

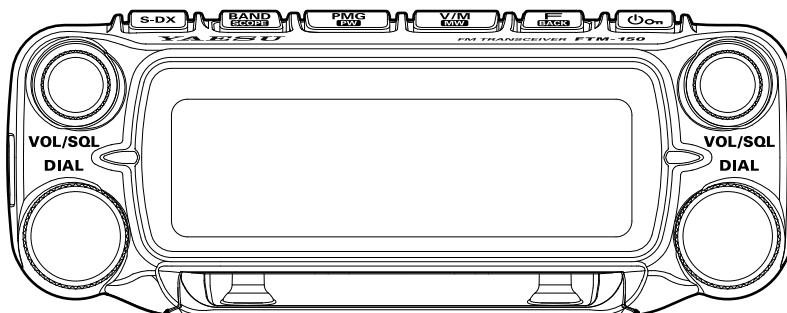
YAESU
Radio for Professionals

144/430MHz
DUAL BAND FM TRANSCEIVER

FTM-150R

FTM-150E

Operating Manual  **Bluetooth®**



Contents

Introduction.....	1	Convenience Features	23
About this manual	1	Bluetooth® Operation	23
Basic Operation	2	(Requires optional BU-5).....	23
Turning the Transceiver ON	2	Changing the Frequency Step.....	26
Adjusting the volume	2	Changing the Transmit Power Level	26
Adjusting the squelch level.....	2	Tone squelch feature.....	27
Selecting a Frequency Band	3	Digital Code squelch (DCS) feature.....	27
Tuning to a Frequency	3	PAGER (EPCS) feature.....	27
Transmitting.....	4		
Locking the Keys and DIAL knob	4		
Supplied Accessories and Options	5	Using Menu List.....	28
Supplied Accessories.....	5	Menu List Operation.....	28
Available Options.....	5	Tables of Menu list Operations	29
Name and function of each component	6	Restoring to Defaults (Reset)	33
Panel (front).....	6	All Reset	33
Panel (Left and right side)	6	Memory Channel Reset	33
Panel (Rear side).....	6	Specifications	34
Control Head (top).....	7		
Main body (Front and Rear)	8	YAESU LIMITED WARRANTY	36
Microphone (SSM-85D)	9		
Safety Precautions (Be Sure to Read).....	10		
Installing the Radio	12		
About the antenna	12		
Connection of Antenna and Power Cables	12		
Installing the Transceiver/Microphone	13		
Install the main body using the supplied bracket	13		
Useful Functions	14		
Function List	14		
Repeater Operation	15		
Communicating Via the Repeater	15		
Using the Memory	16		
Writing to memory	16		
Recall memory	17		
Clearing Memories	17		
Recall only memories in the same frequency band (Band) using the memory auto grouping (MAG) function.....	18		
PMG (Primary Memory Group)	19		
Recalling the Home Channel	20		
Changing the Home Channel Frequency....	20		
Scanning Function	21		
VFO Scan / Memory Scan	21		
Programmable Memory scan (PMS).....	21		
Setting the Receive Operation			
When Scanning Stops.....	22		
Band Scope	22		

Introduction

Features of the Yaesu FTM-150R/FTM-150E Transceiver.

- The PMG (Primary Memory Group) function allows recalling a group of registered frequencies regardless of frequency band.
- Memory Channel Band Auto Grouping (MAG). The memory channels are automatically categorized in each band, so that memory channels can be easily and quickly recalled.
- When the optional BU-5 Bluetooth® Unit is installed, supports hands-free communication using the optional Bluetooth® headset SSM-BT20 or a commercially available product.
- 3W Audio Power Speaker
- Heavy Duty-Heat Sink with FACC (Funnel Air-Convection Conductor)

Thank you for purchasing the FTM-150R/FTM-150E Transceiver. We urge you to read this manual in its entirety, and also the Advance Manual (available for download on the Yaesu website), to gain a full understanding of the amazing capability of the exciting new FTM-150R/FTM-150E Transceiver.

About this manual

The following notation is also used in this manual.

-  This icon indicates cautions and information that should be read.
-  This icon indicates notes, tips and information that should be read.

PLEASE NOTE: Due to product improvements, some of the illustrations in the instruction manual may differ from the actual product.

Basic Operation

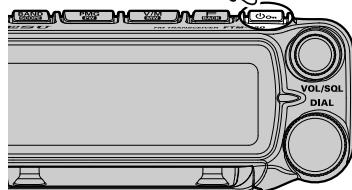
Turning the Transceiver ON

1. Press and hold the Power (Lock) switch to turn the transceiver **ON**.

● Turning the transceiver OFF

Press and hold the Power (Lock) switch again to turn the transceiver OFF.

Press and hold 

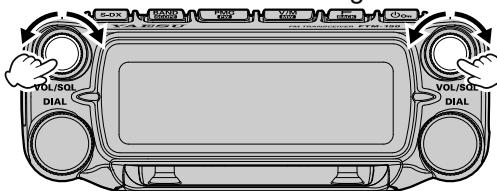


Adjusting the volume

1. Rotate the **VOL/SQL** knob to adjust the volume to a comfortable level.

Adjust the volume for
Left Band

Adjust the volume for
Right Band



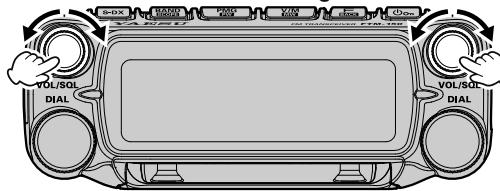
Adjusting the squelch level

Annoying noises can be muted when a signal cannot be detected. Normally, use the factory settings, but adjust the squelch if noise is harsh.

1. Press the **VOL/SQL** knob, and then rotate the **VOL/SQL** knob to adjust to a level at which the background noise is muted.
2. After the adjustment, press the **VOL/SQL** knob again, or do nothing for about 3 seconds, the SQL meter will return to the normal screen.

Adjust the squelch level for
Left Band

Adjust the squelch level for
Right Band

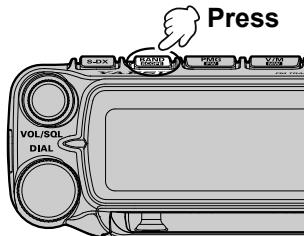


When the squelch level is increased, the noise is more likely to be silenced, but it may become more difficult to receive weak signals.

