

SONY®

FM STEREO TUNER

ST-S555ES

OPERATING INSTRUCTIONS Page 2

Before operating the unit, please read this manual thoroughly.
This manual should be retained for future reference.

MODE D'EMPLOI Page 18

Avant la mise en service de l'appareil, lire attentivement ce mode
d'emploi.
Conserver ce manuel pour toute référence ultérieure.



WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.

For the customers in the United Kingdom

Important

The wires in this mains lead are coloured in accordance with the following code:

Blue : Neutral
Brown : Live

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.

The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

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PLL-CIRCUIT EMPLOYING DIRECT COMPARATOR TECHNOLOGY

The ST-S555ES with its refined Phase Locked Loop (PLL) circuit can tune to a frequency with extraordinary precision.

An IC developed by Sony allows the comparison frequency to be as high as the 50 kHz channel spacing frequency, thus eliminating the tendency of a low comparison frequency, which was formerly generally employed, to slip into the audio range and degrade the signal-to-noise ratio. The local oscillator output can therefore be directly supplied to the programmable divider section without an additional pre-scaler. We call this PLL-circuit technology the Direct Comparator method.

The result is almost rippleless local oscillation, greatly reduced spurious radiation, and an extremely high signal-to-noise ratio.

STATE OF THE ART

Every element of the ST-S555ES is chosen with an eye to optimum reception. Dual-gate MOS FETs in the RF amplifier, and five varactors in the front-end block insure high sensitivity and an excellent spurious response ratio. Four uni-phase filters in the IF amplifier provide high selectivity. The PLL multiplex decoder with a pilot canceler insures a flat frequency response, clear separation and very low distortion.

EFFORTLESS TUNING

Tuning is easy using the digital frequency readout in the frequency display window.

Three methods of tuning are available:

Automatic tuning, in which the entire FM band is scanned automatically until a signal is received.

Manual tuning, in which the FM band can be scanned either rapidly or step-by-step.

Memory preset tuning, in which the frequencies of up to eight stations can be stored in the non-volatile memory. In this mode, this information will be retained when the power is turned off so that you can tune in your favorite station with the push of a button. Various conditions can also be memorized for each individual station to permit one-touch reception. All the memorized settings are displayed in the FL display window.

The SCAN/READ button allows you to scan automatically the preset stations only, listening to each one for a few seconds to check if there is anything you would like to listen to.

TWO ANTENNA INPUTS

The tuner is provided with two antenna input terminals to permit two different antennas to be oriented in the best direction for the station to be received. Either antenna input can be easily chosen with the front panel antenna selector. The antenna attenuator switch can reduce the antenna B input by 20 dB to tune in the desired station more clearly, suppressing possible IM distortion caused by strong adjacent stations.

A.C.T. (AUDIO CURRENT TRANSFER) CIRCUIT

This tuner employs the A.C.T. technique developed for Sony integrated amplifiers. The A.C.T. circuit design virtually eliminates the problems which the conventional voltage transfer design had: electrical interference between the left and right channels, decreased sound quality, distortion, noise, etc. caused by the fact that both the signal source current and the power supply current flow through the same ground.

This technique insures the tuner's high-quality reception performance.

OPERATING VOLTAGE

PROGRAM FUNCTION

Using the Program Function, you can automatically tune in to up to four stations which have been memorized in any sequence you want. Stations will be received one by one as the power is turned on and off by an optional timer. This Program Function enables timer-activated reception or recording of a number of stations as compared to the single station capability of conventional tuners.

OTHER REFINEMENTS

The HI-BLEND switch reduces noise in FM stereo reception.

The ten-step SIGNAL indicator shows the strength of the tuned signal.

The CAL TONE switch produces a 400 Hz signal (equivalent to 37.5 kHz deviation), which is useful for adjusting the recording level on a tape deck.

The three-pole beat-cut filter is positioned before the multiplex circuit to assure better FM stereo reception.

Before connecting the unit to the power source, check that the operating voltage of your unit is the same as the local power line voltage.

The Continental European model (type 1) operates on 220 V ac (or 240 V ac adjustable by authorized Sony personnel).

The United Kingdom model (type 2) operates on 240 V ac (or 220 V ac adjustable by authorized Sony personnel).

The Canadian model (type 3) operates on 120 V ac.

PRECAUTIONS

On safety

- Before operating the unit, be sure that the operating voltage of your unit is identical with that of your local power supply.
- Should any liquid or solid object fall into the cabinet, unplug the unit and have it checked by qualified personnel before operating it any further.
- Unplug the unit from the wall outlet if it is not to be used for an extended period of time. To disconnect the cord, pull it out by grasping the plug. Never pull it out by the cord.

On installation

- Do not install the unit in a location near heat sources such as radiators or air ducts, or in a place subject to direct sunlight, excessive dust, mechanical vibration or shock.
- Good air circulation is essential to prevent internal heat build-up in the unit. Place the unit in a location with adequate air circulation.

On operation

- When the unit is not in use, turn the power off to conserve energy and to extend the useful life of your unit.
- Set the PROGRAM switch to OFF when the Program Function is not being used. If this is not done, you cannot tune with the TUNING or station preset buttons.

On cleaning

Clean the cabinet, front and rear panels periodically with a soft dry cloth. If the stains are difficult to remove, use a cloth moistened with a mild detergent solution. Do not use solvents such as alcohol, benzine or thinner, since they will damage the finish.

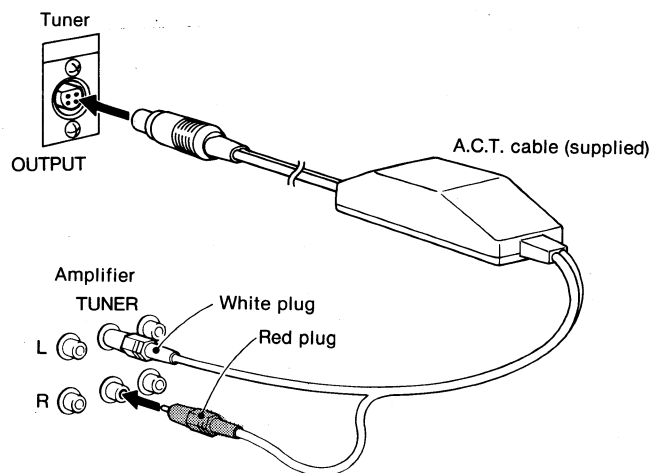
On repacking

Do not throw away the carton and the packing material. It makes an ideal container to transport the unit in. When shipping the unit for repair work or to another location, repack it as illustrated on the carton box.

