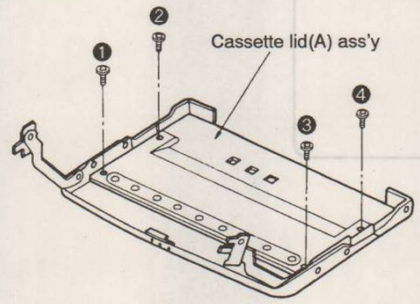
1. Stretch the intermediate cabinet ass'y in the direction of arrow①.



2. Remove the intermediate cabinet ass'y in the direction of arrow②.

Ref.No. 8 — Removal of the cassette lid(A) ass'y

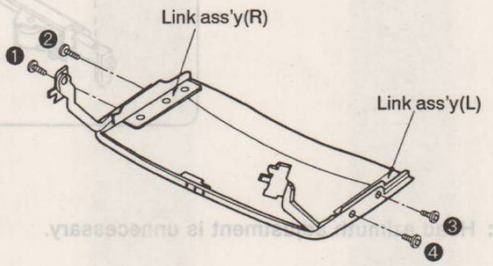
Procedure
1→6→8



• Remove the 4 screws(❶~❹).

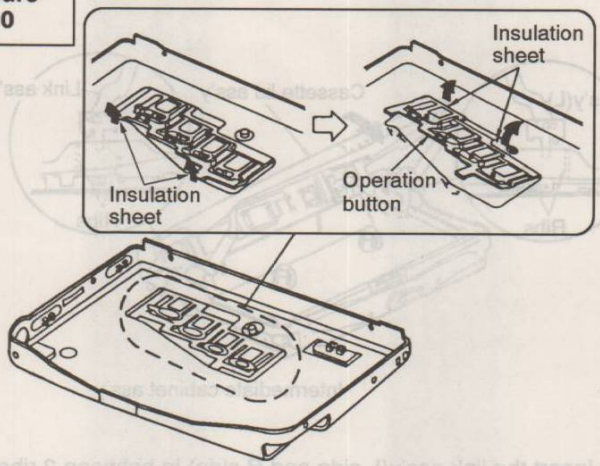
Ref.No. 9 — Removal of the link ass'y (L side and R side)

Procedure
1→6→8→9



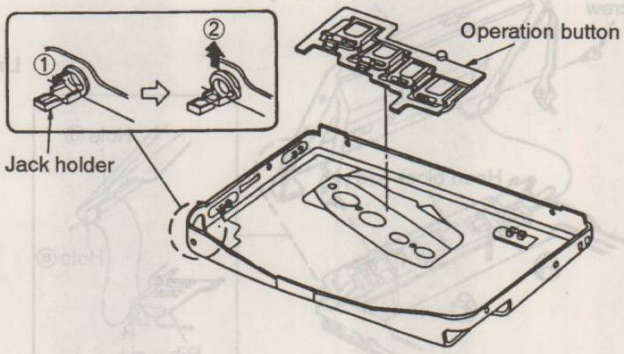
• Remove the 4 screws(❶~❹).

Ref.No. 10	Removal of the operation(PLAY/STOP/ FF/REW) button and jack holder
Procedure 1→10	



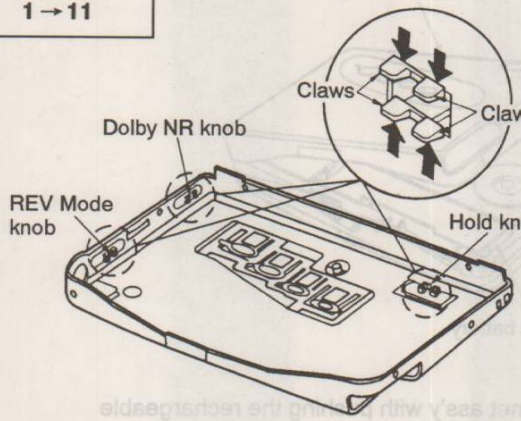
1. Peel the insulation sheet from the operation button gradually as shown above.

■ As the operation button is fixed with the insulation sheet, the operation button is removed by peeling the insulation sheet.



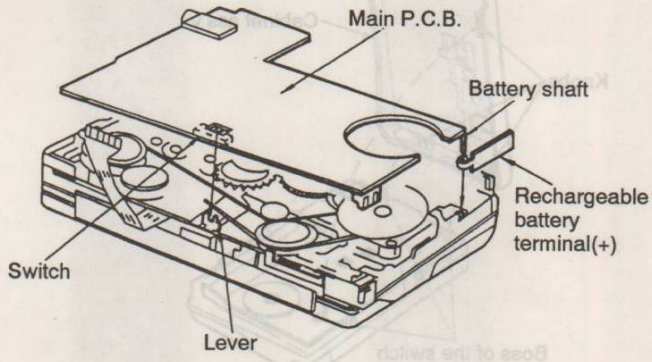
2. Remove the jack holder and operation button in the direction of arrow ①, ②.

Ref.No. 11	Removal of the switch knobs (HOLD, DOLBY NR, REV MODE)
Procedure 1→11	



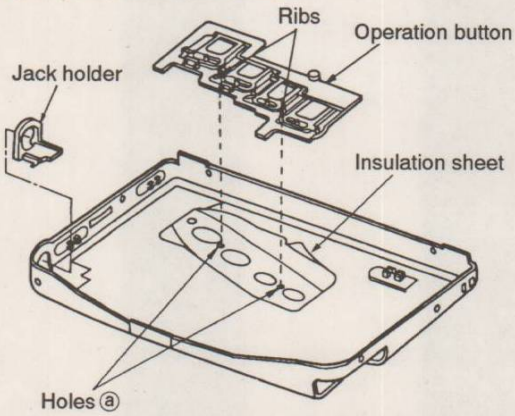
• Release the claws in the direction of arrow, and then remove the switch knobs.

■ NOTICE FOR ASSEMBLING THE MAIN P.C.B.



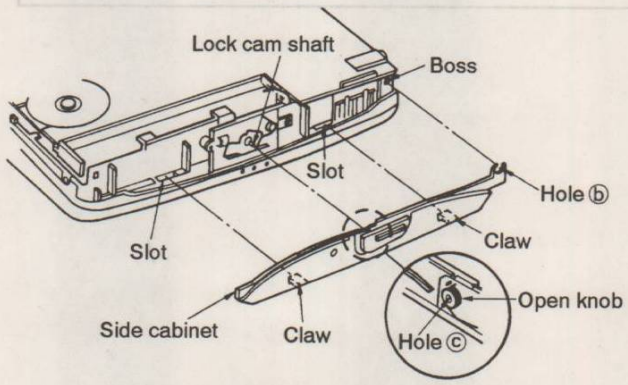
• Ensure the boss of switch mates the mechanism lever.
• Insert the battery shaft into the rechargeable battery terminal(+), and then install the main P.C.B. on the mechanism block.

