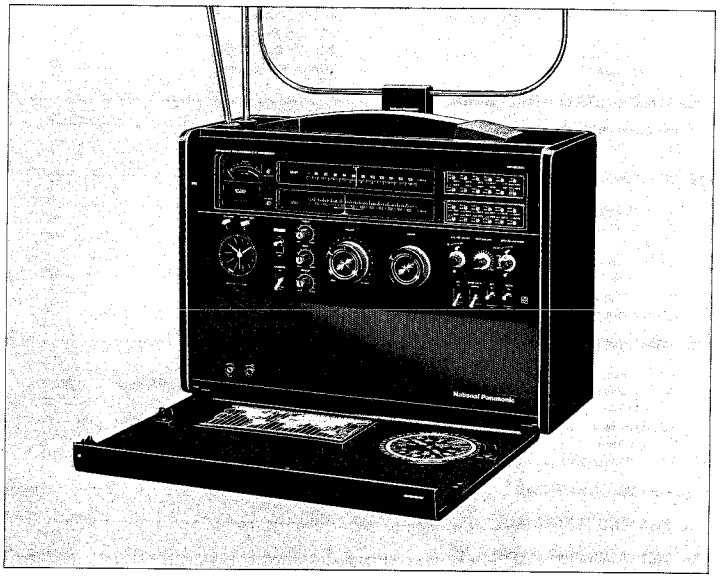
ORDER NO. RD7510-

Service Manual

Radio

FM-AM 24-BAND RECEIVER

RF-8000



National Panasonic

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

CONTENTS

UNIT PARTS LOCATIONS (Front View)

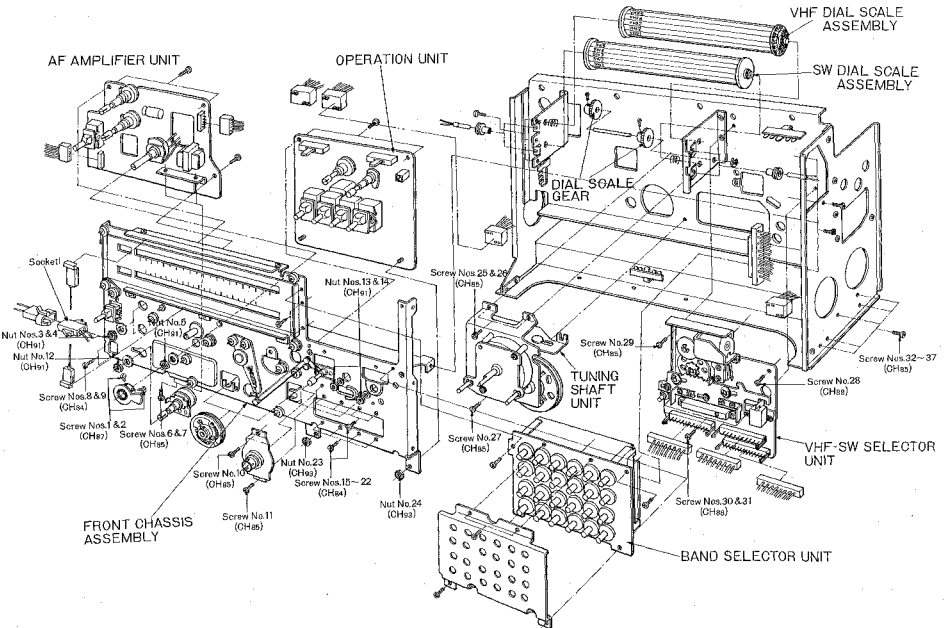


Fig. 1

UNIT PARTS LOCATIONS (Rear View)

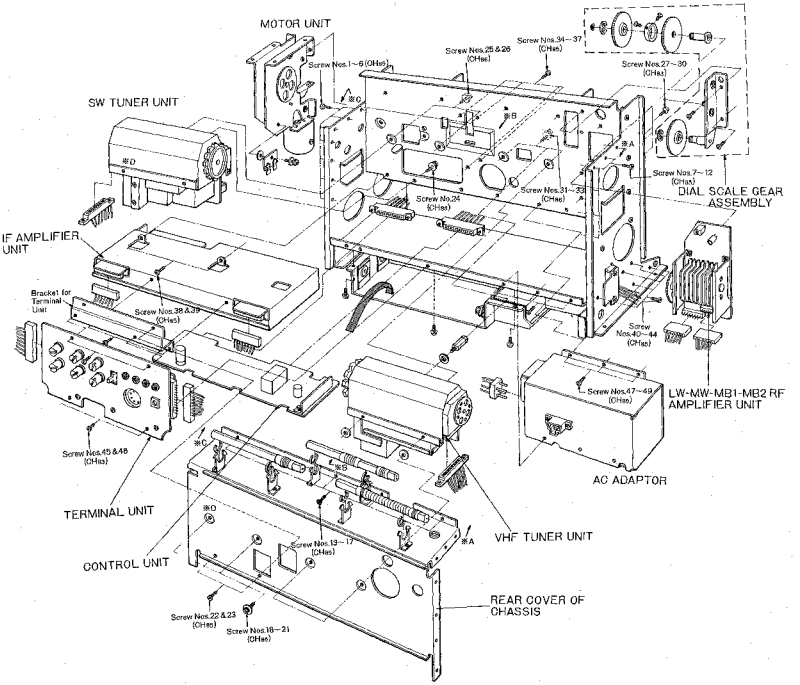


Fig. 2

1. SPECIFICATIONS

Bands and their Frequency Ranges

Bands	Frequency Range	Bands	Frequency Range	Bands	Frequency Range
VHF 1	30~40 MHz	LW	150~400 kHz (2000~750m)	SW 5	14.0~15.0 MHz (21.4~20m)
VHF 2	40~55 MHz	MW	520~1610 kHz (577~186m)	SW 6	15.0~16.0 MHz (20~18.8m)
VHF 3	55~76 MHz	MB 1	1.5~3.0 MHz (200~100m)	SW 7	17.5~18.5 MHz (17.1~16.2m)
VHF 4	76~90 MHz	MB 2	3.0~5.5 MHz (100~54.6m)	SW 8	21.0~22.0 MHz (14.3~13.6m)
VHF 5	88~108 MHz	SW 1	5.5~6.5 MHz (54.6~46.2m)	SW 9	25.5~26.5 MHz (11.8~11.3m)
VHF 6	108~136 MHz	SW 2	7.0~8.0 MHz (42.9~37.5m)	SW 10	26.5~27.5 MHz (11.3~10.9m)
VHF 7	136~176 MHz	SW 3	9.0~10.0 MHz (33.3~30m)	SW 11	28.0~29.0 MHz (10.7~10.3m)
VHF 8	176~230 MHz	SW 4	11.5~12.5 MHz (26.1~24m)	SW 12	29.0~30.0 MHz (10.3~10m)

Antennas: 2 whip antennas 1,306mm (51⅜") for VHF
3 ferrite core antennas 12mm (½") ø×200mm (7⅞") for LW, MW, MB
Frame antenna 435mm (17⅛") × 300mm (11⅞") for SW, MW, MB
External antenna terminals:
VHF (75Ω unbalanced)
SW (75Ω unbalanced)
LW, MW, MB, SW (high impedance)

Sensitivity (S+N/N 6dB at flat position of tone control):
VHF
VHF 1~VHF 7:
FM: 0.3~0.7 μV
AM: 0.4~1.0 μV
VHF 8:
FM: 2.0 μV
AM: 6.0 μV
LW, MW, MB, SW
LW 70 μV/m
MW 15 μV/m
MB 1 15 μV/m
MB 2 20 μV/m
SW 1~SW 12
0.2~0.4 μV (SSB)
0.5~1.0 μV (AM)

Image rejection: VHF: 65~35 dB
LW: 65 dB
MW: 35 dB
MB: 30 dB
SW 1~SW 12: 70~35 dB

Selectivity:
VHF
WIDE: 50 kHz (−3 dB)
300 kHz (−60 dB)
NARROW: 10 kHz (−3 dB)
15 kHz (−60 dB)
LW, MW, MB, SW
WIDE: 1.7 kHz (−3 dB)
17 kHz (−60 dB)
NARROW: 1.1 kHz (−3 dB)
3 kHz (−60 dB)

Intermediate frequency:
VHF
WIDE: 10.7 MHz
NARROW: 455 kHz(U. K. only 470 kHz)
LW, MW, MB
455 kHz(U. K. only 470 kHz)
SW
VIF: 1.7~2.7 MHz (variable)
IF: 455 kHz(U. K. only 470 kHz)

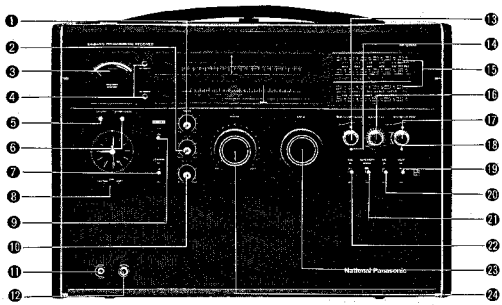
S/N ratio (400 Hz 30% modulation, 100 mV input):
VHF FM: 63 dB
AM: 55 dB
LW, MW, MB, SW: 55 dB

Squelch control for all FM modes of VHF: variable
MGC variable range: VHF: 30 dB
SW: 40 dB
BFO variable range: ±3.5 kHz
Crystal marker position for SW: Every 500 kHz
AFC width for VHF: ±500 kHz
MPX output: −16 dBm, impedance 5kΩ output
Aux input (AC operation at 1W output): −32 dBm, impedance 470kΩ
Rec output: −24 dBm, impedance 350Ω
DIN jack: PLAY −38 dBm (AC operation at 1W output) impedance 470kΩ
REC −23 dBm, impedance 80kΩ
Speakers: Two, 180mm (7") × 100mm (4")
External speaker jack: 8Ω (switchable to built-in speakers)
Headphones jack: 8Ω (standard), connectable with any headphones
Earphone jack: 8Ω (standard), connectable with any earphone
Frequency response: 50 Hz~20 kHz, ±3 dB (aux in)
Power source: AC 100/120/220/240V 50/60 Hz
DC: 8 "D" size batteries for radio (12V)
DC external power input (12V)
1 "D" size battery clock (1.5V)
Clock: Tuning fork, battery powered
Jacks & terminals: External antenna for VHF (75Ω)
External antenna for SW (75Ω)
Frame antenna
External antenna for LW, MW, MB, SW (high impedance)
MPX out, AUX in, REC out, DIN (REC/PLAY)
External speaker (8Ω)
Headphones (8Ω)
Earphone (8Ω)
AC power in, DC power in (12V)
Dimensions (W×H×D): 512×361×213mm (20⅛" × 14¼" × 8⅜")
Weight: 21 kg (46 lb. 5 oz.) without batteries

Specifications are subject to change without notice.

2. LOCATION OF CONTROLS AND JACKS

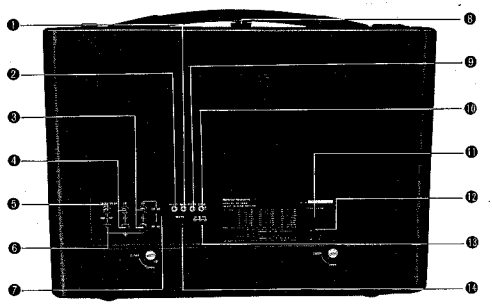
• Front View



❶ Treble Control
❷ Bass Control
❸ Tuning and Battery Checking Indicator
❹ Dial Indicators
❺ Dial Light Button
❻ Battery Checking Button
❼ Loudness Switch
❽ Clock-Setting Control
❾ Power Switch
❿ Squelch Control
⓫ Earphone Jack
⓬ Headphones Jack
⓭ Calibration Control
⓮ Calibration Switch
⓯ Band Selector Buttons
⓰ MGC Control
⓱ BFO Control
⓲ AM/SSB-CW Mode Selector
⓳ FM/AM Mode Selector
⓴ AFC Switch
㉑ Band Width Selector
㉒ ANL Switch
㉓ Tuning Control
㉔ Volume Control

Fig. 3

• Rear View



❶ Auxiliary Input Jack
❷ FM Multiplex Output Jack
❸ VHF External Antenna Terminals
❹ SW External Antenna Terminals
❺ LW, MW, MB and SW External Antenna Terminals
❻ Earth Terminal
❼ VHF Antenna Selector
❽ Frame Antenna Jack
❾ Recording Output Jack
❿ External Speaker Jack
⓫ Voltage Selector
⓬ AC Power Source Jack
⓭ DC External Power Jack
⓮ Recording Output and Playback DIN Jack

Fig. 4

3. CIRCUIT BLOCK DIAGRAMS

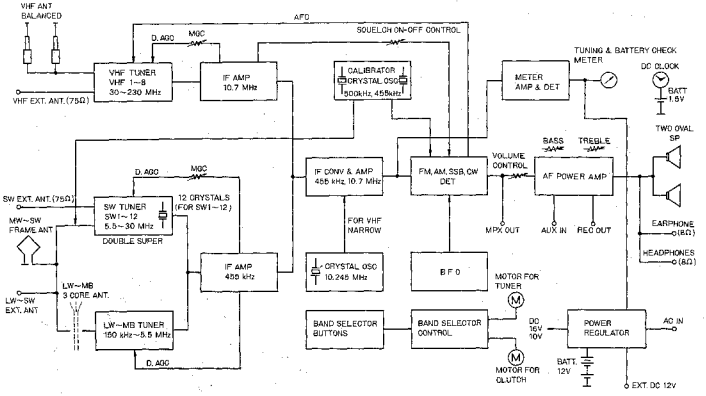


Fig. 5

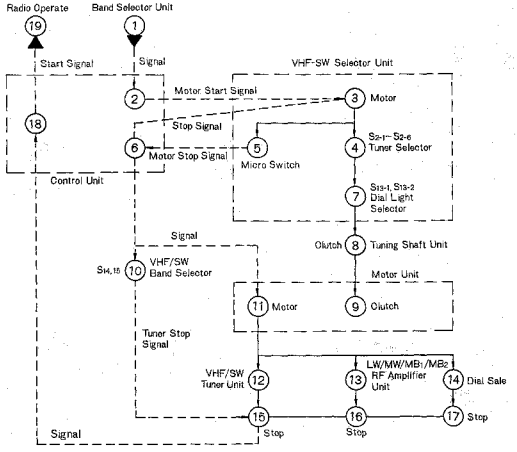


Fig. 6

4. REMOVAL AND REASSEMBLY INSTRUCTIONS

4-1 TO REMOVE CHASSIS

1. Remove cabinet front cover.
2. Set each dial pointer to start point.
3. Remove the three (3) screws (nos. 1~3) for the volume and tuning knobs, by using a hexagonal screwdriver, as shown in fig. 7.
4. Remove volume and tuning knobs.
5. Remove the one (1) chassis screw as shown in fig. 11.
6. Remove eight (8) knobs from cabinet.
7. Open the battery cover.
8. Remove the four (4) screws (nos. 1~4) for the cabinet back cover, as shown in fig. 8.
9. Remove cabinet back cover.
10. Remove the one (1) frame antenna jack nut, as shown in fig. 9
11. Remove the ten (10) chassis screws (nos. 1~10), as shown in fig. 10.
12. Loosen the two (2) jack screws (nos. 4 & 5), as shown in fig. 12.
13. Pull out batteries from chassis.
14. Pull out socket from chassis, as shown in fig. 12.
15. Remove the five (5) screws (nos. 1~3, 6 & 7) for the chassis and whip antenna, as shown in fig. 12.
16. Set power, loudness, ANL and AFC switches to "ON" position.
17. Set bandwidth switch to "NARROW" position.
18. Set mode switch to "FM" position.
19. Unsolder lead wires from cabinet, as shown in fig. 12.
20. Remove chassis from cabinet.
21. To reassemble, reverse the above procedure.

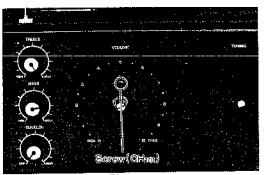


Fig. 11

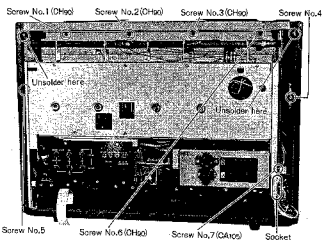


Fig. 12

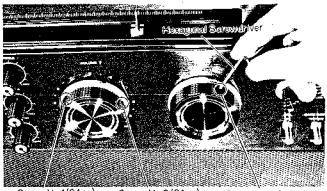


Fig. 7

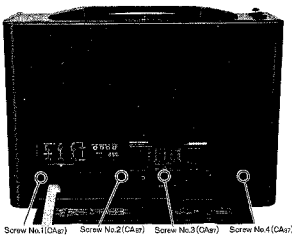


Fig. 8

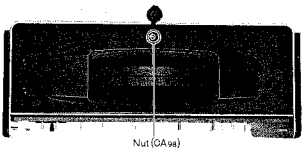


Fig. 9

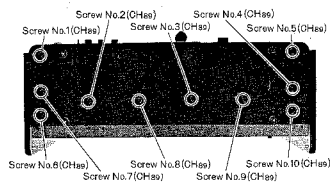


Fig. 10

4-2 TO REMOVE FRONT CHASSIS

1. Set each dial pointer to start point.
2. Loosen the four (4) dial drum screws (nos. 1, 2, 5 & 6), as shown in fig. 13.
3. Remove the wooden spacer from the left side of chassis.
4. Remove the four (4) front chassis screws (nos. 3, 4, 7 & 8), as shown in fig. 13.
5. Remove the four (4) front chassis screws (nos. 1~4), as shown in fig. 14.
6. Remove the eight (8) front chassis screws (nos. 1~8), as shown in fig. 15.
7. Remove front chassis.
8. Pull out sockets from front chassis.
9. To reassemble, reverse the above procedure, and note the following:
   1. Turn each drum shaft completely in the direction of arrows, as shown in fig. 16.
   2. Insert drum shaft, tuning shaft and PC board of IF. amp. unit in the position shown in fig. 16.

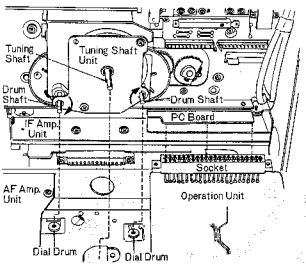


Fig. 16

4-3 TO OPEN REAR COVER OF CHASSIS

1. Remove the twenty three (23) rear cover screws (nos. 1~23), as shown in fig. 2. (Refer to page 4.)
2. Remove the four (4) rear cover screws (nos. 1~4), as shown in fig. 17.
3. Open rear cover in the direction of arrow, as shown in fig. 18.
4. To reassemble, reverse the above procedure.

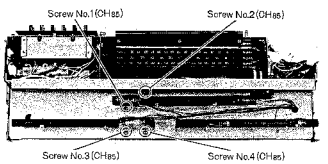


Fig. 17

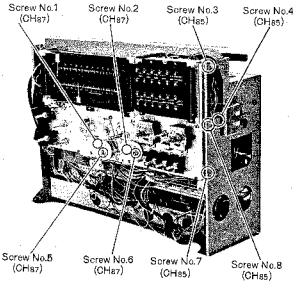


Fig. 13

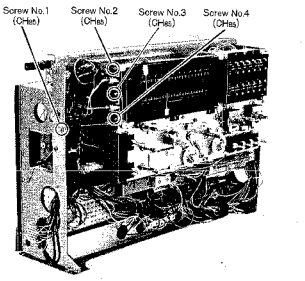


Fig. 14

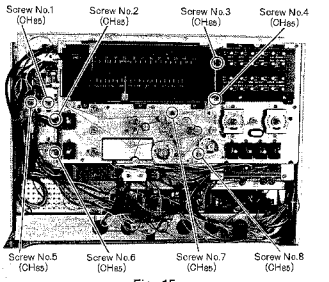


Fig. 15

4-4 TO REMOVE AF AMPLIFIER UNIT

1. Remove front chassis. (Refer to front chassis removal instructions.)
2. Remove the two (2) volume stopper screws (nos. 1 & 2), as shown in fig. 1. (Refer to page 3.)
3. Remove socket of power switch.
4. Remove the three (3) nuts (nos. 3~5) for the treble, bass and volume, as shown in fig. 1. (Refer to page 3.)
5. Remove the two (2) heat-sink screws (nos. 6 & 7), as shown in fig. 1. (Refer to page 3.)
6. Remove the four (4) PC board screws (nos. 2, 3, 5 & 6), as shown in fig. 19.
7. Remove the two (2) loudness switch screws (nos. 8 & 9), as shown in fig. 1. (Refer to page 3.)
8. Remove AF amplifier unit.
9. To reassemble, reverse the above procedure and note the following:
   1. Turn the volume shaft fully counterclockwise.
   2. Insert the volume stopper at the position shown in fig. 21.

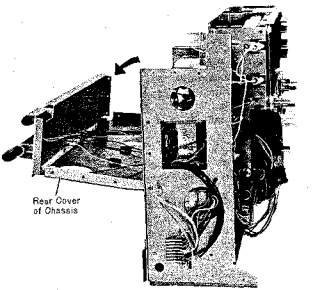


Fig. 18

4-5 TO REMOVE OPERATION UNIT

1. Remove front chassis. (Refer to front chassis removal instructions.)
2. Remove the two (2) selector mechanism (CH$_{7S}$) screws (nos. 10 & 11), as shown in fig. 1. (Refer to page 3.)
3. Remove the two (2) MGC & BFO nuts (nos. 13 & 14), as shown in fig. 1. (Refer to page 3.)
4. Remove the eight (8) ANL, bandwidth, AFC and mode switch screws (nos. 15~22), as illustrated in fig. 1. (Refer to page 3.)
5. Remove the two (2) PC board nuts (nos. 23 & 24), as shown in fig. 1. (Refer to page no. 3.)
6. Remove the two (2) PC board screws (nos. 1 & 4), as shown in fig. 19.
7. Remove operation unit.
8. To reassemble, reverse the above procedure.

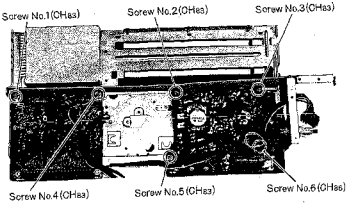


Fig. 19

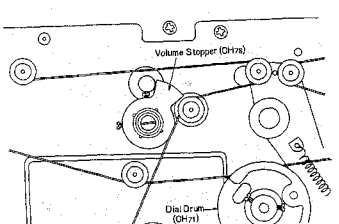


Fig. 21

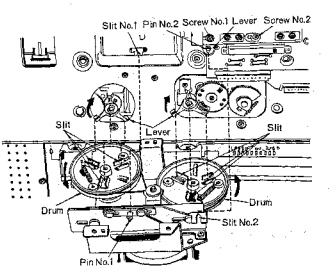


Fig. 20

4-6 TO REMOVE TUNING SHAFT UNIT

1. Remove front chassis. (Refer to front chassis removal instructions.)
2. Remove the three (3) tuning shaft unit screws (nos. 25~27), as shown in fig. 1. (Refer to page 3.)
3. Remove tuning shaft unit.
4. To reassemble, reverse the above procedure and note the following:
   1. Turn each drum completely in the direction of the arrow, as shown in fig. 20.
   2. Turn each tuner lever completely in the direction of the arrow and then set the drum to the same position as the tuner lever, as shown in fig. 20.
   3. Insert tuner lever in slit of drum and the pins 1 & 2 in slits 1 & 2, as shown in fig. 20.
   4. Adjust the lever of selector unit so that tuning shaft unit changes, as shown in fig. 20.
   5. Tighten the two (2) lever screws (nos. 1 & 2), as shown in fig. 20.
   6. Loosen the four (4) drum stopper screws (nos. 1~4), as shown in fig. 22.
   7. Turn each drum and then confirm that the variable capacitor can be turned from minimum to maximum.
   8. Tighten the four (4) drum stopper screws (nos. 1~4), as shown in fig. 22.

4-7 TO REMOVE VHF-SW SELECTOR UNIT

1. Remove front chassis. (Refer to front chassis removal instructions.)
2. Remove tuning shaft unit. (Refer to tuning shaft unit removal instructions.)
3. Remove the four (4) selector unit screws (nos. 28~31), as shown in fig. 1. (Refer to page 3.)
4. Remove selector unit.
5. Pull out socket from selector unit.
6. To reassemble, reverse the above procedure.

4-8 TO REMOVE SW TUNER UNIT

1. Remove front chassis. (Refer to front chassis removal instructions.)
2. Remove terminal unit and bracket, as shown in fig. 2. (Refer to page 4.)
3. Open rear cover of chassis. (Refer to rear cover opening instructions.)
4. Remove the three (3) tuner screws (nos. 24~26), as shown in fig. 2. (Refer to page 4.)
5. Pull out sockets from tuner.
6. Unsolder lead wires from tuner.
7. To reassemble, reverse the above procedure and refer to tuning shaft unit removal instructions.

4-9 TO REMOVE LW/MW/MB1/MB2 RF AMPLIFIER UNIT

1. Remove front chassis. (Refer to front chassis removal instructions.)
2. Open rear cover of chassis. (Refer to rear cover opening instructions.)
3. Remove the four (4) RF amp. unit screws (nos. 27~30), as shown in fig. 2. (Refer to page 4.)
4. Pull out sockets from RF amp. unit.
5. To remove RF amp. unit completely, unsolder lead wires to core antenna.
6. To reassemble, reverse the above procedure and note the following:
   1. Set the radio to LW position.
   2. Turn the gear of the switch (S_{1-1}~S_{1-8}) while measuring the conductance by tester, and attach the RF amp. unit after aligning the gear to the position which is half way between the limits at which there is conductance, as shown in fig. 23.

