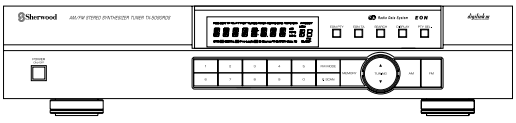
OPERATING INSTRUCTIONS
BEDIENUNGSANLEITUNG
ISTRUZIONI PER L'USO
MANUAL DE INSTRUCCIONES



TX-5090C/RDS

AM/FM Stereo Digital Tuner
Digital-Tuner für UKW Stereo, MW und LW
Sintonizzatore Stereo Digital AM/FM
Sintonizador AM/FM Estéreo Digital

Sherwood

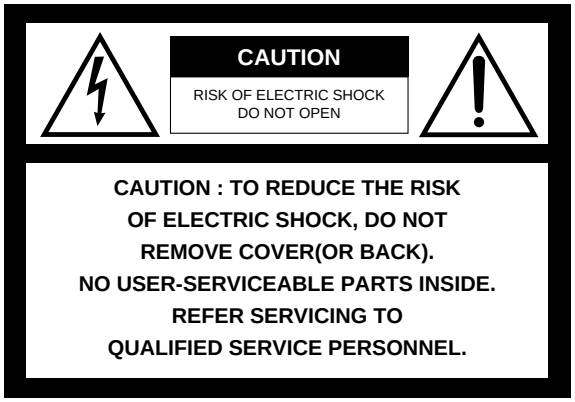
CE

UNPACKING AND INSTALLATION

ENGLISH

Congratulations on your purchase!

Your new high fidelity Tuner is designed to deliver maximum enjoyment and years of trouble free service. Please take a few moments to read this manual thoroughly. It will explain the features and operation of your unit and help ensure a trouble free installation.
Please unpack your unit carefully. We recommend that you save the carton and packing material. They will be helpful if you ever need to move your unit and may be required if you ever need to return it for service. Your unit is designed to be placed in a horizontal position and it is important to allow at least two inches of space behind your unit for adequate ventilation and cabling convenience.
To avoid early damage, never place the unit near radiators, in front of heating vents, in direct sunlight or in excessively humid or dusty location. Connect your complementary components as illustrated in the following section.



This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING

To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture.

FOR U.S.A.

■ **Note to CATV System Installer:** This reminder is provided to call the CATV system installer's attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

■ **FCC INFORMATION**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

CAUTION: Any changes or modifications in construction of this device which are not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

READ THIS BEFORE OPERATING YOUR UNIT

FOR U.S.A. AND CANADA ..... ***120 V***

FOR YOUR SAFETY

Units shipped to the U.S.A. and Canada are designed for operation on 120 V AC only.

Safety precaution with use of a polarized AC plug. However, some products may be supplied with a nonpolarized plug.

CAUTION : To prevent electric shock, match wide blade of plug to wide slot, fully insert.

ATTENTION : Pour eviter les choc electriques, introduire la lame la plug large de la borne correspondante de la prise et poussre jusqu'au fond.

FOR EUROPE AND AUSTRALIA ..... ***230 V/240 V***

FOR YOUR SAFETY

Units shipped to Australia are designed for operation on 240 V AC only.
To ensure safe operation, the three-pin plug supplied must be inserted only into a standard three-pin power point which is effectively earthed through the normal household wiring. Extension cords used with the equipment must be three-core and be correctly wired to provide connection to earth. Improper extension cords are a major cause of fatalities.
The fact that the equipment operates satisfactorily does not imply that the power point is earthed and that the installation is completely safe. For your safety, if in any doubt about the effective earthing of the power point, consult a qualified electrician.
PAN-EUROPEAN UNIFIED VOLTAGE
All units are suitable for use on supplies 230 - 240 V AC.

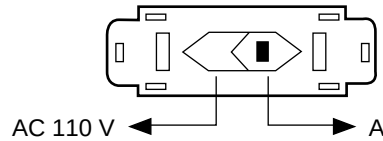
FOR OTHER COUNTRIES ..... ***110 V/ 220 V***

FOR YOUR SAFETY

Units shipped to countries other than the above countries are equipped with an AC voltage selector switch on the rear panel. Refer to the following paragraph for the proper setting of this switch.