■ NOTICE FOR ASSEMBLING THE OPERATION BUTTON AND JACK HOLDER



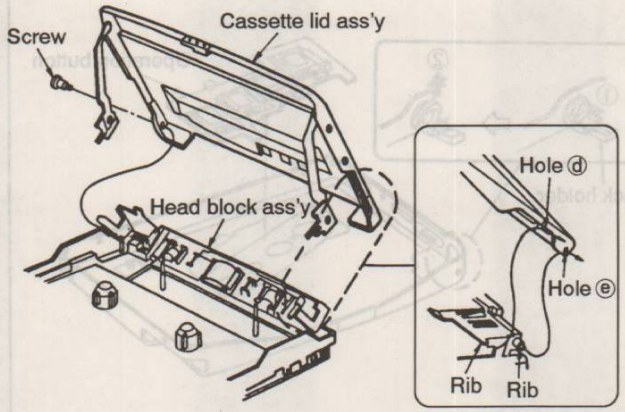
1. Align the ribs of the operation button with the holes ⓐ in the cabinet ass'y.
2. After assembling the jack holder and the operation button, fix them with the insulation sheet.

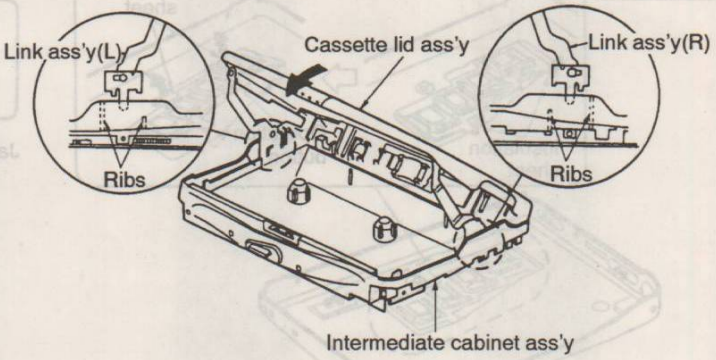
■ NOTICE FOR ASSEMBLING THE SIDE CABINET



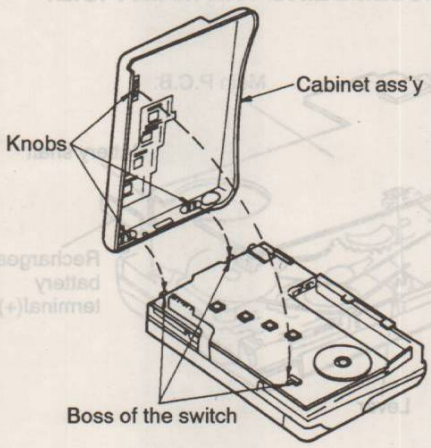
1. Align the boss with the hole ⓑ of the side cabinet.
2. Ensure the lock cam shaft mates the hole ⓒ of the open button.
3. Insert the 2 claws of the side cabinet into the slots.

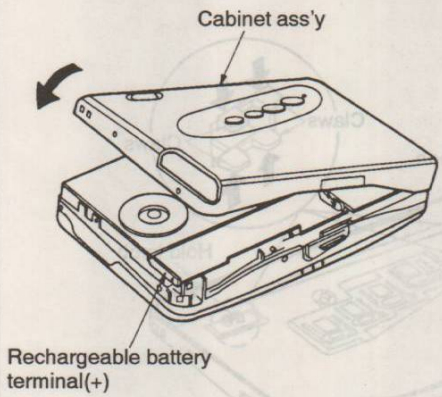
■ NOTICE FOR ASSEMBLING THE CASSETTE LID ASS'Y AND THE CABINET ASS'Y





1. Align the ribs of the head block ass'y with the holes ⓓ and ⓔ in the cassette lid ass'y.
2. Install the cassette lid ass'y to the head block ass'y and tighten the screw.
3. Insert the link ass'y(L side and R side) in between 2 ribs of the intermediate cabinet.
4. Insert the link ass'y in the intermediate cabinet and close the cassette lid ass'y at the same time.





5. Make sure the bosses of the switch are fit in the knobs of the switch when assembling(3 points).
6. Install the cabinet ass'y with pushing the rechargeable battery terminal(+).
7. Make sure the cabinet ass'y is installed completely.

Note: Before installing the switch knob, be sure to check the claws for defects that would render the claws unserviceable.
(If a white line like white wax on a claw is found, the claw may be broken when installing the switch knob.)

■ HOW TO CHECK OPERATIONS DURING DISASSEMBLY AND SERVICING

• Check operations during disassembly following the steps.

1) Set the condition as shown in Fig. 1 in accordance with Disassembly Instructions. (DO NOT remove the solders on the head FPC.)
2) Connect the PCB and motor with the extension cord (RFKZ0002).
3) Solder the short land with a lead wire and then short-circuit them.
   - Short-circuit the short land Ⓐ. (Motor power: ON)
   - Short-circuit the short land Ⓑ. (Microcomputer: reset)
   - Short-circuit the short land Ⓒ. (Power: ON)

   Note: See next page for the points to be short-circuited.
4) Connect the rechargeable battery (+) terminal and the rechargeable battery (−) terminal foil to the power source (DC 1.5V) with a lead wire. (Fig. 1)
5) Connect the rechargeable battery (−) terminal foil and the rechargeable battery (−) terminal with a lead wire (mechanism earth).
6) Manually operate the plunger arm when checking the PLAY/STOP operation.
   - Manually pulling the plunger arm once sets the FWD mode; twice, REV; and, three times, STOP.

Notes:
- Operate the plunger arm manually. Even if the operation buttons are pressed, the plunger will not be actuated.
- Even if the mechanism unit is switched to the FWD mode in Step 6, the head change-over switch (IC1) will remain in the REV position, so set the REV mode to check the audio. Before checking the operation problems and adjustments, be sure to release the hold state. (Hold switch (S2): "OFF")
- After checking, unsolder the short land Ⓐ, Ⓑ and Ⓒ.

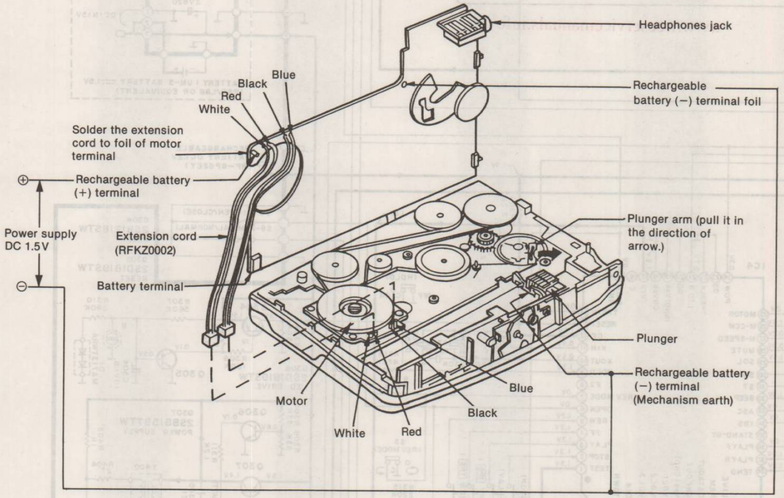
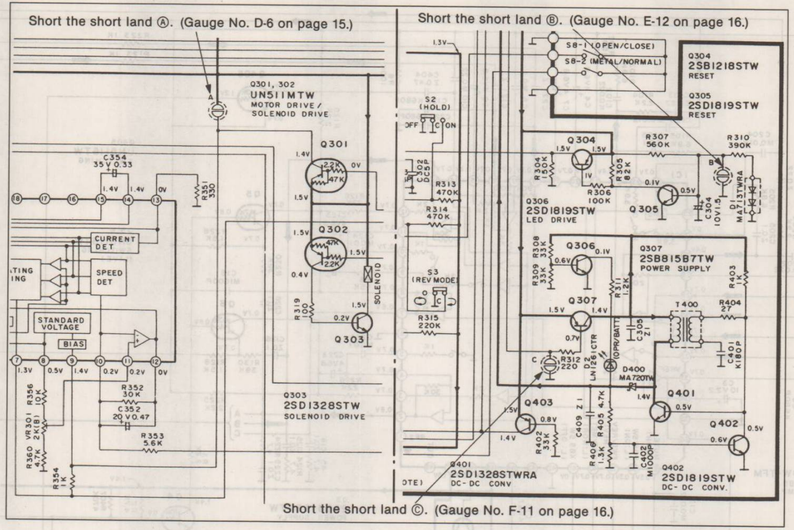


