

# Service Manual

Stereo Radio Cassette Player

Radio Cassette  
**RQ-E20V****Colour**

(K).....Black Type  
(A).....Blue Type  
(S).....Silver Type

**Area**

Suffix for. Model No.	Areas	Colour
[GC]	Asia, Latin America, Middle Near East and Africa areas.	(K) (A) (S)

**MECHANISM SERIES:AR66****■ SPECIFICATIONS****General:**

Power Requirements: Battery; DC 1.5V [One R6/L6,  
AA Size, UM-3 battery]  
Power Output: 7.0mW (3.5mW ×2)...RMS(max.)  
Output: Headphone; 50 Ω, ϕ 3.5  
Dimensions: 112.0(W)×83.1(H)×29.8(D)mm  
Weight: 144g Without battery

**Tape Deck Section:**

Frequency Response: 40~16,000Hz (Normal,High/Metal)  
Tape Speed: 4.8cm/s  
Program Time: 1 hour with C-60 cassette tape  
Track System: 4-track, 2-channel stereo playback  
Wow & Flutter: 0.15% (WRMS)

**Radio Section:**

Radio Frequency Range: FM; 87.5~108.0MHz  
(0.05MHz steps)  
AM; 522~1629kHz  
(9kHz steps)  
520~1630kHz  
(10kHz steps)  
Intermediate Frequency: FM; 10.7MHz  
AM; 450kHz  
Radio Sensitivity: FM; 2.818 μV/0.1mW output  
(-3dB Limit, Sens)  
AM; 1.122 μV/mV/0.1mW output  
(MAX,Sens)

**Notes:**

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

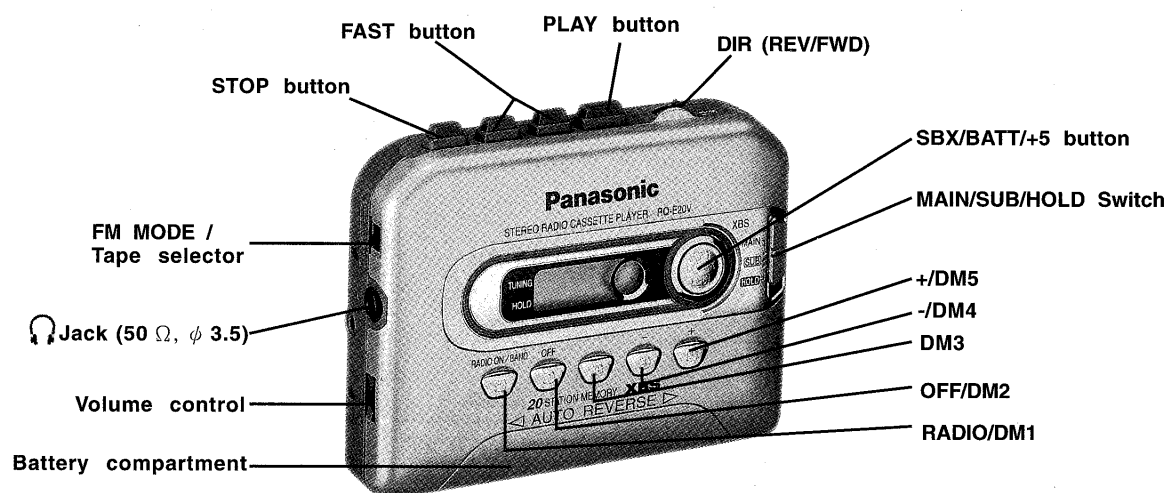
**⚠ WARNING**

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

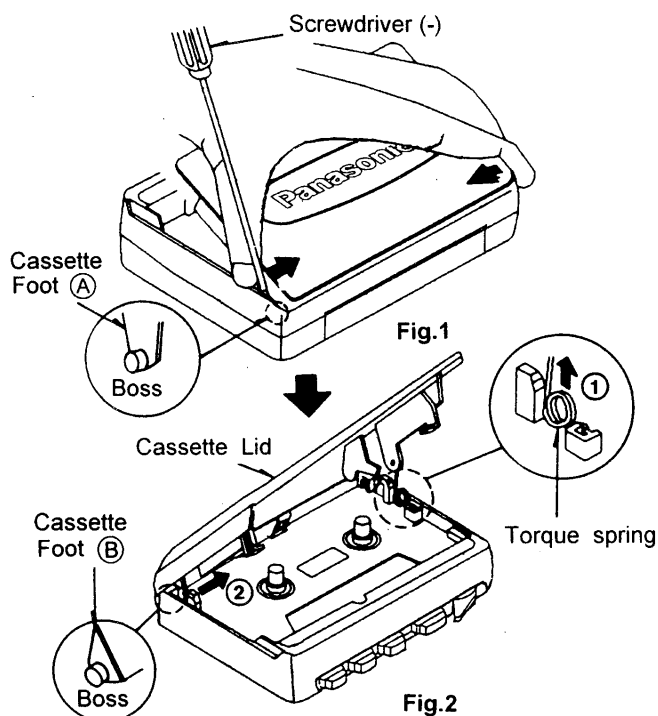
**Panasonic®**

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## LOCATION OF CONTROLS



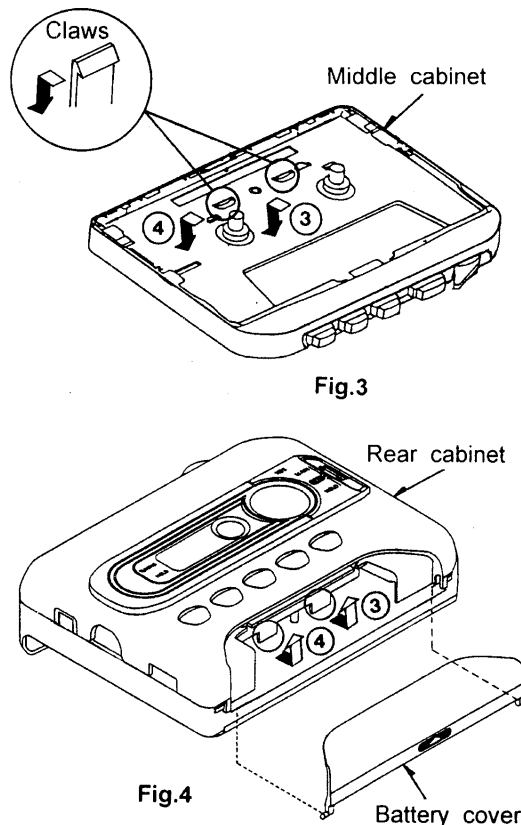
## DISASSEMBLY INSTRUCTIONS



### How to Removal of the Cassette Lid

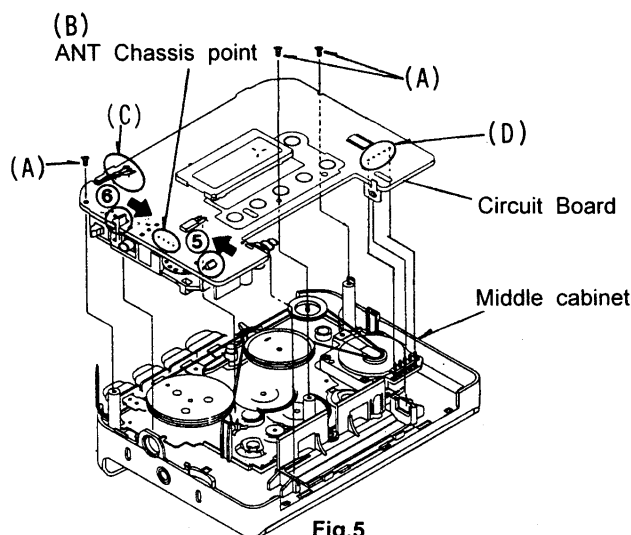
Note: Be careful not to break cassette foot (A) and (B) when removing the cassette lid.

- 1.Strongly press two sides of the cassette lid, then it was bent a little.
- 2.With a (-) screwdriver as shown in Fig, and pull out the right-side of the cassette lid.
- 3.Remove the torque spring ① in the direction of arrow.
- 4.By the direction of ② , remove the cassette foot.

