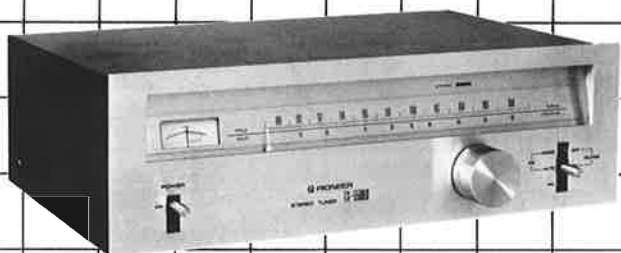


AM/FM STEREO TUNER

TX-5500II

OPERATING INSTRUCTIONS

S
SS
S/G



TX-5500II is designed to operate from 110V, 120V, 220V or 240V main. Before turning on the power, please confirm the line voltage setting indicated on the rear of your unit corresponds to the supply voltage in your area; if not, change the setting as described in IMPORTANT-LINE VOLTAGE on page 3.

 PIONEER®

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FEATURES

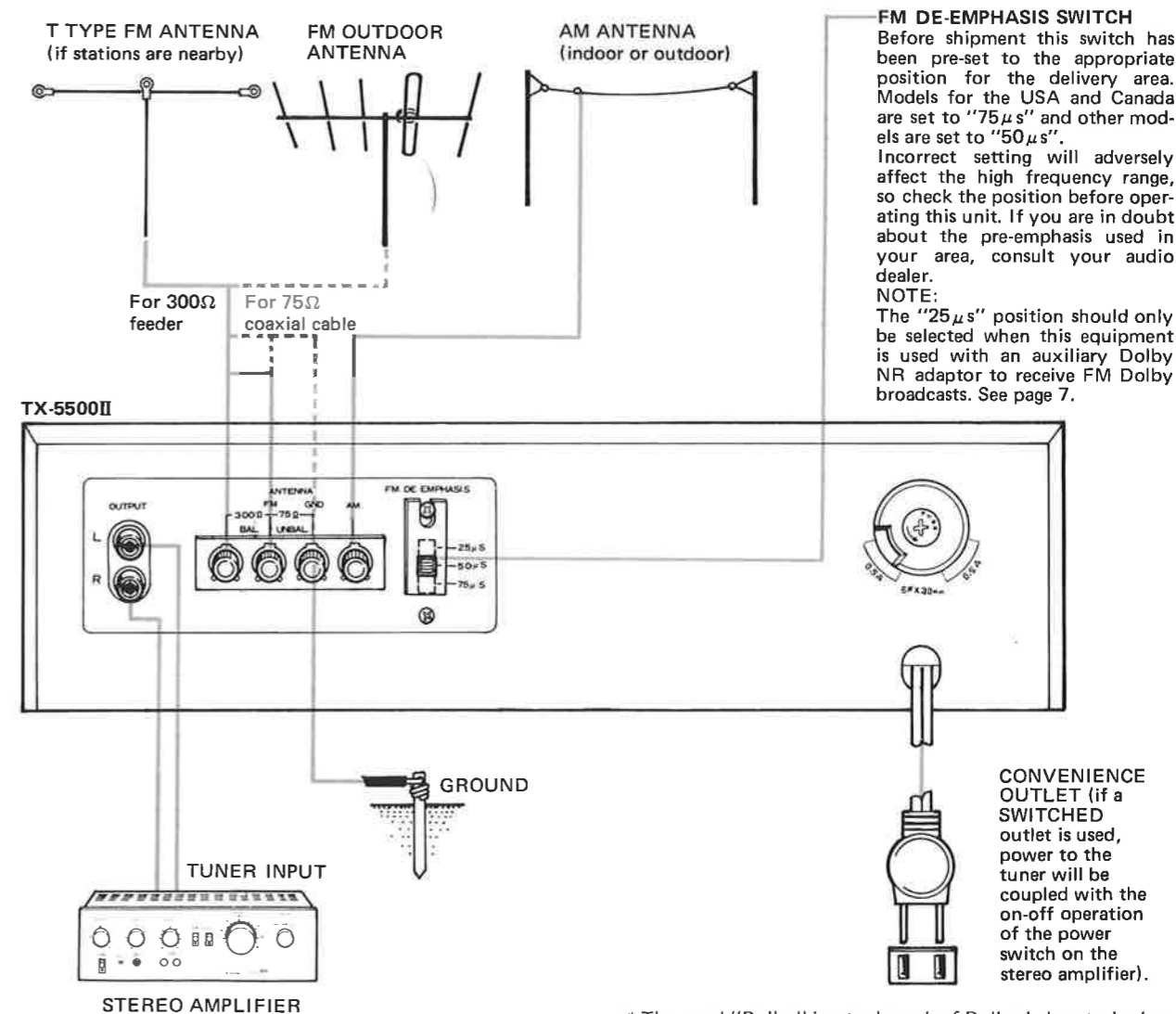
- IC PLL (phase locked loop) circuit in the FM multiplex section provides plenty of separation and ensures stable FM reception.
- FM IF section includes a high density IC which incorporates 3 differential amplifier stages, plus diode limiter and quadrature detector circuits. Two ceramic filter stages feature excellent phase characteristics and by providing a buffer amplifier between the filters, phase response flatness and distortion characteristics are improved.
- RF amplifier stage front end employs a frequency linear 3-gang variable capacitor and junction type FET, greatly advancing image, spurious and other types of interference rejection capabilities.
- In the FM AUTO mode, a muting circuit blocks annoying interstation noise to allow comfortable station tuning.
- Superior quality AM reception with the built-in high performance ferrite bar antenna can also be enjoyed.