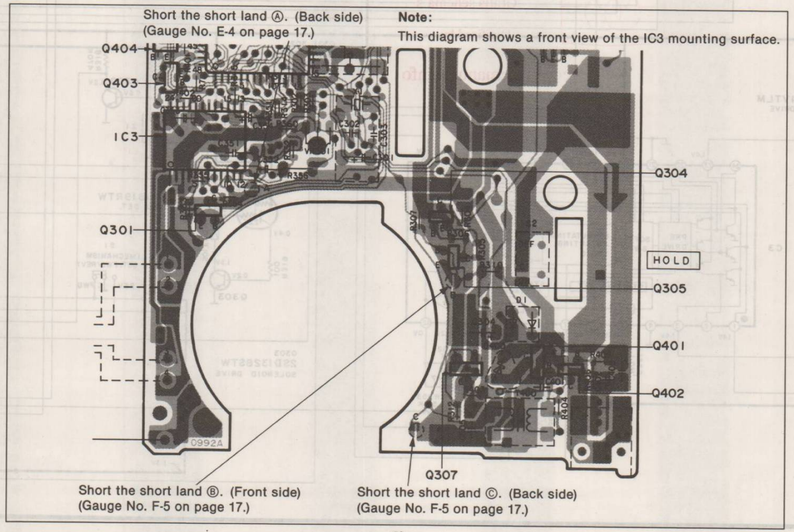
Fig. 1

• Short-circuit points

SCHEMATIC DIAGRAM



PRINTED CIRCUIT BOARD



■ MEASUREMENTS AND ADJUSTMENTS

● ADJUSTMENT INSTRUCTIONS

READ CAREFULLY BEFORE ATTEMPTING ADJUSTMENTS	
1. Set volume control to maximum.	4. Set hold switch to OFF.
2. Set Dolby NR Switch to OFF.	5. Set power source voltage to 1.5V DC.
3. Set ASC EQ switch to NORMAL.	

• CONTROL POSITIONS AND EQUIPMENT USED

1. Frequency counter

● TAPE SECTION

ITEM	TEST TAPE	MEASUREMENT POINT	ADJUSTMENT POINT	PROCEDURE
Tape speed adjustment	QZZCWAT (3kHz, −10dB)	Connect the frequency counter to Headphones jack (16Ω) (Refer to Fig. 1)	VR301 (Refer to Fig. 2)	Playback the central part of the tape and adjust VR301 so that the tape speed is as follows. Forward: 2990±10Hz Reverse: 2940~3050Hz Make sure that the frequency range in within ±60Hz for between "Forward" and "Reverse" mode.

Note: The playback head is supplied on the head arm assembly. (See the Mechanism parts location on page 22.) The assembly requires no adjustment.

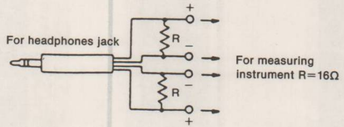


Fig. 1

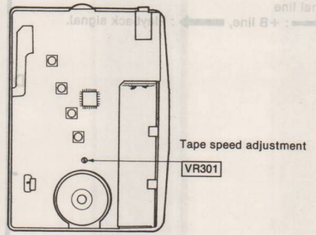


Fig. 2

■ SCHEMATIC DIAGRAM

(See parts list on pages 23~25.)

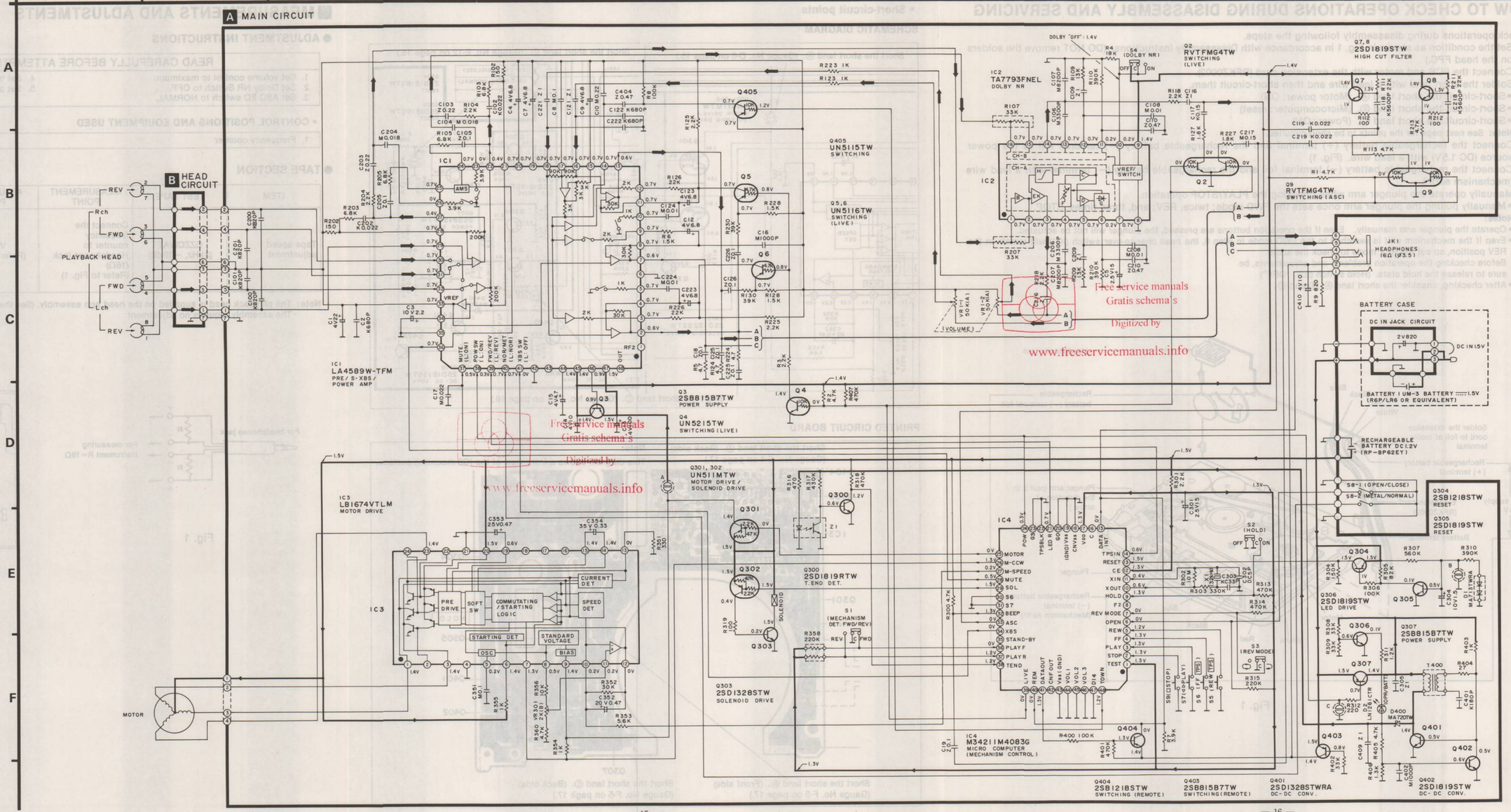
(This schematic diagram may be modified at any time with development of new technology.)

