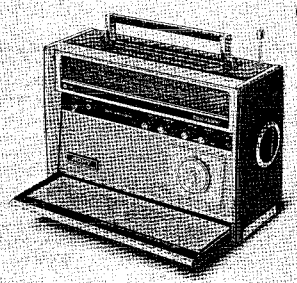
ISO

Set using ISO screws

CRF-5080

GEP Model
General Export Model



SPECIFICATIONS

Circuit System: 13-transistor 8-diode superheterodyne
6-transistors and 1 diode for auxiliary circuit

Frequency Coverage:

FM	87.5 – 108 MHz	(3.42 – 2.78 m)
LW	150 – 400 kHz	(2,000 – 750 m)
MW	530 – 1,605 kHz	(566 – 187 m)
SW1	1.6 – 3.5 MHz	(187 – 86 m)
SW2	3.5 – 9.0 MHz	(86 – 33 m)
SW3	9.0 – 14.0 MHz	(33 – 21 m)
SW4	14 – 21 MHz	(21 – 14 m)
SW5	21 – 26 MHz	(14 – 11 m)

Intermediate Frequency: FM 10.7 MHz
LW/MW/SW 455 kHz

Antenna System:

FM	telescopic antenna or external antenna (impedance 75 Ω
LW/MW	built-in ferrite bar antenna or external antenna (high impedance)
SW	telescopic antenna or external antenna (high impedance)

Sensitivity
at 50 mW output, S/N 6 dB:

FM	0.7 μV (–3 dB)
LW	63 μV/m (36 dB/m)
MW	24 μV/m (27 dB/m)
SW1	1.2 μV/ (1 dB)
SW2	1 μV (0 dB)
SW3	1 μV (0 dB)
SW4	1.2 μV (1 dB)
SW5	1.3 μV (2 dB)

Selectivity
at ± 10 kHz off-resonance: 35 dB at 1,400 kHz

Power Output
at 10 % distortion: 1.8 W
maximum: 2.7 W

Current Drain
at zero signal: FM 40 mA, MW 35 mA
maximum: 320 mA

Power Requirement: DC eight "D" size flashlight batteries
12 volts or car battery by using SONY car battery cord DCC-2AW
AC house current 100 V, 120 V, 220 V or 240 VAC; 50 Hz or 60 Hz

Speaker: 10 cm x 15 cm (4" x 6"), 8 Ω

Dimensions: 340 mm (W) x 230 mm (H) x 160 mm (D)
(13 3/4" x 9 1/16" x 6 5/16")

Weight: 6.6 kg (14 lb 9 oz) overall with batteries

SONY®

SERVICE MANUAL

TABLE OF CONTENTS

Hardware Nomenclature

P – Pan Head Screw
K – Flat Countersunk Head Screw
B – Binding Head Screw
RK – Oval Countersunk Head Screw
T – Truss Head Screw
R – Round Head Screw
F – Flat Fillister Head Screw
SC – Set Screw

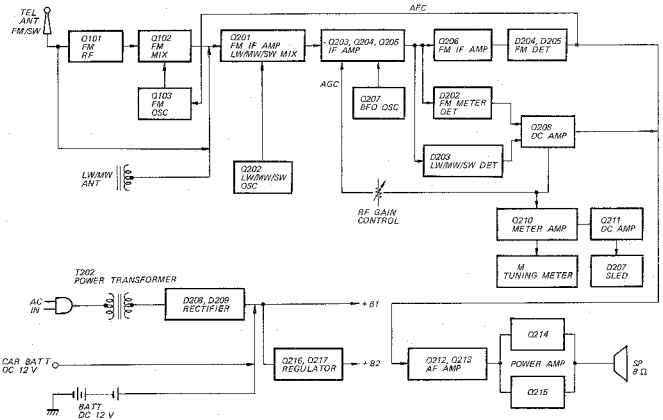
E – Retaining Ring (E Washer)
W – Washer
SW – Spring Washer
LW – Lock Washer
N – Nut

Example: ⊕ P 3 x 10
- P: Type of Head
- 3: Diameter in mm (D)
- 10: Length in mm (L)

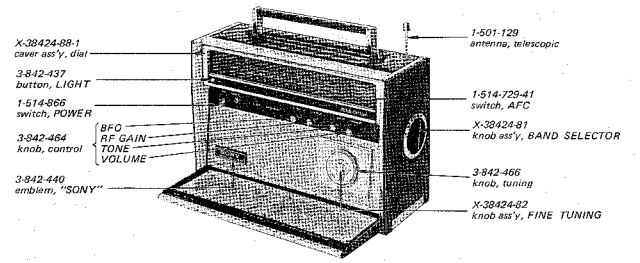
When ordering replacement parts, you should use PART NUMBER listed on the Parts List or shown in the EXPLODED VIEW. The reference number should not be used for ordering purposes.

SECTION 1
OUTLINE

1-1. BLOCK DIAGRAM



1-2. EXTERNAL VIEW



SECTION 2
DISASSEMBLY AND REASSEMBLY

2-1. FRONT PANEL REMOVAL

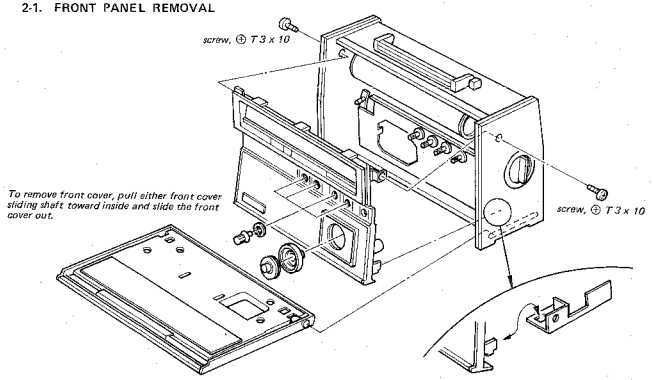


Fig. 2-1.

2-2. CHASSIS REMOVAL

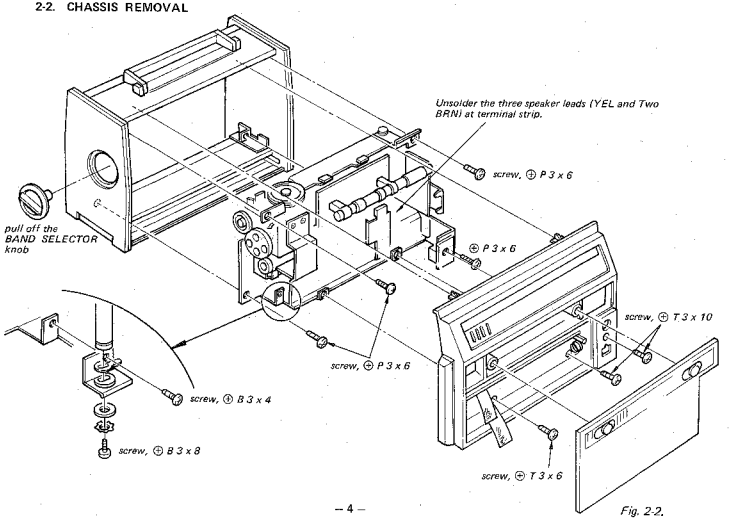
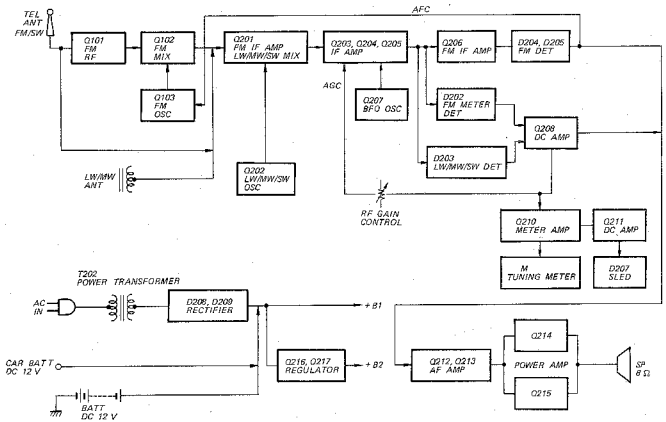


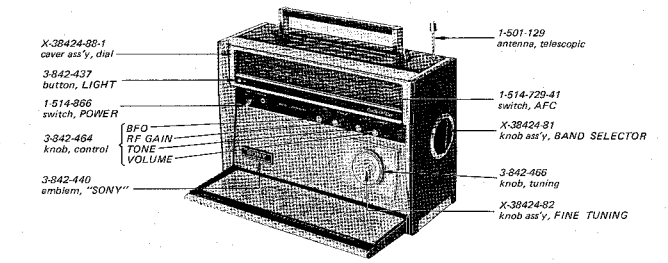
Fig. 2-2.

