

Service Manual

Radio Cassette

Stereo Radio Cassette Recorder

RX-FT550

Color

(K) Black Type



Area

Country Code	Areas	Color
(E)	Continental Europe	(K)
(EB)	Great Britain	
(EG)	F.R. Germany & Italy	

RX-FW29L MECHANISM SERIES

■ SPECIFICATIONS

General:

Power Requirement: AC; (E) (EG) . . 220 V, 50 Hz
(EB) 240 V, 50 Hz
Battery; 9 V (Six UM-1 "R20/LR20" Batteries)

Power Consumption: 16 W (AC only)

Power Output: 8 W (4 W×2)...RMS (max.)
20 W (10 W×2)...PMPO
10 W (5 W×2)...MPO

Speaker: Woofer; 10 cm PM Dynamic Speaker (2.7Ω)
Tweeter; CERAMIC Speaker 1.5 cm

Jacks: Input; CD/LINE IN; 398 mV, 47 kΩ
Output; HEADPHONES; 32Ω, Ø3.5

Dimensions: 556 (W)×150 (H)×146 (D) mm

Weight: 3 kg without batteries

Radio Section:

Radio Frequency Range: FM; 87.5~108 MHz
LW; 148.5~285 kHz
MW; 520~1610 kHz
SW; 5.9~18 MHz

Intermediate Frequency: FM; 10.7 MHz
AM; 459 kHz

Sensitivity: FM; 2.2 μV/50 mW output
(-3 dB Limit Sens.)
LW; 200 μV/m/50 mW output
MW; 200 μV/m/50 mW output
SW; 5.6 μV/50 mW output

Tape Deck Section:

Frequency Response: 50~12,000 Hz
Tape Speed: 4.8 cm/s
Track System: 4-track 2-channel stereo playback

Tape Deck Section:

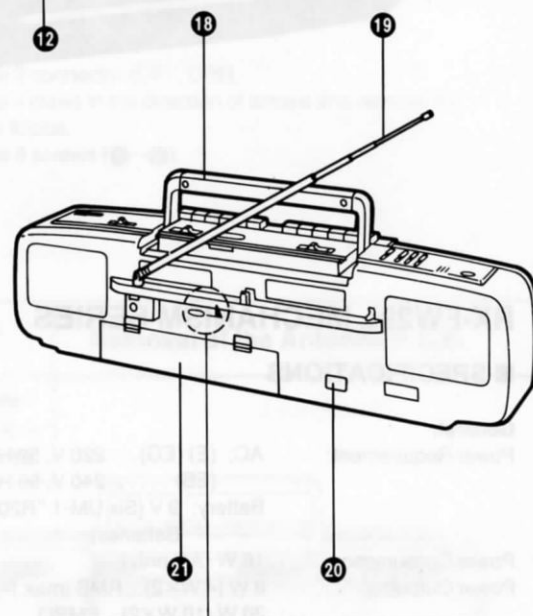
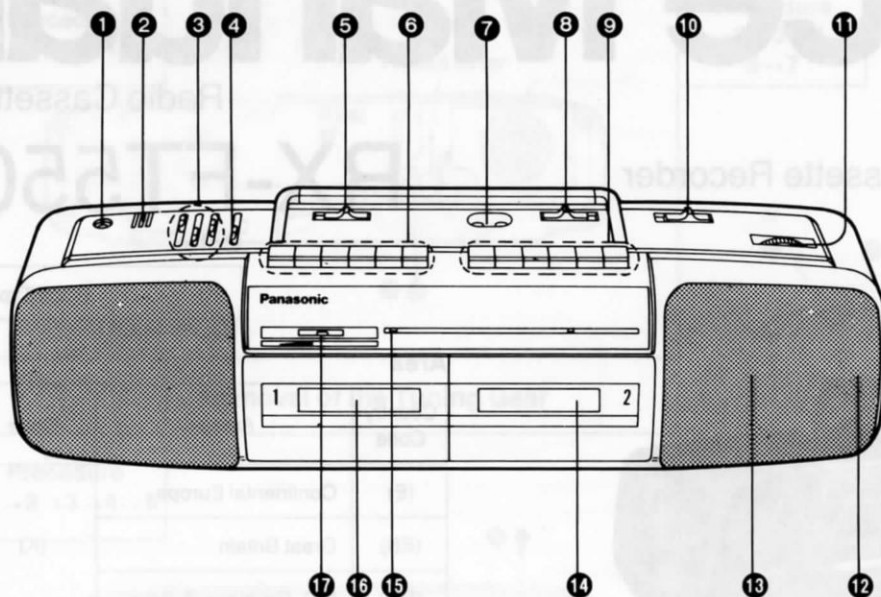
Frequency Response: 50~13,000 Hz
Recording System: AC bias, Magnet erase
Tape Speed: 4.8 cm/s
Track System: 4-track 2-channel stereo recording and playback

Design and specifications are subject to change without notice.

Panasonic

Matsushita Electric Industrial Co., Ltd.
Central P.O. Box 288, Osaka 530-91, Japan

LOCATION OF CONTROLS



1 Headphones Jack (PHONES) ($\phi 3.5$, 32Ω)

Speakers automatically cut off when headphones are connected.

When using the headphones, avoid listening to sound for a long period of time and avoid excessive volume levels, which may injure your ears.

2 Built-in Microphone (MIC)

3 Graphic Equalizer Controls (GRAPHIC EQUALIZER)

4 Volume Control (VOLUME)

5 Function Selector (SELECTOR)

6 Tape 1 (For Playback)

Direction Button (◀▶ DIR)
 Stop/Eject Button (■ STOP/EJECT)
 Fast Buttons (◀◀—FAST—▶▶)
 Playback Button (◀▶ PLAY)
 Tape 1 Reverse Mode Selector (REV MODE)

7 CD/Line Input Jacks (CD/LINE IN) (398 mV, 47 k Ω)

8 Editing/FM Mode Selector/Beat Proof Switch (EDITING/FM MODE/B.P)

9 TAPE 2 (For Recording and Playback)

Pause Button (⏸ PAUSE)
 Stop/Eject Button (■ STOP/EJECT)
 Fast Forward Button (◀◀ FF)
 Rewind Button (▶▶ REW)
 Playback Button (▶ PLAY)
 Record Button (● RECORD)

10 Band Selector (BAND)

11 Tuning Control (TUNING)

12 Speakers (Tweeter) (1.5 cm)

13 Speakers (Woofer) (10 cm, 2.7 Ω)

14 Tape 2 Cassette Compartment

15 FM Stereo Indicator (FM STEREO)

16 Tape 1 Cassette Compartment

17 XBS Level Control (XBS LEVEL)

18 Handle

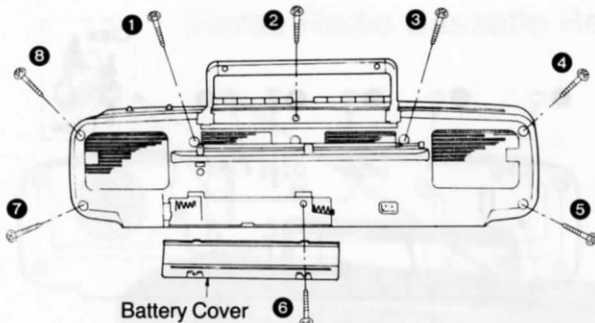
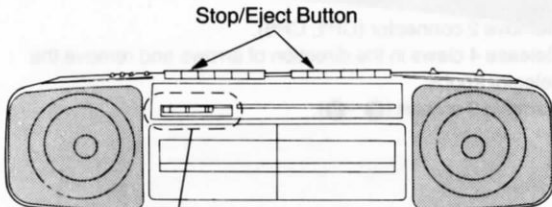
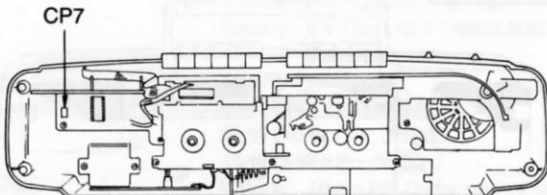
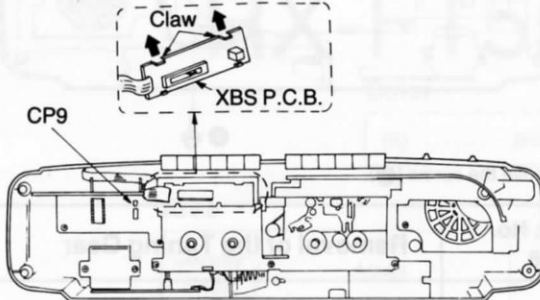
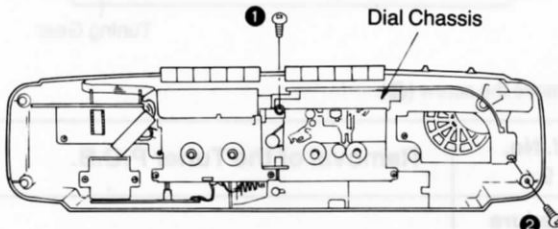
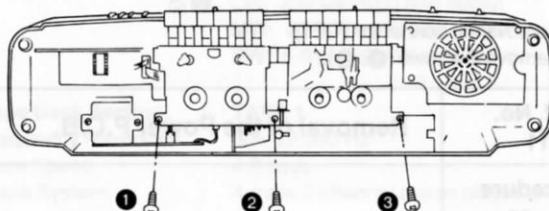
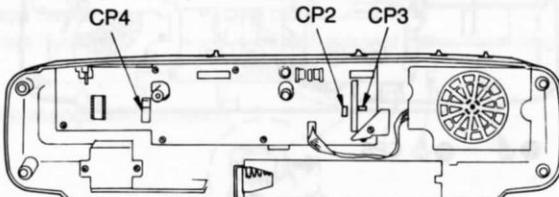
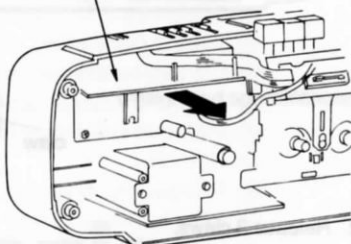
19 Telescopic Antenna

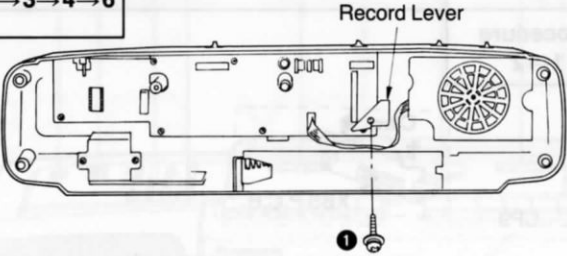
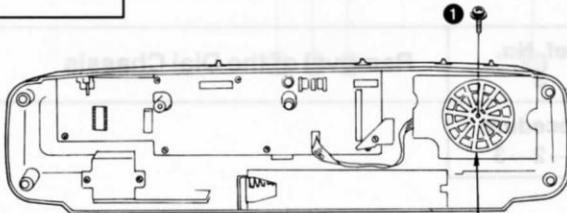
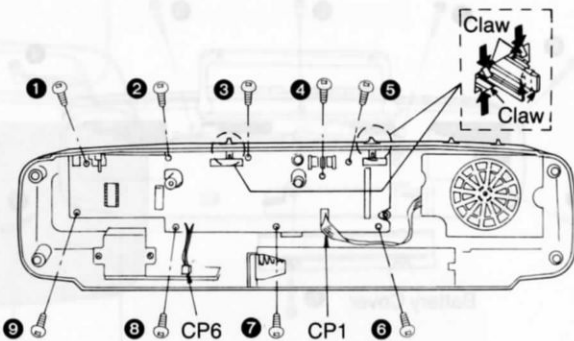
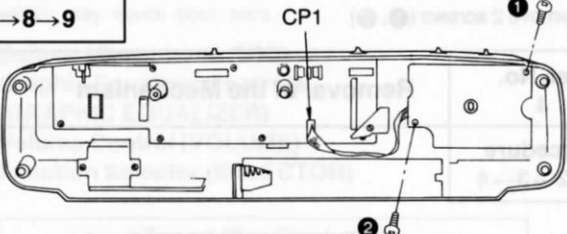
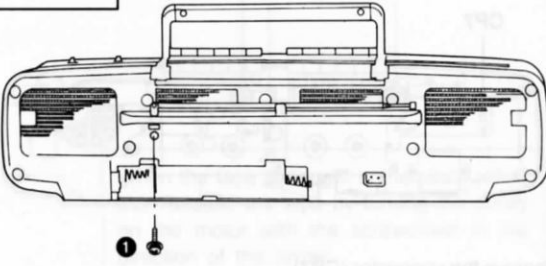
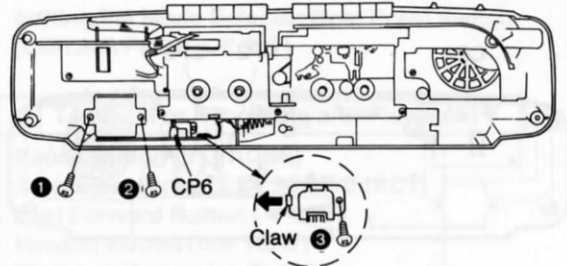
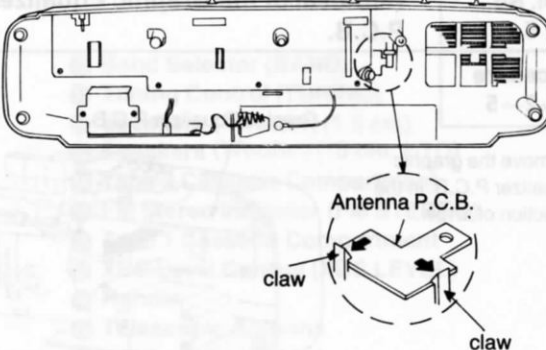
20 AC Socket (AC IN~)