Notes:

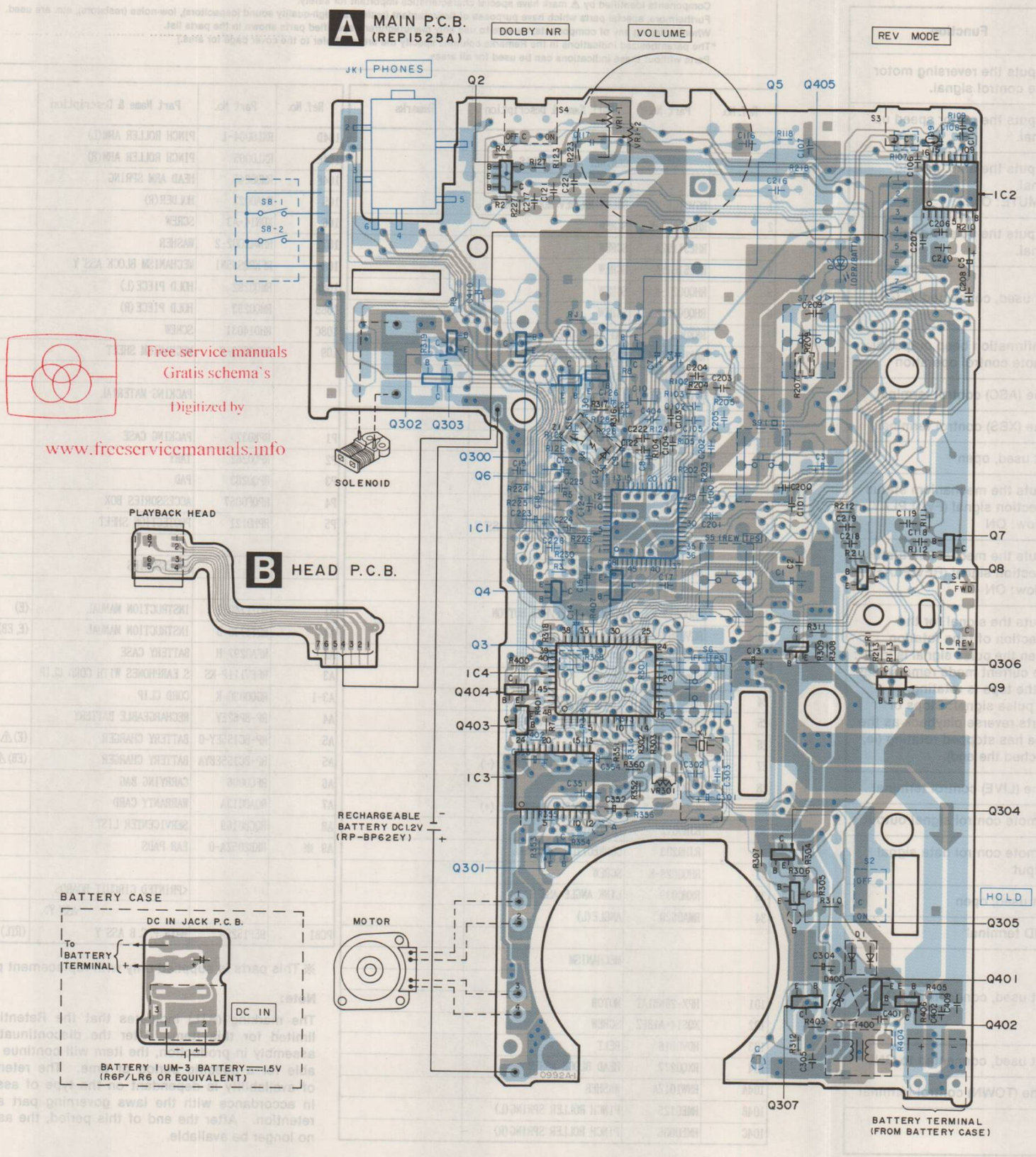
- **S1** : FWD/REV switch in "FWD" position. (F...FWD, R...REV)
- **S2** : Hold (HOLD) switch in "OFF" position.
- **S3** : Reverse node selector switch in "⇄" position.
- **S4** : Dolby noise reduction (◫ NR) switch in "OFF" position.
- **S5** : Rewind (REW TPS) switch.
- **S6** : Fast Forward (FF TPS) switch.
- **S7** : Play/direction (◀▶) switch.
- **S8-1** : Tape detector (OPEN/CLOSE) switch in "OPEN" position.
- **S8-2** : Tape selector switch in "OFF (METAL)" position.
- **S9** : Stop (STOP) switch.
- **VR1-1, VR1-2:** Volume adjustment VR.
- **VR301** : Tape speed adjustment VR.
- DC voltage measurements are taken with electronics voltmeter from negative terminal of battery.
  No mark...Playback.
- Consumed current: (Test tape 315Hz −4dB)

  Volume VR [MAX...140mA / MIN....122mA]
- Signal line

  ⟶ : +B line, ➡ : Playback signal.



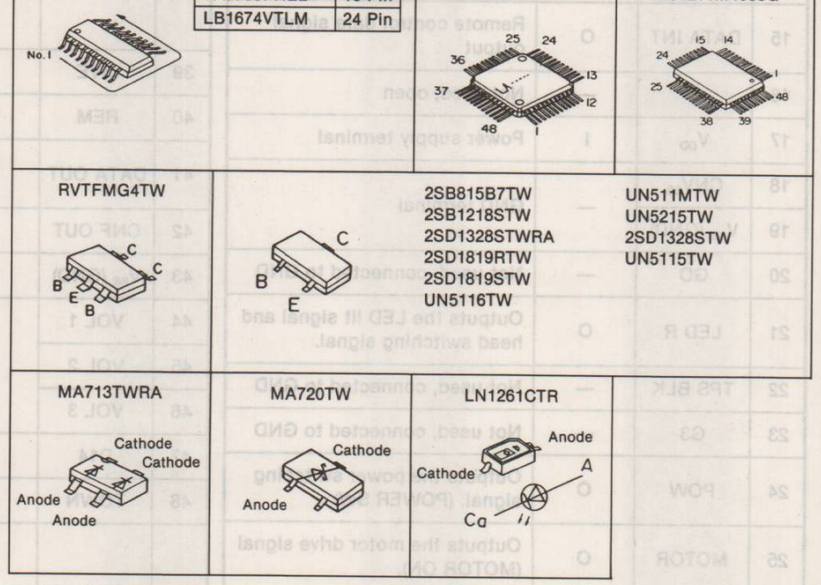
■ PRINTED CIRCUIT BOARDS AND WIRING CONNECTION DIAGRAM



Notes:

- In this printed circuit board diagram, the parts and foil patterns on the board facing toward you are printed in black.
  The opposite side is printed in blue.
- The " • " mark denotes the connection points of double-faced foil patterns (through holes) on both side of the printed circuit board.
- This printed circuit board diagram may be modified at any time with the development of new technology.