SECTION 1
OUTLINE

1-1. BLOCK DIAGRAM



1-2. EXTERNAL VIEW



SECTION 2
DISASSEMBLY AND REASSEMBLY

2-1. FRONT PANEL REMOVAL

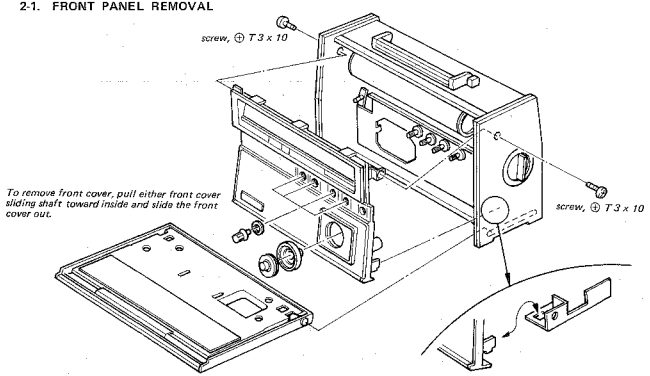


Fig. 2-1.

2-2. CHASSIS REMOVAL

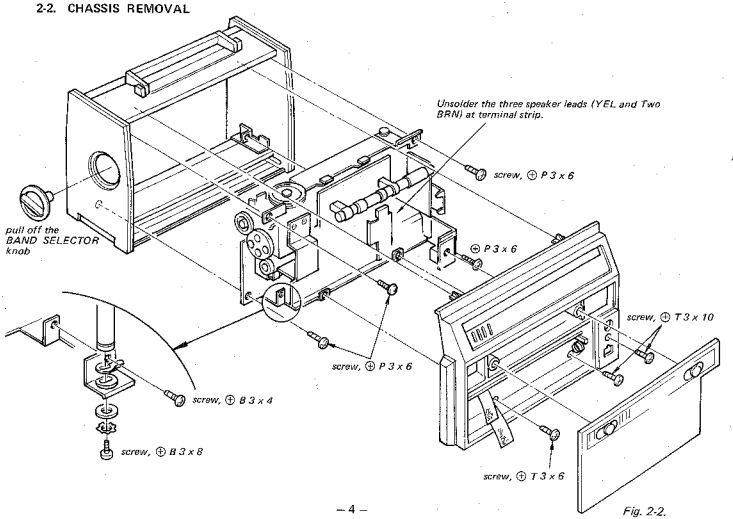


Fig. 2-2.

2-3. FM FRONT END REMOVAL

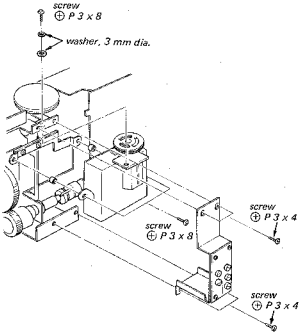


Fig. 2-3.

2-4. FM FRONT END REASSEMBLY

1. Rotate the dial drum fully clockwise and the double gear ass'y fully counterclockwise.
2. Set the fm front end with three screws. See Fig. 2-3. above.

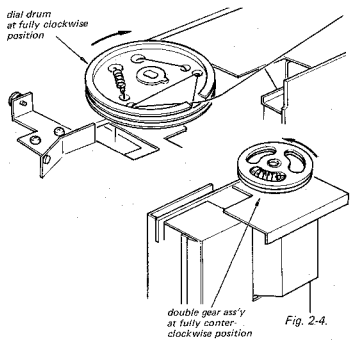


Fig. 2-4.

2-5. DIAL SCALE REASSEMBLY

1. Rotate the BAND SELECTOR knob fully clockwise.
2. Set the dial drum adjusting the two machine screws Ⓐ so that it shows FM band and that the tip of the pointer is on the line of FM band as shown in Fig. 2-6.

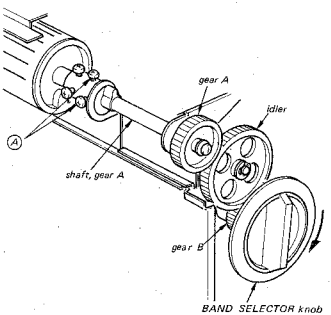


Fig. 2-5.

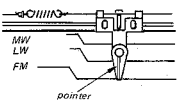


Fig. 2-6.

2-6. CIRCUIT BOARD REMOVAL

1. Remove the chassis.
2. Unsolder the 13 wires and capacitor lead shown in Fig. 2-7.
3. Remove the connector A from the band selector switch shaft by wedging with a slot screwdriver in the direction shown by the arrow in Fig. 2-8.
4. Remove the two screws.
5. Remove the circuit board in the direction shown by the arrow in Fig. 2-7.
6. The removed circuit board is shown in Fig. 2-9.

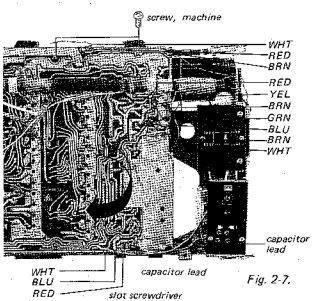


Fig. 2-7.

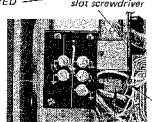


Fig. 2-8.

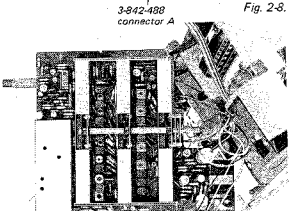


Fig. 2-9.

2-7. DIAL CORD STRINGING

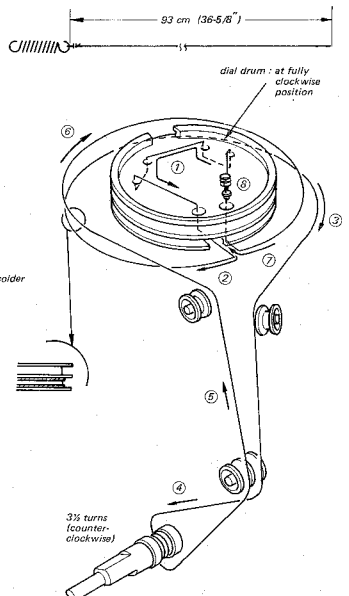


Fig. 2-10.

Pointer Driving Cord

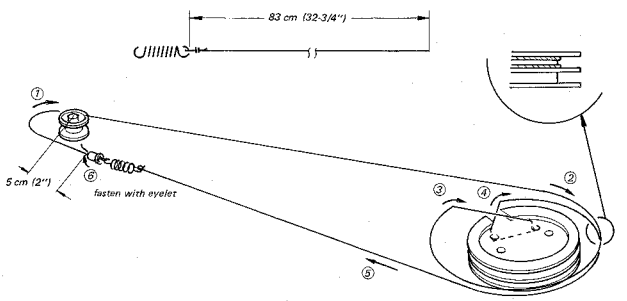


Fig. 2-11.

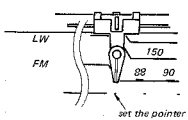


Fig. 2-12.

SECTION 3
CIRCUIT ADJUSTMENTS

Test Equipment/Tools Required:

Rf signal generator (for fm and a-m)
Loop antenna
VTVM
8 Ω resistor
0.01 μF ceramic capacitor
Screwdriver for alignment

Preparation

VTVM Connection:
To EARPHONE jack with 8 Ω load resistor in parallel

Modulation:
FM 400 Hz, ±22.5 kHz frequency-modulated signal
AM 400 Hz, 30-% amplitude-modulated signal

VOLUME Control Setting: Mechanical mid position

TONE Control Setting: Mechanical mid position

AFC Switch: OFF

BFO Control Setting: OFF

RF Gain Control Setting: NORMAL

3-1. FM IF ALIGNMENT

Setup is shown in Fig. 3-1.
Set the POWER switch to ON.
Set the BAND SELECTOR to FM.

Connect the rf signal generator to the FM ext ant terminal after detaching antenna lug as shown in Fig. 3-2.

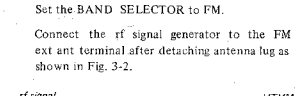


Fig. 3-1. FM i-f alignment, frequency coverage and tracking adjustment setup

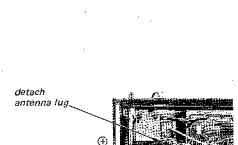


Fig. 3-2. Rf signal generator coupling

Rf Signal Generator Frequency	Rf Signal Modulation	Adjust	Remarks
10.7 MHz	400 Hz, 30% a-m modulation	IFT F-4 See Fig. 3-6.	Adjust for minimum meter reading(*1).
10.7 MHz	400 Hz, ±22.5 kHz fm modulation	IFT F101 IFT F-2(*2) IFT F-3 See Fig. 3-4 and Fig. 3-6.	Set the tuning knob at the best signal position. Adjust for maximum meter reading.

Note: *1. Minimum output will be observed at both extremes of the discriminator. The real null point will be obtained in the middle of the core thread length and maximum output will be obtained at both sides of the true null point. Slowly and carefully turn the core to obtain minimum output.