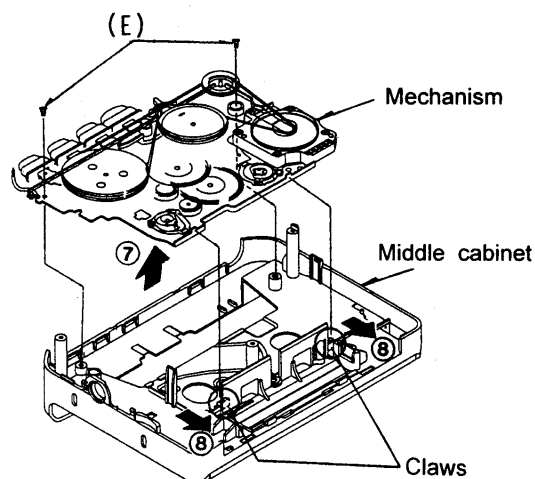


### Removal of the battery cover and Rear Cabinet (Fig.3, Fig.4)

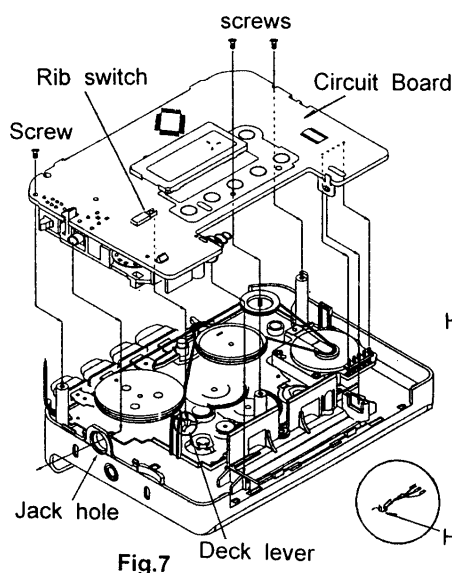
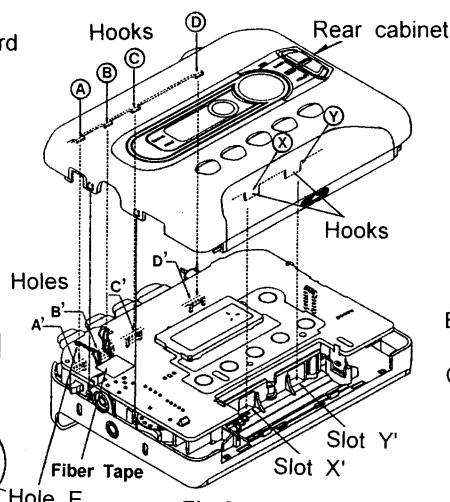
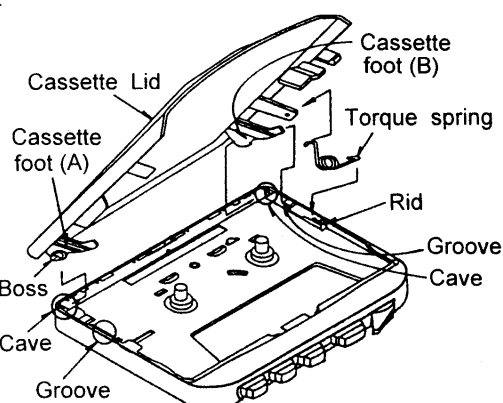
- 1.Switch the hold SW to the upper "MAIN" position.
- 2.Remove the battery cover (Fig.4)
- 3.Remove the claws in the direction of arrow ③ and ④, and then remove the rear cabinet.


**Fig.5**
**● Removal of ANT Chassis and Circuit Board**

- 1.Remove the screws (A) (1.4x4.5)mm x3.
- 2.Disconnect the Solder (B).
- 3.Remove the ANT Chassis in the direction of arrow ⑤, ⑥.
- 4.Remove the solder (C). (D) from flexible P.C.B.


**Fig.6**
**● Removal of the Middle Cabinet and Mechanism**

- 1.Remove the screws (E) (2x6)mm x2.
- 2.Remove the claws in the direction of arrow ⑦, ⑧.
- 3.Remove the mechanism and middle cabinet.


**Fig.7**

**Fig.8**

**Fig.9**
**● Notice for assembling the Circuit Board (Fig.7)**

- 1.Press the button play in advance, and the switch DIR to REV.
- 2.Slant main PWB and put HP jack onto the jack hole.
- 3.Put the rib switch on the main PWB onto the deck lever (Shown as the arrow direction).
- 4.Fit the main PWB onto bosses of the middle cabinet according to the arrow direction.
- 5.Use screws to fix it onto the middle cabinet.
- 6.Release the play button to the initial position.

**● How to Replace the Cassette Lid Spring (Fig.9)**

- 1.Enter the cassette foot (A) into the groove of the case body.
- 2.Enter the boss of the cassette foot into the cave.
- 3.To plug the torque spring into the groove of the case body.
- 4.Enter the cassette foot (B) into the groove of the case body.

**● Notice for assembling the Rear Cabinet (Fig.8)**

- 1.Let the hooks (A) ~ (D) slantly and push them onto holes A'~D'.
  - 2.Fix hook (X) and hook (Y) from the rear to slot X' and slot Y' and push them simultaneously.
- Note: (Wires arrangement)
- 1.The head wire must be in hole E.
  - 2.The head wire and the motor wire should be pressed on the PWB flatly.
  - 3.Switch the hold SW and the hold knob to the upper "MAIN" position.

## MEASUREMENTS AND ADJUSTMENTS

### ALIGNMENT INSTRUCTION

#### READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

1. Set volume control to maximum.
2. Set band selector switch to AM or FM.
3. Set Function selector switch to radio or tape.
4. Set Tape Selector Switch to normal.
5. Set power source voltage to 1.5V DC.
6. Output of signal generator should not be higher than necessary to obtain an output reading.
7. Make sure heads are clean.
8. Make sure capstan and pinch roller are clean.

### TUNER SECTION

#### AM ADJUSTMET

BAND	SIGNAL GENERATOR or SWEEP GENERATOR		RADIO DIAL SETTING	INDICATOR (ELECTRONIC VOLTMETER or OSCILLOSCOPE)	ADJUSTMENT POINT	REMARKS
	CONNECTIONS	FREQUENCY				
AM-IF ADJUSTMENT						
(1) AM	Fashion a loop of several turns of wire and radiate signal into loop of receiver.	450kHz 30% Mod. at 400Hz	Point of non-interference.(on/about 600kHz)	Headphones Jack ( 50Ω ) (Refer to Fig.3)	T1 (AM IFT)	Adjust for maximum output.
AM-RF ADJUSTMENT						
(2) AM	"	522kHz	Tuning capacitor fully closed.	"	L2 (AM OSC Coil)	Adjust for maximum output.
(3) AM	"	630kHz	Tune to signal.	"	(*1) L1 (AM ANT Coil)	Adjust for maximum output.Adjust L4 by moving coil bobbin along ferrite core.
(4) AM	"	1494kHz	"	"	CT1 (AM ANT Trimmer)	Adjust for maximum output. Repeat steps (2)~(4)
(*1) Cement antenna bobbin with wax after completing adjustmen.						

(\*1) Cement antenna bobbin with wax after completing adjustmen.

#### FM ADJUSTMENT

BAND	SIGNAL GENERATOR		RADIO DIAL SETTING	INDICATOR (ELECTRONIC VOLTMETER or OSCILLOSCOPE)	ADJUSTMENT POINT	REMARKS	
	CONNECTIONS	FREQUENCY					
FM-RF ADJUSTMENT							
(1)	FM	Connect to test point 1 through FM dummy antenna. Negative side to test point 2.	87.5MHz	Variable capacitor fully closed.	Headphones Jack (50Ω) (Refer to Fig.3)	L5 (FM OSC Coil)	(*2) Adjust for maximum output.
(2)	FM		90.1MHz	Tune to signal.	"	L3 (FM ANT Coil)	"
(*2) Three output responses will be present; proper tuning is the center frequency.							

(\*2) Three output responses will be present; proper tuning is the center frequency.

### TAPE DECK SECTION

ITEM	INPUT	MEASUREMENT POINT	ADJUSTMENT	PROCEDURE
(A) Azimuth	QZZCFM (8kHz, -20dB)	Headphones Jack (50Ω)  Fabricate the plug as shown in Fig.3 and then connect the lead wires of the plug to the measuring instrument.	Azimuth adjustment screw (Refer to Fig.2)	Adjust the azimuth adjustment screw during repeated forward and reverse playback to obtain the maximum head azimuth alignment with both channels equal. Then screw-lock the adjustment in place.
(B) Tape speed	QZZCWAT (3kHz, -10dB)		VR3 (Refer to Fig.1)	Playback the central part of the tape and adjust VR3 so that the tape speed is as follows. 3000±60Hz (Forward & Reverse)

• ALIGNMENT POINTS

Please refer to the Circuit Board and Wiring Connection Diagram to locate test points.