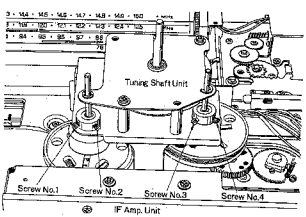


Fig. 22

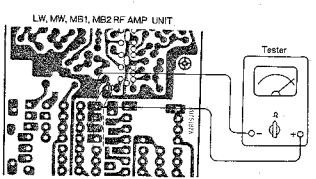


Fig. 23

4-10 TO REMOVE VHF TUNER UNIT

1. Remove front chassis. (Refer to front chassis removal instructions.)
2. Open rear cover of chassis. (Refer to rear cover opening instructions.)
3. Remove tuning shaft unit. (Refer to tuning shaft unit removal instructions.)
4. Remove LW/MW/MB1/MB2 RF amp. unit. (Refer to LW/MW/MB1/MB2 RF amp. unit removal instructions.)
5. Remove dial scale gear assembly, as shown in fig. 2. (Refer to page 4.)
6. Remove the three (3) tuner screws (nos. 31~33), as shown in fig. 2. (Refer to page 4.)
7. Pull out sockets from tuner.
8. Unsolder lead wires from tuner.
9. Remove VHF tuner.
10. To reassemble, reverse the above procedure and note the following:
    1. Set tuner at the LW position, as shown in fig. 24.
    2. Refer to dial scale mounting instructions.

4-11 TO REMOVE MOTOR UNIT

1. Remove VHF tuner unit. (Refer to VHF tuner unit removal instructions.)
2. Remove SW dial scale assembly. (Refer to dial scale removal instructions.)
3. Remove dial scale gear, as shown in fig. 1. (Refer to page 3.)
4. Remove the four (4) motor unit screw (nos. 34~37), as shown in fig. 2. (Refer to page 4.)
5. To remove motor unit completely, unsolder lead wires from motor unit.
6. To reassemble, reverse the above procedure and refer to dial scale mounting instructions.

4-12 TO REMOVE IF AMPLIFIER UNIT

1. Remove terminal unit and bracket, as shown in fig. 2. (Refer to page 4.)
2. Remove the two (2) IF amplifier unit screws (nos. 38 & 39), as shown in fig. 2. (Refer to page 4.)
3. Pull out sockets from IF amplifier unit.
4. Pull out IF amplifier unit.
5. To reassemble, reverse the above procedure.

4-13 TO REMOVE DIAL SCALE ASSEMBLY

1. Remove front chassis. (Refer to front chassis removal instructions.)
2. Loosen the two (2) dial scale bracket screws (nos. 1 & 2), as shown in fig. 25.
3. Push dial scale bracket in the direction of arrow① and remove dial scale in the direction of arrow②, as shown in fig. 25.
4. To reassemble, reverse the above procedure and refer to dial scale mounting instructions.

4-14 TO MOUNT DIAL SCALE ASSEMBLY

● VHF DIAL SCALE ASSEMBLY

1. Loosen the two (2) gear screws (nos. 1 & 2), as shown in fig. 26.
2. Set VHF tuner to "VHF 1" position.
3. Set dial scale to "VHF 1" position, as shown in fig. 27.
4. Tighten the two (2) gear screws (nos. 1 & 2), as shown in fig. 26.

● SW DIAL SCALE ASSEMBLY

1. Loosen the two (2) gear screws (nos. 1 & 2), as shown in fig. 28.
2. Set SW tuner to "SW1" position.
3. Set dial scale to "SW1" position, as shown in fig. 27.
4. Tighten the two (2) gear screws (nos. 1 & 2), as shown in fig. 28.

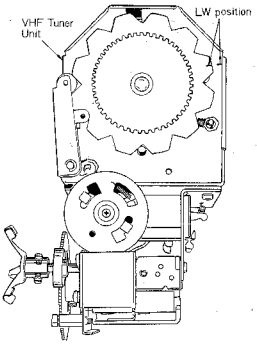


Fig. 24

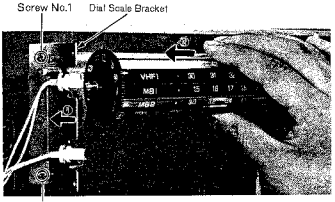


Fig. 25

4-15 TO MOUNT SW DIAL POINTER

1. Turn calibration shaft fully counterclockwise.
2. Turn tuning shaft fully counterclockwise.
3. Set dial pointer to stopper (left side) of pointer guide.
4. Attach dial cord to dial pointer.
5. Set dial pointer to start point of dial scale by turning calibration shaft.

4-16 TO OPEN BOTTOM CHASSIS

1. Remove the six (6) bottom chassis screws (nos. 32~37), as shown in fig. 1. (Refer to page 3.)
2. Remove the two (2) terminal unit screws (nos. 45 & 46), as shown in fig. 2. (Refer to page no. 4.)
3. Remove the three (3) AC adaptor screws (nos. 47~49), as shown in fig. 2. (Refer to page 4.)
4. Remove the five (5) bottom chassis screws (nos. 40~44), as shown in fig. 2. (Refer to page 4.)
5. Open bottom chassis in the direction of the arrow, as shown in fig. 29.
6. To reassemble, reverse the above procedure.

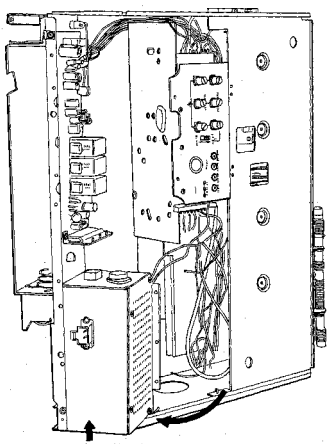


Fig. 29

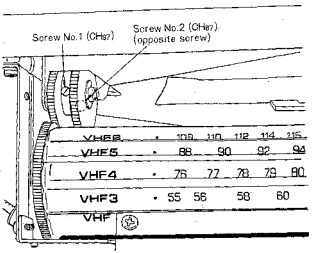
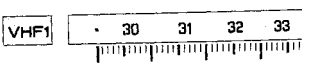


Fig. 26



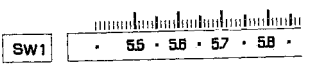


Fig. 27

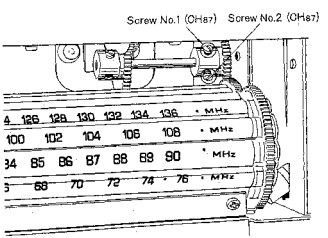


Fig. 28

5. CORD INSTALLATION GUIDE

5-1 CALIBRATION CORD

1. Cord length is 50 cm (20").
2. Arrows (1~5) indicate correct order and direction of cord installation, as shown in fig. 30.
3. Cement cord ends.

5-2 SW DIAL CORD

1. Cord length is 115 cm (45 5/16").
2. Set dial drum at the position, as shown in fig. 30.
3. Arrows (6~14) indicate correct order and direction of cord installation, as shown in fig. 30.
4. Cement cord ends.

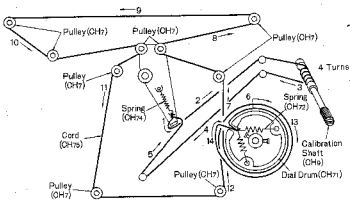


Fig. 30

5-3 VHF DIAL CORD

1. Cord length is 115 cm (45 5/16").
2. Set dial drum at the position, as shown in fig. 31.
3. Arrows (1~8) indicate correct order and direction of cord installation, as shown in fig. 31.
4. Cement cord ends.

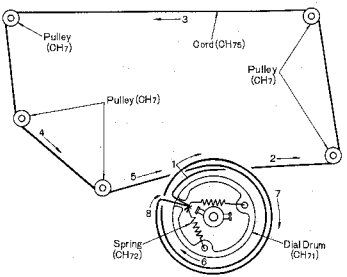


Fig. 31

5-4 TUNING SHAFT CORD

1. Remove tuning shaft unit. (Refer to tuning shaft unit removal instructions.)
2. Cord length is 170 cm (66 15/16").
3. Turn each drum to fully clockwise.
4. Arrows (1~6) indicate correct order and direction of cord installation, as shown in fig. 32.
5. Cement cord ends.

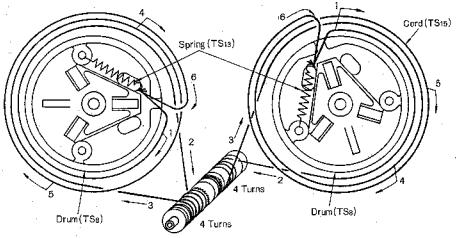


Fig. 32

6. ALIGNMENT INSTRUCTIONS

Fig. 33

Fig. 34

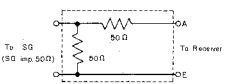


Fig. 35 Dummy Antenna

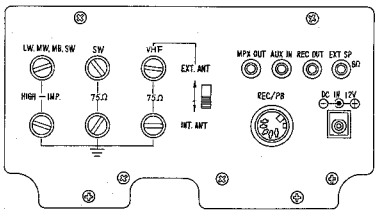


Fig. 36

- **READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT**

1. Set the volume control to the maximum position.
2. Set the treble control to the center position.
3. Set the bass control to the center position.
4. Set the loudness switch to the OFF position.
5. Set the squelch volume to the maximum position for the 56th adjustment, to the center position for the 57th adjustment, and to the OFF position for other adjustments.
6. Set the MGC control to the maximum position.
7. Set the calibration switch to the ON position for the 9th & 10th adjustments, and to the OFF position for other adjustments.
8. Set the AM/SSB-CW mode selector to the SSB-CW position for the 11th & 12th adjustments, and to the AM position for other adjustments.
9. Set the FM/AM mode selector to the AM position for the 2nd, 30th & 31st~55th adjustments, and to the FM position for other adjustment.
10. Set the AFC switch to the ON position for the 8th adjustment, and to the OFF position for other adjustments.
11. Set the ANL switch to the OFF position.
12. Set the bandwidth selector to the narrow position for the 1st & 7th adjustments, and to the wide position for other adjustmenst.
13. Set the EXT/INT antenna selector to the INT position for the 58th~65th adjustments and to the EXT position for other adjustments.
14. Set the BFO control to the center position for the 11th & 12th adjustments.
15. Output of signal generator should be no higher than necessary to obtain an output reading.

	BAND	SIGNAL GENERATOR or SWEEP GENERATOR		RADIO DIAL SETTING [DISTANCE]	INDICATOR (VTVM or SCOPE)	ADJUSTMENT	REMARKS
		CONNECTIONS	FREQUENCY				
	6-1 VHF-2nd LOCAL OSC ALIGNMENT						
(1)	VHF1	———	———	Point of non-interference.	Connect VTVM to point **TP6**. Common to chassis. (Refer to fig. 37.)	T_{10} (VHF LOCAL OSC) (Refer to fig. 37.)	Adjust T_{10} for maximum reading on VTVM.
	6-2 LW, MW, MB_1, MB_2 -IF ALIGNMENT						
(2)	MW	Connect to the HIGH-IMP terminal. (Refer to fig. 36.)	455 kHz 30% Mod. at 400 Hz	〃	Output meter across voice coil.	T_6 (AM 1st IFT) T_{19} (AM 2nd IFT) T_{20} (AM 3rd IFT) T_{12} (AM 4th IFT) T_{14} (AM 5th IFT) (Refer to figs. 37 ,39.)	Adjust for maximum output. Repeat two or three times.
	6-3 SW-IF ALIGNMENT						
(3)	SW1	Connect to point **TP4**. (Refer to fig. 38.)	〃	〃	〃	T_4 (SW IFT) (Refer to fig. 38.)	Adjust for maximum output.
	6-4 VHF AGC & SQUELCH AMPLIFIER ALIGNMENT						
(4)	VHF1	Connect to point **TP2**. Common to chassis. (Refer to fig. 40.)	10.7 MHz	〃	Connect vert. amp. of scope to point **TP7**. Common to chassis. (Refer to fig. 37.)	T_7 (VHF AGC) T_8 (VHF AGC) (Refer to fig. 37.)	Adjust for maximum amplitude and proper linearity between ±100 kHz markers. (Refer to fig. 33.)

	BAND	SIGNAL GENERATOR or SWEEP GENERATOR		RADIO DIAL SETTING [DISTANCE]	INDICATOR (VTVM or SCOPE)	ADJUSTMENT	REMARKS
		CONNECTIONS	FREQUENCY				
6-5 VHF-IF ALIGNMENT							
(5)	VHF1	Connect to point **TP2**. Common to chassis. (Refer to fig. 40.)	10.7 MHz	Point of non-interference.	Connect vert. amp. of scope to point 101. Common to chassis. (Refer to fig. 42.)	T_1 (VHF 1st IFT) T_9 (VHF 2nd IFT) T_{11} (VHF 3rd IFT) T_{13} (VHF 4th IFT) (Refer to figs.37, 40.)	Adjust for maximum amplitude and proper linearity between ±100 kHz markers. Repeat two or three times. (Refer to fig. 33)
VHF-DET ALIGNMENT							
(6)	VHF1	〃	〃	〃	Connect vert. amp. of scope to point 102. Common to chassis. (Refer to fig. 42.)	T_{15} (VHF DET) T_{16} (VHF DET) (Refer to fig. 37.)	Adjust T_{15} & T_{16} so that 10.7 MHz marker appears at the center. (Refer to fig. 34.)
6-6 VHF-NARROW ALIGNMENT							
(7)	VHF1	Connect to point **TP2**. Common to chassis. (Refer to fig. 37.)	455 kHz	〃	〃	T_{17} (VHF Narrow) T_{19} (VHF Narrow) (Refer to fig. 37.)	Adjust T_{17} & T_{19} so that 455 kHz marker appears at the center. Repeat two or three times. (Refer to fig. 34.)
VHF-DET COMPENSATIONAL ALIGNMENT							
(8)	VHF1	Connect to the VHF/75Ω terminal through dummy antenna. (Refer to figs. 35, 36.)	31 MHz	Tune to signal.	Output meter across voice coil.	T_{18} (VHF DET) (Refer to fig. 37.)	Adjust for maximum output. If the adjustment of T_{16} is very different from the previous adjustment, make adjustment once again as described in steps 5 and 6.
6-7 CALIBRATOR ALIGNMENT (455 kHz)							
(9)	—	———	———	Point of non-interference.	Connect VTVM to test point **TP9**. Common to chassis. (Refer to fig. 37.)	T_{21} (Calibrator OSC Coil) (Refer to fig. 37.)	Reduce the voltage value to 15% lower than that at maximum output by turning T_{21}. (Refer to fig. 41.) There are two adjustment places for making this 15% reduction; the place indicated by ● in figure 41 should be used.
CALIBRATOR ALIGNMENT (500 kHz)							
(10)	—	———	———	〃	Connect VTVM to test point **TP9**. Common to chassis. (Refer to fig. 42.)	T_{23} (Calibrator OSC Coil) (Refer to fig. 42.)	Reduce the voltage value to 15% lower than that at maximum output by turning T_{23}. (Refer to fig. 41.) There are two adjustment places for making this 15% reduction; the place indicated by ● in figure 41 should be used.
6-8 BFO ALIGNMENT							
(11)	—	Connect to test point **TP8**. Common to chassis. (Refer to fig. 37.)	455 kHz	〃	Audio output from speaker.	L_{83} (BFO OSC Coil) (Refer to fig. 42.)	Adjust for zero beat.
(12)	—	〃	〃	〃	Connect VTVM to point 100 and 98. (Refer to fig. 42.)	T_{22} (BFO 455 kHz Transformer) (Refer to fig. 42.)	Adjust for maximum reading on VTVM.

	BAND	SIGNAL GENERATOR or SWEEP GENERATOR		RADIO DIAL SETTING [DISTANCE]	INDICATOR (VTVM or SCOPE)	ADJUSTMENT	REMARKS
		CONNECTIONS	FREQUENCY				
		6-9 VHF1-RF ALIGNMENT					
(13)	VHF1	Connect to the VHF/75Ω terminal through dummy antenna. (Refer to figs. 35, 36.)	31 MHz	31 MHz [25mm(1")]	Output meter across voice coil.	L_5 (VHF1 OSC Coil) L_4 (VHF1 DET Coil) L_2 (VHF1 ANT Coil) L_3 (VHF1 ANT Coil) (Refer to fig. 43.)	Adjust for maximum output.
(14)	VHF1	〃	39 MHz	39 MHz [131mm(5 5/32")]	〃	C_{13} (VHF1 OSC Trimmer) C_9 (VHF1 DET Trimmer) C_8 (VHF1 ANT Trimmer) C_7 (VHF1 ANT Trimmer) (Refer to fig. 43.)	Adjust for maximum output. Repeat steps (13) and (14).
		VHF2-RF ALIGNMENT					
(15)	VHF2	〃	41 MHz	41 MHz [19mm(3/4")]	〃	L_9 (VHF2 OSC Coil) L_8 (VHF2 DET Coil) L_6 (VHF2 ANT Coil) L_7 (VHF2 ANT Coil) (Refer to fig. 44.)	Adjust for maximum output.
(16)	VHF2	〃	54 MHz	54 MHz [139mm(5 15/32")]	〃	C_{24} (VHF2 OSC Trimmer) C_{20} (VHF2 DET Trimmer) C_{16} (VHF2 ANT Trimmer) C_{19} (VHF2 ANT Trimmer) (Refer to fig. 44.)	Adjust for maximum output. Repeat steps (15) and (16).
		VHF3-RF ALIGNMENT					
(17)	VHF3	〃	56 MHz	56 MHz [16mm(5/8")]	〃	L_{13} (VHF3 OSC Coil) L_{12} (VHF3 DET Coil) L_{10} (VHF3 ANT Coil) L_{11} (VHF3 ANT Coil) (Refer to fig. 45.)	Adjust for maximum output.
(18)	VHF3	〃	75 MHz	75 MHz [141mm(5 9/16")]	〃	C_{35} (VHF3 OSC Trimmer) C_{33} (VHF3 DET Trimmer) C_{27} (VHF3 ANT Trimmer) C_{30} (VHF3 ANT Trimmer) (Refer to fig. 45.)	Adjust for maximum output. Repeat steps (17) and (18).
		VHF4-RF ALIGNMENT					
(19)	VHF4	〃	77 MHz	77 MHz [20mm(13/16")]	〃	L_{17} (VHF4 OSC Coil) L_{16} (VHF4 DET Coil) L_{14} (VHF4 ANT Coil) (Refer to fig. 46.)	Adjust for maximum output.
(20)	VHF4	〃	89 MHz	89 MHz [134mm(5 5/16")]	〃	C_{51} (VHF4 OSC Trimmer) C_{46} (VHF4 DET Trimmer) C_{39} (VHF4 ANT Trimmer) (Refer to fig. 46.)	Adjust for maximum output. Repeat steps (19) and (20).
		VHF5-RF ALIGNMENT					
(21)	VHF5	〃	90 MHz	90 MHz [24mm(15/16")]	〃	L_{21} (VHF5 OSC Coil) L_{20} (VHF5 DET Coil) L_{18} (VHF5 ANT Coil) (Refer to fig. 47.)	Adjust for maximum output.
(22)	VHF5	〃	106 MHz	106 MHz [129mm(5 1/8")]	〃	C_{64} (VHF5 OSC Trimmer) C_{59} (VHF5 DET Trimmer) C_{54} (VHF5 ANT Trimmer) (Refer to fig. 47.)	Adjust for maximum output. Repeat steps (21) and (22).

	BAND	SIGNAL GENERATOR or SWEEP GENERATOR		RADIO DIAL SETTING [DISTANCE]	INDICATOR (VTVM or SCOPE)	ADJUSTMENT	REMARKS
		CONNECTIONS	FREQUENCY				
				VHF6-RF ALIGNMENT			
(23)	VHF6	Connect to the VHF/75Ω terminal through dummy antenna. (Refer to figs. 35, 36.)	110 MHz	110 MHz [20mm(25/32")]	Output meter across voice coil.	L_{26} (VHF6 OSC Coil) L_{24} (VHF6 DET Coil) L_{22} (VHF6 ANT Coil) L_{23} (VHF6 ANT Coil) (Refer to fig. 48.)	Adjust for maximum output.
(24)	VHF6	〃	134 MHz	134 MHz [134mm(5 3/16")]	〃	C_{79} (VHF6 OSC Trimmer) C_{74} (VHF6 DET Trimmer) C_{66} (VHF6 ANT Trimmer) C_{72} (VHF6 ANT Trimmer) (Refer to fig. 48.)	Adjust for maximum output. Repeat steps (23) and (24).
				VHF7-RF ALIGNMENT			
(25)	VHF7	〃	138 MHz	138 MHz [21mm(53/64")]	〃	L_{29} (VHF7 OSC Coil) L_{28} (VHF7 DET Coil) L_{26} (VHF7 ANT Coil) L_{27} (VHF7 ANT Coil) (Refer to fig. 49.)	Adjust for maximum output.
(26)	VHF7	〃	174 MHz	174 MHz [140mm(5 33/64")]	〃	C_{86} (VHF7 OSC Trimmer) C_{89} (VHF7 DET Trimmer) C_{82} (VHF7 ANT Trimmer) C_{88} (VHF7 ANT Trimmer) (Refer to fig. 49.)	Adjust for maximum output. Repeat steps (25) and (26).
				VHF8-RF ALIGNMENT			
(27)	VHF8	〃	176 MHz	176 MHz [13mm(33/64")]	〃	L_{33} (VHF8 OSC Coil) (Refer to fig. 50.)	Adjust for maximum output.
(28)	VHF8	〃	230 MHz	230 MHz [146mm(5 3/4")]	〃	C_{113} (VHF8 OSC Trimmer) (Refer to fig. 50.)	〃
(29)	VHF8	〃	225 MHz	Tune to signal.	〃	C_{99} (VHF8 ANT Trimmer) C_{104} (VHF8 ANT Trimmer) C_{107} (VHF8 DET Trimmer) (Refer to fig. 50.)	Adjust for maximum output. Repeat steps (27)~(29).

6-10 SW-VARIABLE IF ALIGNMENT

Notes: 1. Connect earth lead wire of frame antenna jack to chassis before SW alignment.

2. ★Reduce the voltage value to 15% lower than that at maximum output by turning OSC coil. (Refer to fig. 41.)

(30)	SW1	Connect to test point **TP4**. Common to chassis. (Refer to fig. 38.)	1.7 MHz 30% Mod. with 400 Hz	6.5 MHz	〃	T_6 (SW OSC Coil) T_5 (SW DET Coil) T_3 (SW DET Coil) (Refer to fig. 38.)	Adjust for maximum output.
(31)	SW1	〃	2.7 MHz 30% Mod. with 400 Hz	5.5 MHz	〃	C_{256} (SW OSC Trimmer) C_{246} (SW DET Trimmer) C_{253} (SW DET Trimmer) (Refer to fig. 38.)	Adjust for maximum output. Repeat steps (30) and (31).
				SW1-RF ALIGNMENT			
(32)	SW1	Connect to the SW/75Ω terminal. (Refer to fig. 36.)	5.5 MHz	5.5 MHz [11mm(7/16")]	〃	L_{39} (SW1 OSC Coil) ★ L_{37} (SW1 DET Coil) L_{36} (SW1 ANT Coil) (Refer to fig. 51.)	Refer to note 2. Adjust for maximum output.
(33)	SW1	〃	6.5 MHz	6.5 MHz [141mm(5 5/8")]	〃	C_{139} (SW1 DET Trimmer) C_{135} (SW1 ANT Trimmer) (Refer to fig. 51.)	Adjust for maximum output. Repeat steps (32) and (33).

	BAND	SIGNAL GENERATOR or SWEEP GENERATOR		RADIO DIAL SETTING [DISTANCE]	INDICATOR (VTVM or SCOPE)	ADJUSTMENT	REMARKS
		CONNECTIONS	FREQUENCY				
				SW2-RF ALIGNMENT			
(34)	SW2	Connect to the SW/75Ω terminal (Refer to fig. 36.)	7 MHz	7 MHz [11mm ($\frac{7}{16}$")]	Output meter across voice coil.	L_{41} (SW2 OSC Coil) * L_{40} (SW2 DET Coil) L_{39} (SW2 ANT Coil) (Refer to fig. 52.)	Refer to note 2. Adjust for maximum output.
(35)	SW2	〃	8 MHz	8 MHz [141mm(5$\frac{9}{16}$")]	〃	C_{145} (SW2 DET Trimmer) C_{143} (SW2 ANT Trimmer) (Refer to fig. 52.)	Adjust for maximum output. Repeat steps (34) and (35).
				SW3-RF ALIGNMENT			
(36)	SW3	〃	9 MHz	9 MHz [11mm($\frac{7}{16}$")]	〃	L_{44} (SW3 OSC Coil) * L_{43} (SW3 DET Coil) L_{42} (SW3 ANT Coil) (Refer to fig. 53.)	Refer to note 2. Adjust for maximum output.
(37)	SW3	〃	10 MHz	10 MHz [141mm(5$\frac{9}{16}$")]	〃	C_{154} (SW3 DET Trimmer) C_{151} (SW3 ANT Trimmer) (Refer to fig. 53.)	Adjust for maximum output. Repeat steps (36) and (37).
				SW4-RF ALIGNMENT			
(38)	SW4	〃	11.5 MHz	11.5 MHz [11mm($\frac{7}{16}$")]	〃	L_{47} (SW4 OSC Coil) * L_{46} (SW4 DET Coil) L_{45} (SW4 ANT Coil) (Refer to fig. 54.)	Refer to note 2. Adjust for maximum output.
(39)	SW4	〃	12.5 MHz	12.5 MHz [141mm(5$\frac{9}{16}$")]	〃	C_{163} (SW4 DET Trimmer) C_{160} (SW4 ANT Trimmer) (Refer to fig. 54.)	Adjust for maximum output. Repeat steps (38) and (39).
				SW5-RF ALIGNMENT			
(40)	SW5	〃	14 MHz	14 MHz [11mm($\frac{7}{16}$")]	〃	L_{50} (SW5 OSC Coil) * L_{49} (SW5 DET Coil) L_{48} (SW5 ANT Coil) (Refer to fig. 55.)	Refer to note 2. Adjust for maximum output.
(41)	SW5	〃	15 MHz	15 MHz [141mm(5$\frac{9}{16}$")]	〃	C_{171} (SW5 DET Trimmer) C_{168} (SW5 ANT Trimmer) (Refer to fig. 55.)	Adjust for maximum output. Repeat steps (40) and (41).
				SW6-RF ALIGNMENT			
(42)	SW6	〃	15 MHz	15 MHz [11mm($\frac{7}{16}$")]	〃	L_{53} (SW6 OSC Coil) * L_{52} (SW6 DET Coil) L_{51} (SW6 ANT Coil) (Refer to fig. 56.)	Refer to note 2. Adjust for maximum output.
(43)	SW6	〃	16 MHz	16 MHz [141mm(5$\frac{9}{16}$")]	〃	C_{180} (SW6 DET Trimmer) C_{176} (SW6 ANT Trimmer) (Refer to fig. 56.)	Adjust for maximum output. Repeat steps (42) and (43).
				SW7-RF ALIGNMENT			
(44)	SW7	〃	17.5 MHz	17.5 MHz [11mm($\frac{7}{16}$")]	〃	L_{56} (SW7 OSC Coil) * L_{55} (SW7 DET Coil) L_{54} (SW7 ANT Coil) (Refer to fig. 57.)	Refer to note 2. Adjust for maximum output.
(45)	SW7	〃	18.5 MHz	18.5 MHz [141mm(5$\frac{9}{16}$")]	〃	C_{189} (SW7 DET Trimmer) C_{186} (SW7 ANT Trimmer) (Refer to fig. 57.)	Adjust for maximum output. Repeat steps (44) and (45).
				SW8-RF ALIGNMENT			
(46)	SW8	〃	21 MHz	21 MHz [11mm($\frac{7}{16}$")]	〃	L_{59} (SW8 OSC Coil) * L_{58} (SW8 DET Coil) L_{57} (SW8 ANT Coil) (Refer to fig. 58.)	Refer to note 2. Adjust for maximum output.

