

Service Manual

Radio Cassette

FM/AM Radio Cassette Recorder

RX-1280S



■ SPECIFICATION

Power Requirement: AC; 220V, 50/60Hz or Battery; 7.5V
(Five "D" Size Flashlight Batteries.)
(National UM-1 or Equivalent)

Power Consumption: 8W

Power Output: 2.2W (RMS Max)
2W (MPO)

Frequency Range: 100~8,000Hz

Recording System: DC Bias, DC Erase

Tape Speed: 4.8cm/s ($1\frac{7}{8}$ ips.)

Fast Forward And

Rewind Time: 120 Seconds With C-60
Cassette Tape

Track System: 2-Track 1-Channel
Playback and Monaural Recording

REC/PB Connection: 5P DIN Type; Sensitivity
Input: 0.1mV/K Ω
Output: Variable
Ext Sp: 4~8 Ω

Output: 10cm (4") PM Dynamic Speaker (4 Ω)

Radio Frequency Range: FM: 87.5~108MHz (577~186m)
AM: 520~1610kHz (577~186m)

Intermediate Frequency: FM: 10.7MHz
AM: 455kHz

Sensitivity: FM: 2.2 μ V For 50mW Output
AM: 36 μ V/m For 50mW Output

Dimensions: 325mm (W) $\times$ 220mm (H) $\times$ 115mm (D)
($12\frac{13}{16} \times 8\frac{5}{8} \times 4\frac{1}{2}$ ")

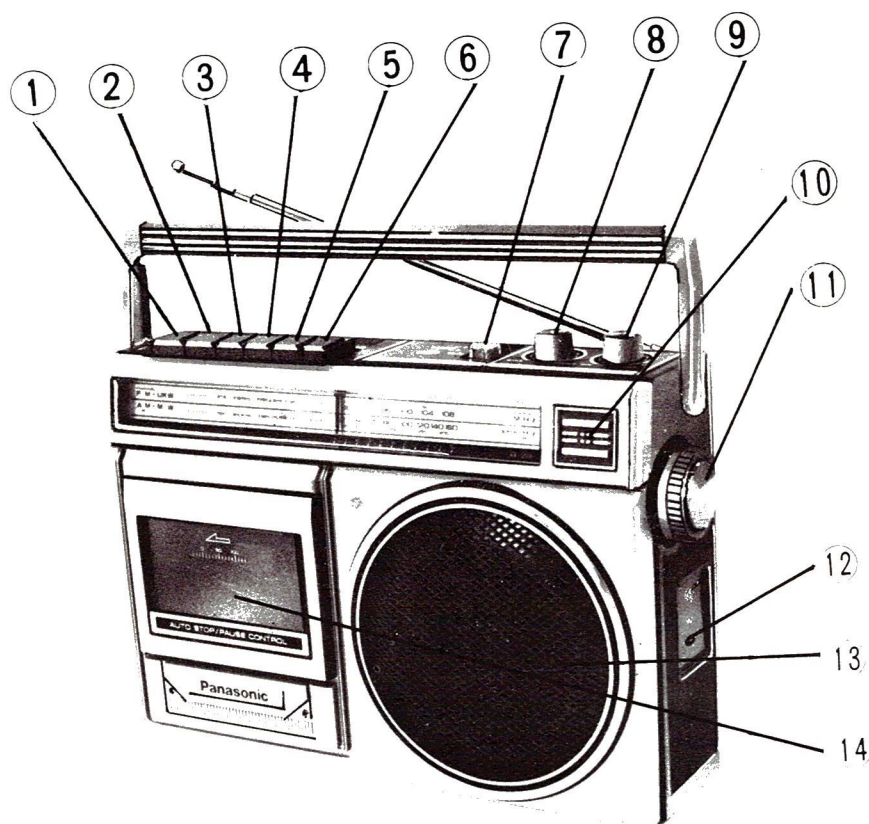
Weight: 2.1kg (4 lb 10 oz) Without Battery

Specifications are subject to change without notice.

Panasonic

Matsushita Electric Trading Co., Ltd.
P. O. Box 288, Central Osaka, Japan

LOCATION OF CONTROL AND COMPONENTS



- 1 Pause Button
- 2 Stop/Eject Button
- 3 Fast Forward Button
- 4 Rewind Button
- 5 Playback Button
- 6 Record Button
- 7 Function Selector
(FM/AM/TAPE, OFF)
- 8 Tone Control
- 9 Volume Control
- 10 Built-in MicroPhone
- 11 Tuning Control
- 12 External Speaker Jack
(4~8Ω)
- 13 Built-in Speaker (10cm) (4") 4Ω
- 14 Cassette Compartment
- 15 Telescopic Antenna
- 16 Battery Compartment
- 17 AC Power Cord
- 18 AC/DC Selector
- 19 DinJack

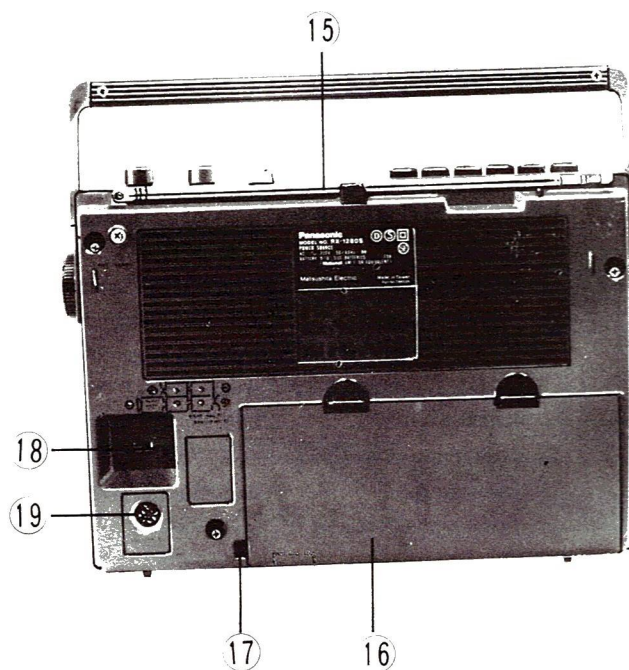


Fig. 1

DISASSEMBLY INSTRUCTIONS

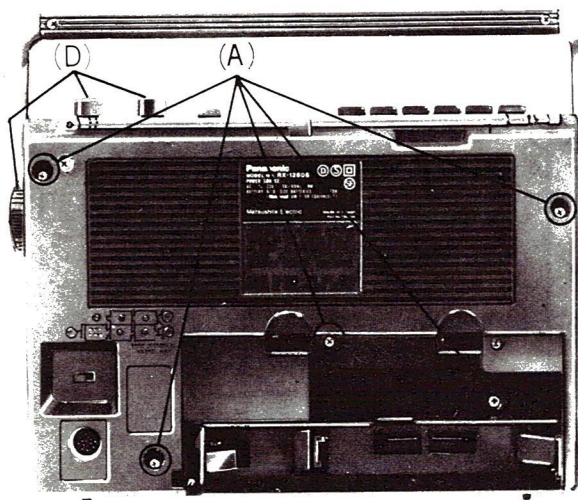


Fig. 2

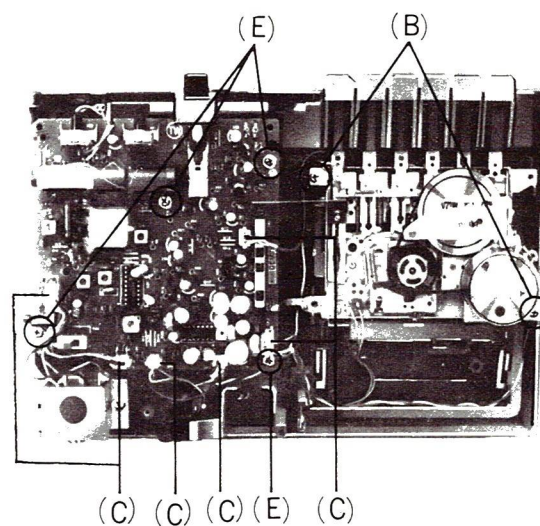


Fig. 3

Procedure	To remove —	Remove —	Shown In Fig —
1	Rear Cabinet Ass'y	Screw (3×30) (A) × 5	2
2		Knob (D) × 3	2
3	Mechanism	Screw (3×10) (B) × 2	3
4		Socket (C) × 6	3
5	Main Circuit Board	Screw (3×10) (E) × 4	3

TO REMOVE TUNING GEAR

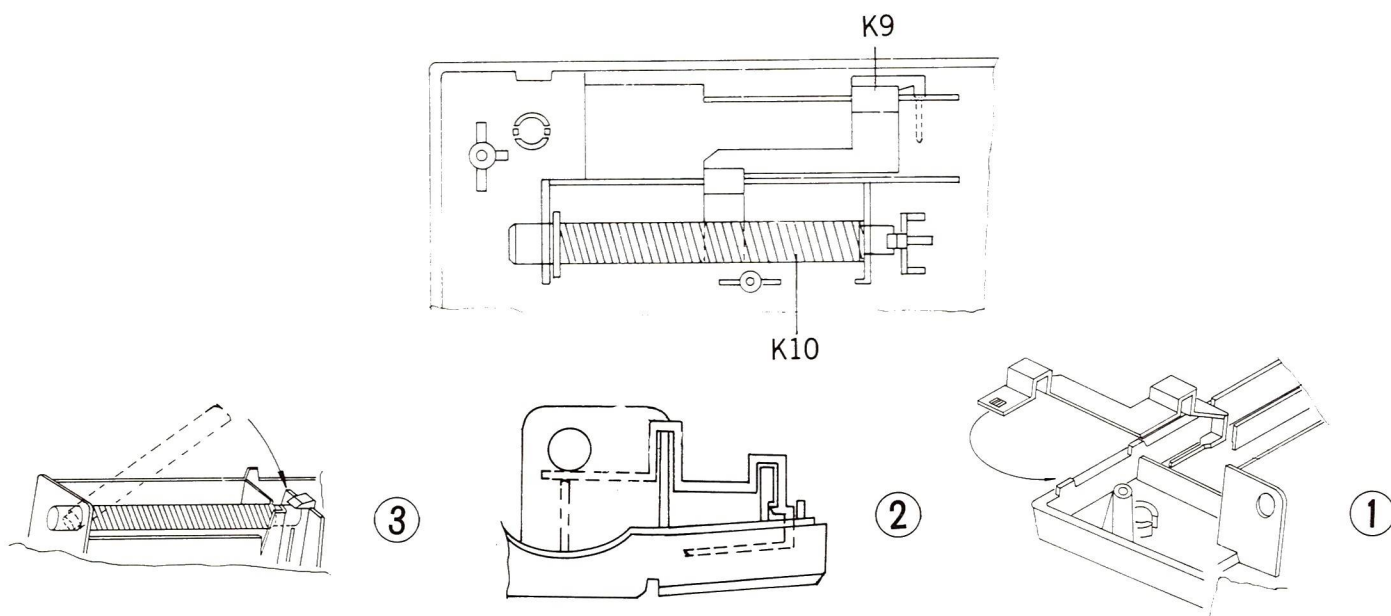


Fig. 4

MEASUREMENTS AND ADJUSTMENTS

■ ALIGNMENT INSTRUCTIONS

READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

- Note:** 1. Set volume control to maximum.
 2. Set Function selector switch to AM or FM.
 3. Set tone control to maximum.
 4. Set power source voltage to 7.5 volts DC.
 5. Output of signal generator should be no higher than necessary to obtain an output reading.