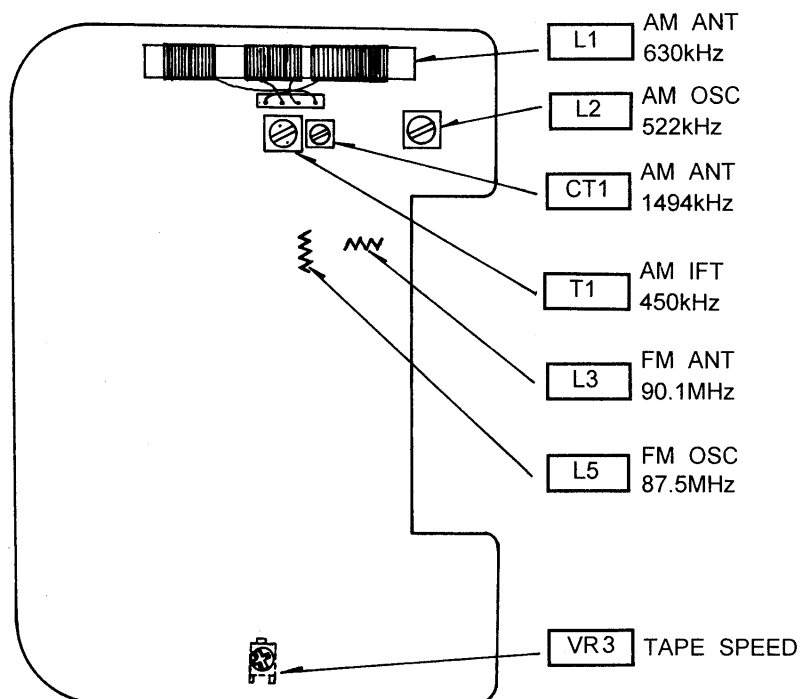


Fig.1

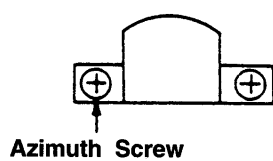


Fig.2

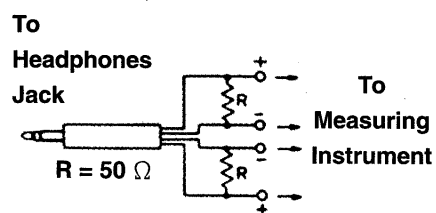


Fig.3

## ■ TERMINAL FUNCTION OF IC'S

### ● IC4 (LC72344-9517): SYSTEM CONTROL & LCD DRIVE

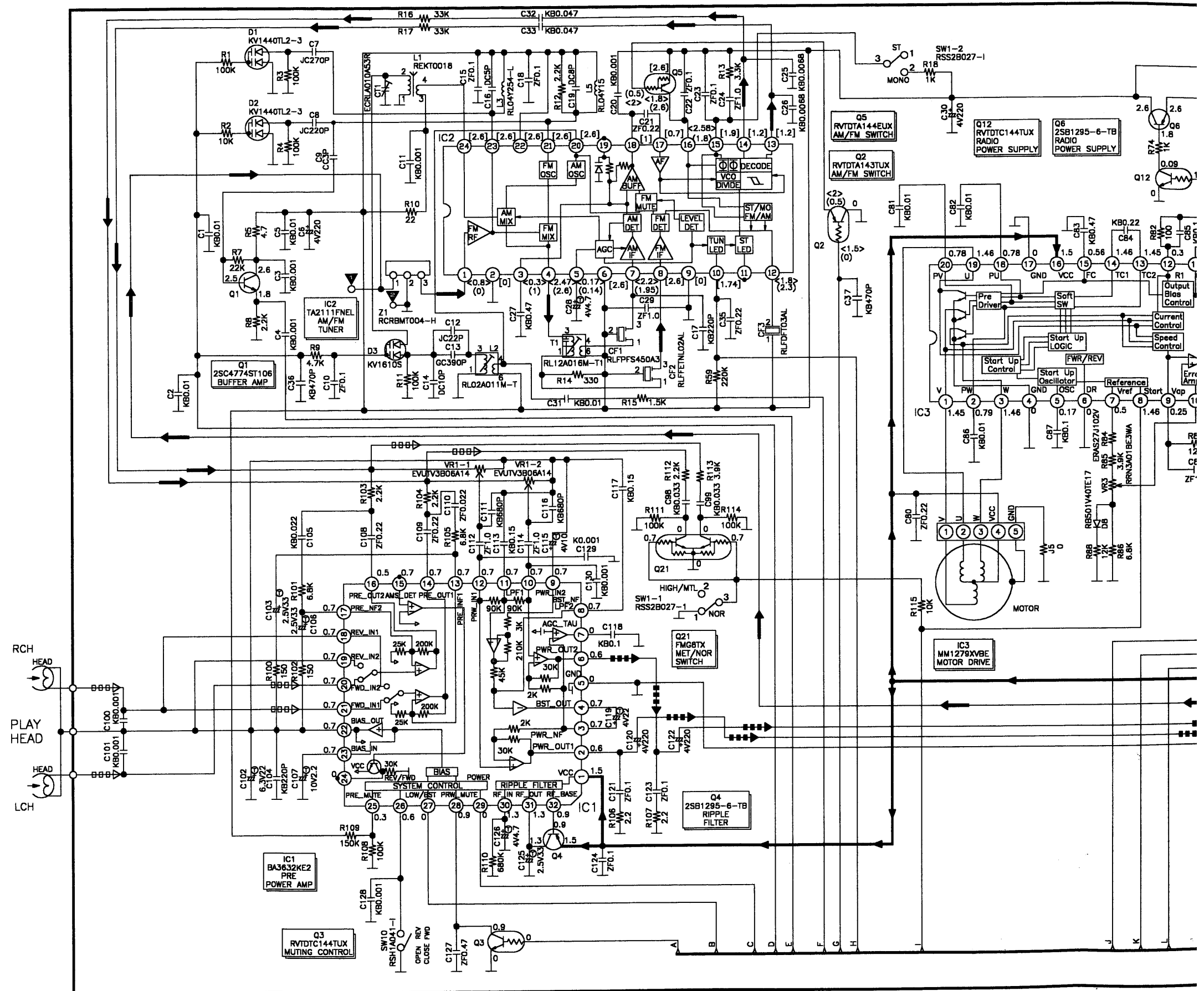
Pin No.	Terminal Name	I/O	Function
1	X IN	O	Input terminal used for connecting a quartz oscillator
2	TEST 2	I	For ground connection
3,16,17 32,48,49	NC	—	Not connected
4,5,6	PA 2~PA 0	I	Terminal for key return signal input
7,8,9, 10	PB 3~PB 0	O	Key return signal source output terminal for momentary switch on the key matrix
11	TAPE ON	O	Data Signal output terminal
12	RADIO ON	O	Output terminal for radio ON
13	AM / FM	O	Band select output terminal
14	XBS ON	O	Output the XBS ON control terminal
15	SD	I	Input the SD signal terminal
18	TAPE IN	I	Data signal input terminal
19	POWER ON	O	Outputs the power ON control terminal
20	BEEP	O	Outputs the buzzer out terminal
21	BATT IN	I	Data Signal input terminal
22	ADI 1	I	Main / SUB / HOLD control terminal
23	ADI 0	I	Key input terminal
24	VDC 1	O	Output the VDC 1 signal for the power supply of CPU control signal