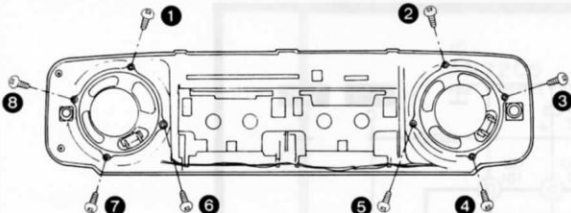
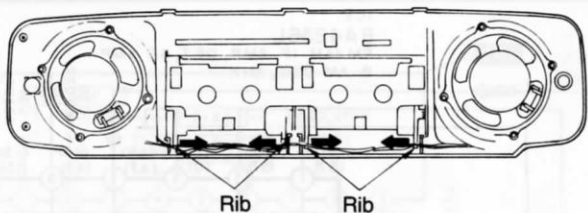
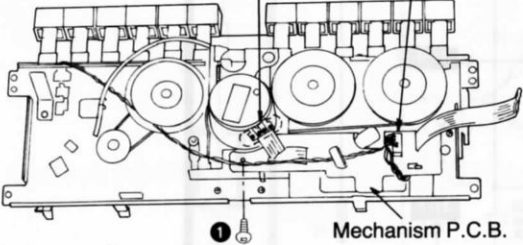
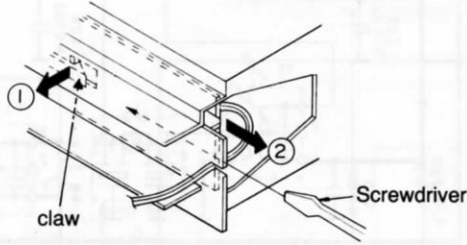
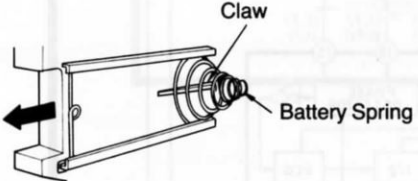
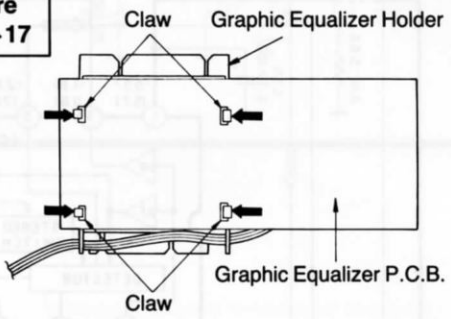
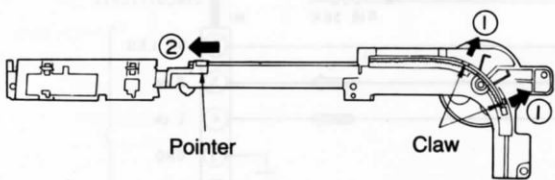
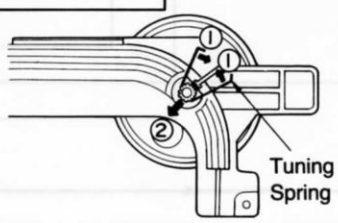
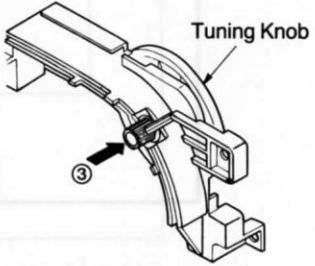
21 Battery Compartment

When the tape is caught in the pinch roller, etc. Release the tape by turning the pulley on the motor with the screwdriver in the direction of the arrow.

DISASSEMBLY INSTRUCTIONS

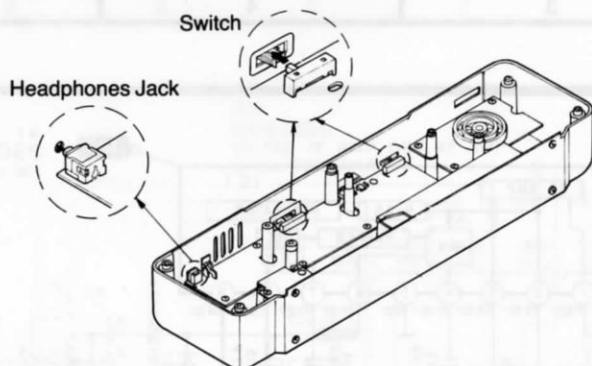
Ref. No. 1	Removal of the Front Cabinet	Ref. No. 2	Removal of the XBS P.C.B.
Procedure 1	 Battery Cover 6 1. Remove the battery cover. 2. Remove 8 screws (1~8).  Stop/Eject Button XBS Level Knob 3. Remove the XBS level knob. 4. Press 2 stop/eject button and open the cassette holder.  CP7 5. Remove the connector (CP7).	 Claw CP9 XBS P.C.B. 1. Release 2 claws in the direction of arrow. 2. Remove the connector (CP9).	
Ref. No. 3	Removal of the Dial Chassis	Ref. No. 4	Removal of the Mechanism
Procedure 1→2→3	 Dial Chassis • Remove 2 screws (1, 2).	Procedure 1→2→3→4	 1 2 3 1. Remove 3 screws (1~3).  CP4 CP2 CP3 2. Remove 3 connector (CP2, CP3, CP4).
Ref. No. 5	Removal of the Graphic Equalizer P.C.B.		
Procedure 1→2→5	• Remove the graphic equalizer P.C.B. in the direction of arrow.  Graphic Equalizer P.C.B.		

Ref. No. 6	Removal of the Record Lever	Ref. No. 7	Removal of the Main P.C.B.
Procedure 1→2→3→4→6	Procedure 1→2→3→4→5→7		
	 Record Lever ● Remove the screw (1).		
Ref. No. 8	Removal of the Tuning Gear		
Procedure 1→2→3→4→8			
	 Tuning Gear ● Remove the screw (1).	 1. Remove 2 connector (CP1, CP6). 2. Release 4 claws in the direction of arrows and remove the selector knobs. 3. Remove 9 screws (1~9).	
Ref. No. 9	Removal of the Tuner P.C.B.	Ref. No. 10	Removal of the Antenna P.C.B.
Procedure 1→2→3→4→8→9		Procedure 1→2→3→4→6→8→9→10	
	 1. Remove the connector (CP1). 2. Remove 2 screws (1, 2).	 1. Remove the screw (1).	
Ref. No. 11	Removal of the Power P.C.B.		
Procedure 1→11			
	 1. Remove 3 screws (1~3). 2. Release the claw in the direction of arrow.	 2. Release 2 claws.	

Ref. No. 12	Removal of the Speaker	Ref. No. 13	Removal of the Cassette Holder
Procedure 1→12		Procedure 1→13	
	 •Remove 8 screws (①~⑧).		 •Release 4 ribs in the direction of arrows.
Ref. No. 14	Removal of the Mechanism P.C.B.	Ref. No. 15	Removal of the Battery P.C.B.
Procedure 1→2→3→4→ 14		Procedure 1→15	
	 1. Remove the solder. 2. Remove the connector (CP5). 3. Remove the screw (①).	 1. Release the claw in the direction of arrow ①. 2. Remove the battery P.C.B. in the direction of arrow ②.	
Ref. No. 16	Removal of the Battery Spring	Ref. No. 17	Removal of the Graphic Equalizer Holder
Procedure 16		Procedure 1→2→5→17	
	 1. Remove the battery cover. 2. Release the claw and remove the battery spring in the direction of arrow.		 •Release 4 screws.
Ref. No. 18	Removal of the Pointer	Ref. No. 19	Removal of the Tuning Knob
Procedure 1→2→3→18		Procedure 1→2→3→18→ 19	
	 •Release 2 claws in the direction of arrows ① and then remove the pointer in the direction of arrow ②.		 1. Release the spring in the direction of arrows ①, ②. 2. Remove the tuning knob in the direction of arrow ③.

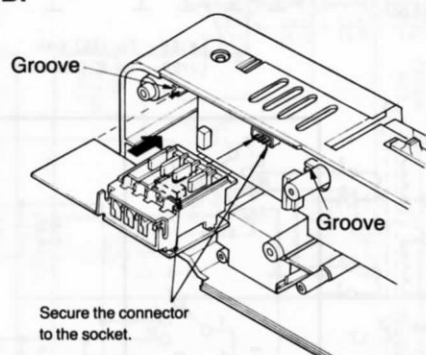
Notes When Assembling

■ HOW TO MOUNT THE MAIN P.C.B.



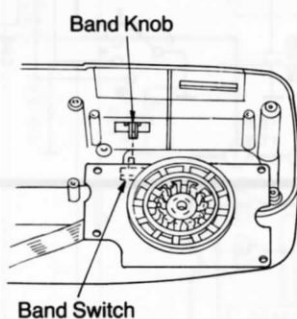
1. Insert the headphones jack into the hole in the rear cabinet.
2. Insert the boss of the switch in the selector control.

■ HOW TO MOUNT THE GRAPHIC EQUALIZER P.C.B.



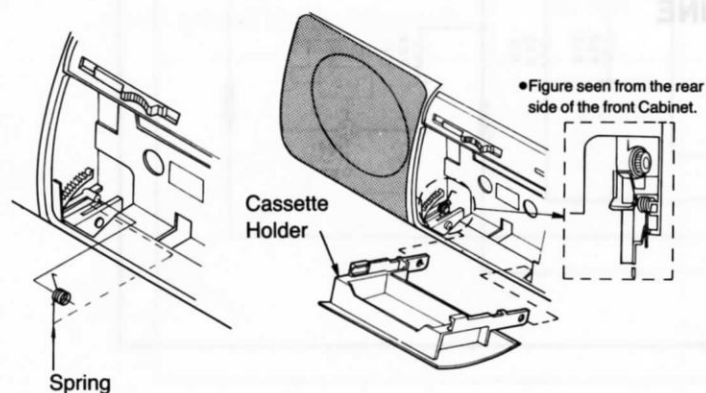
- Reinstall it by sliding it in the direction of the arrow.

■ HOW TO MOUNT THE TUNER P.C.B.

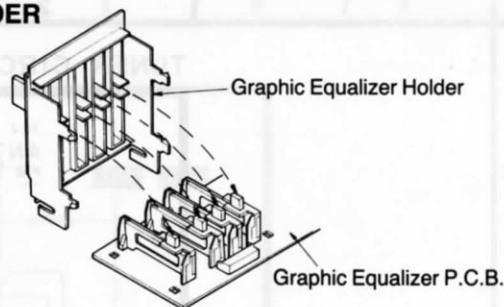


- Insert the boss of the switch in the selector control.

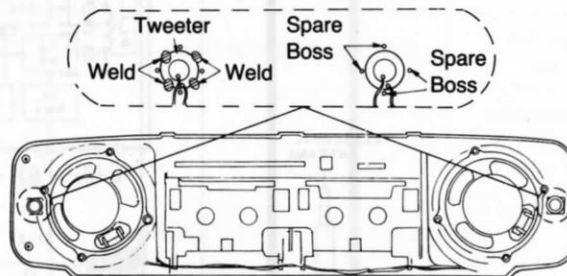
■ HOW TO MOUNT THE CASSETTE HOLDER



■ HOW TO MOUNT THE GRAPHIC EQUALIZER HOLDER



■ HOW TO REPLACE THE TWEETERS



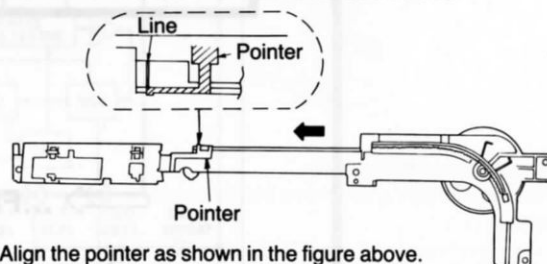
- Remove these 4 welded points with a cutter of similar tool. After replacing the tweeters, weld after mounting.