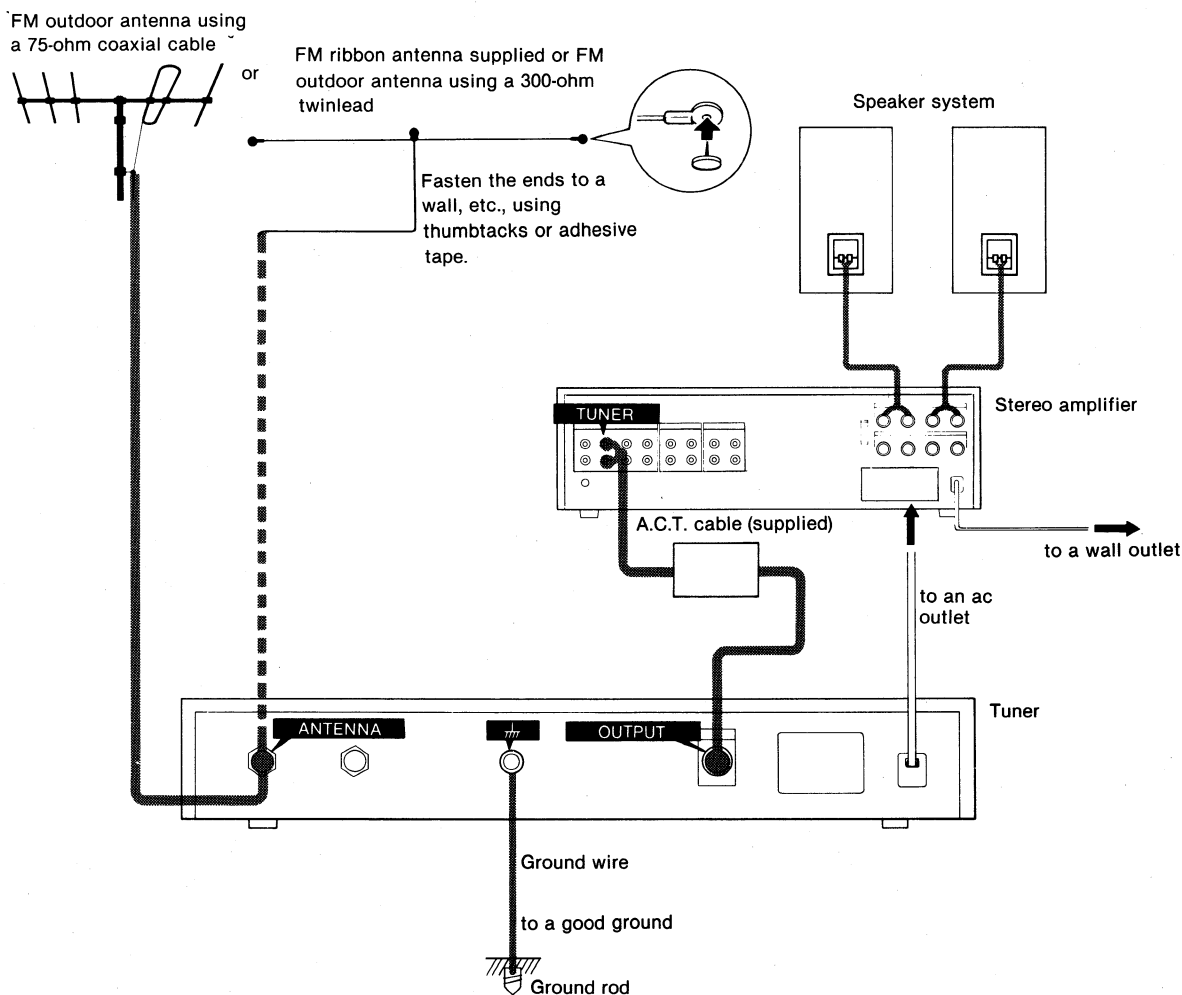
SYSTEM CONNECTIONS

CONNECTION NOTES

- The power cord should be connected last of all, first making sure that the POWER switch is turned off.
- To assure correct matching at the input and output terminals of your audio system, refer to the "SPECIFICATIONS" on page 15, and to the specifications given in the instruction manual provided with your amplifier. Generally the output level of the tuner should be equal to or slightly greater than the sensitivity of the corresponding input. Also the output impedance of the tuner should be considerably lower than the impedance of the corresponding input.
- Be sure to connect the red plug of the supplied A.C.T. cable to the right [R] jack of the amplifier and the remaining one to the left [L]. The cable connectors should be fully inserted into the jacks. A loose connection may cause hum and noise.



CONNECTION DIAGRAM



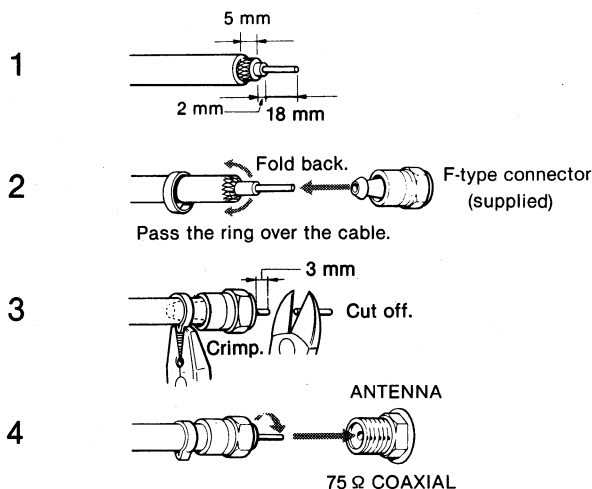
FM ANTENNA CONNECTION

The tuner accepts either 300-ohm twinlead (using the supplied antenna connector) or 75-ohm coaxial cable. Standard 300-ohm twinlead is inexpensive but susceptible to the pickup of extraneous noise. 75-ohm coaxial cable is free from external interference, reduces noise pickup, and is the ideal transmission line for most FM installations.

75-ohm coaxial cable connection

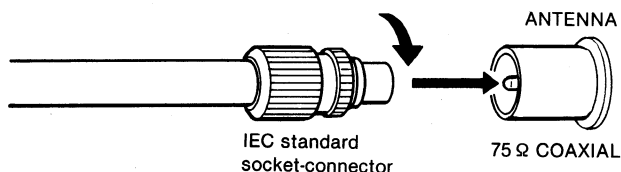
For the Canadian model

Attach the supplied F-type connector to the 75-ohm coaxial cable and insert it firmly into the 75Ω COAXIAL ANTENNA connector.



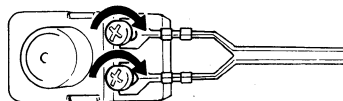
For the Continental European and UK models

The 75-ohm coaxial connectors of the antenna terminals are IEC standard pin-connectors (male). Attach a commercially available IEC standard socket-connector (female) to the 75-ohm coaxial cable and insert it firmly into the 75Ω COAXIAL ANTENNA connector.



300-ohm twinlead connection

Connect the supplied antenna connector (300-ohm to 75-ohm converter) to the 300-ohm twinlead as illustrated and insert it into the 75Ω COAXIAL ANTENNA connector.



Ribbon antenna supplied

Until you install a suitable outdoor antenna, the supplied ribbon antenna may be useful. Connect it to the supplied antenna connector and to the 75Ω COAXIAL ANTENNA connector. For optimum reception, fully extend the antenna and position it for the best reception.

