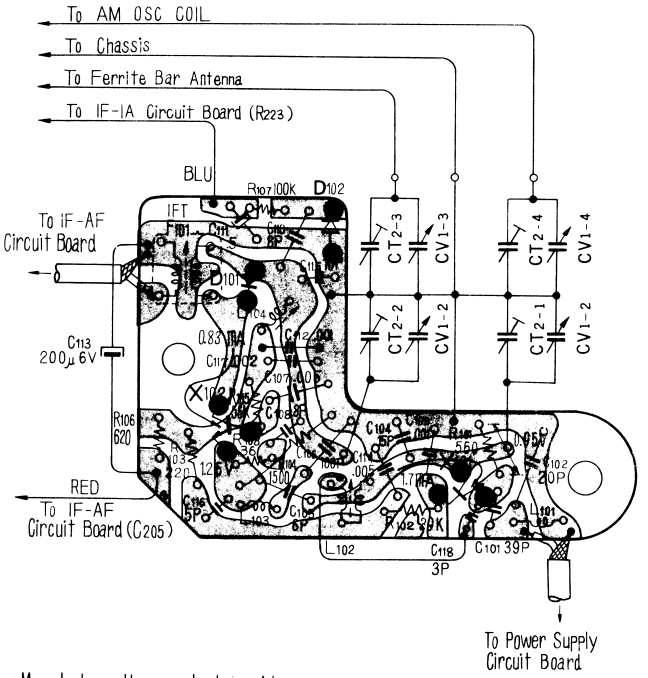
Sony 8FC-59W

Mounting Diagram

FM Tuner Section (FMC)

— Conductor Side —

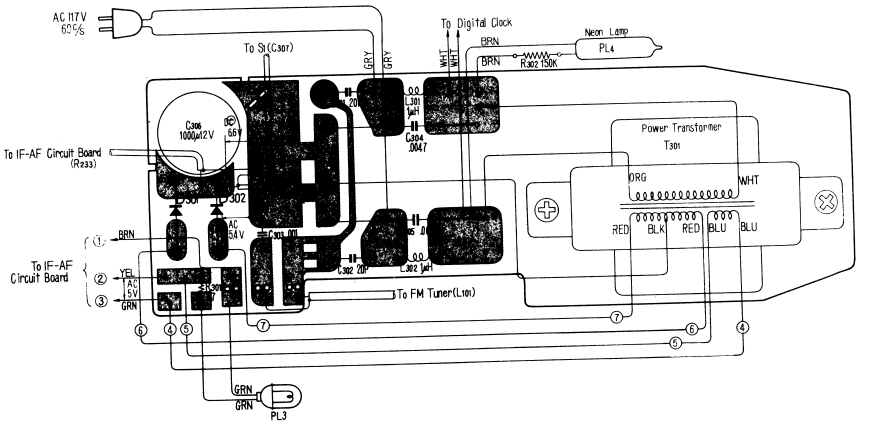


C112 : Mounted on the conductor side.