Selecting a Frequency Band

Press the [BAND SCOPE] key to select the desired frequency band.

AIR Band	108MHz - 137MHz
144MHz Band	137MHz - 174MHz
VHF Band	174MHz - 400MHz
430MHz Band	400MHz - 550MHz



Unwanted frequency bands can be set in the menu list so they are not displayed.

i Press and hold the [F BACK] key → Rotate the right **DIAL** knob to select [20 BAND SKIP] → Press the right **DIAL** knob → Rotate the right **DIAL** knob to select a band → Press the right **DIAL** knob → Rotate the right **DIAL** knob to select ON or OFF.

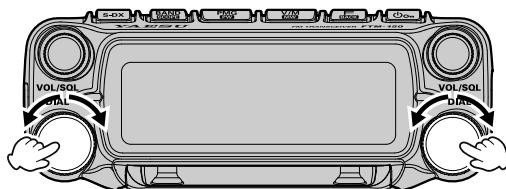
Tuning to a Frequency

● DIAL knob

Rotating the **DIAL** knob changes the frequency in the optimal frequency step for the current frequency band.

Change frequency in 1MHz steps

Press and hold the **DIAL** knob, and then rotate the **DIAL** knob.



● The numeric keys on microphone

Press the numeric keys "0" to "9" to enter the frequency.

Example: To input 145.520MHz

[1] → [4] → [5] → [5] → [2]

Example: To input 430.000MHz

[4] → [3] → [Press and hold any numeric key]



While entering a frequency using the numeric keys, the entry may be canceled by pressing the **PTT** switch.

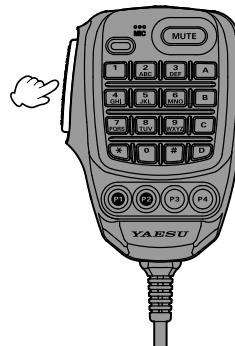


Transmitting

1. While pressing and holding the **PTT** switch, speak into the microphone.
2. Release the **PTT** switch to return to receive mode.

- If the **PTT** switch is pressed when a frequency other than an amateur ham radio band is selected, an alarm tone (beep) will be emitted and “TX PROHIBIT” appears on the display, disabling transmission.

- If transmission is continued for a long period, the transceiver overheats, and the high temperature protection function is activated. As a result, the transmitting power level is automatically set to Low Power. If transmission continues while the high temperature protection function is active, the transceiver will be forcibly returned to the receive mode.

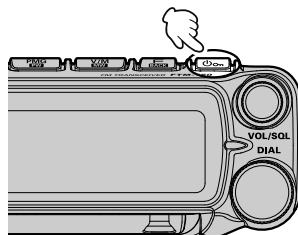


Locking the Keys and DIAL knob

1. Press the Power (Lock) switch, “LOCK” is shown on the display for one second, and then the keys and **DIAL** knob are locked.



The **PTT** switch and the **VOL/SQL** knob cannot be locked.



2. Press the POWER (Lock) switch again, “UNLOCK” is shown on the display and the keys and the **DIAL** knob are unlocked.

Supplied Accessories and Options

Supplied Accessories

- DTMF microphone SSM-85D
- DC power cable (with fuse attached)
- Bracket for main body
- Spare fuse (15A)
- Operating Manual (This Manual)



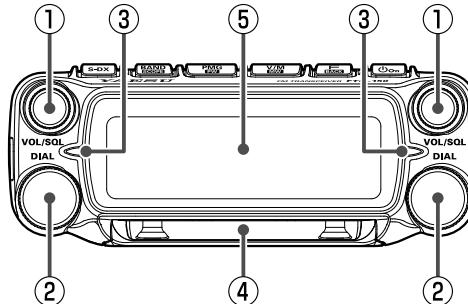
If any item is missing, contact the dealer from which you purchased the transceiver.

Available Options

• DTMF Microphone	SSM-85D
• Microphone	MH-42C6J
• Bluetooth® Headset	SSM-BT20
• Bluetooth® Unit	BU-5
• High-Power External Speaker	MLS-100

Name and function of each component

Panel (front)



① VOL/SQL knob

Rotate the **VOL/SQL** knob to adjust the audio volume level.

VOL/SQL knob (Left): Left-Band

VOL/SQL knob (Right): Right-Band

Press the **VOL/SQL** knob, then rotate the **VOL/SQL** knob to adjust the squelch level. The squelch level may be adjusted to mute the background noise when no signal is present.

② DIAL knob

Change the frequency or select the memory channel.

- In VFO mode, the frequency may be changed in 1MHz increments after pressing and holding the knob.
- In Memory Mode, press and hold then turn the knob to select in 10 channel steps.

③ TX/BUSY indicator

This indicator glows green when the squelch opens, and turns red during transmit.

④ Speaker

The 3W high output front speaker at the bottom of the control-head, ensures clear and powerful audio.

Panel (Left and right side)

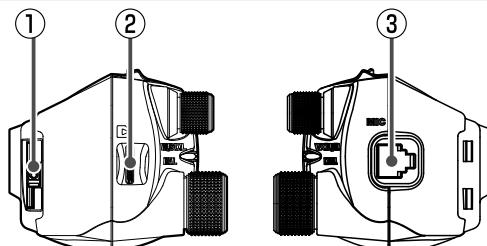
① **Release** knob

Press to release the control panel from the transceiver.

② micro-SD card slot

Insert a commercially available micro SD card to backup the various radio settings, memory channels, recordings of received audio, and recordings of snapshot images, etc.

③ MIC jack



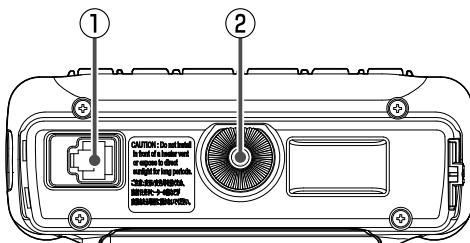
Panel (Rear side)

① CONTROL jack

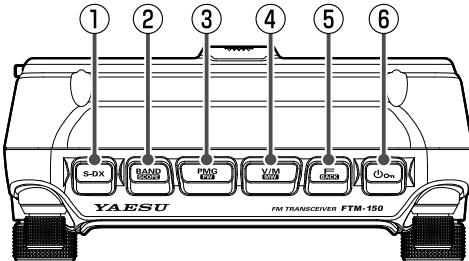
Plug in the control cable into this jack to connect with the main body.