• Terminal guide of IC's, transistors and diodes



■TERMINAL FUNCTION OF IC

• IC4 (M34211M4083G): Mechanism control

Pin No.	Mark	I/O Division	Function
1	TEST	I	Test terminal
2	STOP	I	Key switch detect (STOP) terminal
3	PLAY	I	Key switch detect (PLAY) terminal
4	FF	I	Key switch detect (FF) terminal
5	REW	I	Key switch detect (REW) terminal
6	OPEN	I	Inputs the signal that detects whether the cassette tape is inserted. "L": ON (Close); the tape is inserted. "H": OFF (Open); the tape is not inserted.
7	REV MODE	I	Reverse mode select terminal "L": ⇄ mode "H": ⇆ mode
8	F2	—	Not used, open
9	HOLD	I	Hold detect terminal "L": ON (HOLD) "H": OFF
10	XOUT	O	Crystal oscillator terminal (F=32kHz)
11	XIN	I	
12	CE	I	Not used, connected to power supply
13	RESET	I	Reset detect terminal
14	TPS IN	I	TPS control terminal
15	DATA INT	O	Remote control data signal output
16	C	—	Not used, open
17	V_{DD}	I	Power supply terminal
18	CNV_{SS}	—	GND terminal
19	V_{SS} (GND)		
20	GO	—	Not used, connected to GND
21	LED R	O	Outputs the LED lit signal and head switching signal.
22	TPS BLK	—	Not used, connected to GND
23	G3	—	Not used, connected to GND
24	POW	O	Outputs the power switching signal. (POWER SW)
25	MOTOR	O	Outputs the motor drive signal (MOTOR ON).
26	M-CCW	O	Outputs the reversing motor drive control signal.
27	M-SPEED	O	Outputs the motor speed up signal.
28	MUTE	O	Outputs the amp. muting signal. At MUTE: ON
29	SOL	O	Outputs the solenoid drive signal.
30	S6	—	Not used, connected to GND
31	S7		
32	BEEP	O	Confirmation beep output of remote control operation
33	ASC	O	Tone (ASC) control terminal
34	XBS	O	Tone (XBS) control terminal
35	STAND-BY	—	Not used, open
36	PLAY F	I	Inputs the mechanism status detection signal (FWD PLAY). At low: ON
37	PLAY R	I	Inputs the mechanism status detection signal (REV PLAY). At low: ON
38	T END	I	Inputs the signal for the detection of tape rotation. When the pulse signal is input: The current mode remains set as the tape is rotating. No pulse signal: Stops or starts reverse playback as the tape has stopped rotating (ie, reached the end).
39	LIVE	O	Tone (LIVE) control terminal
40	REM	O	Remote control signal output
41	DATA OUT	O	Remote control data signal output
42	CNF OUT	—	Not used, open
43	V_{SS} (GND)	—	GND terminal
44	VOL 1	—	Not used, connected to GND
45	VOL 2		
46	VOL 3		
47	D14	—	Not used, connected to GND
48	TOWN	O	Tone (TOWN) control terminal

■REPLACEMENT PARTS LIST

Notes: *Important safety notice:
Components identified by ⚠ mark have special characteristics important for safety.
Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.
When replacing any of components, be sure to use only manufacturer'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.

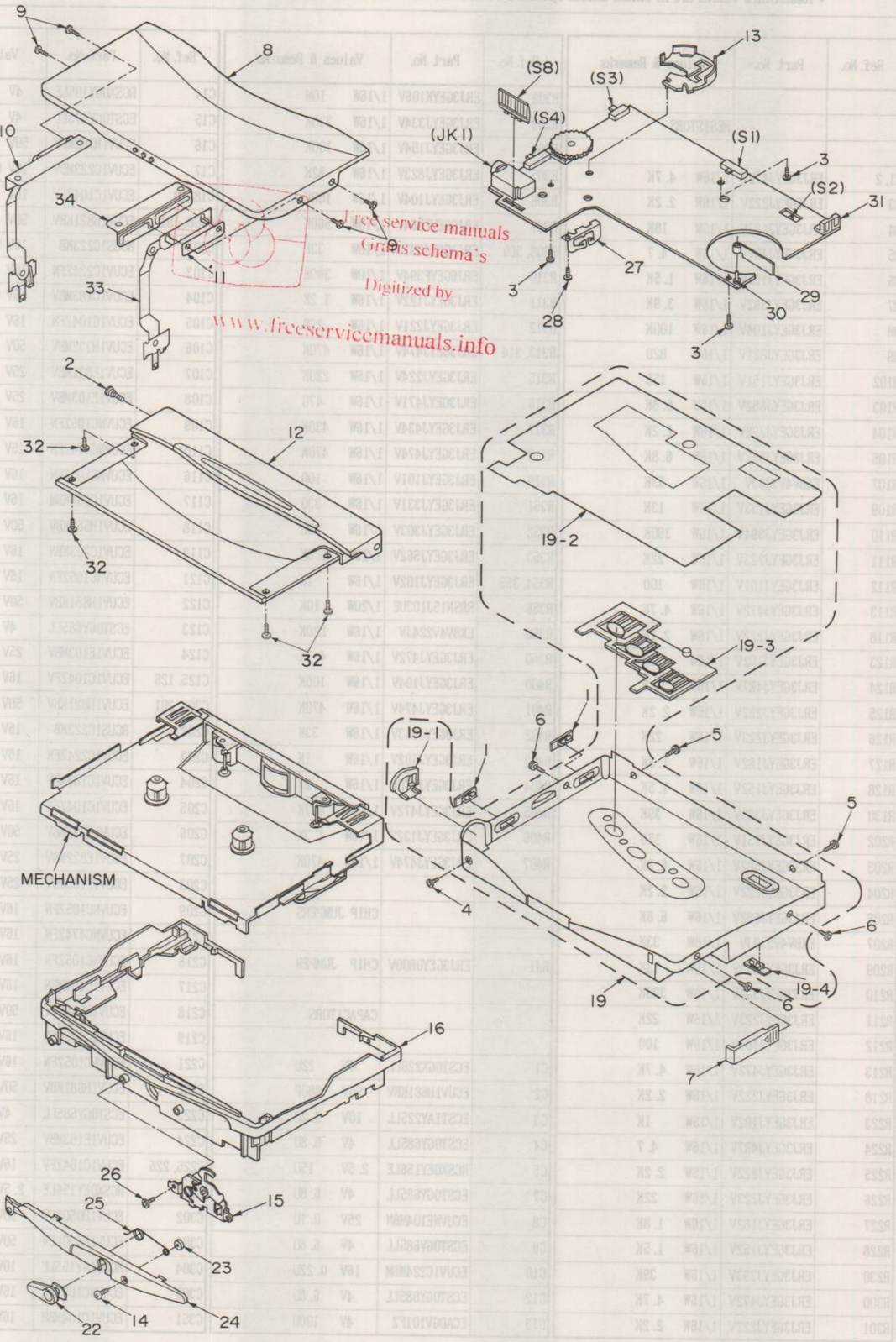
Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET AND CHASSIS	
1	RGV0106-K	DOLBY NR/REV MODE KNOB	
2	RHD14008-K	SCREW	
3	RHE5119ZA	SCREW	
4	RHE5169YA	SCREW	
5	RHQ0027-K	SCREW	
6	RHQ0030-K	SCREW	
7	RKK0050-K	BATTERY COVER	
8	RFKLQS70-K	CASSETTE LID(A) ASS'Y	
9	RHQ0029-K	SCREW	
10	RXM0038	LINK ASS'Y(R)	
11	RXM0037	ANGLE ASS'Y	
12	RYF0204-K	CASSETTE LID(B) ASS'Y	
13	RKU0034	CAM GEAR CAP	
14	RHQ0028-S	SCREW	
15	RXQ0236	LOCK BLOCK ASS'Y	
16	RYK0355-S	INTERMEDIATE CABINET ASS'Y	
19	RYK0356-K	CABINET ASS'Y	
19-1	RMR0615-K	JACK HOLDER	
19-2	RMZ0215	SPACER	
19-3	RGU0817-S	PLAY/STOP/FF/REW BUTTON	
19-4	RGV0107-K	HOLD KNOB	
22	RGV0105-S	OPEN KNOB	
23	RHR3331ZB	WASHER	
24	RKQ0120-S	SIDE CABINET	
25	RMB0284	AUTO RETURN SPRING	
26	XQN14+CJ3FZ	SCREW	
27	RJC99004-2	RECHARGEABLE BATT. TER. (-)	
28	RHQ0013-1	SCREW	
29	RJC99003-3	RECHARGEABLE BATT. TER. (+)	
30	RJR0012	BATTERY SHAFT	
31	RJH9203	CONNECTION TERMINAL	
32	RHQ0029-K	SCREW	
33	RXM0039	LINK ANGLE ASS'Y	
34	RMA0620	ANGLE(L)	
		MECHANISM	
101	HPX-26NB1AT	MOTOR	
102	XQS14+A18FZ	SCREW	
103	RDV0016	BELT	
104	RXQ0277	HEAD BLOCK ASS'Y	
104A	RNW1017A	WASHER	
104B	RME0125	PINCH ROLLER SPRING(L)	
104C	RME0005	PINCH ROLLER SPRING(R)	
104D	RXL0004-1	PINCH ROLLER ARM(L)	
104E	RXL0005	PINCH ROLLER ARM(R)	
104F	RMB0245	HEAD ARM SPRING	
105	RMA0023	HOLDER(R)	
106	XQN14+A3	SCREW	
107	RHW42002-2	WASHER	
108	RFKRQS35N1	MECHANISM BLOCK ASS'Y	
108A	RMQ0292	HOLD PIECE(L)	
108B	RMQ0293	HOLD PIECE(R)	
108C	RHD14031	SCREW	
109	RKN0053-K	MECHANISM SHEET	
		PACKING MATERIAL	
P1	RPK0370	PACKING CASE	
P2	RPQ0282	TARY	
P3	RPQ0283	PAD	
P4	RPQF0067	ACCESSORIES BOX	
P5	RPH0121	PROTECTION SHEET	
		ACCESSORIES	
A1	RQT1740-E	INSTRUCTION MANUAL	(E)
A1	RQT1739-B	INSTRUCTION MANUAL	(E, EB)
A2	RFA0297-H	BATTERY CASE	
A3	RFEV111P-KS	S. EARPHONES WITH CORD CLIP	
A3-1	RGQ0090-K	CORD CLIP	
A4	RP-BP62EY	RECHARGEABLE BATTERY	
A5	RP-BC155EY-0	BATTERY CHARGER	(E)⚠
A5	RP-BC155EBYA	BATTERY CHARGER	(EB)⚠
A6	RFC0006	CARRYING BAG	
A7	RQA0013A	WARRANTY CARD	
A8	RQCB0169	SERVICENTER LIST	
A9 ※	RKB205ZA-0	EAR PADS	
		<PRINTED CIRCUIT BOARDS	
		ASS'Y>	
PCB1	REP1525A	MAIN P.C.B ASS'Y	(RTL)