*2. IFT F-2 is unable to adjust from rear part of the set. Remove the front panel and adjust IFT F-2 from front part. (See Fig. 3-4).

3-2. AM IF ALIGNMENT

A-m i-f alignment can be eliminated except when necessary. The ceramic filter CFT is factory preset and i-f transformer IFT A1 is shielded by shield case. The intermediate frequency of the set is characterized by the ceramic filter because a ceramic filter has a peculiar vibrating frequency which depends on its size.

Preparation:

POWER switch : ON
BAND SELECTOR : MW
BFO switch : OFF
Rf Signal Generator Coupling:
Loop antenna (See Fig. 3-3)
Modulation:
400 Hz 30 % amplitude-modulated signal

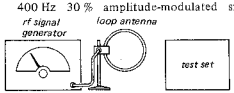


Fig. 3-3. A-m i-f alignment and bfo osc coil adjustment setup

Modulate the rf signal with 400 Hz a-m modulation. Vary the rf signal around 455 kHz to find i-f frequency of the set. The dial of the rf signal generator shows i-f frequency of the set when the output power of the speaker becomes maximum. If the peak of the output power is not found around 455 kHz, adjust the ceramic filter cores after removing front panel and dial drum as shown in Fig. 3-4.

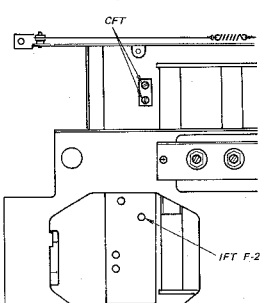


Fig. 3-4. Adjustment locations

3-3. BFO OSC COIL ADJUSTMENT

Preparation:

POWER switch: ON
BAND SELECTOR: MW
BFO switch: ON
BFO Control Setting:
Mechanical mid position as shown in Fig. 3-5.
Rf Signal Generator Coupling: Loop antenna
Setup: See Fig. 3-3.

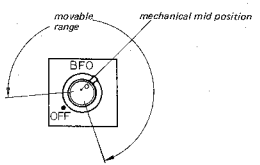


Fig. 3-5. BFO control setting

Rf Signal Generator Frequency	Adjust	Remarks
455 kHz unmodulated signal (*)	BFO osc coil L220 See Fig. 3-6.	Adjust for zero beating.

Note: (*) Tune the rf signal generator frequency to the i-f frequency of the set which is found in AM IF ALIGNMENT.

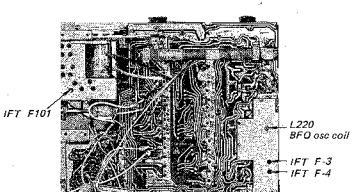


Fig. 3-6. Adjustment locations

3-4. FREQUENCY COVERAGE AND TRACKING ADJUSTMENT

Setup: FM See Fig. 3-7.
LW/MW See Fig. 3-8.
SW1 ~ 5 See Fig. 3-7.

Note: Fully telescope the telescopic antenna.

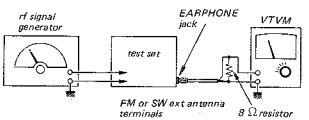


Fig. 3-7. FM/SW1 ~ 5 frequency coverage and tracking adjustment setup

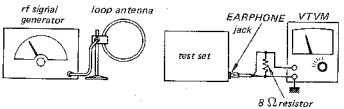


Fig. 3-8. LW/MW frequency coverage and tracking adjustment setup

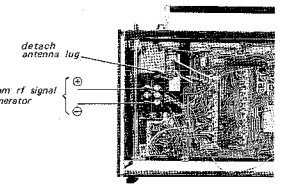


Fig. 3-9. SW1 ~ 5 rf signal generator coupling

Note: In West Germany the FM frequency coverage should be within the range between 87.5 MHz and 108 MHz. Make the frequency coverage by adjusting osc coil L106 and osc trimmer CT105 with the intended frequency signal from the rf signal generator.

Adjustment	Rf Signal Generator Coupling	Rf Signal Generator Frequency	Receiver Pointer Setting	Adjust	Remarks
FM Frequency Coverage	To FM ext ant terminal by detaching ant lug (See Fig. 3-2)	86.5 MHz	Fully left	FM osc coil L106	BAND SELECTOR : FM Adjust for maximum meter reading.
		109.5 MHz	Fully right	FM osc trimmer CT105	
FM Tracking		86.5 MHz	Tune to 86.5 MHz signal	FM ant coil L101 FM rf coil L103	
		109.5 MHz	Tune to 109.5-MHZ signal	FM ant trimmer CT101 FM rf trimmer CT103	
MW Frequency Coverage	Loop antenna (See Fig. 3-8)	520 kHz	Fully left	MW osc coil L202	BAND SELECTOR : MW Adjust for maximum meter reading.
		1,680 kHz	Fully right	MW osc trimmer CT202	

Adjustment	Rf Signal Generator Coupling	Rf Signal Generator Frequency	Receiver Pointer Setting	Adjust	Remarks
MW Tracking	Loop antenna	620 kHz	Tune to 620 kHz signal	Position of MW ant coil L210	BAND SELECTOR : MW Adjust for maximum meter reading.
		1,400 kHz	Tune to 1,400-kHz signal	MW ant trimmer CT209	
LW Frequency Coverage	Loop antenna (See Fig. 3-8).	145 kHz	Fully left	LW osc coil L201	BAND SELECTOR : LW Adjust for maximum meter reading.
		410 kHz	Fully right	LW osc trimmer CT201	
LW Tracking		160 kHz	Tune to 160 kHz signal	Position of LW ant coil L208	
		360 kHz	Tune to 360 kHz signal	LW ant trimmer CT208	
SW1 Frequency Coverage	To SW ext ant terminals (See Fig. 3-9)	1.55 MHz	Fully left	SW1 osc coil L203	BAND SELECTOR : SW1 Adjust for maximum meter reading.
		3.6 MHz	Fully right	SW1 osc trimmer CT203	
SW1 Tracking		1.55 MHz	Tune to 1.55 MHz signal	SW1 ant coil L211	
		3.6 MHz	Tune to 3.6 MHz signal	SW1 ant trimmer CT210	
SW2 Frequency Coverage	– ditto –	3.4 MHz	Fully left	SW2 osc coil L204	BAND SELECTOR : SW2 Adjust for maximum meter reading.
		9.2 MHz	Fully right	SW2 osc trimmer CT204	
SW2 Tracking		3.4 MHz	Tune to 3.4 MHz signal	SW2 ant coil L212	
		9.2 MHz	Tune to 9.2 MHz signal	SW2 ant trimmer CT211	
SW3 Frequency Coverage	– ditto –	8.9 MHz	Fully left	SW3 osc coil L205	BAND SELECTOR : SW3 Adjust for maximum meter reading.
		14.3 MHz	Fully right	SW3 osc trimmer CT205	
SW3 Tracking		8.9 MHz	Tune to 8.9 kHz signal	SW3 antcoil L213	
		14.3 MHz	Tune to 14.3 kHz signal	SW3 ant trimmer CT212	

Adjustment	Rf Signal Generator Coupling	Rf Signal Generator Frequency	Receiver Pointer Setting	Adjust	Remarks
SW4 Frequency Coverage	To SW ext ant terminals (See Fig. 3-9)	13.8 MHz	Fully left	SW4 osc coil L206	BAND SELECTOR : SW4 Adjust for maximum meter reading.
		21.4 MHz	Fully right	SW4 osc trimmer CT206	
SW4 Tracking		13.8 MHz	Tune to 13.8 MHz signal	SW4 ant coil L214	
		21.4 MHz	Tune to 21.4 MHz signal	SW4 ant trimmer CT213	
SW5 Frequency Coverage	– ditto –	20.7 MHz	Fully left	SW5 ant coil L207	BAND SELECTOR : SW5 Adjust for maximum meter reading.
		27 MHz	Fully right	SW5 osc trimmer CT207	
SW5 Tracking		20.7 MHz	Tune to 20.7 MHz signal	SW5 ant coil L215	
		27 MHz	Tune to 27 MHz signal	SW5 ant trimmer CT214	

