marantz®

Model ST-17 User Guide

Stereo Tuner

CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK)
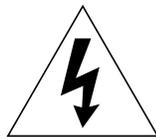**NO USER-SERVICEABLE PARTS INSIDE**
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL

The lightning flash with arrowhead symbol, within an equilateral triangle, 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.

The exclamation point within an equilateral triangle 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.

CAUTION: TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

ATTENTION: POUR ÉVITER LES CHOCS ÉLECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQU'AU FOND.

NOTE TO CATV SYSTEM INSTALLER:

This reminder is provided to call the CATV (Cable-TV) system installer's attention to Article 820 – 40 of the NEC, that provides guidelines for proper grounding and, in particular, specified that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

NOTE:

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 tuning 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.

NOTE:
Changes or modifications may cause this unit to fail to comply with Part 15 of the FCC Rules and may void the user's authority to operate the equipment.

SAFETY INSTRUCTIONS

READ BEFORE OPERATING EQUIPMENT

This product was designed and manufactured to meet strict quality and safety standards. There are, however, some installation and operation precautions which you should be particularly aware of.

1. Read Instructions – All the safety and operating instructions should be read before the appliance is operated.

2. Retain Instructions – The safety and operating instructions should be retained for future reference.

3. Heed Warnings – All warnings on the appliance and in the operating instructions should be adhered to.

4. Follow Instructions – All operating and use instructions should be followed.

5. Water and Moisture – The appliance should not be used near water – for example, near a bathtub, wash-bowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc.

6. Carts and Stands – The appliance should be used only with a cart or stand that is recommended by the manufacturer.

7. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.

8. Wall or Ceiling Mounting – The appliance should be mounted to a wall or ceiling only as recommended by the manufacturer.

9. Ventilation – The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or, placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.

10. Heat – The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.

11. Power Sources – The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.
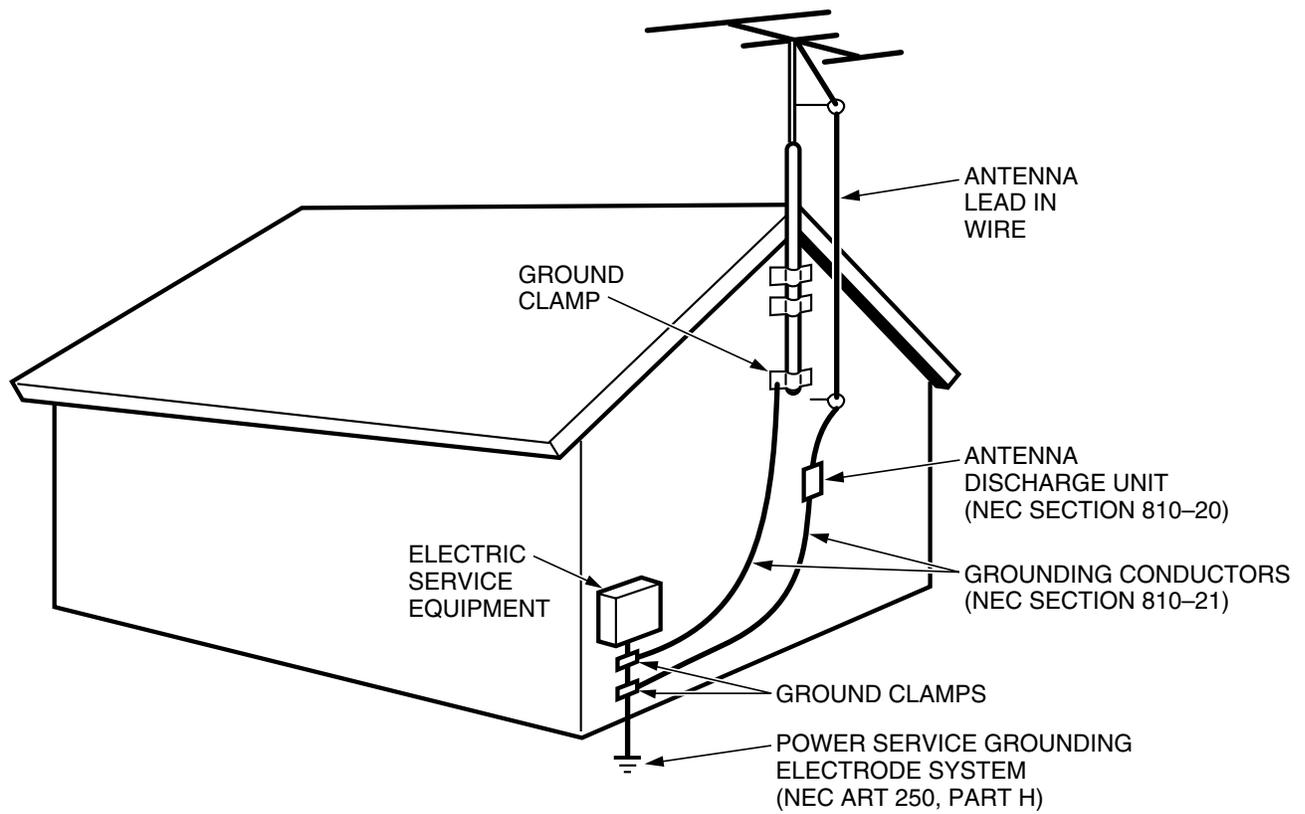
12. Grounding or Polarization – Precautions should be taken so that the grounding or polarization means of an appliance is not defeated.
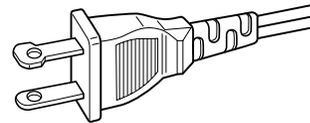
AC POLARIZED PLUG

13. Power-Cord Protection – Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.

14. Cleaning – The appliance should be cleaned only as recommended by the manufacturer.

15. Power Lines – An outdoor antenna should be located away from power lines.

16. Outdoor Antenna Grounding – If an outside antenna is connected to the receiver, be sure the antenna system is grounded so as to provide some protection against voltage surges and built up static charges.
Section 810 of the National Electrical Code, ANSI/NFPA No. 70-1984, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See Figure 1.