※ This parts is supplied only with replacement parts list.

Note:

The marking (RTL) indicates that the Retention Time is limited for this item. After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time. The retention period of availability is dependant on the type of assembly, and in accordance with the laws governing part and product retention. After the end of this period, the assembly will no longer be available.

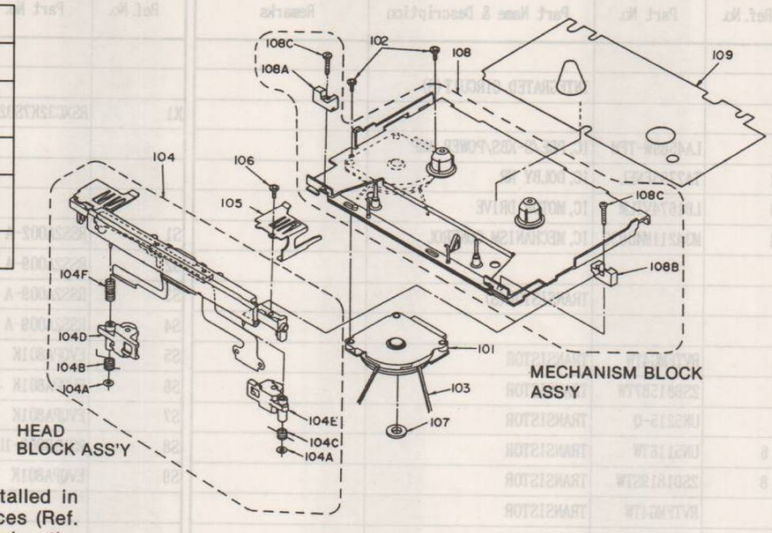
■ CABINET PARTS LOCATION



■ MECHANISM PARTS LOCATION

	FWD & REV mode
Wow and flutter	0.3% (WRMS)
Pressure of pinch roller	120±20g
Take-up tension	More than 60g
Playback torque	20^{+15}_{-5} g•cm
FF/REW torque	More than 60g•cm

The parts enclosed in the dotted boxes are supplied as a block assembly. Therefore, they are not supplied separately except parts indicated with Ref. No.



Note:

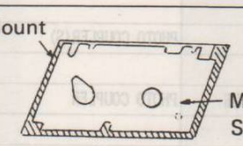
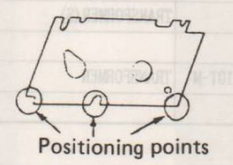
*Exchange the original hold pieces installed in the mechanism with the new hold pieces (Ref. No. 108A, 108B) when repairing. Otherwise, the head block (Ref. No. 104) cannot be installed.

■ How to apply the Mechanism Sheet

1. Replacing/Repairing of a mechanism block.
   Replace or repair using a shared mechanism block.(The replacing/repairing procedure remains the same.)
2. If after repairing with a shared mechanism block, a user complains that the mechanism sheet is different from the original, do the following:
   (1) Explain that the number of replacement parts has been consolidated.
   (2) Attach an original mechanism sheet covering the mechanism sheet already attached to the shared mechanism block. (Doubling, doubling does not affect the unit's performance.)
   - Never attach another mechanism sheet to the doubled mechanism sheets.
   - Never remove the already attached sheet. Adhesive material cannot be removed completely.
   - Position the sheet carefully, when attaching it.

■ Attaching instructions

You can attach the mechanism sheet smoothly if you position the attachment line on the side where the head is to be installed.