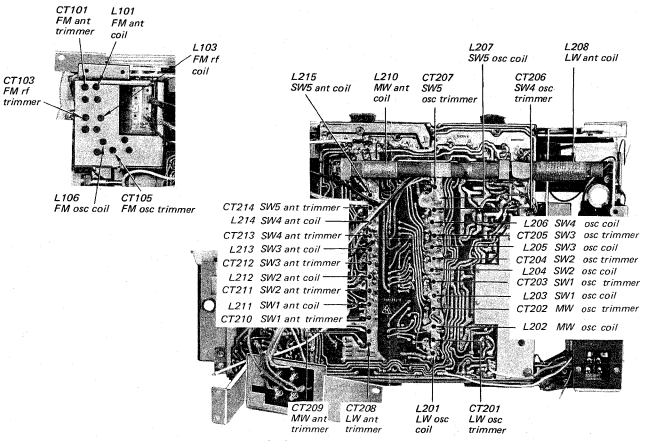
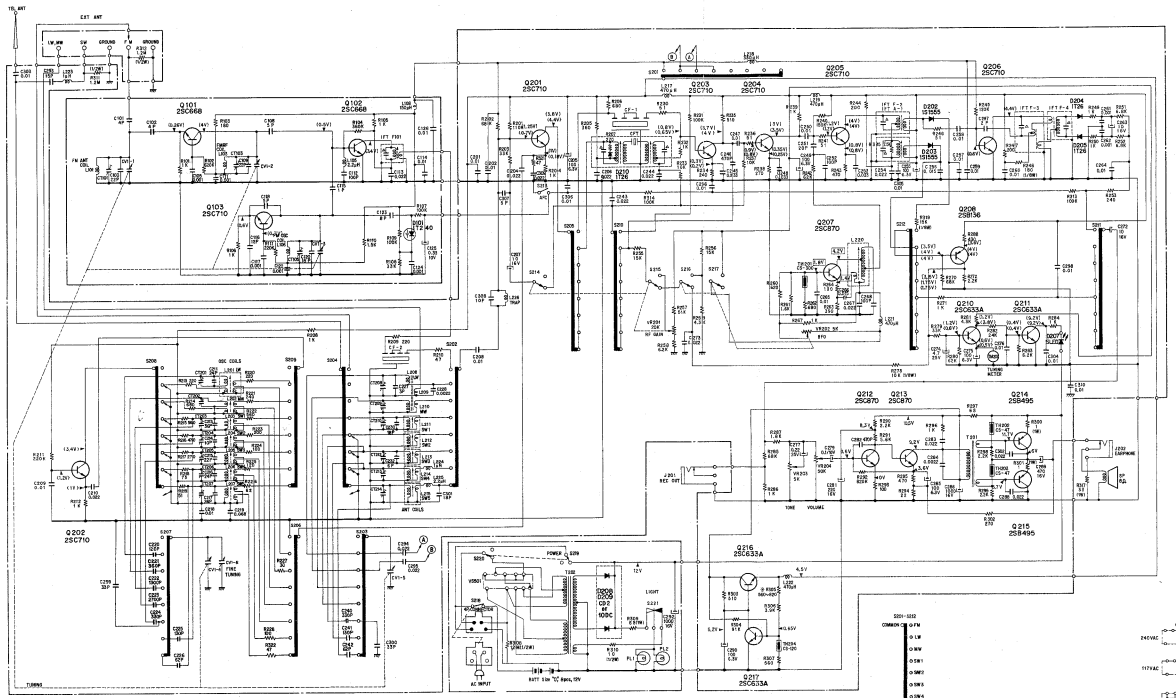


Fig. 3-10. Adjustment locations

SECTION 4
DIAGRAMS

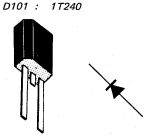
4-1. SCHEMATIC DIAGRAM



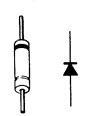
Notes:

1. All resistance values in Ω and all capacitance values in μF unless otherwise noted.
2. All voltages measured to ground circuit with a dc voltmeter with no signal received. Variations may be noted due to normal production tolerances.
3. The values in ( ) measured with band selector set to FM, in < > MW and in ▭ MW with BFO control set to ON.
4. Capacitors marked △ built in i-f transformers and ceramic filter.

D101 : 1T240



D201, D204, D205, D210 : 1T26
D202, D203 : 1S1555



D208, D209 : CD2 or 10DC

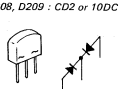
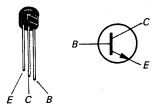


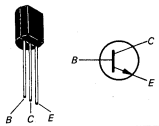
Fig. 4-1.

4-2. MOUNTING DIAGRAM

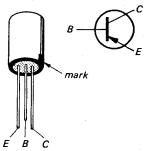
Q101, Q102 : 2SC668



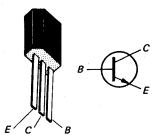
Q103, Q201-Q206 : 2SC710
Q207, Q213 : 2SC870



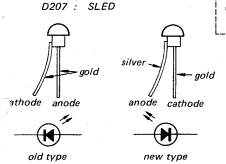
Q208 : 2SB136
Q214, Q215 : 2SB495



Q210-Q212, Q216, Q217 : 2SC633A



D207 : SLED



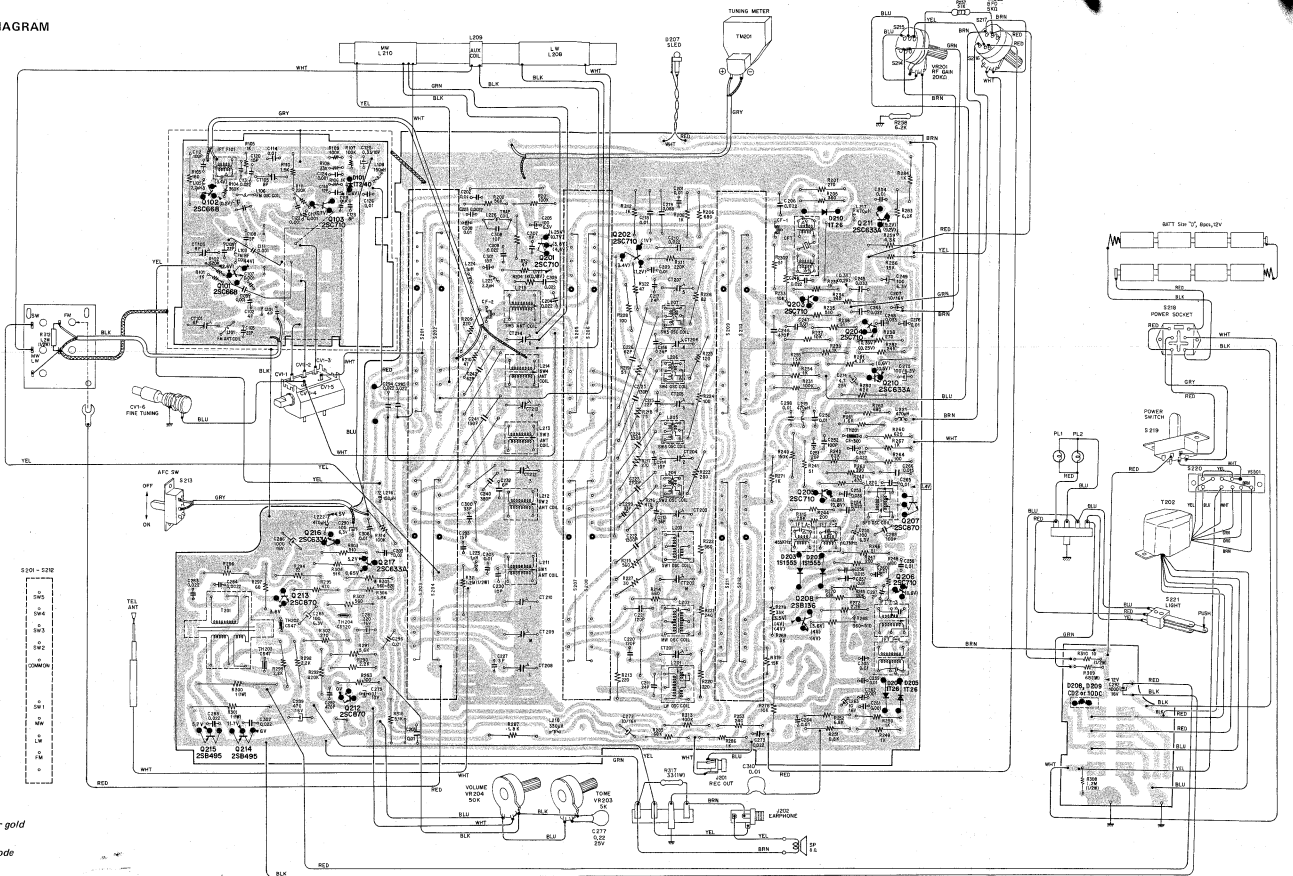


Fig. 4-2.