17. Nonuse Periods – The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.

18. Object and Liquid Entry – Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.

19. Damage Requiring Service – The appliance should be serviced by qualified service personnel when:

   A. The power-supply cord or the plug has been damaged; or
   B. Objects have fallen, or liquid has spilled into the appliance; or
   C. The appliance has been exposed to rain; or
   D. The appliance does not appear to operate normally or exhibits a marked change in performance; or
   E. The appliance has been dropped, or the enclosure damaged.

20. Servicing – The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

FIGURE 1

**EXAMPLE OF ANTENNA GROUNDING ACCORDING TO
NATIONAL ELECTRICAL CODE INSTRUCTIONS
CONTAINED IN ARTICLE 810 - "RADIO AND TELEVISION EQUIPMENT"**

ANTENNA
LEAD IN
WIRE

GROUND
CLAMP

ANTENNA
DISCHARGE UNIT
(NEC SECTION 810–20)

ELECTRIC
SERVICE
EQUIPMENT

GROUNDING CONDUCTORS
(NEC SECTION 810–21)

GROUND CLAMPS

POWER SERVICE GROUNDING
ELECTRODE SYSTEM
(NEC ART 250, PART H)

NEC – NATIONAL ELECTRICAL CODE

Ⓐ Ⓑ Ⓒ Ⓖ

75Ω DX LOCAL 75Ω GND AM L IN
      FM ATT.
FM ANTENNA A FM ANTENNA B AM ANTENNA R OUT
                                    OUTPUT REMOTE
                                            CONTROL

Ⓓ Ⓔ Ⓕ

Figure 1

a b c d e f

MEMORY AUTO TUNING TUNED
PRESET
        STEREO
        MONO

⑭ h g

⑬

① ② ③ ④⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪⑫

A B WIDE NARROW

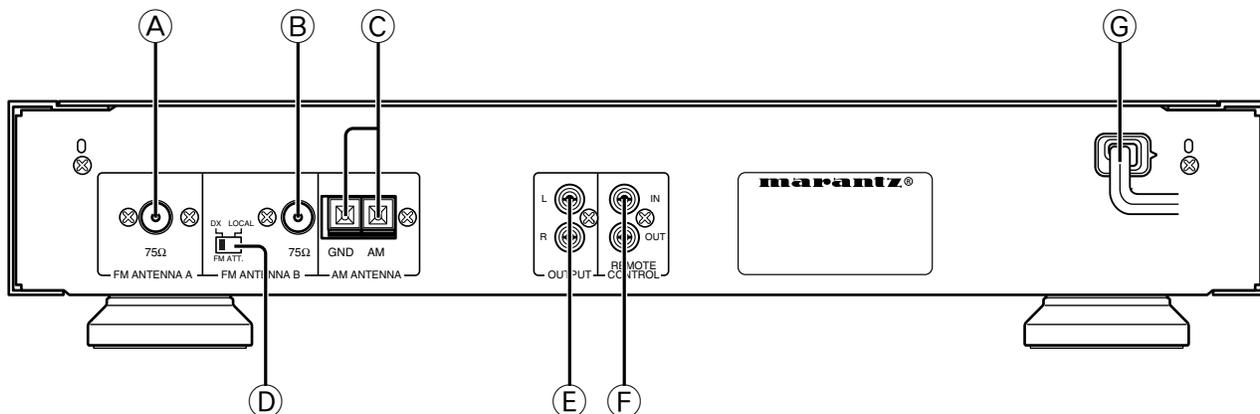POWER ANTENNA FM IF BAND MONO BAND MEMO DISPLAY HDAM STEREO TUNER ST-17 ST NAME PRESET TUNING AUTO
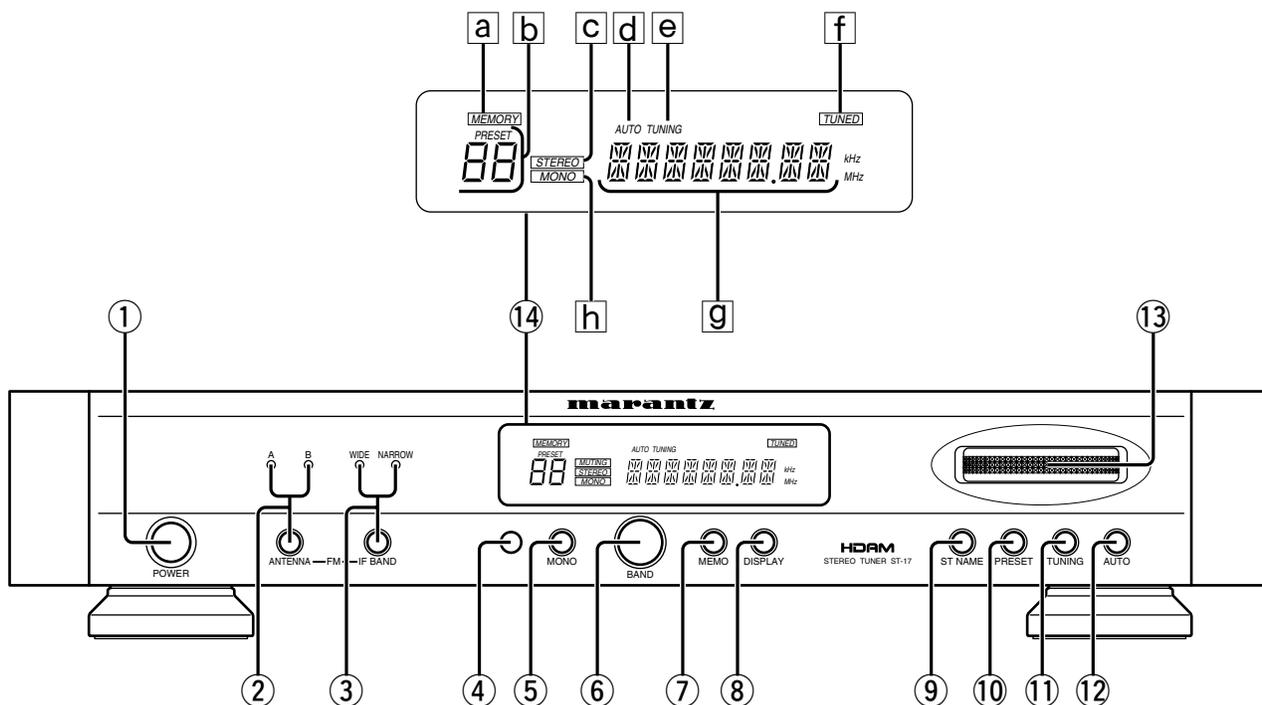
Figure 2