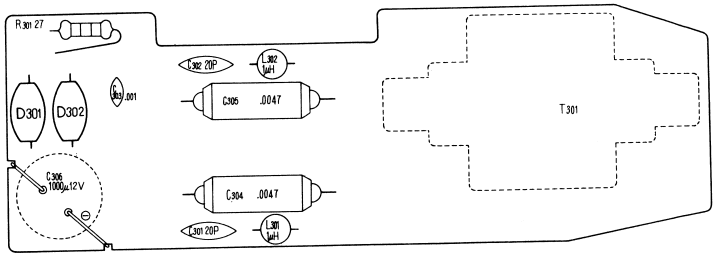
Mounting Diagram

Power Supply Circuit Board

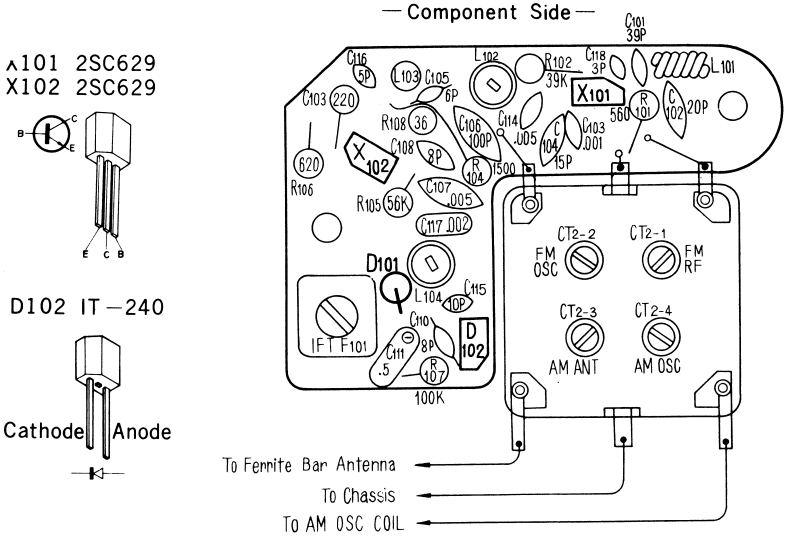
— Conductor Side —



— Component Side —



— Component Side —



C112 : Mounted on the conductor side.