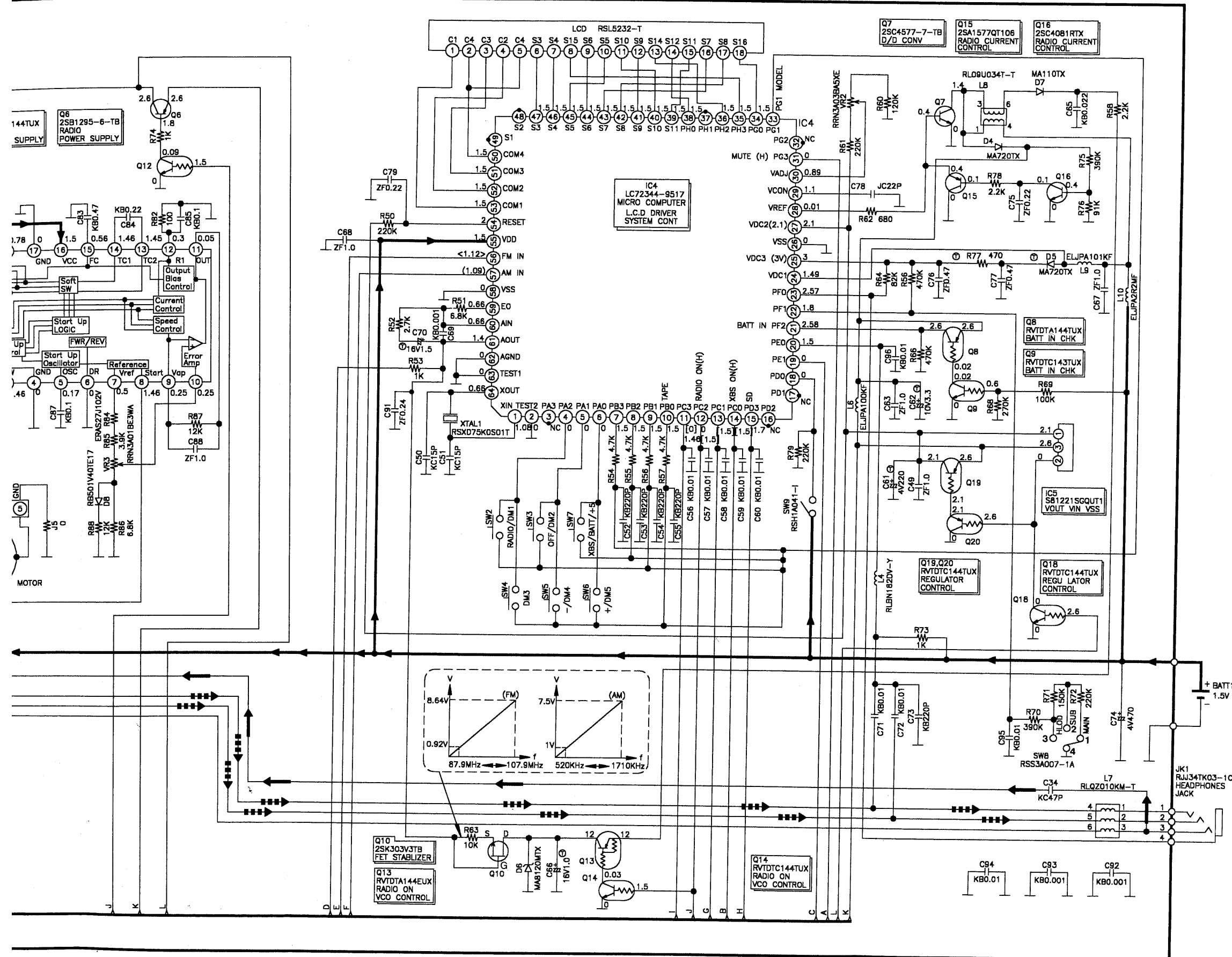
Pin No.	Terminal Name	I/O	Function
25	VDC 3	I	Inputs the power supply of the CPU or LCD
26	VSS	—	For ground connection
27	VDC 2	I	Inputs the power supply of the radio VCC
28	VREF	O	Outputs the VREF signal for the control signal of the radio VCC
29	VCON	I	Inputs the control signal of the radio VCC
30	VADJ	I	VDC 3 control terminal
31	MUTE	O	Outputs the power muting signal
33	PG 1	I	Set terminal for area
34 47	S16~S3	O	Outputs terminal for LCD segment signals
50 51 52 53	COM 4 COM 3 COM 2 COM 1	O	Outputs terminal for LCD common signal
54	RESET	I	Reset terminal
55	VDD	—	Battery voltage detect terminal
56	FM IN	I	Inputs the FM local oscillator
57	AM IN	I	Inputs the AM local oscillator
58	VSS	—	For ground connection
59	EO	O	PLL error output terminal
60	A IN	O	L.F.P IN terminal
61	A OUT	O	L.F.P out terminal
62	A GND	O	For ground connection
63	TEST 1	I	For ground connection
64	X OUT	I	Output terminal used for connecting a quartz oscillator

## SCHEMATIC DIAGRAM

## Notes:

- SW1-1: Tape selector switch in "NOR" position. (1...NOR, 2...HI/MET).
- SW1-2: FM mode switch in "ST" position. (1...ST, 2...MONO).
- SW2: Radio/DM1 switch in "OFF" position.
- SW3: OFF/DM2 switch in "OFF" position.
- SW4: DM3 switch in "OFF" position.
- SW5: -/DM4 switch in "OFF" position.
- SW6: +/DM5 switch in "OFF" position.
- SW7: XBS/BATT/+5 switch in "OFF" position.
- SW8: HOLD/SUB/MAIN switch in "MAIN" position.
- SW9: Motor switch in "OFF" position.
- SW10: Open/REV, Close/FWD switch in "Open/REV" position.
- VR1-1: Volume control VR (Rch).
- VR1-2: Volume control VR (Lch).
- VR2: VCD (3V) adjustment VR.
- VR3: Tape speed adjustment VR.
- The mark (▼) shows test point e.g. ▼=test point 1.
- DC voltage measurement are taken with electronics.
- Voltmeter from negative terminal of battery.  
( ) ...FM position, ( ) ...AM position.  
[ ] ...FM & AM position, No mark....Playback position.
- Battery current: Volume minimum output (Radio).....50mA  
Volume minimum output (Tape).....80mA  
Volume Maximum output (Radio).....60mA  
Volume Maximum output (Tape).....110mA  
(Radio, 74dB 30% Modulation.  
Tape, 315Hz 0dB tape playback. )
- + B Voltage Line.
- Playback Signal.
- FM Signal.
- Playback and Radio Signal.
- This schematic diagram may be modified at any time with the development of new technology.



