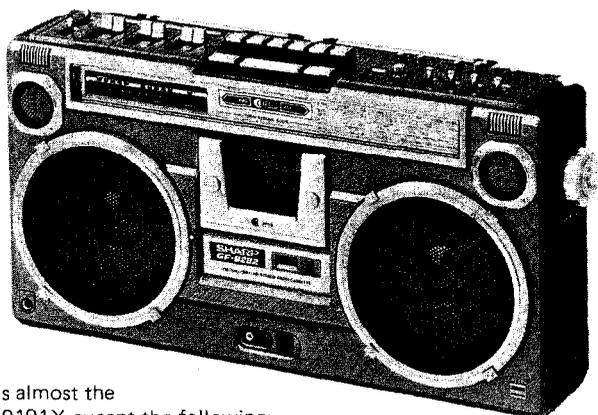




# Service Manual

GF-9292X



Auto Program Search System

## MODEL GF-9292X

The model GF-9292X is almost the same as the former GF-9191X except the following:

- (1) The meter is of LED indication.
- (2) The front design is different from that of the GF-9191X.
- (3) "AM" indication of the radio band selector is different from the corresponding one ("MW") of that of the GF-9191X.

As for the items "Description of APSS", "Mechanical Adjustment", "Electrical Measurement" and "General Alignment Instruction", they are all omitted from the explanations of this Service Manual and therefore refer to the already issued "GF-9191X Service Manual" to see the details of them.

In the interests of user-safety the set should be restored to its original condition and only parts identical to those specified be used.

### SPECIFICATIONS

#### GENERAL

Type:	Portable stereophonic cassette tape recorder with built-in AM/SW <sub>1</sub> /SW <sub>2</sub> /FM 4-band radio
Power source:	AC 110/220/240V, 50/60 Hz DC 15V (Ten UM/SUM-1, R20, "D" size batteries or External DC supply)
Power consumption:	35 W
Speaker:	16 cm (Woofer) x 2, 5 cm (Tweeter) x 2
Power output:	Dynamic power 20 W (10 W + 10 W)
Semiconductors:	8-IC (Integrated Circuit), 34-transistor and 44-diode (13-Light Emitting Diode)
Dimensions:	516mm(W) x 115mm(D) x 271mm(H) [20-5/16"(W) x 4-1/2"(D) x 10-11/16"(H)]
Weight:	6.5 kg (14.3 lbs.) (without batteries)
Input terminals:	1 EXT. MIC. 600 ohms (J101-A, J101-B) 2 Mixing mic. 600 ohms (J401) 3 Remote control (J101-G) 4 EXT. DC power (J901) 5 AC input power (SO901) 6 REC/PB DIN socket, 2.5 mV/10K ohms (SO1 01) 7 FM EXT. antenna (TB1) 8 PHONO (J103-A, J103-B)
Output terminals:	1 EXT. speaker, 4 ~ 8 ohms (J101-E, J101-F) 2 PHONES, 8 ~ 25 ohms (J603) 3 REC/PB DIN socket, 0.7V/50K ohms (SO101) 4 Line out, 0.7 V/50K ohms (J101-C, J101-D)

#### TAPE RECORDER SECTION

Type:	4-track stereo cassette tape recorder
Tape:	Philips type compact cassette tape
Tape speed:	4.8 cm/sec.
Recording system:	AC bias
Erasing system:	AC erasing
Recording time:	60 minutes (with C-60 tape)
Fast forward or rewind time:	120 sec. (with C-60 tape)
Frequency response:	40 ~ 15,000 Hz (CrO <sub>2</sub> tape) 40 ~ 12,000 Hz (Normal tape)
Wow and flutter:	0.09% (WR MS)
SIN ratio:	50 dB

#### RADIO SECTION

Frequency range:	AM 525 ~ 1,605 kHz SW, 2.3 ~ 7.3 MHz SW <sub>2</sub> 7.3 ~ 22 MHz FM 87.6 ~ 108 MHz
Intermediate frequency:	AM/SW <sub>1</sub> /SW <sub>2</sub> 455 kHz FM 10.7 MHz
Circuit system:	4-band superheterodyne system
Antenna:	AM/SW, ferrite core bar antenna SW, /SW <sub>2</sub> /FM telescopic antenna FM EXT. antenna