SWEEP GENERATOR or SIGNAL GENERATOR		RADIO DIAL SETTING (DISTANCE)	INDICATOR (ELECTRONICS VOLTAGE or SCOPE)	ADJUSTMENT	REMARKS	
CONNECTIONS	FREQUENCY					
AM IF & RF ALIGNMENT						
(1)	Fashion loop of several turns of wire and radiate signal into loop of receiver.	455 kHz 30% Mod. with 400 Hz.	Point of non- interference. (on/about 600 kHz).	Output meter across speaker voice coil.	T ₃ (1st IFT) T ₄ (2nd IFT)	Adjust for maximum output.
(2)	"	525 kHz	Tuning capacitor fully closed.	"	L ₆ (OSC Coil)	Adjust for maximum output. Adjust L ₅ by moving coil bobbin along ferrite core.
(3)	"	550 kHz	Tune to signal.	"	(*1) L ₅ (ANT Coil)	
(4)	"	1500 kHz	Tune to signal.	"	CT ₃ (ANT Trimmer)	Adjust for maximum output. Repeat steps (2) ~ (5)
(5)	"	1605 kHz	Tuning capacitor fully open.	"	CT ₄ (OSC Trimmer)	
(*1) Cement antenna bobbin with wax after completing alignment.						
FM-IF ALIGNMENT						
(6)	High side thru. 0.001 μ F to point  and common to 	10.7 MHz (400 kHz SWP.)	Point of non- interference. (on about 90 MHz)	Connect vert. amp. of scope to point  Negative side to test point 	T ₁ (FM 1st IFT)	Adjust for maximum amplitude.
(7)	"	"	"	"	T ₂ (FM 2nd IFT)	Adjust T ₂ so that 10.7 MHz marker appears at the center. (Refer to fig. 7.)
FM-RF ALIGNMENT						
(8)	Connect to point  through FM dummy antenna. Common to  . (Refer to fig. 8.)	87.5 MHz	Tuning capacitor fully closed.	Output meter across speaker voice coil.	L ₄ (FM OSC Coil)	(*2) Adjust for maximum output.
(9)	"	90 MHz	Tune to signal.	"	L ₃ (FM ANT Coil)	
(10)	"	106 MHz	Tune to signal.	"	CT ₁ (FM ANT Trimmer)	(*2) Adjust for maximum output. Repeat steps (8) ~ (11).
(11)	"	108MHz	Tuning capacitor fully open.	"	CT ₂ (FM OSC Trimmer)	
(*2) Three output responses will be present; Proper tuning is the center frequency.						