■ HOW TO ATTACH THE STOPPER SPRING

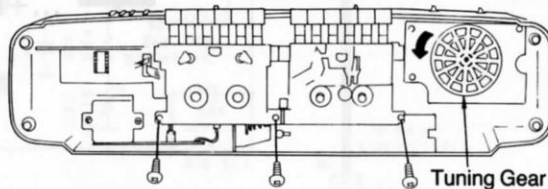


- Securely fix the stopper spring in the groove.

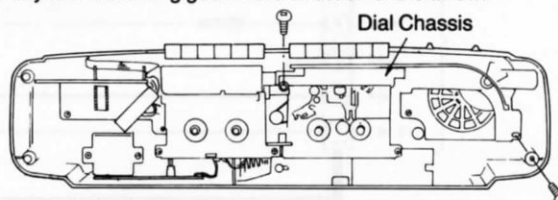
■ HOW TO MOUNT THE DIAL CHASSIS



1. Align the pointer as shown in the figure above.



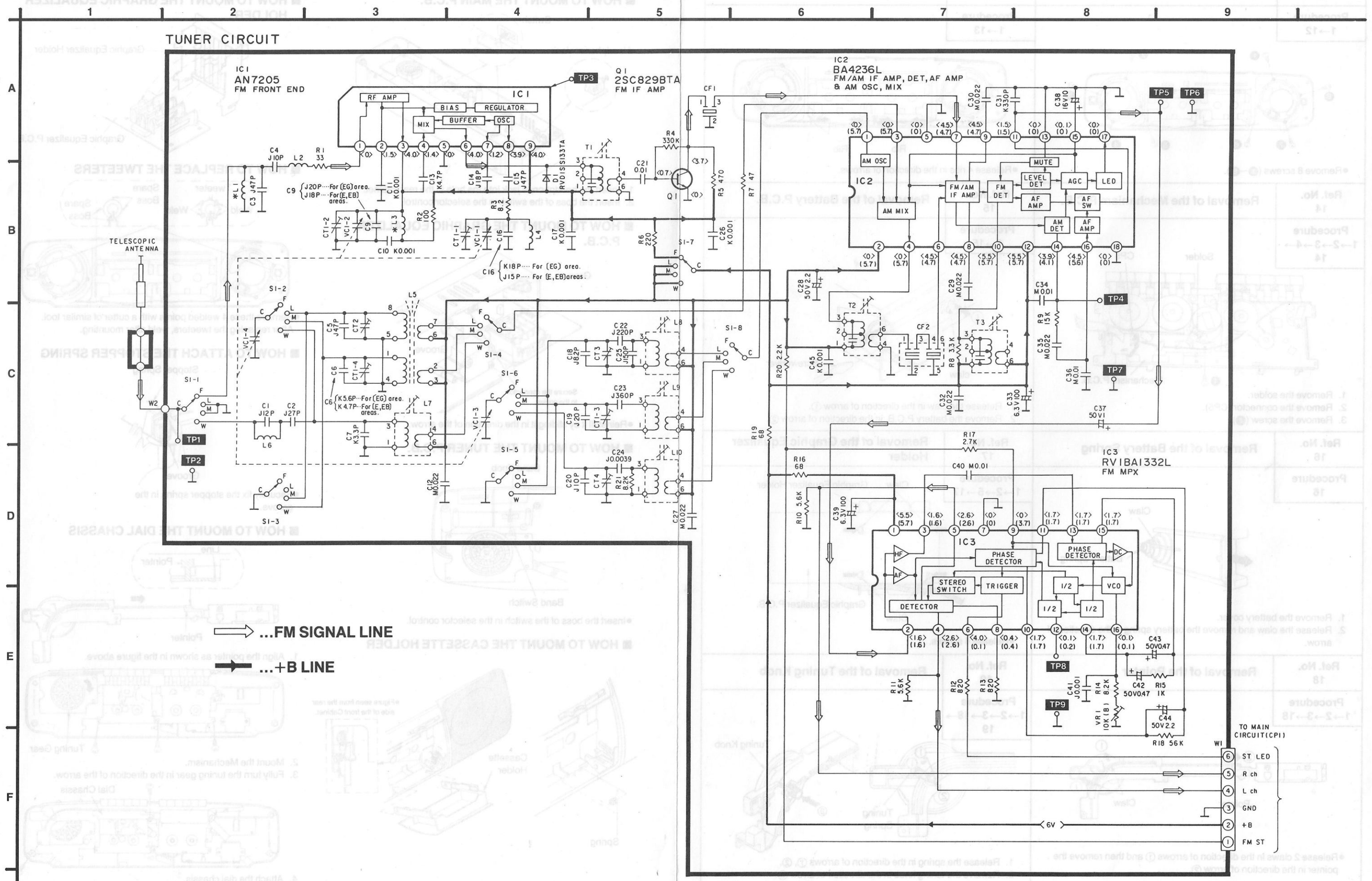
2. Mount the Mechanism.
3. Fully turn the tuning gear in the direction of the arrow.



4. Attach the dial chassis.

SCHEMATIC DIAGRAM • TUNER CIRCUIT

(Parts List on Page 17, 27 and 28)



SCHEMATIC DIAGRAM • MAIN/GRAPHIC E.Q./MECHANISM/XBS/ POWER CIRCUIT (Parts List on Page 17, 21)

Notes:

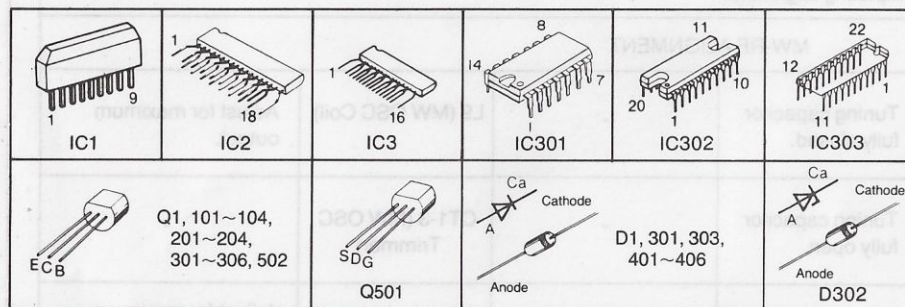
- S1-1~S1-8: Band select switch in "FM" position.
(F...FM, L...LW, M...MW, W...SW)
- S301-1, S301-2: Editing/FM mode/Beat proof switch in "MIC/MONO/" position.
(M/...MIC/MONO/, N/...NORMAL/STEREO/II, H/III...HIGH/STEREO/III)
- S302-1~S302-6: Record/Playback switch in "PLAYBACK" position.
(P...PLAYBACK, R...RECORD)
- S303-1~S303-4: Function selector switch in "TAPE/POWER OFF" position.
(T...TAPE/POWER OFF, R...RADIO, L...CD/LINE IN)
- S304: AC/DC select switch in "DC" position.
- S305: Tape 1 motor switch.
- S306: Tape 2 motor switch.
- S307-1, S307-2: FWD/REV select switch in "FWD" position.
- VR1: FM VCO adjustment VR.
- VR101: Graphic equalizer (10 kHz) control VR (Rch).
- VR102: Graphic equalizer (1 kHz) control VR (Rch).
- VR103: Graphic equalizer (330 Hz) control VR (Rch).
- VR104: Volume control VR (Rch).
- VR105: XBS level control VR (Rch).
- VR201: Graphic equalizer (10 kHz) control VR (Lch).
- VR202: Graphic equalizer (1 kHz) control VR (Lch).
- VR203: Graphic equalizer (330 Hz) control VR (Lch).
- VR204: Volume control VR (Lch).
- VR205: XBS level control VR (Lch).
- VR501: Tape speed adjustment VR.
- DC voltage measurements are taken with electronic voltmeter.
The negative terminal of the battery provides negative meter connection point.
No mark...PLAYBACK, ()...RECORD,
< >...FM, ()...AM

- Battery current: Vol. min. 96 mA (Radio)
160 mA (Tape Playback)
Vol. max 840 mA (Radio)
975 mA (Tape Playback)

Measurement instruction
(Radio: FM 60 dB, 30% Mod.)
(Tape: 315 Hz, 0 dB)

- Important safety notice
Components identified by Δ mark have special characteristics important for safety.
When replacing any of these components, use only manufacturer's specified parts.
- The mark $\square$ shows test point e.g. $\square$ TP1 = test point 1.