Antenna A and B terminals

The tuner is equipped with two antenna terminals to permit two antennas to be positioned for the best reception of two different stations. Once the antennas are installed and connected to the tuner, they can be easily selected by the front panel ANTENNA switch.

The tuner also has provision of antenna attenuator, for the antenna B (connected to the ANTENNA B terminal) only. When the front panel B ANT ATT switch is pressed to ON, the input signals from the antenna B will be reduced by 20 dB.

This allows clear reception of the desired station and suppresses RF intermodulation and IM distortion caused by strong signals of other stations.

GROUND CONNECTION

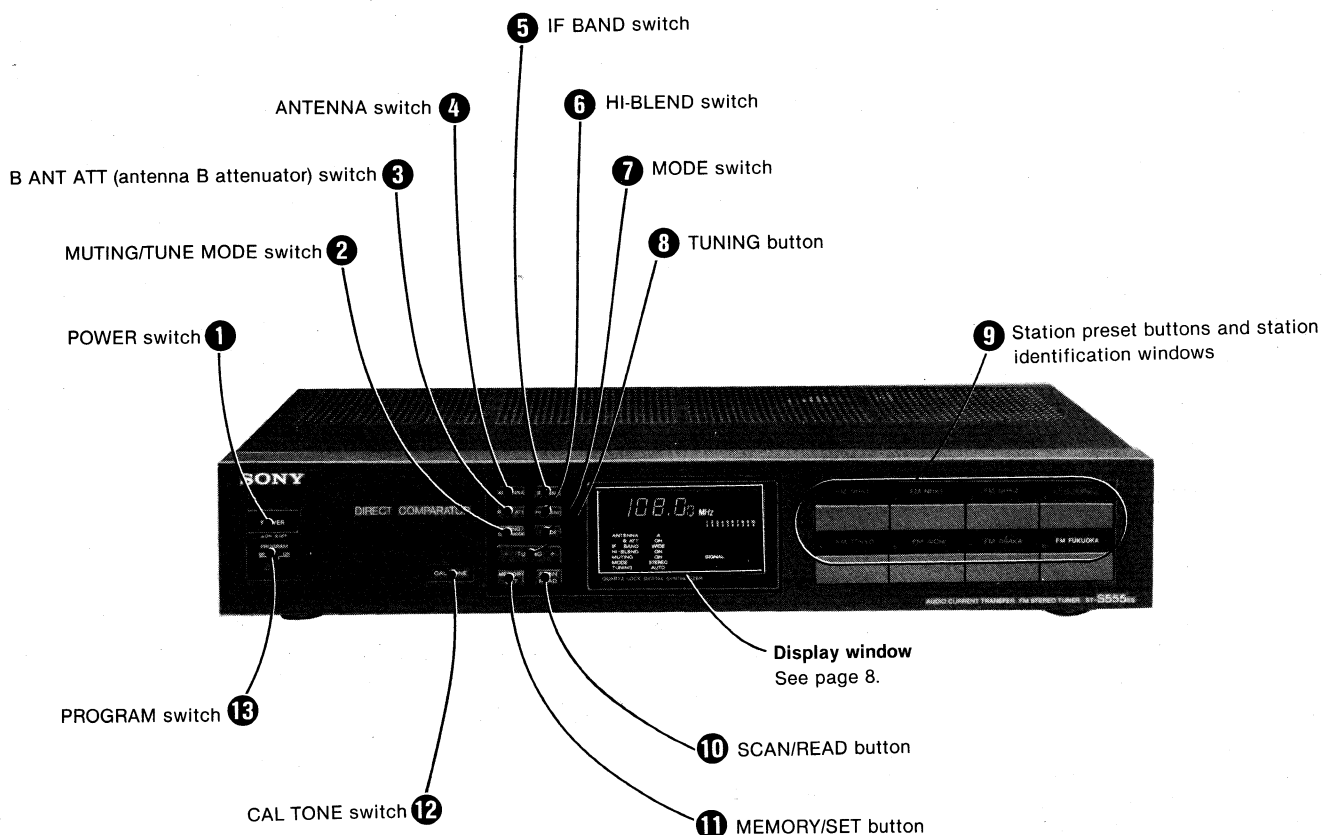
When an outdoor antenna is installed, a direct ground is recommended for lightning protection. Connect the $\varnothing$ (ground) terminal directly to a good ground with a ground wire. We recommend using a lightning arrester with any outdoor antenna.

POWER CONNECTION

A white mark on one lead of the power cord will help you to drive the tuner and other components in the system "in phase" by aligning the ac power cord polarities with ac outlet polarities. In most cases, the marked plug of the tuner's power cord should be inserted into the negative potential of the ac outlet.

LOCATION AND FUNCTION OF CONTROLS

Each number in the photo is keyed to the descriptive text.



❶ POWER switch

Depress to turn on the power. To turn the power off, press the switch again.

❷ MUTING/TUNE MODE switch

This switch serves a dual purpose: it is a tuning system selector and a muting switch.

To tune in a station with the automatic tuning system, press this switch so that the TUNING AUTO indicator lights up. In this mode, the muting circuit will be activated to eliminate interstation noise while tuning and the MUTING ON indicator will light up.

When you want to tune in a very weak station with the manual tuning system, press the switch again so that the TUNING MANUAL indicator lights up. The muting circuit will be deactivated and the MUTING OFF indicator will light up. In this mode, keep the amplifier volume down to avoid speaker damage caused by interstation noise.

❸ B ANT ATT (antenna B attenuator) switch

When this switch is pressed and the B ATT ON indicator lights up, the input signals from the antenna B will be reduced by 20 dB. When the switch is pressed again and the B ATT OFF indicator lights up, the input signals will be received at their original strength.

❹ ANTENNA switch

When this switch is pressed and the ANTENNA A indicator lights up, the input signals from the antenna connected to the ANTENNA A terminal will be received by the tuner. When the switch is pressed again and the ANTENNA B indicator lights up, the input signals from the antenna connected to the ANTENNA B terminal will be received.

5 IF BAND switch

Normally keep this switch in the WIDE position (the IF BAND WIDE indicator lights up). Low-distortion, hi-fi sound can be obtained. When there is interference by adjacent stations, press the switch so that the IF BAND NARROW indicator lights up. The higher selectivity will improve the reception.

6 HI-BLEND switch

When FM stereo signals are weak and noisy, press this switch so that the HI-BLEND ON indicator lights up. This will provide better reception, although the stereo effect at high frequencies is slightly reduced. To disengage the switch, press it again. The HI-BLEND OFF indicator will light up.

7 MODE switch

Normally keep this switch in the STEREO position (the MODE STEREO indicator lights up). The tuner operates in the stereo mode for stereo sound sources and will be automatically switched to the mono mode for monaural sound sources. When an FM program is too noisy, press the switch so that the MODE MONO indicator lights up. This will enable the tuner to receive weak stations, although the stereo feature is sacrificed.