3

INTRODUCTION

Thank you for selecting the Marantz model ST-17 Stereo Tuner for your audio system. This Stereo Tuner incorporates a number of features designed to enhance the listening of your favorite audio sources.

Please read these operating instructions carefully. We recommend that you read the entire user guide before you attempt to connect or operate the unit.

After you have reviewed the contents of this manual, we suggest that you make all system connections before you attempt to operate the unit.

Refer to the Figures on pages 3 and 20 at the rear of this user guide.

The callout numbers on the Figures correspond to those found in the text. All references to the connections and controls that are printed in **BOLD** type are as they appear on the unit.

PRECAUTIONS

The following precautions should be taken when operating the equipment.

GENERAL PRECAUTIONS

When siting the equipment ensure that:

— the ventilation holes are not covered;
— air is allowed to circulate freely around the equipment
— it is on a vibration free-surface;
— it will not be exposed to interference from an external source;
— it will not be exposed to excessive heat, cold, moisture or dust;
— it will not be exposed to direct sunlight;
— it will not be exposed to electrostatic discharges

● Never place heavy objects on the equipment.

● If a foreign body or water dose enter the equipment, contact your nearest dealer or service center.

● Do not pull out the plug by pulling on the mains lead, hold the plug.

● It is advisable when leaving the house, or during a thunderstorm, to disconnect the equipment from the mains supply.

EQUIPMENT REAR PANEL CONNECTIONS AND CONTROLS

(Figure 1)

Ⓐ Ⓑ Ⓒ ANTENNA CONNECTIONS

Both FM and AM antenna can be connected to the tuner's terminals.

Ⓐ FM ANTENNA TERMINAL

The **FM ANTENNA** terminal is used to connect an external FM antenna with a circular plug. It can also be used to connect the accessory FM feeder antenna.

Ⓑ FM ANTENNA B TERMINAL

The **FM ANTENNA** terminal is used to connect an external FM antenna with a circular plug, or for connecting a cable network to the tuner.

Ⓒ AM ANTENNA TERMINAL

The **AM** terminal and the **GND** terminal are used to connect the high-performance, low-impedance, AM loop antenna that is provided with the receiver. The AM loop antenna can be used on top of the tuner or can be mounted on a suitable rack or shelf near the tuner. Interference may be reduced if the tuner is earthed.

In areas where the AM loop antenna supplied gives unsatisfactory result, it is recommended that the tuner be connected to an outdoor antenna. Use the terminal marked **AM** for this. Anearthing lead can be connected to the terminal marked **GND** to further reduce interference.

Ⓓ FM ATTENUATE SWITCH (FM ATT.)

This switch attenuates the FM signal input to the ATTENNA B terminal.

DX : For use when the FM signal is comparatively weak.
(The input FM signal is not attenuated.)

LOCAL: For use when the FM signal is comparatively strong.
(The input FM signal is attenuated by approx. 20dB.)

Ⓔ OUTPUT JACKS

With the lead supplied, connect the output jacks to the tuner inputs of your amplifier.

Ⓕ REMOTE CONTROL BUS TERMINALS

Another item of audio equipment with a remove control bus terminal can be connected to these terminals by using a specialpurpose cable. The bus OUT terminal is used to send signals to another item of equipment. The bus IN terminal is used to receive signals from another item of equipment.

Ⓖ AC POWER CONNECTION

The correct voltage for operating your tuner is indicated on the rear panel. Be sure the POWER switch is off before plugging the AC mains lead into an electrical outlet.

EQUIPMENT FRONT PANEL CONNECTIONS AND CONTROLS

(Figure 2)

① POWER SWITCH

Press to switch the power ON. Press again to switch to power OFF.

The mains switch is secondary connected and does not disconnect the entire set from the mains.

② ANTENNA BUTTON

This button is only operable when the FM band is selected.
This button selects FM ANTENNA A and FM ANTENNA B.
The selected side's LED will light.

③ IF BAND BUTTON

This button is only operable when the FM band is selected.

This button selects the IF band's WIDE or NARROW setting.

The selected side's LED will light.

WIDE: High quality audio can be listened to.
NARROW: Ability to select neighboring stations is improved.

④ IR SENSOR

Receives the infrared remote control signal.

⑤ MONO BUTTON

Press to switch the receiving mode between the auto stereo mode and more mode.
When the button is pressed into the in position, the receiving mode becomes the mono mode.
When the button is pressed again, the receiving mode becomes the auto stereo mode.

⑥ BAND BUTTON

Use this button to select FM or AM wave bands.

⑦ MEMO BUTTON

Press to preset a receiving frequency in the memory. The MEMORY indicator lights up for about 5 seconds when this button is pressed. It is only during this period that a frequency can be preset in the memory.

⑧ DISPLAY BUTTON

When this button is pressed while a station name is being displayed, the display is switched to the frequency display.
Pressing the button again returns to the station name display; if no station name has been stored for the station being received. "NO NAME" is displayed when the button is pressed.

⑨ ST-NAME BUTTON

Press before manual input of station name.
For details, refer to "NANUAL INPUT OF STATION NAMES".

⑩ PRESET BUTTON

For switching the GYRO CONTROL ring to the preset mode.