② Screw hole for bracket

Screw hole for bracket



Control Head (top)



① [S-DX] key

Enable the Super DX function to increase sensitivity.

② [BAND SCOPE] key

VFO mode

• Press:

Each key press switches the operating frequency band.

Band	Selectable Frequency Range
AIR	108MHz - 137MHz
144MHz	137MHz - 174MHz
VHF	174MHz - 400MHz
430MHz	400MHz - 550MHz

• Press and hold:

Press and hold the [BAND SCOPE] key to display the band scope screen. When the desired channel is set to the center with the left DIAL knob, the received audio is played.

Memory mode

Each time the [BAND SCOPE] key is pressed, only memory channels of the same frequency band are automatically recalled as a group as shown below.

M-ALL (All memory channels)

M-AIR (AIR band memory channels)

M-VHF (144MHz band memory channel)

M-UHF (430MHz band memory channel)

OTHER (VHF and UHF band memory channels)

M-MGP (Memory channels registered in advance regardless of the frequency band)

Bands that have not been stored are not displayed.

③ [PMG PW] key

Press briefly

Each press each time switches between PMG (Primary Memory Group) mode and memory or VFO mode.

Press and hold

Press and hold for over one second to write to PMG memory.

④ [V/M mw] key

Press briefly

Pressing each time switches between VFO mode and memory mode.

Press and hold

Press and hold for over one second to write to memory.

⑤ [F BACK] key

Press briefly

Press the [F BACK] key to display the function list screen. Rotate the right DIAL knob to select an item and perform the functions and make settings.

Press and hold

Press and hold the [F BACK] key to enter the menu list. The Menu list permits configuring the various functions according to individual operating needs and preferences.

⑥ POWER (On) Switch

Press and hold this button to switch the power ON or OFF.

When the power is ON, press this button briefly to engage, or release the key lock.

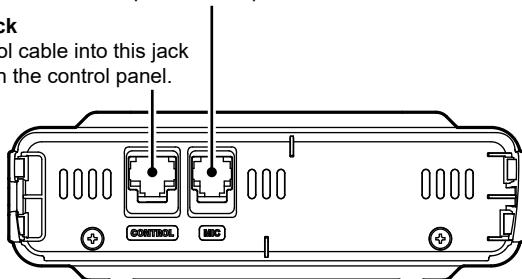
Main body (Front and Rear)

MIC jack

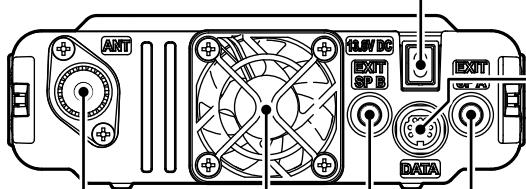
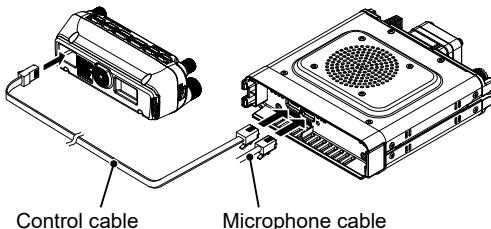
Connect the cable of the included DTMF microphone SSM-85D or the optional microphone MH-42C6J.

CONTROL jack

Plug the control cable into this jack to connect with the control panel.



Connecting the front panel to the main body



Connect the co-axial cable for the antenna.

Cooling fan

This 2-conductor, 3.5-mm mini phone jack provides audio output for an optional speaker.

The optimum load impedance is 8 Ohms.

Connect the provided DC power supply cable (with fuse attached).

When using the clone function, connect it to another FTM-150R/FTM-150E with the optional clone cable "CT-166".

Microphone (SSM-85D)

① MIC

Speak into the microphone during transmission.

② TX LED

Lights red while pressing PTT switch.

③ PTT

Press and hold the PTT switch to transmit, and release it to receive.

④ DWN

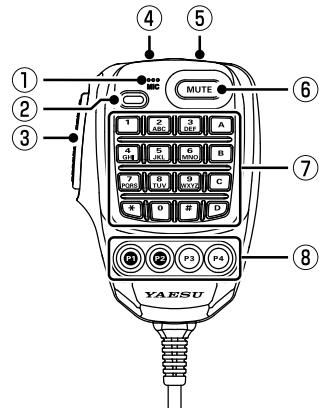
Press this button to move the frequency or memory channel lower by one step, press and hold it to start scanning.

⑤ UP

Press this button to move the frequency or memory channel up by one step, press and hold it to start scanning.

⑥ MUTE

Press this button to mute the receive audio. Press it again to unmute the audio.



⑦ DTMF keypad

Press these keys during transmit to enter and send a DTMF sequence. The following operations can be performed during receive.

0 - 9 : Enter the frequency or memory channel number.

A : Switches the operation to Left band.

B : Switches the operation to Right band.

C : Adjust the squelch level.

D : The band scope function operates.

* : Each press switches between VFO mode and memory mode.

: This key has the same function as the [BAND SCOPE] key on the controller.

VFO mode:

Each press changes the operating frequency band:

→ AIR (108MHz to 137MHz) → 144MHz (137MHz to 174MHz) → VHF (174MHz to 400MHz) →
→ 430MHz (400MHz to 550MHz) → AIR

Memory mode:

Each time the key is pressed only memory channels of the same frequency band are automatically recalled as a group, as shown below:

→ M-ALL → M-AIR (108MHz to 137MHz) → M-VHF (137MHz to 174MHz) → M-UHF (400MHz to 550MHz) → OTHER (174MHz to 400MHz) → M-MGP (Memory channels registered in advance regardless of the frequency band) → ALL

*Bands that have not been stored are not displayed.

⑧ Program keys (P1 / P2 / P3 / P4)

The default function settings of the [P1] / [P2] / [P3] / [P4] keys are shown in the table below.