INSTALLATION CAUTIONS

To ensure long term reliable performance, avoid installing the TX-5500II in locations such as the following:

| Locations to be avoided | Possible detrimental effects |
|--|---|
| <ul style="list-style-type: none"> • Direct sunlight, radiators or other heat sources. Above or near high power stereo amplifiers or power transformers. • Sites subject to poor ventilation, high humidity or moisture. | <ul style="list-style-type: none"> • External heating can cause deterioration of circuit components and may prevent stable operation. • Corrosion of terminal contacts which can lead to faulty connections. Humidity and moisture can also cause defective insulation, present the risk of leakage currents and overheating of circuit components. |
| <ul style="list-style-type: none"> • Dusty locations | <ul style="list-style-type: none"> • Internal accumulations of dust can absorb moisture and lead to faulty insulation. |
| <ul style="list-style-type: none"> • Where AM radio or TV set is being used simultaneously. | <ul style="list-style-type: none"> • Mutual interference can occur from oscillator circuits used in these products. |
| <ul style="list-style-type: none"> • Locations where alcohol, insect sprays or volatile materials are used or stored. | <ul style="list-style-type: none"> • Appearance and finish of front panel can be damaged. |

CONNECTION DIAGRAM



* The word "Dolby" is a trademark of Dolby Laboratories Inc.

IMPORTANT-LINE VOLTAGE

The TX-5500II is provided with a line voltage selector on the rear panel (Fig. A). This is normally pre-set to 220V, so before using for the first time, or if the unit is to be used in a different area, it is important to check the compatibility of the selector setting.

Changing the Line Voltage Setting.

1. Disconnect the A.C. mains cord.
2. Use a Phillips screwdriver to take out the FUSE CAP and fuse.
3. Pull out the VOLTAGE SELECTOR plug from the socket.
4. Put the selector plug back so that the appropriate line voltage marking can be seen through

the cut in the edge of the plug.
5. Replace the fuse and FUSE CAP.