AC VOLTAGE SELECTION
This unit operates on 110 - 220 V AC. The AC voltage selector switch on the rear panel is set to the voltage that prevails in the area to which the unit is shipped.
Before connecting the power cord to your AC outlet, make sure that the setting position of this switch matches your line voltage. If not, it must be set to your voltage in accordance with the following direction.

AC voltage selector switch



Move switch lever to match your line voltage with a small screwdriver or other pointed tool.

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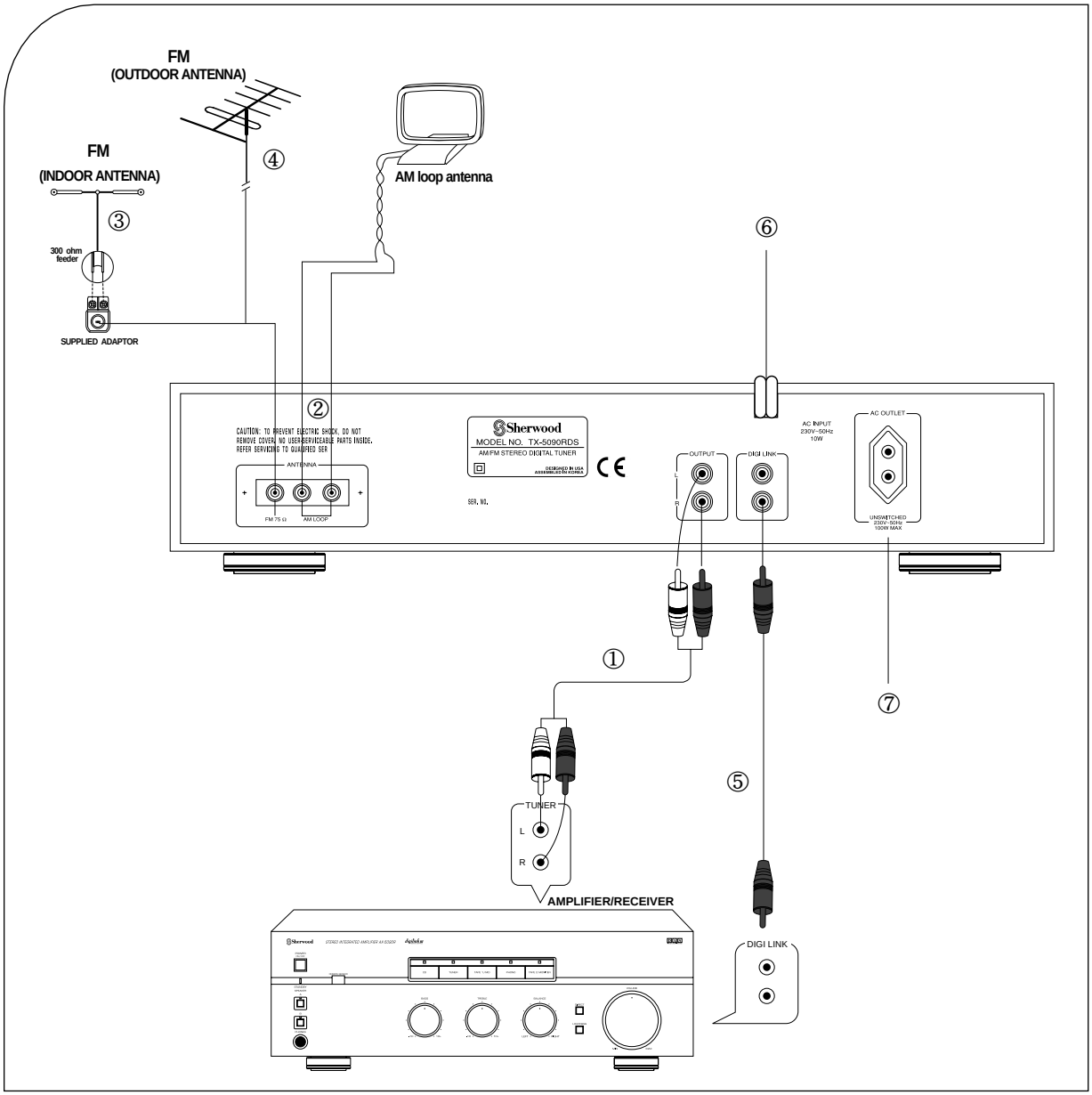
Rear Panel Connections

- Do not plug the AC input cord into the AC outlet when making connections.
- Be sure to connect the white plugs to the L(Left) and the red plugs to the R(Right) jacks when making connections .
- Refet to the connecting diagram in the operating instractions of AMPLIFIER/RECEIVER.