Key	Function	Description
P1	2nd PTT	Transmit on the SUB Band frequency
P2	HOME	Recalls HOME channel
P3	TX POWER	Selects the transmit power output level
P4	WX (T-CALL)	WX (USA Version): Switches operation to the Weather Channel Bank T-CALL (European Version): Transmits the T-CALL (1750Hz)

The functions of the [P1] - [P4] keys can be assigned by the following operations:

1. Press and hold the [F BACK] key.
2. Rotate the right DIAL knob to select [25 MIC PROGRAM KEY], then press the right DIAL knob.
3. Rotate the right DIAL knob to select a key to assign a function [P1] - [P4] then press the right DIAL knob.
4. Rotate the right DIAL knob to select a function (see the table below) then press the right DIAL knob.

Function	Description
2nd PTT	Transmit on the SUB Band frequency
SCAN	Starts or stops the scanning function
HOME CH	Recalls the HOME channel
RPT SHIFT	Sets the repeater shift direction
REVERSE	Reverses the transmit and receive frequencies in repeater mode or split memory
TX POWER	Selects the transmit power output level

Function	Description
SQL OFF	Opens the squelch (SQL OFF)
T-CALL	Transmits the T-CALL (1750 Hz)
DW	Starts or stops the Dual Watch function
WX	Switches operation to the Weather Channel Bank
OFF	Disable the P key

Safety Precautions (Be Sure to Read)

Be sure to read these important precautions, and use this product safely.

Yaesu is not liable for any failures or problems caused by the use or misuse of this product by the purchaser or any third party. Also, Yaesu is not liable for damages caused through the use of this product by the purchaser or any third party, except in cases where ordered to pay damages under the laws.

Types and meanings of the marks



DANGER

This mark indicates an imminently hazardous situation, which, if not avoided, could result in death or serious injury.



WARNING

This mark indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury.



CAUTION

This mark indicates a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury or only property damage.

Types and meanings of symbols



These symbols signify prohibited actions, which must not be done to use this product safely. For example: indicates that the product should not be disassembled.



These symbols signify required actions, which must be done to use this product safely. For example, indicates that the power plug should be disconnected.

⚠ DANGER

Do not use the device in "regions or aircrafts and vehicles where its use is prohibited" such as in hospitals and airplanes.

This may exert an impact on electronic and medical devices.

Do not use this product while driving or riding a motorbike. This may result in accidents.

Make sure to stop the car in a safe location first before use if the device is going to be used by the driver.

Do not operate the device when flammable gas is generated.

Doing so may result in fire and explosion.

Never touch the antenna during transmission.

This may result in injury, electric shock and equipment failure.

Do not transmit in crowded places in consideration of people who are fitted with medical devices such as heart pacemakers.

Electromagnetic waves from the device may affect the medical device, resulting in accidents caused by malfunctions.

When an alarm goes off with the external antenna connected, cut off the power supply to this radio immediately and disconnect the external antenna from this radio.

If not, this may result in fire, electric shock and equipment failure.

Do not touch any liquid leaking from the liquid display with your bare hands.

There is a risk of chemical burns occurring when the liquid comes into contact with the skin or gets into the eyes. In this case, seek medical treatment immediately.

⚠ WARNING

Do not use voltages other than the specified power supply voltage.

Doing so may result in fire and electric shock.

Do not transmit continuously for long periods of time.

This may cause the temperature of the main body to rise and result in burns and failures due to overheating.

Do not dismantle or modify the device.

This may result in injury, electric shock and equipment failure.

Do not handle the power plug and connector etc. with wet hands. Also do not plug and unplug the power plug with wet hands.

This may result in injury, liquid leak, electric shock and equipment failure.

When smoke or strange odors are emitted from the radio, turn off the power and disconnect the power cord from the socket.

This may result in fire, liquid leak, overheating, damage, ignition and equipment failure. Please contact our company amateur customer support or the retail store where you purchased the device.

Keep the power plug pins and the surrounding areas clean at all times.

This may result in fire, liquid leak, overheating, breakage, ignition etc.

Disconnect the power cord and connection cables before incorporating items sold separately and replacing the fuse.

This may result in fire, electric shock and equipment failure.

 **Never cut off the fuse holder of the DC power cord.**
This may cause short-circuiting and result in ignition and fire.

 **Do not use fuses other than those specified.**
Doing so may result in fire and equipment failure.

 **Do not allow metallic objects such as wires and water to get inside the product.**
This may result in fire, electric shock and equipment failure.

 **Do not place the device in areas that may get wet easily (e.g. near a humidifier).**
This may result in fire, electric shock and equipment failure.

 **When connecting a DC power cord, pay due care not to mix up the positive and negative polarities.**
This may result in fire, electric shock and equipment failure.

 **Do not use DC power cords other than the one enclosed or specified.**
This may result in fire, electric shock and equipment failure.

 **Do not bend, twist, pull, heat and modify the power cord and connection cables in an unreasonable manner.**
This may cut or damage the cables and result in fire, electric shock and equipment failure.

 **Do not pull the cable when plugging and unplugging the power cord and connection cables.**
Please hold the plug or connector when unplugging. If not, this may result in fire, electric shock and equipment failure.

 **Refrain from using headphones and earphones at a loud volume.**
Continuous exposure to loud volumes may result in hearing impairment.

 **Do not use the device when the power cord and connection cables are damaged, and when the DC power connector cannot be plugged in tightly.**

Please contact our company amateur customer support or the retail store where you purchased the device as this may result in fire, electric shock and equipment failure.

 **Follow the instructions given when installing items sold separately and replacing the fuse.**
This may result in fire, electric shock and equipment failure.

 **Do not use the device when the alarm goes off.**
For safety reasons, please pull the power plug of the DC power equipment connected to the product out of the AC socket.

Never touch the antenna as well. This may result in fire, electric shock and equipment failure due to thunder.

CAUTION

 **Do not place this device near a heating instrument or in a location exposed to direct sunlight.**
This may result in deformation and discoloration.

 **Do not place this device in a location where there is a lot of dust and humidity.**
Doing so may result in fire and equipment failure.

 **Stay as far away from the antenna as possible during transmission.**
Long-term exposure to electromagnetic radiation may have a negative effect on the human body.