■ ALIGNMENT POINTS

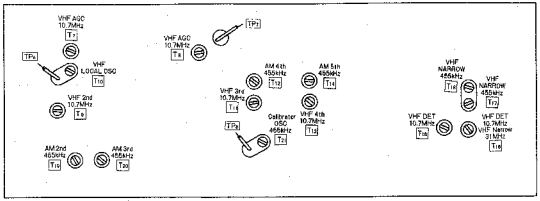


Fig. 37

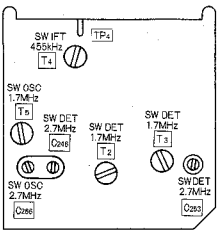


Fig. 38

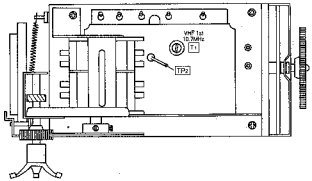


Fig. 40

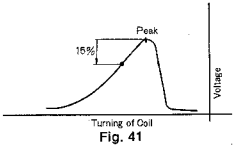


Fig. 41

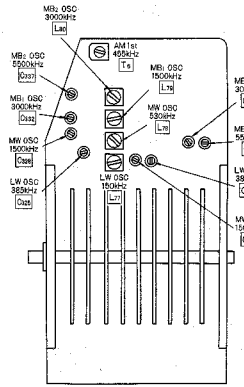


Fig. 39

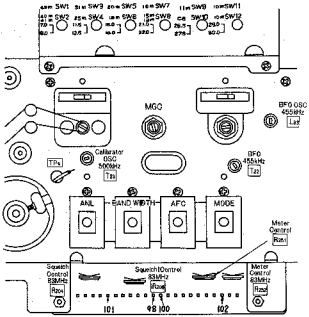


Fig. 42

■ ALIGNMENT POINTS

• **VHF1**

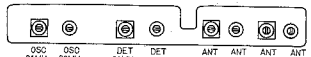


Fig. 43

• **VHF2**

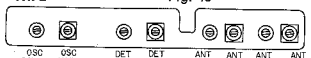


Fig. 44

• **VHF3**

Fig. 45

• **VHF 4**

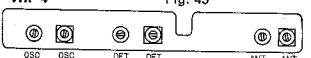


Fig. 46

• **VHF5**

Fig. 47

• **VHF6**

Fig. 48

• **VHF7**

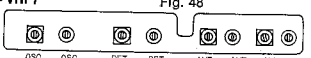


Fig. 49

• **VHF8**

Fig. 50

• **SW1**

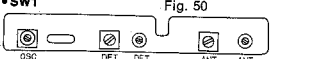


Fig. 51

• **SW2**

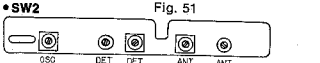


Fig. 52

• **SW3**

Fig. 53

• **SW4**

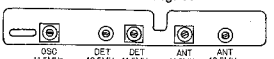


Fig. 54

• **SW5**

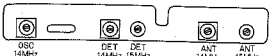


Fig. 55

• **SW6**

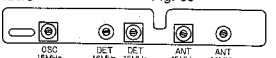


Fig. 56

• **SW7**

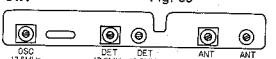


Fig. 57

• **SW8**

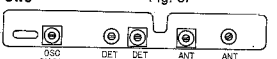


Fig. 58

• **SW9**

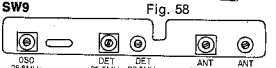


Fig. 59

• **SW10**

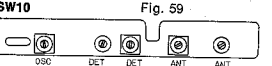


Fig. 60

• **SW11**

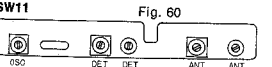


Fig. 61

• **SW12**

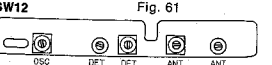


Fig. 62

	BAND	SIGNAL GENERATOR or SWEEP GENERATOR CONNECTIONS	SIGNAL GENERATOR or SWEEP GENERATOR FREQUENCY	RADIO DIAL SETTING [DISTANCE]	INDICATOR (VTVM or SCOPE)	ADJUSTMENT	REMARKS
				SW8-RF ALIGNMENT			
(47)	SW8	Connect to the SW/75Ω terminal. (Refer to fig. 36.)	22 MHz	22 MHz [141mm(5 9/16")]	Output meter across voice coil.	C_{198} (SW8 DET Trimmer) C_{194} (SW8 ANT Trimmer) (Refer to fig. 58.)	Adjust for maximum output. Repeat steps (46) and (47).
				SW9-RF ALIGNMENT			
(48)	SW9	〃	25.5 MHz	25.5 MHz [11mm(7/16")]	〃	L_{62} (SW9 OSC Coil) * L_{61} (SW9 DET Coil) L_{60} (SW9 ANT Coil) (Refer to fig. 59.)	Refer to note 2. Adjust for maximum output.
(49)	SW9	〃	26.5 MHz	26.5 MHz [141mm(5 9/16")]	〃	C_{207} (SW9 DET Trimmer) C_{204} (SW9 ANT Trimmer) (Refer to fig. 59.)	Adjust for maximum output. Repeat steps (48) and (49).
				SW10-RF ALIGNMENT			
(50)	SW10	〃	26.5 MHz	26.5 MHz [11mm(7/16")]	〃	L_{66} (SW10 OSC Coil) * L_{64} (SW10 DET Coil) L_{63} (SW10 ANT Coil) (Refer to fig. 60.)	Refer to note 2. Adjust for maximum output.
(51)	SW10	〃	27.5 MHz	27.5 MHz [141mm(5 9/16")]	〃	C_{215} (SW10 DET Trimmer) C_{212} (SW10 ANT Trimmer) (Refer to fig. 60.)	Adjust for maximum output. Repeat steps (50) and (51).
				SW11-RF ALIGNMENT			
(52)	SW11	〃	28 MHz	28 MHz [11mm(7/16")]	〃	L_{68} (SW11 OSC Coil) * L_{67} (SW11 DET Coil) L_{66} (SW11 ANT Coil) (Refer to fig. 61.)	Refer to note 2. Adjust for maximum output.
(53)	SW11	〃	29 MHz	29 MHz [141mm(5 9/16")]	〃	C_{224} (SW11 DET Trimmer) C_{220} (SW11 ANT Trimmer) (Refer to fig. 61.)	Adjust for maximum output. Repeat steps (52) and (53).
				SW12-RF ALIGNMENT			
(54)	SW12	〃	29 MHz	29 MHz [11mm(7/16")]	〃	L_{71} (SW12 OSC Coil) * L_{70} (SW12 DET Coil) L_{69} (SW12 ANT Coil) (Refer to fig. 62.)	Refer to note 2. Adjust for maximum output.
(55)	SW12	〃	30 MHz	30 MHz [141mm(5 9/16")]	〃	C_{233} (SW12 DET Trimmer) C_{229} (SW12 ANT Trimmer) (Refer to fig. 62.)	Adjust for maximum output. Repeat steps (54) and (55).

6-11 SQUELCH ALIGNMENT

(56)	VHF4	Connect to the VHF/75Ω terminal through dummy antenna. (Refer to fig. 35,36.)	83 MHz 30% Mod. with 400 Hz 15 dB	Tune to signal.	———	R_{206} (Squelch Control) (Refer to fig. 42.)	Set R_{204} to the center. Adjust R_{206} so that the squelch will function.
(57)	VHF4	〃	〃	〃	———	R_{204} (Squelch Control) (Refer to fig. 42.)	If the squelch doesn't function even with the squelch VR located at about center, adjust R_{204} so that it will. Confirm that the squelch functions on all bands (VHF1~VHF8).

6-12 LW-RF ALIGNMENT

Note: Connect earth lead wire of frame antenna jack to chassis before alignment.

(58)	LW	Fashion loop of several turns of wire and radiate signal into loop of receiver.	150 kHz	150 kHz [15mm(19/32")]	Output meter across voice coil.	L_{77} (LW OSC Coil) L_{78} (LW ANT Coil) (Refer to figs. 39,63.)	Adjust for maximum output.

	BAND	SIGNAL GENERATOR or SWEEP GENERATOR CONNECTIONS	SIGNAL GENERATOR or SWEEP GENERATOR FREQUENCY	RADIO DIAL SETTING [DISTANCE]	INDICATOR (VTVM or SCOPE)	ADJUSTMENT	REMARKS
				LW-RF ALIGNMENT			
(59)	LW	Fashion loop of several turns of wire and radiate signal into loop of receiver.	385 kHz	385 kHz [139mm(5 15/32")]	Output meter across voice coil.	C_{325} (LW OSC Trimmer) C_{303} (LW ANT Trimmer) (Refer to fig. 39.)	Adjust for maximum output. Repeat steps (58) and (59).
				MW-RF ALIGNMENT			
(60)	MW	〃	530 kHz	530 kHz [8mm(5/16")]	〃	L_{78} (MW OSC Coil) L_{74} (MW ANT Coil) (Refer to figs. 39, 64.)	Adjust for maximum output.
(61)	MW	〃	1500 kHz	1500 kHz [139mm(5 15/32")]	〃	C_{328} (MW OSC Trimmer) C_{305} (MW ANT Trimmer) (Refer to fig. 39.)	Adjust for maximum output. Repeat steps (60) and (61).
				MB1-RF ALIGNMENT			
(62)	MB1	〃	1500 kHz	1500 kHz [13mm(1/2")]	〃	L_{79} (MB1 OSC Coil) L_{75} (MB1 ANT Coil) (Refer to figs. 39, 65.)	Adjust for maximum output.
(63)	MB1	〃	3000 kHz	3000 kHz [143mm(5 5/8")]	〃	C_{332} (MB1 OSC Trimmer) C_{309} (MB1 ANT Trimmer) (Refer to fig. 39.)	Adjust for maximum output. Repeat steps (62) and (63).
				MB2-RF ALIGNMENT			
(64)	MB2	〃	3000 kHz	3000 kHz [12mm(15/32")]	〃	L_{80} (MB2 OSC Coil) L_{76} (MB2 ANT Coil) (Refer to fig. 39, 65.)	Adjust for maximum output.
(65)	MB2	〃	5500 kHz	5500 kHz [142mm(5 19/32")]	〃	C_{337} (MB2 OSC Trimmer) C_{311} (MB2 ANT Trimmer) (Refer to fig. 39.)	Adjust for maximum output. Repeat steps (64) and (65).
				6-13 TUNING METER ALIGNMENT			
(66)	MW	〃	1000 kHz (74 dB/m)	Tune to signal.	———	R_{252} (Meter Control) (Refer to fig. 42.)	Adjust R_{252} so that the indication needle is at the position shown in figure 66.

6-14 BATTERY CHECK ALIGNMENT

	RADIO SETTING	ADJUSTMENT	REMARKS
(67)	• Set meter switch to battery check position. • Set volume control to minimum. • Supply DC 13.2V from the EXT. DC terminal.	R_{251} (Meter Control) (Refer to fig. 42.)	Adjust R_{251} so that the indication needle is at the position shown in fig. 67. Note that the battery can be checked even with the AC cord connected, and that when the DC power source is disconnected, the meter needle won't fluctuate.

■ ALIGNMENT POINTS

Fig. 63

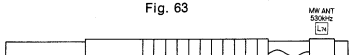


Fig. 64

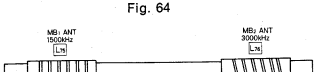


Fig. 65

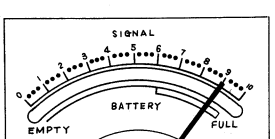


Fig. 66

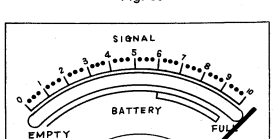
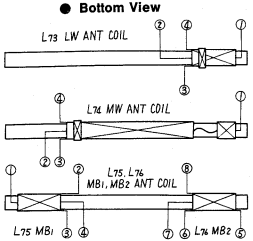
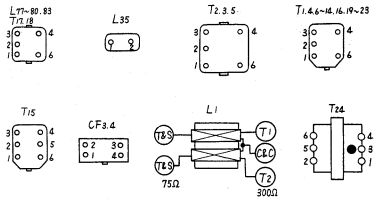


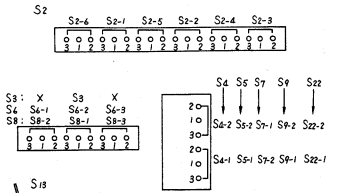
Fig. 67

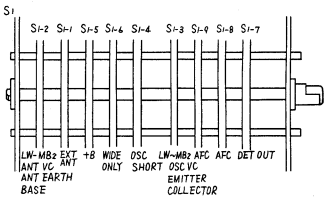
7. SCHEMATIC DIAGRAM AND CIRCUIT BOARD WIRING VIEW

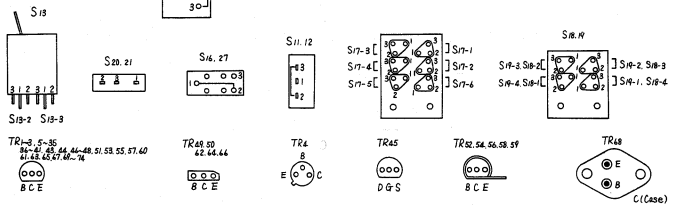
● **Bottom View**

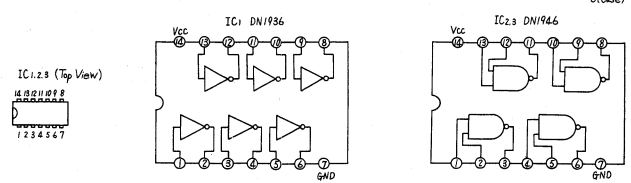












Notes:

1. DC voltage measurements are taken with circuit tester 10kΩ/V from chassis. (Supply DC 12V from the EXT. DC terminal.)
2. Standard condition of radio
   - Volume Control.....Maximum Position.
   - Treble and Bass Controls.....Center Position.
   - Loudness Switch .....OFF Position.
   - Squelch Volume .....OFF Position.
   - MGC Control.....Maximum Position.
   - Calibration Switch .....OFF position.
   - AM/SSB-CW Mode Selector.....AM Position.
   - Mode Selector .....FM Position.
   - AFC Switch.....OFF position.
   - ANL Switch.....OFF Position.
   - Band Width Switch.....Wide Position.

7-1 GENERAL SCHEMATIC DIAGRAM–MODEL RF-8000

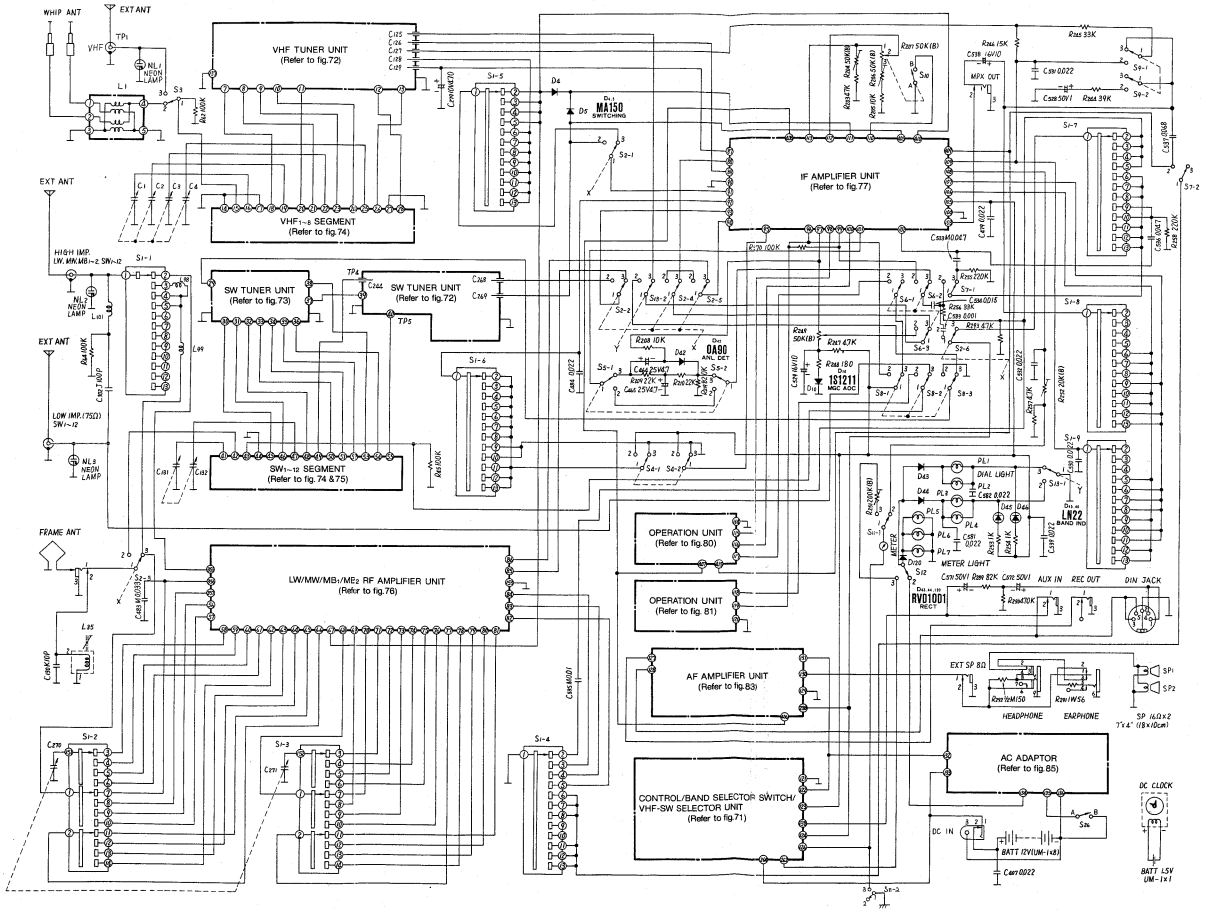


Fig. 68

Notes:

1. S1-1, S1-4~S1-9: Band selector in "LW BAND" position.
   2. LW BAND 6. VHF1 BAND 10. VHF5 BAND
   3. MW BAND 7. VHF2 BAND 11. VHF6 BAND
   4. MB1 BAND 8. VHF3 BAND 12. VHF7 BAND
   5. MB2 BAND 9. VHF4 BAND 13. VHF8 BAND
2. S1-2~S1-3: Band selector in "LW BAND" position.
   3, 7, 11. LW BAND 5, 9, 13. MB1 BAND
   4, 8, 12. MW BAND 6, 10, 14. MB2 BAND
3. S2-1~S2-5: Tuner selector (VHF Tuner, LW~MB2 BAND-SW Tuner) in "VHF Tuner LW~MB2 BAND" position.
4. S3: Antenna selector (INT-EXT) in "INT" position.
5. S4-1~S4-2: Band width selector (WIDE-NARROW) in "WIDE" position.
6. S5-1~S5-2: ANL switch (ON-OFF) in "ON" position.
7. S6-1~S6-3: AM mode selector (CW, SSB-AM) in "AM" position.
8. S7-1~S7-2: VHF mode selector (FM-AM) in "FM" position.
9. S8-1~S8-3: Calibration switch (ON-OFF) in "ON" position.
10. S9-1~S9-2: AFC switch (ON-OFF) in "ON" position.
11. S10: Squelch switch (ON-OFF) in "ON" position.
12. S11-1, S11-2: Battery check selector (BATTERY-SIGNAL METER) in "SIGNAL METER" position.
13. S12: Dial light switch (ON-OFF) in "OFF" position.
14. S13-1~S13-2: Dial light selector (VHF Tuner, LW~MB2 BAND-SW Tuner) in "VHF Tuner" position.
15. S23: DIN selector (DIN-TUNER, AUX) in "DIN" position.
16. S26: Power switch (ON-OFF) in "OFF" position.