SECTION 5
EXPLODED VIEW AND PACKING

5-1. EXPLODED VIEW (1)

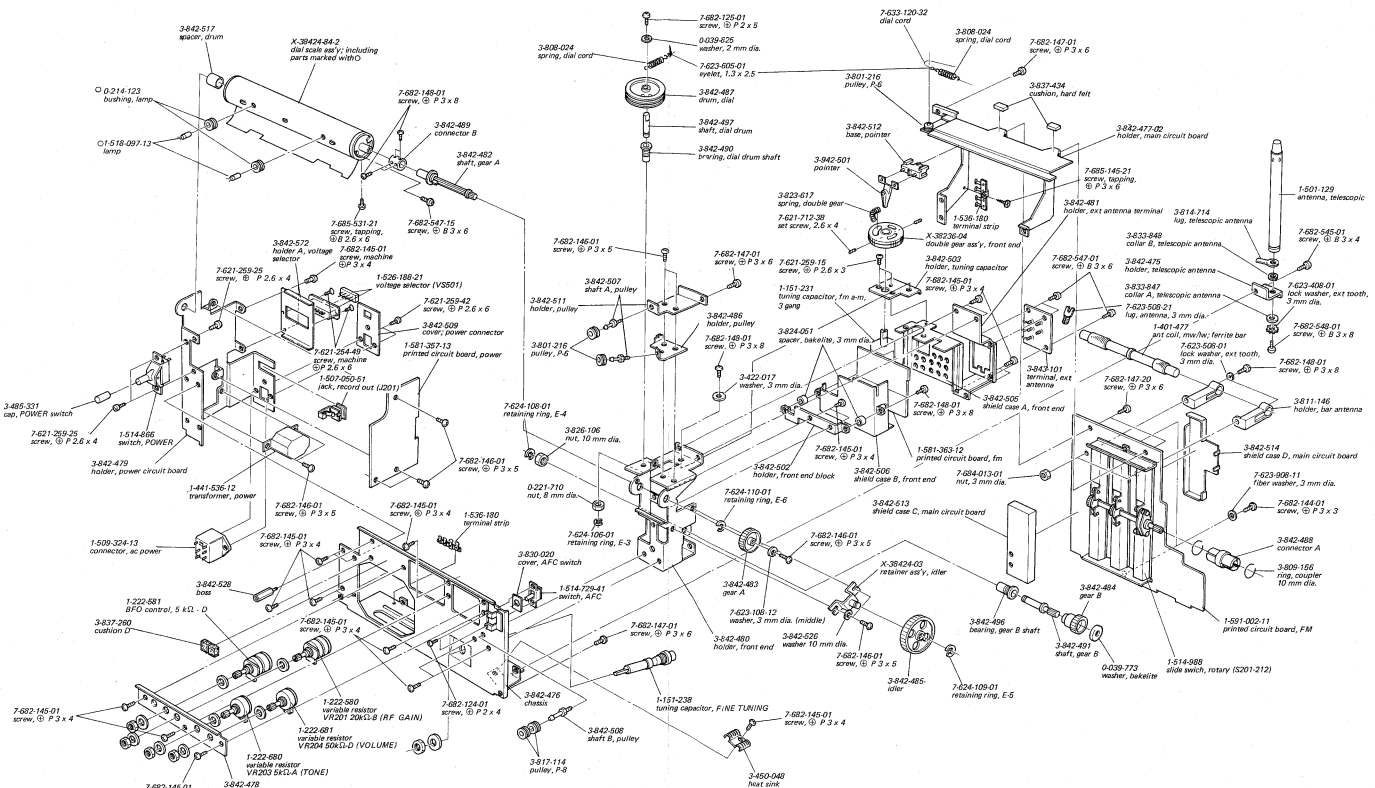


Fig. 5-1.

5-2. EXPLODED VIEW (2)

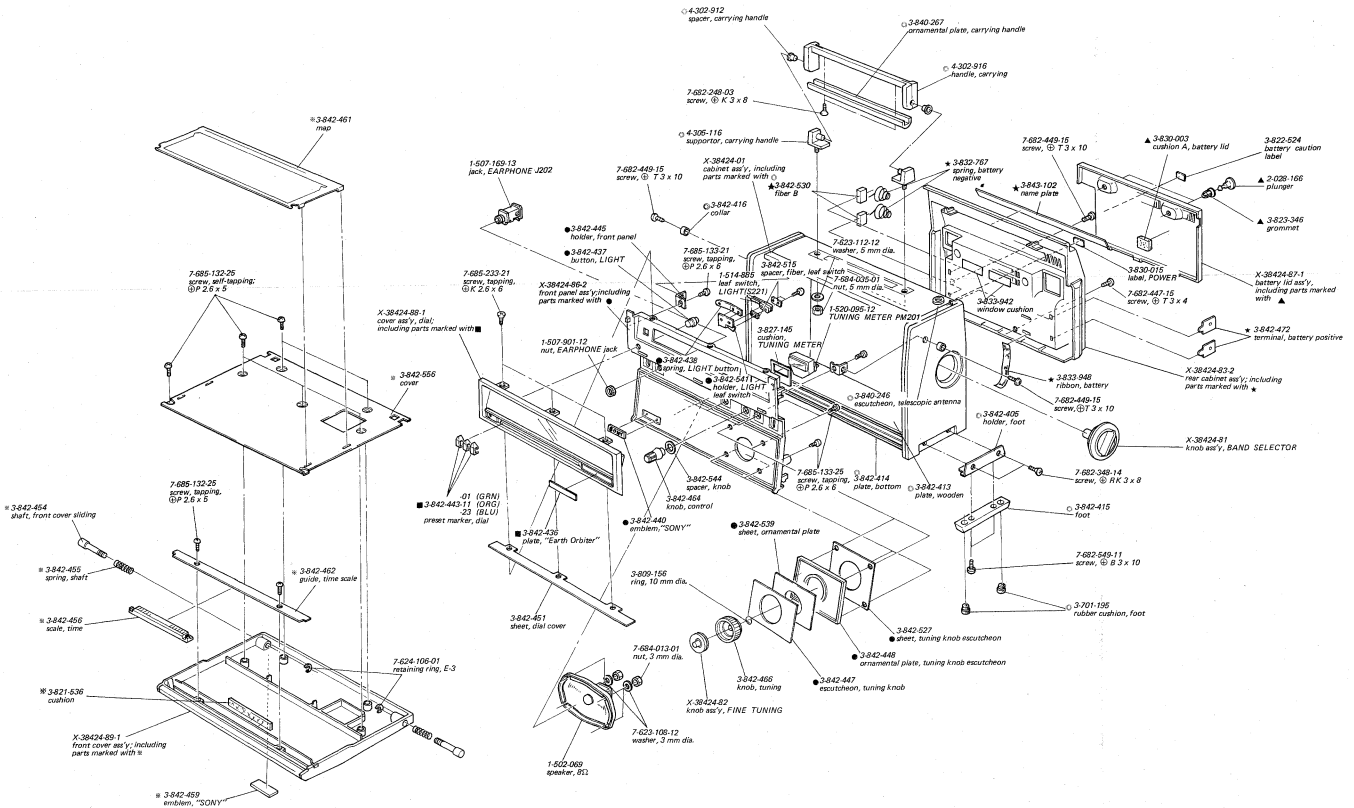


Fig. 5-2.

5-3. PACKING

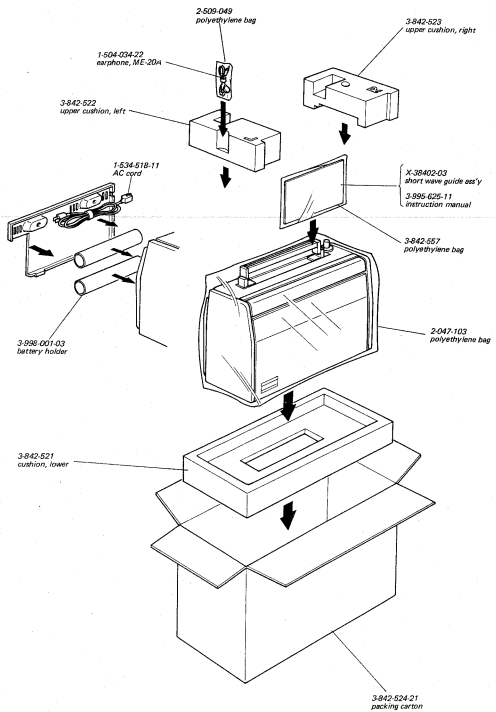


Fig. 5-3.