 **Do not wipe the case using thinner and benzene etc.**
Please use a soft and dry piece of cloth to wipe away the stains on the case.

 **Keep out of the reach of small children.**
If not, this may result in injuries to children.

 **Do not put heavy objects on top of the power cord and connection cables.**
This may damage the power cord and connection cables, resulting in fire and electric shock.

 **Do not transmit near the television and radio.**
This may result in electromagnetic interference.

 **Do not use optional products other than those specified by our company.**
If not, this may result in equipment failure.

 **When using the device in a hybrid car or fuel-saving car, make sure to check with the car manufacturer before using.**
The device may not be able to receive transmissions normally due to the influence of noises from the electrical devices (inverters etc.) fitted in the car.

 **For safety reasons, switch off the power and pull out the DC power cord connected to the DC power connector when the device is not going to be used for a long period of time.**
If not, this may result in fire and overheating.

 **Do not throw or subject the device to strong impact forces.**
This may result in equipment failure.

 **Do not put this device near magnetic cards and video tapes.**
The data in the cash card and video tape etc. may be erased.

 **Do not turn on the volume too high when using a headphone or earphone.**
This may result in hearing impairment.

 **Do not place the device on an unsteady or sloping surface, or in a location where there is a lot of vibration.**
The device may fall over or drop, resulting in fire, injury and equipment failure.

 **Do not stand on top of the product, and do not place heavy objects on top or insert objects inside it.**
If not, this may result in equipment failure.

 **Do not use a microphone other than those specified when connecting a microphone to the device.**
If not, this may result in equipment failure.

 **Do not touch the heat radiating parts.**
When used for a long period of time, the temperature of the heat radiating parts will get higher, resulting in burns when touched.

 **Do not open the case of the product except when replacing the fuse and when installing items sold separately.**
This may result in injury, electric shock and equipment failure.

Installing the Radio

About the antenna

The antenna is an extremely important part for both transmitting and receiving. The antenna type and its inherent characteristics determine whether the performance of the transceiver can be fully realized. As such, please note the following:

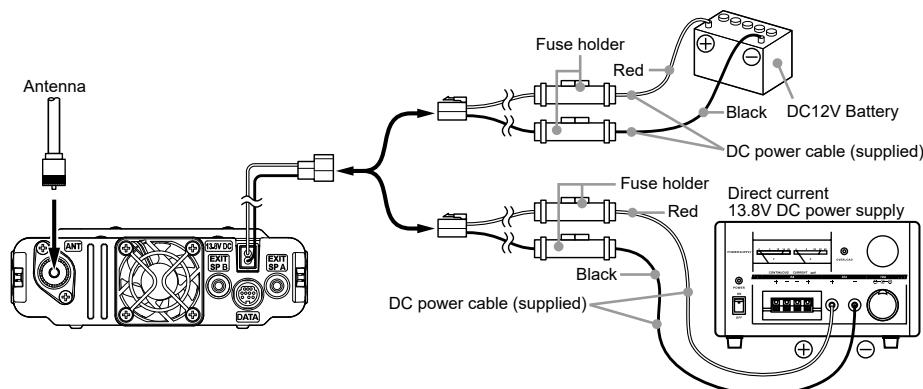
- Use an antenna that is suitable for the installation conditions and application objective.
- Use an antenna that is suitable for the operating frequency band.
- Use an antenna and a coaxial cable with a characteristic feed point impedance of 50Ω .
- Adjust the VSWR (Voltage Standing Wave Ratio) until it is 1.5 or less for an antenna with an adjusted impedance of 50Ω .
- Keep the coaxial cable routing length as short as possible.

Connection of Antenna and Power Cables

Please follow the outline in the illustration regarding the proper connection of antenna coaxial cables and Power Supply.

Cautions

- Do not use a DC power supply cable other than the one that is provided.
- Do not use the DC power supply cable with the fuse holder cut off.
- Use an external power source capable of supplying DC 13.8 V, a current capacity of 15 A or more.

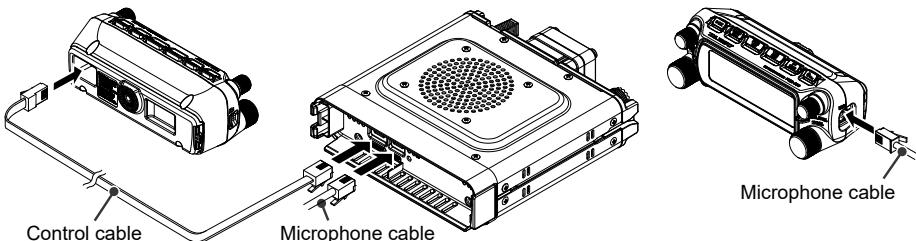


Installing the Transceiver/Microphone

The control head and main body are connected with a control cable.

When needed, use the optional Control Cable 20ft (6m) to connect the main body to the "CONTROL" terminal of the control head.

Connect the supplied microphone SSM-85D to the "MIC" terminal of the transceiver or control head.

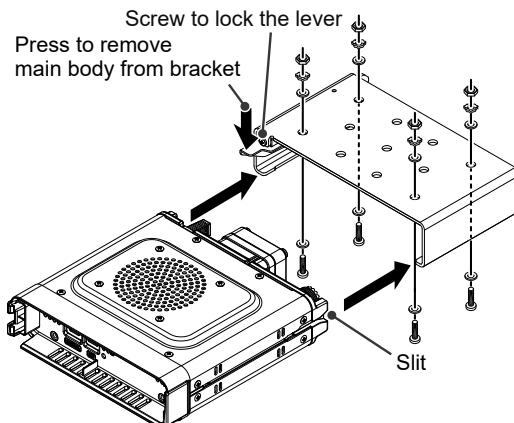


Install the main body using the supplied bracket

1. Select the installation location.

Caution : Select a location where the transceiver can be securely attached.

2. Drill four 6mm diameter holes in the location where the bracket is to be mounted, matching the positions of the bolting holes of the bracket.
3. Insert the grooves on both sides of the main body into the bracket until they click and lock. Tighten the screw against the lever to lock the transceiver in the bracket.
4. To remove the main body from the bracket, loosen the locking screw, and then pull the transceiver out while pressing the lever indicated by the arrow below.