Procedure 1: (Preparation)	Peel off the sheet from mount.	
Procedure 2: (Positioning)	Fit the encircled marks of an original sheet with those of sheet already attached.	
Procedure 3: (Attachment)	Attach the sheet.	

REPLACEMENT PARTS LIST

Ref. No.	Part No.	Part Name & Description	Remarks
		INTEGRATED CIRCUIT(S)	
IC1	LA4589W-TFM	IC, PRE/S-XBS/POWER AMP	
IC2	TA7793FNEL	IC, DOLBY NR	
IC3	LB1674VTLM	IC, MOTOR DRIVE	
IC4	M34211M4083G	IC, MECHANISM CONTROL	
		TRANSISTOR(S)	
Q2	RVTFMG4TW	TRANSISTOR	
Q3	2SB815B7TW	TRANSISTOR	
Q4	UN5215-Q	TRANSISTOR	
Q5, 6	UN5116TW	TRANSISTOR	
Q7, 8	2SD1819STW	TRANSISTOR	
Q9	RVTFMG4TW	TRANSISTOR	
Q300	2SD1819A-R	TRANSISTOR	
Q301, 302	UN511MTW	TRANSISTOR	
Q303	2SD1328STW	TRANSISTOR	
Q304	2SB1218STW	TRANSISTOR	
Q305, 306	2SD1819STW	TRANSISTOR	
Q307	2SB815B7TW	TRANSISTOR	
Q401	2SD1328STWRA	TRANSISTOR	
Q402	2SD1819STW	TRANSISTOR	
Q403	2SB815B7TW	TRANSISTOR	
Q404	2SB1218STW	TRANSISTOR	
Q405	UN5115TW	TRANSISTOR	
		DIODE(S)	
D1	MA713TWRA	DIODE	
D2	LN1261CTR	L. E. D	
D400	MA720TW	DIODE	
		VARIABLE RESISTOR(S)	
VR1	EVUT0VA05A54	V. R, VOLUME	
VR301	EVM3SSX50B23	V. R, TAPE SPEED ADJ.	
		PHOTO COUPLER(S)	
Z1	GP2S27T6	PHOTO COUPLER	
		TRANSFORMER(S)	
T400	RL09U010T-M	TRANSFORMER	

Ref. No.	Part No.	Part Name & Description	Remarks
		OSCILLATOR(S)	
X1	RSXC32K7S02T	OSCILLATOR(32KHZ)	
		SWITCH(ES)	
S1	RSS2A002-A	SW, FWD/REV	
S2	RSS2A009-A	SW, HOLD	
S3	RSS2A009-A	SW, REVERSE MODE	
S4	RSS2A009-A	SW, DOLBY NR	
S5	EVQPA801K	SW, REW	
S6	EVQPA801K	SW, FF	
S7	EVQPA801K	SW, PLAY/DIR	
S8	RSH1B006-1U	SW, TAPE DET. /TAPE SELECTOR	
S9	EVQPA801K	SW, STOP	
		JACK(S)	
JK1	RJJ36T01-2C	HEADPHONES JACK	

RESISTORS AND CAPACITORS

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)

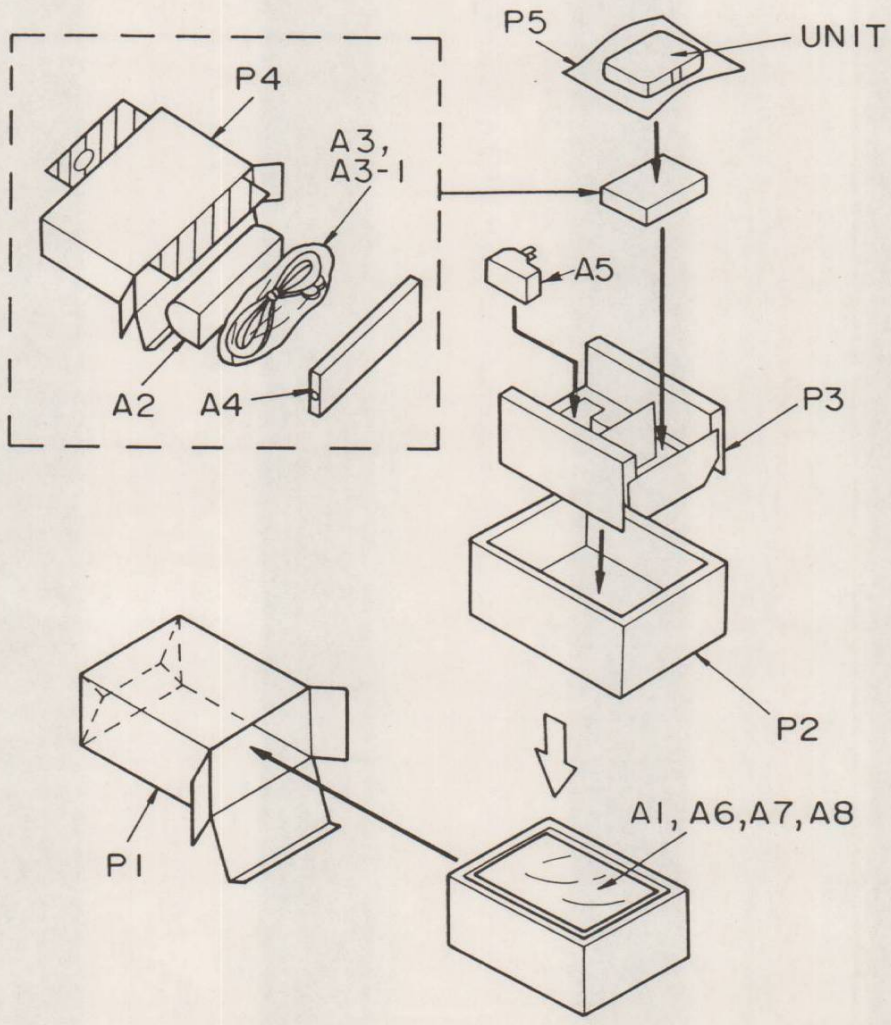
Ref. No.	Part No.	Values & Remarks
		RESISTORS
R1, 2	ERJ3GEYJ472V	1/16W 4.7K
R3	ERJ3GEYJ222V	1/16W 2.2K
R4	ERJ3GEYJ183V	1/16W 18K
R5	ERJ3GEYJ4R7V	1/16W 4.7
R6	ERJ3GEYJ152V	1/16W 1.5K
R7	ERJ3GEYJ392V	1/16W 3.9K
R8	ERJ3GEYJ104V	1/16W 100K
R9	ERJ3GEYJ821V	1/16W 820
R102	ERJ3GEYJ151V	1/16W 150
R103	ERJ3GEYJ682V	1/16W 6.8K
R104	ERJ3GEYJ222V	1/16W 2.2K
R105	ERJ3GEYJ682V	1/16W 6.8K
R107	EXBV4V333JV	1/16W 33K
R109	ERJ3GEYJ133V	1/16W 13K
R110	ERJ3GEYJ394V	1/16W 390K
R111	ERJ3GEYJ223V	1/16W 22K
R112	ERJ3GEYJ101V	1/16W 100
R113	ERJ3GEYJ472V	1/16W 4.7K
R118	ERJ3GEYJ222V	1/16W 2.2K
R123	ERJ3GEYJ102V	1/16W 1K
R124	ERJ3GEYJ4R7V	1/16W 4.7
R125	ERJ3GEYJ222V	1/16W 2.2K
R126	ERJ3GEYJ223V	1/16W 22K
R127	ERJ3GEYJ182V	1/16W 1.8K
R128	ERJ3GEYJ152V	1/16W 1.5K
R130	ERJ3GEYJ393V	1/16W 39K
R202	ERJ3GEYJ151V	1/16W 150
R203	ERJ3GEYJ682V	1/16W 6.8K
R204	ERJ3GEYJ222V	1/16W 2.2K
R205	ERJ3GEYJ682V	1/16W 6.8K
R207	EXBV4V333JV	1/16W 33K
R209	ERJ3GEYJ133V	1/16W 13K
R210	ERJ3GEYJ394V	1/16W 390K
R211	ERJ3GEYJ223V	1/16W 22K
R212	ERJ3GEYJ101V	1/16W 100
R213	ERJ3GEYJ472V	1/16W 4.7K
R218	ERJ3GEYJ222V	1/16W 2.2K
R223	ERJ3GEYJ102V	1/16W 1K
R224	ERJ3GEYJ4R7V	1/16W 4.7
R225	ERJ3GEYJ222V	1/16W 2.2K
R226	ERJ3GEYJ223V	1/16W 22K
R227	ERJ3GEYJ182V	1/16W 1.8K
R228	ERJ3GEYJ152V	1/16W 1.5K
R230	ERJ3GEYJ393V	1/16W 39K
R300	ERJ3GEYJ472V	1/16W 4.7K
R301	ERJ3GEYJ222V	1/16W 2.2K