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



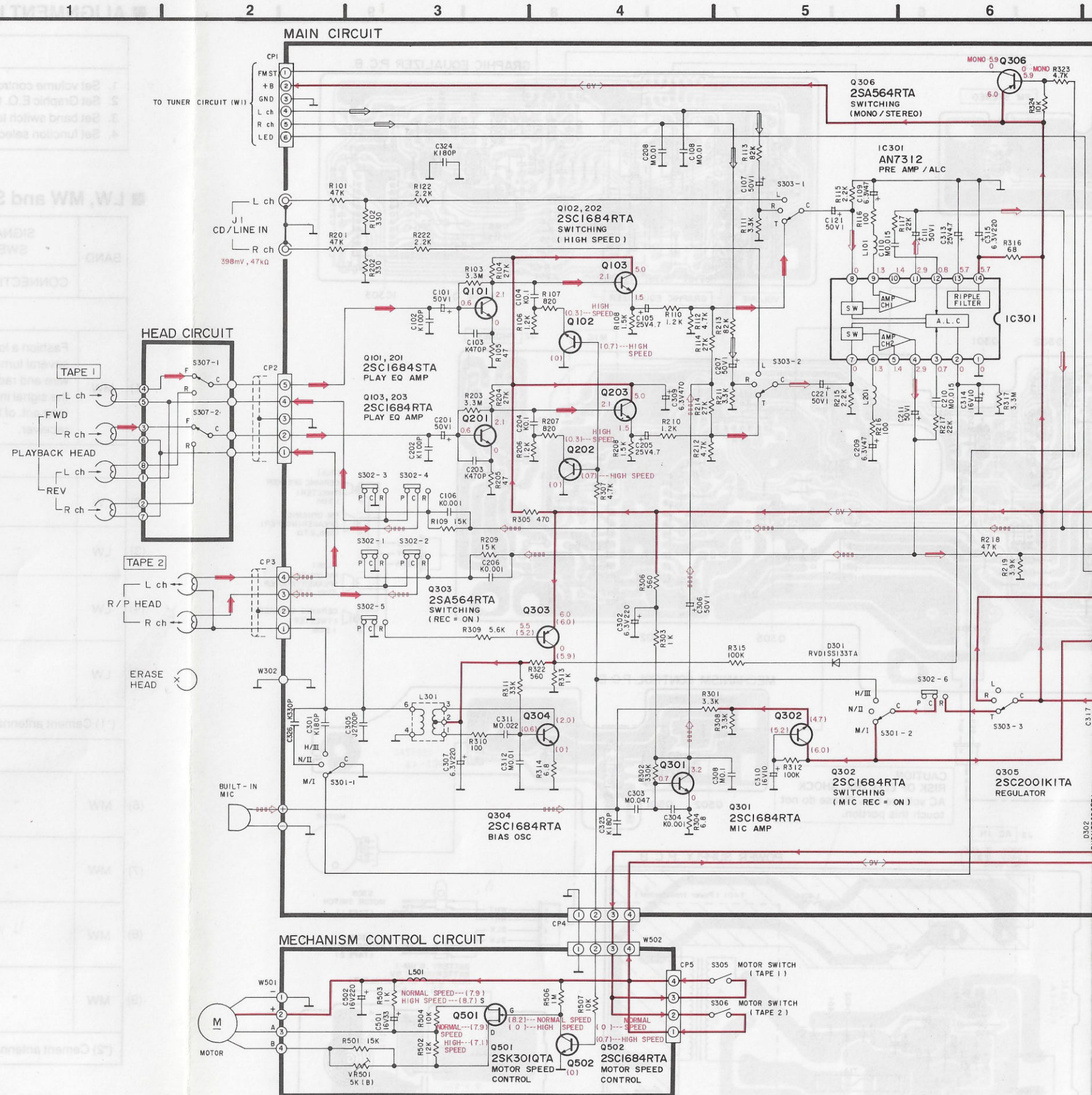
...FM SIGNAL LINE

...PLAYBACK SIGNAL LINE

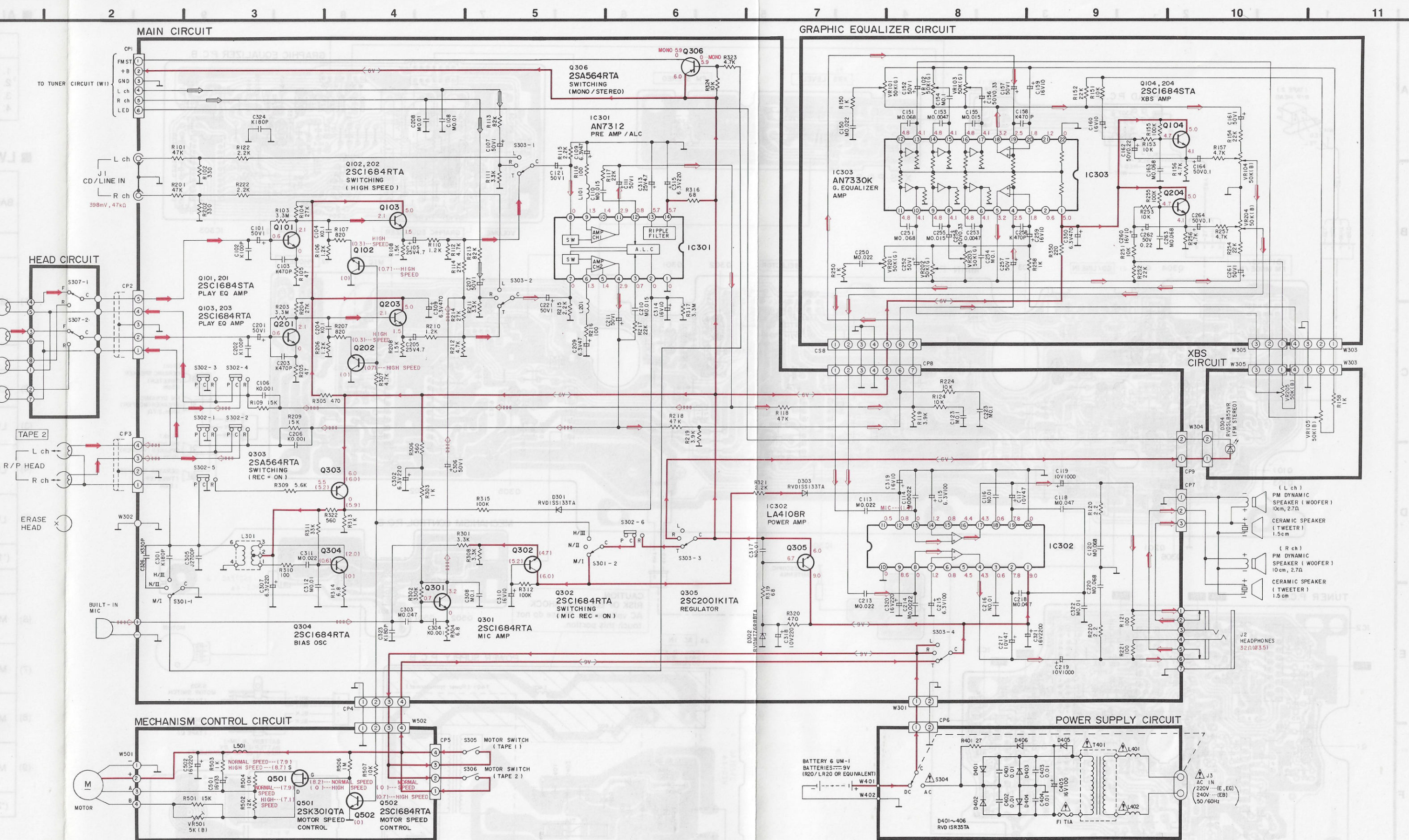
...RECORD SIGNAL LINE

...MAIN SIGNAL LINE

...+B LINE



IC DIAGRAM • MAIN/GRAPHIC E.Q./MECHANISM/XBS/ POWER CIRCUIT (Parts List on Page 17, 27 and 28)





MEASUREMENTS AND ADJUSTMENTS

■ ALIGNMENT INSTRUCTION

READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

1. Set volume control to maximum.
2. Set Graphic E.Q. to center.
3. Set band switch to LW, MW, SW or FM.
4. Set function selector to radio or tape.
5. Set power source voltage to 9 V DC.
6. Set FM mode/B.P switch to STEREO/III.
7. Output of signal generator should be no higher than necessary to obtain an output reading.

■ LW, MW and SW ALIGNMENT

BAND	SIGNAL GENERATOR or SWEEP GENERATOR		RADIO DIAL SETTING	INDICATOR (ELECTRONIC VOLTMETER or OSCILLOSCOPE)	ADJUSTMENT	REMARKS
	CONNECTIONS	FREQUENCY				
AM-IF ALIGNMENT						
(1)	MW	Fashion a loop of several turns of wire and radiate the signal into loop ant. of the receiver.	459 kHz 30% Mod. at 400 Hz	Point of non-interference. (on/ about 600 kHz)	Headphones Jack (32Ω) (Fabricate the plug as shown in Fig. 2. and then connect the lead wires of the plug to the measuring instrument.)	T2 (AM IFT) Adjust for maximum output.
LW-RF ALIGNMENT						
(2)	LW	"	(E) (EB) ...136 kHz (EG)...137 kHz	Tuning capacitor fully closed.	"	L8 (LW OSC Coil) "
(3)	LW	"	297 kHz	Tuning capacitor fully open.	"	CT3 (LW OSC Trimmer) "
(4)	LW	"	145 kHz	Tune to signal	"	(*1) L5-1 (LW ANT Coil) Adjust for maximum output. Adjust L5-1 by moving the ferrite core.
(5)	LW	"	285 kHz	"	"	CT2 (LW ANT Trimmer) Adjust for maximum output. Repeat steps (2) ~ (5).
(*1) Cement antenna ferrite core with wax after completing alignment.						
MW-RF ALIGNMENT						
(6)	MW	"	(E) (EB) ...511 kHz (EG)...514 kHz	Tuning capacitor fully closed.	"	L9 (MW OSC Coil) Adjust for maximum output.
(7)	MW	"	(E) (EB) ...1650 kHz (EG)...1639 kHz	Tuning capacitor fully open.	"	CT1-3 (MW OSC Trimmer) "
(8)	MW	"	550 kHz	Tune to signal	"	(*2) L5-2 (MW ANT Coil) Adjust for maximum output. Adjust L5-2 by moving the ferrite core.
(9)	MW	"	1500 kHz	"	"	CT1-4 (AM ANT Trimmer) Adjust for maximum output. Repeat steps (6) ~ (9).
(*2) Cement antenna ferrite core with wax after completing alignment.						

BAND	SIGNAL GENERATOR or SWEEP GENERATOR		RADIO DIAL SETTING	INDICATOR (ELECTRONIC VOLTMETER or OSCILLOSCOPE)	ADJUSTMENT	REMARKS	
	CONNECTIONS	FREQUENCY					
SW-RF ALIGNMENT							
(10)	SW	Connect to test point TP1 through ceramic capacitor (10 pF). Negative side to test point TP2 .	5.75 MHz	Tuning capacitor fully closed.	Headphones Jack (32Ω) (Fabricate the plug as shown in Fig. 2. and then connect the lead wires of the plug to the measuring instrument.)	L10 (SW OSC Coil)	Adjust for maximum output.
(11)	SW		18.8 MHz	Tuning capacitor fully open.	"	CT4 (SW OSC Trimmer)	"
(12)	SW		5.9 MHz	Tune to signal.	"	L7 (SW ANT Coil)	Adjust for maximum output. Repeat steps (10)~(12).

■ FM ALIGNMENT

BAND	SIGNAL GENERATOR or SWEEP GENERATOR		RADIO DIAL SETTING	INDICATOR (ELECTRONIC VOLTMMETER or OSCILLOSCOPE)	ADJUSTMENT	REMARKS	
	CONNECTIONS	FREQUENCY					
FM-IF ALIGNMENT							
(13)	FM	High side thru. 0.001 μ F to test point TP3 . Negative side to test point TP2 .	10.7 MHz (SWP)	Point of non-interference. (on/ about 90 MHz).	Connect vert. amp. of scope to test point TP4 . Negative side to test point TP6 .	T1 (FM 1st IFT)	Wave form is shown Fig. 3.
(14)	FM	"	"	"	"	T3 (FM 2nd IFT)	Wave form is shown Fig. 4.
FM-RF ALIGNMENT							
(15)	FM	Connect to test point TP1 through FM dummy antenna. Negative side to test point TP2 .	(E) (EB) ...86.2 MHz (EG)...87.35MHz	Variable capacitor fully closed.	Headphones Jack (32 Ω) (Fabricate the plug as shown in Fig. 2. and then connect the lead wires of the plug to the measuring instrument.)	L4 (FM OSC Coil)	(*2) Adjust for maximum output.
(16)	FM		(E) (EB) ...109.2 MHz (EG)...108.25 MHz	Variable capacitor fully open.	"	CT1-1 (FM OSC Trimmer)	"
(17)	FM		106 MHz	Tune to signal.	"	CT1-2 (FM ANT Trimmer)	Adjust for maximum output. Repeat steps (15)~(17).
(*2) three output responses will be present; proper tuning is the center frequency.							

■ SEPARATION ALIGNMENT

FM SIGNAL GENERATOR SOURCE CONNECTION	EQUIPMENT CONNECTION ELECTRONIC COUNTER	ADJUSTMENT	SPECIFICATION	REMARKS
98 MHz, 60 dB (CW) Connect to test point TP1 through FM dummy antenna. Negative side to TP2 .	TP8 ...(+) TP9 ...(-)	VR1	19 kHz	Adjust VR1, for 19 kHz ±50 Hz reading on frequency counter.

■ HEAD AZIMUTH ALIGNMENT

TEST TAPE	EQUIPMENT CONNECTION ELECTRONIC COUNTER	ADJUSTMENT	SPECIFICATION	REMARKS
QZZCFM (8 kHz, -20 dB)	Headphones Jack (32Ω) (Fabricate the plug as shown in Fig. 2. and then connect the lead wires of the plug to the measuring instrument.)	Azimuth screw (Shown in Fig. 6)	Maximum output	● Playback mode.

■ TAPE SPEED ADJUSTMENT

TEST TAPE	EQUIPMENT CONNECTION ELECTRONIC COUNTER	ADJUSTMENT	REMARKS
QZZCWAT (3 kHz)	Headphones Jack (32Ω) (Fabricate the plug as shown in Fig. 2.) (and then connect the lead wires of the plug to the measuring instrument.)	VR501 (Shown in Fig. 5)	Normal Speed Adjustment 1. Insert a test tape (QZZCWAT) in Tape 2 and play it back. 2. Adjust VR501 until the measured value becomes 3000±30 Hz.
	3. Check Tape 1 in the same way to make sure it satisfies the specification. Tape 1 ... ±20% Hz of the speed of Tape 2. If it doesn't repeat steps 1 and 2 above. Note: This set uses one drive motor, so be sure to perform the adjustment in Tape 2. High Speed Measurement 4. Insert the playback tape into Tape 1 and the editing tape into Tape 2. 5. Set the Editing Mode Selector to the "HIGH" position. 6. Press the Tape 2 Pause button, then press the Record Button. 7. Press the Tape 1 Playback Button. •Editing is started by means of the Synchro-Start function. 8. Check to be sure that the measured speed is at least 1.7 times faster than normal speed.		

■ ALIGNMENT POINT

•Please refer to Circuit Board and Wiring Connection Diagram for test point locations.

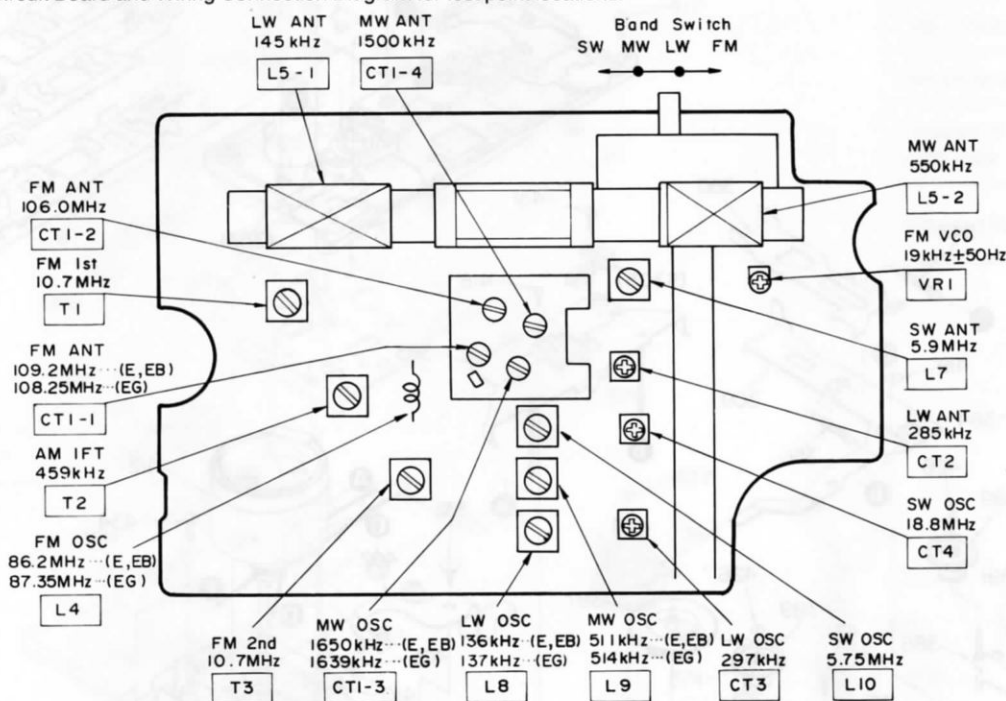


Fig. 1

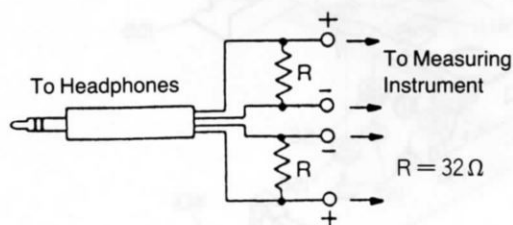


Fig. 2

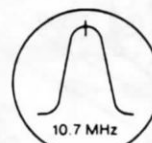


Fig. 3



Fig. 4

MECHANISM CONTROL P.C.B

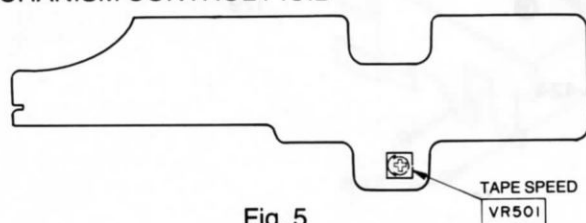


Fig. 5

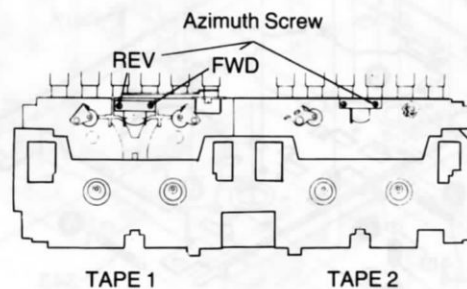


Fig. 6

REPLACEMENT PARTS LIST

Notes : * Important safety notice :

Components identified by Δ mark have special characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.