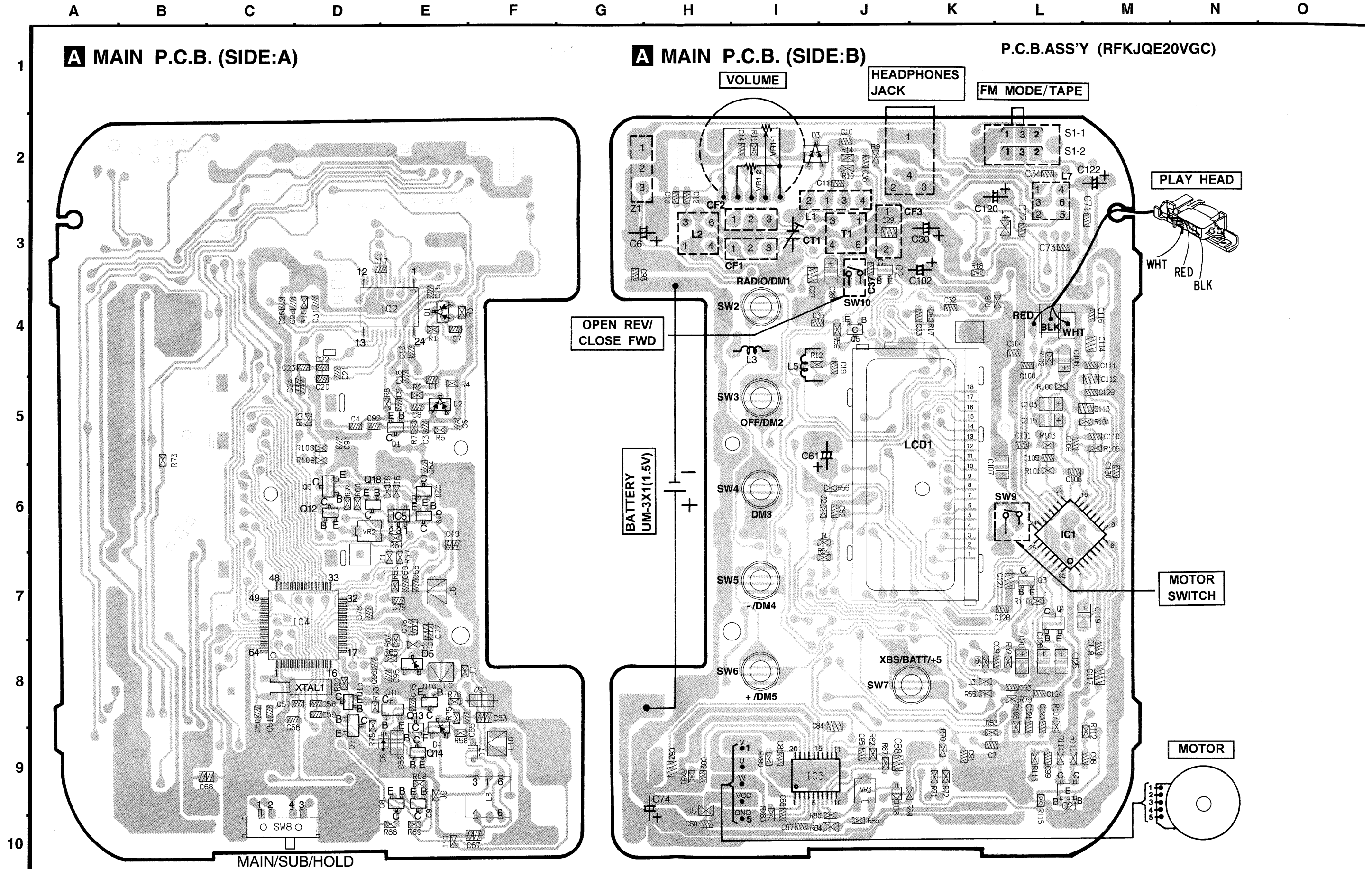


■ TYPE ILLUSTRATION OF IC'S, TRANSISTORS AND DIODES

BA3632KE2	FMG8TX
TA2111FNEEL MM1279XVBE	KV1440TL2-3 KV1610S
C72344-9517	MA720TX
S81221SGQUT1	MA110TX RB501V40TE17
2SK303V3TB	MA8120MTX
2SC4774ST106 RVTDA143TUX RVTDTA144TUX	RVTDTA144EUX 2SA1577QT106 2SC4081RTX 2SB1295-6-TB RVTDTA144EUX 2SC4577-7-TB RVTDTA144TUX RVTDTA143TUX



CIRCUIT BOARD AND WIRING CONNECTION DIAGRAM



## ■ ELECTRONIC PART LOCATION

IC1	6M	XTAL1	8D	C36	2J	C101	5L	R53	9L	R115	9L
IC2	4E	LCD1	5K	C37	3J	C102	3K	R54	7J		
IC3	9J	Z1	2H	C49	6E	C103	5L	R55	8L		
IC4	7D	SW1	2L	C50	8C	C104	4L	R56	6J		
IC5	6E	SW2	4I	C51	8C	C105	5L	R57	7E		
Q1	5E	SW3	5I	C52	6J	C106	4L	R58	9F		
Q2	3J	SW4	6I	C53	8L	C107	5L	R59	4J		
Q3	7L	SW5	7I	C54	6E	C108	6M	R60	6D		
Q4	7L	SW6	8I	C55	7E	C109	5M	R61	6E		
Q5	4J	SW7	8K	C56	8D	C110	5M	R62	8D		
Q6	6D	SW8	10D	C57	8D	C111	4M	R63	8D		
Q7	8D	SW9	6L	C58	8D	C112	5M	R64	7E		
Q8	9E	SW10	3J	C59	8D	C113	5M	R65	8E		
Q9	9E	JK1	2K	C60	7E	C114	4M	R66	10E		
Q10	8E	C1	5E	C61	5J	C115	5L	R68	9E		
Q12	6D	C2	9L	C62	8F	C116	4M	R69	10E		
Q13	8E	C3	5E	C63	8F	C117	8M	R70	9K		
Q14	9E	C4	5D	C65	8F	C118	8M	R71	9K		
Q15	8D	C5	5E	C66	9E	C119	7M	R72	9K		
Q16	8E	C6	3H	C67	10F	C120	2L	R73	5B		
Q18	6D	C7	4E	C68	9C	C121	8L	R74	6D		
Q19	6E	C8	5E	C69	8L	C122	2M	R75	8E		
Q20	6E	C9	5E	C70	8L	C123	8L	R76	8E		
Q21	9M	C10	2J	C71	3M	C124	8L	R77	8E		
D1	4E	C11	2J	C72	3M	C125	8L	R78	9D		
D2	5E	C12	2H	C73	3M	C126	8L	R79	8L		
D3	2J	C13	2H	C74	9H	C127	7L	R80	9I		
D4	9E	C14	2I	C75	8E	C128	7L	R81	9H		
D5	8E	C15	4E	C76	7E	C129	5M	R82	9J		
D6	9E	C16	4E	C77	7E	C130	6M	R83	9I		
D7	9F	C17	3E	C78	7D	R1	4E	R84	10J		
D8	9K	C18	5E	C79	7E	R2	5E	R85	10J		
L1	2J	C19	4J	C80	10H	R3	4E	R86	10J		
L2	3H	C20	5D	C81	9I	R4	5E	R87	9J		
L3	4I	C21	4D	C82	9H	R5	5E	R88	9K		
L4	3L	C22	4D	C83	9H	R7	5E	R100	5L		
L5	4J	C23	4D	C84	8J	R8	5E	R101	6L		
L6	7E	C24	5D	C85	9J	R9	2J	R102	4L		
L7	2L	C25	4D	C86	9J	R10	2J	R103	5L		
L8	9F	C26	4C	C87	10J	R11	2I	R104	5M		
L9	8E	C27	3J	C88	9K	R12	4J	R105	5M		
L10	9F	C28	3J	C91	9K	R13	5D	R106	8L		
T1	3J	C29	3J	C92	5D	R14	2J	R107	8L		
VR1	2I	C30	3K	C93	3H	R15	4D	R108	5D		
VR2	6D	C31	4D	C94	5D	R16	4L	R109	5D		
VR3	9J	C32	4K	C95	8E	R17	4K	R110	7L		
CT1	3I	C33	4K	C96	8D	R18	3K	R111	9M		
CF1	3I	C34	2L	C98	9M	R50	7E	R112	9M		
CF2	3I	C35	4J	C99	9L	R51	8L	R113	9L		
CF3	3K	C36	2J	C100	4L	R52	8L	R114	9L		

## Notes:

BLK .....	Black	ORG .....	Orange
BLU .....	Blue	PNK .....	Pink
BRN .....	Brown	RED .....	Red
GRY .....	Gray	SLD .....	Shield Wire
GRN .....	Green	VLT .....	Violet
L.BLU .....	Light Blue	WHT .....	White
NIL .....	No Color Mark	YEL .....	Yellow

## ■ REPLACEMENT PARTS LIST (ELECTRICAL)

Notes:

1. (T) Indicates parts that are supplied **TAMACO**
2. (M) Indicates parts that are supplied **MESA**