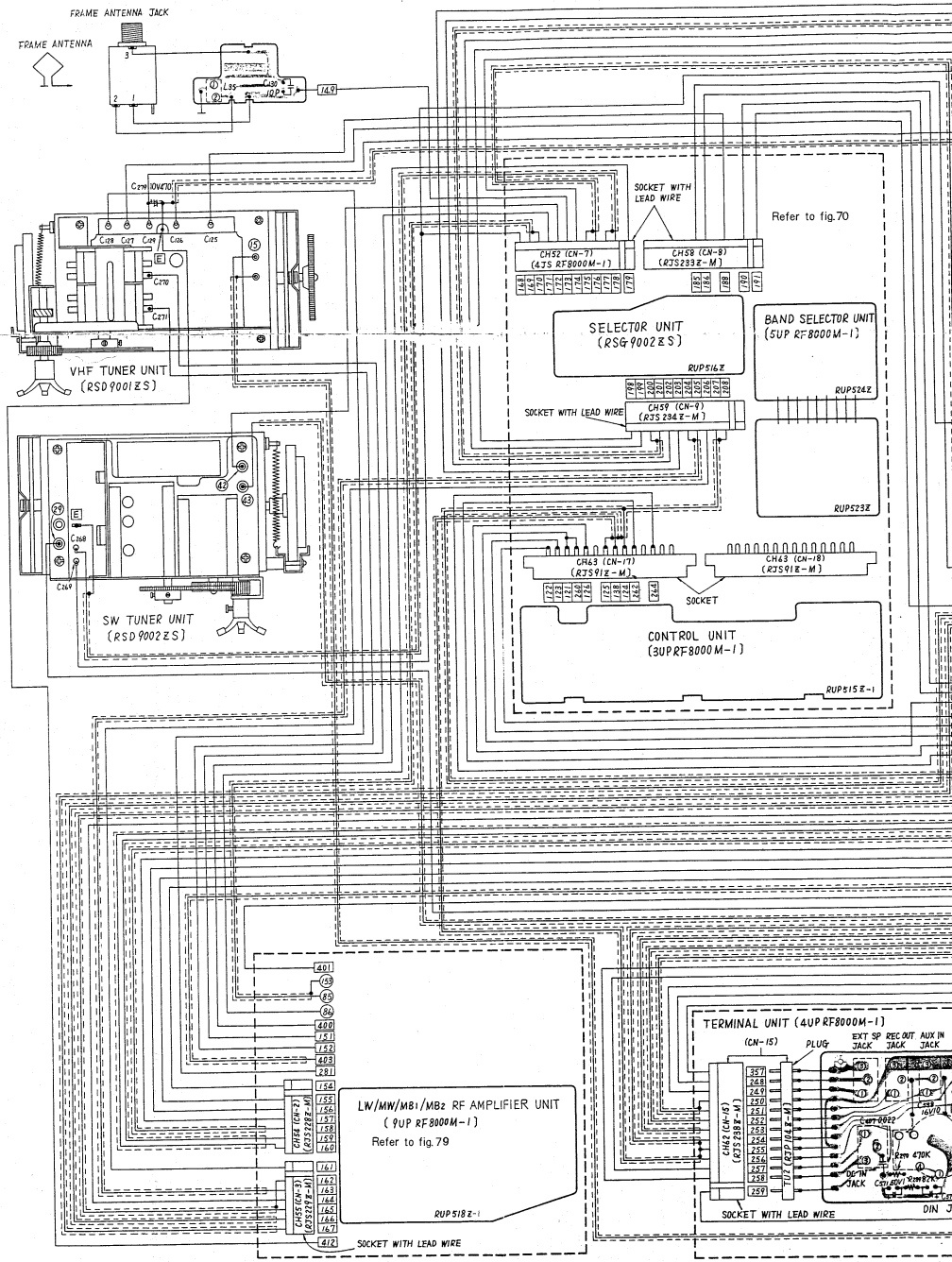
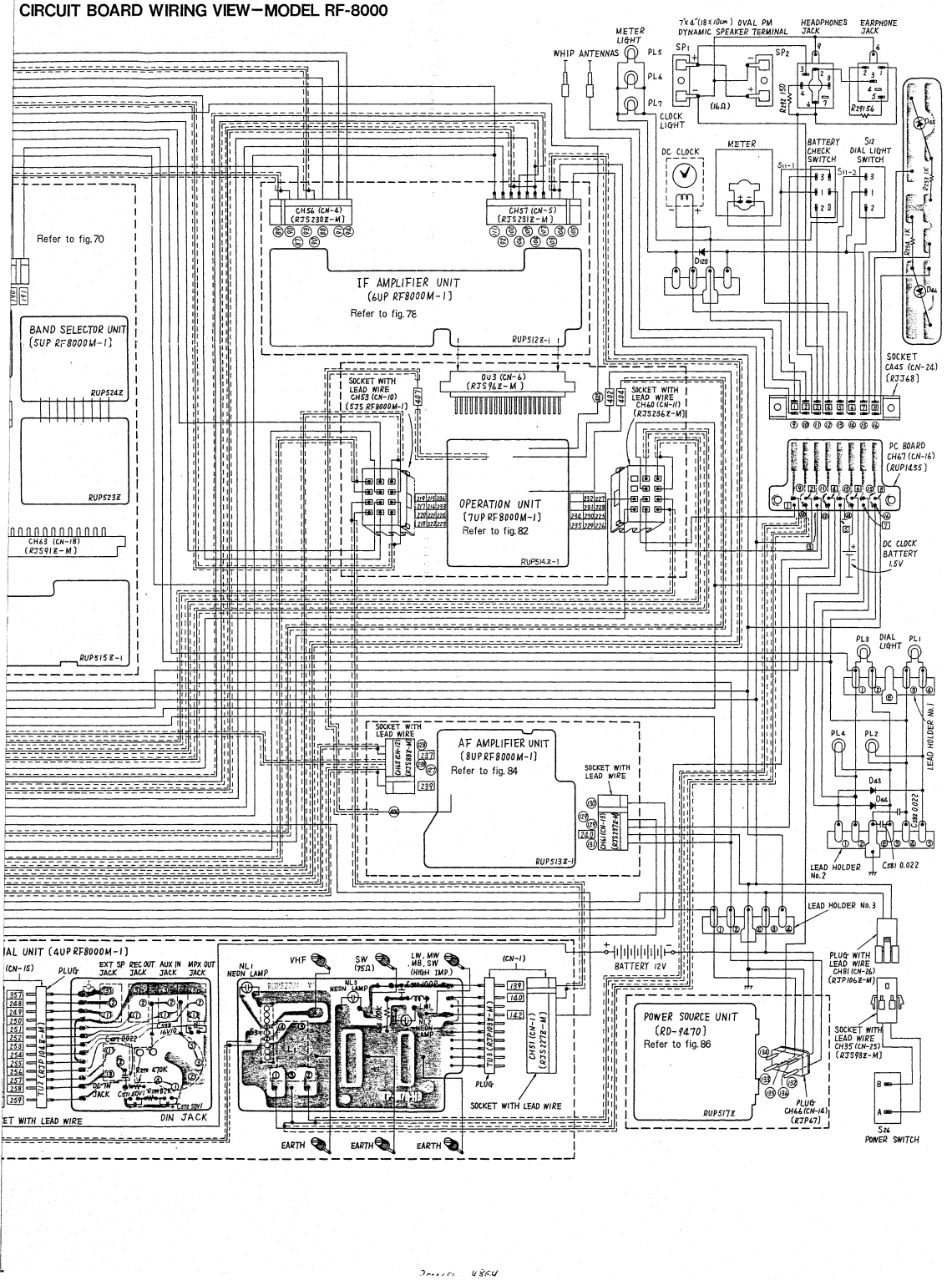
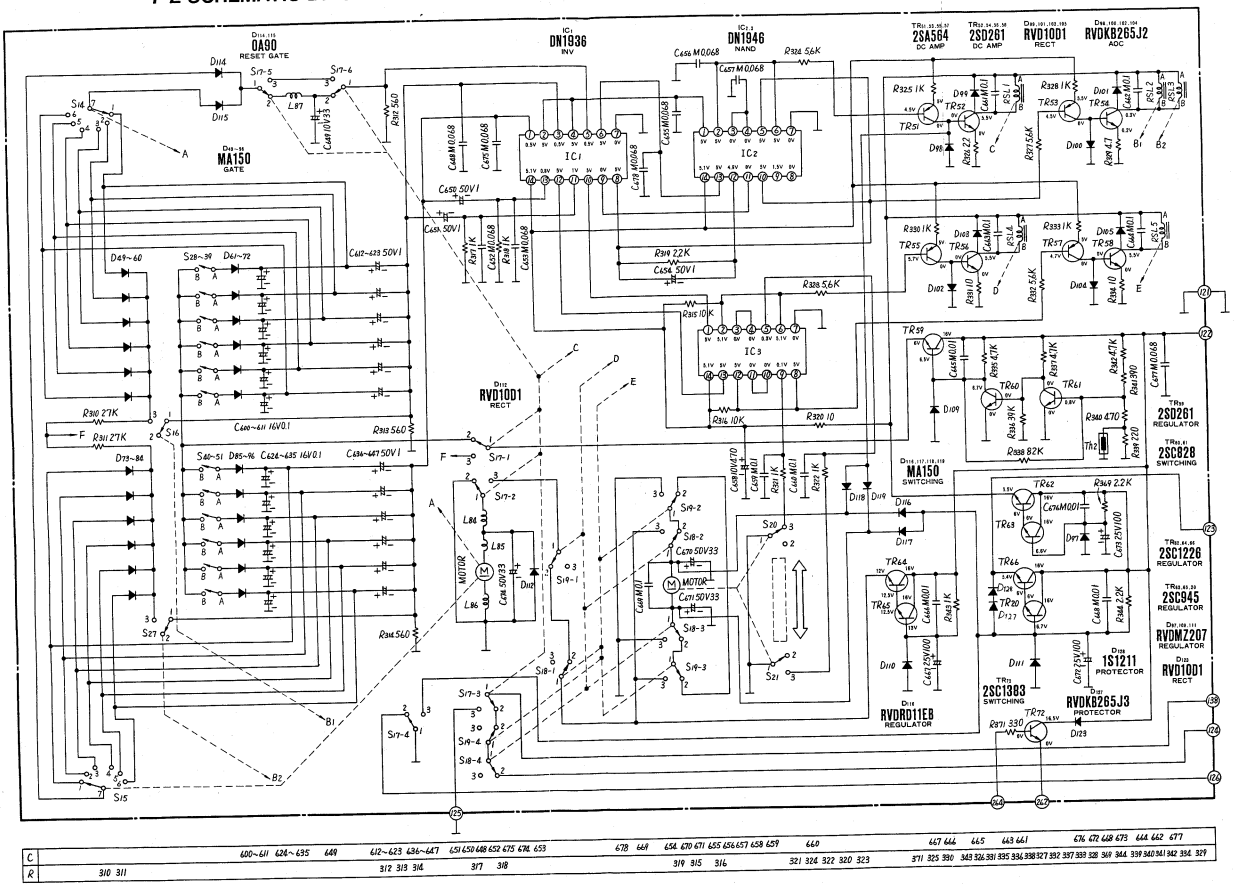

FRAME ANTENNA JACK
FRAME ANTENNA
VHF TUNER UNIT (RSD9001ZS)
SW TUNER UNIT (RSD9002ZS)
SOCKET WITH LEAD WIRE
Refer to fig.70
CH52 (CN-7) (4JS RF8000M-1)
CH58 (CN-8) (RJS233Z-M)
SELECTOR UNIT (RSG9002ZS)
RUP516Z
BAND SELECTOR UNIT (5UP RF8000M-1)
RUP524Z
CH59 (CN-9) (RJS234Z-M)
RUP523Z
CH63 (CN-17) (RJS91Z-M)
CH63 (CN-18) (RJS91Z-M)
SOCKET
CONTROL UNIT (3UP RF8000M-1)
RUP515Z-1
LW/MW/MB1/MB2 RF AMPLIFIER UNIT (9UP RF8000M-1)
Refer to fig.79
RUP518Z-1
CH54 (CN-2) (RJS228Z-M)
CH55 (CN-3) (RJS229Z-M)
SOCKET WITH LEAD WIRE
TERMINAL UNIT (4UP RF8000M-1)
(CN-15)
PLUG
CH43 (CN-15) (RJS218Z-M)
EXT SP JACK
REC OUT JACK
AUX IN JACK
DC-IN JACK
SOCKET WITH LEAD WIRE

Fig. 69

CIRCUIT BOARD WIRING VIEW—MODEL RF-8000



7-2 SCHEMATIC DIAGRAM-CONTROL/BAND SELECTOR/VHF-SW SELECTOR UNIT

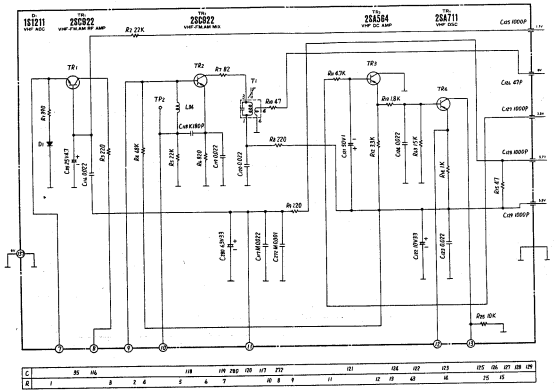


Notes:

1. S_{14}: VHF Band selector in "VHF1 BAND" position.
2. S_{15}: SW Band selector in "SW1 BAND" position.
3. S_{16}: VHF Tuner discharge switch (ON-OFF) in "OFF" position.
4. $S_{17\text{-}1}$~$S_{17\text{-}6}$: Motor switch (ON-OFF) in "OFF" position.
5. $S_{18\text{-}1}$~$S_{18\text{-}4}$: Motor switch (ON-OFF) in "OFF" position.
6. $S_{19\text{-}1}$~$S_{19\text{-}4}$: Motor switch (ON-OFF) in "OFF" position.
7. S_{20}: Motor stop switch (ON-OFF) in "ON" position.
8. S_{21}: Motor stop switch (ON-OFF) in "ON" position.
9. S_{27}: SW Tuner discharge switch (ON-OFF) in "OFF" position.
10. S_{28}-S_{51}: 24-BAND selector (ON-OFF) in "OFF" position.
11. DC voltage measurements are taken with circuit tester 10kΩ/V from chassis. (Supply DC 12V from the EXT. DC terminal.)
    TR_{72}.....AC position.

Fig. 71

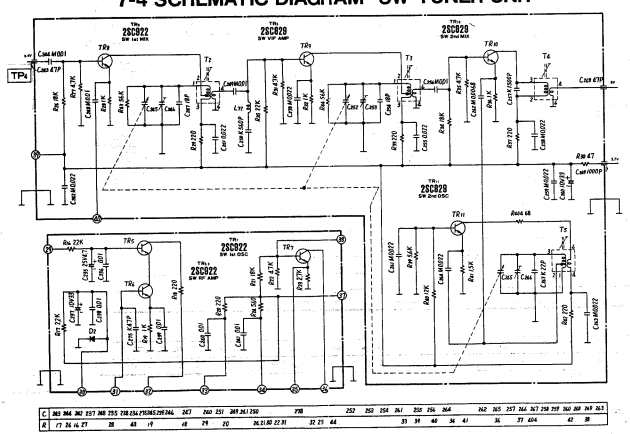
7-3 SCHEMATIC DIAGRAM–VHF TUNER UNIT



Note:
DC voltage measurements are taken with circuit tester 10kΩ/V from chassis. (Supply DC 12V from the EXT. DC terminal.)

Fig. 72

7-4 SCHEMATIC DIAGRAM–SW TUNER UNIT

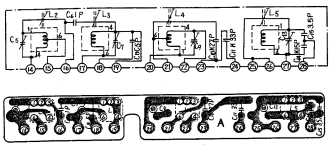


Note:
DC voltage measurements are taken with circuit tester 10kΩ/V from chassis. (Supply DC 12V from the EXT. DC terminal.)

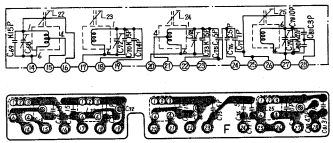
Fig. 73

7-5 SCHEMATIC DIAGRAM AND CIRCUIT BOARD WIRING VIEW–VHF & SW SEGMENTS

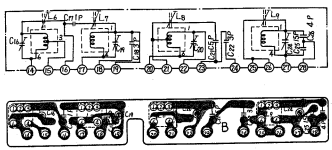
- VHF1



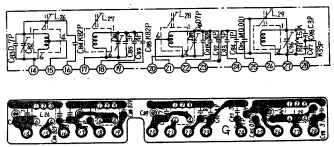
- VHF6



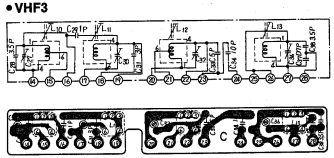
- VHF2



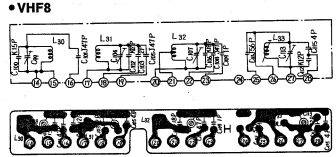
- VHF7



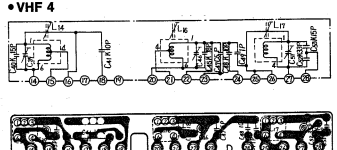
- VHF3



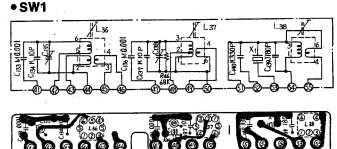
- VHF8



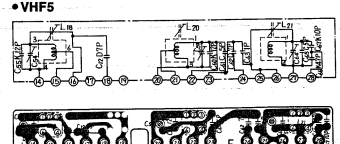
- VHF 4



- SW1



- VHF5



- SW2

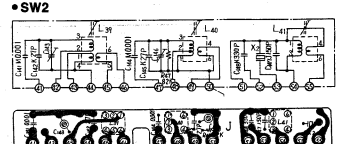


Fig. 74

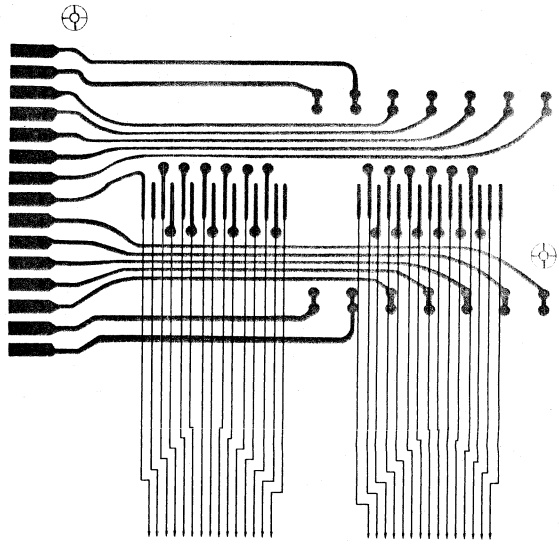
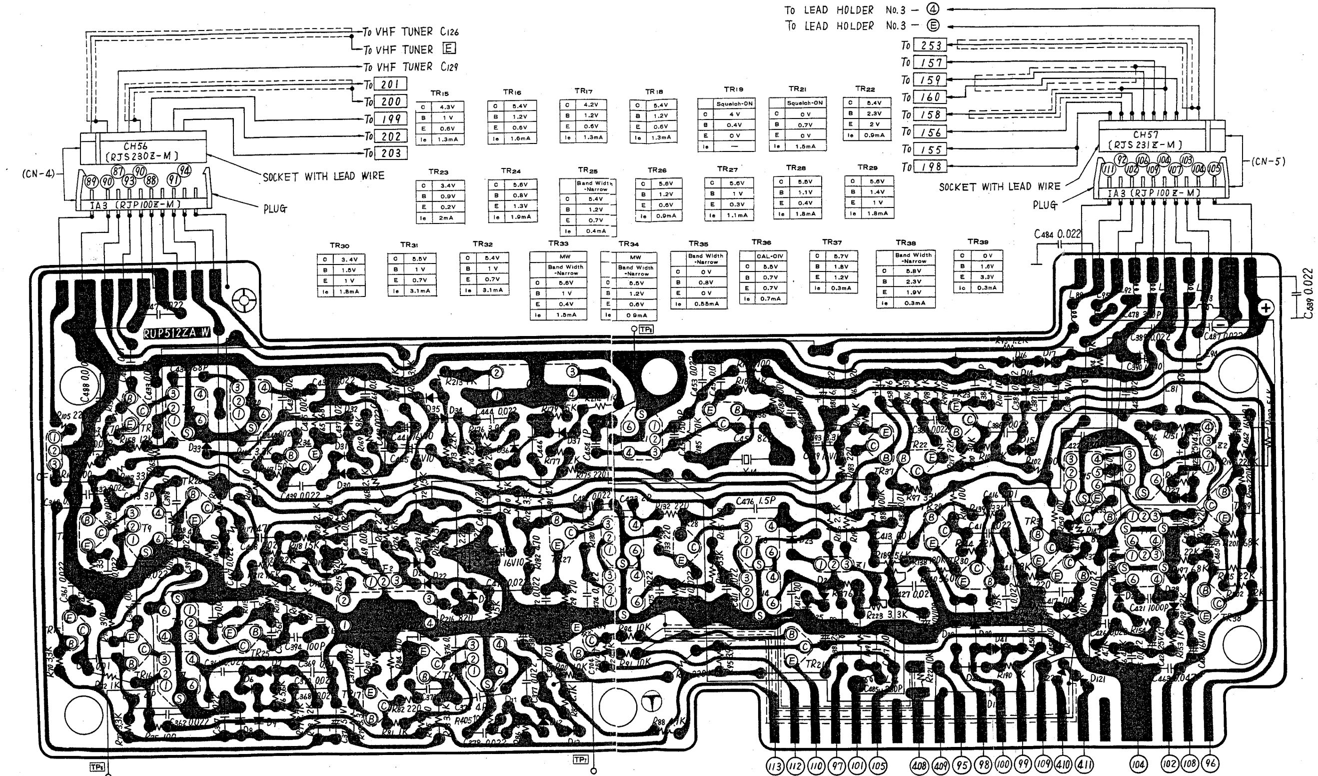


Fig. 74

Fig. 75

7-8 CIRCUIT BOARD WIRING VIEW–IF AMPLIFIER UNIT



	TR15	TR16	TR17	TR18	TR19	TR21	TR22
					Squelch-ON	Squelch-ON	
C	4.3V	5.4V	4.2V	5.4V	4 V	0 V	5.4V
B	1 V	1.2V	1.2V	1.2V	0.4V	0.7V	2.3V
E	0.6V	0.6V	0.6V	0.6V	0 V	0 V	2 V
Ie	1.3mA	1.6mA	1.3mA	1.3mA	—	1.5mA	0.9mA

	TR23	TR24	TR25	TR26	TR27	TR28	TR29
			Band Width -Narrow				
C	3.4V	5.6V	5.4V	5.6V	5.6V	5.5V	5.6V
B	0.9V	0.8V	1.2V	1.2V	1 V	1.1V	1.4V
E	0.2V	1.3V	0.7V	0.6V	0.3V	0.4V	1 V
Ie	2mA	1.9mA	0.4mA	0.9mA	1.1mA	1.8mA	1.8mA

	TR30	TR31	TR32	TR33	TR34	TR35	TR36	TR37	TR38	TR39
				MW Band Width -Narrow	MW Band Width -Narrow	Band Width -Narrow	CAL-OIV		Band Width -Narrow	
C	3.4V	5.5V	5.4V	5.6V	5.5V	0 V	5.5V	5.7V	5.8V	0 V
B	1.5V	1 V	1 V	1 V	1.2V	0.8V	0.7V	1.8V	2.3V	1.6V
E	1 V	0.7V	0.7V	0.4V	0.6V	0 V	0.7V	1.2V	1.9V	3.3V
Ie	1.8mA	3.1mA	3.1mA	1.5mA	0.9mA	0.55mA	0.7mA	0.3mA	0.3mA	0.3mA

	D125 D122 D121 TR35
TR&D	TR15 TR24 TR16 TR33 TR26 D33 TR25 D8 D6 D9 D7 TR34 D19 D18 D31 D30 D32 TR17 D20 D22 TR18 D35 D34 D21 D11 D36 D12 D37 TR27 D13 TR14 TR28 TR36 TR21 D23 D25 D24 TR37 TR22 TR29 TR23 TR30 D38 D40 D39 D41 D16 D15 D14 TR31 D17 TR32 D29 D26 D27 D28 TR38 TR39
T&L	T9 T10 T7 T19 T20 T8 T11 T12 T21 T13 T14 L97 L96 L89 L82 T15 L95 L92 T16 T17 T18 L90 L81 L91 L93 L94

Fig. 78

7-7 CIRCUIT BOARD WIRING VIEW—LW/MW/MB1/MB2 RF AMPLIFIER UNIT

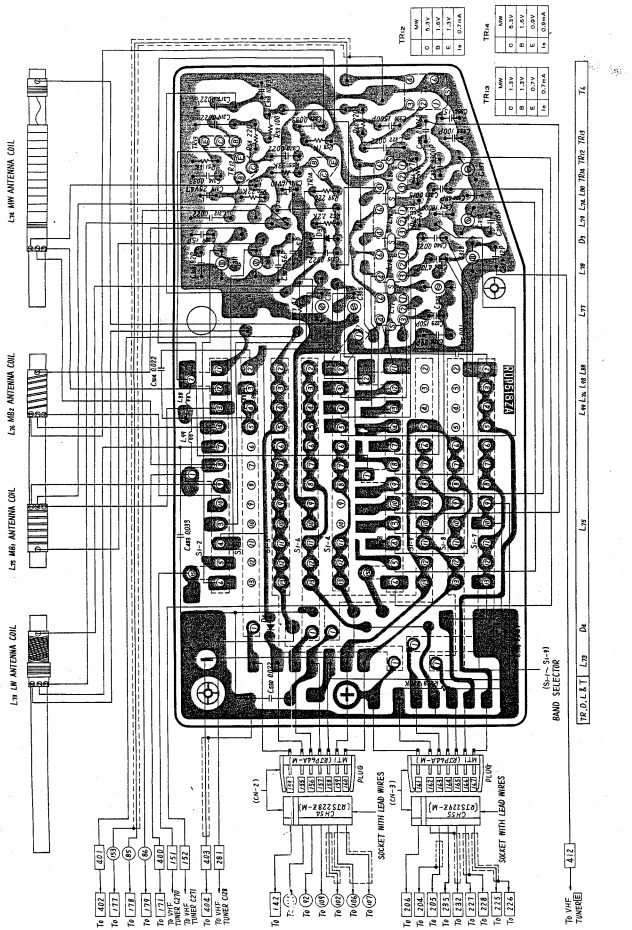
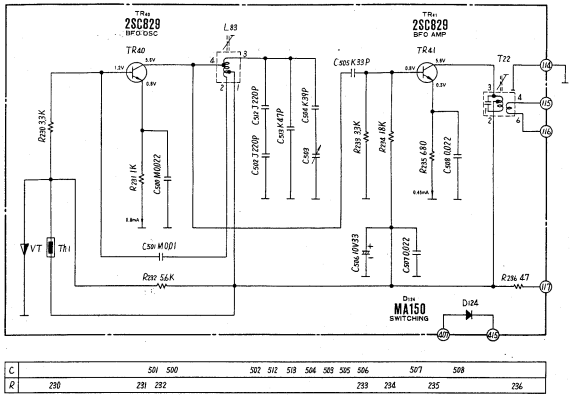


Fig. 79

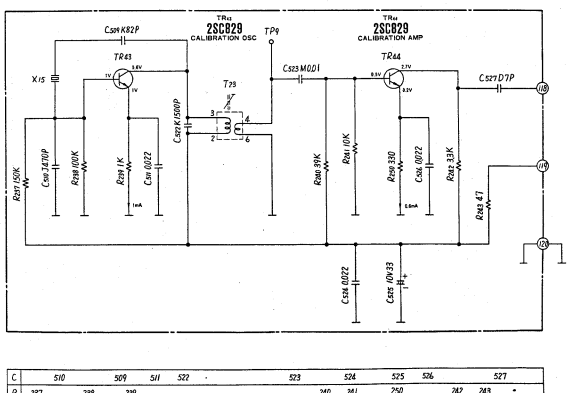
7-9 SCHEMATIC DIAGRAM—OPERATION UNIT



C	501	500	502	512	513	504	503	505	506	507	508
R	230	231	232					233	234	235	236

Note:
DC voltage measurements are taken with circuit tester 10kΩ/V from chassis. (Supply DC 12V from the EXT. DC terminal.)
TR40, 41...AM Mode Switch in "SSB-CW" position.

Fig. 80



C	510	509	511	522	523	524	525	526	527
R	237	238	239		240	241	250	242	243

Note:
DC voltage measurements are taken with circuit tester 10kΩ/V from chassis. (Supply DC 12V from the EXT. DC terminal.)
TR43, 44...CAL switch in "ON" position.