* Bracketed indications in Ref. No. columns specify the area. (Refer to the first page for area.)

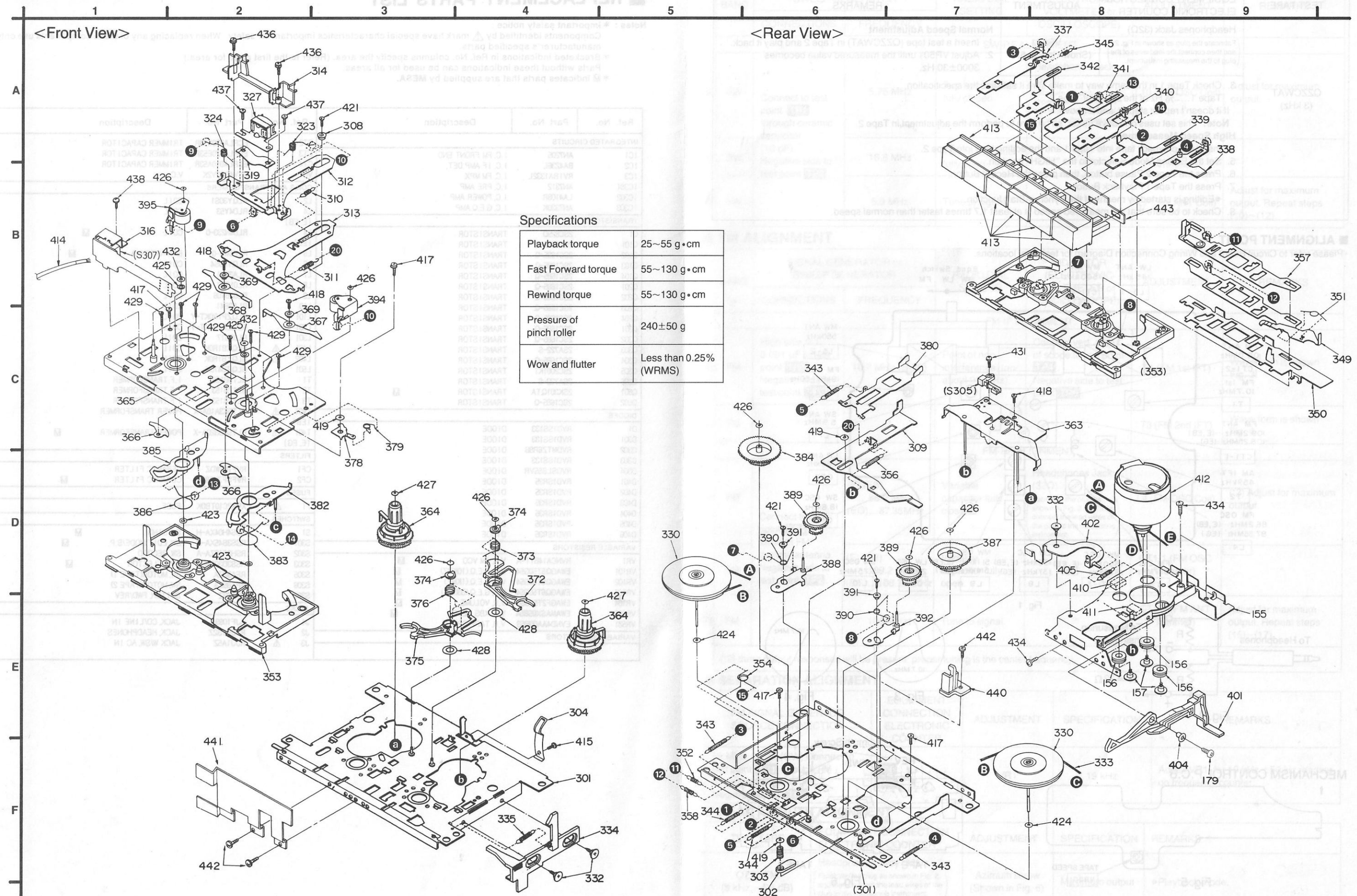
Parts without these indications can be used for all areas.

* $\boxtimes$ Indicates parts that are supplied by MESA.

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
INTEGRATED CIRCUITS			CT2	ECRLA020E53R	TRIMMER CAPACITOR
IC1	AN7205	I.C. FM FRONT END	CT3	ECRLA020E53R	TRIMMER CAPACITOR
IC2	BA4236L	I.C. I.F. AMP. DET.	CT4	ECRLA010A53R	TRIMMER CAPACITOR
IC3	RV1BA1332L	I.C. FM MPX	VC1	RCV4RC2V2K	V.C
IC301	AN7312	I.C. PRE AMP	COILS AND TRANSFORMERS		
IC302	LA4108R	I.C. POWER AMP	L2	RLQY30S1	COIL
IC303	AN7330K	I.C. G.E.Q. AMP	L4	RLD4Y53	COIL
TRANSISTORS			(E, EB)		
Q1	2SC829D	TRANSISTOR	L4	RL04N233-0	COIL $\boxtimes$
Q101	2SC1685-Q	TRANSISTOR	(EG)		
Q102	2SC1685-Q	TRANSISTOR	L5	RLF6W9-0	BAR ANTENNA $\boxtimes$
Q103	2SC1685-Q	TRANSISTOR	L6	RLQY30S4	COIL
Q104	2SC1685-Q	TRANSISTOR	L7	RLA3841	COIL
Q201	2SC1685-Q	TRANSISTOR	L8	RL01B13	COIL
Q202	2SC1685-Q	TRANSISTOR	L9	RL02B108	COIL
Q203	2SC1685-Q	TRANSISTOR	L10	RLA3841	COIL
Q204	2SC1685-Q	TRANSISTOR	L101	RLQZP1R0KT-Y	COIL
Q301	2SC1685-Q	TRANSISTOR	L201	RLQZP1R0KT-Y	COIL
Q302	2SC1685-Q	TRANSISTOR	L301	RL09B17	COIL
Q303	2SA722-S	TRANSISTOR	L401 Δ	RLQZB1R0K	COIL
Q304	2SC1685-Q	TRANSISTOR	L402 Δ	RLQZB1R0K	COIL
Q305	2SC2001K1	TRANSISTOR	L501	RLQZB470K	COIL
Q306	2SA722-S	TRANSISTOR	T1	RL14B153	I.F. TRANSFORMER
Q501	2SK301QTA	TRANSISTOR $\boxtimes$	T2	RL12B153	I.F. TRANSFORMER
Q502	2SC1685-Q	TRANSISTOR	T3	RL14B153	I.F. TRANSFORMER
DIODES			T401 Δ	RLT5K3A10A-X	POWER TRANSFORMER
D1	RVD1SS133	DIODE	(EB)		
D301	RVD1SS133	DIODE	T401 Δ	RLT5K3G20A-X	POWER TRANSFORMER $\boxtimes$
D302	RVDMT26R88	DIODE	(E, EG)		
D303	RVD1SS133	DIODE	FILTERS		
D304	RVDSLB55VR	DIODE	CF1	RVF107WDZ	CERAMIC FILTER
D401	RVD1SR35	DIODE	CF2	RVFSF2459JL	CERAMIC FILTER $\boxtimes$
D402	RVD1SR35	DIODE	FUSES		
D403	RVD1SR35	DIODE	F1 Δ	XBA2C10TB0K	FUSE
D404	RVD1SR35	DIODE	SWITCHES		
D405	RVD1SR35	DIODE	S1	RSS4H04XA-H	SW. BAND $\boxtimes$
D406	RVD1SR35	DIODE	S301	RSS3845XA-H	SW. EDIT MODE/B.P. $\boxtimes$
VARIABLE RESISTORS			S302	RSH2F18ZA-A	SW. RECORD $\boxtimes$
VR1	RVNCA14B1T-A	V.R. FM VCO $\boxtimes$	S303	RSS3C30ZA-H	SW. SELECTOR $\boxtimes$
VR101	EWAGQ6T50G54	V.R. G.E.Q. (10KHZ) $\boxtimes$	S305	RFA92ZA	SW. MOTOR (TAPE 1)
VR102	EWAGQ6T50G54	V.R. G.E.Q. (1KHZ) $\boxtimes$	S306	RFA95ZA	SW. MOTOR (TAPE 2)
VR103	EWAGQ6T50G54	V.R. G.E.Q. (330HZ) $\boxtimes$	S307	RFA63Z	SWITCH, FWD/REV
VR104	EWAGF2T50B54	V.R. VOLUME $\boxtimes$	JACKS		
VR105	EWAMASX05B54	V.R. XBS LEVEL $\boxtimes$	J1	RJF1099Z	JACK, CD/LINE IN
VR501	EYND4AA00B53	V.R. TAPE SPEED $\boxtimes$	J2	RJJD7S2Z	JACK, HEADPHONES
VARIABLE CAPACITORS			J3 Δ	RJJ1A5Z	JACK W/SW, AC IN

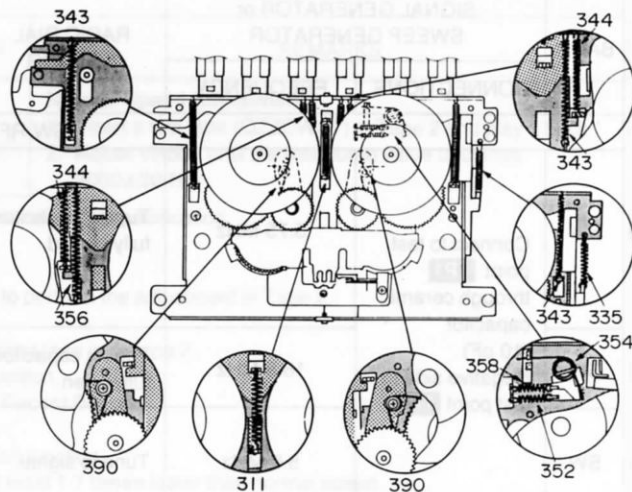
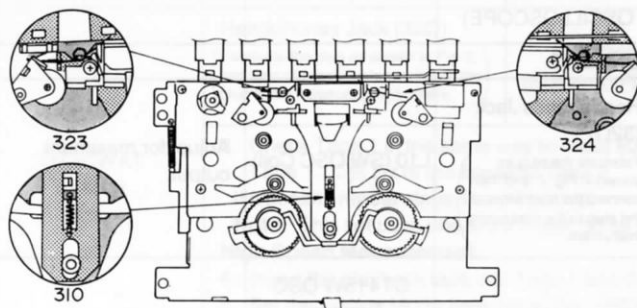
MECHANISM PARTS LOCATION • TAPE 1 (For Playback/Auto Reverse)

(Parts List on Page 25 and 26)