8 TUNING button

Press either side of this button to change the received frequency: press the left side [-] to go to a lower frequency and the right side [+] to go to a higher.

During automatic tuning: Press to start automatic frequency scanning. The frequencies below or above that shown on the display window will be scanned automatically until a signal is received. To resume scanning, press the button again.

During manual tuning: Press and keep the TUNING button depressed to change the frequency continuously until the figures in the frequency display window approach the desired frequency. The frequency figures will change rapidly. To change the frequency slowly (in 0.05 MHz steps) to tune in a station accurately, press the button and release immediately.

When the frequency figures reach the end of the tuning range, the frequency will then be scanned from the opposite end of the tuning range.

9 Station preset buttons and station identification windows

To call up a memorized station, press the appropriate button. Station labels (supplied) identifying memorized stations can be placed in the station identification windows above the buttons.

10 SCAN/READ button

This button has a dual purpose. With the PROGRAM switch set to OFF, it works as a memory SCAN button and with the PROGRAM switch set to ON, as a program READ button.

SCAN button: Press to automatically scan the stations memorized on the station preset buttons.

READ button: By pushing this button, the programmed station order can be checked.

11 MEMORY/SET button

This button has a dual purpose. With the PROGRAM switch set to OFF, it works as a MEMORY button and with the PROGRAM switch set to ON, as a program SET button.

MEMORY button: Press to memorize the tuned station to a station preset button. The MEMORY indicator will appear in the frequency display window for about 3 seconds indicating that the preset memory circuit is standing by.

SET button: Press to program the preset stations in the desired order. The MEMORY indicator will appear indicating that the program circuit is standing by.

12 CAL TONE switch

Normally keep this switch disengaged so that the CAL TONE indicator is not lit.

To obtain a 400 Hz, 50% modulated signal for adjusting the recording level on a tape recorder, press the switch. The CAL TONE indicator will light up.

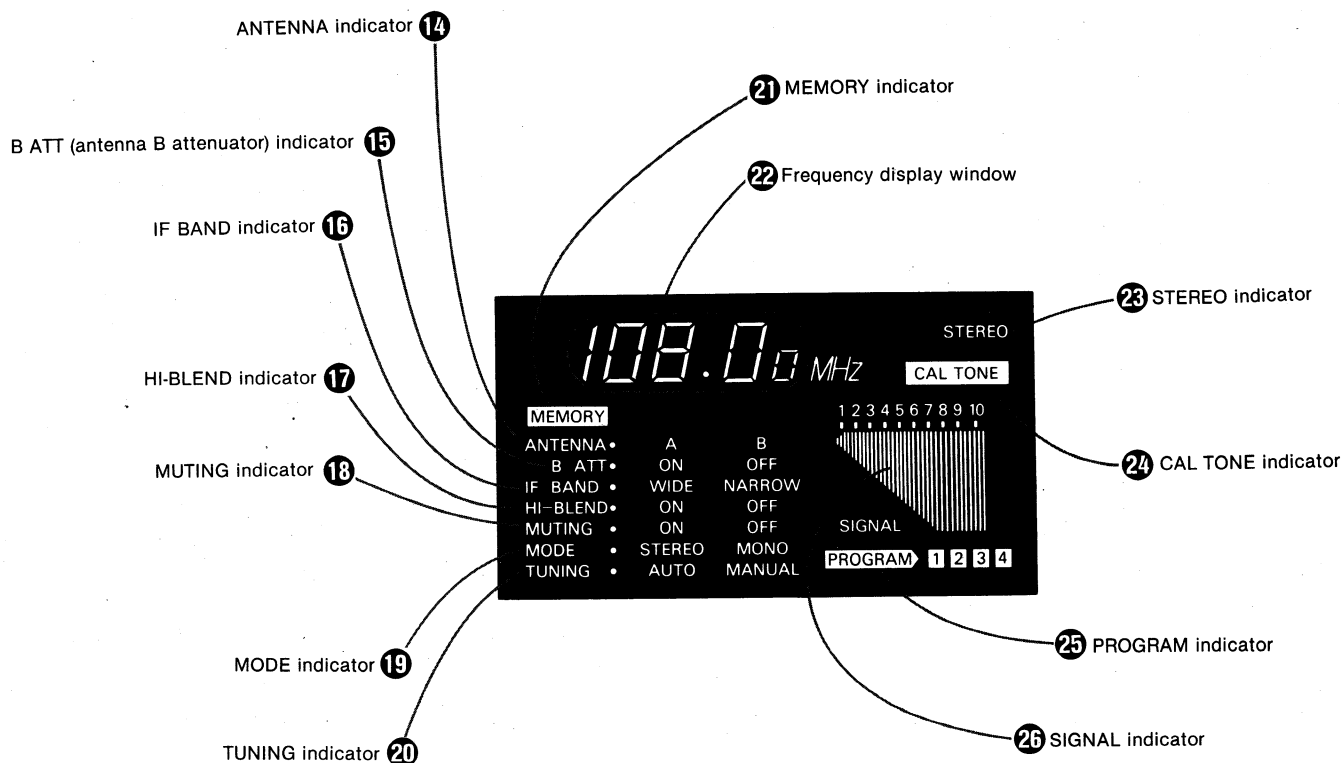
Generally, on cassette decks, adjust the recording level so that the VU meters deflect as close as possible to -3 dB, or the peak meters to -4 dB, and on reel-to-reel tape decks the VU meters deflect as close as possible to 0 dB. However, depending on the broadcast programs or the tapes you use, some further adjustments may be necessary. You can determine the most appropriate recording level for your tape deck after several trials, using the suggested levels as a starting point.

To disengage the CAL TONE switch, press the CAL TONE switch again or press any of the tuner switches.

13 PROGRAM switch

To use the program function, set this switch to ON. For ordinary use, be sure to keep the switch in the OFF position.

DISPLAY WINDOW



14 ANTENNA indicator

Indicates the setting of the ANTENNA switch.

15 B ATT (antenna B attenuator) indicator

Indicates the setting of the B ANT ATT switch.

16 IF BAND indicator

Indicates the setting of the IF BAND switch.

17 HI-BLEND indicator

Indicates the setting of the HI-BLEND switch.

18 MUTING indicator

Indicates the setting of the MUTING switch.

19 MODE indicator

Indicates the setting of the MODE switch.

20 TUNING indicator

The AUTO indicator shows the automatic tuning mode, and the MANUAL indicator, the manual tuning mode.

21 MEMORY indicator

When the MEMORY/SET button is pressed, "MEMORY" will appear for about 3 seconds indicating that the memory circuit is standing by.

22 Frequency display window

The frequency being received is displayed here in digits.

23 STEREO indicator

This indicator will light when an FM stereo program of sufficient signal strength is tuned in with the MODE switch set to STEREO.

24 CAL TONE indicator

Lights up to show that a 400 Hz calibrating tone signal is provided by the CAL TONE switch.