ENGLISH



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① **OUTPUT JACKS**
Connect these jacks to the TUNER INPUT jacks of your amplifier such as AX-5090R, etc.

② **AM LOOP ANTENNA TERMINALS**
The supplied antenna is for indoor use. Place it as far as possible from the main system, TV, speaker cords and AC input cord and set it to a direction for the best reception.

③ **FM INDOOR ANTENNA**
The supplied antenna is for indoor use. Strech out the antenna fully and find the position for the best reception, then fix it.

④ **FM OUTDOOR ANTENNA**
It is recommended to install an FM outdoor antenna for very high quality FM reception.
An FM outdoor antenna can be connected to the tuner with a 75Ω coaxial cable.

⑤ **DIGI LINK JACKS**
Connect this jack to the DIGI LINK jack of Sherwood amplifier such as AX-5090R,etc. bearing the DIGI LINK III or II logo to control this unit remotely by DIGI LINK system.

⑥ **AC INPUT CORD**
Plug this cord into the switched AC outlet of amplifier or a household AC outlet.

⑦ **UNSWITCHED AC OUTLET**
Power always flows to this outlet. regardless of whether this unit is switched ON or OFF if power flows through the AC input cord of this unit.
Note : The equipment whose power consumption exceeds 100 watts should not be connected.

Front Panel Controls

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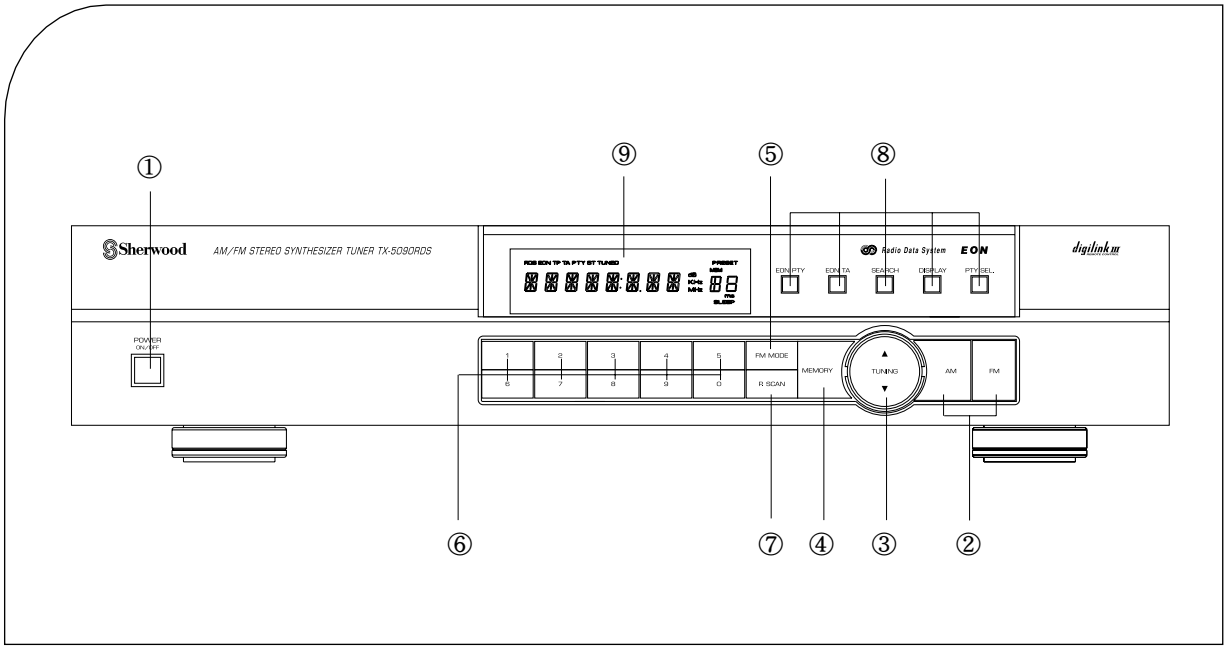


① **POWER SWITCH**
Press this switch to turn the power on and press again to turn the power off.
For system operation, plug the AC input cord into the switched AC outlet on amplifier, keep the POWER switch ON and control power ON/OFF with the power operation on the amplifier.