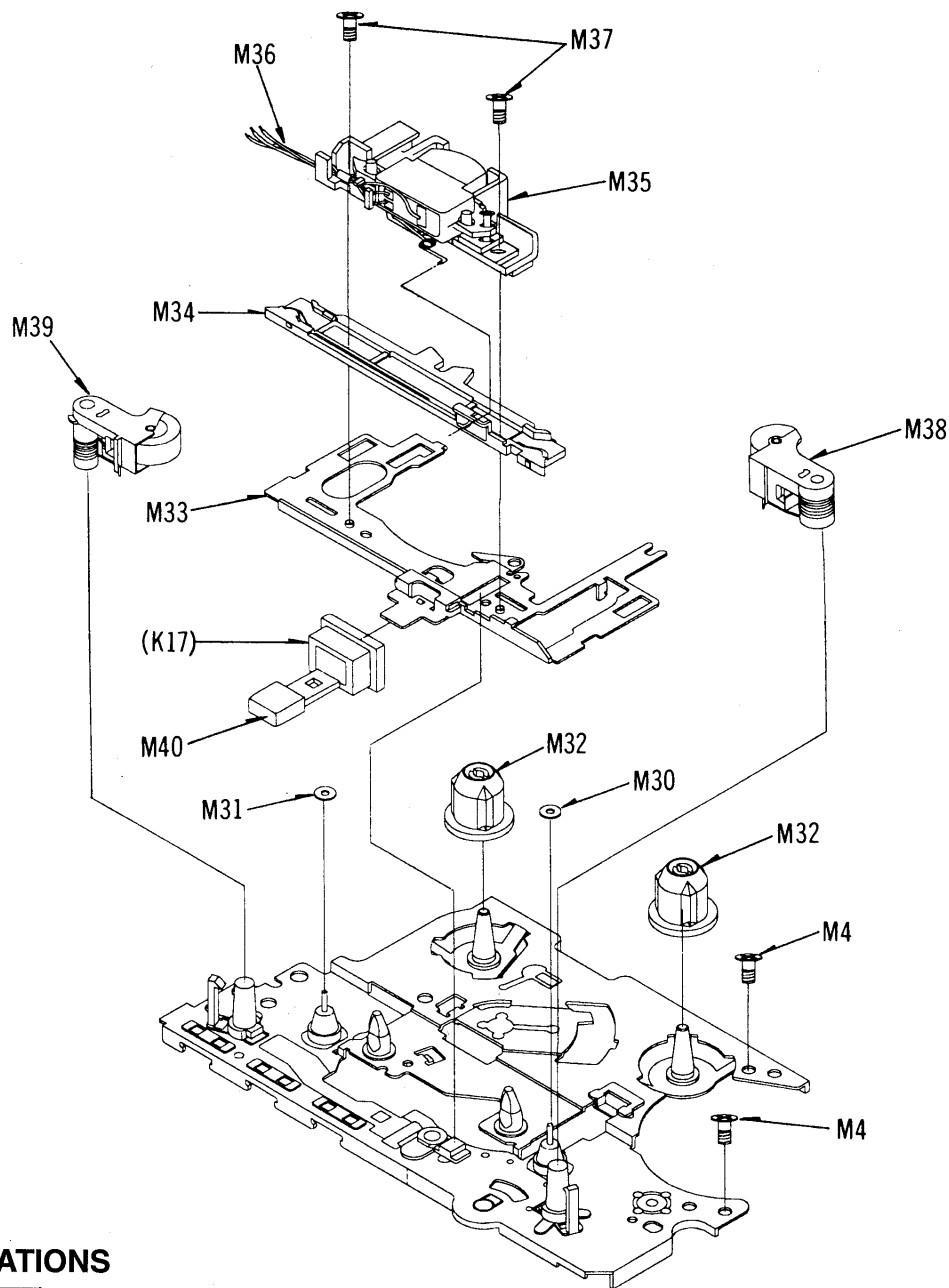
Ref No.	Parts No.	Parts Name & Description	Values & Remarks
INTEGRATED CIRCUITS, TRANSISTORS AND DIODES			
IC1	BA3632KE2	IC. PRE-POWER	(T)
IC2	TA2111FNEL	I.C. TUNER	(T)
IC3	MM1279XVBE	I.C. MOTOR DRIVER	(T)
IC4	LC72344-9517	IC MICON CPU	(T)
IC5	S81221SGQUT1	I.C. REGULATOR	(T)
Q1	2SC4774ST106	TRANSISTOR	(T)
Q2, 11	RVTDTA143TUX	TRANSISTOR	(T)
Q3, 12, 14, 18, 20	RVTDTA144TUX	TRANSISTOR	(T)
Q4, 6	2SB1295-6-TB	TRANSISTOR	(T)
Q5	RVTDTA144EUX	TRANSISTOR	(T)
Q7	2SC4577-7-TB	TRANSISTOR	(T)
Q8, 19	RVTDTA144TUX	TRANSISTOR	(T)
Q9	RVTDTA143TUX	TRANSISTOR	(T)
Q10	2SK303V3TB	F.E.T.	(T)
Q13	RVTDTA144EUX	TRANSISTOR	(T)
Q15	2SA1577QT106	TRANSISTOR	(T)
Q16	2SC4081RTX	TRANSISTOR	(T)
Q21	FMG8TX	TRANSISTOR	(T)
D1, 2	KV1440TL2-3	DIODE	(T)
D3	KV1610S	DIODE	(T)
D4, 5	MA720TX	DIODE	(T)
D6	MA8120MTX	DIODE	(T)
D7	MA110TX	CHIP DIODE	(T)
D8	RB501V40TE17	DIODE	(T)
COILS AND TRANSFORMERS			
L1	REKT0018	BAR ANT. ASS'Y	(T)
L2	RLO2A011M-T	OSC. COIL. (MW)	(T)
L3	RLO4Y254-L	ANT. COIL. (FM)	(T)
L4, 11	RLBN182DV-Y	CHIP COIL	(T)
L5	RLO4Y15	ANT. COIL. (FM)	(T)
L6	ELJPA100KF	PEAKING COIL	(T)
L7	RLQZ010KM-T	CHOKE COIL (RF)	(T)
L8	RLO9U034T-T	D-D CONV COIL	(T)
L9	ELJPA101KF	PEAKING COIL	(T)
L10	ELJPA2R2MF	PEAKING COIL	(T)
T1	RLI2A016M-T1	I.F.T. (MW)	(T)
VARIABLE RESISTORS			
VR1	EVUTV3B06A14	V.R. (VOLUME)	(T)
VR2	RRN3A03BA5XE	V.R. SEMI	(T)
VR3	RRN3A01BE3WA	V.R. TAPE SPEED	(T)
TRIMMER CAPACITOR			
CT1	ECRLA010A53R	TRIMMER	(T)
CERAMIC FILTERS			
CF1	RLFPFS450A3	CERAMIC FILTER	(T)
CF2	RLFFETNL02AL	CERAMIC FILTER	(T)
CF3	RLFDFT03AL	CERAMIC FILTER	(T)
CRYSTAL			
XTAL1	RSXD75K0S01T	CRYSTAL	(T)
LCD			
LCD1	RSL5232-T	L.C.D.	(T)
COMPONENT COMINATION			
Z1	RCRBMT004-H	BAND PASS FILTER	(T)
SWITCHES			
SW1	RSS2B027-I	DX/LOCAL SWITCH	(T)
SW8	RSS3A007-1A	HOLD/SUB/CONT SW	(T)
SW9	RSH1A041-I	MOTOR SWITCH	(T)
SW10	RSH1A041-I	OPEN/CLOSE/FWD/REV SW	(T)
JACK			
JK1	RJJ34TK03-1C	SOCKETS (H.P)	(T)

Notes:

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

## MECHANISM PARTS LOCATION

(Front View)