25 PROGRAM indicator

With the PROGRAM switch set to ON, the order in the programmed sequence of the station being received is displayed here.

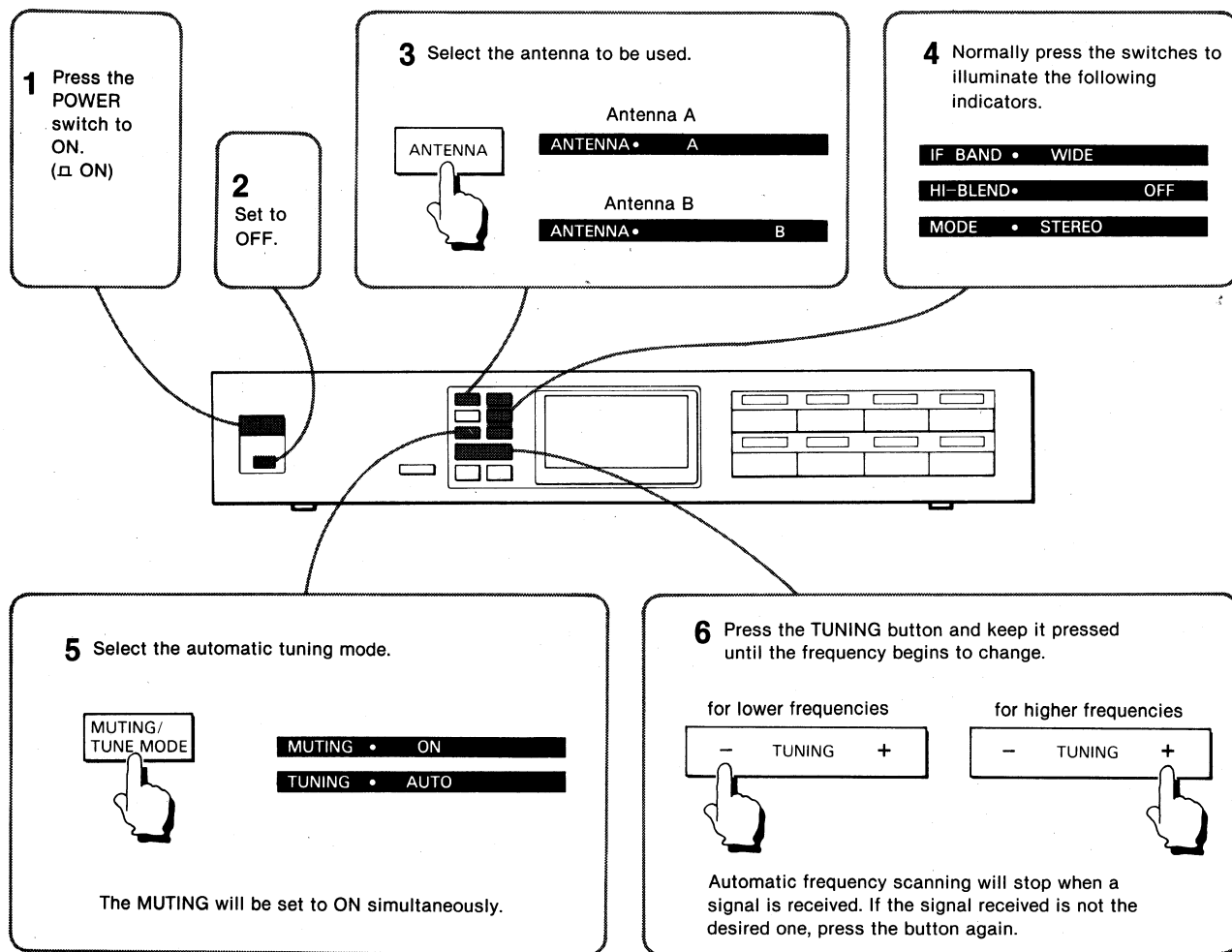
26 SIGNAL indicator

Indicates the strength of the tuned signal by the amount of indicator illumination. The fullest illumination means the antenna input signal is strong. When the indicator illuminates only at the low end, it means the antenna input signal is weak. The lines tracing the upper and lower ends of the vertical bars indicate the signal-to-noise ratio curves.

AUTOMATIC TUNING

This tuning system is convenient to tune in a station whose frequency has not been memorized, or to see quickly what kind of programs are on the air.

Follow the numbered sequence.



If the signal strength is weak, the frequency display figures will not stop at the desired frequency. When this happens, tune in the station as described in "MANUAL TUNING".

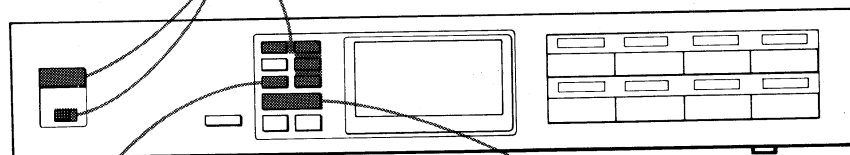
MANUAL TUNING

This system permits a step-by-step scanning and is helpful when the signal strength of the desired station is too weak for automatic tuning.

Before tuning in a station, **be sure to turn down the amplifier's volume** to avoid speaker damage caused by interstation noise.

Follow the numbered sequence.

1 Follow Steps 1 to 4 of "AUTOMATIC TUNING" on page 9.



2 Select the manual tuning mode.

MUTING/
TUNE MODE



MUTING • OFF
TUNING • MANUAL

3 **1** Keep the TUNING button depressed until the frequency approaches that of the desired station.

for lower frequency

- TUNING +

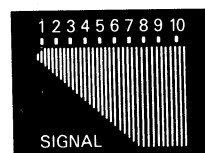


for higher frequency

- TUNING +



2 Press and immediately release the TUNING button.
Repeat this step until the desired frequency is displayed.



good reception

How to obtain better reception

- 1** Adjust the position of the antenna, or install an appropriate outdoor antenna. (See page 13.)
- 2** When there is interference caused by adjacent stations...
 - Press the B ANT ATT switch to ON, if the antenna B is being used.
 - Press the IF BAND switch to NARROW.
- 3** When an FM stereo program is noisy...
 - Press the HI-BLEND switch to ON.
 - Press the MODE switch to MONO.