② **BAND BUTTONS**
Press these buttons to select the FM or AM (MW or LW : For Europe version only).

③ **TUNING UP/DOWN(▲/▼)BUTTONS**
Use these buttons to select the desired station frequency.

④ **MEMORY BUTTON**
Press this button to memorize the desired station frequency.

⑤ **FM MODE BUTTON**
When listening to FM broadcasts, press this button to select the stereo or mono mode.

⑥ **PRESET NUMERIC BUTTONS**
Use these buttons to memorize or recall the preset number of the desired station frequency.

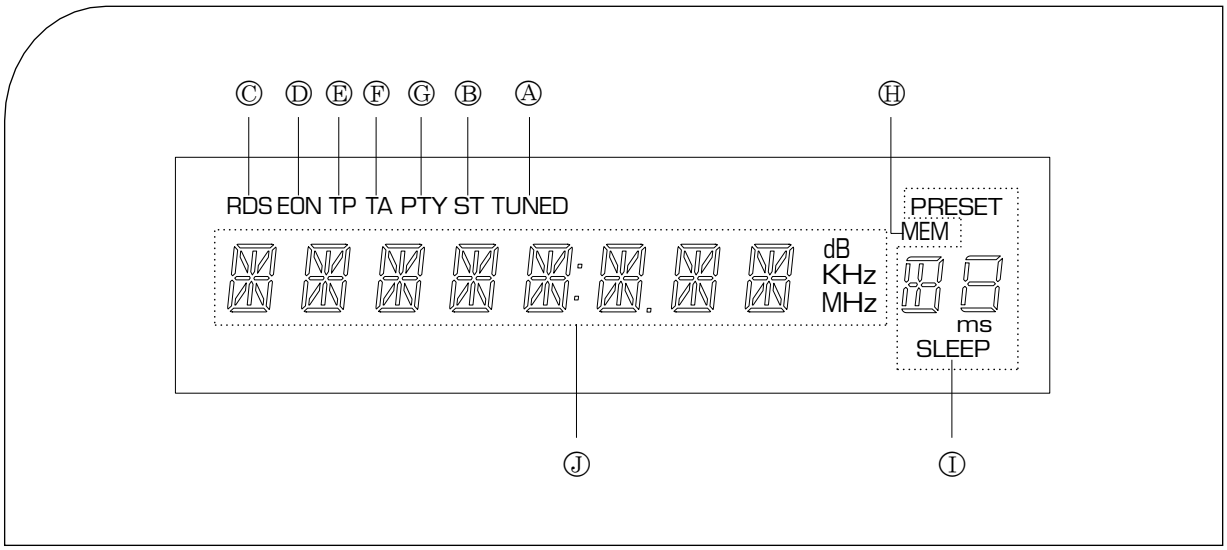
⑦ **PRESET SCAN BUTTON**
Press this button to scan the stations memorized in the memory.

⑧ **RDS CONTROLS(TX-5090RDS ONLY)**
EON PTY : For receiving the desired program type in the RDS mode.
EON TA : For receiving traffic announcement in the TP mode.
SEARCH : For selecting RDS, PTY or TP search mode.
DISPLAY : For changing the display mode.
PTY SELECT : For selecting the desired program type.

⑨ **FLUORESCENT DISPLAY**
For details, refer to the next page.

ENGLISH

■ FLUORESCENT DISPLAY



Ⓐ **TUNED INDICATOR**
Ⓑ **STEREO INDICATOR**
Ⓒ **RDS INDICATOR**
Ⓓ **EON INDICATOR**
Ⓔ **TP INDICATOR**
Ⓕ **TA INDICATOR**
Ⓖ **PTY INDICATOR**
Ⓗ **MEMORY INDICATOR**
Ⓘ **PRESET NUMBER, SLEEP TIME DISPLAY**
Ⓙ **FREQUENCY, OPERATING INFORMATIONS,etc. DISPLAY**

- In case of making DIGI LINK connection between this unit and the Sherwood compatiable amplifier such as AX-5090R, the INPUT SOURCE or SLEEP TIME,etc. may be displayed.