⑪ TUNING BUTTON

For switching the GYRO CONTROL ring to the tuning mode.

⑫ AUTO BUTTON

For switching the GYRO CONTROL ring to the auto tuning mode.

⑬ GYRO CONTROL RING

Used for dialing control of tuning up/down, preset up/down, station name character display and PTY selection.

⑭ DISPLAY

a MEMORY – This indicator lights up for about 5 seconds after the MEMO button has been pressed.

b PRESET – This indicator lights up when the PRESET button is pressed.

c STEREO – This indicator lights up when an FM stereo broadcast is being received.

d AUTO TUNING – This indicator lights up when the AUTO TUNING mode.

e TUNING – This indicator lights up when the MANUAL TUNING mode.

f TUNED – This indicator lights up when a station is tuned.

g FREQUENCY/STATION NAME – This indicator shows frequencies in MHz (FM) or kHz (AM), (RDS) station name, radio text or names you have assigned.

h MONO – This indicator lights up in the MONO mode, which is initiated when the MONO button is pressed.

OPERATION ON THE MAIN UNIT

SWITCHING ON AND OFF

● When you want to switch you tuner on, press the POWER button.

● When you wish to switch the unit off, simply press the POWER button again.

SELECTING THE WAVE BAND

● Select the desired wave band (FM, AM) by pressing the BAND button. Pressing this button switches to the next wave band in the following order: FM - AM - FM.
The display shows the selected band.

AUTO TUNING

This method can be used in areas where the signal strengths of the broadcast atations are normal.

1. Confirm that the "AUTO" and "TUNING" indicators are lit on the display. If not lit, turn the indicators on by pressing the TUNING button and AUTO button.

2. Gently move the GYRO CONTROL ring.
The received frequency will automatically change and tuning will stop when a station is received.

3. Repeat moving the GYRO CONTROL ring gently until the desired station is received.

NOTE:

While the GYRO CONTROL ring is being turned, even if a station is tuned in, it will not be stopped at.

MANUAL TUNING

This method can be used in areas where the signal strengths of the broadcast atations are normal.

1. Confirm that the "TUNING" indicator is lit on the display. If not lit, turn the indicator on by pressing the TUNING button.

2. If "AUTO" is lit on the display, press the AUTO button to turn it off.

3. Turn the GYRO CONTROL ring until the frequency you want is received. The speed of received frequency display corresponds to the speed that you turn the ring. Also, received frequencies will change at 100kHz steps for FM and 9kHz steps for AM.

PRESET TUNING

Use the following procedure to recall a preset station directory from the preset memory.

1. Ensure that the PRESET indicator is lit in the display. If nor, press the PRESET button to light it..

2. Rotate the GYRO CONTROL ring to select the desired preset station.

PRESET MEMORY ON THE MAIN UNIT

This unit is equipped with the one-touch preset tuning system which is particularly convenient when there is a large number of receivable stations. The preset tuning system allows up to 60 stations on FM and AM to be preset in a random order.

HOW TO PRESET A FREQUENCY IN THE MEMORY

4   **2, 4**

1   3, 5
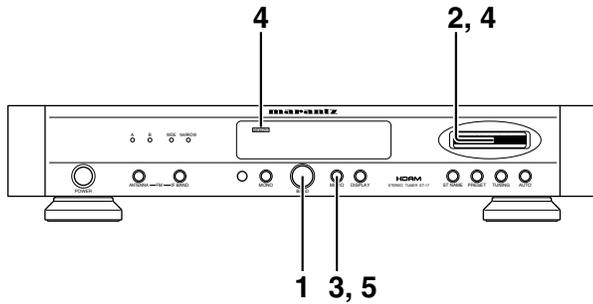
1. Select FM or AM with the **BAND** button.

2. Select the desired station with the **GYRO CONTROL ring**.

3. Press the **MEMO** button.
   "MEMORY" will flash on the display.

4. While the "MEMORY" indicator is flashing (approx. 5 sec.), turn the **GYRO CONTROL ring** to the left or right to select the desired preset number.

5. Press the **MEMO** button again.
   The "MEMORY" indicator will go out, and memorization will be finished.

CALLING UP STORED STATIONS

1. Confirm that the "PRESET" indicator is lit on the display. If not lit, press the **PRESET** button to turn it on.

2. Turn the **GYRO CONTROL ring** to select the desired preset station.

DELETING THE CONTENTS OF THE PRESET MEMORY

1. Select the preset station you wish to delete.

2. Press the **MEMO** button.
   The "MEMORY" indicator will flash on the display.

3. While the "MEMORY" indicator is flashing (approx. 5 sec.), turn the **GYRO CONTROL ring** to set the preset number to "00".

4. Press the **MEMO** button again.
   The preset number and the "CLEAR" indicator will flash for approx. 2 seconds on the display and the memory will be deleted.
   Station names memorized for the preset station will also be deleted at the same time.

<GYRO RING operation method>

When the **GYRO ring** is turned to the right, the frequency or preset number will increase, and when turned to the left, they will decrease.

INPUT OF STATION NAMES ON THE MAIN UNIT

The display automatically shows the name of an RDS station when it is being received.
It is also possible to have the station name of a non-RDS station displayed by entering the station name manually.

HOW TO INPUT A STATION NAMES

1   **3**

5   **2, 4**
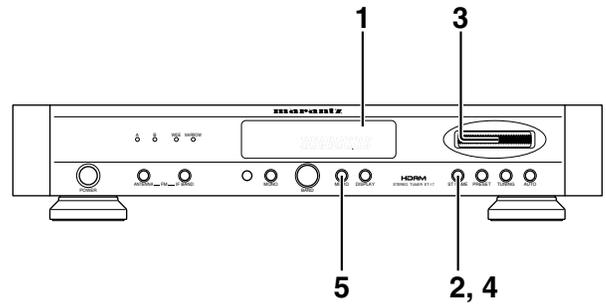
1. Select and display the preset channel you wish to register.

2. Press the **ST NAME** button.
   The display's frequency indicator will go out, "MEMORY" will flash and "_ _ _ _ _ _ _ _" will appear.