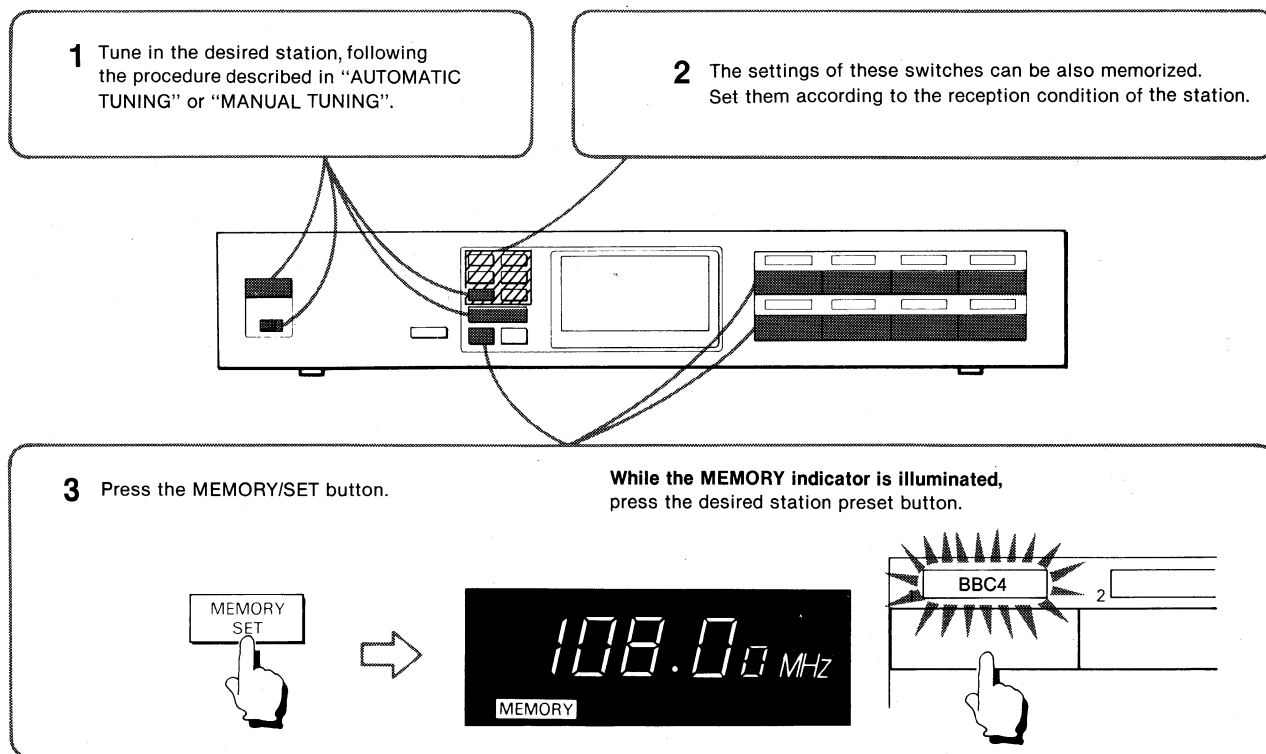
MEMORY PRESET TUNING

This tuner's electronic tuning system (utilizing a PLL—Phase Locked Loop—synthesizer) and a memory circuit make tuning very easy. Once the frequencies of the stations you want to tune in and their reception conditions are memorized, all you have to do is push a button.

TO MEMORIZE STATION FREQUENCIES

A total of eight station preset buttons can be preset in any desired sequence.

Follow the numbered sequence.



Repeat these steps for each station preset button. Replace the station labels to conform to the selected memorized stations. See "STATION LABEL INSERTION" on page 12.

Notes

- The MEMORY indicator will go off automatically after a few seconds. When the indicator is out, the memory circuit does not operate to memorize the station.
- The previous memory will be erased when a new frequency is committed to the memory of the same button. An erasure cannot be made without a new input.

TO CHECK A MEMORIZED FREQUENCY

After the memory procedure is completed, confirm the memorized frequency. Press the TUNING button and change the frequency display indication. Press the station preset button to be checked. The frequency which had been memorized should then be indicated in the display window.

TO RECEIVE A MEMORIZED STATION

Turn the POWER switch on and simply press the desired station preset button.

TO CHANGE TEMPORARILY A PART OF THE MEMORIZED SETTINGS

Change the part of the settings by simply pressing the required buttons or switches. You can recall the original settings later by pressing the station preset button.

Memory of the last received station

This tuner includes a memory circuit to remember the station which had been received for more than one second just before the power was turned off. This station will be automatically tuned in when the power is turned on again with the PROGRAM switch OFF.

This memory system enables you to make a timer-activated recording from the tuner.

MEMORY SCANNING

The SCAN/READ button allows you to quickly hear what kind of programs are being broadcast by the memorized stations.

When you press the SCAN/READ button with the PROGRAM switch OFF, the memorized stations are automatically received in order from the memorized station to the immediate right of the station being received for about 4 seconds each.

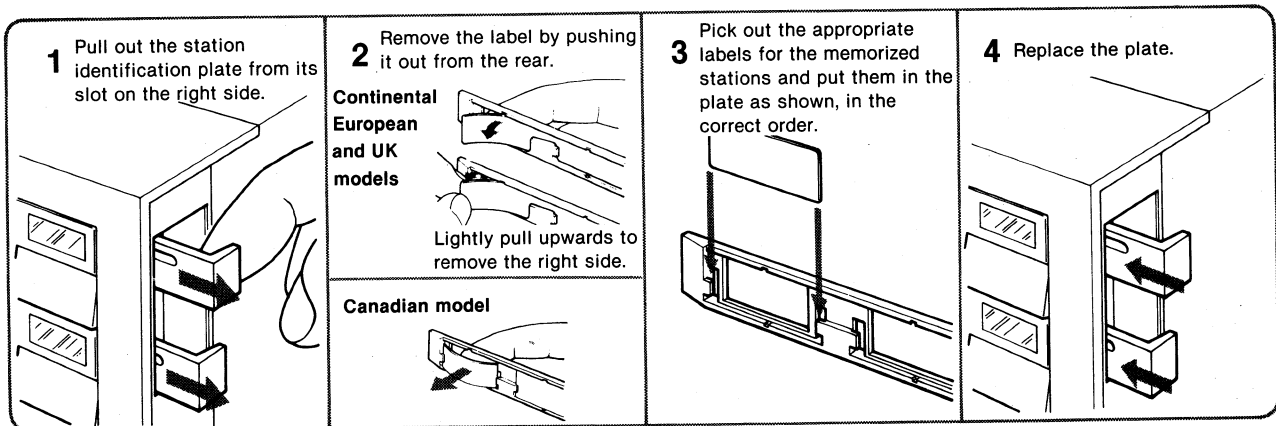
Pushing a particular station preset button stops the scanning.

The scanning sequence will be shown by the flickering of the lamp in the station identification window above the engaged station preset button.

When you press the SCAN/READ button during automatic or manual tuning, scanning will start from the station memorized on the leftmost station preset button.

STATION LABEL INSERTION

Station labels are supplied for identification of the memorized stations. Affix the labels as follows :



Check that the station labels match the memorized stations by tuning in to each station.