Fig. 81

7-6 SCHEMATIC DIAGRAM AND CIRCUIT BOARD WIRING VIEW–SW SEGMENTS

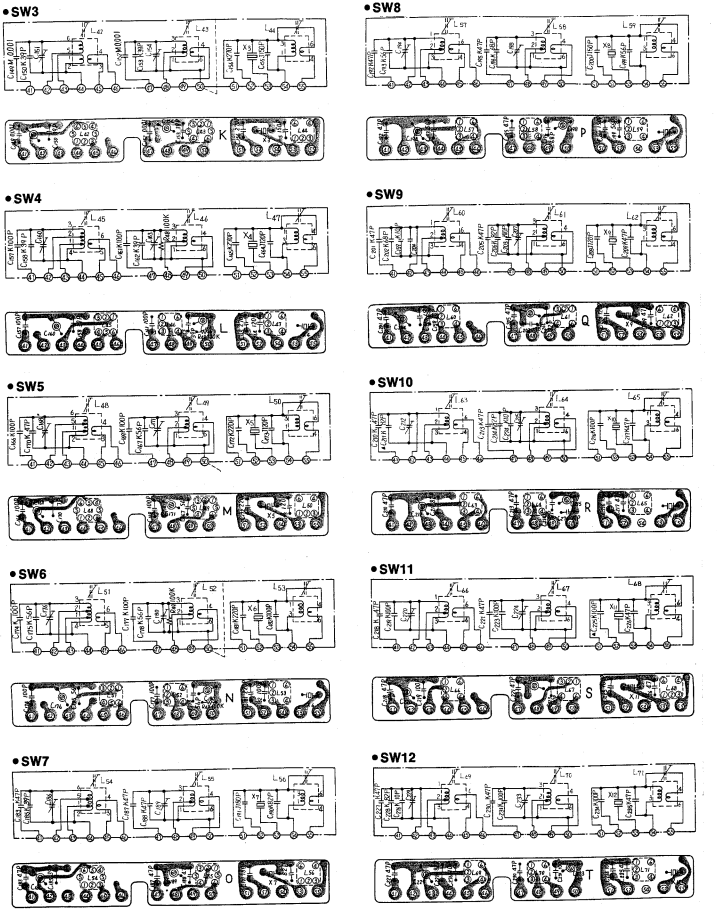


Fig. 75

7-7 SCHEMATIC DIAGRAM–LW/MW/MB1/MB2 RF AMPLIFIER UNIT

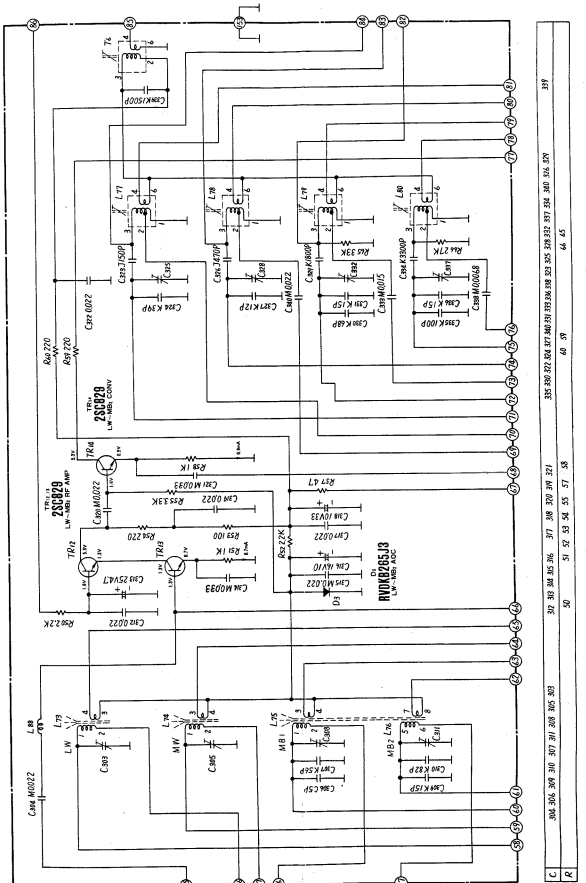
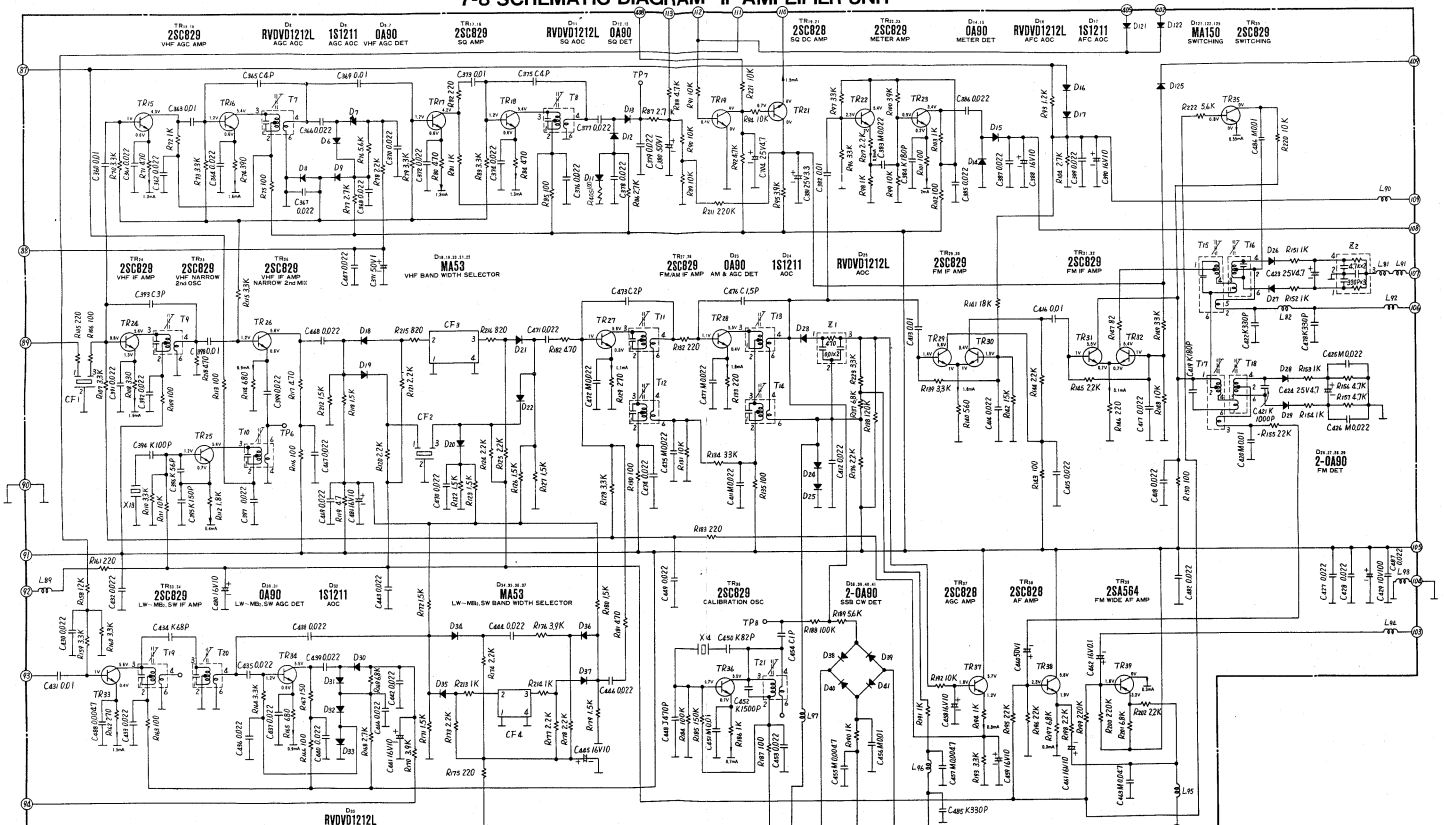


Fig. 76

Note:
DC voltage measurements are taken with circuit tester 10kΩ/V
from chassis. (Supply DC 12V from the EXT. DC terminal.)
TR12, 13, 14...MW position.

7-8 SCHEMATIC DIAGRAM–IF AMPLIFIER UNIT



Note:
DC voltage measurements are taken with circuit tester 10kΩ/V from chassis. (Supply DC 12V from the EXT. DC terminal.)
TR19, 21...Squelch control in "ON" position.
TR33, 34...MW position.
TR35, 38...Band Width Switch in "Narrow" position.
TR36.....CAL switch in "ON" position.

Fig. 77

7-9 CIRCUIT BOARD WIRING VIEW—OPERATION UNIT

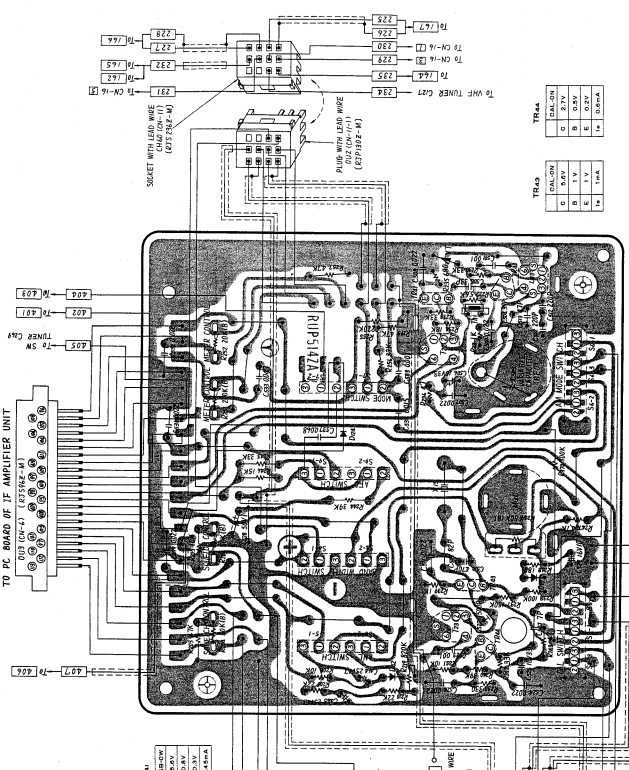
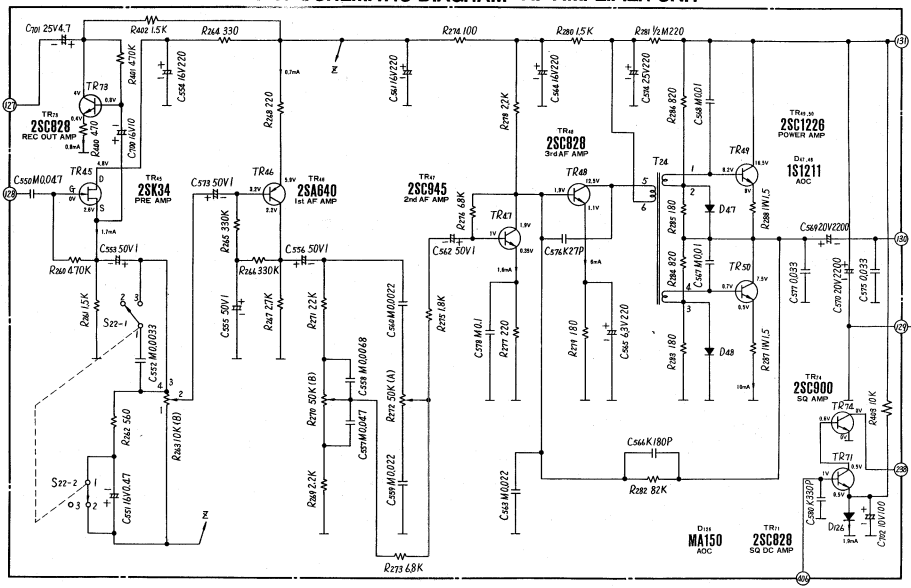


Fig. 82

7-10 SCHEMATIC DIAGRAM–AF AMPLIFIER UNIT



C	550	701	553	551	552	554	700	573	555	556	558	557	559	560	561	562	578	563	564	576	565	574	566	568	567	580	577	569	570	575	702
R	400	260	261	262	401	402	268	264	265	266	268	267	269	270	271	273	272	275	274	276	277	278	280	279	281	282	286	285	284	283	288	287	403

Notes:

1. S_{22-1}, S_{22-2}: Loudness switch (ON-OFF) in "OFF" position.
2. DC voltage measurements are taken with circuit tester 10kΩ/V from chassis. (Supply DC 12V from the EXT. DC terminal.)
   $TR_{71,74}$.....Mode Switch in "FM", and Squelch Control in "ON" position.

Fig. 83

7-10 CIRCUIT BOARD WIRING VIEW—AF AMPLIFIER UNIT

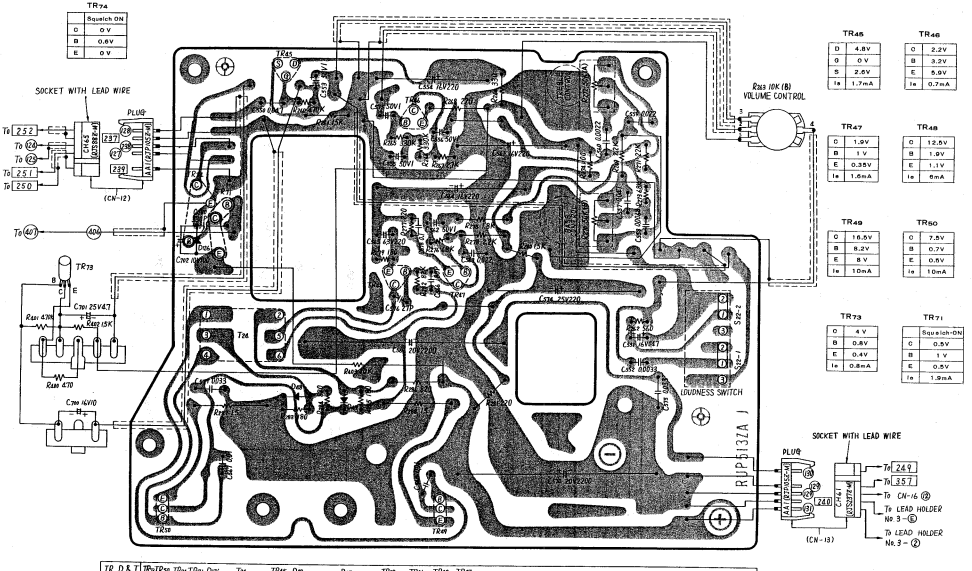
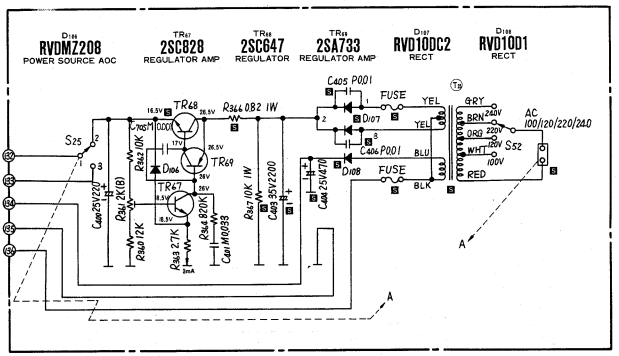


Fig. 84

7-11 SCHEMATIC DIAGRAM AND CIRCUIT BOARD WIRING VIEW–AC ADAPTOR



C & R	C705	C400	R341	R340	R342	R343	R344	C401	R344	R347	C403	C404	C405	C406

Notes:

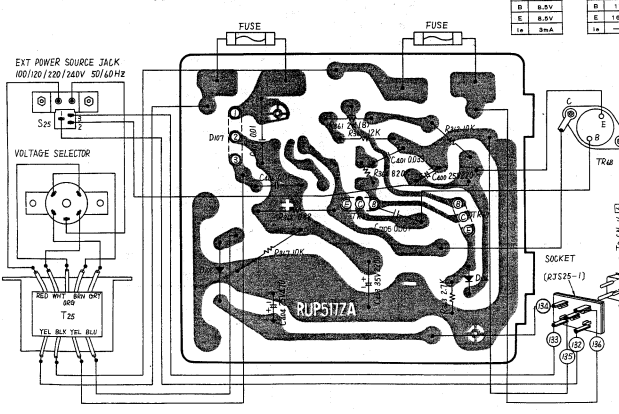
1. S25: Power source selector (AC-BATTERY) in "BATTERY" position.
2. S52: Voltage selector in "220V" position.
3. DC voltage measurements are taken with circuit tester 10kΩ/V from chassis. (Supply DC 12V from the EXT. DC terminal.)

Fig. 85

TR67	
C	26V
B	8.5V
E	8.5V
Ie	3mA

TR68	
C	26.5V
B	17V
E	16.5V
Ie	—mA

TR69	
C	17V
B	26V
E	26.5V
Ie	—mA



TR, D&T	T25	D108	D107	TR68	TR47	D106	TR48

Fig. 86

■ **CHASSIS (Rear View)**

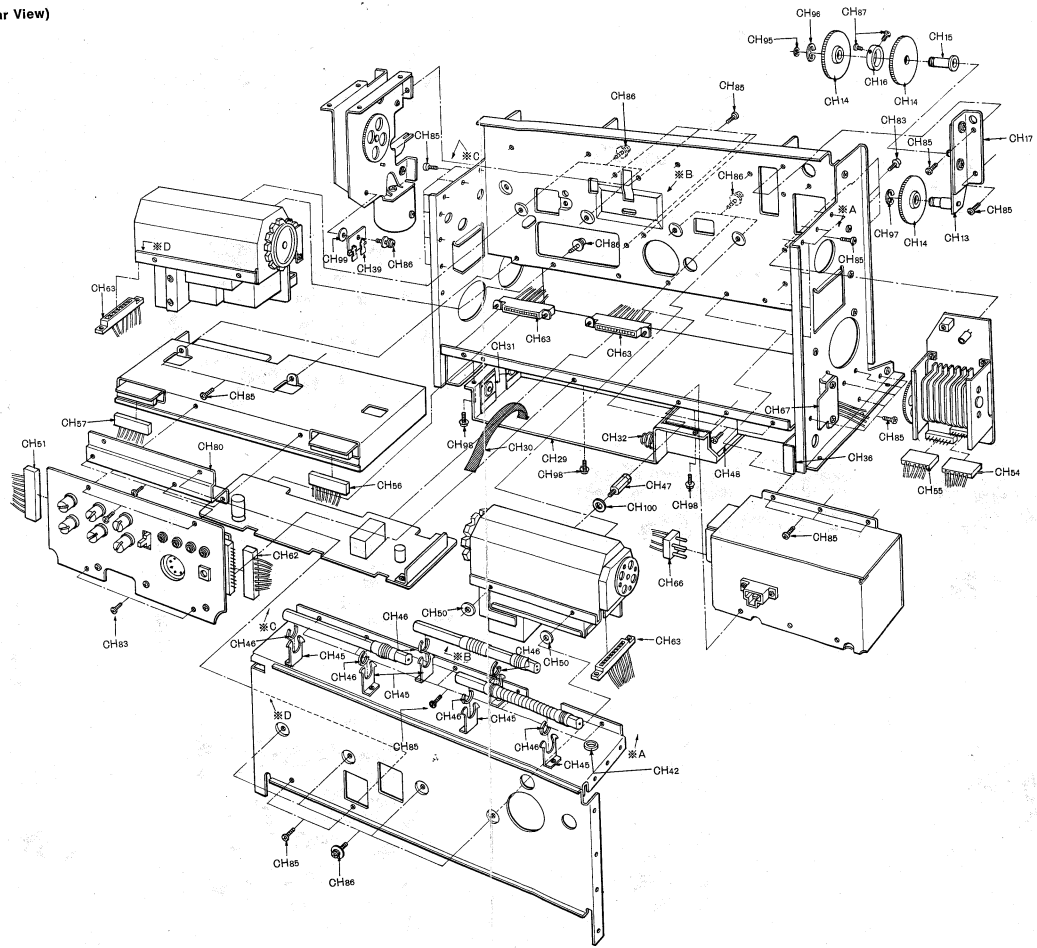


Fig. 89

■ VHF TUNER UNIT

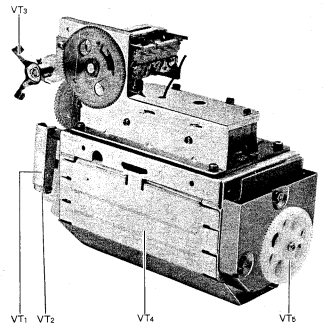


Fig. 90

■ SW TUNER UNIT

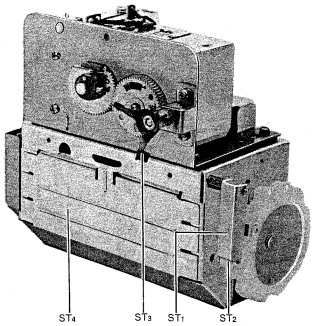


Fig. 93

■ LW/MW/MB1/MB2 RF AMPLIFIER UNIT

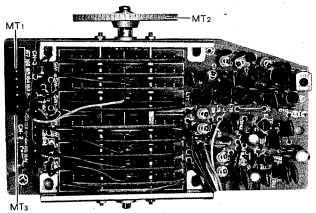


Fig. 91

■ IF AMPLIFIER UNIT

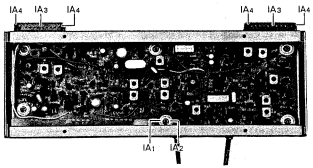


Fig. 94

■ BAND SELECTOR UNIT

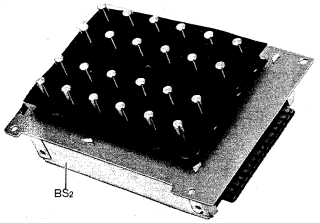


Fig. 92

■ VHF-SW SELECTOR UNIT

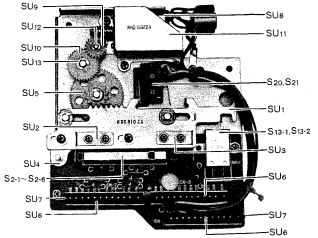


Fig. 95

■ CONTROL UNIT

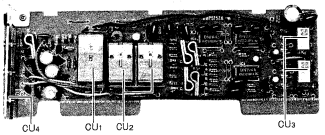


Fig. 96

■ OPERATION UNIT

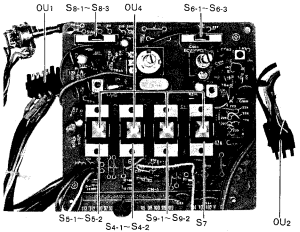


Fig. 97

■ MOTOR UNIT

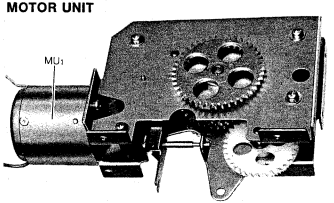


Fig. 98

■ AF AMPLIFIER UNIT

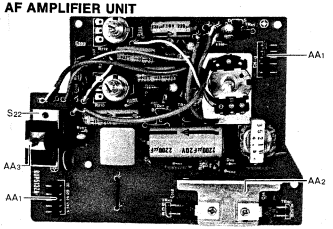


Fig. 99

■ TERMINAL UNIT

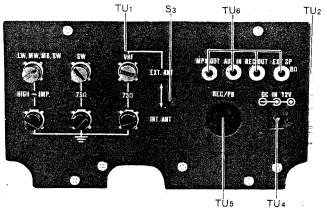


Fig. 100

■ TUNING SHAFT UNIT

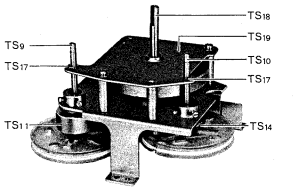


Fig. 101

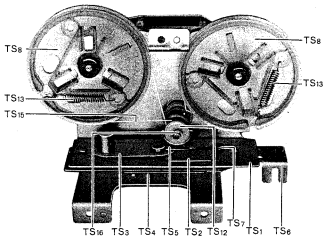


Fig. 102

■ BATTERY CASE ASSEMBLY

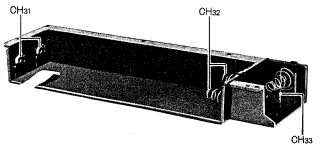


Fig. 103

8. PARTS LOCATIONS

■ **CABINET**

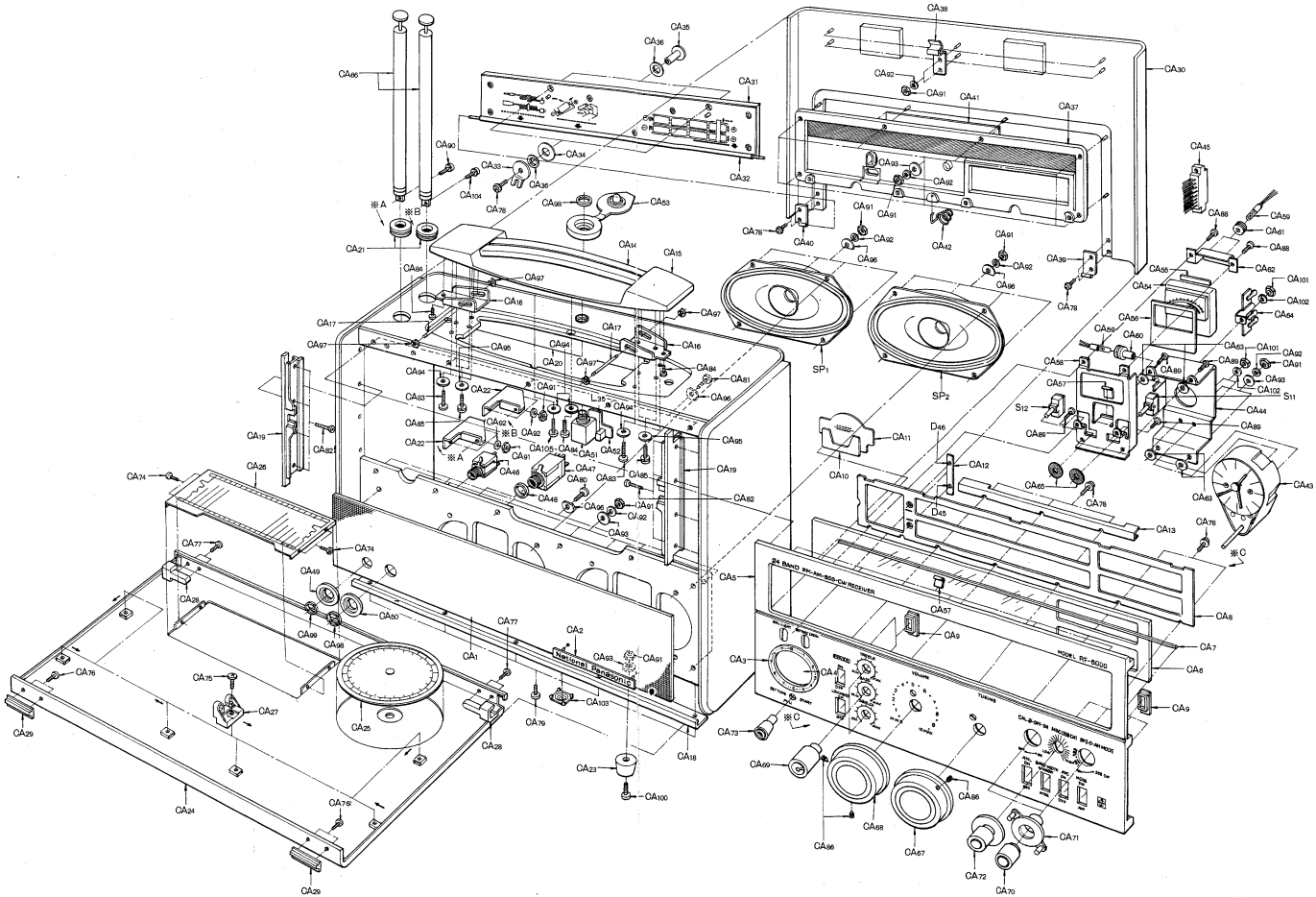


Fig. 87

■ CHASSIS (Front View)