   ↑
   Blinking

* When a station other than a preset station is selected, and the CHAR. button is pressed, the frequency indicator will remain lit, the "PRESET" indicator will flash and the station name can not be registered.

3. Use the **GYRO CONTROL ring** to input the desired number or letter at the first flashing digit on the left side.
   When the **GYRO CONTROL ring** is turned to the right, input will change in the following order: A – Z→ _ → + → · · → 0 – 9 → A –.
   When turned to the left, input will change in the following order: 9 – 0 → · · → + → _ → Z – A → 9 –. ("_" indicates a space.)

4. Press the **ST NAME** button when the first digit on the left has been input.
   Flashing will move to the second digit. Input the desired number or letter using the same procedure as in step 3, and press the CHAR. button.
   Repeat this procedure to input up to 8 characters.
   (The flashing position will move each time the **ST NAME** button is pressed.)

5. When the desired station name has been input, press the **MEMO** button.
   Flashing will stop and registration will be finished.

* Although station names of up to 8 characters can be input, even if a station name that is under 8 characters is input, pressing the MEM0 button will finish registration at that point.
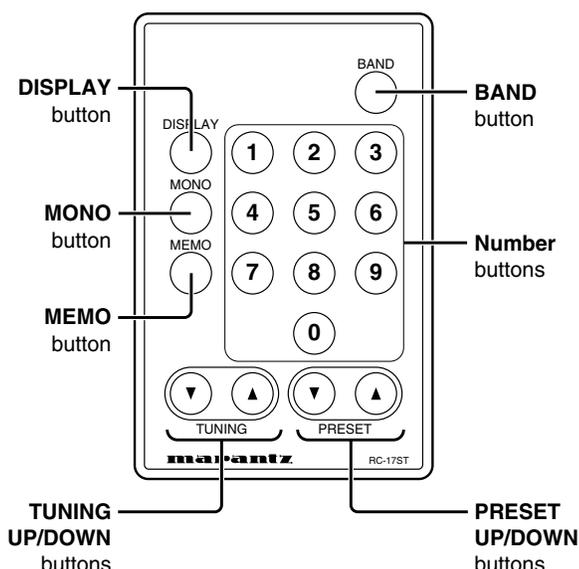
CHANGING STATION NAME

To change registered station names, carry out steps 2 to 5 of the registration procedure. The old station name will be replaced with the new one.

TO ERASE STATION NAMES

1. Display the station name to be erased.

2. Input spaces (_) at all 8 digits.

3. Press the **MEMO** button. The station name will be erased, and the frequency display will be returned to.

BUTONNS AND OPERATION OF THE REMOTE CONTROL UNIT

DISPLAY button

MONO button

MEMO button

BAND button

Number buttons

TUNING UP/DOWN buttons

PRESET UP/DOWN buttons

TUNING UP (▲) / DOWN (▼) BUTTON

Every time the UP or DOWN side of the TUNING button is pressed, the receiving frequency varies in the upward or downward direction, in the steps of 50 kHz in FM band or 9 kHz in AM band.

When the button is held depressed for more than 0.5 seconds, the receiving frequency varies continuously in the above-mentioned steps until a station is received. Press or hold the button until the desired frequency is displayed on the digital frequency indicator.

PRESET UP (▲) / DOWN (▼) BUTTON

Every time the UP or DOWN side of the PRESET button is pressed, the preset number will advanced one step in the upward or downward direction. The unused preset numbers without memory contents are skipped.

This button is also used as the CURSOR button in the station name input mode.

PRESET MEMORY ON THE REMOTE CONTROL UNIT

This unit is equipped with the one-touch preset tuning system which is particularly convenient when there is a large number of receivable stations. The preset tuning system allows up to 60 stations on FM and AM to be preset in a random order.

HOW TO PRESET A FREQUENCY IN THE MEMORY

1. Press the BAND button to select the desired band (FM/AM).
2. Press the TUNING UP/DOWN button to select the frequency of desired station.
3. When th desired station is received, press the MEMO button.
4. The MEMORY indicator blinks for about 5 seconds. Press the PRESET button within this time.
5. **Example:** To preset under preset no.15

Press   Press   Press within 1.5 sec.

Example: To preset under preset no. 3.

Press   Press   Leave for 1.5 sec.
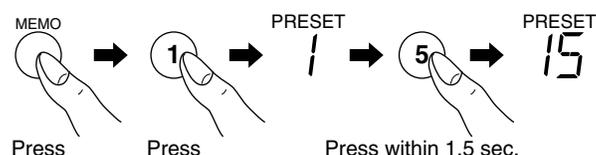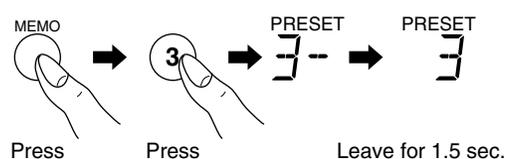
● Preset tuning by recalling a preset station
Select the preset no. of the desired station in the same manner as when presetting a station in the memory.

DELETING THE CONTENTS OF THE PRESET MEMORY

1. Select the preset station you wish to delete.
2. Press the MEMO button.
The "MEMORY" indicator will flash on the display.
3. While the "MEMORY" indicator is flashing (approx. 5 sec.), turn the GYRO CONTROL ring to set the present number to "00".
4. Press the MEMO button again.
The preset number and "CLEAR" indicator will flash for approx. 2 seconds on the display and the memory will be deleted.
Station names memorized for the preset station will also be deleted at the same time.

MANUAL INPUT OF STATION NAMES
ON THE REMOTE CONTROL UNIT

1. Receive a preset channnel with preset tuning or using the **PRESET UP** or **DOWN** button.
2. Press the **ST NAME** button of the main unit. The frequency display disappears and changes to "_ _ _ _ _ _ _ _", where the rightmost cursor is blinking.

Blinking

* When this button is presed while a non-preset station is received, the frequency display remains the same, "PRESET" and " 00 " blink, and the station name cannot be input.