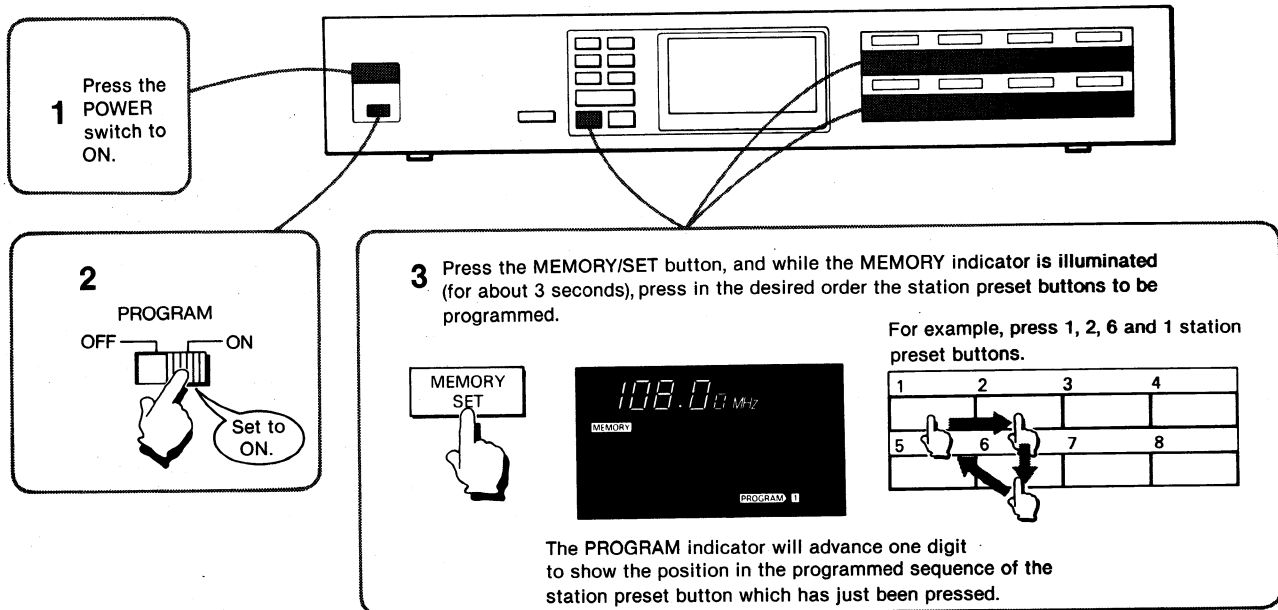
THE PROGRAM FUNCTION

With the PROGRAM switch ON, memorized stations can be received in any order you desire, the stations changing each time the power is turned off and on.

When a timer is connected, the Program Function allows you to listen to or record a whole sequence of broadcasts by different stations at different times. For example, if the stations memorized on the station preset buttons 2 and 3 are programmed in this order and if the timer is set so that the power will be turned on at 8:00 a.m. for the first time, turned off at 8:30 a.m. and turned on again at 9:00 a.m., Station 2 will be received at 8:00 a.m. and Station 3 will be received at 9:00 a.m. automatically.

HOW TO PROGRAM THE MEMORIZED STATIONS

A total of four stations can be programmed in any desired sequence. Follow the numbered sequence.



FM ANTENNAS

Note

● When the MEMORY indicator is out, the program circuit does not operate. (The MEMORY indicator will go off automatically after about 3 seconds.) If the MEMORY indicator goes out before you finish setting all of the stations to be programmed, press the MEMORY/SET button again to illuminate the MEMORY Indicator and press the station preset buttons from the beginning of the sequence.

● Two different stations cannot be received with the Program Function if the power is not turned on and off to change the station. If you want to make a timer-activated recording of one station from 7:30 to 8:00 a.m. and continue recording another station from 8:00 a.m., for example, you should set the timer so that the power will be interrupted at 7:59 and turned on again at 8:00.

● To insure that the data is properly stored in the program circuit, everytime the PROGRAM switch is turned ON and everytime stations are programmed, wait for a few seconds before turning the PROGRAM switch OFF.

● If you wish to program only two or three stations, press these station preset buttons while the MEMORY indicator is illuminated, then press the MEMORY/SET button again or wait until the indicator goes off.

AFTER THE PROGRAM IS SET

Keep the PROGRAM switch in the ON position. The programmed stations will be recalled in sequence when the power is turned off and on.

When the PROGRAM switch is set to OFF after the program has been set, the station which had been received before the program was set will be recalled again, while the programmed order remains memorized.

How to check the sequence of the programmed stations

Push the SCAN/READ button with the PROGRAM switch ON. The programmed stations will be received in order for about 1 second each.

How to cancel the programmed stations

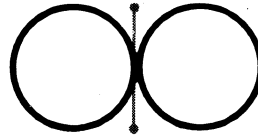
When any of the station preset buttons is pressed after the MEMORY/SET button has been pressed with the PROGRAM switch ON, all programmed stations will be cancelled. It is not possible to change only a part of the programmed sequence. A new sequence must be set from the beginning.

How to tune in another station when a station is being received with the program function

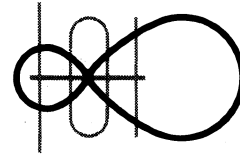
The station preset buttons and the TUNING button are locked when the PROGRAM switch is ON so that the station cannot be accidentally detuned. To change the station, first set the PROGRAM switch to OFF and then tune in the desired station with a station preset button or the TUNING button.

To get the best from your tuner, it is important to use an outdoor antenna. Be sure to pick an outdoor antenna which suits your location. This is determined by the signal strength, the presence of multipath signals*, and the location of the FM stations.

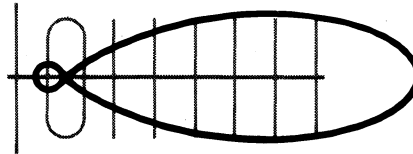
A **ribbon dipole antenna** picks up signals from both front and rear equally well, but is susceptible to the pickup of extraneous noise.



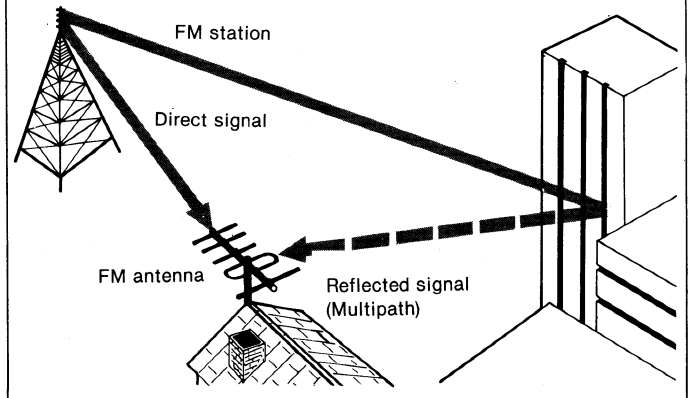
A **dipole antenna with reflector** has increased sensitivity to front signals and reduced sensitivity to rear signals.



A **multi-element type** has a narrower pick-up pattern with high frontal sensitivity and superior rejection of rear signals.