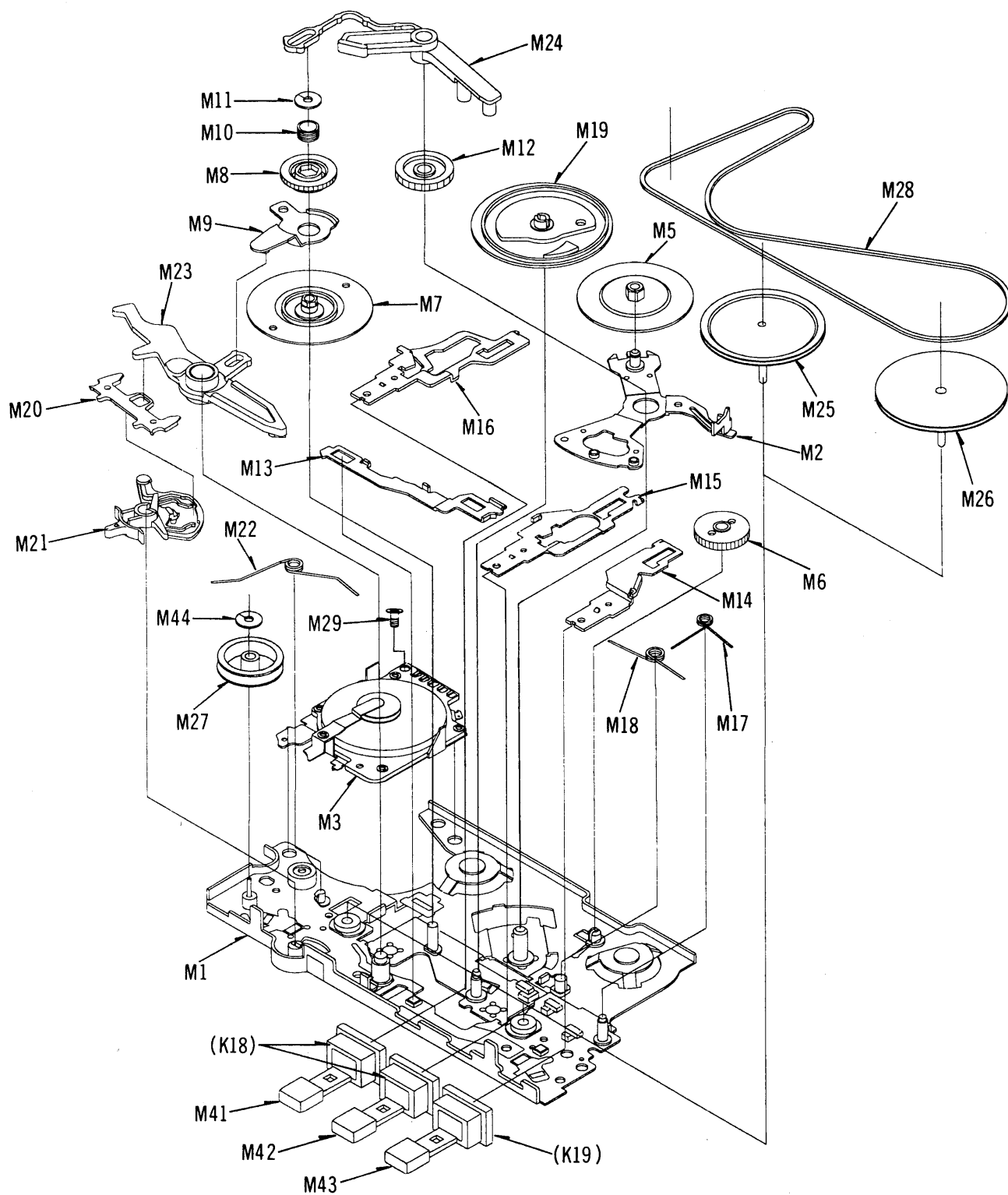


## SPECIFICATIONS

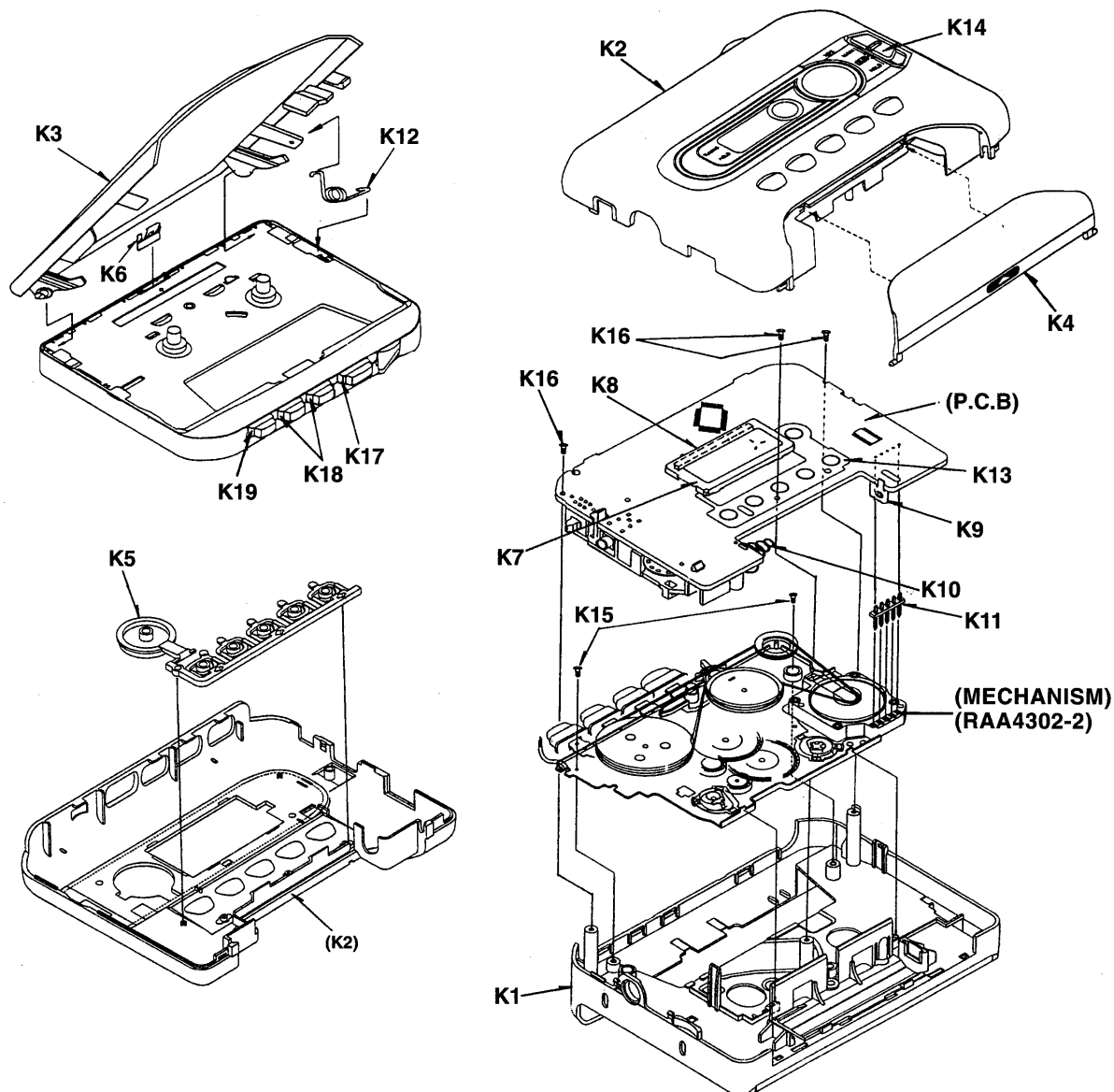
Pressure of Pressure roller	120gr
Wow & Flutter	Less than 0.15%(WRMS)
Playback torque	15 ~ 30 gr-cm
FF torque	60 ~ 120 gr-cm
REW torque	60 ~ 120 gr-cm

# MECHANISM PARTS LOCATION

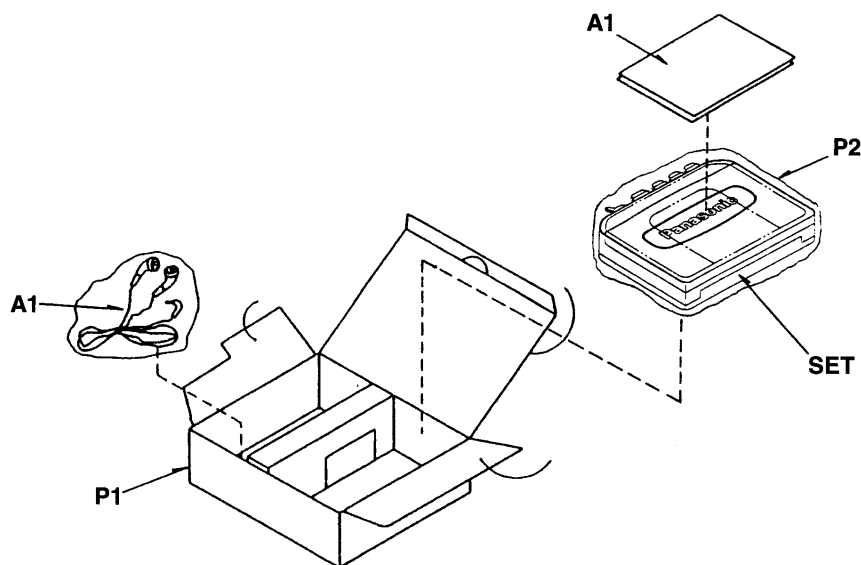
(Rear View)



## ■ CABINET PARTS LOCATION



## ■ PACKAGING



# REPLACEMENT PARTS LIST (MECHANISM,CABINET, ACCESSORIES, PACKING AND JIG/TOOL)

Notes:

- (T) Indicates parts that are supplied TAMACO
- (M) Indicates parts that are supplied MESA
- The reference number SA represent the grease tool usea for unit.