※ DIGI LINK SYSTEM REMOTE CONTROL

This unit can be remotely controled with Sherwood DIGI LINK III amplifier such as AX-5090R.

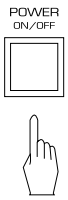
- For available functions, refer to the compatiable unit's operating instructions.
- To listen to a TUNER by DIGI LINK system, first make DIGI LINK connection between this unit and Sherwood compatiable amplifier such as AX-5090R.

Operations

LISTENING TO RADIO BROADCASTS

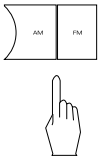
Auto tuning

1 Turn the power on.

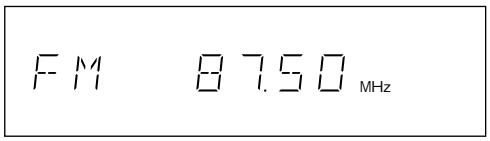


- Each time the POWER switch is pressed, this unit is turned on or off.

2 Select the desired band.



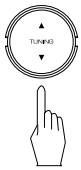
Example) When selecting the FM band.



- Each time the AM button is pressed, the band changes as follows;

→ MW → LW

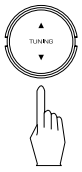
3 Press the TUNING UP(▲) or DOWN(▼) button for more than 0.5 second.



- This unit will now search until a station of sufficient strength has been found.
  The display shows the tuned frequency and "TUNED".
- If the station found is not the desired one, simply repeat this operation.
- Weak stations are skipped during auto tuning.

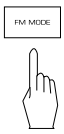
Manual tuning

- Manual tuning is useful when you already know the frequency of the desired station.
- Perform the steps 1~2 in "Auto tuning" porocedure and press the TUNING UP(▲) or DOWN(▼) button repeatedly until the desired frequency has been reached.



LISTENING TO FM STEREO BROADCASTS

- While listening to FM brodcasts, select the desired FM mode.



- Each time this button is pressed, the FM mode changes as follow;

→ STEREO mode : "ST" lights up
→ MONO mode : "ST" goes off

- When FM stereo broadcasts are poor because of weak brocasts signals, select the FM mono to reduce the noise, then FM broadcasts are reproduced in monaural sound.

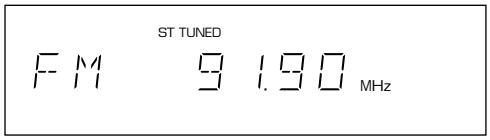
PRESETTING RADIO STATIONS

• You can store up to 30 preferred stations in the memory.

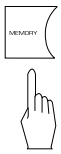
ENGLISH

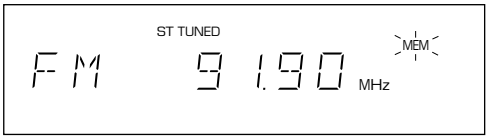
1 Tune in the desired station with auto or manual tuning.

Example)When memorizing FM broadcast of 91.9MHz in preset memory.



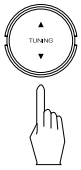
2 Press the MEMORY button.

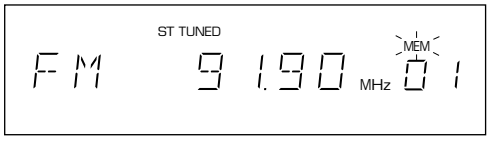




• ”MEM” indicator flickers for 5 seconds.

3 Select the desired preset number.

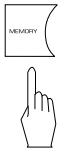




• When using the PRESET NUMERIC buttons on the front panel,
Example)When selecting “9” : 9
When selecting “12” : 1→ 2
within 2 sec.

• If "MEM" goes off, start from the step 2 again.

4 Press the MEMORY button to memorize.



• When selecting the PRESET NUMERIC buttons, the station is memorized automatically without pressingthe “MEMORY” button.

5 Repeat steps 1~4 to memorize other stations.

• A stored frequency is erased from the memory by storing another frequency in its place.
• If the electricity fails or the AC input cord is disconnected for about 2 weeks, the memorized contents are all cleared. Should this happen, memorize them again.