3. In the leftmost column with the blinking cursor, input an alphanumeric character using the numeric buttons.
   Each press of each numeric button changes the displayed character as shown below.

Button 1	– – –	A → B → C → 1 → A → •••
Button 2	– – –	D → E → F → 2 → D → •••
Button 3	– – –	G → H → I → 3 → G → •••
Button 4	– – –	J → K → L → 4 → J → •••
Button 5	– – –	M → N → O → 5 → N → •••
Button 6	– – –	P → Q → R → 6 → P → •••
Button 7	– – –	S → T → U → 7 → S → •••
Button 8	– – –	V → W → X → 9 → V → •••
Button 9	– – –	Y → Z → (_)→ + → Y → •••
Button 0	– – –	+ → – → C → 1 → ••• → •••

4. After setting the leftmost column, press the **PRESET UP** button.
   The blinking column moves to the right.
   In the same way as 3 above, input the desired alphanumeric character and press the **PRESET UP** button again.
   Input other characters up to the rightmost colu,m by repeating the above. (The blinking column can be moved to the left by pressing the **PRESET DOWN** button.)

5. After the desired station name has been input, press the **MEMO** button.
   The blinking of the rightmost cursor stops and the input operation is completed.

* The station name can be input with up to 5 characters, but it can be ended with less the 5 characters by pressing the button at any desired time.

* To correct a station name which has been entered previously, repeat steps from 2 to 5. The previous station name can be replaced with the new name.

* To clear a station name which has been entered previously, input space (_) in all of the 5 columns.

Use of the remote control unit

1. Remove control unit

Use the remote control unit at a distance of less than about 5 meters from the main unit.
To ensure remote control operation, do not point the remote control unit to other direction that the IR sensor of the main unit and remove obstacles between the remote control unit and IR sensor. Operation may also become impossible when strong light is incident to the IR sensor.

2. Operation range of the remote control unit

Tuner (ST-17)

Approx. 5m

60°

Remote control unit (RC-17ST)
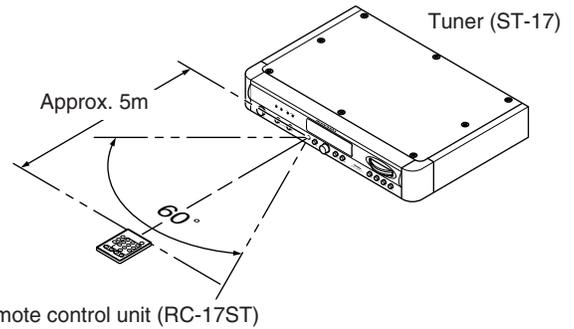
3. Loading battery

① Turn the remote control unit upside down and side open the battery case in the direction of ➡ using a sharp such as the tip of a ball-point pen.
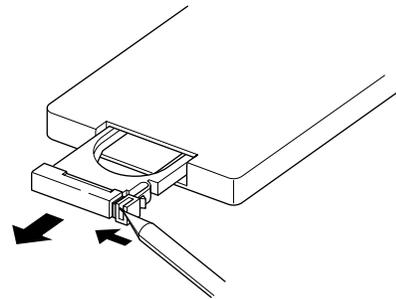
② Load the battery case with the provided battery, insert the battery correctly according to the "+" indication on the battery case then slide the battery case into the remote control unit it clicks.

Battery (CR2025)
Insert the battery with the positive (+)side facing up.

Battery case
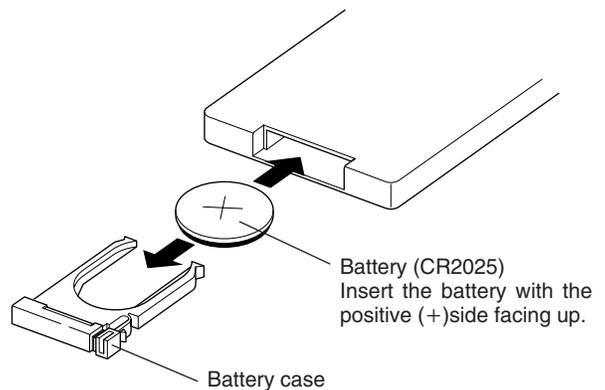
The battery life is about 1 year under normal use.
The life is depended on the operating condition. Take the battery out of the unit when it is not to be used for a long period of time.

Keep the battery out of reach of children.
If it is swallowed, immediately call the doctor.

Caution on battery

Improper use of battery may lead to fluid leakage or battery explosopn. Use special care in the following points when handling a battery.

● Insert the battery with correct position and negative polarity as indicated on the equipment.

● A used battery should be disposed of in the battery disposal box installed in your dealer.

Additional description on remote control bus terminal

If it is required to connect this unit to other MARANTZ equipment equipped with REMOTE CONTROL terminals and control both pieces of equipment as a system, change the remote control signal which can operate this unit to the signal from the REMOTE CONTROL input terminal by performing the following procedure before connecting this unit with other equipment.
Without this procedure, the system control of this unit is impossible even when it is connected through the REMOTE CONTROL terminal.

The following procedure is not required if the system connection through the REMOTE CONTROL terminal is not used.

1. Set the **POWER** switch to the off position and, while holding the **BAND** and **DISPLAY** buttons simultaneously, press the **POWER** switch to ON.

2. " RC EXT " blinks for 2 seconds on the display, indicating that the remote control of this unit will thereafter be based on the external signal input through the REMOTE CONTROL terminal. In this case, the IR sensor of the main unit will no longer accept the signals from the remote control unit. The remote control unit should be pointed to the IR sensor of the equipment connected to this unit.

   * To return to the initial condition, perform the same operation as step 1 above. " RC INT " blinks for 2 seconds on the display and the remote control condition returns to the initial condition.

SYSTEM REMOTE CONTROL UNIT

When the ST-17 is connected with the PM-17 through a system control cord, the ST-17 can be controlled as a part of system using the RC-17PM system remote control unit provided with the PM-17.