SECTION 6
ELECTRICAL PARTS LIST

Ref. No.	Part No.	Description	
		SEMICONDUCTORS	
Q101		transistor	2SC668
Q102		transistor	2SC668
Q103		transistor	2SC710
Q201		transistor	2SC710
Q202		transistor	2SC710
Q203		transistor	2SC710
Q204		transistor	2SC710
Q205		transistor	2SC710
Q206		transistor	2SC710
Q207		transistor	2SC870
Q208		transistor	2SB136
Q209		.....	
Q210		transistor	2SC633A
Q211		transistor	2SC633A
Q212		transistor	2SC633A
Q213		transistor	2SC870
Q214		transistor	2SB495
Q215		transistor	2SB495
Q216		transistor	2SC633A
Q217		transistor	2SC633A
D101		diode	1T240
D201		diode	1T26
D202		diode	1S1555
D203		diode	1S1555
D204		diode	1T26
D205		.....	
D206		diode	1T26
D207		diode	SLED
D208-D209		diode	CD-2 or 10DC
D210		diode	1T26
TH201	8-690-005	thermistor	CS300
TH202	8-691-002-11	thermistor	CS47
TH203	8-691-002-11	thermistor	CS47
TH204	8-691-001-11	thermistor	CS120

Ref. No.	Part No.	Description	
		COILS AND TRANSFORMERS	
L101	1-425-350	ant coil,	fm
L102		.....	
L103	1-425-350	rf coil,	fm
L104		.....	
L105	1-407-182	2.2 μH,	micro inductor
L106	1-405-503	osc coil,	fm
L107		.....	
L108	1-407-171	150 μH,	micro inductor
L201	1-405-497	osc coil,	lw
L202	1-405-399	osc coil,	mw
L203	1-405-451	osc coil,	sw 1
L204	1-405-498	osc coil,	sw 2
L205	1-405-499	osc coil,	sw 3
L206	1-405-500	osc coil,	sw 4
L207	1-405-501	osc coil,	sw 5
L208, L209, L210	1-401-477-12	ant coil,	mw/lw; ferrite bar
L211	1-401-373	ant coil,	sw 1
L212	1-401-478	ant coil,	sw 2
L213	1-401-479	ant coil,	sw 3
L214	1-401-480	ant coil,	sw 4
L215	1-401-481	ant coil,	sw 5
L216		.....	
L217	1-407-177	470 μH,	micro inductor
L218	1-407-175	330 μH,	micro inductor
L219	1-407-177	470 μH,	micro inductor
L220	1-405-502	osc coil,	bfo
L221	1-407-177	470 μH,	micro inductor
L222	1-407-177	470 μH,	micro inductor
L223	1-407-178	1 μH,	micro inductor
L224	1-407-178	1 μH,	micro inductor
L225	1-407-182	2.2 μH,	micro inductor
L226	1-401-201	trap coil	
L227		.....	
IFT F101	1-403-242-15	transformer,	fm i-f
IFT F-2	1-403-555	transformer,	fm i-f
IFT F-3	1-403-287-11	transformer,	fm discriminator; primary
IFT F-4	1-403-287-21	transformer,	fm discriminator; secondary
IFT A-1	1-403-174	transformer,	a-m i-f
CF1	1-527-184-11, 1-527-184-15	ceramic fitler,	fm i-f
CF2	1-527-184-11, 1-527-184-15	ceramic filter,	fm i-f
CFT	1-403-165-21	ceramic filter,	a-m i-f
T201	1-423-140	transformer,	driver
T202	1-441-536-12	transformer,	power

Ref. No.	Part No.	Description	
		CAPACITORS	
CV1-1~5	1-151-231	tuning capacitor,	fm a-m 3-gang
CV1-6	1-151-238	tuning capacitor,	FINE TUNING
CT101	1-141-097-21	capacitor,	trimmer
CT102		.....	
CT103	1-141-097-21	capacitor,	trimmer
CT104		.....	
CT105	1-141-097-21	capacitor,	trimmer
C101	1-102-937	4 pF	ceramic
C102	1-102-937	4 pF	ceramic
C103	1-102-959	22 pF	ceramic
C104		.....	

Ref. No.	Part No.	Description		
C105	1-102-918	0.001 μF	ceramic	
C106		.....		
C107		.....		
C108	1-102-942	5 pF	ceramic	
C109	1-102-959	22 pF	ceramic	
C110		.....		
C111	1-105-661-12	0.001 μF	mylar	
C112	1-107-085	100 pF	mica	
C113	1-102-924	0.022 μF	ceramic	
C114	1-102-924	0.022 μF	ceramic	
C115	1-102-934	1 pF	ceramic	
C116	1-102-510	12 pF	ceramic	
C117	1-102-918	0.001 μF	ceramic	
C118	1-102-864	5 pF	ceramic	
C119		.....		
C120	1-102-893	18 pF	ceramic	
C121		.....		
C122	1-105-661-12	0.001 μF	mylar	
C123	1-102-865	8 pF	ceramic	
C124	1-105-661-12	0.001 μF	mylar	
C125	1-127-021	0.33 μF	10 V	electrolytic (alox)
C126	1-105-673-12	0.01 μF	mylar	
CT201	1-141-142	capacitor,	trimmer	
CT202	1-141-142	capacitor,	trimmer	
CT203	1-141-142	capacitor,	trimmer	
CT204	1-141-142	capacitor,	trimmer	
CT205	1-141-142	capacitor,	trimmer	
CT206	1-141-142	capacitor,	trimmer	
CT207	1-141-142	capacitor,	trimmer	
CT208	1-141-140	capacitor,	trimmer	
CT209	1-141-140	capacitor,	trimmer	
CT210	1-141-140	capacitor,	trimmer	
CT211		.....		
CT212	1-141-140	capacitor,	trimmer	
CT213	1-141-140	capacitor,	trimmer	
CT214	1-141-140	capacitor,	trimmer	
C201	1-105-673-12	0.01 μF	mylar	
C202	1-105-673-12	0.01 μF	mylar	
C203		.....		
C204	1-105-677-12	0.022 μF	mylar	
C205	1-121-491	100 μF	6.3 V	electrolytic
C206	1-101-924	0.022 μF	ceramic	
C207	1-121-471	10 μF	16 V	electrolytic
C208	1-105-673-12	0.01 μF	mylar	
C209	1-105-673-12	0.01 μF	mylar	
C210	1-105-677-12	0.022 μF	mylar	
C211	1-102-960	24 pF	ceramic	
C212		.....		
C213	1-102-964	36 pF	ceramic	
C214	1-102-947	10 pF	ceramic	
C215	1-102-959	22 pF	ceramic	
C216	1-102-960	24 pF	ceramic	
C217	1-102-960	24 pF	ceramic	

Ref. No.	Part No.	Description		
C218	1-105-673-12	0.01 μF	mylar	
C219	1-105-683-12	0.068 μF	mylar	
C220	1-107-087	120 pF	silvered mica	
C221	1-107-182	360 pF	silvered mica	
C222	1-103-728	1300 pF	styrol	
C223	1-103-735	2700 pF	styrol	
C224	1-107-097	330 pF	silvered mica	
C225	1-107-088	130 pF	silvered mica	
C226	1-107-080	62 pF	silvered mica	
C227	1-102-940	3 pF	ceramic	
C228	1-105-665-12	0.0022 μF	mylar	
C229		.....		
C230	1-102-953	18 pF	ceramic	
C231		.....		
C232	1-102-943	6 pF	ceramic	
C233		.....		
C234		.....		
C235		.....		
C236		.....		
C237		.....		
C238		.....		
C239		.....		
C240	1-107-097	330 pF	silvered mica	
C241	1-107-088	130 pF	silvered mica	
C242	1-107-080	62 pF	silvered mica	
C243	1-105-677-12	0.022 μF	mylar	
C244	1-105-677-12	0.022 μF	mylar	
C245	1-105-679-12	0.033 μF	mylar	
C246	1-107-185	470 pF	silvered mica	
C247	1-105-673-12	0.01 μF	mylar	
C248	1-105-679-12	0.033 μF	mylar	
C249	1-121-491	100 μF	6.3 V	electrolytic
C250	1-105-673-12	0.01 μF	mylar	
C251	1-107-068	20 pF	silvered mica	
C252	1-107-085	100 pF	silvered mica	
C253	1-105-679-12	0.033 μF	mylar	
C254	1-105-677-12	0.022 μF	mylar	
C255	1-121-491	100 μF	6.3 V	electrolytic
C256	1-105-675-12	0.015 μF	mylar	
C257	1-105-673-12	0.01 μF	mylar	
C258	1-105-673-12	0.01 μF	mylar	
C259	1-105-673-12	0.01 μF	mylar	
C260	1-105-673-12	0.01 μF	mylar	
C261	1-105-661-12	0.001 μF	mylar	
C262	1-105-661-12	0.001 μF	mylar	
C263	1-121-471	10 μF	16 V	electrolytic
C264	1-105-673-12	0.01 μF	mylar	
C265	1-105-673-12	0.01 μF	mylar	
C266	1-105-675-12	0.015 μF	mylar	
C267	1-105-677-12	0.022 μF	mylar	
C268	1-102-734	100 pF	ceramic	
C269		.....		
C270		.....		