Λ101 2SC629
X102 2SC629

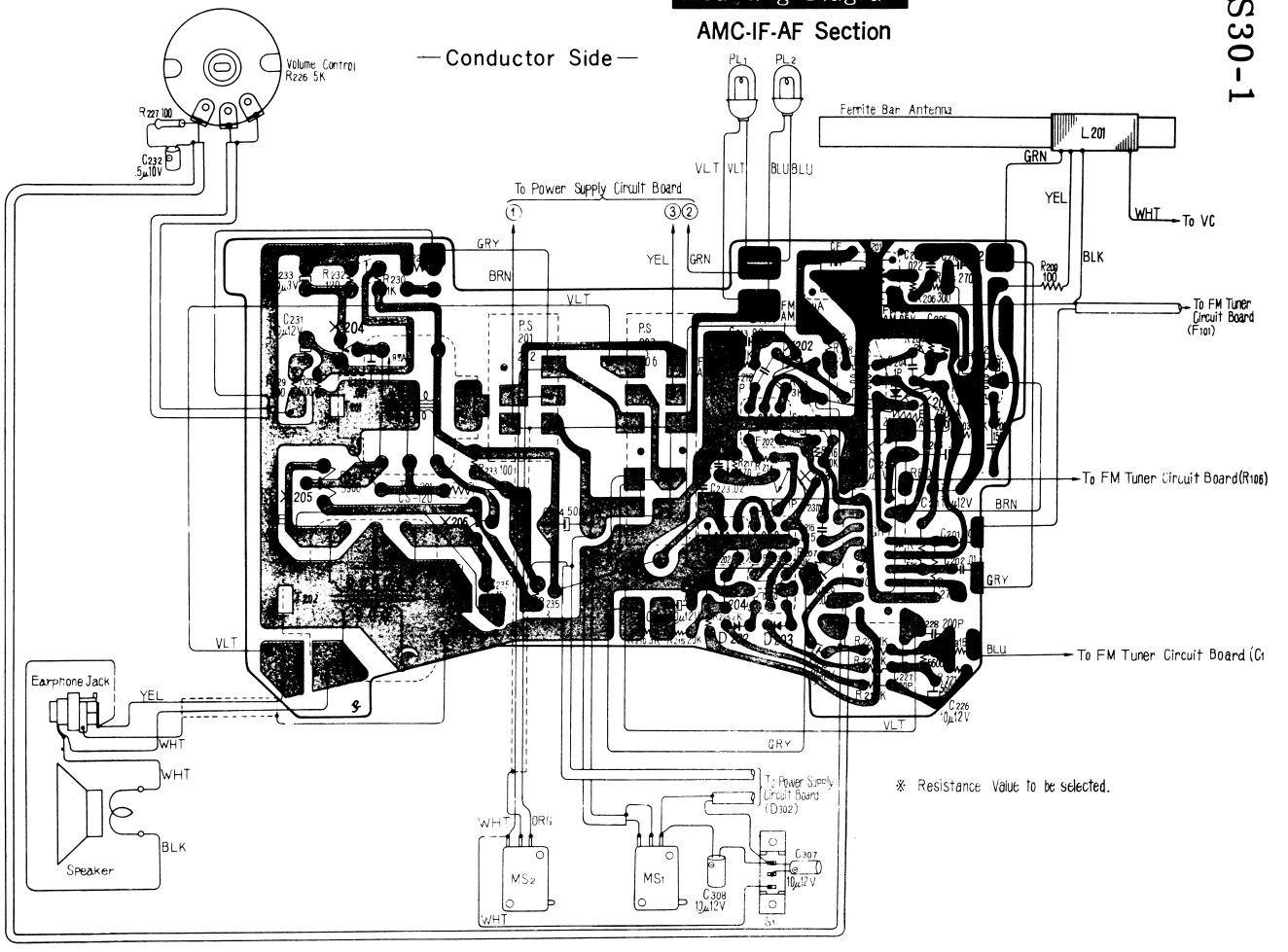
D102 IT-240

Mounting Diagram

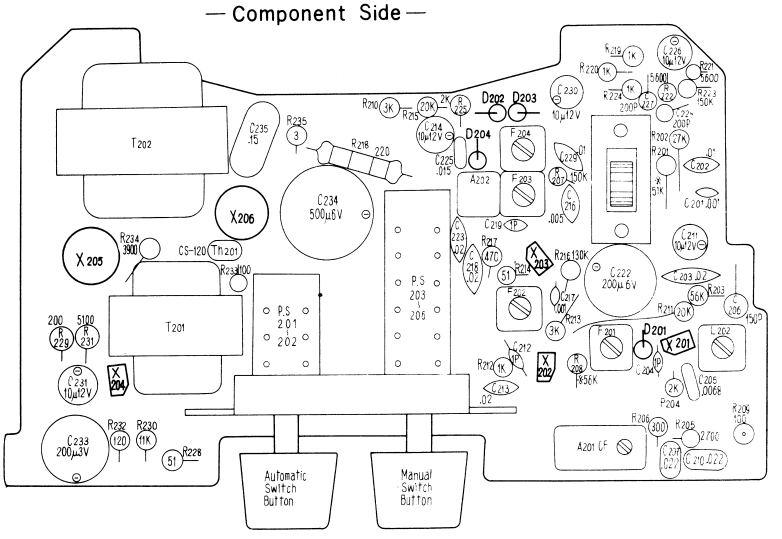
AMC-IF-AF Section

S30-1

— Conductor Side —

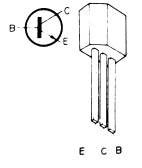


— Component Side —

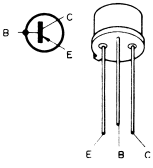


※ Resistance Value to be selected

X201 2SC403
X202 2SC403
X203 2SC403
X204 2SC633

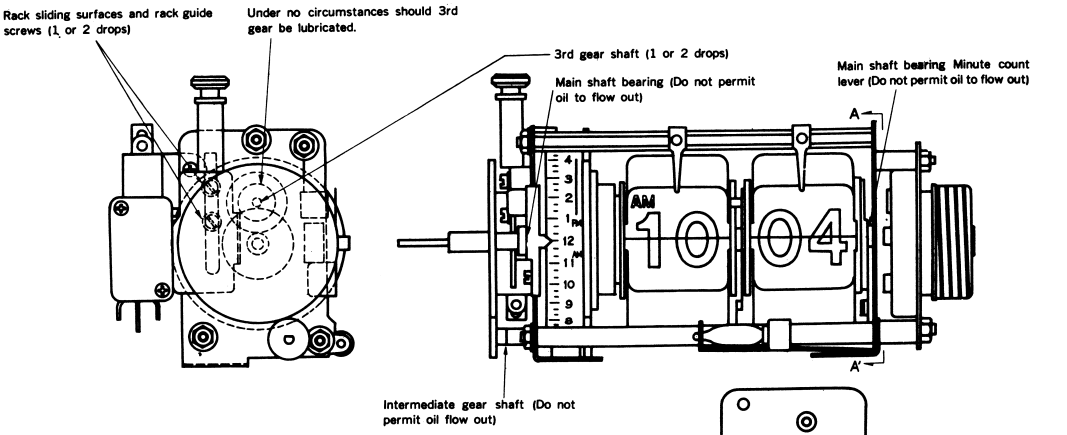


X205 2SB383
X206 2SB383



Sony 8FC-59W

6. Lubrication Guide for Clock Assembly

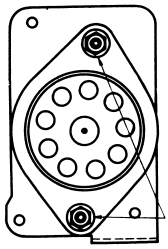


Notes:

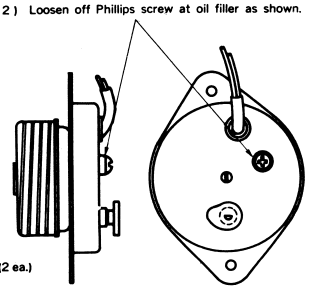
1) Lubricating oil used in Model 8FC-59W shipped from SONY is "LAUNA 40" which provides a viscosity index of about 130 and an SAE viscosity rating of 5±0.2W at 98.90°C (210°C). Only oils equivalent to LAUNA 40 must be selected for use in lubricating Model 8FC-59W.
2) Lubricating points must be serviced more than once a year from the standpoint of safety rule.