LISTENING TO PRESET STATIONS

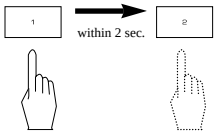
When using the PRESET NUMERIC buttons

• Press the preset number of the desired station.

Example)

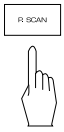
• When selecting “9”

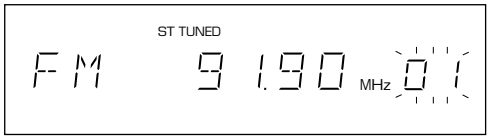
• When selecting “12”



When using the PRESET SCAN button

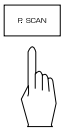
1 Press this button to start scanning.





• The unit starts scanning the preset stations in the preset sequence and each station is received for 5 seconds.

2 At the desired station, press agin to stop scanning.



Additional Function for TX-5090RDS Only

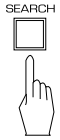
LISTENING TO RDS BROADCASTS(FM only)

RDS(Radio Data System) is a method for sending information signals together with the transmitter signals..
Your tuner is capable of translating these signals and putting the information on the display.
These codes contain the following informations.
Program service name(PS), A list of Program Types(PTY), Traffic Announcement(TA), Clock Time(CT), Radio Text(RT).

RDS search

- Use this function to automatically search and receive the stations offering RDS services.

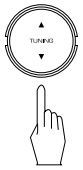
1 In the FM mode, select the RDS search mode.



- Each time this button is pressed, the search mode changes as follows;

→ RDS SRCH → TP SRCH → PTY SRCH → OFF →

2 While displaying “RDS SRCH”, start searching.

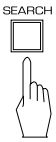


- The tuner automatically searches a station offering RDS services and the station name is displayed.
- If the station found is not the desired one, press the TUNING UP(▲) or DOWN(▼)button again while the RDS indicator is flickering.
- When “RDS SRCH” disappears, repeat again from the above step 1.
- If no station is found, “NO RDS” is displayed.

TP search

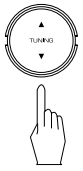
- Use this function to automatically search and receive the stations broadcasting the traffic program.

1 In the FM mode, select the TP search mode.



- ”TP SRCH” is displayed.

2 While displaying “TP SRCH”, start searching.

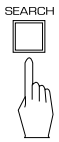


- The tuner automatically searches for stations broadcasting the traffic program.
- ”NO TP” is displayed if the signal is too weak or there are no stations broadcasting the traffic program.
- When “TP SRCH” disappears, repeat again from the above step 1.

PTY search

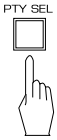
- Use this function to automatically search and receive the stations broadcasting the desired program type.

1 In the FM mode, select the PTY search mode.



- "PTY SRCH" is displayed.

2 While displaying “PTY SRCH”, select the desired program type.

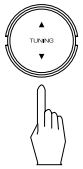


- Each time this button is pressed, one of 17 different program types is selected as follows;

Display	Program Type
NEWS	News
AFFAIRS	Current affairs
INFO	Information
SPORT	Sport
EDUCATE	Education
DRAMA	Drama
CULTURE	Culture
SCIENCE	Science and technology
VARIED	Other program types
POP M	Popular music
ROCK M	Rock music
M O R	Middle of the road music
LIGHT M	Light classical music
CLASSICS	Serious classical music
OTHER M	Other music types
ALARM	Alarm
NONE	Undefined program type

- When “PTY SRCH” disapperars, repeat again from the above step 1.

3 Start searching.

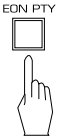


- The tuner automatically searches a station offering PTY services.
- If no station is found, “NO PROG” is displayed.

EON PTY(EON : Enhanced Other Networks information)

- Use this function to automatically search and receive the desired program type while listening to a RDS station.

1 In the RDS mode.



- Program type is displayed and the PTY indicator is flickering.

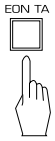
2 While the PTY indicator is flickering, select the desired program type.

- If one of the preset stations is broadcasting the selected program type, it will be tuned in while listening to a RDS station.
- If the station stops broadcasting the selected program type, the tuner will find other stations repeatedly.
- If no station is found, the previous RDS station will be tuned in.
- When the PTY indicator goes off, repeat again from the above step 1.
- Press the EON PTY button to cancel the EON PTY mode.