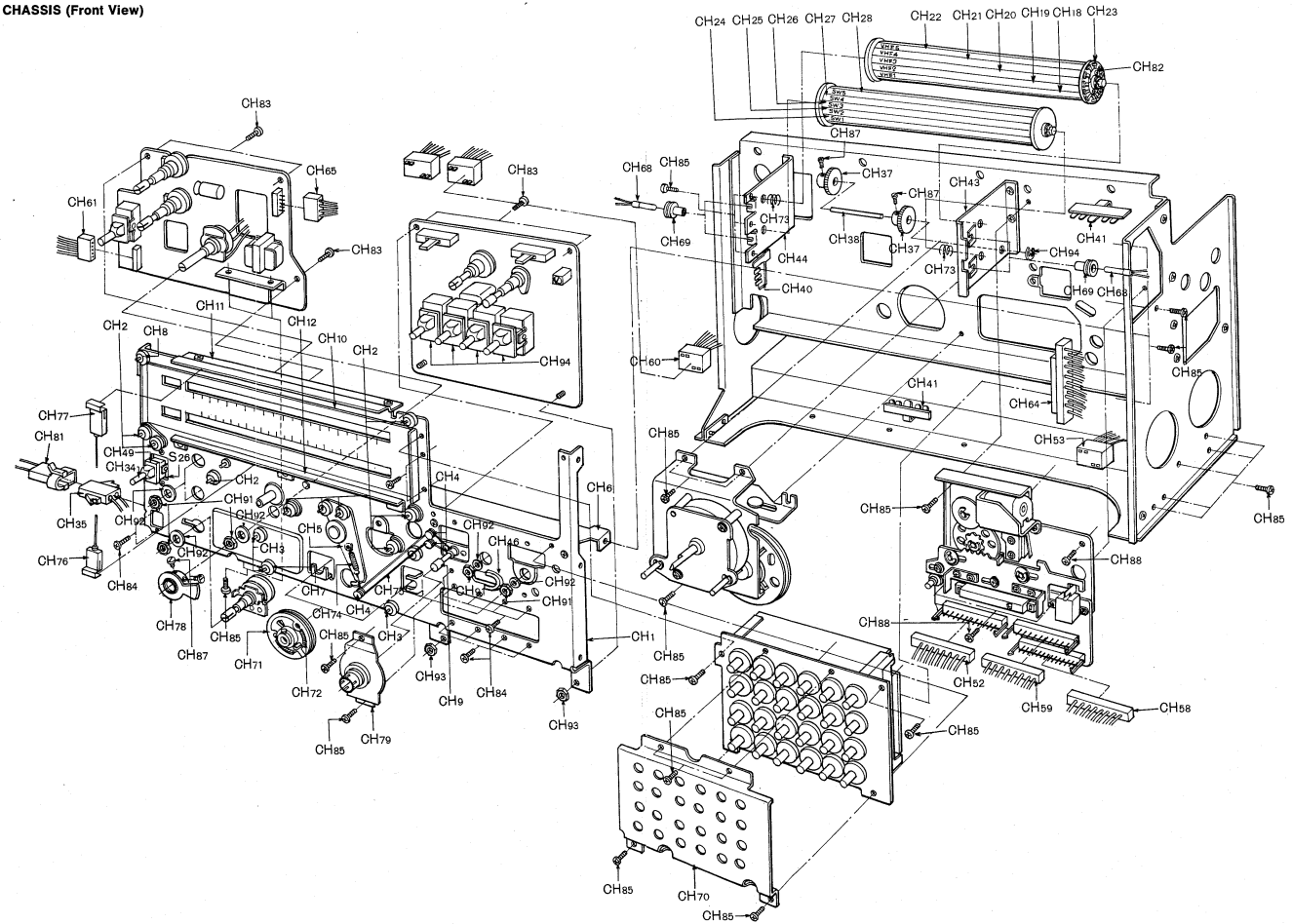


Fig. 88

■ FRAME ANTENNA UNIT

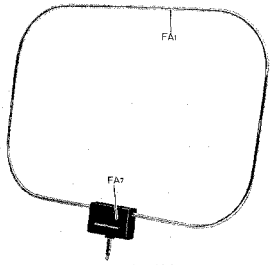


Fig. 104

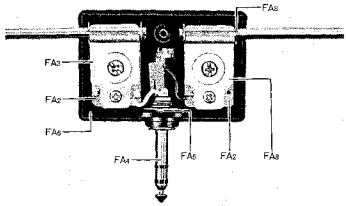


Fig. 105

■ AC ADAPTOR

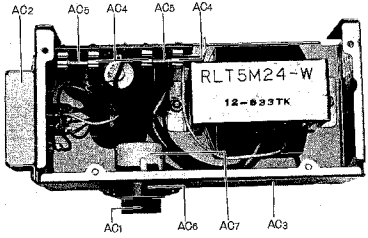


Fig. 106

9. PACKING MATERIALS

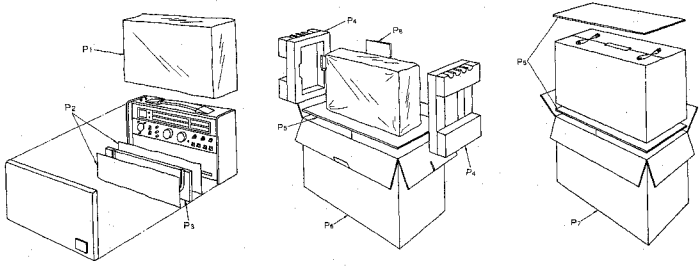


Fig. 107

NOTES : 1. Part numbers are indicated on most mechanical parts.
Please use this part number for parts orders.
2. ⚠ Indicates, for safety reasons, that only parts specified in service manual be used for replacement.

10-1 VHF TUNER UNIT (RSD9001ZS)

(For parts locations, refer to fig.90.)

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
	RSD9001ZS	VHF Tuner Unit	1	○ Z
	1SD9001ZS	Segment Assembly(VHF1,2,3), PC Board A,B & C	1	○ Z
	2SD9001ZS	Segment Assembly(VHF4,5,6), PC Board D,E & F	1	○ Z
	3SD9001ZS	Segment Assembly(VHF7,8), PC Board G & H	1	○ Z
	8SD9001ZS	Segment Assembly, without PC Board	1	○ Z
VT1	RUB89Z	Stopper	1	○ Z
VT2	RDR18Z	Roller, Stopper	1	○ Z
	RDS424	Spring, Stopper	1	Z
	XUC2FW-V	E Ring, Stopper M*tg	1	Z
VT3	RUB9011ZS	Lever, Dial Drum	1	○ Z
VT4	RUV326Z	Cover, Segment	1	○ Y
VT5	RDG5635Z	Gear(Plastic)	1	○ Z

10-2 SW TUNER UNIT (RSD9002ZS)

(For parts locations, refer to fig.93.)

	RSD9002ZS	SW Tuner Unit	1	○ Z
	4SD9002ZS	Segment Assembly(SW1,2,3), PC Board I,J & K	1	○ Z
	5SD9002ZS	Segment Assembly(SW4,5,6), PC Board L,M & N	1	○ Z
	6SD9002ZS	Segment Assembly(SW7,8,9) PC Board O,P & Q	1	○ Z
	7SD9002ZS	Segment Assembly(SW10,11,12), PC Board R,S & T	1	○ Z
ST1	RUB89Z	Stopper	1	○ Z
ST2	RDR18Z	Roller, Stopper	1	○ Z
	RDS424	Spring, Stopper	1	Z
	XUC2FW-V	E Ring, Stopper M*tg	1	Z
ST3	RUB9011ZS	Lever, Dial Drum	1	○ Z
ST4	RUV326Z	Cover, Segment	1	○ Y

10-3 LW-MW-MB1-MB2 RF AMPLIFIER UNIT (9UPRF8000M-1)

(For parts locations, refer to fig.91.)

	9UPRF8000M-1	LW-MW-MB1-MB2 RF Amplifier Unit	1	○ Z
		TRANSISTORS AND DIODES		
TR12,13,14	2SC829	LW~MB2 RF Amplifier, LW~MB2 Converter	3	X
D3	RVDKB265J3	Operation Compensator	1	X
D4	MA150	Switching	1	X

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
		COILS AND TRANSFORMER		
L77	RLO1B11-T	LW Oscillator Coil		○ X
L78	RLO2B96-T	MW Oscillator Coil	1	○ X
L79	RLO3B78-T	MB1 Oscillator Coil	1	○ X
L80	RLO3B79-T	MB2 Oscillator Coil	1	○ X
L88	RLQX121-I	Choke Coil	1	Y
L98,99	RLQZ4702-Y	Choke Coil	2	Y
T6	RLI2M203	1st AM IF Transformer	1	X
		VARIABLE CAPACITORS		
C303,305,308, 311,325,326, 332,337	ECV1ZW20X5I	Trimmer	8	○ Y
		RESISTORS		
R57	ERD18TJ470	47Ω, ⅛ Watt, ±5%, Carbon	1	Z
R53	ERD18VJ101	100Ω, ⅛ Watt, ±5%, Carbon	1	Z
R54,59,60	ERD18VJ221	220Ω, ⅛ Watt, ±5%, Carbon	3	Z
R51,58	ERD18VJ102	1KΩ, ⅛ Watt, ±5%, Carbon	2	Z
R50,52	ERD18VJ222	2.2KΩ, ⅛ Watt, ±5%, Carbon	2	Z
R55	ERD18VJ332	3.3KΩ, ⅛ Watt, ±5%, Carbon	1	Z
R66	ERD18VJ273	27KΩ, ⅛ Watt, ±5%, Carbon	1	Z
R65	ERD18VJ333	33KΩ, ⅛ Watt, ±5%, Carbon	1	Z
R258	ERD18TJ224	220KΩ, ⅛ Watt, ±5%, Carbon	1	Z
		CAPACITORS		
C306	ECCD1H050CO	5PF, 50WV, ±0.25PF, Ceramic	1	Z
C309,331,336	ECCD1H150KC	15PF, 50WV, ±10%, Ceramic	3	Z
C327	ECCD1H120KC	12PF, 50WV, ±10%, Ceramic	1	Z
C324	ECCD1H390KC	39PF, 50WV, ±10%, Ceramic	1	Z
C307	ECCD1H560K	56PF, 50WV, ±10%, Ceramic	1	Z
C330	ECCD1H680K	68PF, 50WV, ±10%, Ceramic	1	Z
C310	ECCD1H820K	82PF, 50WV, ±10%, Ceramic	1	Z
C335	ECCD1H101K	100PF, 50WV, ±10%, Ceramic	1	Z
C312,317,319, 322,530	ECKE1H223PF	0.022μF, 50WV, $\pm^{100}_{0}$%, Ceramic	5	Z
C323	ECQS1151JZ	150PF, 125WV, ±5%, Styrol	1	Z
C326	ECQS1471JZ	470PF, 125WV, ±5%, Styrol	1	Z
C339	ECQS05152KZ	1500PF, 50WV, ±10%, Styrol	1	Z
C334	ECQS05332KZ	3300PF, 50WV, ±10%, Styrol	1	Z
C329	ECQS05182KZ	1800PF, 50WV, ±10%, Styrol	1	Z
C338	ECQG05682MZ	0.0068μF, 50WV, ±20%, Polyester	1	Z
C333	ECQG05153MZ	0.015μF, 50WV, ±20%, Polyester	1	Z
C304,316,320, 340	ECQG05223MZ	0.022μF, 50WV, ±20%, Polyester	4	Z
C314,321,483	ECQG05333MZ	0.033μF, 50WV, ±20%, Polyester	3	Z

Ref. No.	Part No.	Part Name & Description		Per Set	Remarks
C313	ECEA25V4R7	4.7μF, 25WV,	Electrolytic	1	Y
C316	ECEA16V10	10μF, 16WV,	Electrolytic	1	Y
C318	ECEA10V33	33μF, 10WV,	Electrolytic	1	Y
C536	ECQG05473MZ	0.047μF, 50WV, ±20%,	Polyester	1	Z
C535	ECQG05103MZ	0.01μF, 50WV, ±20%,	Polyester	1	Z
		MISCELLANEOUS			
MT1	RJP64A-M	Plug(7 pin), Socket(CN-2,3)		2	Y
	RMD2021Z	Bracket, PC Board		1	○ Z
MT2	RDG5635Z	Gear, Antenna Selector		1	○ Y
	XYN3+6F	Screw, Gear M*tg		1	Z
MT3	RHR918A	Stopper, Plug		4	Z
S1-1~S1-9	(Not Available Order) 6UPRF8000M-1	Band Selector Switch		(1)	

10-4 IF AMPLIFIER UNIT (6UPRF8000M-1)

(For parts locations, refer to fig.94.)

	6UPRF8000M-1	IF Amplifier Unit		1	○ Z
		TRANSISTORS AND DIODES			
TR15,16,17,18, 22,23,24,25, 26,27,28,29 30,31,32,33 34,35,36	2SC829	VHF AGC Amplifier, SQ Amplifier, Meter Amplifier, VHF IF Amplifier, VHF Narrow 2nd Oscillator, VHF Narrow 2nd Mixer, FM&AM IF Amplifier, LW~MB2 & SW IF Amplifier, Switching Calibration Oscillator		19	X
TR19,21,37,38	2SC828	SQ DC Amplifier, AGC Amplifier, FM Narrow AF Amplifier		4	X
TR39	2SA564	FM Wide AF Amplifier		1	X
D6,7,12,13,14, 15,23,30,31	0A90	VHF AGC Detector, SQ Detector, Meter Detector, AM AGC & Detector, LW~MB2 & SW AGC Detector		9	X
D26,27,28,29, 38,39,40,41	2-0A90	FM Detector, SSB & CW Detector		4Pair	X
D9,17,24,32	1S1211	Operation Compensator		4	X
D18,19,20,21, 22,34,35,36, 37	MA63	Band Width Selector		9	○ X
D8,11,16,25,33	RVDVD1212L	Operation Compensator		5	X
D121,122,125	MA150	Switching		3	X
		CRYSTALS			
X13	RVCX10245N4R	VHF 2nd Local Oscillator		1	○ X
X14	RVCZ455N5R	Calibration Oscillator		1	○ X
		CERAMIC FILTERS, COILS AND TRANSFORMERS			
CF1,2	RVFOF10M12CR	Ceramic Filter		2	X
CF3	RLI7Z102-R	Ceramic Filter		1	X
CF4	EFOL455K12N	Ceramic Filter		1	○ X
L81,82	RLOX121-1	Choke Coil		2	Y
T7,8,9,10	RLI4M301	VHF AGC, 2nd VHF IF, VHF Local Oscillator		4	X

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
T11,13	RLI4M302	3rd, 4th VHF IF Transformer	2	X
T12,19,20	RLI2M205	2nd, 3rd, 4th AM IF Transformer	3	X
T14	RLI2M402	5th AM IF Transformer	1	X
T15	RLI4M501	VHF DET Transformer	1	X
T16	RLI4M502	VHF DET Transformer	1	X
T17	RLI2B501-T	VHF Narrow Transformer	1	X
T18	RLI2B502-T	VHF Narrow Transformer	1	X
T21	RLI2M203	Calibration Oscillator Coil	1	X
L89,90,91,92, 93,94,95,97	RLQZ4702-Y	Choke Coil	8	Y
L96	RLQZ4701-D	Choke Coil	1	Y
		COMPONENT COMBINATIONS		
Z1	EXAF203Z471	0.01μF×2, 470Ω	1	Y
Z2	EXA50L04C	330PF×3, 4.7KΩ×2	1	Y
		RESISTORS		
R161	ERD18TJ221	220Ω, ⅛ Watt, ±5%, Carbon	1	Z
R181,218	ERD18TJ471	470Ω, ⅛ Watt, ±5%, Carbon	2	Z
R93	ERD18TJ122	1.2KΩ, ⅛ Watt, ±5%, Carbon	1	Z
R172	ERD18TJ152	1.5KΩ, ⅛ Watt, ±5%, Carbon	1	Z
R125,145	ERD18TJ222	2.2KΩ, ⅛ Watt, ±5%, Carbon	2	Z
R119	ERD18VJ470	47Ω, ⅛ Watt, ±5%, Carbon	1	Z
R147	ERD18VJ820	82Ω, ⅛ Watt, ±5%, Carbon	1	Z
R75,85,102,108 109,113,116, 130,135,143, 150,163,166, 187,101,405	ERD18VJ101	100Ω, ⅛ Watt, ±5%, Carbon	16	Z
R82,105,132, 133,146,175, 183	ERD18VJ221	220Ω, ⅛ Watt, ±5%, Carbon	7	Z
R129,162	ERD18VJ271	270Ω, ⅛ Watt, ±5%, Carbon	2	Z
R108	ERD18VJ331	330Ω, ⅛ Watt, ±5%, Carbon	1	Z
R74	ERD18VJ391	390Ω, ⅛ Watt, ±5%, Carbon	1	Z
R71,80,84,117, 182	ERD18VJ471	470Ω, ⅛ Watt, ±5%, Carbon	5	Z
R215,216	ERD18VJ821	820Ω, ⅛ Watt, ±5%, Carbon	2	Z
R114,165	ERD18VJ681	680Ω, ⅛ Watt, ±5%, Carbon	2	Z
R72,81,98,103, 151,152,153, 154,186,190, 194,213,214, 191	ERD18VJ102	1KΩ, ⅛ Watt, ±5%, Carbon	14	Z
R118,122,123, 126,127,171, 179,180,212	ERD18VJ152	1.5KΩ, ⅛ Watt, ±5%, Carbon	9	Z
R112	ERD18VJ182	1.8KΩ, ⅛ Watt, ±5%, Carbon	1	Z
R78,120,121, 124,136,144, 173,174,177, 178,198,202, 217	ERD18VJ222	2.2KΩ, ⅛ Watt, ±5%, Carbon	13	Z
R77,87,104,168 86	ERD18VJ272	2.7KΩ, ⅛ Watt, ±5%, Carbon	5	Z

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
R70,73,79,83, 107,110,115, 128,139,159, 160,184,193, 223	ERD18VJ332	3.3KΩ, 1/8 Watt, ±5%, Carbon	14	Z
R95,170,176	ERD18VJ392	3.9KΩ, 1/8 Watt, ±5%, Carbon	3	Z
R88,156,157,92	ERD18VJ472	4.7KΩ, 1/8 Watt, ±5%, Carbon	4	Z
R76,189	ERD18VJ562	5.6KΩ, 1/8 Watt, ±5%, Carbon	2	Z
R137,169,197, 201	ERD18VJ682	6.8KΩ, 1/8 Watt, ±5%, Carbon	4	Z
R89,90,91,94, 99,111,131, 148,192,220, 221	ERD18VJ103	10KΩ, 1/8 Watt, ±5%, Carbon	11	Z
R158	ERD18VJ123	12KΩ, 1/8 Watt, ±5%, Carbon	1	Z
R142	ERD18VJ153	15KΩ, 1/8 Watt, ±5%, Carbon	1	Z
R141	ERD18VJ183	18KΩ, 1/8 Watt, ±5%, Carbon	1	Z
R155,195,196	ERD18VJ223	22KΩ, 1/8 Watt, ±5%, Carbon	3	Z
R96,97,134,149	ERD18VJ333	33KΩ, 1/8 Watt, ±5%, Carbon	4	Z
R100	ERD18VJ393	39KΩ, 1/8 Watt, ±5%, Carbon	1	Z
R184,188	ERD18VJ104	100KΩ, 1/8 Watt, ±5%, Carbon	2	Z
R135	ERD18VJ124	120KΩ, 1/8 Watt, ±5%, Carbon	1	Z
R185	ERD18VJ154	150KΩ, 1/8 Watt, ±5%, Carbon	1	Z
R199,200,211	ERD18VJ224	220KΩ, 1/8 Watt, ±5%, Carbon	3	Z
R140	ERD18VJ561	560Ω, 1/8 Watt, ±5%, Carbon	1	Z
R222	ERD18TJ562	5.6KΩ, 1/8 Watt, ±5%, Carbon	1	Z
R167	ERD18VJ151	150Ω, 1/8 Watt, ±5%, Carbon	1	Z

CAPACITORS

C454	ECCD1H010C	1PF, 50WV, ±0.25PF, Ceramic	1	Z
C476	ECCD1H1R5C	1.5PF, 50WV, ±0.25PF, Ceramic	1	Z
C473	ECCD1H020C	2PF, 50WV, ±0.25PF, Ceramic	1	Z
C393	ECCD1H030C	3PF, 50WV, ±0.25PF, Ceramic	1	Z
C385,375	ECCD1H040C	4PF, 50WV, ±0.25PF, Ceramic	2	Z
C396	ECCD1H560K	56PF, 50WV, ±10%, Ceramic	1	Z
C434	ECCD1H680K	68PF, 50WV, ±10%, Ceramic	1	Z
C450	ECCD1H820K	82PF, 50WV, ±10%, Ceramic	1	Z
C394	ECCD1H101K	100PF, 50WV, ±10%, Ceramic	1	Z
C395	ECCD1H151K	150PF, 50WV, ±10%, Ceramic	1	Z
C419,384	ECCD1H181K	180PF, 50WV, ±10%, Ceramic	2	Z
C422,478,485	ECCD1H331K	330PF, 50WV, ±10%, Ceramic	3	Z
C360,363,369, 373,382,398, 413,416,431	ECKE1H103PF	0.01μF, 50WV, +100/−0%, Ceramic	9	Z
C361,362,364, 366,367,368, 370,372,374, 376,377,378, 379,385,386, 387,389,391, 392,397,399, 412,414,415, 417,418,427, 430,432,433, 435,436,437, 438,439,440,	ECKE1H223PF	0.022μF, 50WV, +100/−0%, Ceramic	36	Z

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
C442,443,444, 446,449,453, 466,467,468, 469,470,471, 474,428,447, 482,487	ECKE1H223PF	0.022μF, 50WV, +100/−0%, Ceramic	17	Z
C455,457	ECKE1H472MD	0.0047μF, 50WV, ±20%, Ceramic	2	Z
C451,456,486	ECKE1H103MD	0.01μF, 50WV, ±20%, Ceramic	3	Z
C446	ECQS1471JZ	470PF, 125WV, ±5%, Styrol	1	Z
C421	ECQS05102KZ	1000PF, 50WV, ±10%, Styrol	1	Z
C452	ECQS05152KZ	1500PF, 50WV, ±10%, Styrol	1	Z
C420	ECQG05103MZ	0.01μF, 50WV, ±20%, Polyester	1	Z
C411,425,426, 472,476,477, 383	ECQG05223MZ	0.022μF, 50WV, ±20%, Polyester	7	Z
C463	ECQG05473MZ	0.047μF, 50WV, ±20%, Polyester	1	Z
C371,380,460	ECEA50V1	1μF, 50WV, Electrolytic	3	Y
C381	ECEA25V3R3	3.3μF, 25WV, Electrolytic	1	Y
C423,424,704	ECEA25V4R7	4.7μF, 25WV, Electrolytic	3	Y
C388,390,441, 445,458,461, 481,495,480	ECEA16V10	10μF, 16WV, Electrolytic	9	Y
C429	ECEA10V100	100μF, 10WV, Electrolytic	1	Y
C462	ECAG16ER1	0.1μF, 16WV, Electrolytic	1	Y
C488	ECQG05472MZ	0.0047μF, 50WV, ±20%, Polyester	1	Z

MISCELLANEOUS

IA1	RHG5-1	Rubber Cushion, PC Board	6	Z
IA2	XRY38X5BN	Spacer, PC Board	6	Z
IA3	RJP100Z-M	Plug(10 pin), IF Amp. Unit(CN-4, CN-5)	2	○ Y
IA4	RHR918A	Stopper, Plug	4	Z

10-5 BAND SELECTOR UNIT (5UPRF8000M-1)

(For parts locations, refer to fig.92.)

	5UPRF8000M-1	Band Selector Unit	1	○ Z
S28~S51	(Not Available Order, 5UPRF8000M-1)	Band Selector	(1)	
D49~96	MA150	Gate	48	X
C600~611, 624~635	ECAG16ER1-Y	0.1μF, 16WV, Electrolytic Capacitor	24	Y
C612~623, 636~647	ECEA50V1	1μF, 50WV, Electrolytic Capacitor	24	Y
BS1(Fig.70)	RJS90Z	Connector, Band Selector Unit(CN-21,22)	2	○ Y
BS2	RMC311Z	Cover, Band Selector Unit	2	○ Z

10-6 CONTROL UNIT (3UPRF8000M-1)

(For parts locations, refer to fig.96.)