■ ALIGNMENT POINTS

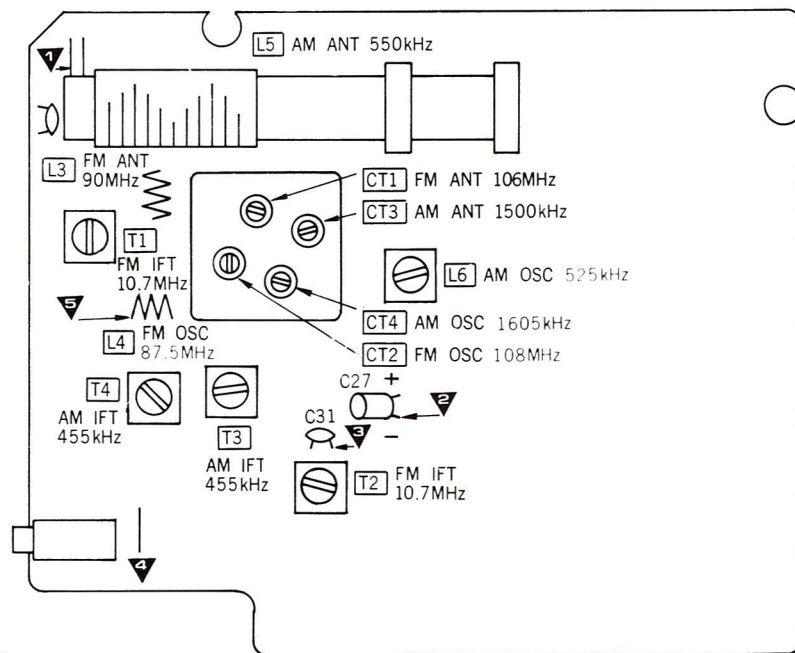


Fig. 5

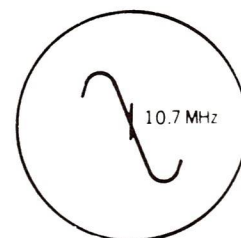


Fig. 6

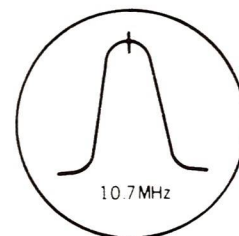


Fig. 7

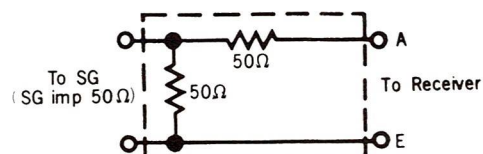


Fig. 8. FM Dummy Antenna

Schematic Diagram M

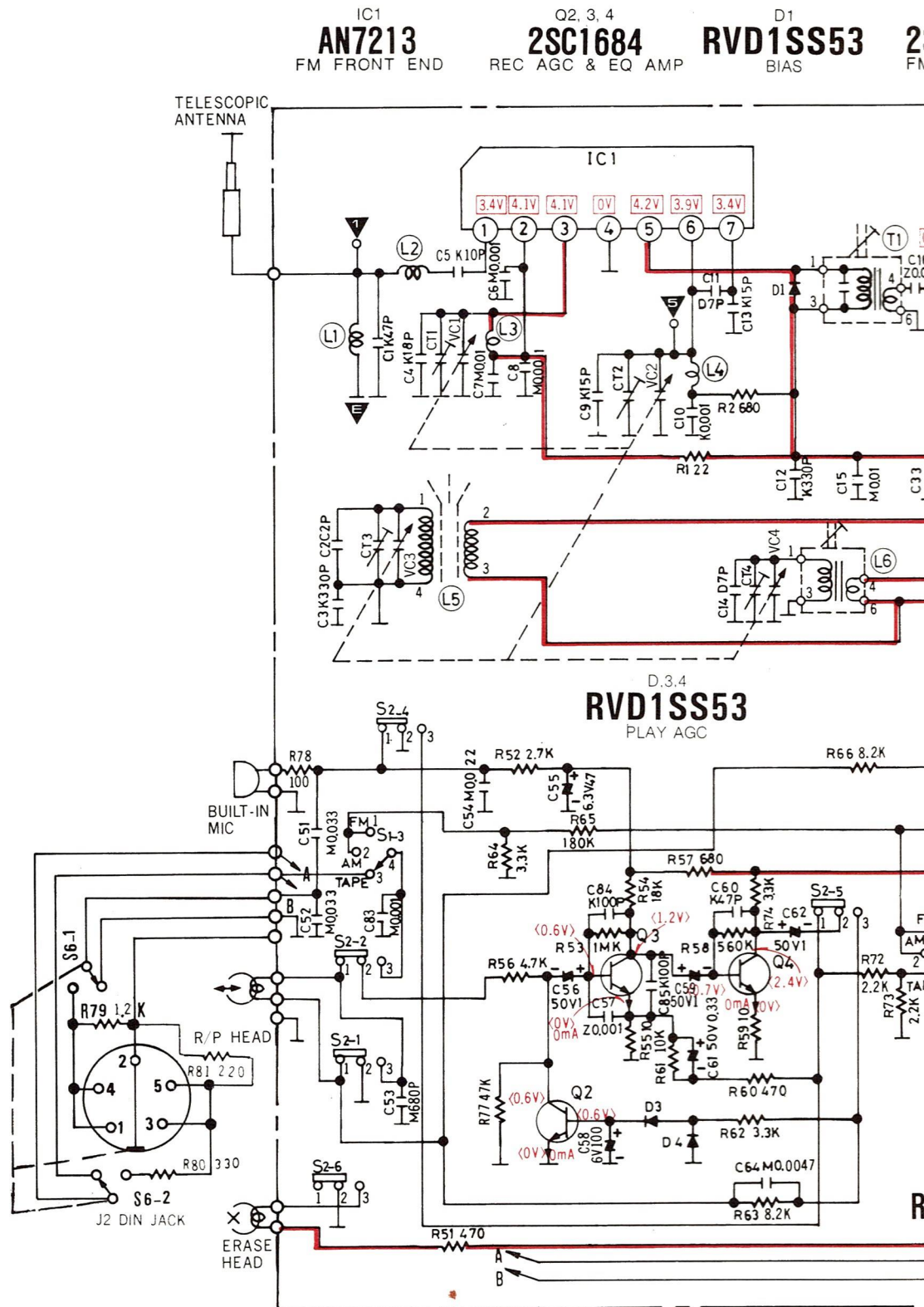
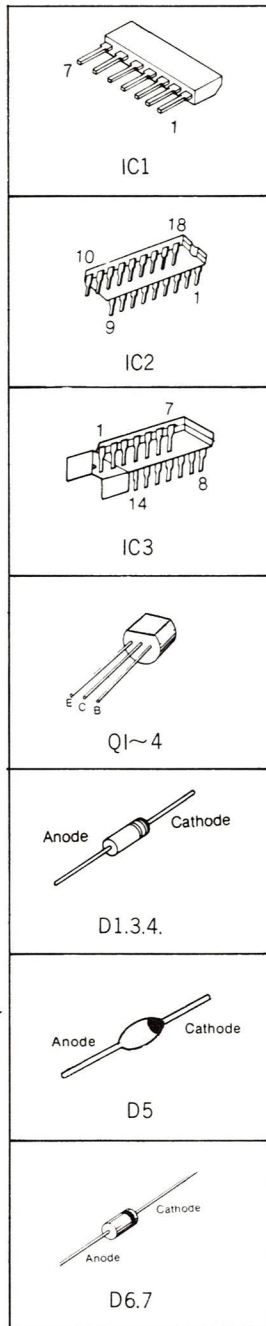
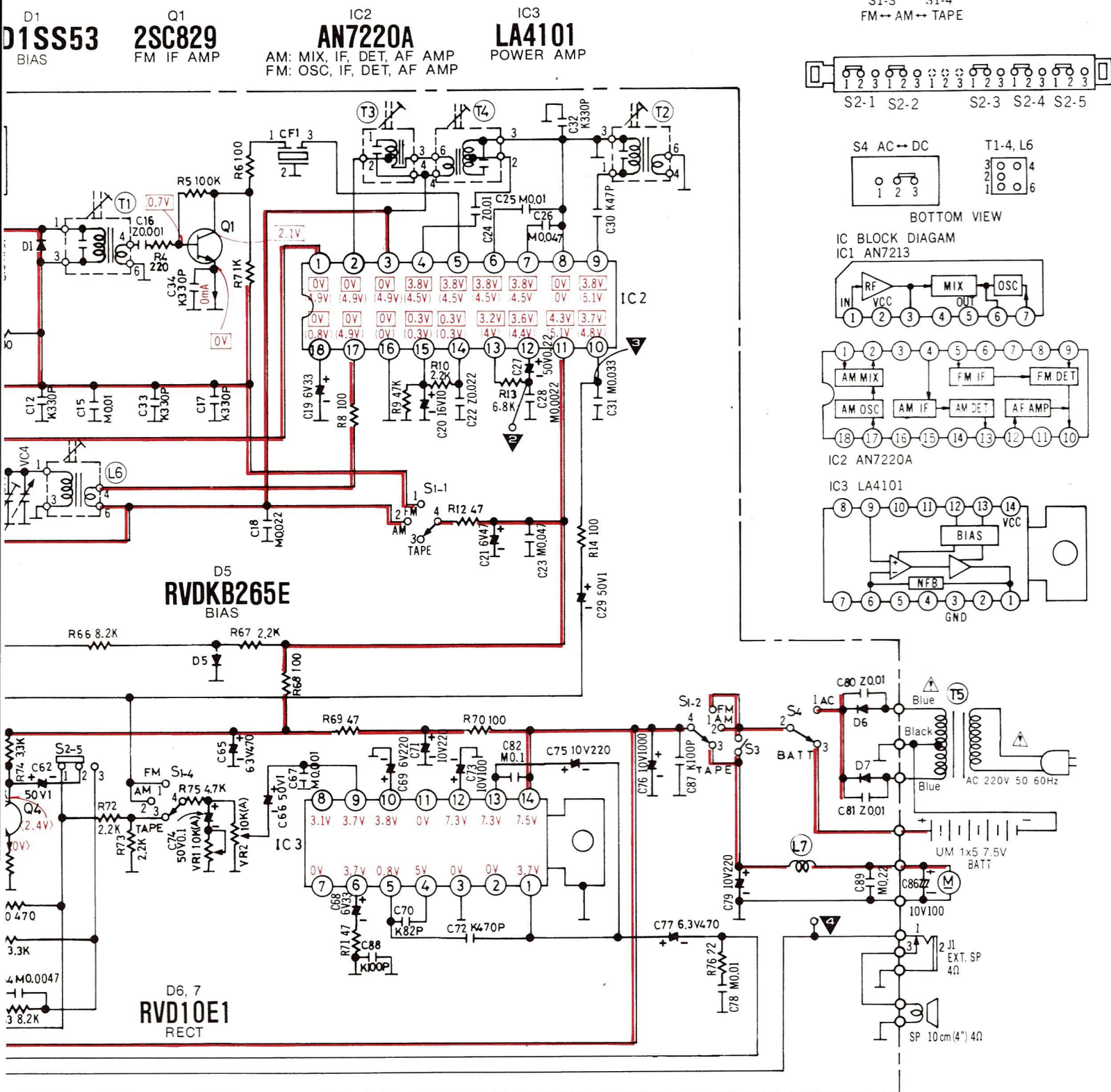


Diagram Model RX-1280S



- S1-1~S1-4: Selector switch in "tape" position.
(1.....FM, 2.....AM, 3.....Tape)
- S2-1~S2-6: Playback/Rec selector switch in "play" position.
(1.....Playback, 3.....Record)
- S3: Motor ON/OFF switch in "OFF" position.