Ref. No.	Part No.	Description		
C271				
C272	1-121-471	10 μF	16 V	electrolytic
C273	1-105-677-12	0.022 μF	mylar	
C274	1-121-464	4.7 μF	25 V	electrolytic
C275	1-121-491	100 μF	6.3 V	electrolytic
C276	1-105-673-12	0.01 μF	mylar	
C277	1-127-046	0.22 μF	10 V	electrolytic (alox)
C278		.....		
C279	1-127-045	0.1 μF	10 V	electrolytic (alox)
C280		.....		
C281	1-121-421	220 μF	16 V	electrolytic
C282	1-102-098	470 pF	ceramic	
C283	1-105-677-12	0.022 μF	mylar	
C284	1-105-665-12	0.0022 μF	mylar	
C285	1-121-491	100 μF	6.3 V	electrolytic
C286	1-121-186	1000 μF	16 V	electrolytic
C287		.....		
C288	1-105-677-12	0.022 μF	mylar	
C289	1-121-426	470 μF	16 V	electrolytic
C290	1-121-491	100 μF	6.3 V	electrolytic
C291		.....		
C292	1-121-186	1000 μF	16 V	electrolytic
C293	1-102-951	15 pF	ceramic	
C294	1-101-924	0.022 μF	ceramic	
C295	1-101-924	0.022 μF	ceramic	
C296	1-105-673-12	0.01 μF	mylar	
C297	1-102-939	2 pF	ceramic	
C298	1-105-673-12	0.01 μF	mylar	
C299	1-102-963	33 pF	ceramic	
C300	1-102-963	33 pF	ceramic	
C301	1-102-953	18 pF	ceramic	
C302	1-105-677-12	0.022 μF	mylar	
C303	1-101-923	0.01 μF	ceramic	
C304	1-101-923	0.01 μF	ceramic	
C305	1-105-673-12	0.01 μF	mylar	
C306	1-101-923	0.01 μF	ceramic	
C307	1-102-942	5 pF	ceramic	
C308	1-102-947	10 pF	ceramic	
C309	1-105-677-12	0.022 μF	mylar	
C310	1-101-923	0.01 μF	ceramic	

RESISTORS

All resistors are ¼ W, ±5 %, carbon type resistors unless otherwise noted.

VR201	1-222-580	RF GAIN control	20 kΩ B
VR202	1-222-581	BFO control	5 kΩ D
VR203	1-222-680	TONE control	5 kΩ A
VR204	1-222-681	VOLUME control	50 kΩ D
R101	1-242-673	1 kΩ	
R102	1-242-740	620 kΩ	
R103	1-244-655	180Ω	

Ref. No.	Part No.	Description
R104	1-244-734	360 kΩ
R105	1-242-673	1 kΩ
R106	1-242-673	1 kΩ
R107	1-242-721	100 kΩ
R108	1-242-709	33 kΩ
R109	1-242-721	100 kΩ
R110	1-242-677	1.5 kΩ
R111	1-242-729	220 kΩ
R201	1-244-722	110 kΩ
R202	1-244-717	68 kΩ
R203	1-244-709	33 kΩ
R204	1-244-673	1 kΩ
R205	1-244-662	360 Ω
R206	1-244-669	680 Ω
R207	1-244-659	270 Ω
R208	1-244-673	1 kΩ
R209	1-244-657	220 Ω
R210	1-244-641	47 Ω
R211	1-244-729	220 kΩ
R212	1-244-673	1 kΩ
R213	1-244-657	220 Ω
R214	1-244-669	680 Ω
R215	1-244-667	560 Ω
R216	1-244-665	470 Ω
R217	1-244-659	270 Ω
R218	1-244-646	75 Ω
R219	1-244-642	51 Ω
R220	1-244-657	220 Ω
R221	1-244-658	240 Ω
R222	1-244-667	560 Ω
R223	1-244-656	200 Ω
R224	1-244-649	100 Ω
R225	1-244-651	120 Ω
R226	1-244-647	82 Ω
R227	1-244-636	30 Ω
R228	1-244-649	100 Ω
R229		.....
R230	1-244-642	51 Ω
R231	1-244-721	100 kΩ
R232	1-244-673	1 kΩ
R233	1-244-697	10 kΩ
R234	1-244-658	240 Ω
R235	1-244-666	510 Ω
R236	1-244-642	51 Ω
R237	1-244-697	10 kΩ
R238	1-244-659	270 Ω
R239	1-244-673	1 kΩ
R240	1-244-725	150 kΩ
R241	1-244-642	51 Ω
R242	1-244-716	62 kΩ
R243	1-244-665	470 Ω
R244	1-244-656	200 Ω
R245	1-244-723	120 kΩ

Ref. No.	Part No.	Description		
C105	1-102-918	0.001 μF	ceramic	
C106		.....		
C107		.....		
C108	1-102-942	5 pF	ceramic	
C109	1-102-959	22 pF	ceramic	
C110		.....		
C111	1-105-661-12	0.001 μF	mylar	
C112	1-107-085	100 pF	mica	
C113	1-102-924	0.022 μF	ceramic	
C114	1-102-924	0.022 μF	ceramic	
C115	1-102-934	1 pF	ceramic	
C116	1-102-510	12 pF	ceramic	
C117	1-102-918	0.001 μF	ceramic	
C118	1-102-864	5 pF	ceramic	
C119		.....		
C120	1-102-893	18 pF	ceramic	
C121		.....		
C122	1-105-661-12	0.001 μF	mylar	
C123	1-102-865	8 pF	ceramic	
C124	1-105-661-12	0.001 μF	mylar	
C125	1-127-021	0.33 μF	10 V	electrolytic (alox)
C126	1-105-673-12	0.01 μF	mylar	
CT201	1-141-142	capacitor,	trimmer	
CT202	1-141-142	capacitor,	trimmer	
CT203	1-141-142	capacitor,	trimmer	
CT204	1-141-142	capacitor,	trimmer	
CT205	1-141-142	capacitor,	trimmer	
CT206	1-141-142	capacitor,	trimmer	
CT207	1-141-142	capacitor,	trimmer	
CT208	1-141-140	capacitor,	trimmer	
CT209	1-141-140	capacitor,	trimmer	
CT210	1-141-140	capacitor,	trimmer	
CT211		.....		
CT212	1-141-140	capacitor,	trimmer	
CT213	1-141-140	capacitor,	trimmer	
CT214	1-141-140	capacitor,	trimmer	
C201	1-105-673-12	0.01 μF	mylar	
C202	1-105-673-12	0.01 μF	mylar	
C203		.....		
C204	1-105-677-12	0.022 μF	mylar	
C205	1-121-491	100 μF	6.3 V	electrolytic
C206	1-101-924	0.022 μF	ceramic	
C207	1-121-471	10 μF	16 V	electrolytic
C208	1-105-673-12	0.01 μF	mylar	
C209	1-105-673-12	0.01 μF	mylar	
C210	1-105-677-12	0.022 μF	mylar	
C211	1-102-960	24 pF	ceramic	
C212		.....		
C213	1-102-964	36 pF	ceramic	
C214	1-102-947	10 pF	ceramic	
C215	1-102-959	22 pF	ceramic	
C216	1-102-960	24 pF	ceramic	
C217	1-102-960	24 pF	ceramic	

Ref. No.	Part No.	Description		
C218	1-105-673-12	0.01 μF	mylar	
C219	1-105-683-12	0.068 μF	mylar	
C220	1-107-087	120 pF	silvered mica	
C221	1-107-182	360 pF	silvered mica	
C222	1-103-728	1300 pF	styrol	
C223	1-103-735	2700 pF	styrol	
C224	1-107-097	330 pF	silvered mica	
C225	1-107-088	130 pF	silvered mica	
C226	1-107-080	62 pF	silvered mica	
C227	1-102-940	3 pF	ceramic	
C228	1-105-665-12	0.0022 μF	mylar	
C229		.....		
C230	1-102-953	18 pF	ceramic	
C231		.....		
C232	1-102-943	6 pF	ceramic	
C233		.....		
C234		.....		
C235		.....		
C236		.....		
C237		.....		
C238		.....		
C239		.....		
C240	1-107-097	330 pF	silvered mica	
C241	1-107-088	130 pF	silvered mica	
C242	1-107-080	62 pF	silvered mica	
C243	1-105-677-12	0.022 μF	mylar	
C244	1-105-677-12	0.022 μF	mylar	
C245	1-105-679-12	0.033 μF	mylar	
C246	1-107-185	470 pF	silvered mica	
C247	1-105-673-12	0.01 μF	mylar	
C248	1-105-679-12	0.033 μF	mylar	
C249	1-121-491	100 μF	6.3 V	electrolytic
C250	1-105-673-12	0.01 μF	mylar	
C251	1-107-068	20 pF	silvered mica	
C252	1-107-085	100 pF	silvered mica	
C253	1-105-679-12	0.033 μF	mylar	
C254	1-105-677-12	0.022 μF	mylar	
C255	1-121-491	100 μF	6.3 V	electrolytic
C256	1-105-675-12	0.015 μF	mylar	
C257	1-105-673-12	0.01 μF	mylar	
C258	1-105-673-12	0.01 μF	mylar	
C259	1-105-673-12	0.01 μF	mylar	
C260	1-105-673-12	0.01 μF	mylar	
C261	1-105-661-12	0.001 μF	mylar	
C262	1-105-661-12	0.001 μF	mylar	
C263	1-121-471	10 μF	16 V	electrolytic
C264	1-105-673-12	0.01 μF	mylar	
C265	1-105-673-12	0.01 μF	mylar	
C266	1-105-675-12	0.015 μF	mylar	
C267	1-105-677-12	0.022 μF	mylar	
C268	1-102-734	100 pF	ceramic	
C269		.....		
C270		.....		