Useful Functions

Function List

From 62 items of the Setup Menu, frequently used functions in the Function List can be registered and then recalled by simply pressing the [F BACK] key. The Function List screen displays the registered functions and current settings in an easy-to-read form, so you can immediately select and use the function. By default, 9 functions are registered in the Custom Function List. Up to 9 frequently used functions can be registered and customized in the Function List.

• Registration to function list

Press and hold the [F BACK] key to display the setup menu, select the item to be registered with the right **DIAL** knob, then press and hold the right **DIAL** knob.

Select the list position to register the setup item with the right **DIAL** knob, and then press the right **DIAL** knob to register it in the setup menu.

• Use the function list

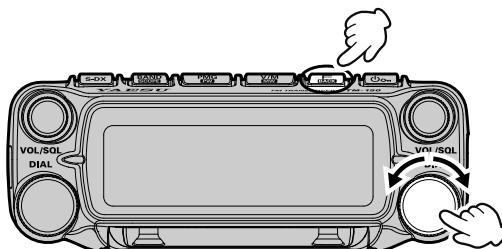
Press the [F BACK] key to display the function list screen, and select the function to be used with the right **DIAL** knob.

By pressing the right **DIAL** knob, you can execute functions or change settings.

• Cancel registration to function list

On the function list screen, select the function to cancel with the right **DIAL** knob.

Press and hold the right **DIAL** knob. Rotate the right **DIAL** knob to select “OK”, then press the right **DIAL** knob cancel the registration.



Communicating Via the Repeater

The transceiver includes an ARS (Automatic Repeater Shift) function which automatically sets the repeater operation when the receiver is tuned to the repeater frequency.

1. Set the receive frequency to the repeater frequency “- TN” or “+ TN” icon appears on top of the display.
2. Speak into the microphone while pressing and holding the **PTT** switch.

● Reverse function

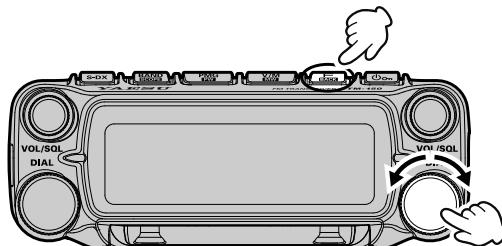
The “reverse” state temporarily reverses the transmit and receive frequencies. This allows checking to find if direct communication with the other station is possible.

1. Press and hold the **[F BACK]** key.
2. Rotate the right **DIAL** knob to select **[24 RPT REVERSE]**, then press the right **DIAL** knob.

In the factory default setting, **[24 RPT REVERSE]** is registered in the “Function List” that is displayed when the **[F BACK]** key is pressed.

- The transmit and receive frequencies are temporarily reversed (“reverse” state).
- In the “reverse” state, the “-” or “+” blinks on the display.

3. To release the reverse state, repeat the above steps again.



- The repeater settings may be changed from the Menu list.

Menu list [21 RPT ARS]: The ARS function may be set to OFF

Menu list [22 RPT SHIFT]: Allows setting the repeater shift direction.

Menu list [23 RPT SHIFT FREQ]: Allows changing the repeater shift offset.

- Menu list [34 TONE SQL FREQ]: CTCSS Tone frequency

● Tone Calling (1750 Hz)

Press and hold in the **[P4]** key on the microphone (in factory default setting) to generates a 1750 Hz burst tone to access the European repeater. The transmitter will automatically be activated, and a 1750Hz audio tone will be superimposed on the carrier. Once access to the repeater has been gained, you may release the switch, and use the switch for activating the transmitter thereafter.

Using the Memory

The FTM-150R/FTM-150E incorporates a large number of memory channels that can register the operating frequency, communication mode, and other operational information.

- 999 Memory Channels
- 4 Home Channel
- 50 pairs PMS Memory Channels

The operating frequency and other operational information can be registered to each regular memory channel, home channel, or PMS memory channel:

• Operating frequency	• Frequency Step	• Transmitter output
• Memory tag	• Repeater Shift	• Tone information
• DCS information	• Memory channel skip information	

NOTE

Make sure to keep a separate record of the information registered to the memory channels.

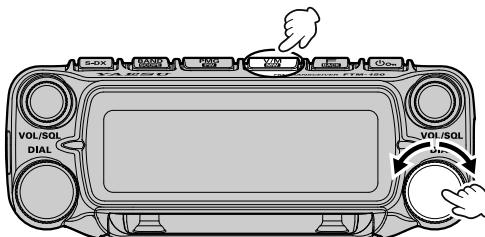
Writing to memory

1. Set the frequency to write to memory.
2. Press and hold the **[V/M MW]** key.

The memory channel list appears.

The lowest available number is selected. To select another channel, rotate the right **DIAL** knob to select the memory channel number to be written.

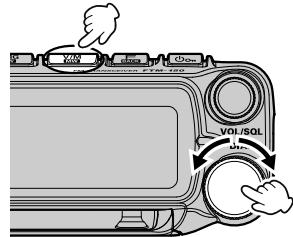
- Rotate the left **DIAL** knob, or press the **[UP]** or **[DWN]** key on the microphone to fast-forward in 10-channel steps.
- Press the number keys on the microphone to quickly select a memory channel as shown in the example below:
- Press the **[1]** key: Memory channel 100
- Press the **[A]** key: PMS Memory channel L01
- When **[HOM]** at the top of the memory channel list is selected, the HOME channel of the current frequency band can be overwritten.



3. Press and hold the **[V/M MW]** key to save the entry and exit to normal operation. If you attempt to register a frequency to a memory channel that already contains frequency data, "OVER WRITE?" will appear on the screen. Rotate the right **DIAL** to select "OK", then Press the right **DIAL** knob to overwrite the memory channel.
4. The memory is stored, and the screen returns to the previous screen.

Recall memory

1. Press the [V/M mw] key.
 - The last used memory channel is recalled.
 - Memory number will appear on the display.
2. Rotate the **DIAL** knob to select the memory channel to recall.
3. Press the [V/M mw] key again to return to VFO mode.