- S4: AC-Battery Switch in "Battery" position.
- DC voltage measurements are taken with Electronics voltmeter based on negative terminal of battery.
.....FM position,AM position,Tape position

- Battery Current No signal.....35mA
Maximum output (Radio).....380mA
(Tape Play).....420mA
- VR1.....Tone control, VR2.....Volume Control.
- Important safety notice:
Components identified by mark have special characteristics important for safety.
When replacing any of these components, use only manufacturer's specified parts.

Circuit Board and Wiring Connection Diagram

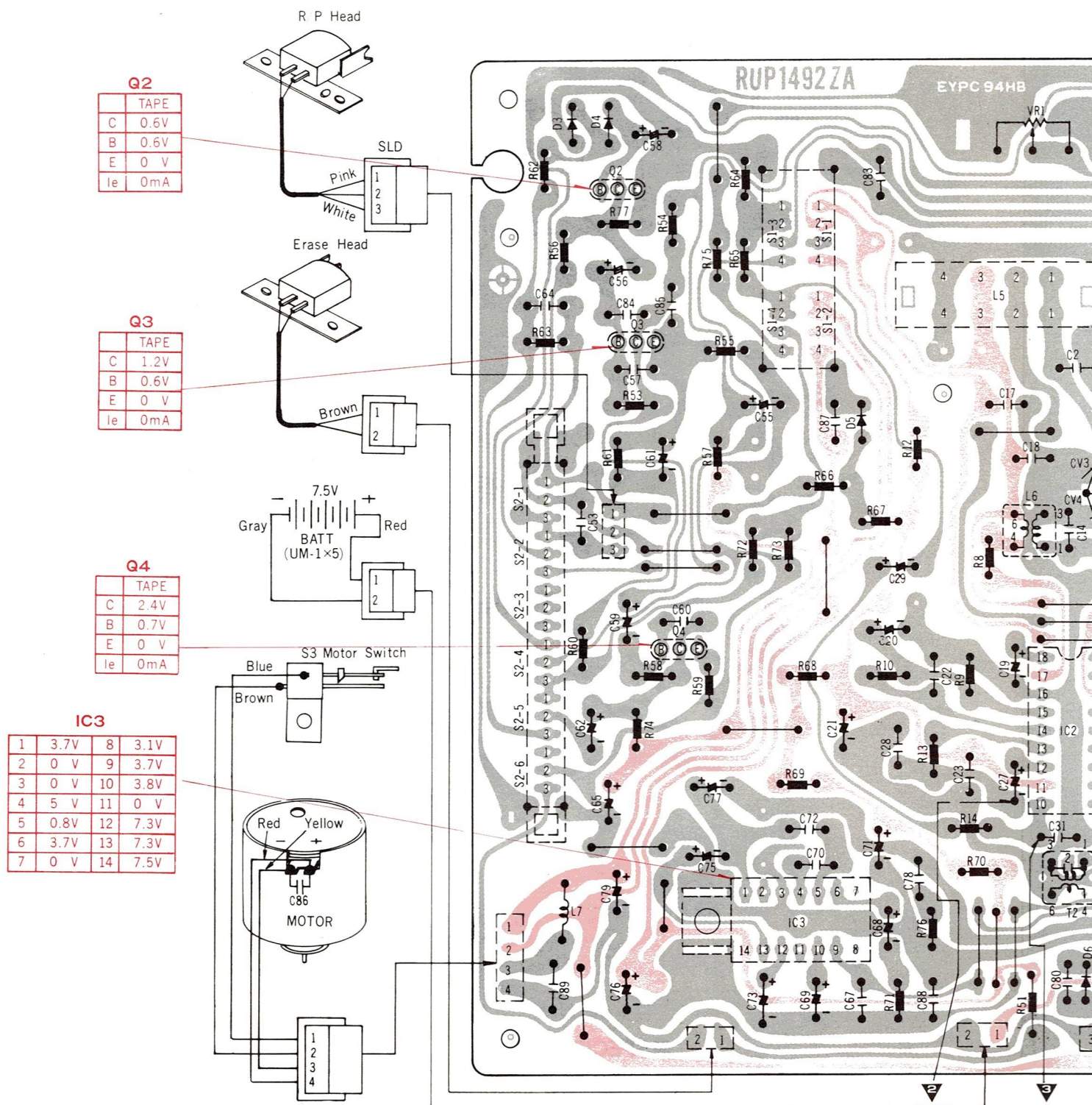
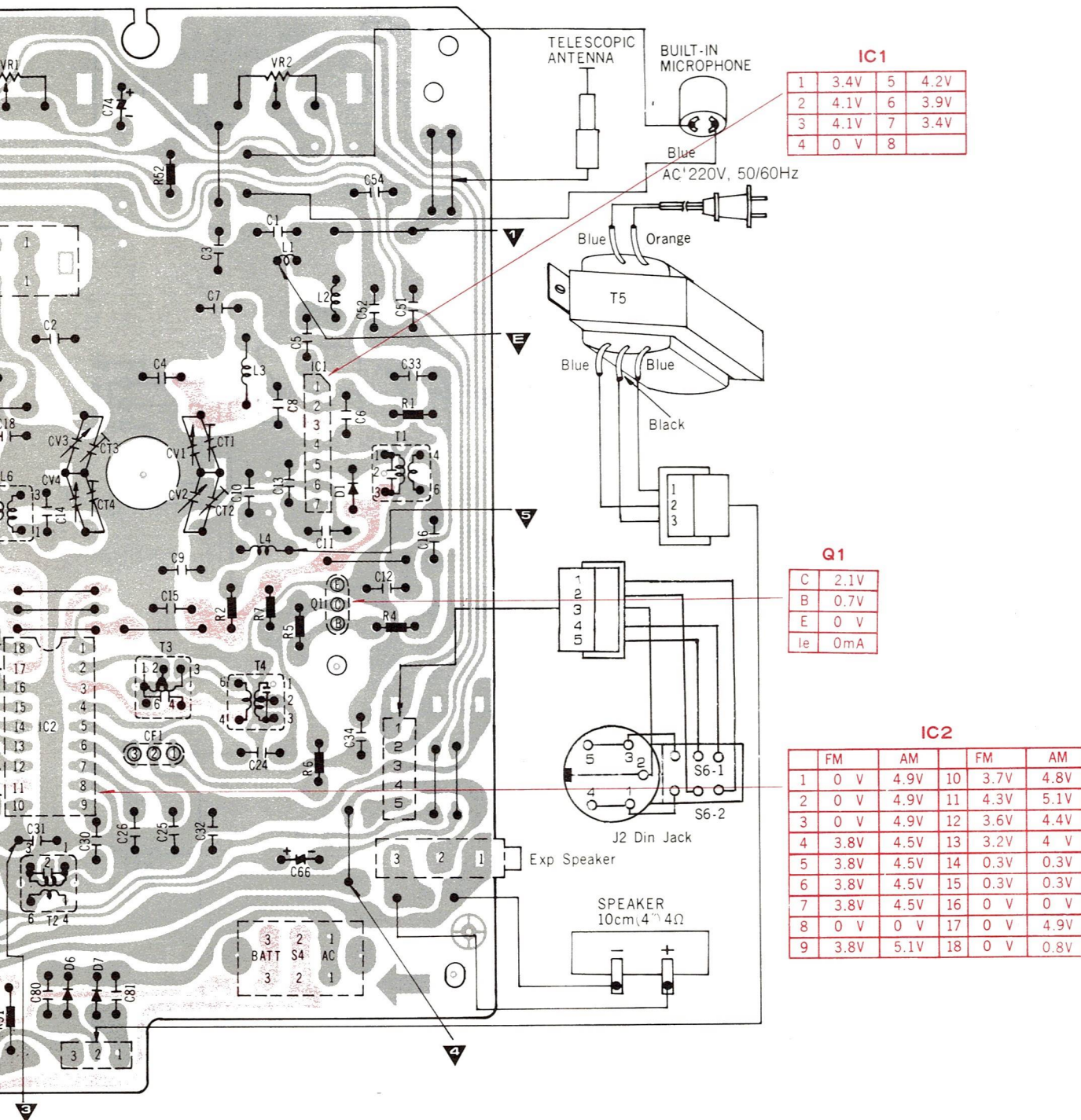