CONTROLS OF THE SYSTEM REMOTE CONTROL UNIT (RC-17PM)
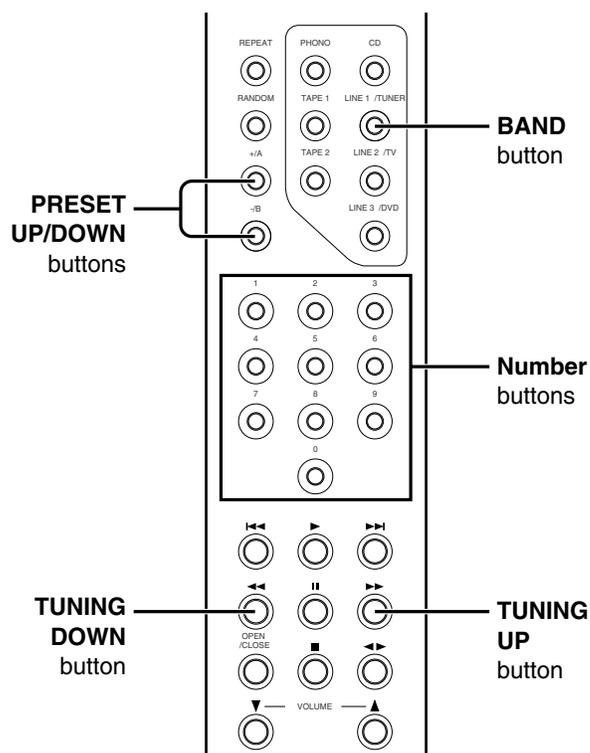
Press the **LINE 1/TUNER** button to switch the input selector of the PM-17.

BAND BUTTON (LINE 1/TUNER)

Use this button to select FM or AM wave bands.

NUMERIC BUTTONS (0 to 9)

Use these buttons to preset receiving frequencies in the memory or to recall the preset frequencies from the memory (Preset tuning).
Up tp 30 stations in the FM and AM bands can be preset in the memory in a random order.
For operation of the preset memory, refer to "PERSET TUNING".
The PRESET number indicator lights up when a preset button is pressed.
These buttons are also used as the character entry buttons in the station-name input mode.

* The buttons used in the station name operation are identical to the RC-17ST (see page 7).

TUNING UP(▶▶)/DOWN(◀◀) BUTTON

Every time the **UP** or **DOWN** side of the **TUNING** button is pressed, the receiving frequency varies in the upward or downward direction, in the step of 50 kHz in FM band or 9 kHz in AM band.
When the button is held depressed for more than 0.5 seconds, the receiving frequency varies continuously in the above-mentioned steps until a station is received. Press or hold the button until the desired frequency is displayed on the digital frequency indicator.

PRESET UP(+/A)/DOWN(−/B) BUTTON

Every time the **UP** or **DOWN** side of the **PRESET** button is pressed, the preset number will advance one step in the upward or downward direction. The unused preset numbers without memory contents are skipped.
This button is also as the **CURSOR** button in the station name input mode.

CARE AND MAINTENANCE

This section describes the care and maintenance tasks that must be performed to optimize the operation of your Marantz equipment.

CLEANING OF EQUIPMENT EXTERNAL SURFACES

The exterior finish of your ST-17 will last indefiniely with proper care and cleaning. Never use scouring pads, steel wool, scouring powders or harsh chemical agents (e.g., lye solution), alchol, thinners, benzine, insecticide or other volatile substances as these will mar the finish of the equipment.

Likewise, never use cloths containing chemical substances. If the equipment gets dirty. wipe the external surfaces with a soft, lint- free cloth.

If the equipment becomes heavily soiled:

— dilute some washing up liquid in water, in a ratio. of one part detergent to six parts water

— dip a soft, lint free in the solution and wring the cloth out until it is damp.

— wipe the equipment with the damp cloth.

— dry the equipment by wiping it with a dry cloth.

REPAIRS

Only the most competent and qualified service technicians should be allowed to service the equipment. The Marantz company and its factory-trained warranty station personal have the knouwledge and special facilities needed for repair and calibration of this precision equipment. After the warranty period has expired, repairs will be performed for a charge if the equipment can be returned to normal operation.

In the event of difficulty, refer to your dealer or write directly to the nearest location to you that is listed on the Marantz Authorised Service Station list. If writing, please include the mode and serial number of the equipment together with a full description of what you think is abnormal about the equipment's behaviour.

TROUBLESHOOTING

Should faults occur, it is in many cases not necessary not necessary to consult your dealer or technical service department. On the basis of the following checks you will be able to rectify a number of faults yourself without difficulty.

If the fault cannot be remedied after the following checks, please consult your dealer or nearest Marantz service agent.

The tuner does not work and the indicators do not light up.

1. Check that the mains lead is plugged in prpperly to the power outlet.

The indicators light up but the broadcast cannot heard.

1. Check that the switches and volume control of the connected amplifier are set properly.

2. Check the leads between the tuner and amplifier.

The FM broadcast sound is disturbrd.

1. Change the antenna sirection.

2. If an external antenna is used, change the sirection of that antenna.

3. If the signal strength in your area is week, examine the condition of the antenna.

AM broadcast reception is poor.

1. Change the direction of the AM loop antenna.

2. Change the orientation of the tunner.

3. Check whether noise is produced by other audio/video components, electrical appliances or fluorescent lamps in your room.

4. Try using an external antenna.

Stations can be received by manual tuning, but not by auto tuning.