	3UPRF8000M-1	Control Unit	1	○ Z

INTEGRATED CIRCUITS, TRANSISTORS AND DIODES

IC1	DN1936	Inverter	1	X

Ref. No.	Part No.	Part Name & Description	Per Set		Remarks
IC2,3	DN1946	Nand Gate	2		X
TR20,63,65	2SD945	Regulator	3		X
TR51,53,55,57	2SA564	DC Amplifier	4		X
TR52,54,56, 58,59	2SD261	DC Amplifier, Regulator	5		X
TR60,61	2SD828	Switching	2		X
TR62,64,66	2SC1226	Regulator(with Insulating Plate & Spacer)	3		X
TR72	2SC1383	Switching	1		X
D97,109,111	RVDMZ207	Regulator	3		X
D98,100,102, 104	RVDKB265J2	Operation Compensator	4		X
D99,101,103, 105,123	RVD10D1	Rectifier	5		X
D110	RVDRD11EB	Regulator	1		X
D114,115	OA90	Reset Gate	2		X
D116,117,118, 119	MA150	Switching	4		X
D127	RVDKB265J3	Protector	1		X
D128	1S1211	Protector	1		X
THERMISTOR					
Th2	RRT251	Temperature Compensator	1		Y
COILS					
L84	RLQZ4501-D	Choke Coil	1	○	Y
L87	RLQX121-1	Choke Coil	1		Y
RESISTORS					
R331,334,320	ERD18TJ100	10Ω, ⅛ Watt, ±5%, Carbon	3		Z
R326	ERD18TJ2R2	2.2Ω, ⅛ Watt, ±5%, Carbon	1		Z
R329	ERD18TJ4R7	4.7Ω, ⅛ Watt, ±5%, Carbon	1		Z
R339	ERD18TJ221	220Ω, ⅛ Watt, ±5%, Carbon	1		Z
R340	ERD18TJ471	470Ω, ⅛ Watt, ±5%, Carbon	1		Z
R313,314,312	ERD18TJ561	560Ω, ⅛ Watt, ±5%, Carbon	3		Z
R317,318,321, 322,325,328, 330,333	ERD18TJ102	1KΩ, ⅛ Watt, ±5%, Carbon	8		Z
R319,329	ERD18TJ222	2.2KΩ, ⅛ Watt, ±5%, Carbon	2		Z
R323,324,327, 332	ERD18TJ562	5.6KΩ, ⅛ Watt, ±5%, Carbon	4		Z
R310,311	ERD18TJ273	27KΩ, ⅛ Watt, ±5%, Carbon	2		Z
R336	ERD18TJ393	39KΩ, ⅛ Watt, ±5%, Carbon	1		Z
R341	ERD18VJ391	390Ω, ⅛ Watt, ±5%, Carbon	1		Z
R343	ERD18VJ102	1KΩ, ⅛ Watt, ±5%, Carbon	1		Z
R344	ERD18VJ222	2.2KΩ, ⅛ Watt, ±5%, Carbon	1		Z
R335,337,342	ERD18VJ472	4.7KΩ, ⅛ Watt, ±5%, Carbon	3		Z
R338	ERD18VJ823	82KΩ, ⅛ Watt, ±5%, Carbon	1		Z
R371	ERD18VJ331	330Ω, ⅛ Watt, ±5%, Carbon	1		Z
R315,316	ERD18TJ103	10KΩ, ⅛ Watt, ±5%, Carbon	2		Z
CAPACITORS					
C665,666,668, 676	EOKE1H103MD	0.01μF, 50WV, ±20%, Ceramic	4		Z
C648,652,653, 655,656,657,	ECQG5683MZ	0.068μF, 50WV, ±20%, Polyester	6		Z

Ref. No.	Part No.	Part Name & Description	Per Set		Remarks
C675,677,678	ECQG5683MZ	0.068μF, 50WV, ±20%, Polyester	3		Z
C659,660,661, 662,663,664	ECQG5104MZ	0.1μF, 50WV, ±20%, Polyester	6		Z
C650,651,654	ECEA50V1	1μF, 50WV, Electrolytic	3		Y
C649	ECEA10V33	33μF, 10WV, Electrolytic	1		Y
C667,672,673	ECEA25V100	100μF, 25WV, Electrolytic	3		Y
C658	ECEA10V470	470μF, 10WV, Electrolytic	1		Y
MISCELLANEOUS					
CU1(S17-S17-6)	RSL20Z	Relay, Motor Switch	1	○	X
CU2(S18-S18-4)	RSL14Z	Relay, Motor Switch	2	○	X
CU3(S16-S27)	RSL15Z	Relay, VHF & SW Tuner Discharge Switch	2	○	X
CU4	RMY77Z	Heat Sink, Transistor(TR62,64,66)	1	○	Z

10-7 VHF-SW SELECTOR UNIT (RSG9002ZS)

(For parts locations, refer to fig.95.)

	RSG9002ZS	VHF-SW Selector Unit	1	○	Z
DIODE					
D5	MA150	Switching	1		X
CAPACITORS					
C669	ECQG5104MZ	0.1μF, 50WV, ±20%, Polyester	1		Z
C670,671	ECEA50V33	33μF, 50WV, Electrolytic	2	○	Y
SWITCHES					
S2-1—S2-6	RSH31D	Tuner Selector	1	○	Z
S13-1,S13-2	(Not Available Order,	Dial Light Selector	(1)		
S20,S21	RSG9002ZS	Motor Step Switch	(2)		
MISCELLANEOUS					
SU1	(Not Available Order, RSG9002ZS	Slide Gear	(1)		
SU2		Lever A, Switch(RSH31D)	(1)		
SU3		Lever B, Switch(RSH31D)	(1)		
SU4		Lever, Slide Gear	(1)		
SU5		Gear(Large)	(1)		
SU6	RJP55A	Plug, Selector Unit(ON-7,ON-8,ON-9)	3		Y
SU7	RHR918A	Stopper, Socket	6		Z
SU8	M25N-2	Motor with Worm Gear	1	○	Z
SU9	RDG5628Z	Gear(Small)	1	○	Z
SU10	RDG5629Z	Gear(Large)	1	○	Z
SU11	RMD1041Z	Cover, Motor	1	○	Z
SU12	XUC2FW-V	E Ring, Gear(RDG5628Z) M'tg	1		Z
SU13	XUC3FW-V	E Ring, Gear(RDG5629Z) M'tg	2		Z

10-8 OPERATION UNIT (7UPRF8000M-1)

(For parts locations, refer to fig.97.)

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
	7UPRF8000M-1	Operation Unit	1	○ Z
		TRANSISTORS AND DIODES		
TR40,41,43,44	2SC829	BFO Oscillator, BFO Amplifier, Calibration Oscillator, Calibration Amplifier	4	X
D10	1S1211	Operation Compensator	1	X
D42	0A90	ANL Detector	1	X
D124	MA150	Switching	1	X
		CRYSTAL		
X15	RVCZ500N5R	Calibration Oscillator	1	○ X
		VARIATITE AND THERMISTOR		
Va	EYV320D1R2J3	Operation Compensator	1	Y
Th1	RRT103	Temperature Compensator	1	Y
		COILS AND TRANSFORMER		
L83	RL09B1	BFO Oscillator Coil	1	X
T22	RL12M402	BFO 455kHz Transformer	1	X
T23	RL12M203	Calibration Oscillator Coil	1	X
		VARIABLE RESISTORS		
R204,206	EVLT0AA00B54	50KΩ(B), Squelch Control	2	X
R207	EVH7RBK30B54	50KΩ(B), Squelch Control	1	○ X
R249	EVH3GA329B54	50KΩ(B), MGC Control	1	○ X
R251	EVLT0AA00B25	200KΩ(B), Meter Control	1	X
R252	EVLT0AA00B24	20KΩ(B), Meter Control	1	X
		VARIABLE CAPACITOR		
C503	ECV1YW01B15A	Variable Capacitor, BFO	1	○ Y
		RESISTORS		
R205	ERD18TJ103	10KΩ, 1/8 Watt, ±5%, Carbon	1	Z
R257	ERD18TJ472	4.7KΩ, 1/8 Watt, ±5%, Carbon	1	Z
R246	ERD18TJ153	15KΩ, 1/8 Watt, ±5%, Carbon	1	Z
R245,256	ERD18TJ333	33KΩ, 1/8 Watt, ±5%, Carbon	2	Z
R244	ERD18TJ393	39KΩ, 1/8 Watt, ±5%, Carbon	1	Z
R255	ERD18TJ224	220KΩ, 1/8 Watt, ±5%, Carbon	1	Z
R236,243	ERD18VJ470	47Ω, 1/8 Watt, ±5%, Carbon	2	Z
R250	ERD18VJ331	330Ω, 1/8 Watt, ±5%, Carbon	1	Z
R235	ERD18VJ681	680Ω, 1/8 Watt, ±5%, Carbon	1	Z
R231,239	ERD18VJ102	1KΩ, 1/8 Watt, ±5%, Carbon	2	Z
R230,233,242	ERD18VJ332	3.3KΩ, 1/8 Watt, ±5%, Carbon	3	Z
R247	ERD18VJ472	4.7KΩ, 1/8 Watt, ±5%, Carbon	1	Z

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
R232	ERD18VJ562	5.6KΩ, 1/8 Watt, ±5%, Carbon	1	Z
R208,241	ERD18VJ103	10KΩ, 1/8 Watt, ±5%, Carbon	2	Z
R234	ERD18VJ183	18KΩ, 1/8 Watt, ±5%, Carbon	1	Z
R209,210	ERD18VJ223	22KΩ, 1/8 Watt, ±5%, Carbon	2	Z
R240	ERD18VJ393	39KΩ, 1/8 Watt, ±5%, Carbon	1	Z
R238	ERD18VJ104	100KΩ, 1/8 Watt, ±5%, Carbon	1	Z
R237	ERD18VJ154	150KΩ, 1/8 Watt, ±5%, Carbon	1	Z
R248	ERD18VJ181	180Ω, 1/8 Watt, ±5%, Carbon	1	Z
R219	ERD18VJ824	820KΩ, 1/8 Watt, ±5%, Carbon	1	Z
R293	ERD18VJ473	47KΩ, 1/8 Watt, ±5%, Carbon	1	Z
R370	ERD18TJ104	100KΩ, 1/4 Watt, ±5%, Carbon	1	Z
R203	ERD18TJ473	47KΩ, 1/4 Watt, ±5%, Carbon	1	Z
		CAPACITORS		
C527	ECCD1H070DC	7PF, 50WV, ±0.5PF, Ceramic	1	Z
C505	ECCD1H330KC	33PF, 50WV, ±10%, Ceramic	1	Z
C504	ECCD1H390KC	39PF, 50WV, ±10%, Ceramic	1	Z
C513	ECCD1H470K	47PF, 50WV, ±10%, Ceramic	1	Z
C509	ECCD1H820K	82PF, 50WV, ±10%, Ceramic	1	Z
C507,508,511, 524,526,531, 532,479	ECKE1H223PF	0.022μF, 50WV, $\pm^{100}_{0}$%, Ceramic	8	Z
C501,523	ECKE1H103MD	0.01μF, 50WV, ±20%, Ceramic	2	Z
C502,512	ECQS1221JZ	220PF, 125WV, ±5%, Styrol	2	Z
C510	ECQS1471JZ	470PF, 125WV, ±5%, Styrol	1	Z
C522	ECQS05102KZ	1500PF, 50WV, ±10%, Styrol	1	Z
C500	ECQG05223MZ	0.022μF, 50WV, ±20%, Polyester	1	Z
C533	ECQG05473MZ	0.047μF, 50WV, ±20%, Polyester	1	Z
C528	ECEA50V1	1μF, 50WV, Electrolytic	1	Y
C529	ECEA16V10	10μF, 16WV, Electrolytic	1	Y
C506,525	ECEA10V33	33μF, 10WV, Electrolytic	2	Y
C464,465	ECEA25V4R7	4.7μF, 25WV, Electrolytic	2	Y
C534	ECQG05153MZ	0.015μF, 50WV, ±20%, Polyester	1	Z
C537	ECQG05683MZ	0.068μF, 50WV, ±20%, Polyester	1	Z
C583	ECQG05102MZ	0.001μF, 50WV, ±20%, Polyester	1	Z
		MISCELLANEOUS		
0U1	RJP129Z-M	Connecting Socket with Lead Wire (12 pin) (CN-10-1)	1	○ Y
0U2	RJP130Z-M	Connecting Socket with Lead Wire (12 pin) (CN-11-1)	1	○ Y
0U3(Fig.82.)	RJS96Z-M	Socket (CN-6)	1	○ Y
	RHD1302-1S	Stay Shaft, Socket (RJS96Z-M)	2	Z
		SWITCHES		
	RXE6F8000M	Band Width, ANL, Mode & AFC Switch Assembly	4	○ X
S4-1,S4-2 S5-1,S5-2 S7,S9-1,S9-2	Not Available Order, RXE6F8000M	Switch Only	(4)	
0U4	SBNA81-1	Knob, Switch	4	○ X
S6-1~S6-3 S8-1~S8-3	RSS83Z	AM Mode & Calibration Switch	2	○ X

10-9 MOTOR UNIT (RSG9001ZS)

(For parts locations, refer to fig.98.)

Ref.No.	Part No.	Part Name & Description	Per Set	Remarks
	RSG9001ZS	Motor Unit	1	○ Z
MU1	MY15B2	Motor with Worm Gear	1	○ Z

10-10 AF AMPLIFIER UNIT (8UPRF8000M-1)

(For parts locations, refer to fig.99.)

	8UPRF8000M-1	AF Amplifier Unit	1	○ Z
		TRANSISTORS AND DIODES		
TR45	2SK34	Transistor, Pre Amplifier	1	X
TR46	2SA640	Transistor, 1st AF Amplifier	1	X
TR47	2SC945	Transistor, 2nd AF Amplifier	1	X
TR48,71	2SC828	Transistor, 3rd AF Amplifier, SO DC Amplifier	2	X
TR49,50	2SC1226	Transistor, Power Amplifier	2	X
TR74	2SC900	Transistor, Squelch Amplifier	1	X
D47,48	1S1211	Diode, Operation Compensator	2	X
D126	MA150	Diode, Operation Compensator	1	X
		TRANSFORMER		
T24	RLT3021-W	Input Transformer, P=1.5KΩ:S=200Ω	1	X
		VARIABLE RESISTORS		
R263	EVED1AS35B14	10KΩ(B), Volume Control	1	○ X
R270	EVH39A329B54	50KΩ(B), Bass Control	1	○ X
R272	EVH39A329A54	50KΩ(A), Treble Control	1	○ X
		RESISTORS		
R281	ERC12GM221	220Ω, ½ Watt, ±20%, Solid	1	Z
R268	ERD18TJ221	220Ω, ⅛ Watt, ±5%, Carbon	1	Z
R286	ERD18TJ821	820Ω, ⅛ Watt, ±5%, Carbon	1	Z
R261	ERD18TJ152	1.5KΩ, ⅛ Watt, ±5%, Carbon	1	Z
R269,278	ERD18TJ222	2.2KΩ, ⅛ Watt, ±5%, Carbon	2	Z
R275	ERD18TJ182	1.8KΩ, ⅛ Watt, ±5%, Carbon	1	Z
R274	ERD18VJ101	100Ω, ⅛ Watt, ±5%, Carbon	1	Z
R283,285,279	ERD18VJ181	180Ω, ⅛ Watt, ±5%, Carbon	3	Z
R277	ERD18VJ221	220Ω, ⅛ Watt, ±5%, Carbon	1	Z
R264	ERD18VJ331	330Ω, ⅛ Watt, ±5%, Carbon	1	Z
R262	ERD18VJ561	560Ω, ⅛ Watt, ±5%, Carbon	1	Z
R284	ERD18VJ821	820Ω, ⅛ Watt, ±5%, Carbon	1	Z
R280	ERD18VJ152	1.5KΩ, ⅛ Watt, ±5%, Carbon	1	Z
R267	ERD18VJ272	2.7KΩ, ⅛ Watt, ±5%, Carbon	1	Z
R273	ERD18VJ682	6.8KΩ, ⅛ Watt, ±5%, Carbon	1	Z
R271	ERD18VJ223	22KΩ, ⅛ Watt, ±5%, Carbon	1	Z
R276	ERD18VJ683	68KΩ, ⅛ Watt, ±5%, Carbon	1	Z
R282	ERD18VJ823	82KΩ, ⅛ Watt, ±5%, Carbon	1	Z
R265,266	ERD18VJ334	330KΩ, ⅛ Watt, ±5%, Carbon	2	Z
R260	ERD18VJ474	470KΩ, ⅛ Watt, ±5%, Carbon	1	Z
R287,288	ERX1ANJ1R5	1.5Ω, 1 Watt, ±5%, Metal Oxide	2	Z
R403	ERD18TJ103	10KΩ, ⅛ Watt, ±5%, Carbon	1	Z

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
		CAPACITORS		
C576	ECCD1H270KC	27PF, 50WV, ±10%, Ceramic	1	Z
C566	ECCD1H181K	180PF, 50WV, ±10%, Ceramic	1	Z
C575,577	ECKE1H333PF	0.033μF, 50WV, $\pm^{100}_{0}$%, Ceramic	2	Z
C552	ECQG05332MZ	0.0033μF, 50WV, ±20%, Polyester	1	Z
C558	ECQG05682MZ	0.0068μF, 50WV, ±20%, Polyester	1	Z
C567,568	ECQG06103MZ	0.01μF, 50WV, ±20%, Polyester	2	Z
C560	ECQG05222MZ	0.0022μF, 50WV, ±20%, Polyester	1	Z
C559,563	ECQG05223MZ	0.022μF, 50WV, ±20%, Polyester	2	Z
C550,557	ECQG05473MZ	0.047μF, 50WV, ±20%, Polyester	2	Z
C578	ECQG05104MZ	0.1μF, 50WV, ±20%, Polyester	1	Z
C551	ECA0J8ER47-Y	0.47μF, 16WV, Electrolytic	1	Y
C553,555,556, 562,573	ECEA50V1	1μF, 50WV, Electrolytic	5	Y
C565	ECEA6V220	220μF, 6.3WV, Electrolytic	1	Y
C554,561,564	ECEB16V220	220μF, 16WV, Electrolytic	3	Y
C574	ECEB25V220	220μF, 25WV, Electrolytic	1	○ Y
C569,570	ECEB20V2200	2200μF, 20WV, Electrolytic	2	○ Y
C580	ECCD1H331K	330PF, 50WV, ±10%, Ceramic	1	Z
C702	ECEA10V100	100μF, 10WV, Electrolytic	1	Y
		MISCELLANEOUS		
AA1	RJP105Z-M	Plug(5 pin), AF Amp. Unit (CN-13,CN-12)	2	○ Y
AA2	RMY78Z	Heat Sink, Transistor(TR49,50)	1	○ Z
		SWITCH		
S22	RXE6F8000M (Not Available Order) RXE6F8000M	Loudness Switch Assembly Switch Only	1 (1)	○ X
AA3	SBNA61-1	Knob, Loudness Switch	1	○ X

10-11 TERMINAL UNIT (4UPRF8000M-1)

(For parts locations, refer to fig.100.)

	4UPRF8000M-1	Terminal Unit	1	○ Z
		COILS		
L1	RLA4Z2-0	Balun Coil	1	X
L101	RLQY100-5	Choke Coil	1	Y
		RESISTORS AND CAPACITORS		
R64	ERO12GM104	100KΩ, ½ Watt, ±20%, Solid Resistor	1	Z
R290	ERD18VJ474	470KΩ, ⅛ Watt, ±5%, Carbon Resistor	1	Z
R289	ERD18VJ823	82KΩ, ⅛ Watt, ±5%, Carbon Resistor	1	Z
C407	ECKE1H223PF	0.022μF, 50WV, $\pm^{100}_{0}$%, Ceramic Capacitor	1	Z
C571,572	ECEA50V1	1μF, 50WV, Electrolytic Capacitor	2	Y
C538	ECEA16V10	10μF, 16WV, Electrolytic Capacitor	1	Y
C302	ECMS0510IJH	100PF, 50WV, ±5%, Mica Capacitor	1	Y

Ref. No.	Part No.	Part Name & Description	Per Set		Remarks
		SWITCH			
S3	RSS63A	Antenna Selector	1		X
		MISCELLANEOUS			
TU1	RJF1045Z	Terminal with Jack Board, EXT. Antenna & Jack	1	○	Y
NL1,2,3	**XANR5T25**	Neon Lamp, Arrester 100V 0.4A	3		X
TU2	RJP104Z-M	Plug(13 pin), RJS238Z-M(CN-16)	1	○	Y
TU3 (Fig.69)	RJP103Z-M	Plug(10 pin), RJS227Z-M(CN-1)	1	○	Y
TU4	RJJ49A	Jack, DC IN(12V)	1		Y
TU5	RJS25A	Din Jack, REC/PB	1		Y
TU6	RJJ62B	Jack, MPX OUT, AUX IN, REC OUT & EXT SP	4		Y
	RUV292-1	Cover, Switch	1		Z

10-12 TUNING SHAFT UNIT (RSG9004ZS)

(For parts locations, refer to figs. 101 & 102.)

	RSG9004ZS	Tuning Shaft Unit	1	○	Z
	RXE1F8000M	Dial Drum Selector Assembly	1	○	Z
TS1	Base		(1)		
TS2	Lever A		(1)		
TS3	Not Available Order.	Lever B	(1)		
TS4	RXE1F8000M	Lever C	(1)		
TS5		Lever D	(1)		
TS6		Lever E	(1)		
TS7	RUS216Z	Spring, Selector	1	○	Z
	RXE2F8000M	Dial Drum Assembly, VHF	1	○	Z
TS8	Not Available Order.	Drum Only	(1)		
TS9	RXE2F8000M	Shaft(Long)	(1)		
	RXE3F8000M	Dial Drum Assembly, SW	1	○	Z
TS8	Not Available Order.	Drum Only	(1)		
TS10	RXE3F8000M	Shaft(Short)	(1)		
	RUB100Z	Stopper, Dial Drum (SW)	1	○	Z
TS11	RUB101Z	Stopper, Dial Drum (VHF)	1	○	Z
TS12	RDG5630Z	Gear(Plastic), Dial Cord	1	○	Z
TS13	RDS4090A	Spring, Drum	2	○	Y
TS14	RDX406Z	Stopper Cam, Dial Drum	2	○	Z
TS15	RDZ205A	Cord(500m), Dial Drum	1Roll		Y
TS16	XUC25FW-V	E Ring, Gear(RDG5630Z) M*tg	1		Z
TS17	XUC3FW-V	E Ring, Dial Drum Shaft M*tg	2		Z
TS18	RDT9067Z	Flywheel with Shaft	1	○	Y
TS19	RSG5z	Holder, Flywheel	1	○	Z

10-13 CABINET

(For parts locations, refer to fig.87.)