● Recall a memory by directly inputting the channel number using the numeric keys on the microphone

Press the numeric keys “0” to “9” in the memory mode to enter the memory channel.

(Example) When recalling memory channel “123”.

Press the [1] key.



Press the [2] key.



Press the [3] key.

(Example) When recalling memory channel “16”.

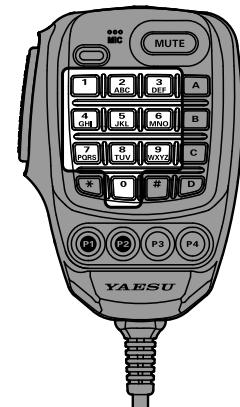
Press the [1] key.



Press the [6] key.



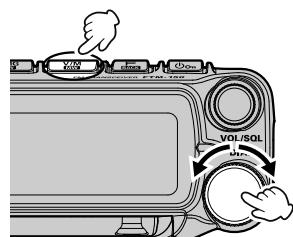
Press and hold any numeric key.



Press the **PTT** switch while entering a number to cancel the entry.

Clearing Memories

1. Press and hold the [V/M mw] key.
The memory channel list appears.
2. Rotate the right **DIAL** knob to select the memory channel from which the data is to be cleared, and press the right **DIAL** knob.
3. Rotate the right **DIAL** knob to select “DELETE”, and press the right **DIAL** knob.
Confirmation screen “DELETE?” is displayed.
4. Rotate the right **DIAL** knob to select “OK”, and press the right **DIAL** knob to clear the memory channel.

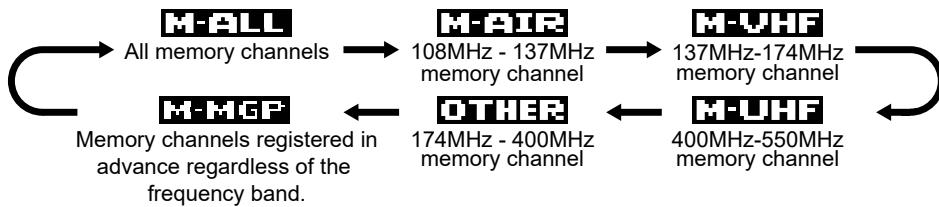
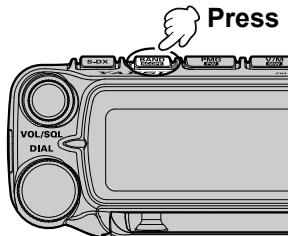


Data on memory channel 001, and the home channel may not be cleared.

Recall only memories in the same frequency band (Band) using the memory auto grouping (MAG) function

With the memory auto grouping (MAG) function, only memory channels in the same frequency band (Band) can be called.

In the memory mode, each time the [BAND SCOPE] key is pressed, only memory channels of the specified frequency band are automatically recalled as a group, as shown below:



PMG (Primary Memory Group)

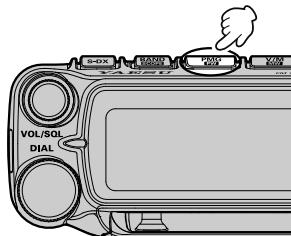
The PMG function allows the status of multiple channels to be displayed in real time on the Bar Graph, while listening to the Receive Channel. In manual mode, turn the DIAL knob to select the Receive Channel, and also observe the status of other channels on the Bar Graph.

Register the frequency with PMG

1. Tune to the frequency or the memory channel to be registered in PMG.
2. Press and hold the [PMG PW] key to register the current channel to PMG.
 - To register another channel, repeat steps 1 and 2.



Up to 5 frequency channels can be registered to PMG.

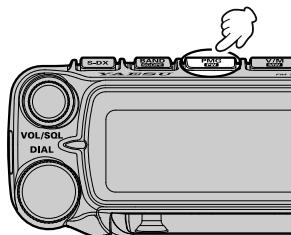


Display the PMG screen

Press the [PMG PW] key to display the PMG screen.

Press and hold the left **DIAL** knob to switch between Auto Mode and Manual Mode.

Scan and receive simultaneously on channels with signals. When there is no signal, scanning is resumed and the receive status is displayed in real time.

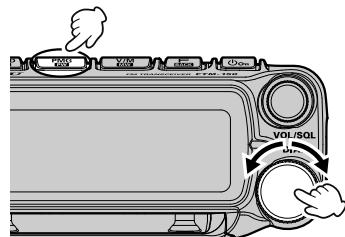


Unregister the Channel (Frequency) registered in PMG

1. Select the channel (frequency) to be unregistered by rotating the right **DIAL** knob.
2. Press and hold the [PMG PW] key to cancel the registration.

Cancel all frequency (channels) registered in PMG.

1. Press and hold the [F BACK] key → [18 PMG] → [PMG CLEAR].
2. Rotate the right **DIAL** knob to select "OK".
3. Press the right **DIAL** knob.



Disable the PMG function

1. Press the [PMG PW] key.

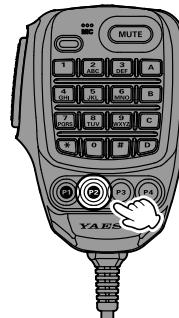
The display will return to the screen before starting PMG.

Recalling the Home Channel

● Recall with Microphone

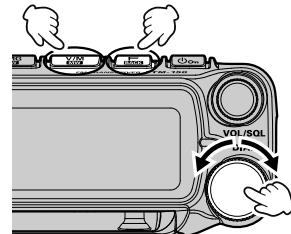
With the factory default setting, “HOME CH” (calls the home channel) is registered to the [P2] key of the Microphone.

1. Press the [P2]* key on the microphone.
* This is the factory setting. This function can also be assigned to the [P1] - [P4] key.
2. Press the [P2] key again, to return to the previous frequency.



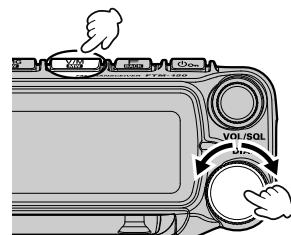
● Recall with Menu list

1. Press and hold the [F BACK] key.
2. Rotate the right **DIAL** knob to select [15 HOME CH], and then press the right **DIAL** knob.
3. Press the [V/M mw] key, to return to the previous frequency.