SHARP CORPORATION OSAKA, JAPAN

# NAMES OF PARTS

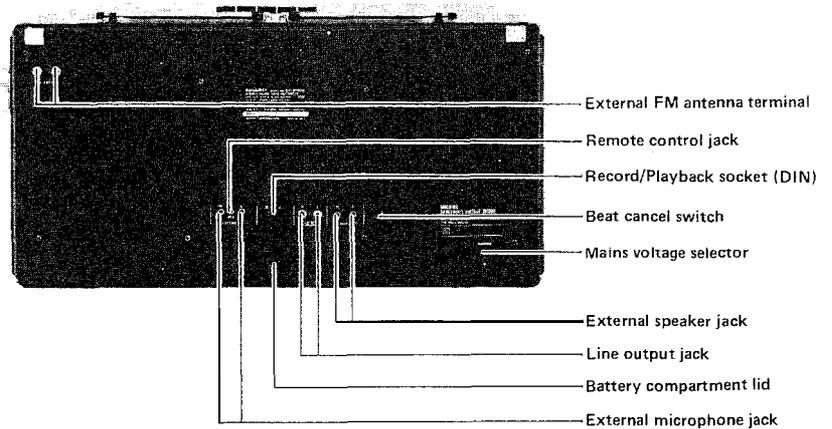
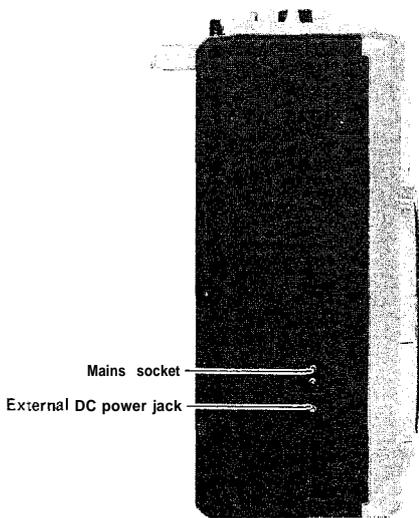
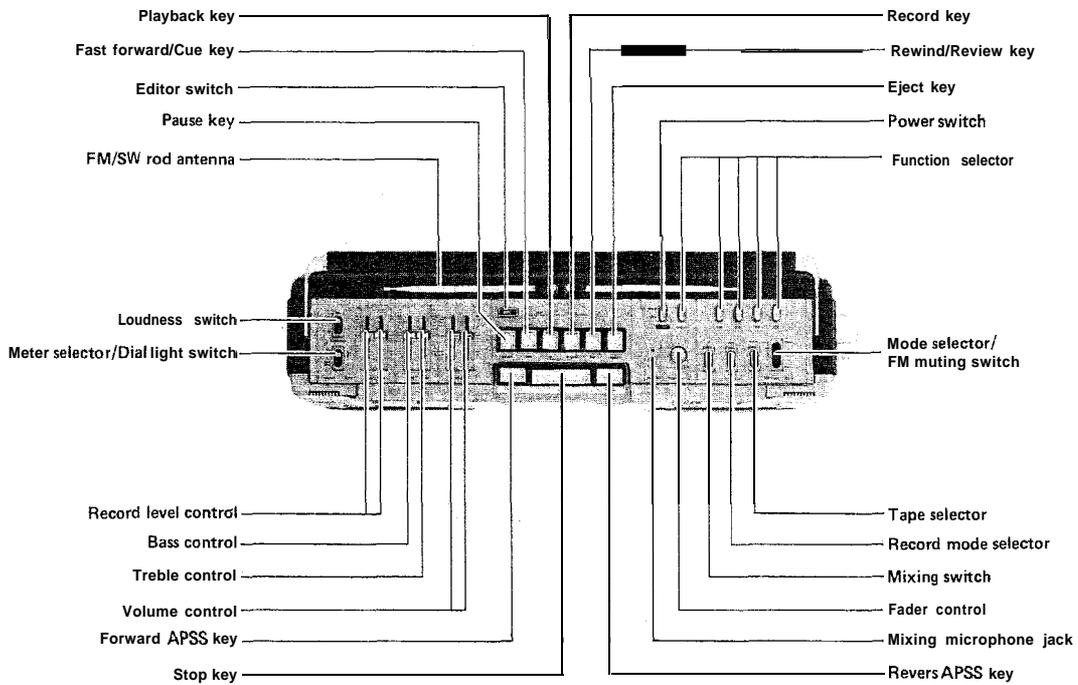
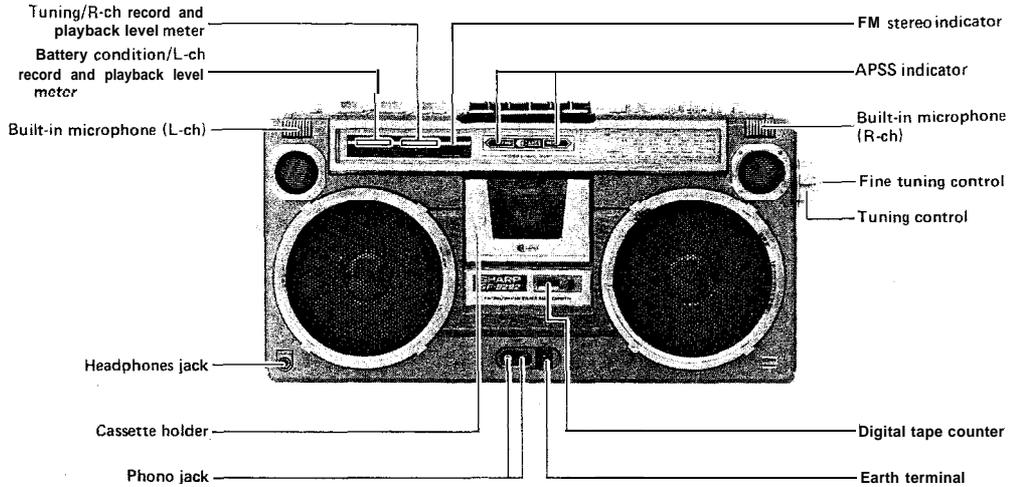
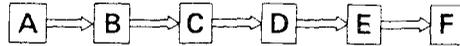