	RYMF8000M	Cabinet Body Assembly	1	○	Z
	RYGF8000M	Metal Grille Assembly	1	○	Z
CA1	Not Available Order.	Metal Grille Only	(1)		
	RYGF8000M	Baffle, Speaker	(1)		
CA2	RG9220Z	Emblem, National Panasonic Mark	1	○	Z

Ref. No.	Part No.	Part Name & Description	Per Set		Remarks
	RYE1F8000M	Escutcheon Assembly	1	○	Z
CA3	Not Available Order.	Indicating Plate, Clock	(1)		
CA4	RYE1F8000M	Panel, Clock	(1)		
CA5	RGG54Z	Escutcheon Only	1	○	Z
CA6	RGP299Z	Panel, Dial	1	○	Z
CA7	RHG984Z	Rubber Cushion, Dial Panel	1	○	Z
CA8	RDH99Z	Back Plate, Dial Panel	1	○	Z
CA9	SGXA6001	Rubber Cover, Switch	6		Z
CA10	RGX622Z	Ornament, Meter	1	○	Z
CA11	RGK537Z	Indicating Plate, SIGNAL STRENGTH & BATTERY CHECK Mark	1	○	Z
CA12	RUP515Z-b	PC Board, Diode of Dial Indicator	1	○	Z
D45,46	LN22	Diode, Band Indicator	2		X
R253,254(*k.)	ERD18TJ102	Resistor, 1KΩ, ½Watt, ±5%, Carbon	2		Z
CA13	RUV349Z	Cover, Dial	1	○	Z
	RYHF8000M	Handle Assembly	1	○	Z
CA14	Handle Only		(1)		
CA15	Not Available Order.	Base, Handle	(1)		
CA16	RYHF8000M	Bracket, Handle	(2)		
CA17		Shaft, Handle	(2)		
CA18	RGX601Z	Ornament, Lower Part of Cabinet	1	○	Z
CA19	RGX620Z	Bracket(Plastic), Escutcheon	2	○	Z
CA20	RUC81ZS	Bracket, Chassis & Handle	1	○	Z
CA21	RHG983Z	Rubber Holder, Whip Antenna	2	○	Z
CA22	RUL354ZS	Bracket, Whip Antenna	2	○	Z
CA23	SHG327	Rubber Leg, Cabinet	4		Z
	RYF1F8000M	Cabinet Front Cover Assembly	1	○	Z
CA24	Not Available Order.	Cabinet Front Cover Only	(1)		
	RYF1F8000M	Emblem, National Panasonic Mark	(1)		
CA25	RGE29Z	Time Table	1	○	Z
CA26	RGE30Z	World Time Map	1	○	Z
CA27	RHR967Z	Holder, Frame Antenna	6	○	Z
CA28	RHR968Z	Hinge, Front Cover	2	○	Z
CA29	RGE42	Stopper, Front Cover	2		Z
	RYFF8000X	Cabinet Back Cover Assembly	1	○	Z
CA30	Not Available Order. RYFF8000X	Cabinet Back Cover Only	(1)		
	RYNF8000M	Battery Cover Assembly, Battery Compartment	1	○	Z
CA31	Not Available Order.	Battery Cover Only	(1)		
CA32	RYNF8000M	Indicating Plate with Shaft	(1)		
CA33	RBX20Z	Stopper, Battery Cover	2	○	Z
CA34	RBX18-1	Washer(Metal), Stopper(RBX20Z) M*tg	2	○	Z
CA35	RBX48-1S	Screw, Stopper(RBX20Z) M*tg	2		Z
CA36	RNW852I	Washer(Nylon), Stopper(RBX20Z) M*tg	4		Z
CA37	RDG31Z	Grille, Back Cover	1	○	Z
CA38	RBX19Z	Holder, Back Cover	3	○	Z
CA39	RBX17Z	Hinge(Right), Battery Cover	1	○	Z
CA40	RBX18Z	Hinge(Left), Battery Cover	1	○	Z
CA41	RQT409X	Name Plate	1	○	Z
CA42	RUS221Z	Spring, Battery Cover	1	○	Z
CA43	RSQ0510Z	Clock, DC1.5V	1	○	X
CA44	RMM18Z	Bracket, Clock	1	○	Z
CA45	RJJ68	Socket(16 Terminals), Clock, Meter, Headphones Jack & Earphone Jack(CN-24)	1		Y
CA46	RJJ96Z-H	Jack, Earphone	1		Y
CA47	RJJ79-2	Jack, Headphones	1		Y
CA48	RHM50Z	Spacer, Headphones Jack	1	○	Z
CA49	RGC56Z	Ornament, Earphone Jack	1	○	Z

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
CA50	RG057Z	Ornament, Headphones Jack	1	○ Z
CA51	RJJ692-U	Jack, Frame Antenna	1	○ Y
CA52	RUP633Z	PC Board, Frame Antenna Jack	1	○ Z
CA53	RUV348Z	Rubber Cover, Frame Antenna Jack	1	Z
CA54	RSM2307Z	Meter, Signal Strength & Battery Check	1	○ X
CA55	RHG685Z	Rubber Cushion, Meter	1	Z
CA56	RHG806Z	Rubber Cushion(Large), Meter	1	○ Z
CA57	RHG914-1	Rubber Cushion(Small), Meter & Dial Panel	6	Z
CA58	RMM19Z	Bracket, Meter	1	○ Z
CA59 (PL5,6,7)	**XAMR4T250**	Pilot Lamp, Clock & Meter, 12V 40mA	3	X
CA60	SMZA6091	Rubber Holder, Clock Lamp	1	Z
CA61	RHG211	Rubber Holder, Meter Lamp	2	Z
CA62	RMP92Z	Bracket, Meter Lamp	1	○ Z
CA63	RHG634	Rubber Cushion, Bracket (RMM18Z)	4	Z
CA64	RJR22Z	Lead Holder(3 Terminals), Clock & Meter Lamp	1	Z
CA65	RUV118B	Cover, Switch	2	Z
CA66	XEARS190HAY	Whip Antenna,8 Steps, 1306mm	2	○ X
CA67	RBT69ZS	Knob, Tuning	1	○ X
CA68	RBT70ZS	Knob, Volume	1	○ X
CA69	RBT71ZK	Knob, Treble, Bass & Squelch	3	○ X
CA70	RBT72ZK	Knob, BFO & CAL	2	○ X
CA71	RBT73ZM	Knob, CAL ON-OFF & BFO AM-SSW-OW	2	○ X
CA72	RBT68ZK	Knob, MGC(SSB-CW)	1	○ X
CA73	RMN110Z	Knob with Screw, Clock	1	X
		SCREWS, NUT AND WASHERS		
CA74	XSN2+4FZ	Screw, World Time Map M*tg	4	○ Z
CA75	XSB3+6BV5	Screw, Frame Antenna Holder M*tg	6	Z
CA76	XTN23+6BFZ	Screw, Stopper of Front Cover M*tg	4	Z
CA77	XTN23+8BFZ	Screw, Hinge M*tg	4	Z
CA78	XTW3+6LFZ	Screw, Hinge(RBX17Z, RBX18Z) Stopper (RBX20Z), Cover(RUV349Z) & Back Plate(RDH99Z) M*tg	13	○ Z
CA79	XMM27+10FZ	Screw, Ornament(RGX601Z) M*tg	5	○ Z
CA80	XTN3+12F	Screw, Escutcheon M*tg	5	Z
CA81	XTN3+10F	Screw, Escutcheon M*tg	5	Z
CA82	XMM3I+16	Screw, Bracket(RGX620Z) M*tg	8	Z
CA83	XTN3+18B	Screw, Handle M*tg	4	Z
CA84	XTN3+10B	Screw, Bracket (CA16) & Handle M*tg	3	Z
CA85	XYN4+016S	Screw, Handle M*tg	4	Z
CA86	SHEA5006S	Screw, Tuning & Volume Knob M*tg	3	Z
CA87(Fig.8)	XYN3+F8FZS	Screw, Cabinet Back Cover M*tg	4	○ Z
CA88	XTN3+6F	Screw, Bracket(RMP92Z) M*tg	2	Z
CA89	XTN3+8F	Screw, Bracket(RMM19Z) M*tg	4	Z
CA90	XYN3+08S	Screw, Whip Antenna M*tg	1	Z
CA91	XNG30S	Nut, Grille(RG031Z), Holder(RBX19Z), Speaker, Metal Grille & Bracket(RUC81ZS, RUL354ZS, RMM18Z) & Rubber Leg M*tg	40	Z
CA92	XWA3B	Washer, Grille(RG031Z), Holder(RBX19Z), Speaker, Metal Grille & Bracket(RUC81ZS, RUL354ZS) M*tg	36	Z
CA93	XWG3X10	Washer, Grille(RG031Z), Metal Grille, Rubber Leg & Bracket(RMM18Z) M*tg	18	Z
CA94	XWG3F13	Washer, Metal Grille & Handle M*tg	14	Z

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
CA95	XWG4F13	Washer, Handle M*tg	4	Z
CA96	XNT3	Washer, Escutcheon & Speaker M*tg	18	Z
CA97	XUG4FW-V	E Ring, Shaft(RKX95Z) M*tg	4	Z
CA98	SNE439	Nut, Frame Antenna & Headphones Jack M*tg	2	Z
CA99	RHE7025Z	Nut, Earphone Jack M*tg	1	○ Z
CA100	XSB3+16BNS	Screw, Rubber Leg M*tg	4	Z
CA101	XNS26	Nut, Clock M*tg	3	Z
CA102	XWA26B	Washer, Clock M*tg	3	Z
CA103	RNT52D-2	Washer, Chassis M*tg	10	○ Z
CA104	XYN3+C8RS	Red Screw, Whip Antenna M*tg	1	Z
CA105	XTN3+8B	Screw, Handle M*tg	1	Z
		DIODE		
D120	RVD10D1	Rectifier	1	X
		COIL		
L35	RLA3Z2-T	Loading Coil	1	○ X
		SPEAKERS		
SP1,2	EAS18D03S	Oval Speaker, 7"×4"(18cm×10cm) PM Dynamic, Imp.16Ω	2	○ X
		SWITCHES		
S11-1,S11-2	RST46YS-H	Battery Check Switch	1	○ X
S12	RST46ZS-H	Dial Light Switch	1	○ X
		RESISTORS AND CAPACITOR		
R291	ERG1ANJ560	56Ω, 1Watt, ±5%, Metal Oxide Resistor	1	○ Z
R292	ERC12GM151	150Ω, ½Watt, ±20%, Solid Resistor	1	Z
C130	ECCD1H100KC	10PF, 50WV, ±10%, Ceramic Capacitor	1	Z

10-14 CHASSIS

(For parts locations, refer to figs. 88,89 &103.)

	RXE4F8000M	Front Chassis Assembly	1	○ Z
CH1		Chassis Only	(1)	
CH2		Shaft, Pulley	(10)	
CH3	Not Available Order,	Shaft, Pulley	(4)	
CH4	RXE4F8000M	Guide, Cord	(3)	
CH5		Bracket, Calibration	(1)	
CH6		Bracket, Front Chassis	(1)	
CH7	RDR20-3	Pulley, Dial	14	Z
CH8	RWH150-2	Washer(Nylon), Pulley	14	Z
CH9	RDT6371ZK	Shaft, Calibration	1	○ Z
CH10	RDH97Z	Back Plate, Dial Pointer	1	○ Z
CH11	RUG43Z	Guide(Upper Side), Dial Pointer	1	○ Z
CH12	RUG44Z	Guide(Lower Side), Dial Pointer	1	○ Z
	RXE9F8000M	Dial Scale Gear Assembly, VHF	1	○ Z
CH13	Not Available Order, RXE9F8000M	Base, Gear	(1)	
CH14	RDQ5636Z	Gear, Dial Scale	3	○ Z
CH15	RDF956Z	Shaft, Gear	1	○ Z
CH16	RDF999ZS	Spacer, Gear	1	○ Z
CH17	RMD1043Z	Bracket, Gear	1	○ Z

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
	#RYD1F8000M	Dial Scale Assembly, VHF1~VHF8, LW, MW, MB1 & MB2	1	○ Z
CH18		Dial Scale, VHF1	(1)	
CH19		Dial Scale, VHF2	(1)	
CH20		Dial Scale, VHF3	(1)	
CH21		Dial Scale, VHF4	(1)	
CH22	Not Available Order,	Dial Scale, VHF5	(1)	
	RYD1F8000M	Dial Scale, VHF6	(1)	
		Dial Scale, VHF7	(1)	
		Dial Scale, VHF8	(1)	
		Dial Scale, LW	(1)	
		Dial Scale, MW	(1)	
		Dial Scale, MB1	(1)	
		Dial Scale, MB2	(1)	
CH23		Spring, Dial Scale	(1)	
	#RYD2F8000M	Dial Scale Assembly, SW1~SW12	1	○ Z
CH24		Dial Scale, SW1	(1)	
CH25		Dial Scale, SW2	(1)	
CH26		Dial Scale, SW3	(1)	
CH27		Dial Scale, SW4	(1)	
CH28	Not Available Order,	Dial Scale, SW5	(1)	
	RYD2F8000M	Dial Scale, SW6	(1)	
		Dial Scale, SW7	(1)	
		Dial Scale, SW8	(1)	
		Dial Scale, SW9	(1)	
		Dial Scale, SW10	(1)	
		Dial Scale, SW11	(1)	
		Dial Scale, SW12	(1)	
CH23		Spring, Dial Scale	(1)	
	#RWBF8000M	Battery Case Assembly	1	○ Z
CH29	Not Available Order,	Case Only	(1)	
CH30	RWBF8000M	Tape, Battery	(1)	
CH31	RJC111A	Terminal, Battery ⊕ Side	3	Y
CH32	RJC505Z	Spring, Battery ⊖ Side	2	Y
	RJC603Z	Spring, Battery ⊖ Side, For Clock Battery	1	Y
CH33	RJT398A	Connecting Pipe, Battery Spring	3	Z
	#RXE7F8000M	Power Switch Assembly	1	○ X
S26	Not Available Order,	Switch Only	(1)	
	RXE7F8000M			
CH34	SBNA61-1	Knob, Power Switch	1	○ X
CH35	RJS93Z-S	Socket with Lead Wire (2 Pin), Power Switch (CN-25)	1	○ Y
CH36	RUV378Z	Cover, Accessory Box	1	○ Z
CH37	RDG6ZS	Gear (Metal), Dial Scale (SW)	2	○ Z
CH38	RDF955Z	Shaft, Gear	1	○ Z
CH39	RJR1S	Lead Holder (2 Terminals), Motor & Selector Unit	2	Z
CH40	RJR20A	Lead Holder No.2 (5 Terminals)	1	Z
CH41	RJR24Z	Lead Holder No.1,3 (4 Terminals)	2	Z
	RJR25Z	Lead Holder (2 Terminals)	1	Z
CH42	RHR110	Bushing (Plastic), Lead Wire of Core Antenna	1	Z
CH43	RUM26Z	Bracket (Right Side), Dial Scale	1	○ Z
CH44	RUM27Z	Bracket (Left Side), Dial Scale	1	○ Z
CH45	RMA138Z	Bracket, Core Antenna	6	○ Z
CH46	RHG111	Rubber Cushion, Core Antenna & Crystal	7	Z
CH47	RHD1302-1S	Stay Shaft, VHF Tuner Unit	1	Z
CH48	RUV347Z	Cover, Battery Case	1	○ Z
CH49	RHG816Z	Rubber Cover, POWER, LOUDNESS ANL, BAND WIDTH, AFC & MODE Switch	6	○ Z

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
CH50	RHG701	Rubber Cushion, VHF Tuner Unit	2	○ Z
CH51	RJS227Z-M	Socket with Lead Wires (10 Terminals), Terminal Unit (CN-1)	1	○ Y
CH52	4JSRF8000M-1	Socket with Lead Wires (14 Terminals), VHF SW Selector Unit (CN-7)	1	○ Y
CH53	5JSRF8000M-1	Socket with Lead Wires (12 Terminals), Operation Unit (CN-10)	1	○ Y
CH54	RJS228Z-M	Socket with Lead Wires (7 Terminals), LW, MW, MB1, MB2 RF Amp. Unit (CN-2)	1	○ Y
CH55	RJS229Z-M	Socket with Lead Wires (7 Terminals), LW, MW, MB1, MB2 RF Amp. Unit (CN-3)	1	○ Y
CH56	RJS230Z-M	Socket with Lead Wires (10 Terminals), IF Amplifier Unit (CN-4)	1	○ Y
CH57	RJS231Z-M	Socket with Lead Wires (10 Terminals), IF Amplifier Unit (CN-5)	1	○ Y
CH58	RJS233Z-M	Socket with Lead Wires (12 Terminals), VHF-SW Selector Unit (CN-6)	1	○ Y
CH59	RJS234Z-M	Socket with Lead Wires (12 Terminals), VHF-SW Selector Unit (CN-9)	1	○ Y
CH60	RJS236Z-M	Socket with Lead Wires (10 Terminals), Operation Unit (CN-11)	1	○ Y
CH61	RJS237Z-M	Socket with Lead Wires (5 Terminals), AF Amplifier Unit (CN-13)	1	○ Y
CH62	RJS238Z-M	Socket with Lead Wires (13 Terminals), Terminal Unit (CN-15)	1	○ Y
CH63	RJS91Z-M	Socket (14 Terminals), Tuner & Control Unit (CN-17, 18, 19, 20)	4	○ Y
CH64	RJS92Z-M	Socket (30 Terminals), Band Selector Unit (CN-23)	1	○ Y
CH65	RJS88Z-M	Socket Only (5 Terminals), AF Amplifier Unit (CN-12)	1	○ Y
	RJS102Z-M	Terminal, Socket (RJS88Z-M)	5	○ Z
CH66	RJP67	Plug (5 Pin), AC Adaptor (CN-14)	1	Y
CH67	RUP1455	Connecting PC Board (CN-16)	1	Y
	RHG605	Rubber Cushion, Socket (RJS91Z-M)	4	Z
CH68 (PL1,2,3,4)	XAMR4T250	Pilot Lamp, Dial Scale, 12V, 40mA	4	X
CH69	SMZA6091	Rubber Holder, Pilot Lamp	4	Z
CH70	RGK538Z	Indicating Plate, VHF1, VHF2, VHF3, etc. Mark	1	○ Z
CH71	RDD331ZS	Drum, Dial	2	○ Z
CH72	RDS4060A	Spring, Dial	4	Z
CH73	RUS218Z	Spring, Dial Scale Assembly M*tg	2	○ Z
CH74	RDS4090A	Spring, Calibration	1	Z
CH75	RDZ05A	Cord (500m), Dial	1Roll	Y
CH76	RDP129Z	Pointer, Dial (SW)	1	○ Y
CH77	RDP135Z	Pointer, Dial (VHF)	1	○ Y
CH78	RUB9012ZS	Stopper, Volume	1	○ Z
CH79	RUT900ZZ	Selector Mechanism, CAL-ON/OFF & AM Mode Switch	2	○ Z
CH80	RMF27Z	Bracket, Terminal Unit	1	○ Z
CH81	RJP106Z-M	Plug with Lead Wires (2 Pin), Power Switch (CN-26)	1	○ Y
	WESE(H)-74	Shield Wire, Socket (RJS92Z-M)	1	○ Z
	WESE(H)-33	Shield Wire, Socket (RJS92Z-M)	1	○ Z
	WDSE(H)-37	Shield Wire, Socket (RJS92Z-M)	1	○ Z
	WDSE(C)-37	Shield Wire, Socket (RJS92Z-M)	1	○ Z
	WKSE(C)-30BB	Shield Wire, Socket (RJS91Z-M)	1	○ Z

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
	WKSE(H)-76BB	Shield Wire, Socket(RJS91Z-M)	1	○ Z
	RJK1407-4	Pipe, Battery	2	Y
		SCREWS, NUTS AND WASHERS		
CH82	XTN23+6B	Screw, Spring(RUS205Z) M'tg	6	Z
CH83	XTW3+6L	Screw, AF Amp.,Operation & LW, MW, MB1, MB2 RF Amp. Unit etc. M'tg	14	Z
CH84	XYN3+C6S	Screw, Power, Loudness, ANL., Band Width, AFC, Mode Switch etc. M'tg	14	Z
CH85	XTN3+6F	Screw, Heat Sink(AF Amp. Unit), AC Adaptor, IF Amp., Motor Unit etc. M'tg	77	Z
CH86	XYN3+F8S	Screw, Lead Holder(RJR1B) & Tuner M'tg	12	Z
CH87	XXAR3H6S	Screw, Gear(RDG6ZS), Dial Drum &Spacer (RDF959Z) M'tg	12	Z
CH88	XTN3+8F	Screw, VHF-SW, Selector Unit etc. M'tg	12	Z
CH89(Fig.10)	XYN4+C25FZS	Screw, Chassis M'tg	10	Z
CH90(Fig.12)	XYN4+C8RS	Red Screw, Chassis M'tg	4	Z
CH91	XNS8	Nut, Treble, Bass, Squelch, etc. M'tg	6	Z
CH92	XWV8	Washer, Treble, Bass, Squelch, etc. M'tg	6	Z
CH93	XN03CS	Nut, Operation Unit M'tg	2	Z
CH94	XUC3FW-V	E Ring, Gear(RDG6ZS) M'tg	1	Z
CH95	XUC2FW-V	E Ring, Shaft(RDF956Z) M'tg	1	Z
CH96	XU05	E Ring, Gear(RDG5636Z) M'tg	1	Z
CH97	XUC4FW-V	E Ring, Gear(RDG5636Z) M'tg	1	Z
CH98	XTW3+8L	Screw, Battery Case Assembly M'tg	5	Z
CH99	RNW422	Washer, Lead Holder(RJR1B) M'tg	1	Z
CH100	XWA3B	Washer, Tuner(VHF) M'tg	1	Z
	XNT4	Washer, Chassis M'tg	4	Z
CH101(Fig.11)	XYN3+F8FZS	Screw, Chassis M'tg	1	Z
	RNW322	Washer, PC Board(CN-6) M'tg	2	Z
		TRANSISTOR AND DIODES		
TR73	2SC828	Transistor, Recording Output Amplifier	1	X
D43,44,112	RVD10D1	Diode, Rectifier	3	○ X
		COILS		
L85,86	RLQZ4501-D	Choke Coil	2	Y
L73	RLF1X1-0	LW Antenna Coil	1	○ X
L74	RLF2X6-0	MW Antenna Coil	1	○ X
L75,76	RLF9X2-0	MB1 & MB2 Antenna Coil	1	○ X
		RESISTORS AND CAPACITORS		
R402	ERD18TJ152	1.5KΩ, ¼ Watt,±5%, Carbon Resistor	1	Z
R401	ERD18TJ474	470KΩ,¼ Watt,±5%, Carbon Resistor	1	Z
R400	ERD18TJ471	470Ω, ¼ Watt,±5%, Carbon Resistor	1	Z
C484,539,581, 582	ECKE1H223PF	0.022μF,50WV,±$^{+80}_{-20}$%,Ceramic Capacitor	4	Z
C674	EOEA50V33	33μF, 50WV, Electrolytic Capacitor	1	○ Y
C279	ECEA10V470	470μF, 10WV, Electrolytic Capacitor	1	Y
C701	ECEA25V4R7	4.7μF, 25WV, Electrolytic Capacitor	1	Y
C700	ECEA16V10	10μF, 16WV, Electrolytic Capacitor	1	Y

10-15 FRAME ANTENNA UNIT (RSARF8000M-1)

(For parts locations, refer to figs.104 & 105.)

Ref. No.	Part No.	Part Name & Description	Per Set	Remarks
	RSARF8000M-1	Frame Antenna Unit	1	○ Z
FA1	RSA4Z	Frame Antenna Only	1	○ Z
FA2	RJT451Z	Terminal, Frame Antenna	2	○ Z
FA3	RMA130Z	Bracket, Frame Antenna	4	○ Z
FA4	RJP95Z-S	Plug, Frame Antenna	1	○ Y
FA5	XNS11	Nut, Plug M'tg	1	Z
FA6	RKM330Z	Cabinet, Frame Antenna	1	○ Z
FA7	RKF237Z	Cover, Frame Antenna	1	○ Z
FA8	XUC4FW-V	E Ring, Frame Antenna M'tg	4	Z
	XNG4BS	Nut, Frame Antenna M'tg	2	Z
	XWA4B	Washer, Frame Antenna M'tg	2	Z
	XYNR4+H10S	Screw, Frame Antenna M'tg	2	Z
	XTN3+8B	Screw, Bracket(RMA130Z) M'tg	2	Z
	XTN3+10BFZ	Screw, Antenna Cover M'tg	1	Z

10-16 PACKING MATERIALS

(For parts locations, refer to fig.107.)

P1	RPH239Z	Soft Cover	1	○ Z
P2	RPH255Y	Soft Sheet	2	○ Z
P3	RPN1990Z	Pad, Cabinet Front	1	○ Z
P4	RPN1874Z	Pad, Both Sides of Cabinet	2	○ Z
P5	RPN1981Z	Pad, Upper & Bottom	3	○ Z
P6	RPG1392Z	Packing Case, Inside	1	○ Z
P7	RPG1393Z	Packing Case, Outside	1	○ Z
P8	RQX5904Z	Instruction Book	1	○ Y

10-17 ACCESSORIES

(For parts locations, refer to fig.107.)

	RJA20Z-K	AC Cord, EXT.Power Source	1	○ Y [USA]
	XEH15A1-B	Magnetic Earphone	1	Y
	RJP3-1	Plug, Jack	3	Y
	RJP16AS	Plug, British Type	1	Y
	RJP17AS	Continental Type	1	Y

10-18 AC ADAPTOR (RD-9470)

(For parts locations, refer to fig.106.)

	RD-9471B	AC Adaptor	1	○ Z [USA]
		TRANSISTORS AND DIODES		
TR67	2SC828	Regulator Amplifier	1	X
TR68	2SC647	Regulator	1	○ X [USA]
TR69	2SA733	Regulator Amplifier	1	X
D106	RVDMZ20B	Power Source Operation Compensator	1	X
D107	RVD10DC2	Rectifier	1	○ X [USA]
D108	RVD10D1	Rectifier	1	○ X [USA]
		TRANSFORMER		
T25	RLT5M24-W	Power Transformer	1	○ X [USA]

Ref. No.	Part No.	Part Name & Description	Per Set		Remarks
		RESISTORS AND CAPACITORS			
R361	EVTJ0AS05B23	2KΩ (B), Power Source Voltage Control Resistor	1	○	X
R362	ERD18TJ103	10KΩ, ¼Watt, ±5%, Carbon Resistor	1		Z
R360	ERD18TJ123	12KΩ, ¼Watt, ±5%, Carbon Resistor	1		Z
R363	ERD18VJ272	2.7KΩ, ½Watt, ±5%, Carbon Resistor	1		Z
R364	ERD18VJ824	820KΩ, ½Watt, ±5%, Carbon Resistor	1		Z
R367	ERG1ANJ103	10KΩ, 1Watt, ±5%, Metal Oxide Resistor	1	○	Z US,CA
R366	ERX1ANJR82	0.82Ω, 1Watt, ±5%, Metal Oxide Resistor	1	○	Z
C405,406	ECKD2H103PE	0.01μF, 500WV, ±$^{+80}_{-20}$%, Ceramic Capacitor	2		Z US,CA
C401	EQG605333MZ	0.033μF, 50WV, ±20%, Polyester Capacitor	1		Z
C400	ECEA25V220	220μF, 25WV, Electrolytic Capacitor	1	○	Y
C404	ECEA25V470V	470μF, 25WV, Electrolytic Capacitor	1	○	Y US,CA
C403	ECET35R2200	2200μF, 35WV, Electrolytic Capacitor	1		Y EXC.US
C705	ECKE1H102MD	0.001μF, 50WV, ±20%, Ceramic Capacitor	1		Z
		MISCELLANEOUS			
AC1	RJJ30Z-H	Jack, EXT. Power Source, AC 100/120/220/240V, 50/60Hz	1		Y EXC.US
	RJS25-2	Socket, Power Source	1		Y
	RJE10Z	Cover, EXT. Power Source Jack	1		Z EXC.US
AC2	RUV361Z	Cover, Transistor (TR68)	1		Z
AC3	RGT443Z	Name Plate	1	○	Z
AC4	RJF7A	Holder, Fuse	4		Z
AC5	XBA2C08TR0	Fuse, 250V 0.8A	2		X US,CA
AC6	ESE3741	Voltage Selector	1	○	X EXC.US
AC7	RUV387Z	Cover, Voltage Selector Selector	1	○	Z
	XSB3+12BNS	Screw, Transistor (TR68) M*tg	2		Z
	XSN4+8S	Screw, Power Transformer M*tg	2		Z
	XNG3CS	Nut, Transistor (TR68) M*tg	2		Z
	XWG4F13	Washer, Power Transformer M*tg	2		Z
	XWG3	Washer, Transistor (TR68) M*tg	2		Z
	XTW3+8L	Screw, Jack & Voltage Selector Switch M*tg	6		Z
	RHR314Z	Insulator, Transistor (TR68)	1		Z

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