Diagram Model RX-1280S



BLOCK DIAGRAM

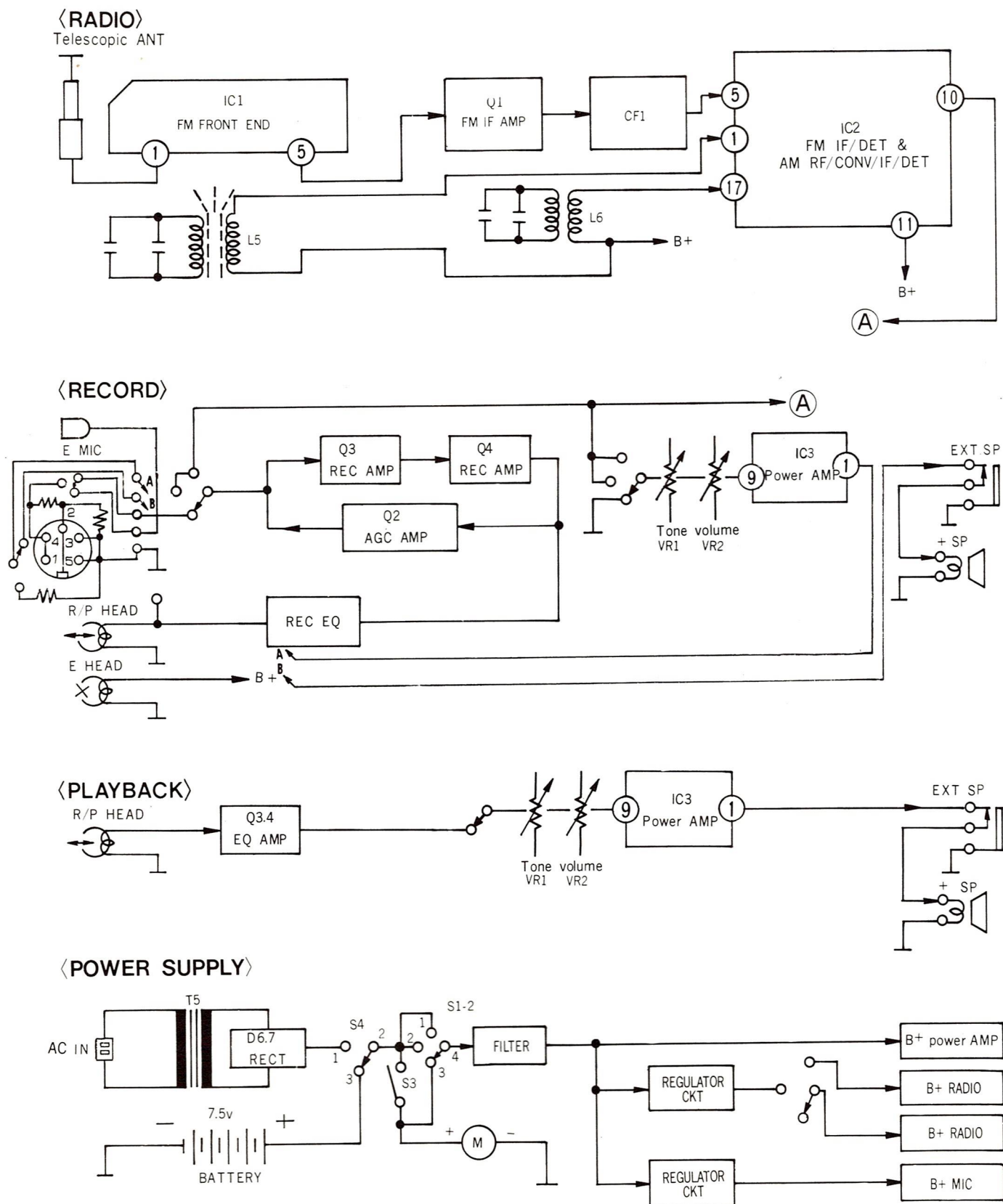


Fig. 9

EXPLODED VIEW S

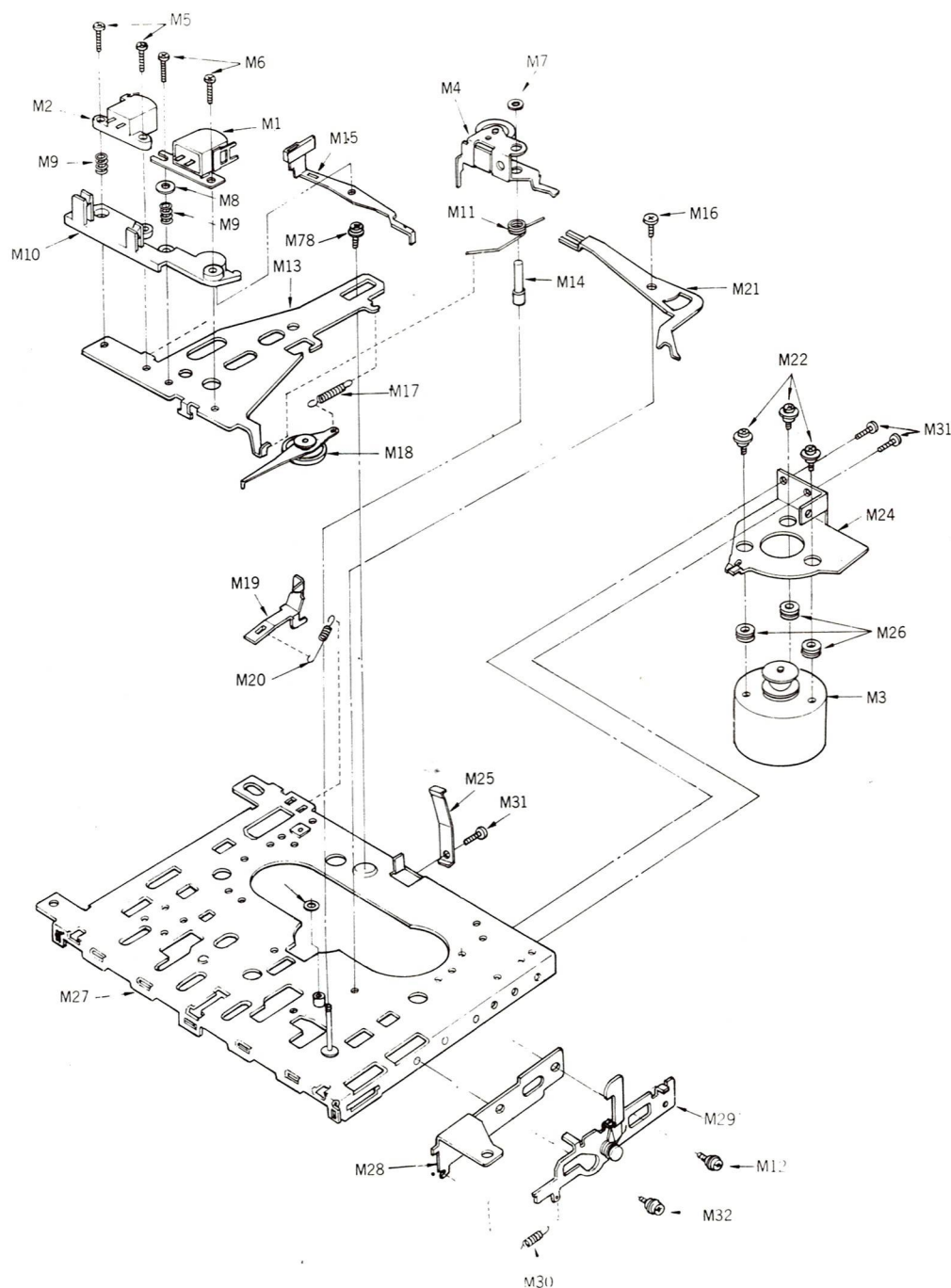


Fig. 10

■ SPECIFICATION

Pressure of pressure roller	$380 \pm 50\text{gr}$
Takeup tension	$55 \pm 15\text{gr}$
Tension of detect piece	$65 \pm 10\text{gr}$
Wow & flutter	Less than 0.35% (RMS)
Tape speed fluctuation	$\pm 3\% \sim -2\%$

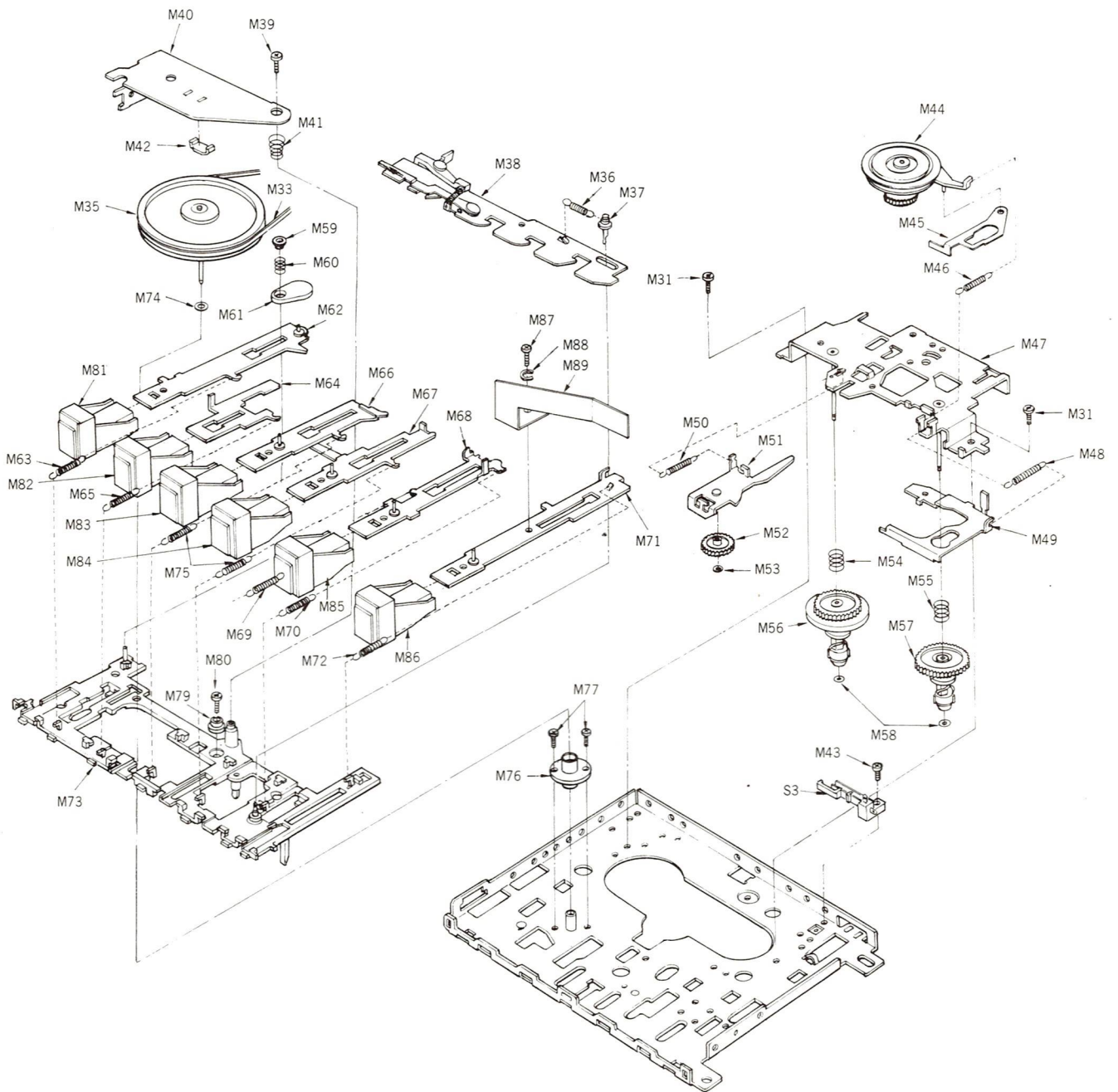


Fig. 11

CABINET PARTS LOCATION

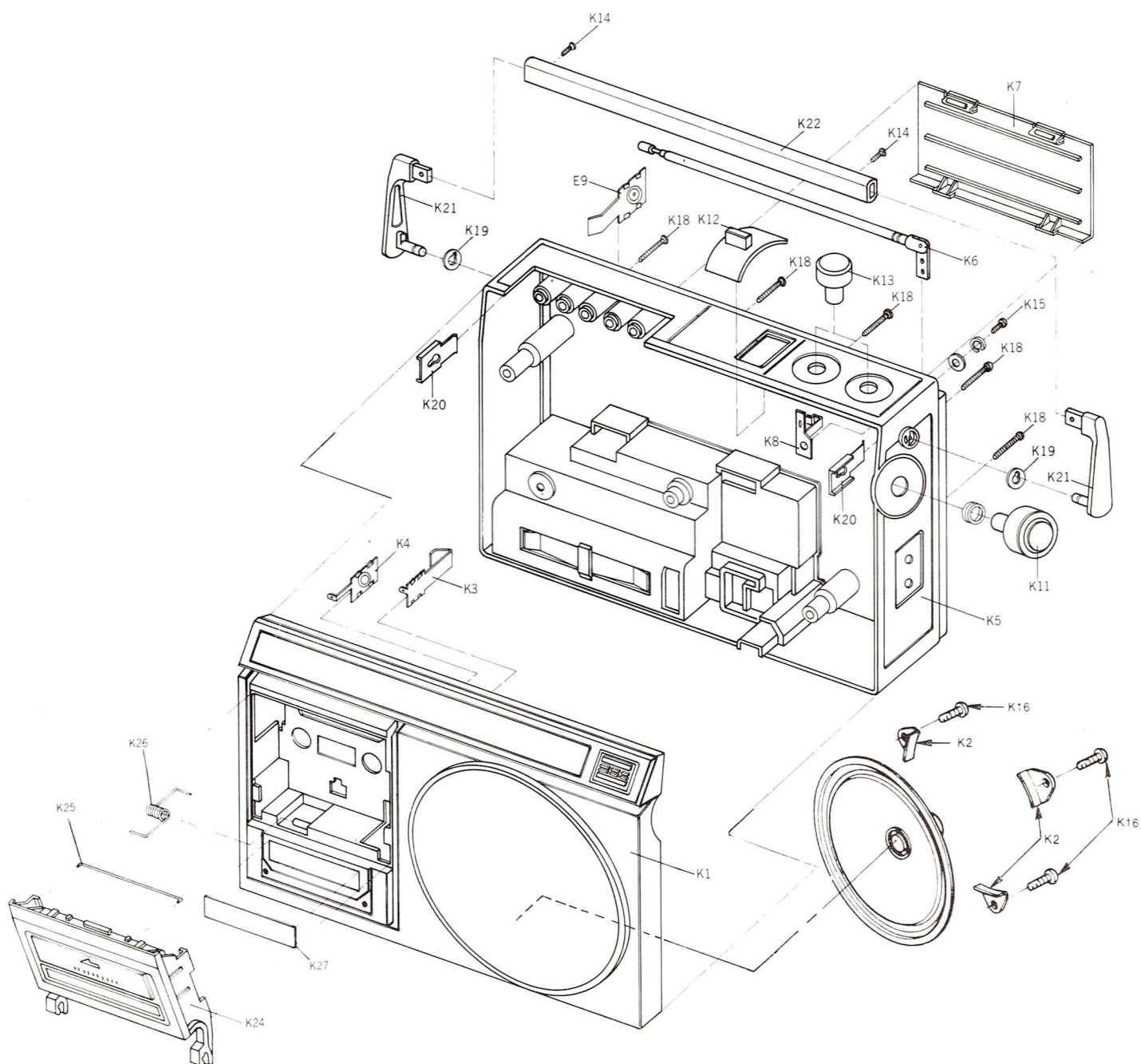


Fig. 12

RX-1280S DEUTSCH

■ TECHNISCHE DATEN

Stromversorgung:	Wechselstrom: 220V, 50/60Hz	REC/PB-
	Leistungsaufnahme: 8W	Anschlußbuchse: 5-Polige DIN-Buchse
	Batterien: 7.5V (Fünf Trockenbatterien UM-1, Größe)	IN: Empfindlichkeit 0.1 mV/K Ω
Ausgangsleistung:	max. 2.2W (RMS Max)	OUT: Ausgangspegel einstellbar
Frequenzbereich:	100 ~ 8000Hz	Lautsprecher: Dynamischer PM-Lautsprecher, ϕ 10cm (4") (4 Ω)
Aufnahmesystem:	Gleichstrom-Vormagnetisierung	Wellenbereiche: UKW: 87.5 ~ 108 MHz
Bandgeschwindigkeit:	4, 8 cm/s	AM: 520—1610kHz (577—186m)
Spurlage:	Aufnahme und wiedergabe auf 2 spuren/1 kanal in mono	Zwischenfrequenz: FM: 10.7 MHz AM: 455 kHz
		Empfindlichkeit: UKW: 2.2 μ V bei 50mW Ausgangsleistung
		AM: 36 μ V/m bei 50mW Ausgangsleistung
Ausgangs impedanzen: EXT SP: 4 ~ 8 Ω		Abmessungen (BxHxT): 325 x 220 x 115mm
		Gewicht (ohne Batterien): 2.1kg
		Anderungen vorbehalten.