Figure 1

## DISASSEMBLY



- A FRONT CABINET REMOVAL** (Refer to Figures 2 and 3)
1. Pull out the power cord plug or adaptor plug from the unit.
  2. Take out the cassette tape from the cassette holder.
  3. Remove eight (8) screws retaining the front cabinet.
  4. Gently pull out the front cabinet and disconnect four (4) tips (Speaker) connected to the main P.W. board.

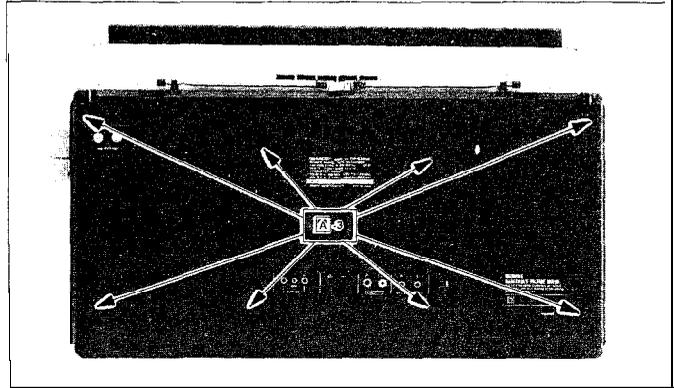


Figure 2

- B OPERATION PANEL REMOVAL** (Refer to Figure 3)
1. Remove the front cabinet as described in front cabinet removal.
  2. Remove seven (7) knobs (record level, bass, treble, volume and fader).
  3. Gently lift up the operation panel from the back cabinet.

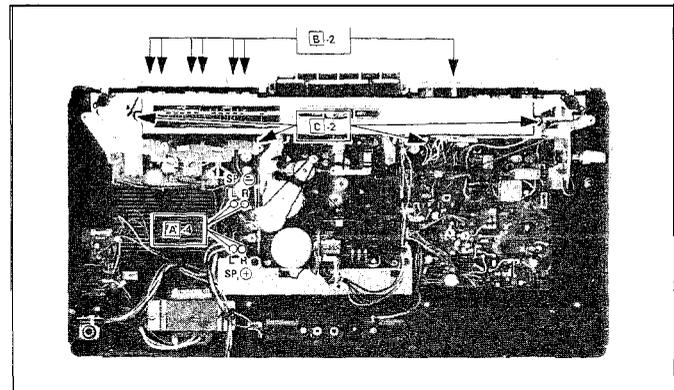


Figure 3

- C DIAL SCALE PLATE REMOVAL** (Refer to Figure 3)
1. Remove the operation panel as described in operation panel removal.
  2. Remove four (4) screws retaining the dial scale plate.
  3. Gently pull out the dial scale plate from the chassis.