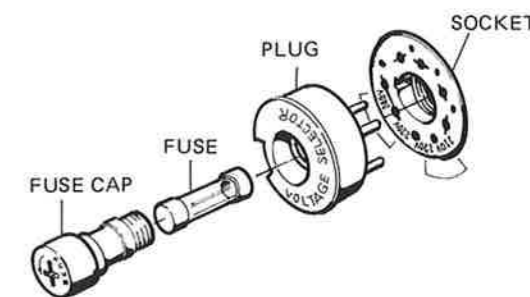


Fig. A

STEREO SYSTEM COMPOSITION

As illustrated in the figure, AM and FM broadcasts can be enjoyed by combining this unit with separately sold stereo amplifier and speaker systems. Also, by connecting a separately sold tape deck (open reel or cassette) to the stereo amplifier, desired programs can be recorded, enabling you to compile a personalized tape library of your favorite music.

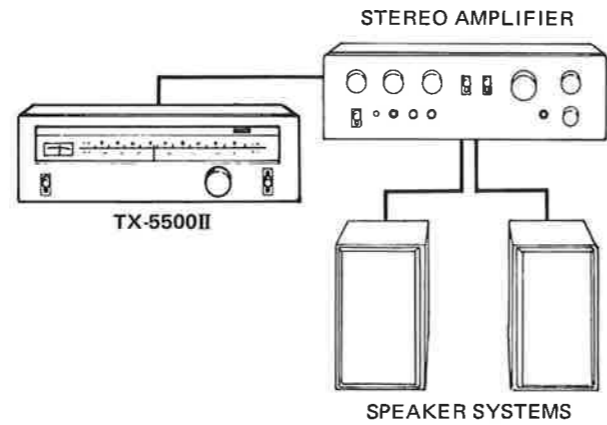


Fig. 1

CONNECTION

Connection Notes

- Upper jack is for the left (L) channel and lower jack for the right (R) channel. As stereo amplifier are also provided with L and R channel jacks, use care to connect the channels correctly (L to L and R to R) in order to obtain proper stereo reproduction.
- Plug connecting cords firmly into the jacks. Loose connections can cause absence of sound or noise.
- Do not bundle input and output cords with power and speaker cords. Also avoid using longer cords than necessary. These practices can result in noise, impaired sound quality and possible operating difficulties.

CONNECTIONS TO STEREO AMPLIFIER

Use the accessory connecting cords to connect the OUTPUT jacks with the tuner jacks of a stereo amplifier.

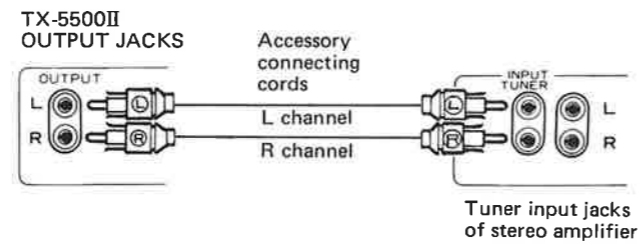


Fig. 2

ANTENNA AND GROUND CONNECTIONS

FM ANTENNA

Due to the properties of FM signals, they are considerably weakened by mountains, tall buildings and metal framed structures. Select the FM antenna carefully according to ambient conditions and signal strength.

Outdoor FM Antennas

An outdoor FM antenna is recommended to obtain an input signal with which the TX-5500II can display its full performance capabilities.

- While listening to an FM station (see FM Reception on Page 6), determine the antenna direction for optimum reception, then install it securely.
- According to type of antenna, employ 300ohm feeder or 75ohm coaxial cable for connection.

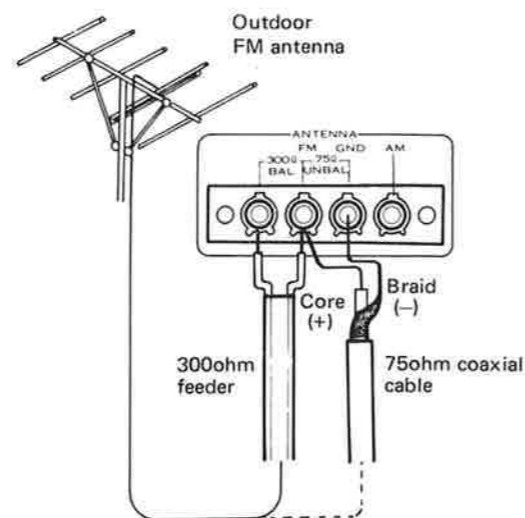


Fig. 3

300ohm feeder: This is suitable in locations where external noise is not a problem and if the distance between the antenna and the TX-5500II is short. Connect to the 300ohm BAL terminals as shown in Fig. 3.