7. Lubrication Guide for Motor Assembly

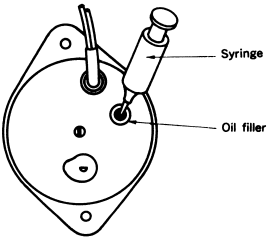
(1) Remove motor by loosening off two nuts.



(2) Loosen off Phillips screw at oil filler as shown.

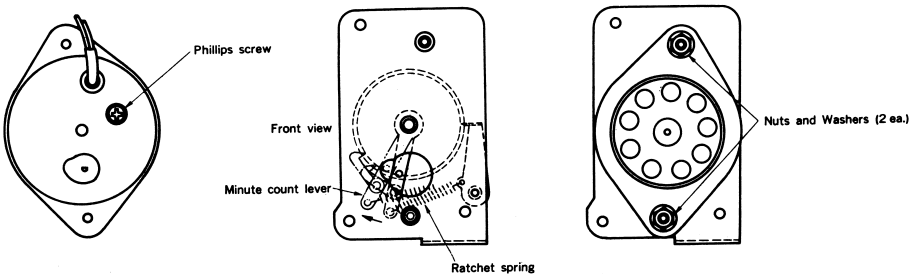


(3) Fill motor with 0.1 or 0.15 cc oil through oil filler by using a brush or syringe.