Ref. No.	Part No.	Description		
C271				
C272	1-121-471	10 μF	16 V	electrolytic
C273	1-105-677-12	0.022 μF	mylar	
C274	1-121-464	4.7 μF	25 V	electrolytic
C275	1-121-491	100 μF	6.3 V	electrolytic
C276	1-105-673-12	0.01 μF	mylar	
C277	1-127-046	0.22 μF	10 V	electrolytic (alox)
C278		.....		
C279	1-127-045	0.1 μF	10 V	electrolytic (alox)
C280		.....		
C281	1-121-421	220 μF	16 V	electrolytic
C282	1-102-098	470 pF	ceramic	
C283	1-105-677-12	0.022 μF	mylar	
C284	1-105-665-12	0.0022 μF	mylar	
C285	1-121-491	100 μF	6.3 V	electrolytic
C286	1-121-186	1000 μF	16 V	electrolytic
C287		.....		
C288	1-105-677-12	0.022 μF	mylar	
C289	1-121-426	470 μF	16 V	electrolytic
C290	1-121-491	100 μF	6.3 V	electrolytic
C291		.....		
C292	1-121-186	1000 μF	16 V	electrolytic
C293	1-102-951	15 pF	ceramic	
C294	1-101-924	0.022 μF	ceramic	
C295	1-101-924	0.022 μF	ceramic	
C296	1-105-673-12	0.01 μF	mylar	
C297	1-102-939	2 pF	ceramic	
C298	1-105-673-12	0.01 μF	mylar	
C299	1-102-963	33 pF	ceramic	
C300	1-102-963	33 pF	ceramic	
C301	1-102-953	18 pF	ceramic	
C302	1-105-677-12	0.022 μF	mylar	
C303	1-101-923	0.01 μF	ceramic	
C304	1-101-923	0.01 μF	ceramic	
C305	1-105-673-12	0.01 μF	mylar	
C306	1-101-923	0.01 μF	ceramic	
C307	1-102-942	5 pF	ceramic	
C308	1-102-947	10 pF	ceramic	
C309	1-105-677-12	0.022 μF	mylar	
C310	1-101-923	0.01 μF	ceramic	

RESISTORS

All resistors are ¼ W, ±5 %, carbon type resistors unless otherwise noted.

VR201	1-222-580	RF GAIN control	20 kΩ B
VR202	1-222-581	BFO control	5 kΩ D
VR203	1-222-680	TONE control	5 kΩ A
VR204	1-222-681	VOLUME control	50 kΩ D
R101	1-242-673	1 kΩ	
R102	1-242-740	620 kΩ	
R103	1-244-655	180Ω	

Ref. No.	Part No.	Description
R104	1-244-734	360 kΩ
R105	1-242-673	1 kΩ
R106	1-242-673	1 kΩ
R107	1-242-721	100 kΩ
R108	1-242-709	33 kΩ
R109	1-242-721	100 kΩ
R110	1-242-677	1.5 kΩ
R111	1-242-729	220 kΩ
R201	1-244-722	110 kΩ
R202	1-244-717	68 kΩ
R203	1-244-709	33 kΩ
R204	1-244-673	1 kΩ
R205	1-244-662	360 Ω
R206	1-244-669	680 Ω
R207	1-244-659	270 Ω
R208	1-244-673	1 kΩ
R209	1-244-657	220 Ω
R210	1-244-641	47 Ω
R211	1-244-729	220 kΩ
R212	1-244-673	1 kΩ
R213	1-244-657	220 Ω
R214	1-244-669	680 Ω
R215	1-244-667	560 Ω
R216	1-244-665	470 Ω
R217	1-244-659	270 Ω
R218	1-244-646	75 Ω
R219	1-244-642	51 Ω
R220	1-244-657	220 Ω
R221	1-244-658	240 Ω
R222	1-244-667	560 Ω
R223	1-244-656	200 Ω
R224	1-244-649	100 Ω
R225	1-244-651	120 Ω
R226	1-244-647	82 Ω
R227	1-244-636	30 Ω
R228	1-244-649	100 Ω
R229		.....
R230	1-244-642	51 Ω
R231	1-244-721	100 kΩ
R232	1-244-673	1 kΩ
R233	1-244-697	10 kΩ
R234	1-244-658	240 Ω
R235	1-244-666	510 Ω
R236	1-244-642	51 Ω
R237	1-244-697	10 kΩ
R238	1-244-659	270 Ω
R239	1-244-673	1 kΩ
R240	1-244-725	150 kΩ
R241	1-244-642	51 Ω
R242	1-244-716	62 kΩ
R243	1-244-665	470 Ω
R244	1-244-656	200 Ω
R245	1-244-723	120 kΩ

Ref. No.	Part No.	Description		
R246	1-244-642	51 Ω		
R247	1-244-656	200 Ω		
R248	1-201-829	180 Ω	1/8 W	composition
R249	1-244-673	1 kΩ		
R250	1-244-673	1 kΩ		
R251	1-244-693	6.8 kΩ		
R252	1-244-693	6.8 kΩ		
R253	1-244-658	240 Ω		
R254		.....		
R255	1-244-701	15 kΩ		
R256	1-244-701	15 kΩ		
R257	1-244-714	51 kΩ		
R258	1-244-692	6.2 kΩ		
R259	1-244-688	4.3 kΩ		
R260	1-244-668	620 Ω		
R261	1-244-678	1.6 kΩ		
R262	1-244-669	680 Ω		
R263	1-244-663	390 Ω		
R264	1-244-649	100 Ω		
R265		.....		
R266		.....		
R267	1-244-673	1 kΩ		
R268	1-244-664	430 Ω		
R269	1-244-684	3 kΩ		
R270	1-244-717	68 kΩ		
R271	1-244-673	1 kΩ		
R272	1-244-681	2.2 kΩ		
R273		.....		
R274		.....		
R275		.....		
R276		.....		
R277		.....		
R278	1-201-865	10 kΩ	1/8 W	composition
R279	1-244-709	33 kΩ		
R280	1-244-716	62 kΩ		
R281	1-244-688	4.3 kΩ		
R282	1-244-706	24 kΩ		
R283	1-244-692	6.2 kΩ		
R284	1-244-673	1 kΩ		
R285	1-244-717	68 kΩ		
R286	1-244-673	1 kΩ		
R287	1-244-679	1.8 kΩ		
R288		.....		
R289		.....		
R290	1-244-681	2.2 kΩ		
R291	1-244-691	5.6 kΩ		
R292	1-244-743	820 kΩ		
R293	1-244-649	100 Ω		
R294	1-244-633	22 Ω		
R295	1-244-665	470 Ω		
R296	1-244-673	1 kΩ		
R297	1-244-645	68 Ω		

Ref. No.	Part No.	Description		
R298	1-244-679	1.8 kΩ		
R299	1-244-681	2.2 kΩ		
R300	1-210-226	1 Ω	1 W	carbon
R301	1-210-226	1 Ω	1 W	carbon
R302	1-244-659	270 Ω		
R303	1-244-666	510 Ω		
R304	1-244-720	91 kΩ		
R305	1-244-667	560 Ω		
	1-244-668	620 Ω		
	1-244-669	680 Ω		
	1-244-670	750 Ω		
	1-244-671	820 Ω		
R306	1-244-687	3.9 kΩ		
R307	1-244-667	560 Ω		
R308	1-202-647	1.2 MΩ	1/2 W	composition
R309	1-202-762	68 Ω	1 W	composition
R310	1-202-525	10 Ω	1/2 W	composition
R311	1-202-647	1.2 MΩ	1/2 W	composition
R312	1-202-647	1.2 MΩ	1/2 W	composition
R313	1-244-721	100 kΩ		
R314	1-244-721	100 kΩ		
R315	1-244-694	7.5 kΩ		
R316		.....		
R317	1-209-154	33 Ω	1 W	carbon
R318		.....		
R319	1-201-866	15 kΩ	1/8 W	composition
R320		.....		
R321	1-244-641	47 Ω		
R322	1-244-641	47 Ω		

MISCELLANEOUS

TEL ANT	1-501-129	antenna, telescopic
SP	1-502-069	speaker, 8 Ω
J201	1-507-050-51	jack, record out
J202	1-507-169-13	jack, EARPHONE
	1-507-901-12	nut, EARPHONE jack
TM201	1-520-095-12	TUNING METER
PL1	1-518-097-13	lamp, LIGHT 5 V 50 mA
PL2	1-518-097-13	lamp, LIGHT 5 V 50 mA
S201-212	1-514-988	switch, band selector
S213	1-514-729-41	switch, AFC
S218	1-509-324-13	connector, ac power
S219-220	1-514-866	switch, POWER
S221	1-514-885	leaf switch, LIGHT
	1-591-002-11	printed circuit board, main
	1-581-363-12	printed circuit board, fm front end
	1-581-357-13	printed circuit board, power
	1-536-180	terminal strip
	8-981-425-16	mounted circuit board, main
	8-981-425-90	mounted circuit board, fm front end
VS501	1-526-188-21	mounted circuit board, power supply voltage selector

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