Ref No.	Parts No.	Parts Name & Description	Values & Remarks
MECHANISM PARTS			
M1	RXK0221-2	Mecha Chassis Ass'y	(T)
M2	RXL0143 1	Change Lever Ass'y	(T)
M3	BFL26NBCWA	Motor Ass'y	(T)
M4	RHD14062	Motor Screw	(T)
M5	RDG0382	Change Gear	(T)
M6	RDG0383	Idler Gear	(T)
M7	RDG0384	Play Gear	(T)
M8	RDG0385	FF Gear	(T)
M9	RML0477	Friction Lever	(T)
M10	RME0245	Friction Lever Spring	(T)
M11	RHW16018	Washer (FF Gear)	(T)
M12	RDG0386	Shift Gear	(T)
M13	RMM0172	Lock Rod	(T)
M14	RMM0173A	Stop Rod	(T)
M15	RMM0174A-1	Rew Rod	(T)
M16	RMM0175A	FF Rod	(T)
M17	RME0246	Stop Rod Spring	(T)
M18	RME0247	FF Rod Spring	(T)
M19	RXG0044-1	Main Gear Ass'y	(T)
M20	RML0478-1	FR Lever	(T)
M21	RML0479	Dir Lever	(T)
M22	RME0280	Head Plate Spring	(T)
M23	RML0480	Senser Lever	(T)
M24	RML0481	SW. Lever	(T)
M25	RXF0057	Flywheel F Ass'y	(T)
M26	RXF0056-1	Flywheel R Ass'y	(T)
M27	RDP0105	Center Pulley	(T)
M28	RDV0058	Belt	(T)
M29	RHD14061-1	Motor Earth Screw	(T)
M30	RHW11004-1	Washer(B)	(T)
M31	RHW12021-1	Washer(D)	(T)
M32	RDG0381	Reel Gear	(T)
M33	RMA1044A	Head Plate	(T)
M34	RMM0171-1	FR Rod	(T)
M35	RED0053-1	Head Block Ass'y	(T)
M36	RFF0772	Head Wire Ass'y	(T)
M37	XQN16+CF35	Head Base Screw	(T)
M38	RXL0140-3	Pinch Arm F Ass'y	(T)
M39	RXL0142-3	Pinch Arm R Ass'y	(T)
M40	RGUT0061-H	Play Button	(T)
M41	RGUT0062-H	FF Button	(T)
M42	RGUT0063-H	REW Button	(T)
M43	RGUT0064-H	STOP Button	(T)
M44	RHW10003	Washer (A)	(T)

Ref No.	Parts No.	Parts Name & Description	Values & Remarks
CABINET PARTS			
K1	RKMT0020G-S	FRONT CABINET	(T)
K2	RFKKQE20VEGS	REAR CAB ASS'Y (Silver)	(T)
K2	RFKKQE20VEGA	REAR CAB ASS'Y (Blue)	(T)
K2	RFKKQE20VEGK	REAR CAB ASS'Y (Black)	(T)
K3	RKFT0033-S	CASSETTE COVER (Silver/Black)	(T)
K3	RKFT0033-1A	CASSETTE COVER (Blue)	(T)
K4	RKKT0013-1S	BATTERY COVER (Silver)	(T)
K4	RKKT0013-2A	BATTERY COVER (Blue)	(T)
K4	RKKT0013-H	BATTERY COVER (Black)	(T)
K5	RGUT0078-S	DIRECTION Button	(T)
K6	RMCT0013	TAPE HOLDING SPRING	(T)
K7	RMNT0038	LCD HOLDER	(T)
K8	RSQT0005-1	ELECTRIC GUM	(T)
K9	RJCT30014	BATTERY TERMINAL(+)	(T)
K10	RJCT70013	BATTERY TERMINAL(-)	(T)
K11	RJST0002	PIN HEADER	(T)
K12	RMET0012-1	TORQUE SPRING	(T)
K13	RSCT0015	MEMBRANE SW.	(T)
K14	RGVT0037-S	MODE KNOB	(T)
K15	RHD003TZA	SCREW	(T)
K16	XTNR14+45CFZ	SCREW	(T)
K17	RGQT0019-H	MECH BUTTON COVER (PLAY)	(T)
K18	RGQT0020-H	MECH BUTTON COVER	(T)
K19	RGQT0021-H	MECH BUTTON COVER (STOP)	(T)
ACCESSORIES			
A1	RQTT0301-G	INSTRUCTION BOOK	(T)
A2	RFEV327P-KT	INNERPHONE	(T)
PACKING MATERIALS			
P1	RPKT0231	DECORATION BOX (Silver)	(T)
P1	RPKT0263	DECORATION BOX (Black)	(T)
P1	RPKT0232	DECORATION BOX (Blue)	(T)
P2	RPFT0015	SET BAG	(T)
JIG/TOOL			
SA1	QZZCWAT	TEST TAPE(Tape Speed etc)	(M)
SA2	QZZCFM	TEST TAPE(AZIMUTH/FREQ)	(M)
MEC1	RAA4302-2	DECK Ass'y	(T)
PCB1	RFKJQE20VGC	P.C.B Ass'y	(T)

**■ REPLACEMENT PARTS LIST (CAPACITORS AND RESISTORS)**

Ref No.	Parts No.	Values & Remarks
<b>CAPACITORS</b>		
C1,2,5,31,56,57, 58,59,60,71,72, 94,95,96	ECUV1E103KBV	(M)
C3,4,11,20,69,89 .92,93,100,101, .128,129,130	ECUV1H102KBV	(M)
C6,30,61,122	ECEA0GKS221	(M)
C7	ECUV1H271JCV	(T)
C8	ECUV1H221JCV	(M)
C9	ECUV1H030CCV	(M)
C10,15,18,22,23, 121,123,124	ECUV1C104ZFV	(M)
C12,78	ECUV1H220JCV	(M)
C13	ECUV1H391GCV	(M)
C14	ECUV1H100DCV	(M)
C16	ECUV1H050CCV	(M)
C17,52,53,54,55, 73,104	ECUV1H221KBV	(M)
C19	ECUV1H080DCV	(M)
C21,35,75,79,80, 91,108,109	ECUV1C224ZFN	(M)
C22,23	ECUV1C104ZFN	(M)
C24,29,49,63,67, 68,88,112,114	ECUVNC105ZFN	(M)
C25,26	ECUV1H682KBV	(M)
C27,83	ECUV1C474KBN	(T)
C28,126	ECST0GY475R	(M)
C32,33,118	ECUV1C473KBV	(M)
C34	ECUV1H470KCV	(M)
C36,37	ECUV1H471KBV	(M)
C50,51	ECUV1H150KCV	(M)
C62	ECST1AY335R	(M)
C65,105,110	ECUV1C223KBV	(M)
C66	ECST1CY105	(M)
C70	ECST1CY155R	(M)
C74	ECEA0GKS471	(M)
C76,77,127	ECUV1C474ZFN	(M)
C81,82,86	ECUV1C103KBV	(M)
C84,117	ECUV1C224KBN	(M)
C85,87	ECUV1C104KBV	(M)
C98,99	ECUV1C333KBV	(M)
C102	ECEA0JKS220	(M)
C103,106,125	ECST0EY336R	(M)
C107	ECST1AY225R	(M)
C111,116	ECUV1H681KBV	(M)
C113	ECUV1C154KBN	(M)
C115	ECST0GY106R	(M)
C119	ECST0GY226R	(M)
C120	ECA0GSA221I	(T)

Ref No.	Parts No.	Values & Remarks
<b>RESISTORS</b>		
R1,3,4,11,69,79 .108,111,114	ERJ3GEYJ104V	(M)
R2,63,115	ERJ3GEYJ103V	(M)
R5	ERJ3GEYJ4R7V	(M)
R7	ERJ3GEYJ223V	(M)
R8,12,58,78,103 .104,112,113	ERJ3GEYJ222V	(M)
R9,54,55,56,57,58	ERJ3GEYJ472V	(M)
R10	ERJ3GEYJ220V	(M)
R13	ERJ3GEYJ332V	(M)
R14	ERJ3GEYJ331V	(M)
R15	ERJ3GEYJ152V	(M)
R16,17	ERJ3GEYJ333V	(M)
R18,53,73,74	ERJ3GEYJ102V	(M)
R52	ERJ3GEYJ272V	(M)
R50,59,61,72,79	ERJ3GEYJ224V	(M)
R51,86,101,105	ERJ3GEYJ682V	(M)
R60	ERJ3GEYJ124V	(M)
R62	ERJ3GEYJ681V	(M)
R64	ERJ3GEYJ823V	(M)
R65,66	ERJ3GEYJ474V	(M)
R68	ERJ3GEYJ274V	(M)
R70,75	ERJ3GEYJ394V	(M)
R71,80,81,83,109	ERJ3GEYJ154V	(M)
R76	ERJ3GEYJ913V	(T)
R77	ERJ3GEYJ471V	(M)
R82	ERJ3GEYJ101V	(M)
R84	ERAS27J102V	(T)
R85	ERJ3GEYJ392V	(M)
R87,88	ERJ3GEYJ123V	(M)
R100,102	ERJ3GEYJ151V	(M)
R106,107	ERJ3GEYJ2R2V	(M)
R110	ERJ3GEYJ684V	(M)
<b>CHIP JUMPERS</b>		
J1,5	ERJ6GEY0R00V	(M)
J4,6,7,8,9,10	ERJ3GEY0R00V	(M)