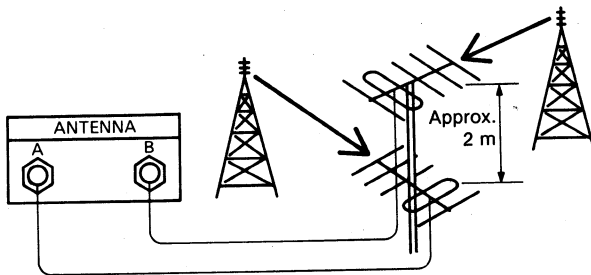
* Multipath signals reflect from hills or structures, reach the receiving antenna perceptibly later in time and cause severe distortion and complete loss of channel separation. Multipath signals can be avoided to a great extent by using a coaxial cable, and a good directional antenna that is correctly oriented.



TROUBLE CHECKS

FM antenna installation and orientation

- Install the FM antenna as high as possible, keeping it away from TV antennas or others operating in roughly the same frequency range.
- The antenna should be located on the side of your house away from heavy auto traffic to avoid ignition noise interference.
- To obtain good reception from all directions, the use of a remotely-controlled rotatable antenna, or an omnidirectional antenna which picks up signals equally well in all directions, is recommended.
- To install two antennas to one mast, separate them by at least 2 meters as illustrated.



The following checks will assist in the correction of most problems which you may encounter with your unit. Should any problem persist after you have made these checks, consult your nearest Sony service facility.

Before going through the check list below, first refer back to the connection and operating procedures.

No audio output

- Check that the power cord is plugged into a working outlet.
- Check the connections to the amplifier.
- Check the setting of the amplifier's input selector, volume control and power switch.
- Check the antenna connection.

SIGNAL indicator reading is unstable.

- Adjust the antenna.
- Tune in the station accurately.

STEREO indicator flickers.

- Tune in the station accurately.
- Press the MODE switch to MONO.
- Press the B ANT ATT switch to OFF, if the antenna B is being used.
- If the SIGNAL indicator shows weak antenna input, use an appropriate outdoor antenna. A multi-element type is recommended.
- If the SIGNAL indicator shows sufficient level but an unstable reading, adjust the antenna to eliminate multipath reception.

The desired station cannot be tuned in with the automatic tuning system.

- The signal strength is too weak for automatic tuning. Adjust the antenna for optimum reception or tune in the station with the manual tuning system.

Tuning cannot be done correctly when the station preset button is pressed.

- Memorize the frequency correctly.

A program of the recalled preset station does not come on while the frequency of that station is displayed.

- The reception condition of the station have changed. Check the antenna, or change a part of the settings by pressing the ANTENNA, B ANT ATT, IF BAND, MUTING/TUNE MODE or MODE switch.

The station preset buttons, TUNING button, or other switches will not operate.

- Set the PROGRAM switch to OFF.

Severe hum or noise

- Ground the tuner.
- Avoid long horizontal runs of antenna lead.
- Keep connecting cords (or antenna lead-in) away from transformers or motors, and at least 3 meters (10 feet) from TV sets and fluorescent lights.
- Adjust the antenna.

Ignition noise

- Install the outdoor antenna away from heavy traffic.
- Use a shielded or coaxial lead-in for the antenna.

Electrostatic charge.

- Ground the tuner.

SPECIFICATIONS

FM tuner section

Tuning range 87.5 MHz – 108 MHz
 Antenna terminals two, 75 ohms, unbalanced
 Intermediate frequency 10.7 MHz

	at 40 kHz deviation	at 75 kHz deviation
Sensitivity	at 46 dB quieting 2 μ V (mono) 22.5 μ V (stereo)	at 50 dB quieting 16.8 dBf, 1.8 μ V (mono) 37.9 dBf, 22.5 μ V (stereo)
Usable sensitivity	0.8 μ V (S/N = 26 dB)	10.3 dBf, 0.9 μ V (IHF)
Signal-to-noise ratio	86 dB (mono) 80 dB (stereo)	92 dB (mono) 86 dB (stereo)
Harmonic distortion	IF BAND : WIDE 0.03% (mono), 0.05% (stereo) at 100 Hz 0.03% (mono), 0.04% (stereo) at 1 kHz 0.03% (mono), 0.12% (stereo) at 10 kHz IF BAND : NARROW 0.05% (mono), 0.07% (stereo) at 100 Hz 0.05% (mono), 0.06% (stereo) at 1 kHz 0.05% (mono), 0.15% (stereo) at 10 kHz	
IM distortion	IF BAND : WIDE 0.03% (mono), 0.04% (stereo)	
Separation	IF BAND : WIDE 55 dB at 100 Hz 60 dB at 1 kHz 45 dB at 10 kHz	
Frequency response	40 Hz – 12.5 kHz ± 0.2 dB 30 Hz – 15 kHz $+ 0.2$ dB $- 0.5$ dB	30 Hz – 15 kHz $+ 0.2$ dB $- 0.5$ dB
Selectivity	at 300 kHz 30 dB (IF BAND : WIDE) 57 dB (IF BAND : NARROW)	at 400 kHz 60 dB (IF BAND : WIDE) 90 dB (IF BAND : NARROW)
Capture ratio	1.0 dB	
AM suppression ratio	65 dB	
Image response ratio	120 dB	
IF response ratio	100 dB	
Spurious response ratio	120 dB	
RF intermodulation	78 dB (IHF), 100 dB (2.4 MHz)	

Sub-carrier product ratio

78 dB

Muting threshold Approx. 25 dBf, 5 μ V

Auto-tuning threshold

Approx. 25 dBf, 5 μ V

Output level/impedance (75 kHz deviation)

750 mV, 620 ohms, transformed by the supplied A.C.T. cable

Calibrating tone level

50% modulation (37.5 kHz deviation),
400 Hz

Antenna B attenuator 20 dB

General

System

PLL quartz-locked digital synthesizer system

Power requirements

Type 1 : 220 V ac (or 240 V ac adjustable by authorized Sony personnel), 50/60 Hz
 Type 2 : 240 V ac (or 220 V ac adjustable by authorized Sony personnel), 50/60 Hz
 Type 3 : 120 V ac, 60 Hz

Power consumption

Type 1 and 2 : 25 watts
 Type 3 : 23 watts

Dimensions

Approx. 430 $\times$ 80 $\times$ 340 mm (w/h/d)
 (17 $\times$ 3 $\frac{1}{4}$ $\times$ 13 $\frac{1}{2}$ inches)

Weight

including projecting parts and controls
 Type 1 and 2 : Approx. 4.9 kg (10 lbs 13 oz) net
 Approx. 5.9 kg (13 lbs 1 oz) in shipping carton
 Type 3 : Approx. 4.8 kg (10 lbs 10 oz) net
 Approx. 5.8 kg (12 lbs 13 oz) in shipping carton

Accessories supplied

FM ribbon antenna (1)
 A.C.T. cable (1)
 Antenna connector (1)
 Station label (1 set)

While the information given is true at the time of printing, small production changes in the course of our company's policy of improvement through research and design might not necessarily be indicated in the specifications. We would ask you to check with your appointed Sony dealer if clarification on any point is required.

BLOCK DIAGRAM