- D MECHANISM BLOCK REMOVAL** (Refer to Figure 4)
1. Remove the dial scale plate as described in dial scale plate removal.
  2. Disconnect the tip (muting) and two (2) sockets (SO1, SO2) connected to the main P.W. board and the motor P.W. board.
  3. Remove four (4) screws retaining the mechanism block.
  4. Gently pull out the mechanism block from the main P.W. board holder.

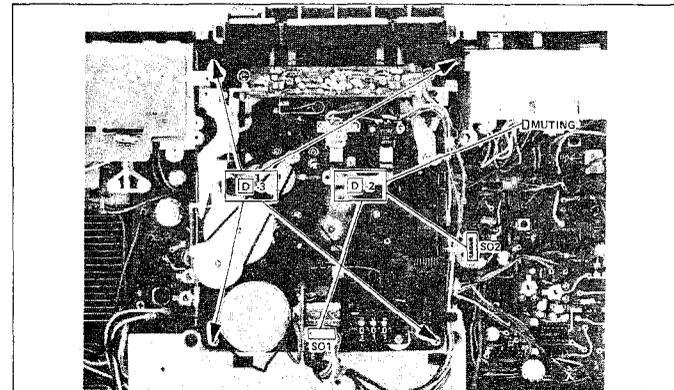


Figure 4

- E PHONO JACK PLATE REMOVAL** (Refer to Figure 5)
1. Remove the mechanism block as described in mechanism block removal.
  2. Remove two (2) screws retaining the phono jack plate.
  3. Gently pull out the phono jack plate from the back cabinet.

- F CHASSIS (P.W.B.) REMOVAL** (Refer to Figure 5)
1. Remove the phono jack plate as described in phono jack plate removal.
  2. Remove two (2) knobs (tuning and fine tuning).
  3. Disconnect three (3) tips (Antenna) and two (2) tips (DC supply) connected to the main P.W. board.
  4. Remove seven (7) screws retaining the chassis (P.W.B.).
  5. Gently pull out the chassis (P.W.B.) from the back cabinet.

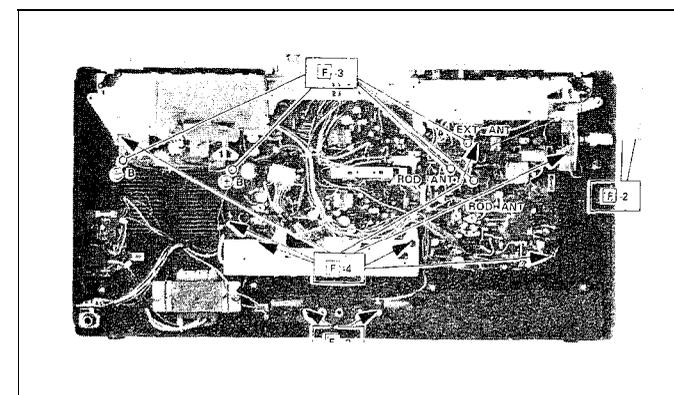


Figure 5

As for "Description of APSS", "Mechanical Adjustment", As for all the items except "VU-Meter Adjustment", refer to "General Alignment Instruction" and "Electrical Measure- Service Manual of Model GF-9191X. ment", refer to Service Manual of Model GF-9191 X.

### LEVEL AND SENSITIVITY ADJUSTMENT OF VU METER

1. Connect the V.T.V.M. across the 100 ohm resistors (R115, R116).
2. Short circuit the primary coil of the oscillation coil (L301) to stop bias oscillation.
3. Connect the signal generator to the EXT. MIC jacks (J101A, J101B) and apply signal (1kHz, -60dB) to the unit.
4. Place the unit in RECORD mode.
5. Connect DC voltmeter between TP51 and TP52 (ground) and adjust left channel record level control (R148) so that DC voltmeter indicates 1.0V.
6. Adjust the semi-variable resistor (R907) so that 5th LED (D914) of VU meter begins to light.
7. Next, change the voltage of TP51 to 0.95V by sliding the record level control (R148), and in this time, check the 5th LED (D914) of VU meter fails to light.
8. Adjust the record level controls (R147, R148) so that the V.T.V.M. reads 3.5mV.
9. Adjust the semi-variable resistors (R 187, R188) so that 4th LEDs(D908,D913) of VU meters begin to light.
10. Set the level of signal generator to -61dB and this time, check the 4th LEDs (D908, D913) of VU meters fail to light.