Ref. No.	Part No.	Values & Remarks
R302	ERJ3GEYK106V	1/16W 10M
R303	ERJ3GEYJ334V	1/16W 330K
R304	ERJ3GEYJ154V	1/16W 150K
R305	ERJ3GEYJ823V	1/16W 82K
R306	ERJ3GEYJ104V	1/16W 100K
R307	ERJ6GEYF564V	1/10W 560K
R308, 309	ERJ3GEYJ333V	1/16W 33K
R310	ERJ6GEYF394V	1/10W 390K
R311	ERJ3GEYJ122V	1/16W 1.2K
R312	ERJ3GEYJ221V	1/16W 220
R313, 314	ERJ3GEYJ474V	1/16W 470K
R315	ERJ3GEYJ224V	1/16W 220K
R316	ERJ3GEYJ471V	1/16W 470
R317	ERJ3GEYJ434V	1/16W 430K
R318	ERJ3GEYJ474V	1/16W 470K
R319	ERJ3GEYJ101V	1/16W 100
R351	ERJ3GEYJ331V	1/16W 330
R352	ERJ3GEYJ303V	1/16W 30K
R353	ERJ3GEYJ562V	1/16W 5.6K
R354, 355	ERJ3GEYJ102V	1/16W 1K
R356	RRSN15J103UE	1/20W 10K
R358	EXBV4V224JV	1/16W 220K
R360	ERJ3GEYJ472V	1/16W 4.7K
R400	ERJ3GEYJ104V	1/16W 100K
R401	ERJ3GEYJ474V	1/16W 470K
R402	ERJ3GEYJ333V	1/16W 33K
R403	ERJ3GEYJ102V	1/16W 1K
R404	ERJ3GEYJ270V	1/16W 27
R405	ERJ3GEYJ472V	1/16W 4.7K
R406	ERJ3GEYJ132V	1/16W 1.3K
R407	ERJ3GEYJ474V	1/16W 470K
		CHIP JUMPERS
RJ1	ERJ3GEY0R00V	CHIP JUMPER
		CAPACITORS
C1	ECST0GX226LL	4V 22U
C2	ECUV1H681KBV	50V 680P
C3	ECST1AY225LL	10V 2.2U
C4	ECST0GY685LL	4V 6.8U
C5	RCSX0EY156LE	2.5V 15U
C7	ECST0GY685LL	4V 6.8U
C8	ECUVNE104MBN	25V 0.1U
C9	ECST0GY685LL	4V 6.8U
C10	ECUV1C224MBM	16V 0.22U
C12	ECST0GY685LL	4V 6.8U
C13	ECA0GV101FZ	4V 100U

Ref. No.	Part No.	Values & Remarks
C14	RCSX0GY106LE	4V 10U
C15	ECST0GY475LL	4V 4.7U
C16	ECUV1H102MBV	50V 1000P
C17	ECUV1C223MBV	16V 0.022U
C18, 19	ECUV1C104ZFV	16V 0.1U
C100, 101	ECUV1H821KBV	50V 820P
C102	RCUS1C223KB	16V 0.022U
C103	ECUV1C224ZFN	16V 0.22U
C104	ECUV1C183MBV	16V 0.018U
C105	ECUV1C104ZFN	16V 0.1U
C106	ECUV1H332MBV	50V 3300P
C107	ECUV1E822MBV	25V 8200P
C108	ECUV1E103MBV	25V 0.01U
C109	ECUVNC105ZFN	16V 1U
C110	ECUVNC474ZFN	16V 0.47U
C116	ECUVNC105ZFN	16V 1U
C117	ECUV1C154KBM	16V 0.15U
C118	ECUV1H562KBV	50V 5600P
C119	ECUV1C223KBN	16V 0.022U
C121	ECUVNC105ZFN	16V 1U
C122	ECUV1H681KBV	50V 680P
C123	ECST0GY685LL	4V 6.8U
C124	ECUV1E103MBV	25V 0.01U
C125, 126	ECUV1C104ZFV	16V 0.1U
C200, 201	ECUV1H821KBV	50V 820P
C202	RCUS1C223KB	16V 0.022U
C203	ECUV1C224ZFN	16V 0.22U
C204	ECUV1C183MBV	16V 0.018U
C205	ECUV1C104ZFN	16V 0.1U
C206	ECUV1H332MBV	50V 3300P
C207	ECUV1E822MBV	25V 8200P
C208	ECUV1E103MBV	25V 0.01U
C209	ECUVNC105ZFN	16V 1U
C210	ECUVNC474ZFN	16V 0.47U
C216	ECUVNC105ZFN	16V 1U
C217	ECUV1C154MBN	16V 0.15U
C218	ECUV1H562KBV	50V 5600P
C219	ECUV1C223KBN	16V 0.022U
C221	ECUVNC105ZFN	16V 1U
C222	ECUV1H681KBV	50V 680P
C223	ECST0GY685LL	4V 6.8U
C224	ECUV1E103MBV	25V 0.01U
C225, 226	ECUV1C104ZFV	16V 0.1U
C301	RCSX0EY156LE	2.5V 15U
C302	ECUV1H050DCV	50V 5P
C303	ECUV1H330KCV	50V 33P
C304	RCST1AY155LE	10V 1.5U
C305	ECUVNC105ZFN	16V 1U
C351	ECUV1C104MBM	16V 0.1U

Ref. No.	Part No.	Values & Remarks
C352	RCST1DY474LE	20V 0.47U
C353	ECST1EY474LL	25V 0.47U
C354	RCST1VY334LE	35V 0.33U
C401	ECUV1H181KV	50V 180P
C402	ECUV1H102MBV	50V 1000P
C404	ECUVNC474ZFN	16V 0.47U
C409	ECUVNC105ZFN	16V 1U
C410	RCSX0GY106LE	4V 10U

■PACKAGING



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