■ BEZEICHNUNGEN IN DER SCHEMATISCHEN DARSTELLUNG

1. S1-1 ~ S1-4 Funktionsschalter auf „cassette“ (1 = UKW, 2 = AM, 3 = Cassette)
2. S2-1 ~ S2-6 Aufnahme/Wiedergabeschalter auf „Wiedergabe“ (1 = Wiedergabe, 3 = Aufnahme)
3. S3 EIN/AUS-Schalter des Motors (anf „AUS“)
4. S4 Wahlschalter für Gleichstrom-oder wechselstrombetrieb (abgebildet in der stellung „Gleichstrom“)
5. Alle Gleichspannungen sind mit einem Röhrenvoltmeter (RVM) von der negativen versorgungsleitung aus zu messen.

..... Stellung „UKW“, () Stellung „AM“, { } Stellung „tape“
6. Batteriestrom:

ohne signal 35mA,
 bei maximaler Ausgangsleistung (Radio) 380mA,
 bei maximaler Ausgangsleistung (Cassette) 420mA,
7. VR1 Klangregler VR2 Lautstärkeregler
8. Für die Bauelemente, die mit bezeichnet sind, sollen aus Gründen der Betriebssicherheit nur Originalbauteile des Herstellers verwendet werden.

ABGLEICH

VORGANGSWEISE BEIM ABGLEICH

BITTE DIESEN ABSCHNITT VOR DEM ABGLEICH SORGFÄLTIG DURCHLESEN

1. Den Lautstärkeregler in die Maximalposition stellen.
2. Den wellenbereichsschalter auf AM oder FM stellen.
3. Eine Stromquelle von 7.5V Gleichstrom anlegen.
4. Der signalgeneratorausgang sollte nicht größer sein, als für eine Ausgangsanzeige unbedingt notwendig ist.

WEL- LEN- BAND	SIGNALGENERATOR oder WOBBLGENERATOR		STELLUNG DES ASTIMM- REGLERS	MESSGERÄT (RÖHREN- VOLTMETER oder OSZILLOSKOP)	ABGLEICH	BEMERKUNGEN	
	ANSCHLUSSE	FREQUENZ					
AM-ZF-ABGLEICH							
(1)	AM	Aus einem Draht einige Schleifen—windungen bilden und das signal in die Empfänger—schleife abstrahlen.	455kHz, 30% mod. (Modulationsfrequenz 400Hz)	Der Abstimmungspunkt, wo keine Interferenz auftritt (bei ungefähr 600kHz).	Ausgangsleistungsmesser an der AUSSENLAUTSPRECHER-Buchse("EXT")	T3 (1. ZF-Abgleich) T4 (2. ZF-Abgleich) Die maximale Ausgangsleistung einstellen.	
AM-HF-ABGLEICH							
(2)	AM	"	525kHz	Drehkondensator ganz geschlossen.	Ausgangsleistungsmesser parallel zur Lautsprecher-Schwingspule	L6 (Oszillatortrimmer)	Die maximale Ausgangsleistung einstellen. L5 durch Verschieben am Ferritkern abgleichen.
(3)	AM	"	550kHz	Das signal abstimmen.	"	(*1) L5 (Antennenspule)	
(4)	AM	"	1500kHz	"	"	CT3 (Antennen-trimmer)	Die maximale Ausgangsleistung einstellen. Die Schritte (2) und (5) wiederholen.
(5)	AM	"	1605kHz	Drehkondensator ganz aufgedreht.	"	CT4 (Oszillatortrimmer)	
(*1) Nach beendetem Abgleich ist der Antennenspulenkörper mit Wachs zu befestigen.							
FM-ZF-ABGLEICH							
(6)	FM	Den heißen Ausgang über einen 0.001 µF Kondensator an den Meßpunkt  anschließen. Schaltungsnull an  anschließen.	10.7MHz (400kHz wobble)	Der Abstimmungspunkt, wo keine Interferenz auftritt (bei ungefähr 90MHz)	Die vertikale Amplitude des Oszilloskops an den Meßpunkt  anschließen.	T1 (1. FM-ZF-Abgleich)	Zwischen den Eichmarken ± 100kHz die Maximalamplitude und eine gute Linearität einstellen. (Siehe Abb. 6)
(7)	FM	"	"	"	"	T2 (2. FM-ZF-Abgleich)	T2 so abgleichen, daß die 10.7MHz Eichmarke in der Mitte liegt. (Siehe Abb. 7.)
FM-HF-ABGLEICH							
(8)	FM	Über eine künstliche UKW-Antenne an den Meßpunkt  anschließen. Spannungsnull an  anschließen. (Siehe Abb. 8.)	87.5MHz	Drehkondensator ganz geschlossen.	Ausgangsleistungsmesser an der ohrhörerbuchse.	L4 (FM-Ozillatortrimmer)	(*2) Die maximale Ausgangsleistung einstellen.
(9)	FM	"	90MHz	Das signal abstimmen.	"	L3 (FM-Antennenspule)	
(10)	FM	"	106MHz	"	"	CT1 (FM-Antennen-trimmer)	(*2) Die maximale Ausgangsleistung einstellen. Die Schritte (8) und (11) wiederholen.
(11)	FM	"	108MHz	Drehkondensator ganz aufgedreht.	"	CT2 (FM-Oszillatortrimmer)	
(*2)Die Mittelfrequenz abstimmen.							

RX-1280S FRANCAIS

■ SPECIFICATIONS

Généralités:	C.a. 220 á, 50/60Hz Consommation; 8W Piles; 7.5V (Cinq Piles sèches UM-1, dimension)	Branchement REC/PB:	fiche DIN á 5 broches IN; sensibilité 1mV/k Ω OUT: Variable
Puissance de sortie:	Max 2.2W (RMS)	Haut-Parleur:	10cm haut Parleur dynamique á aimant Permanent (4 Ω)
Gamme de fréquence:	100 á 8000Hz	Fréquence radio:	FM 87, 5 á 108 MHz PO; 520 á 1610 kHz (577 á 186m)
Système		Fréquence intermédiaire:	FM; 10, 7 MHz AM; 455 kHz
dénregistrement:	Polarisation C.C, effacement magnétique	Sensibilité:	FM; 2.2 μ V pour une sortie de 50mW PO; 36 μ V/m pour une sortie de 50mW
Vitesse de bande:	4.8cm/sec.	Dimensions	
Pistes:	Enregistrement et lecture mono 2 Pistes, 1 Canal	(lxhxPr) mm:	325x220x115
Sortie:	EXT SP; 4 á 8 Ω	Poids kg:	2.1 sans piles

Les spécifications sont sujettes á des changements sans préavis.

■ SYMBOLES UTILISES DANS LE SCHEMA

1. S1-1 á S1-4.....Commutateur de fonction en position "Bande" (1...FM, 2...AM, 3...Bande)
2. S2-1 á S2-6.....Commutateur enregistrement/lecture en Position "Lecture" (1...Lecture, 3...Enregistrement)
3. S3.....Commutateur, marche/arrêt du moteur en Position "Arrêt"
4. S4.....Sélecteur c.a./c.c.
5. La tension C.C. est mesurée au moyen d'un voltmètre électronique á partir de la ligne de tension négative.
☐Position FM, ()Position AM, < >Position TAPE.
6. Courant des piles. Pas de signal.....35mA
Sortie maximum (Radio).....380mA
Sortie maximum (Radio).....420mA
7. VR1Commande de tonalité. RV2Potentiomètre de volume.
8. Les éléments précédés de la marque Δ ne doivent être remplacés que par des pièces d'origine
(Par mesure de sécurité)

ALIGNEMENTS

■ REGLAGE

AVANT DE PROCEDER AUX ALIGNEMENTS LIRE ATTENTIVEMENT CE QUI. SUIT.

1. Le potentiomètre de volume au maximum.
2. Le sélecteur de bande sur AM (PO) ou FM.
3. Régler la tension sur 7.5V C.C.

4. Régler la sortie du générateur étalonné façon à ne pas surcharger les circuits.

BANDE	GENERATEUR ETALONNE ou GENERATEUR DE BALAYAGE		POSITION DE L'ALIGUILLE SUR LE CABARÁN	INDICATEUR (VOLTMETER ou OSCILLOSCOPE ELECTRO- NIQUES)	REGLAGE	OBSERVATIONS	
	BRANCHEMENTS	FREQUENCE					
ALIGNEMENT FI sur AM							
(1)	PO	Vai une bobine de fil couplée à l'antenne.	455kHz (Modulation de 30% à 400Hz)	Point de non- interférence (à/environ 600kHz)	Voltmètre branché à la prise EXT SP.	T3 (1ère IFT) T4 (2ère IFT) .	Régler pour une sortie maximum.
ALIGNEMENT HF sur PO							
(2)	PO	"	525kHz	Condensateur variable totalement fermé.	"	L6 (Bobine d'oscillateur)	Régler pour une sortie maximum en glissant la bobine L5 le long du noyau en ferrite
(3)	PO	"	550kHz	Syntoniser sur le signal	"	(*1) L5 (Bobine d'antenna PO)	
(4)	PO	"	1500kHz	"	"	CT3 (Timmer d'antenne)	Régler pour une sortie maximum, Refaire les étape (2) et (5).
(5)	PO	"	1605kHz	Condensateur variable ouvert à found	"	CT4 (Trimmer d'oscillateur)	
(*1) Sceller la bobine d'antenne à la cire après avoir achevé l'alignement.							
ALGNEMENT FI sur FM							
(6)	FM	Via un condensateur de 0.001 μF au  au  commun au 	10.7MHz (400kHz SWP.)	Point de non- interférence (à/environ 90MHz)	Brancher la sonde verticale de l'oscilloscope au 	T1 (FM 1ère IFT)	Régler pour une amplitude maximum et une linéarité adéquate entre $\pm$ 100kHz(Voir fig.6.)
(7)	FM	"	"	"	"	T3 (FM 1ère IFT)	Régler T2 de sorte que l'indication 10.7 MHz apparaisse au centre. (Voir fig.7.)
ALIGNEMENT HF sur FM							
(8)	FM	Brancher au  via une antenne fictive FM. Commun au  (Voir fig.8.)	87.5MHz	Condensateur Variable totalement fermé.	Voltmètre à la borne de l'écouteur	L4 (Bobine d'oscillateur FM)	(*2) Régler pour une sortie maximum.
(9)	FM	"	90MHz	Syntoniser sur le signal.	"	L3 (Bobine d'antenne FM)	
(10)	FM	"	106MHz	"	"	CT1 (Trimmer d'oscillateur FM)	(*2) Régler pour une sortie maximum. Refaire les étapes (8)et(11)
(11)	FM	"	108MHz	Condensateur variable ouvert a fond.	"	CT2 (Trimmer d'antenne FM)	
(*2) La syntonisation adéquate est la fréquence du milien.							