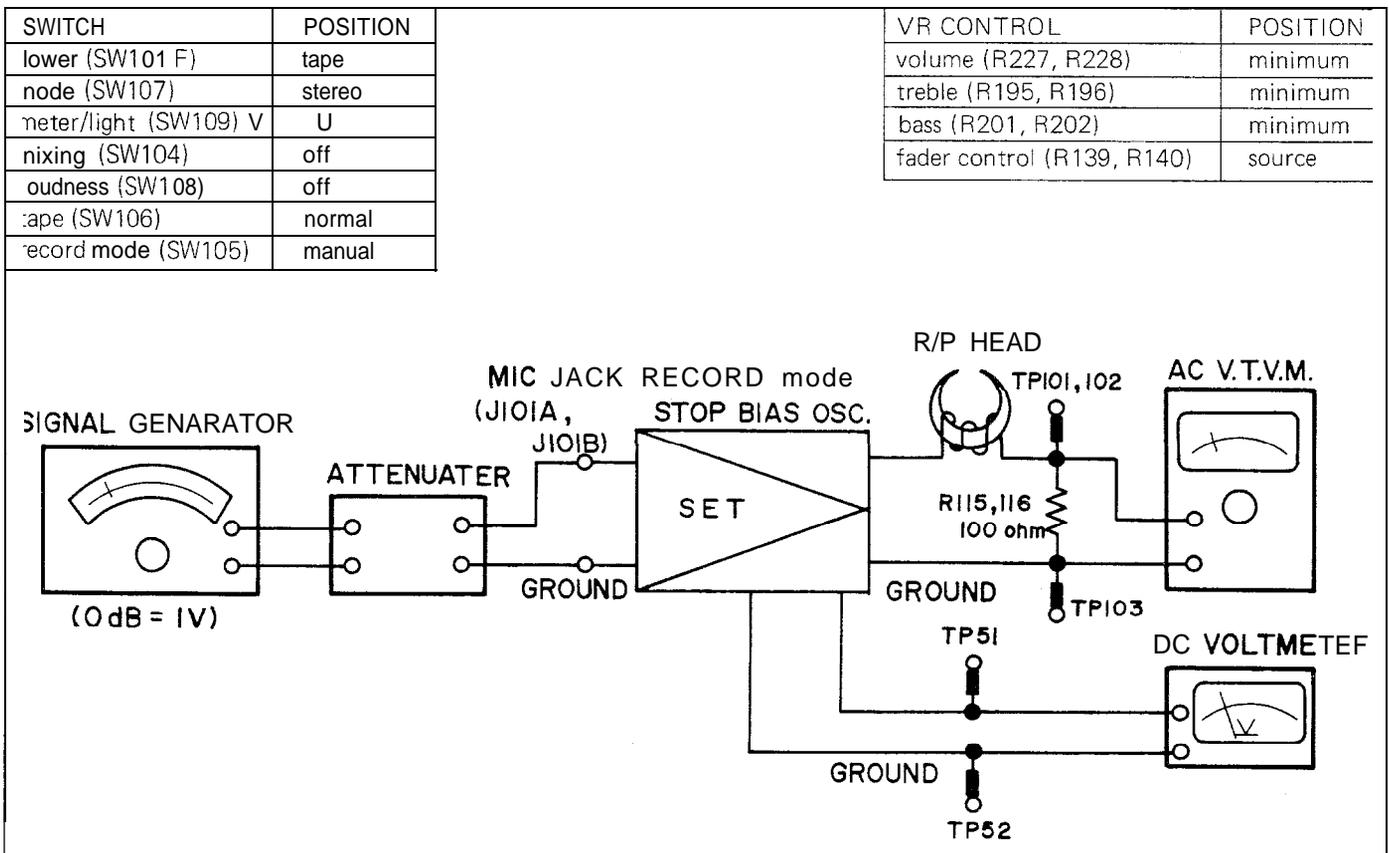


Figure 6