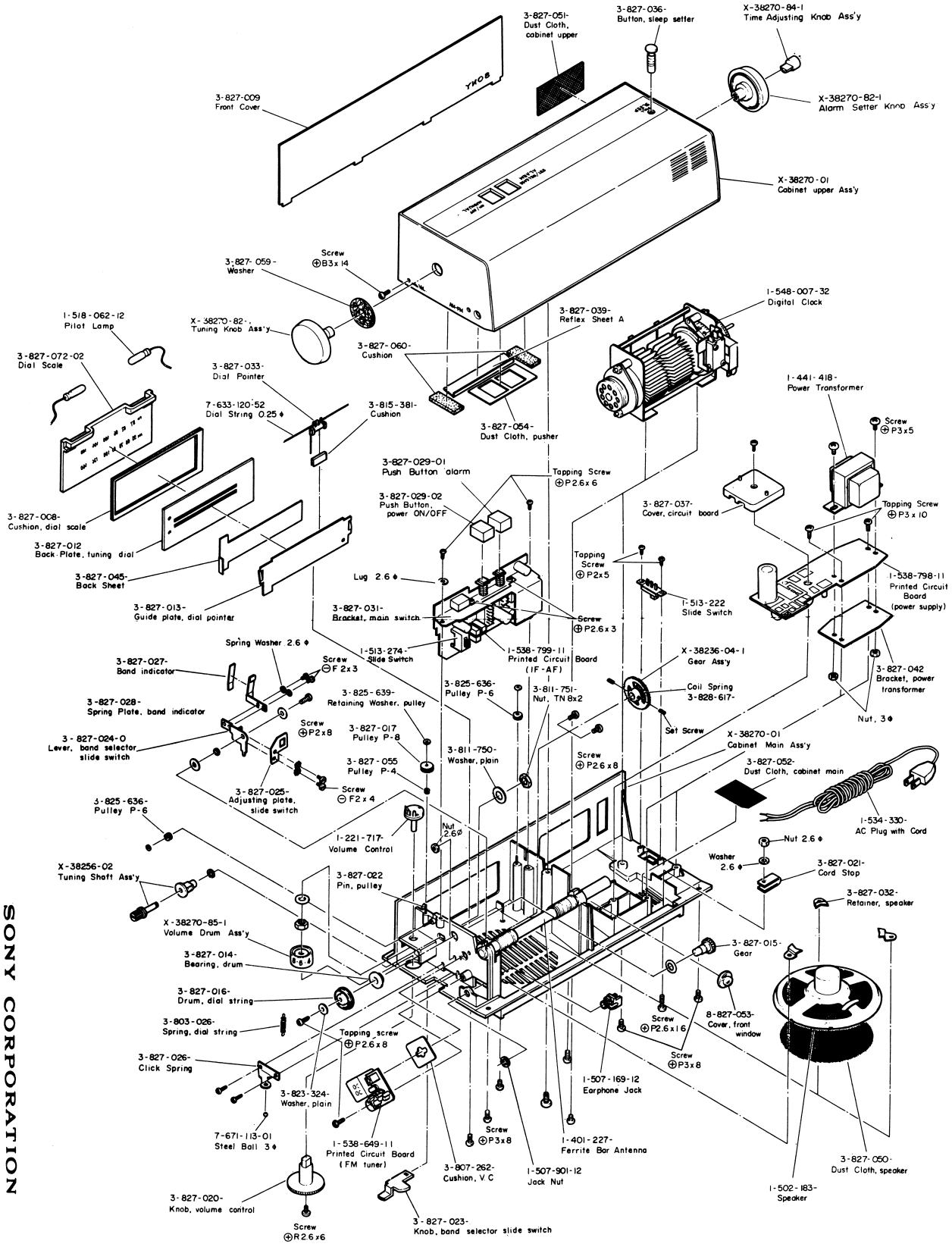


(4) Upon filling oil, re-install Phillips screw, torquing it securely.
(Apply sealing agent to screw head to prevent oil from evaporating, if possible).

(5) When installing motor to base plate, it is necessary to keep minute count lever pushed toward front side of clock. After installing motor in place, make sure that the lever is properly installed, and tighten nuts good and hard.



Exploded Diagram



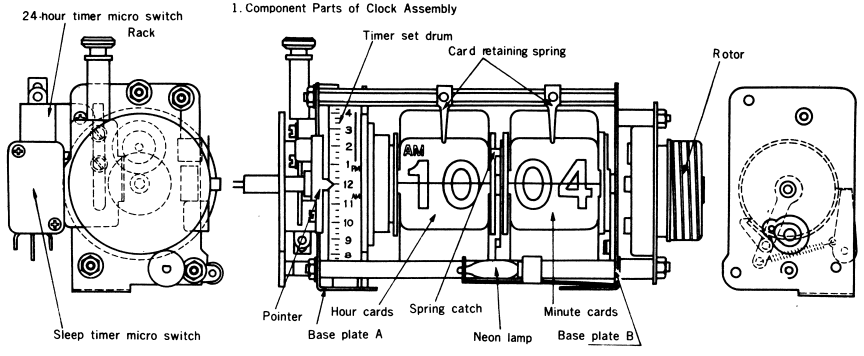
8FC-59W 8FC-59W

SONY CORPORATION

S30-1

Maintenance of Digital Clock

1. Component Parts of Clock Assembly



(Fig. 2-1)

2. Precautions for Disassembly and Re-assembly

Following are the precautional items to be closely adhered to in disassembling and re-assembling the clock:

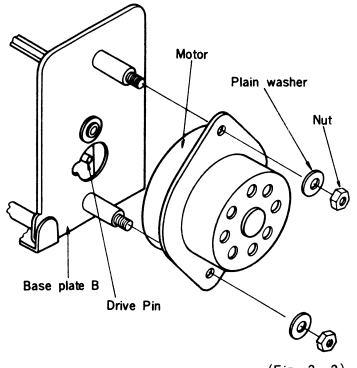
(1) Wear clean gloves so as not to leave fingerprints and/or grease on the clock parts.
(2) Be sure to hold the clock assembly by gripping the base plates (A) and (B) when removing or re-installing the clock assembly.
(3) Do not touch the rotor of the motor when handling the clock assembly.
(4) Do not touch the hour and minute cards, spring catch, card retaining springs and pointer.
(5) Be careful not to give any blow to the rotor and pointer when removing or re-installing the clock assembly.
(6) When installing the clock assembly to the cabby, tighten its attaching screws uniformly.

3. Replacing the Motor Assembly

(1) Loosen off two hexagon nuts (together with plain washers), securing the motor to the bosses. Now, the motor can be removed from the clock assembly.
(2) Install a new motor in place with its rotor side facing outside, and secure it by tightening the hexagon nuts good and hard.