ELECTRICAL PARTS LOCATION

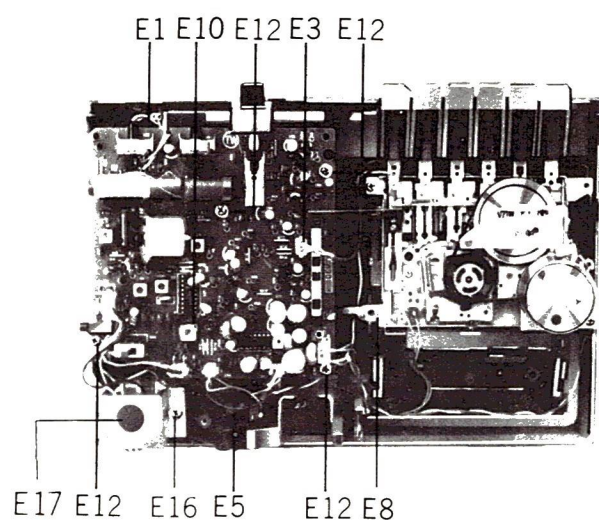


Fig. 14

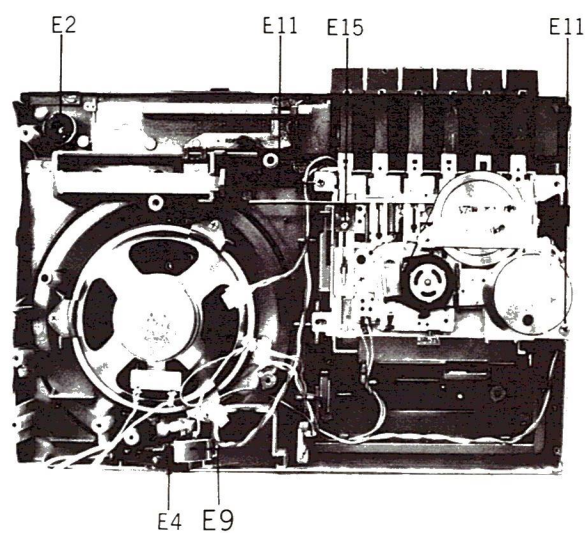


Fig. 13

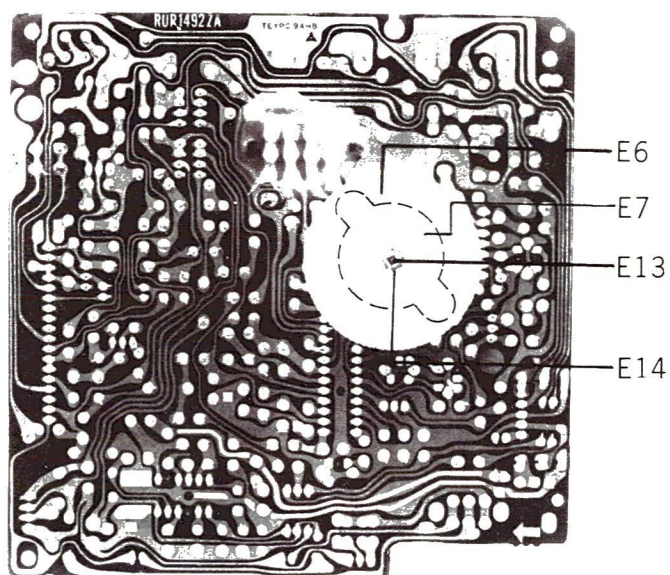


Fig. 15

REPLACEMENT PARTS LIST.....Model RX-1280S (TD82080089C2)

NOTES:

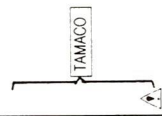
- 1. A indicates that only parts specified by the manufacturer be used for safety.
- 2. The S mark is service standard parts and may differ from production parts.

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
MECHANICAL PARTS				
M1	RJH166Z	Record Playback Head	1	
M2	RJH163Z	Erase Head	1	
M3	RFM107Z	Motor Ass'y with Pulley	1	
M4	RFR7Z	Pinch Roller Ass'y	1	
M5	XSN2+8	Screw, Erase Head M'tg	2	
M6	XSN2+7	Screw, Record/Playback Head M'tg	2	
M7	RFS31Z	Washer, Pinch Roller Ass'y	1	
M8	RFS32Z	Washer, Record/Playback Head	1	
M9	RFS166Z	Spring, Record/Playback, Erase Head	2	
M10	RFE48Z	Head Base	1	
M11	RFS168Z	Spring, Pinch Roller Ass'y	1	
M12	SMQ3950	Screw, Eject Lever M'tg	1	
M13	RFD131Z	Head Panel	1	
M14	RFE39Z	Sleeve, Pinch Roller Arm	1	
M15	RFY172Z	Auto-Stop Detector Lever Ass'y	1	
M16	SMQ3984	Screw, Arm Lever M'tg	1	
M17	RFS167Z	Spring, Take up Roller Ass'y	1	
M18	RFI12Z	Take up Roller Ass'y	1	
M19	RFY122Z	Rec Safety Lever	1	
M20	RFS239Z	Spring, Rec Safety Lever	1	
M21	SMQ3982	Arm Lever	1	
M22	SMQ1908	Screw, Motor M'tg	3	
M23	SMQ1402	Nylon Washer, Flywheel	1	
M24	RFD132Z	Bracket, Motor	1	
M25	RFSS240Z	Spring, Cassette Pressure	1	
M26	SMQ1834	Rubber, Motor	3	
M27	RFT15Z	Chassis Ass'y	1	
M28	RFD133Z	Bracket, Eject	1	
M29	RFY173Z	Eject Lever Ass'y	1	
M30	RFSS241Z	Spring, Eject Lever Ass'y	1	
M31	XTN26+4F	Screw, Motor Bracket and etc M'tg	6	
M32	SMQ3952	Screw, Eject Lever Ass'y	1	
M33	RFB16Z	Main Belt	1	
M35	RFF16Z	Flywheel	1	
M36	SMQ3940	Spring, Operation Plate	1	
M37	SMQ4276	Shaft B, Operation Plate	1	
M38	RFY171Z	Operation Plate Ass'y	1	
M39	XTS26+14G	Screw, Flywheel Bracket M'tg	1	
M40	RFD112Z	Bracket, Flywheel	1	
M41	SMQ3932	Spring, Flywheel Bracket	1	
M42	SMQ2538	Bracket, Flywheel	1	
M43	XTN26+5H	Screw, Switch M'tg	1	
M44	RFP15Y	RF Crutch Ass'y	1	
M45	SMQ4270	Spring, RVD	1	
M46	SMQ4312	Spring, RF Crutch Arm	1	
M47	RFE37Z	Reel Table Ass'y B	1	
M48	SMQ3922	Spring, Main Plate	1	

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
M49	RFY175Z	Main Plate Ass'y	1	
M50	SMQ3918	Spring, FF Gear Plate	1	
M51	RFK6Z	FF Idler Arm	1	
M52	RFG21Z	Center Gear	1	
M53	RFN49Z	Washer, Center Gear	1	
M54	SMQ3908	Spring, Back Tension	1	
M55	RFSS244Z	Spring, Back Tension	1	
M56	RFJ22Z	Take up Reel Ass'y	1	
M57	RFJ23Z	Supply Reel Ass'y	1	
M58	SMQ3914	Washer, Reel Ass'y	2	
M59	SMQ3978	Stopper, Pause Lever	1	
M60	SMQ3976	Spring, Pause Lever	1	
M61	SMQ2444	Pause Lever	1	
M62	RFY176Z	Pause Button Lever Ass'y	1	
M63	SMQ3974	Spring, Pause Button Lever Ass'y	1	
M64	RFY108Z	Stop Button Lever D	1	
M65	SMQ3968	Spring, Button Lever	1	
M66	RFY177Z	FF Button Lever Ass'y	1	
M67	RFY178Z	REW Button Lever Ass'y	1	
M68	RFY179Z	Play Button Lever Ass'y	1	
M69	SMQ3896	Spring, RC	1	
M70	SMQ3962	Spring, Play Button Lever	1	
M71	RFY180Z	REC Button Lever Ass'y	1	
M72	RFS182Z	Spring, REC Button Lever Ass'y	1	
M73	RFD134Z	Button Base Ass'y A	1	
M74	SMQ3934	Nylon Washer, Flywheel	1	
M75	SMQ4374	Spring, FR Button Lever	2	
M76	RFV3Z	Flywheel Block B	1	
M77	XTC2+4C	Screw, Flywheel Block B M'tg	2	
M78	RFE70Z	Screw, Head Panel M'tg	1	
M79	RFN38Z	Spacer, REW Stopper	1	
M80	XTN26+7F	Screw, REW Stopper Spacer M'tg	1	
M81	RBC365Z	Button, Pause	1	
M82	RBC366Z	Button, Stop/Eject	1	
M83	RBC367Z	Button, Fast Forward	1	
M84	RBC368Z	Button, Rewind	1	
M85	RBC369Z	Button, Playback	1	
M86	RBC370Z	Button, Record	1	
M87	XSN2+4	Screw	1	
M88	XWA2B	Washer	1	
M89	RUS448Z	Spring, R/P	1	