EON TA

- Use this function to automatically search and receive the traffic announcement while listening to traffic program.

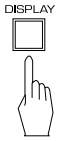
In the TP mode.



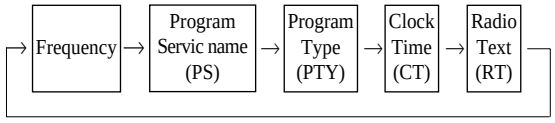
- Traffic program is displayed and the TA indicator lights up.
- If the preset station broadcasting traffic announcement is found, it will be tuned in while listening to traffic program.
- If the station stops broadcasting traffic announcement, the tuner will find other stations repeatedly.
- If no station is found, the previous traffic program station will be tuned in.
- Press the EON TA button to cancel the EON TA mode.

DISPLAY

In the FM mode.



- Each time this button is pressed, the display mode changes as follows;



- If the signals are too weak or no RDS service is available, “NO NAME”, “NO PROG”, “NO TIME”or “NO TEXT” will be displayed.

Troubleshooting Guide

If your unit should not perform as expected, consult the table below to see if the problem can be corrcted before seeking help from your dealer or our service organization.

PROBLEM	POSSIBLE CAUSE	REMEDY
No power	• The AC input cord is disconnected. • The POWER switch is not pressed completely.	• Connect cord securely. • Press the POWER switch to ON.
Not receiving the stations	• No antenna is connected. • The broadcast band is not set properly. • The frequency of the desired station is not tuned in.	• Connect an antenna. • Set the broadcast band properly. • Tune in the frequency of the desired station.
Not receiving the preset stations	• An incorrect station frequency has been memorized. • The preset memory was cleared because the AC input cord had been unplugged or the electricity had failed for more than 2 weeks.	• Memorize the correct station frequency. • Memorize the station again.
interference	• Noise related to ignition noise of an automobile. • Noise related an influence from an electric appliance. • Noise related to a nearby TV set.	• Install the outdoor antenna apart from the load. • Turn off the power of the appliance. • Install this unit more apart from the TV set .
Poor FM reception	• No antenna is connected. • The antenna is not positioned for the best reception.	• Connect an antenna. • Change the position of the antenna.
Continuous hissing noise during FM reception, especially when a stereo broadcast is received.	• Weak signals.	• Change the position of the antenna. • Install an outdoor antenna.
Continuous or intermittent hissing noise during AM reception, especially at night.	• Noise is caused by motors, fluorescent lamps or lightning, etc.	• Keep this unit away from noise sources. • Install an outdoor AM antenna.

ENGLISH

Specifications

■ FM TUNER SECTION

- Tuning frequency range.....87.5~108 MHz
- Usable sensitivity, THD 3%, S/N 26 dB .....15.2 dBf
- 46 dB quieting sensitivity, mono/stereo .....23.2/43.2 dBf
- Signal to noise ratio, 65 dBf, mono/stereo.....70/65 dB
- Total harmonic distortion, 65 dBf,1 kHz, mono/stereo.....0.4/0.6%
- Frequency response, 20 Hz~15 kHz .....±3 dB
- Stereo separation, 1 kHz .....35 dB
- Capture ratio.....2 dB
- IF rejection ratio..... 100 dB

■ AM(MW) TUNER SECTION

- Tuning frequency range .....522~1611 kHz
- Usable sensitivity .....500 μV/m
- Signal to noise ratio IHF “A”weigthed, 30% MOD. .....45 dB
- Selectivity.....25 dB

■ AM(LW) TUNER SECTION

- Tuning frequency range .....153~279 kHz
- Usable sensitivity .....800 μV/m
- Signal to noise ratio IHF “A”weigthed, 30% MOD. .....40 dB

■ GENERAL

- Power supply .....AC 230 V, 50 Hz
- Power consumption.....10 W
- Unswitched AC outlet.....100 W max.
- Dimensions (W × H × D).....440 × 80 × 250 mm(17-5/16 × 3-1/8 × 9-15/16 inches)
- Weight (Net).....2.8 kg(6.16 lbs)

Note: Design and specifications are subject to change without notice for improvements.

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