75ohm coaxial cable: Recommended in locations where external noise is incurred due to street traffic, high voltage power lines or other causes. Also employed if distance between antenna and TX-5500II is relatively large. Connect to the 75ohm UNBAL terminals as shown in Fig. 3.

NOTE:

Consult a reliable audio dealer regarding FM antenna and 75ohm cable installation.

T Type Dipole FM Antenna

The accessory T type FM antenna can be employed in locations where FM signals are strong, such as those near transmitting stations or within wooden structures. As shown in Fig. 4, connect the T type FM antenna to the 300ohm BAL terminals. While listening to FM stations, open the antenna to a T shape, rotate it 180° to determine where the best reception is obtained, then attach it to a wall or ceiling.

AM ANTENNAS

Normally the built-in ferrite bar antenna can provide satisfactory AM reception and an external antenna is not required.

- If the built-in antenna does not provide adequate reception, use a length (5 to 6m) of vinyl insulated wire to erect an indoor AM lead wire antenna as shown in Fig. 4. Connect the wire to the AM antenna terminal and attach the free end from a wall or ceiling at as high a location as possible.
- In locations where reception is still difficult with an indoor antenna, vinyl insulated wire can be used to erect an outdoor antenna between two supports as shown in Fig. 5.

GROUNDING

From aspects of both safety and reduced noise, if possible employ a ground as shown in Fig. 5. Connect the ground lead to the GND terminal of the TX-5500II. Consult a qualified electrician regarding proper grounding techniques.

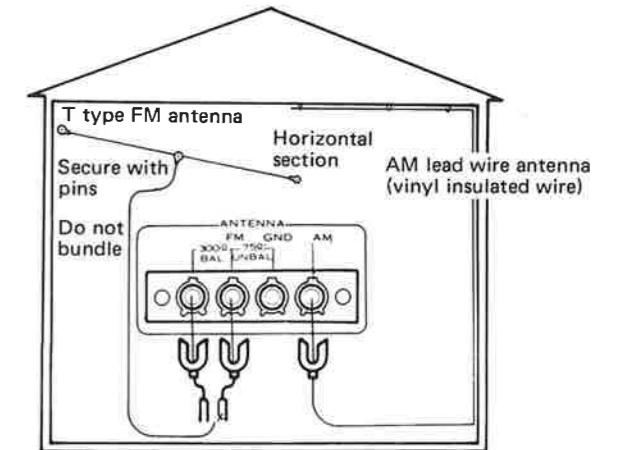


Fig. 4

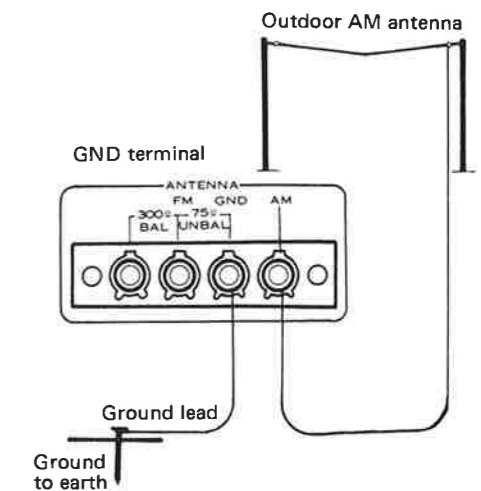


Fig. 5

FRONT PANEL FACILITIES

POWER SWITCH

Set to ON to turn on power.