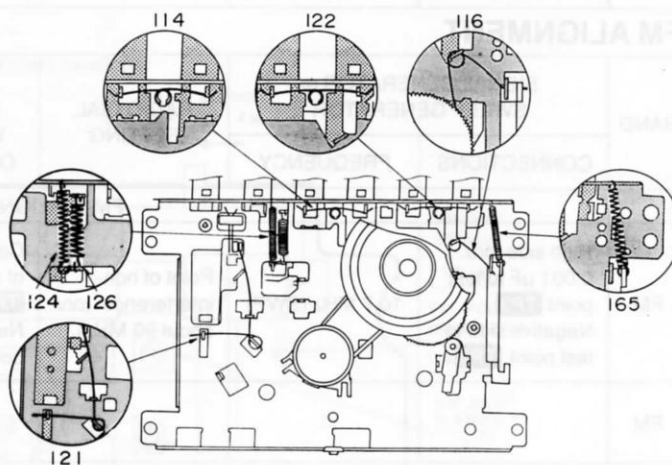
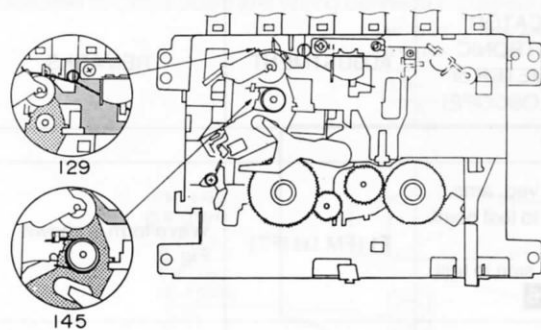


■ SPRING LOCATION

<TAPE 1>



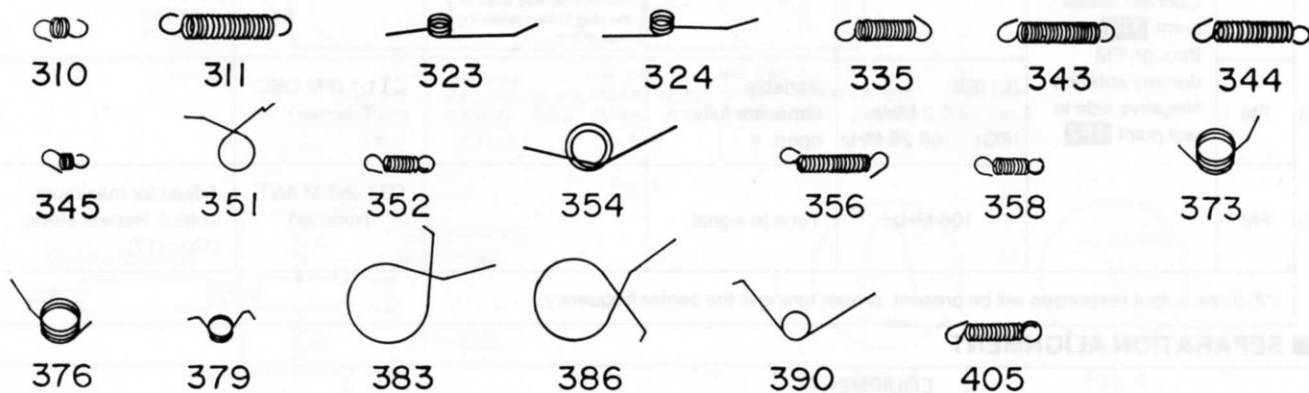
<TAPE 2>



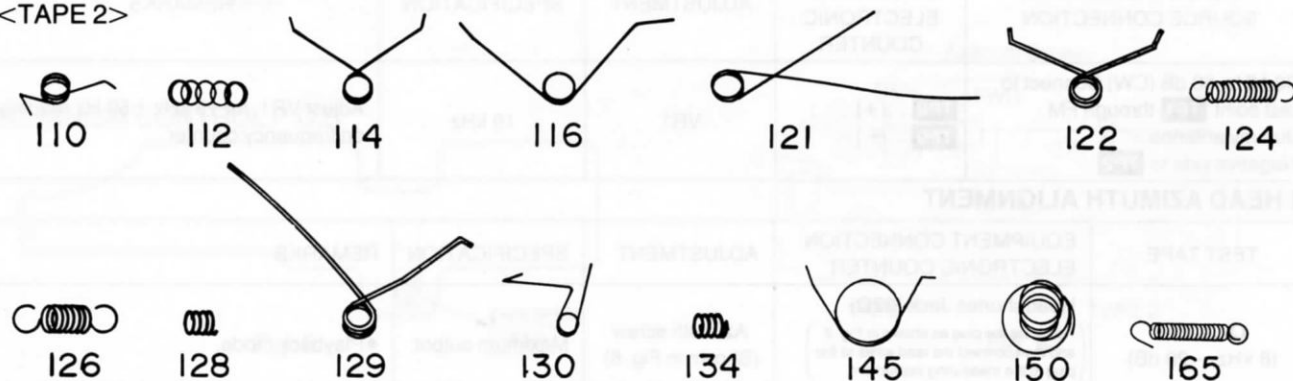
■ SPRING ILLUSTRATION

The illustration shows the actual size of the springs so it can be used to check their shapes.
(The illustration shows the springs separated from the mechanism).

<TAPE 1>

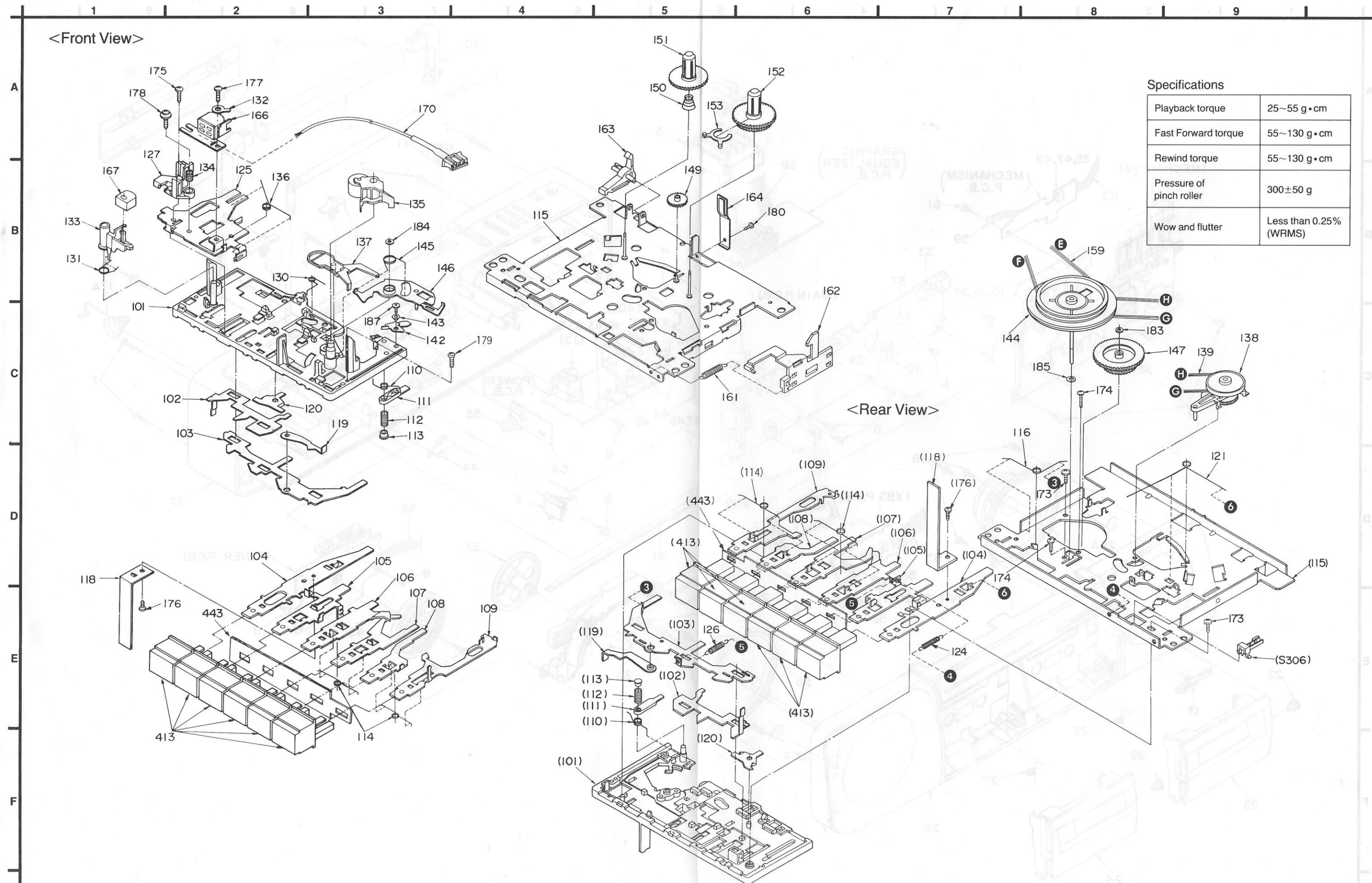


<TAPE 2>

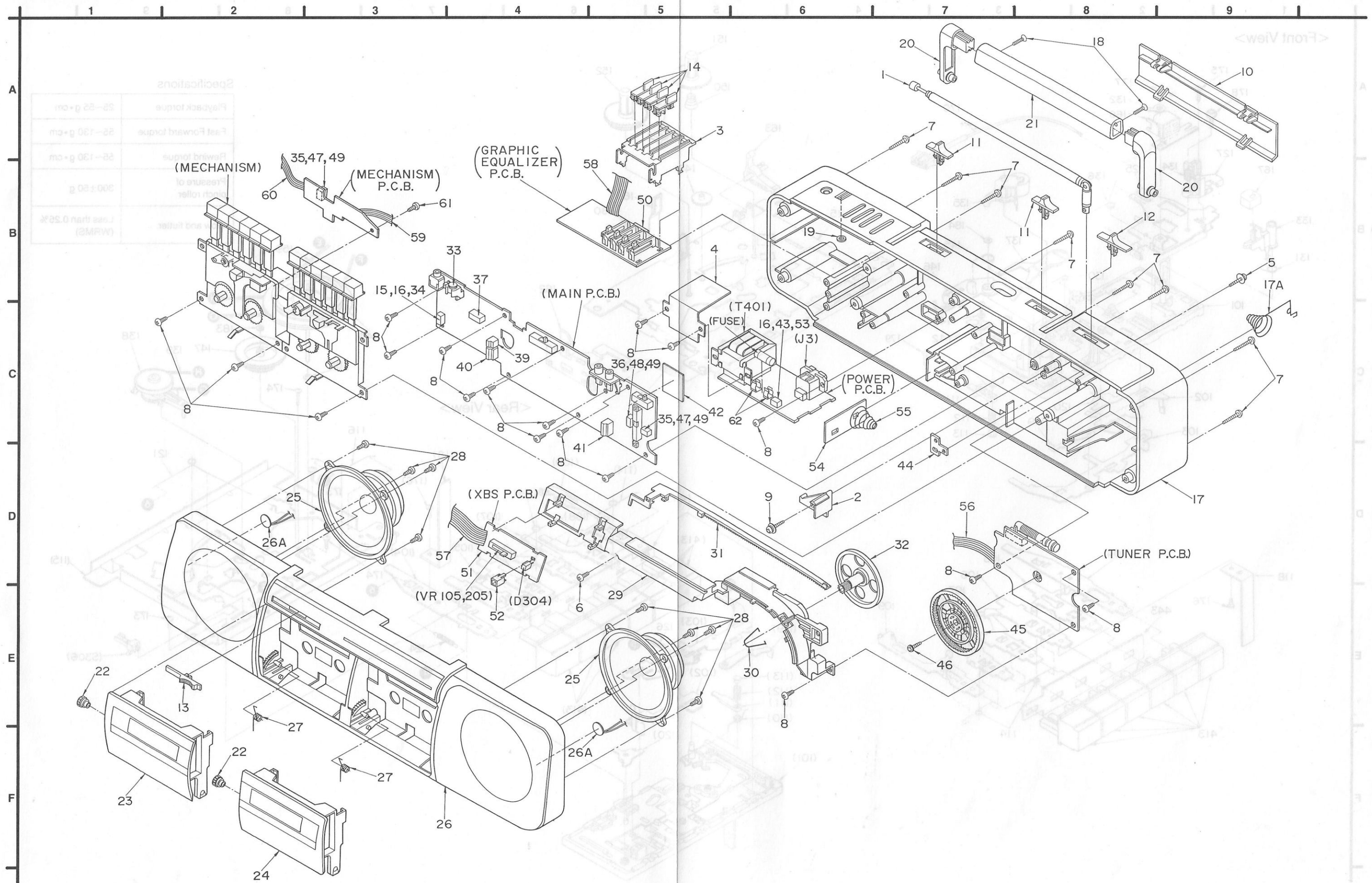


MECHANISM PARTS LOCATION • TAPE 2 (For Recording and Playback)

(Parts List on Page 25 and 26)



CABINET PARTS LOCATION (Parts List on Page 26)



Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
MECHANISM					
CASSETTE DECK					
101	RFU154ZA	CHASSIS ASS'Y	310	RFST36ZA	SPRING
102	RFY866ZA	PLATE	311	RFS833ZA	SPRING
103	RFY867ZA	PLATE	312	RFY817ZA	HEAD PANEL
104	RFY896ZA	LEVER	313	RFY818ZA	PLATE
105	RFY912ZA	LEVER	314	RFE417ZA	GUIDE
106	RFY897ZA	LEVER	316	RFD334ZA	ANGLE
107	RFY898ZA	LEVER	319	RFST37ZA	SPRING
108	RFY899ZA	LEVER	323	RFS751ZA	SPRING
109	RFY901ZA	LEVER	324	RFST52ZA	SPRING
110	RFS837ZA	SPRING	327	1JH0027ZA	P HEAD M
111	RFG139ZA	PAUSE CAM	330	RFF68ZA	FLYWHEEL ASS'Y
112	RFS813ZA	SPRING	332	RFE239Z	SCREW
113	RFX174ZA	STOPPER	333	RFB90ZA	BELT
114	RFS814ZA	SPRING	334	RFY800ZA	LEVER
115	RFU155ZA	CHASSIS ASS'Y	335	RFST26ZA	SPRING
116	RFS815ZA	SPRING	337	RFY812ZA	LEVER
118	RFS799ZA	SPRING	338	RFY857ZA	LEVER
119	RFY844ZA	LEVER	339	RFY808ZA	LEVER
120	RFX175ZA	STOPPER	340	RFY809ZA	LEVER
121	RFS835ZA	SPRING	341	RFY810ZA	LEVER
124	RFS843ZA	SPRING	342	RFY811ZA	LEVER
125	RFU166ZA	PLATE	343	RFS834ZA	SPRING
126	RFS844ZA	SPRING	344	RFST32ZA	SPRING
127	RFU168ZA	CHASSIS	345	RFST33ZA	SPRING
130	RFS820ZA	SPRING	349	RFY914ZA	LEVER
131	RFS821ZA	SPRING	350	RFY804ZA	PLATE
132	RFE504ZA	TERMINAL	351	RFST30ZA	SPRING
133	RFY913ZA	MG ARM	352	RFST48ZA	SPRING
134	RFS447Z	SPRING	353	RFU130ZA	CHASSIS ASS'Y
135	RFR58ZA	PINCHROLLER ASS'Y	354	RFST34ZA	SPRING
136	RFS845ZA	SPRING	356	RFST50ZA	SPRING
137	RFY884ZA	LEVER	357	RFY806ZA	PLATE
138	RFQ61ZA	CLUTCH ASS'Y	358	RFST47ZA	SPRING
139	RFB99ZA	RF BELT	363	RFU131ZA	PLATE ASS'Y
142	RFD396ZA	ARM	364	RFJ87ZA	REEL TABLE
143	RFY877ZA	COLLAR	365	RFU129ZA	SUB CHASSIS ASS'Y
144	RFF69ZA	FLYWHEEL ASS'Y	366	RFY823ZA	ARM
145	RFS822ZA	SPRING	367	RFY815ZA	ARM
146	RFY874ZA	PLATE ASS'Y	368	RFY816ZA	ARM
147	RFG136ZA	GEAR	369	RFX162ZA	COLLAR
149	RFG110ZA	GEAR	372	RFY798ZA	LEVER
150	RFS838ZA	SPRING	373	RFST24ZA	SPRING
151	RFJ89ZA	REEL ASS'Y M	374	RFX161ZA	STOPPER
152	RFJ90ZA	REEL ASS'Y M	375	RFY799ZA	LEVER
153	RFY875ZA	SENSOR	376	RFST25ZA	SPRING
155	RFD387ZA	BRACKET	378	RFY801ZA	ARM
156	RFI38Z	RUBBER	379	RFST27ZA	SPRING
157	RFE507ZA	SCREW	380	RFY814ZA	PLATE
159	RFB103ZA	BELT	382	RFY802ZA	ARM ASS'Y
161	RFS826ZA	SPRING	383	RFST28ZA	SPRING
162	RFY889ZA	LEVER	384	RFG111ZA	GEAR
163	RFY716Z	LEVER	385	RFY803ZA	ARM (R) ASS'Y
164	RFS534Z	SPRING	386	RFST29ZA	SPRING
166	RBR4CG003-M	R/P HEAD M	387	RFG112ZA	GEAR
167	RBR2CY001-1	E.HEAD	388	RFY819ZA	ARM ASS'Y
170	RZZ0417	SHIELD WIRE	389	RFG113ZA	GEAR
173	RFE416ZA	SCREW	390	RFST40ZA	SPRING
174	RFE496ZA	SCREW	391	RFX164ZA	COLLAR
175	RFE476ZA	SCREW	392	RFY820ZA	ARM ASS'Y
176	RFE484ZA	SCREW	394	RFR46ZA	PINCHROLLER ASS'Y
177	RFE498ZA	SCREW	395	RFR47ZA	PINCHROLLER ASS'Y
178	RFE230Z	SCREW	401	RFY582Z	LEVER
179	RFE252Z	SCREW	402	RFY821ZA	LEVER
180	RFE420ZA	SCREW	404	RFX134Z	COLLAR
183	RFN83Z	WASHER	405	RFST41ZA	SPRING
184	RFN214ZA	WASHER	410	RFI50ZA	CUSHION
185	RFN122Z	WASHER	411	RFI57ZA	CUSHION
187	RFE497ZA	SCREW	412	RFM163ZA	MOTOR M
301	RFU128ZA	CHASSIS ASS'Y	413	RBC1397ZA-0	BUTTON M
302	RFY420Z	LEVER	414	RZZ0416	SHIELD WIRE
303	RFS459Z	SPRING	415	RFE472ZA	SCREW
304	RFS534Z	SPRING	417	RFE222Z	SCREW
308	RFX163ZA	COLLAR	418	RFE426ZA	SCREW
309	RFY813ZA	PLATE	419	RFN134Z	WASHER
			421	RFE423ZA	SCREW
			423	RFN122Z	WASHER
			424	RFN136Z	WASHER

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
425	RFN182ZA	WASHER	434	RFE425ZA	SCREW
426	RFN133Z	WASHER	436	RFE422ZA	SCREW
427	RFN139Z	WASHER	437	RFE431ZA	SCREW
428	RFN183ZA	WASHER	438	RFE421ZA	SCREW
429	RFE503ZA	SCREW	440	RUE83ZA	HOLDER M
431	RFE473ZA	SCREW	441	RMC3SZA	SHIELD PLATE
432	RFN216ZA	WASHER	442	XTN2+4F	SCREW
			443	RHR3070ZCB	SPACER M

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
CABINET AND CHASSIS			26	RYMXFT550E	FRONT CABINET ASS'Y M
1	XEARR225DAY	TELESCOPIC ANTENNA	26 (E)	RYMXFT550EB	FRONT CABINET ASS'Y M
2	RUB564ZA	LEVER M	26 (EB)	RYMXFT550EG	FRONT CABINET ASS'Y M
3	RUV837ZB	CHASSIS M	26 (EG)	RAF15DA9CB3	SPEAKER, TWEETER M
4	RMC1246ZA	SHIELD PLATE M	26A	RUE4S2B	SPRING
5	XYN3+F10FY	SCREW	28	XTV3+8G	SCREW
7	XTN3+20G	SCREW	29	RUA876ZA-0	CHASSIS M
8	XTV3+12G	SCREW	30	RUE214ZA	SPRING M
9	XTW3+25Q	SCREW	31	RDP357ZB-0	DIAL POINTER M
10	RKK318ZC-0	BATTERY COVER M	32	RBT327ZA-0	KNOB, TUNING M
11	RBD563ZA-0	KNOB, FUNCTION M	33	RJM164YA	MICROPHONE M
12	RBD564ZA-0	KNOB, BAND M	34	RJP364Y	CONNECTOR(3P)
13	RBD565ZA-0	KNOB, XBS LEVEL M	35	RJP4G18ZA	CONNECTOR(4P)
14	RBD566ZA-0	KNOB, G.EQ M	36	RJP5G18Z	CONNECTOR(5P)
15	RJS3L3Z	SOCKET(3P)	37	RJP7G11Z	CONNECTOR
16	RJT707Z	CONTACT	39	SJT30243-V	CONNECTOR(2P)
17	RYFXFT550E	REAR CABINET ASS'Y M	40	SJT30443-V	TERMINAL
(E)	RYFXFT550EB	REAR CABINET ASS'Y M	41	SJT30643-V	TERMINAL M
(EB)	RYFXFT550EG	REAR CABINET ASS'Y M	42	RMC228ZAA	SHIELD PLATE M
(EG)	RJC931Z	BATTERY TERMINAL (+/-)	43	RJS2L3Z	SOCKET(2P)
17A			44	RUP2533ZAC	P.C.B. M
			45	RDG5958ZA	GEAR M
18	XTC3+10CFN	SCREW	46	XYN26+C6	SCREW
19	RHG1244ZA	RUBBER M	47	RJS4L4Z	SOCKET(4P)
20	RKX402ZA-0	ARM M	48	RJS5L4Z	SOCKET(5P)
21	RKX403ZA-0	HANDLE M	49	RJT807ZB-X	CONTACT
22	RDG5874ZB	GEAR	50	RJS7M3Z	SOCKET
23	RYQ1XFT550JK	CASSETTE LID ASS'Y M	51	RUP2526VAC	P.C.B. M
24	RYQ2XFT550JK	CASSETTE LID ASS'Y M	52	RMP287ZA	LED HOLDER M
25	RAS10P35ZA-H	SPEAKER, WOOFER M	53	RJP264Y	CONNECTOR(2P)
			54	RUP2528XAC	P.C.B. M
			55	RJC511Z	BATTERY SPRING
			62	RJF28Z	FUSE HOLDER

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
PACKING MATERIAL			A1	RJA20Z	POWER CORD
P1	RPH658ZB	PROTECTION BAG M	(E, EG)		
P2	RPN9584ZA	PAD M	A1	RJA86ZB-K	POWER CORD
P3	RPK2808ZA	GIFT BOX M	(EB)		
ACCESSORIES			A2	RQX5240ZA	INST. MANUAL M
			A3	RQX5241ZA	INST. MANUAL M
			(E)		

RESISTORS & CAPACITORS

Notes : * Important safety notice :

Components identified by Δ mark have special characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.

* Bracketed indications in Ref. No. columns specify the area. (Refer to the first page for area.)

Parts without these indications can be used for all areas.

Numbering System For Resistors

Example:

ERD	25	F	J	102
Type	Wattage (1/4W)	Shape	Tolerance	Value (1K Ω)
ERX	2	AN	J	471
Type	Wattage (2W)	Shape	Tolerance	Value (470 Ω)

Numbering System For Capacitors

Example:

ECKD	1H	102	Z	F
Type	Voltage (50V)	Value (0.001 μ F)	Tolerance	Unique
ECEA	50	M		330
Type	Voltage (50V)	Characteristics		Value (33 μ F)

● Capacity values are in microfarads (μ F) unless specified otherwise, P=Pico-farads (pF) F=Farads (F).

● Resistance values are in ohms (Ω), unless specified otherwise, 1K = 1,000 Ω , 1M = 1,000k Ω

Resistor Type	Wattage	Tolerance
ERD : Carbon	10 : 1/8W 12 : 1/2W	J : $\pm 5\%$
ERG : Metal Oxide	14 : 1/4W 25 : 1/4W	F : $\pm 1\%$
ERQ : Fuse Type Metal	1A : 1W 18 : 1/8W	G : $\pm 2\%$
ERX : Metal Film	S2 : 1/4W S1 : 1/2W	J : $\pm 5\%$
ERD L : Carbon (chip)	2F : 1/4W 50 : 1/2W	K : $\pm 10\%$
ERO K : Metal Film (chip)	2A : 2W 3A : 3W	M : $\pm 20\%$
ERC : Solid	6G : 1/10W 8G : 1/8W	
ERF : Incombustible Box-Shaped		
ERM : Wire-Wound		
RRJ : Chip Resistor		
ERJ : Chip Resistor		

Capacitor Type	Voltage	Tolerance
ECE : Electrolytic	0J : 6.3V 1A : 10V	K : $\pm 10\%$
ECCD : Ceramic	1C : 16V 1E : 25V	M : $\pm 20\%$
ECKD : Ceramic Capacitor	1H : 50V 1V : 35V	Z : $+80\%$ -20
ECQM : Polyester	50 : 50V 05 : 50V	J : $\pm 5\%$
ECQP : Polypropylene	2H : 500V 2A : 100V	G : $\pm 2\%$
ECG : Ceramic	1 : 100V 1J : 63V	F : $\pm 1\%$
ECEA N : Non Polar Electrolytic	KC : 400V AC	C : $\pm 0.25pF$
QCU : Ceramic (Chip Type)	KC : 125V AC	D : $\pm 0.5pF$
ECUX : Ceramic (Chip Type)	(UL)	
ECF : Semiconductor		
EECW : Liquid electrolyte double layer capacitor		