Notes: 1) When installing the motor, keep its lead wires lifted upward.
2) Check to make sure that the cam of the motor is properly positioned with respect to the driven pin of the minute count lever.

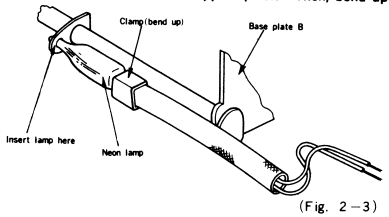
(3) Apply an adequate amount of screw locking agent to the hexagon nuts to prevent the possibility of loosening them.



(Fig. 2-2)

4. Replacing the Neon Lamp

(1) The lamp can be removed from the clock assembly by straightening its clamp.
(2) Install a new neon lamp in place by inserting its tip into the hole provided in the support plate. Then, bend up the clamp against the lamp for securing.



(Fig. 2-3)

5. Replacing the Micro Switches

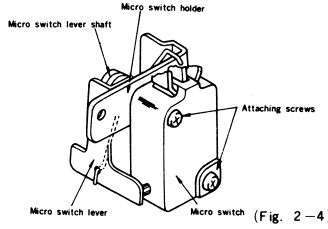
(1) 24-hour timer micro switch

This micro switch can be removed for replacement by loosening off two attaching screws, upper and lower, as shown in the accompanying figure. The upper attaching screw is used to secure the micro switch lever shaft also. It is, therefore, necessary to see, upon installing a new switch, if the micro switch lever is properly installed in place.

Check the micro switch operation in the following manner:

a) Finger-rotate the timer set drum in CCW direction (as viewed from the knob gear side of the clock), making sure that the switch button (red) is depressed by the spring-loaded micro switch lever when the clutch cam is engaged (moved toward the drum).
b) With the clutch cam kept in engaged position, finger-lift the micro switch lever and release it to see if the lever is spring-returned to depress the switch button properly.
c) Make sure that the micro switch is turned off when the clutch cam is disengaged (moved away from the drum).

Repeat the operation as in Steps a) through c) above at four equal intervals of time setting to make sure that the switch properly operated.

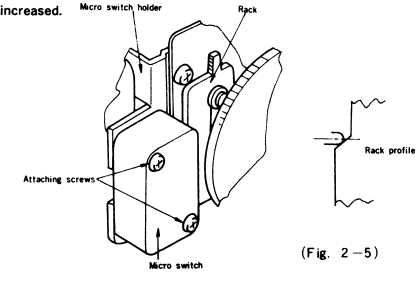


(Fig. 2-4)

(2) Sleep timer micro switch

This micro switch, like the 24-hour timer switch, can easily be removed by loosening off two attaching screws when it has to be replaced.