AM/FM METER

Meter indicates receiving conditions.

AM reception: Optimum tuning point is where maximum deflection toward the right is obtained.

FM reception: Optimum tuning point is where meter indicates center of scale.

TUNING KNOB

Knob for selecting stations. Turn knob while observing AM/FM meter deflection.

STEREO INDICATOR

With FUNCTION switch at FM AUTO, lights when FM stereo signal is being received.

FUNCTION SWITCH

Switch for selecting type of broadcast reception. Incorporates muting switch for cutting interstation noise.

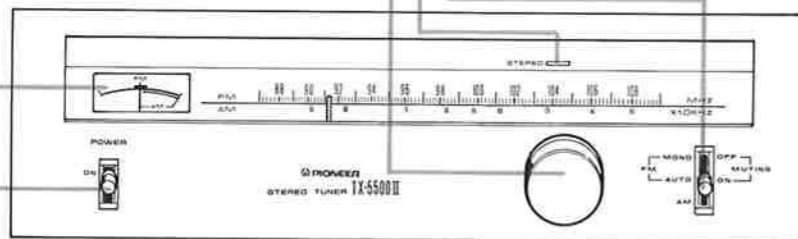
FM AUTO (MUTING ON): FM stereo reception. Automatically switches to mono mode when an FM mono signal is received.

FM MONO (MUTING OFF): FM mono reception. Set to this position if reception at FM AUTO position is noisy or signals weak.

AM: AM broadcast reception.

NOTES:

- **MUTING ON:** Eliminates unpleasant noise in sections of the FM band where stations are absent (interstation noise) to allow comfortable station tuning.
- **MUTING OFF:** Set to this position if desired FM station is weak or station tuning difficult.



LISTENING TO BROADCASTS

FM RECEPTION

1. Set FUNCTION switch to FM AUTO.
 2. Turn TUNING knob to select desired station. Tune so that AM/FM meter indicates center of scale, as shown in Fig. 6.
 3. Adjust volume and tone with the controls of the connected stereo amplifier.
- FM STEREO indicator lights when an FM stereo signal is being received. It does not light during mono reception.

NOTE:

If reception is difficult in FM AUTO mode, switch to FM MONO. At this setting, monophonic reception will be performed.

FM stations: Meter indicates center when FM station is absent. As the tuning knob is turned and a station approached, the meter deflects toward the right or left. Then when the station is correctly tuned in, it returns to center position.

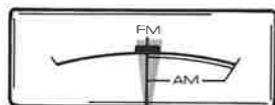


Fig. 6

AM RECEPTION

1. Set FUNCTION switch to AM.
2. Turn TUNING knob to select desired AM station. Adjust the knob for maximum deflection of the AM/FM meter toward the right, as shown in Fig. 7.
3. Adjust volume and tone with the controls of the connected stereo amplifier.

AM stations: When selecting AM stations, carefully turn the TUNING knob for maximum deflection of the AM/FM meter toward the right, as shown in the figure.

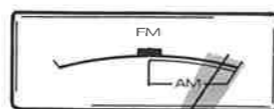


Fig. 7

NOTE:

If reception is noisy or difficult when listening to AM or FM broadcasts, refer to "Antenna and Ground Connections" on Page 4 and inspect antenna connections.

FM-DOLBY RECEPTION

The FM DE-EMPHASIS switch is provided to allow reception of FM-Dolby broadcasts in locations where these programs are being transmitted. A separately sold adaptor must be connected to the stereo amplifier in this case, then proceed according to the following steps.

1. As shown in Fig. 8, connect Dolby NR adaptor to the tape (record & play) jacks of the stereo amplifier.
2. Set rear panel FM DE-EMPHASIS switch to 25µs.
3. Set tape monitor switch of stereo amplifier to ON.
4. Set FUNCTION switch to FM and use the TUNING knob to tune in FM-Dolby broadcast. Tuning is performed in the same manner as described in "FM Reception".
5. Operate adaptor and set for reception. Adjust volume and tone with the controls of the stereo amplifier.