Ref. No.	Part No.	Value.	Ref. No.	Part No.	Value.	Ref. No.	Part No.	Value.
RESISTORS(VALUE, WATTAGE)			R120	ERDS2TJ2R2	2.2 1/4	R255	ERDS2TJ104	100K 1/4
R1	ERDS2TJ330	33 1/4	R121	ERDS2TJ101	100 1/4	R256	ERDS2TJ472	4.7K 1/4
R2	ERDS2TJ101	100 1/4	R122	ERDS2TJ222	2.2K 1/4	R257	ERDS2TJ472	4.7K 1/4
R3	ERDS2TJ8R2	8.2 1/4	R124	ERDS2TJ103	10K 1/4	R258	ERDS2TJ102	1K 1/4
R4	ERDS2TJ334	330K 1/4	R150	ERDS2TJ102	1K 1/4	R301	ERDS2TJ332	3.3K 1/4
R5	ERDS2TJ471	470 1/4	R151	ERDS2TJ103	10K 1/4	R302	ERDS2TJ334	330K 1/4
R6	ERDS2TJ221	220 1/4	R152	ERDS2TJ223	22K 1/4	R303	ERDS2TJ102	1K 1/4
R7	ERDS2TJ470	47 1/4	R153	ERDS2TJ103	10K 1/4	R304	ERDS2TJ6R8T	6.8 1/4
R8	ERDS2TJ332	3.3K 1/4	R154	ERDS2TJ222	22K 1/4	R305	ERDS2TJ471	470 1/4
R9	ERDS2TJ153	15K 1/4	R155	ERDS2TJ104	100K 1/4	R306	ERDS2TJ561	560 1/4
R10	ERDS2TJ562	5.6K 1/4	R156	ERDS2TJ472	4.7K 1/4	R307	ERDS2TJ472	4.7K 1/4
R11	ERDS2TJ562	5.6K 1/4	R157	ERDS2TJ472	4.7K 1/4	R308	ERDS2TJ332	3.3K 1/4
R12	ERDS2TJ821	820 1/4	R158	ERDS2TJ102	1K 1/4	R309	ERDS2TJ562	5.6K 1/4
R13	ERDS2TJ821	820 1/4	R201	ERDS2TJ473	47K 1/4	R310	ERDS2TJ101	100 1/4
R14	ERDS2TJ822	8.2K 1/4	R202	ERDS2TJ331	330 1/4	R311	ERDS2TJ333	33K 1/4
R15	ERDS2TJ102	1K 1/4	R203	ERDS2TJ335T	3.3M 1/4	R312	ERDS2TJ104	100K 1/4
R16	ERDS2TJ680	68 1/4	R204	ERDS2TJ273	27K 1/4	R313	ERDS2TJ102	1K 1/4
R17	ERDS2TJ272	2.7K 1/4	R205	ERDS2TJ470	47 1/4	R314	ERDS2TJ6R8T	6.8 1/4
R18	ERDS2TJ563	56K 1/4	R206	ERDS2TJ122	1.2K 1/4	R315	ERDS2TJ104	100K 1/4
R19	ERDS2TJ680	68 1/4	R207	ERDS2TJ821	820 1/4	R316	ERDS2TJ680	68 1/4
R20	ERDS2TJ222	2.2K 1/4	R208	ERDS2TJ152	1.5K 1/4	R317	ERDS2TJ335T	3.3M 1/4
R21	ERDS2TJ822	8.2K 1/4	R209	ERDS2TJ153	15K 1/4	R319	ERDS2TJ680	68 1/4
R101	ERDS2TJ473	47K 1/4	R210	ERDS2TJ122	1.2K 1/4	R320	ERDS2TJ471	470 1/4
R102	ERDS2TJ331	330 1/4	R211	ERDS2TJ332	3.3K 1/4	R321	ERDS2TJ222	2.2K 1/4
R103	ERDS2TJ335T	3.3M 1/4	R212	ERDS2TJ472	4.7K 1/4	R322	ERDS2TJ561	560 1/4
R104	ERDS2TJ273	27K 1/4	R213	ERDS2TJ683	68K 1/4	R323	ERDS2TJ472	4.7K 1/4
R105	ERDS2TJ470	47 1/4	R214	ERDS2TJ273	27K 1/4	R324	ERDS2TJ103	10K 1/4
R106	ERDS2TJ122	1.2K 1/4	R215	ERDS2TJ222	2.2K 1/4	R350	ERDS2TJ221	220 1/4
R107	ERDS2TJ821	820 1/4	R216	ERDS2TJ101	100 1/4	R401	ERG12SJ270E	
R108	ERDS2TJ152	1.5K 1/4	R217	ERDS2TJ223	22K 1/4	R501	ERDS2TJ153	15K 1/4
R109	ERDS2TJ153	15K 1/4	R218	ERDS2TJ473	47K 1/4	R502	ERDS2TJ123	12K 1/4
R110	ERDS2TJ122	1.2K 1/4	R219	ERDS2TJ392	3.9K 1/4	R503	ERDS2TJ102	1K 1/4
R111	ERDS2TJ332	3.3K 1/4	R220	ERDS2TJ2R2	2.2 1/4	R504	ERDS2TJ103	10K 1/4
R112	ERDS2TJ472	4.7K 1/4	R221	ERDS2TJ101	100 1/4	R506	ERDS2TJ105	1M 1/4
R113	ERDS2TJ683	68K 1/4	R222	ERDS2TJ222	2.2K 1/4	R507	ERDS2TJ103	10K 1/4
R114	ERDS2TJ273	27K 1/4	R224	ERDS2TJ103	10K 1/4	CAPACITORS(VALUE, VOLTAGE)		
R115	ERDS2TJ222	2.2K 1/4	R250	ERDS2TJ102	1K 1/4	C1	RCBS1H120JC	12P 50
R116	ERDS2TJ101	100 1/4	R251	ERDS2TJ103	10K 1/4	C2	RCBS1H270JL	27P 50
R117	ERDS2TJ223	22K 1/4	R252	ERDS2TJ223	22K 1/4	C3	RCBC1H470JL	47P 50
R118	ERDS2TJ473	47K 1/4	R253	ERDS2TJ103	10K 1/4	C4	RCBS1H100JC	10P 50
R119	ERDS2TJ392	3.9K 1/4	R254	ERDS2TJ223	22K 1/4	C5	RCBC1H470JL	47P 50

Ref. No.	Part No.	Value.	Ref. No.	Part No.	Value.	Ref. No.	Part No.	Value.
C6 (E, EB)	RCBC1H4R7KC	4.7P 50	C103	RCBS1H471KB	470P 50	C218	ECFV1E473MD	0.047 25
C6 (EG)	RCBS1H5R6KC	5.6P 50	C104	ECFV1C104MD	0.1 16	C219	ECEA1AU102	1000 10
C7	RCBS1H3R3KC	3.3P 50	C105	ECEA1EU4R7	10 50	C220	ECFV1E683MD	0.068 25
C9 (E, EB)	RCBS1H180JC	18P 50	C106	RCBS1H102KB	0.001 50	C221	ECEA1HU010	1 50
C9 (EG)	RCBS1H200JC	20P 50	C107	ECEA1HU010	1 50	C223	ECFV1C104MD	0.1 16
C10	RCBS1H102KB	0.001 50	C108	RCBS1C103MY	0.01 16	C250	RCBS0J223MY	0.022 6.3
C11	RCBS1H102KB	0.001 50	C109	ECEA0JU470	47 6.3	C251	ECFV1E683MD	0.068 25
C12	ECFT1C223MD	0.022 16	C110	RCBS0J153MY	0.015 6.3	C252	ECEA1HU010	1 50
C13	RCBC1H4R7KC	4.7P 50	C111	ECEA1HU010	1 50	C253	RCBS1C472MX	0.0047 16
C14	RCBS1H180JC	18P 50	C113	ECFT1C223MD	0.022 16	C254	ECFV1C104MD	0.1 16
C15	RCBC1H470JL	47P 50	C114	RCBS1C222MX	0.0022 16	C255	RCBS0J153MY	0.015 6.3
C16 (EG)	ECCT1H180KS	18P 50	C115	ECEA0JU101B	100 6.3	C256	ECEA1HUR33	0.33 50
C16 (E, EB)	RCBS1H150JC	15P 50	C116	RCBS1C103NY	0.01 16	C257	ECEA1HU010	1 50
C17	RCBS1H102KB	0.001 50	C117	ECEA1AU470	47 10	C258	RCBS1H471KB	470P 50
C18	RCBS1H8R2KCY	8.2P 50	C118	ECFV1E473MD	0.047 25	C259	ECEA1CU100	10 16
C19	RCBS1H200JC	20P 50	C119	ECEA1AU102	1000 10	C260	ECEA1CU100	10 16
C20	RCBS1H100JC	10P 50	C120	ECFV1E683MD	0.068 25	C261	ECEA1HU010	1 50
C21	RCBS1C103NY	0.01 16	C121	ECEA1HU010	1 50	C262	ECEA1HUR22	0.22 50
C22	ECQP2A221JZ	220P 100	C123	ECFV1C104MD	0.1 16	C263	ECFV1E683MD	0.068 25
C23	ECQP2A361JZ	360P 100	C150	RCBS0J223MY	0.022 6.3	C264	ECEA1HUR1	0.1 50
C24	ECQP1392JZ	0.0039 100	C151	ECFV1E683MD	0.068 25	C301	ECCT1H181K	180P 50
C25	ECQP2A151JZ	150P 100	C152	ECEA1HU010	1 50	C302	ECEA0JU221	220 6.3
C26	RCBS1H102KB	0.001 50	C153	RCBS1C472MX	0.0047 16	C303	ECFV1E473MD	0.047 25
C27	ECFT1C223MD	0.022 16	C154	ECFV1C104MD	0.1 16	C304	RCBS1H102KB	0.001 50
C28	ECEA1HU2R2	2.2 50	C155	RCBS0J153MY	0.015 6.3	C305	ECQP1272JZ	0.0027 100
C29	ECFT1C223MD	0.022 16	C156	ECEA1HUR33	0.33 50	C306	ECEA1HU010	1 50
C30	ECFT1C223MD	0.022 16	C157	ECEA1HU010	1 50	C307	ECEA0JU221	220 6.3
C31	RCBC1H331KB	330P 50	C158	RCBS1H471KB	470P 50	C308	ECFV1C104MD	0.1 16
C32	ECFT1C223MD	0.022 16	C159	ECEA1CU100	10 16	C309	ECEA0JU471	470 6.3
C33	ECEA0JU101B	100 6.3	C160	ECEA1CU100	10 16	C310	ECEA1CU100	10 16
C34	RCBS1C103MY	0.01 16	C161	ECEA1HU010	1 50	C311	ECFT1C223MD	0.022 16
C35	ECFT1C223MD	0.022 16	C162	ECEA1HUR22	0.22 50	C312	RCBS1C103MY	0.01 16
C36	RCBS1C103MY	0.01 16	C163	ECFV1E683MD	0.068 25	C313	ECEA1EU4R7	10 50
C37	ECEA1HU010	1 50	C164	ECEA1HUR1	0.1 50	C314	ECEA1CU100	10 16
C38	ECEA1CU100	10 16	C201	ECEA1HU010	1 50	C315	ECEA0JU221	220 6.3
C39	ECEA0JU101B	100 6.3	C202	RCBS1H101KB	100P 50	C317	RCBS1C103NY	0.01 16
C40	RCBS1C103MY	0.01 16	C203	RCBS1H471KB	470P 50	C318	ECEA1AU221	220 10
C41	ECQP2A102JZT	0.001 100	C204	ECFV1C104MD	0.1 16	C319	ECEA1CU100	10 16
C42	ECEA50ZR47E	0.47 50	C205	ECEA1EU4R7	10 50	C320	ECEA1CV221SE	220 16
C43	ECEA50ZR47E	0.47 50	C206	RCBS1H102KB	0.001 50	C321	ECEA1CS222	2200 16
C44	ECEA1HU2R2	2.2 50	C207	ECEA1HU010	1 50	C322	ECKD1H103ZF	0.01 50
C45	RCBS1H102KB	0.001 50	C208	RCBS1C103MY	0.01 16	C323	RCBS1H181KB	180P 50
C101	ECEA1HU010	1 50	C209	ECEA0JU470	47 6.3	C324	ECCT1H181K	180P 50
C102	RCBS1H101KB	100P 50	C210	RCBS0J153MY	0.015 6.3	C326	ECCD1H331K	330P 50
			C211	ECEA1HU010	1 50	C350	ECEA0JU471	470 6.3
			C213	ECFT1C223MD	0.022 16	C401	ECKD1H103ZF	0.01 50
			C214	RCBS1C222MX	0.0022 16	C402	ECKD1H103ZF	0.01 50
			C215	ECEA0JU101B	100 6.3	C403	ECKD1H103ZF	0.01 50
			C216	RCBS1C103NY	0.01 16	C404	ECKD1H103ZF	0.01 50
			C217	ECEA1AU470	47 10	C405	ECEA1CU101	100 16
						C501	ECEA1CU330	33 16
						C502	ECEA1CV221SE	220 16