1. Change the direction of the AM loop antenna or external antenna.

2. To improve the FM reception, try using a multi-element antenna.

3. To improve the AM reception, try using an external antenna.

TECHNICAL SPECIFICATIONS

FM Tuner section

Mono usable sensitivity ·· 1.0 μV
Sensitivity fo 50dB quieting
    Mono ·· 1.3 μV
    Stereo ··· 25 μV
Sensitivity ··· 65 dB
Signal to noise ratio
    Mono ·· 80 dB
    Stereo ··· 73 dB
Total harmonic distortion (1 kHz)
    Mono ·· 0.05 %
    Stereo ··· 0.08 %
Stereo separation ·· 55 dB
Accuracy of frequency response
    across 30 Hz to 15 kHz bandwidth ··· +0.5/−1.0 dB
    Output level at 1 kHz 75 kHz deviation ··· 940 mV
    HIGH LEVEL ·· 110 dB

AM Tuner section

Usable sensitivity ·· 350 μV
Sensitivity ··· 35 dB
Signal to noise ratio ··· 52 dB
Total harmonic distortion·· 0.2 %

General

Power requirements supply ··· 120 V AC, 60 Hz

Power consumption ··· 8.5 W
Dimensions (MAX)
    Width ··· 458 mm
    Height ·· 86 mm
    Depth ··· 315 mm
Weight ··· 6.8 kg

Design and specifications are subject to change without notice.

FM EXTERNAL ANTENNA

FM EXTERNAL ANTENNA

AM EXTERNAL ANTENNA

CABLE OUTLET

FM FEEDER ANTENNA

AM LOOP ANTENNA

DX   LOCAL

FM ATT.

75Ω

75Ω

GND   AM

FM ANTENNA A

FM ANTENNA B

AM ANTENNA

GROUND
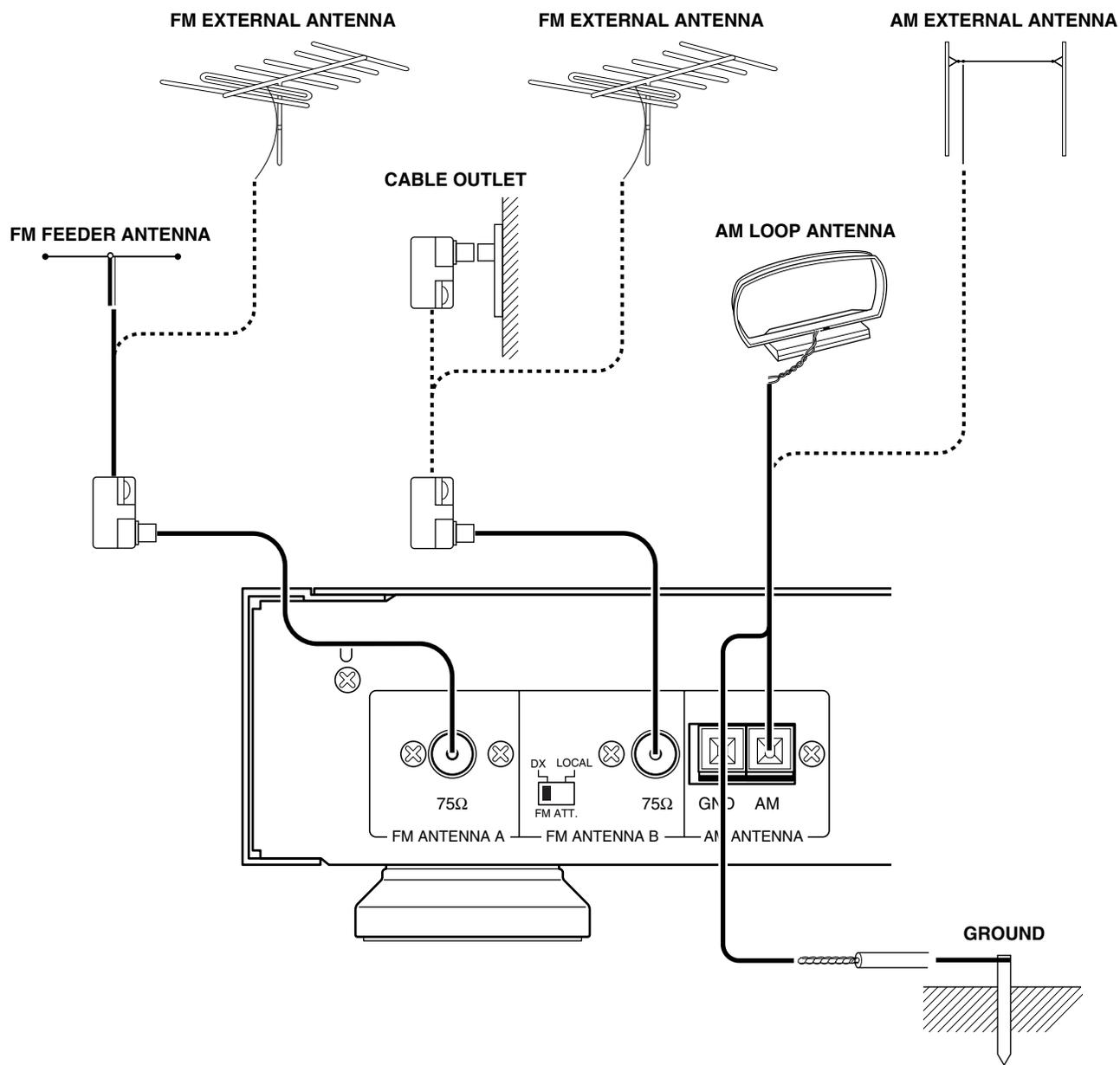
Assemble the AM loop antenna as shown in the figure before use.

Figure 3

20
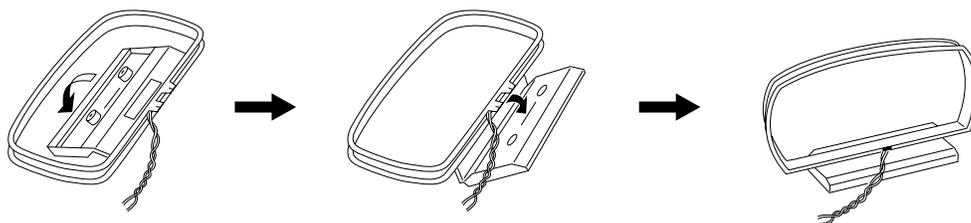
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