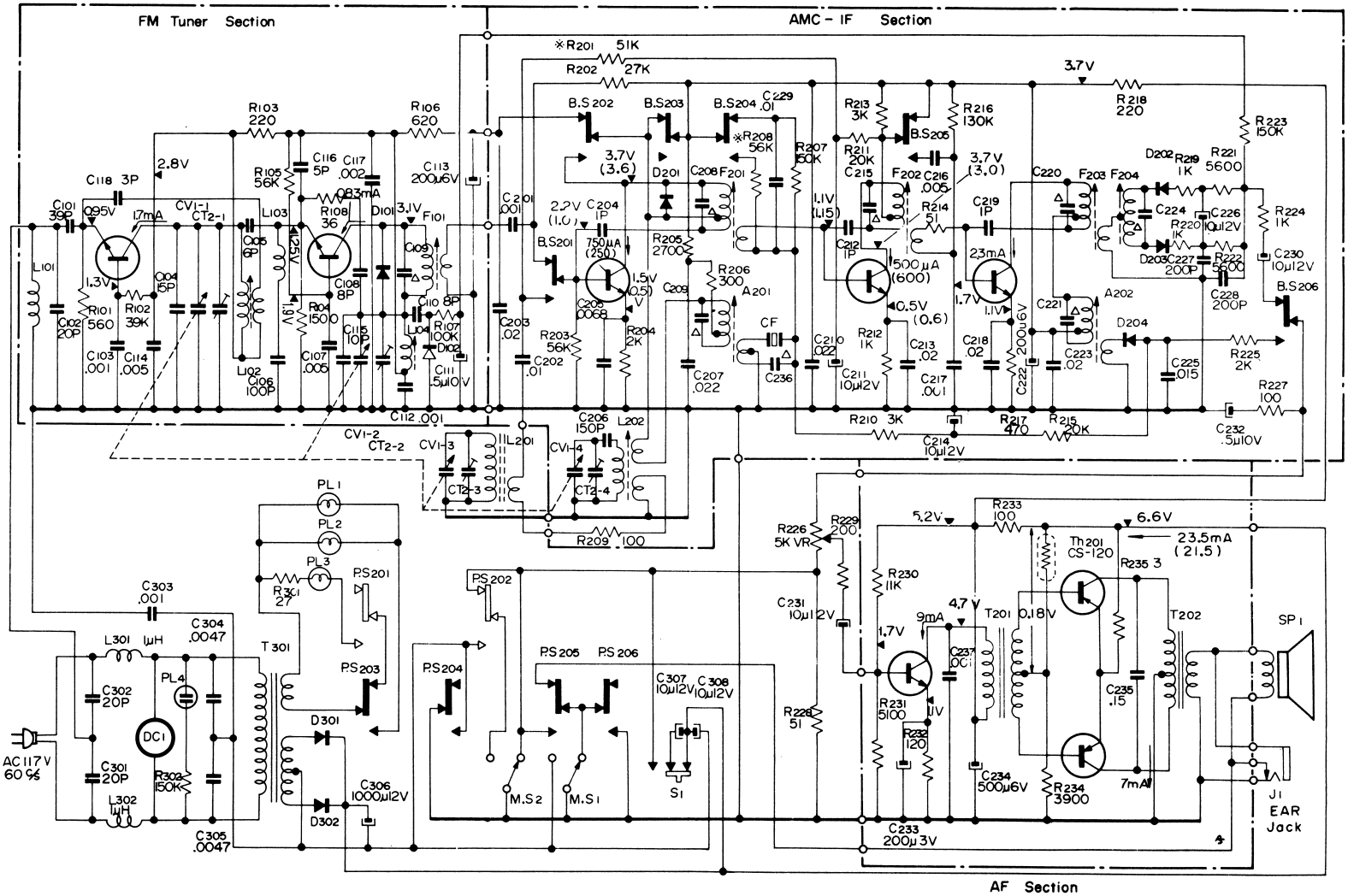
Upon installing, check the switch for proper operation. The switch must be turned on when the rack is pulled upward, and vice versa. The left-hand edge of the rack is profiled to control the switch button. The rack disengages from the 3rd gear to drop by itself, releasing the switch button (red) when the button is on the half-way of the beveled edge of the rack on its downward stroke. Remember that if the switch is positioned too close to the rack when installed, the force for pulling up the rack will be increased.



(Fig. 2-5)