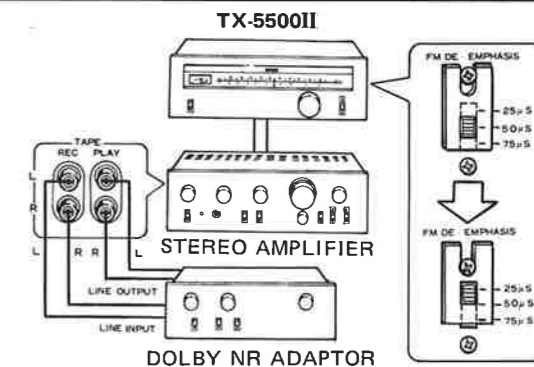


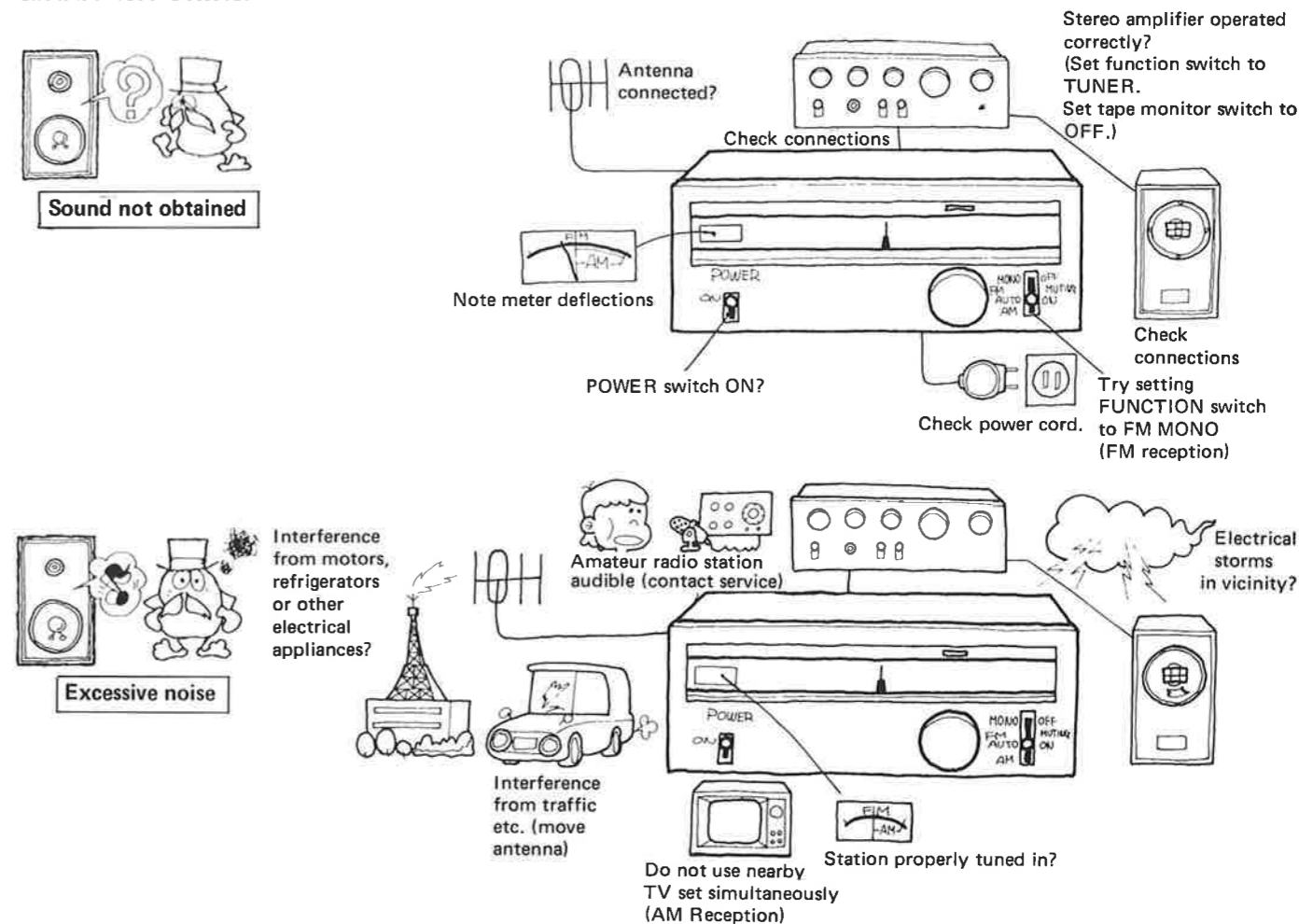
Fig. 8

NOTES:

- Refer to the Dolby NR adaptor operating instructions regarding connection and operation.
- When not listening to FM-Dolby broadcasts, be sure to set the FM DE-EMPHASIS switch to 50µs or 75µs.

CONDITIONS FREQUENTLY MISTAKEN FOR MALFUNCTION

Most cases of operating difficulty can be attributed to simple causes. In event of trouble, check equipment according to the following chart. If the difficulty cannot be remedied, contact your nearest Pioneer Authorized Service Center.



SPECIFICATIONS

Semiconductors

FET 1
 ICs 3
 Transistors 6
 Diodes 6

FM Section

Circuitry FET 1-stage RF amplifier
 3-gang variable capacitor,
 5-stage limiter PLL MPX

Usable Sensitivity MONO: 10.7dBf (1.9 μ V)
 50dB Quieting Sensitivity . . MONO: 14.0dBf (2.8 μ V)
 STEREO: 38.0dBf (44 μ V)

Signal-to-Noise Ratio
 at 65dBf MONO: 72dB
 STEREO: 68dB
 Distortion at 65dBf MONO: 100Hz 0.15%
 1kHz 0.15%
 10kHz 0.2%
 STEREO: 100Hz 0.3%
 1kHz 0.3%
 10kHz 0.6%

Frequency Response 30Hz to 10kHz \pm 0.2dB
 20Hz to 15kHz \pm 1.0dB

Capture Ratio 1.0dB

Alternate Channel

Selectivity 60dB
 Spurious Response Ratio . . 75dB