INTEGRATED CIRCUIT TRANSISTORS AND DIODES

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
IC1	AN7213	IC	1	
IC2	AN7220A	IC	1	
IC3	1A101	IC	1	
Q1	2SC829C	Transistor (Si)	1	
Q2	2SC1685-Q	Transistor (Si)	1	S
Q3	2SC1685-Q	Transistor (Si)	1	S
Q4	2SC1684S	Transistor (Si)	1	
DL3, 4	RYD1SS53	Diode (Si)	3	
D5	RYDKB265F	Diode (Si)	1	
D6, 7	SM112	Diode (Si)	2	

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks	
COILS AND TRANSFORMERS					
L3 L4 L5 L6 T1,2 T3 T4 T5	RLD4Y54 RI D4Y43 RLF2Y61 RI O2B87 RI I4B153 RLI2B216 RI I2B217 RLT5J6G1A	Antenna Coil, FM Oscillator Coil, FM Antenna Coil, AM Oscillator Coil, AM IFT, FM 1st, 2nd IFT, AM 1st IFT, AM 2nd Power Transformer	1 1 1 1 2 1 1 1		
VARIABLE RESISTORS					
VR1,2	RVV14A141	Variable Resistors, 10KΩ (A) /Volume Control	2		TAMACO
VARIABLE CAPACITOR					
VC1 ~ 4	RCV4LC2VIM	Tuning Capacitor, W/Trimmer Capacitor (CT1 ~ 4)	1		
CERAMIC FILTER					
CF	RVFSFE107MAZ	Ceramic Filter	1		
SPEAKER					
SP	EAS10P81GV	Speaker, 10cm (4") 4Ω	1	TAMACO	
SWITCHES					
S1-1 ~ S1-4 S2-1 ~ S2-6 S3 S4	RST3D16Z QSS6211T RFA21Z RSS2B28Z	Switch, Band TAPE/AM/FM Switch, Rec/Play Switch, Motor Switch, AC/DC	1 1 1 1	TAMACO	
JACK					
J1 J2	RJJ19Y RJS139Z	Jack, FXT Speaker Jack, Din	1 1		
RESISTORS (Value is in OHMS)					
R55, 59 R1, 76 R12, 69, 71 R6, 8, 14, 68, 70, 78 R4, 81 R80 R51 R2, 57 R7 R79 R10, 67, 72, 73 R52 R62, 64, 74	ERD25FJ100 ERD25FJ220 ERD25FJ470 ERD25FJ101 ERD25FJ221 ERD25FJ331 ERD25FJ471 ERD25FJ681 ERD25FJ102 ERD25FJ122 ERD25FJ222 ERD25FJ272 ERD25FJ332	10 1/4 W Carbon 22 1/4 W Carbon 47 1/4 W Carbon 100 1/4 W Carbon 220 1/4 W Carbon 330 1/4 W Carbon 470 1/4 W Carbon 680 1/4 W Carbon 1K 1/4 W Carbon 1.2K 1/4 W Carbon 2.2K 1/4 W Carbon 2.7K 1/4 W Carbon 3.3K 1/4 W Carbon	2 2 3 6 2 1 1 2 1 1 4 1 3	S S S S S S S S S S S S S	

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
R56, 75	ERD25FJ472	4.7K 1/4W Carbon	2	S
R13	ERD25FJ682	6.8K 1/4W Carbon	1	S
R63, 66	ERD25FJ822	8.2K 1/4W Carbon	2	S
R61	ERD25FJ103	10K 1/4W Carbon	1	S
R54	ERD25FJ183	18K 1/4W Carbon	1	S
R9, 77	ERD25FJ473	47K 1/4W Carbon	2	S
R5	ERD25FJ104	100K 1/4W Carbon	1	S
R65	ERD25TJ184	180K 1/4W Carbon	1	S
R58	ERD25TJ564	560K 1/4W Carbon	1	S
R53	ERD25TJ105	1M 1/4W Carbon	1	S
CAPACITORS (Value is in MICRO FARADS except P.P = PICO FARADS)				
C2	ECCDIH020C	2P 50V Ceramic	1	
C11, 14	ECCDIH070DC	7P 50V Ceramic	2	
C5	ECCDIH100KC	10P 50V Ceramic	1	
C9, 13	ECCDIH150KC	15P 50V Ceramic	2	
C4	ECCDIH180KC	18P 50V Ceramic	1	
C1, 30, 60	ECCDIH470KC	47P 50V Ceramic	3	
C70	ECCDIH820K	82P 50V Ceramic	1	
C84, 85, 87, 88	ECCDIH101K	100P 50V Ceramic	4	
C3, 12, 17, 32, 33, 34	ECCDIH331K	330P 50V Ceramic	6	
C72	ECKDIH471KB	470P 50V Ceramic	1	
C53	ECKDIH681KB	680P 50V Ceramic	1	
C6, 8, 10, 67	ECKDIH102MD	0.001 50V Ceramic	4	
C16, 57	ECKDIH102ZF	0.01 50V Ceramic	2	
C28	ECKDIH222MD	0.0022 50V Ceramic	1	
C64	ECKDIH472MD	0.0047 50V Ceramic	1	
C7, 15, 24	ECKDIH103MD	0.01 50V Ceramic	3	
C25, 54	ECFVD103MD	0.01 25V Semi-Conductor	2	
C80, 81	ECKDIH103ZF	0.01 50V Ceramic	2	
C82	ECQG05103MZ	0.01 50V Polystyrene	1	
C18	ECFVD222MD	0.022 25V Semi-Conductor	1	
C22	ECKDIH223ZF	0.022 50V Ceramic	1	
C31	ECFVD333MD	0.033 25V Semi-Conductor	1	
C51	ECKDIH333MD	0.033 50V Ceramic	1	
C52	ECFVD333MD	0.033 25V Semi-Conductor	1	
C23, 26	ECFVD473MD	0.047 25V Semi-Conductor	2	
C74	ECEA50ZRI	0.1 50V Electrolytic	1	S
C78	ECQG05104MZ	0.1 50V Polystyrene	1	
C89	ECQG05224MZ	0.22 50V Polystyrene	1	S
C27, 61	ECEA50ZR33	0.33 50V Electrolytic	2	S
C29, 56, 59, 62, 66	ECEA1HS010	1 50V Electrolytic	5	S
C20	ECEA1CSI00	10 16V Electrolytic	1	S
C19, 68	ECEA0JS330	33 6.3V Electrolytic	2	S
C21, 55	ECEA0JS470	47 6.3V Electrolytic	2	S
C58	ECEA0JS101	100 6.3V Electrolytic	1	S
C73, 86	ECEA1AS101	100 10V Electrolytic	2	S
C69	ECEA0JS221	220 6.3V Electrolytic	1	S
C71, 75, 79	ECEA1AS221	220 10V Electrolytic	3	S
C65, 77	ECEA0JS471	470 6.3V Electrolytic	2	S
C76	ECEA1AS102	1000 10V Electrolytic	1	S

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
CABINET PARTS				
K1	RYMX1280SXG	Front Cabinet Ass'y	1	TAMACO
K2	RMS40Z	Bracket, Speaker	3	
K3	RJC115Z	Terminal, Battery ⊖ Side	1	
K4	RJC114Z	Terminal, Battery ⊕ Side	1	
K5	RYFX1280SXG	Rear, Cabinet Ass'y	1	
K6	XEARK228EA	Telescopic Antenna	1	
K7	RKK215Z	Battery, Cover	1	
K8	RJT754Z	Terminal, Telescopic Antenna	1	
K9	RDP841Z	Pointer, Dial	1	
K10	RDG5698Z	Gear, Tuning	1	
K11	RYTX1280SXG	Tuning Knob Ass'y	1	TAMACO
K12	RBC371Z	Knob, Band	1	
K13	RBN596Z	Knob, Tone & Volume	2	
K14	XSB3 + 6BNS	Screw	1	
K15	XTB3 + 10BFN	Screw	1	
K16	XTN3 + 10C	Screw	3	
K17	XTW3 + 12C	Screw	2	
K18	XTB3 + 30CFN	Screw	2	
K19	RKX165Y	Space, Handle	1	
K20	QBP1817	Stopper, Handle	2	
K21	RKX198Z	Arm, Handle	2	TAMACO
K22	RKX230Z	Handle	1	
K24	RYQX1280SXG	Cassette Cover Ass'y	1	
K25	RUS438TZ	Spring	1	
K26	RUS441X	Spring	1	
K27	RGB274Z	Badge	1	
ELECTRICAL PARTS				
E1	RJM142Y	Microphone	1	TAMACO
E2	QBG1526	Rubber, Microphone	1	
E3	RJP3G1Z	Plug (3P) Connector	1	TAMACO
E4	RHR108A	Terminal, AC	1	
E5	RJA23Z	Cord, AC	1	
E6	RDG5806Z	Gear, Drum	1	
E7	RDE114Z	Space, Gear	1	
E8	RJT739Z	Terminal, Telescopic Antenna	1	
E9	RJC940Z	Terminal, Battery ⊕ & ⊖ Side	1	
E10	RMC163	Cover, Shield	1	
E11	XTN3 + 10C	Screw, Deck M'lg	2	
E12	XTW3 + 12FR	Screw, PC Board	4	
E13	XSN26 + 6	Screw, Gear Drum	1	TAMACO
E14	XWC26B	Warsher, Gear Drum	1	
E15	XWA2B	Warsher, R/P Lever	1	
E16	RMK144Z	Fixture, Din Jack	1	
ACCESSORY				
	XEH1A1-P	Earphone	1	S
PACKING MATERIALS				
	RPP227TZ	Polyethylene Cover	1	TAMACO
	RPNA1005TZ	Pad Complete	1	
	RPK229TV	Gift Box	1	TAMACO
PRINTED MATERIAL				
	RQX275TV	Instruction Book	1	TAMACO