X101 2SC629 X102 2SC629 X201 2SC403A X202 2SC403A X203 2SC403A

D101 IT26 D102 IT240 D201 IT26 D204 IT23 D202,203 IT26

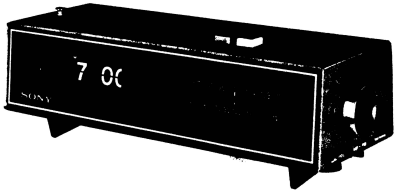


D301 SDIZ D302 SDIZ

X204 2SC633 X205, 206 2SB383

NOTE

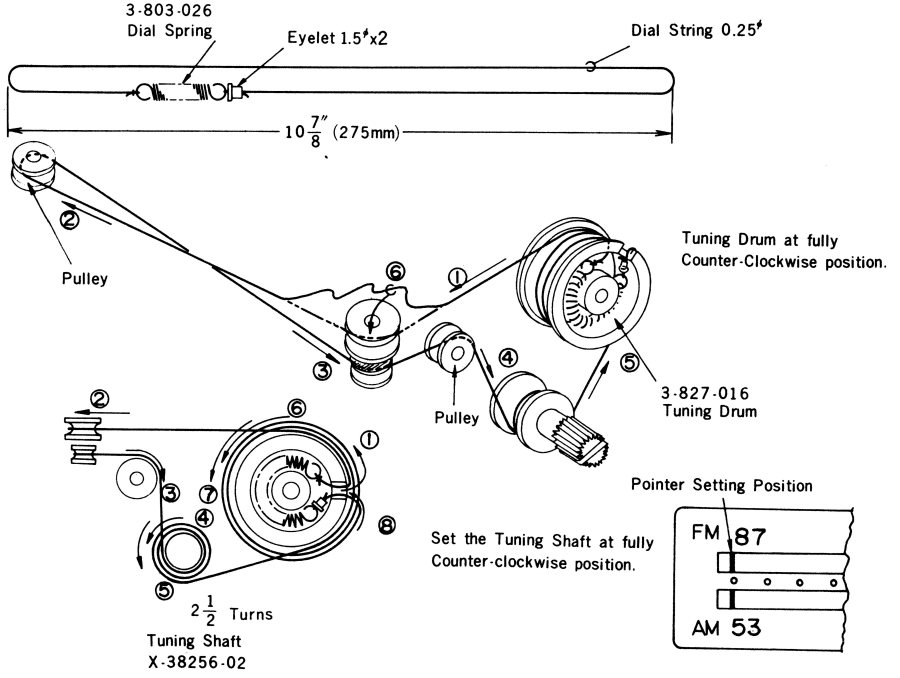
1. △ Built in IFT.
2. Values in the Parentheses are for AM.
3. ※:Resistance Value to be selected.
4. B.S201-206 : Band Setting Switch.
5. FM ▶ Band Setting Switch shown is set to FM position.
   AM ▶
6. P.S201-202 : Automatic Switch.
7. P.S203-206 : Manual Switch.
8. DC1 : Digital Clock.
9. PL1,2,3 : Pilot Lamp.
10. PL4 : Neon Lamp.
11. S1 : Buzzer/Radio Switch.
12. M.S1 : Micro Switch (ALARM)
13. M.S2 : Micro Switch (BUZZER)



Specifications

Circuit:	8 Transistor Superheterodyne
Frequency Coverage:	FM 87~108 Mc (3.44~2.87 m) AM 530~1,605 Kc (566~187 m)
Intermediate Frequency:	FM 10.7 Mc AM 455 Kc
Antenna System:	FM Built-in AC Line Antenna AM Built-in Ferrite Bar Antenna
Maximum Sensitivity: (at 50 mW output)	FM 5.6μV AM 100μV/m
Selectivity:	25 dB at 10 Kc off resonance, at 1,400 Kc
Power Output:	500 mW (undistorted) 850 mW (maximum)
Speaker:	3½″ (9.2 cm), PM Dynamic, 8Ω
Power Requirements:	AC 117 V, 60 c/s
Power Consumption:	AC 5W
Dimensions:	15⅝″(W)×3⅞(H)×5⅛(D)″ (294×101×131mm)
Weight:	3 lbs. 4 oz. (1.45 Kgs)

Dial Cord Stringing



Frequency Coverage and Tracking Adjustment

Adj. Item	S.S.G. (Standard Signal Generator) Coupling	S.S.G. Freq.	Receiver Dial Setting	Connect V.T.V.M.	Adjust	Remarks
FM Frequency Coverage	SSG R Rec ※R=100-RS where Rs: Output impedance of SSG	85.5 Mc (400c/s ±22.5 Kc FM)	Fully Left	To Earphone Jack with 8Ω load Resistor in parallel	FM OSC Coil (L_{104})	Adjust for maximum Meter reading Volume Control: MAX. Power Supply: AC 117V 60 c/s
		109.5 Mc (〃)	Fully Right		FM OSC Trimmer (CT_{2-3})	
FM Tracking	—ditto—	85.5 Mc (〃)	Tune to 85.5 Mc Signal	—ditto—	FM RF Coil (L_{102})	—ditto—
		109.5 Mc (〃)	Tune to 109.5 Mc Signal		FM RF Trimmer (CT_{2-1})	
AM Frequency Coverage	Loop Antenna	520 Kc (1,000 c/s 30% AM)	Fully Left	—ditto—	AM OSC Coil (L_{202})	—ditto—
		1,680 Kc (〃)	Fully Right		AM OSC Trimmer (CT_{2-4})	
MW Tracking	—ditto—	620 Kc (〃)	Tune to 620 Kc Signal	—ditto—	AM ANT Coil (L_{201})	—ditto—
		1,400 Kc (〃)	Tune to 1,400 Kc Signal		AM ANT Trimmer (CT_{2-3})	

※ Dummy Antenna

Unsolder the Coaxial Cable at the Power Supply Circuit Board.

Connect the SSG to the Coaxial Cable and ground of the receiver through the Dummy Antenna.