 Image Response Ratio 60dB
 IF Response Ratio 90dB
 AM Suppression Ratio 50dB
 Muting Threshold 10.0dBf (1.7 μ V)
 Stereo Separation 1kHz: 35dB
 30Hz to 15kHz: 30dB
 Subcarrier Product Ratio . . 40dB
 SCA Rejection Ratio 62dB
 Antenna Input 300ohms balanced
 75ohms unbalanced

AM Section

Circuitry 1-stage RF amplifier 2-gang
 variable capacitor

Sensitivity
 IHF, ferrite antenna 300 μ V/m
 IHF, external antenna . . . 15 μ V
 Selectivity 35dB
 Signal-to-Noise Ratio 50dB
 Image Response Ratio 40dB
 IF Response Ratio 70dB
 Antenna Built-in ferrite loopstick
 antenna

Audio Section

Output (Level/Impedance)
 FM (100% MOD.) 650mV/3.6k Ω
 AM (30%MOD.) 150mV/5.1k Ω

Miscellaneous

Power Requirements 110V, 120V, 220V, 240V
 (Switchable), 50Hz/60Hz
 Power Consumption 9W
 Dimensions 380(W)x124(H)x269(D)mm
 14-15/16 x 4-7/8 x 10-9/16 in
 Weight Without Package:
 3.5kg (7lb 11oz)
 With Package:
 4.2kg (9lb 4oz)

Furnished Parts

FM T-type antenna 1
 Operating Instructions 1
 Connection Cord with
 Pin Plugs 1
 Fuse (0.5A) 1

NOTE:

Specifications and the design subject to possible modification without notice due to improvements.

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