Changing the Home Channel Frequency

1. Set the frequency and the operating mode to store as the home channel.
2. Press and hold the [V/M mw] key.
3. Rotate the right **DIAL** knob to the left to select “HOM”. “HOM” is listed before memory channel “001”.
4. Press and hold the [V/M mw] key. Confirmation screen “OVER WRITE?” is displayed.
5. Rotate the right **DIAL** knob to select “OK”, and press the right **DIAL** knob to to overwrite and display the changed home channel.



The **FTM-150R/FTM-150E** supports the following scanning functions:

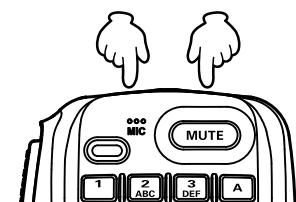
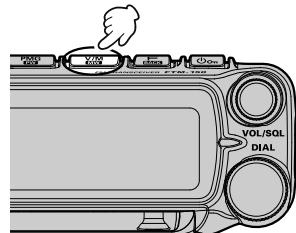
- VFO Scan
- Memory Channel Scan
- Programmable Memory Scan (PMS)

VFO Scan / Memory Scan

To find frequencies where there are signals in VFO mode or memory mode:

1. Press the **[V/M MW]** key to switch to VFO mode or Memory mode.
2. Press and hold the microphone **[UP]** or **[DWN]** switch to start scanning.
 - If the **DIAL** knob is rotated while scanning is in progress, the scanning will continue up or down in frequency according to the direction of the **DIAL** Knob rotation.
 - When a signal is received until the signal fades out. Two seconds after the signal fades out, scanning resumes.
3. Press the **PTT*** switch or **[UP]** or **[DWN]** on the microphone to cancel the scanning.

*The transceiver will not transmit in this case.



i

- If the scan has paused on a signal, rotating the **DIAL** knob will cause scanning to resume instantly.
- If the transceiver is turned OFF while scanning, when the transceiver is turned ON, scanning will resume.

Programmable Memory scan (PMS)

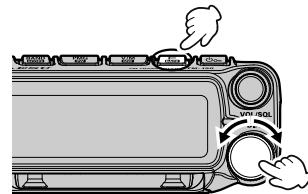
This function scans only the range of frequencies between the lower and upper limits registered in a pair of PMS Programmable Memory channels. 50 sets of PMS memory channels (L01/U01 to L50/U50) are available.



For additional details on the Programmable Memory Scan (PMS), refer to the Advanced Manual which may be downloaded from the Yaesu website.

Setting the Receive Operation When Scanning Stops

1. Press and hold the [F BACK] key.
2. Rotate the right **DIAL** knob to select [**43 SCAN RESUME**], then press the right **DIAL** knob.
3. Rotate the right **DIAL** knob to select the hold time after the scan is paused:
 - **BUSY**
The signal is received until the signal fades out.
Two seconds after the signal fades out, scanning resumes.
 - **HOLD**
Scanning stops and tuning remains on the current receive frequency (Scanning does not resume).
 - **1 sec / 3 sec / 5 sec**
The signal is received for a specified period of time, and then scanning resumes.
4. Press the right **DIAL** knob to complete the setting.



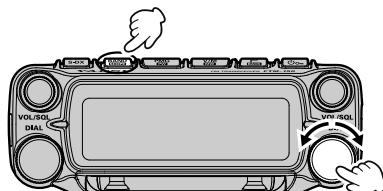
The above settings are common for all scanning operations.

Band Scope

The receive status (signal strength) of the channels before and after the current frequency can be displayed as a bar graph, whether in VFO mode or in memory mode.

Display the **BAND scope** screen

Press and hold the [**BAND scope**] key to display the band scope screen. When the desired channel is set to the center with the left **DIAL** knob, the received audio is played.



Disable the **BAND scope**

1. Press and hold the [**BAND scope**] key.
The display will return to the screen before starting BAND scope.

Bluetooth® Operation (Requires optional BU-5)

The FTM-150R/FTM-150E can be equipped with the Bluetooth® function by installing the optional Bluetooth® unit “BU-5”. Remote operation is possible using the optional Bluetooth® headset (SSM-BT20) or a commercially available Bluetooth® headset.



The operation of all commercially available Bluetooth® headsets cannot be guaranteed.

Installing the Bluetooth® unit “BU-5”

- Avoid touching the electronic components with your hands as the semiconductors may be damaged by static electricity.
- Note that labor charges to install optional items by our customer service support staff shall be separately chargeable.

1. Turn the transceiver **OFF**, then unplug the control cable from the front panel.
2. Remove the four screws from the front panel.
3. Carefully lift the back case of the front panel.
4. Refer to the figure to install the BU-5.

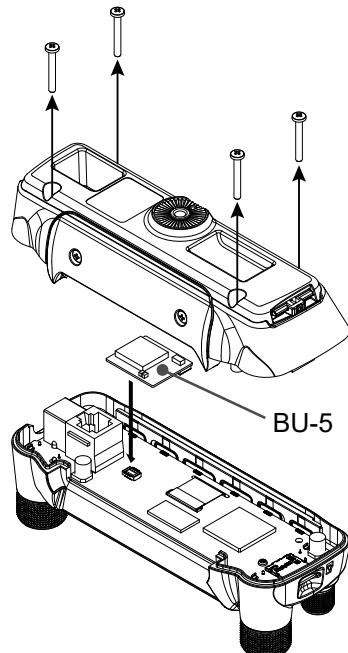


Check the direction of the connector and plug the BU-5 in all the way to the back.

5. Carefully attach the back cover and secure it with the four screws.



Do not tighten the four screws with excessive force.



Pairing the Bluetooth® Headset

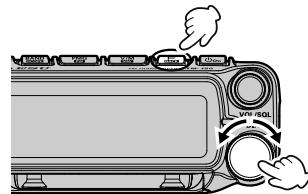
When using the Bluetooth® Headset for the first time, the Bluetooth® Headset and the **FTM-150R/FTM-150E** must be paired.

This step is only necessary when first connecting the headset.

1. To start the Bluetooth® headset in pairing mode.

SSM-BT20: Press and hold the Multi-Function Button, until the **SSM-BT20** LED blinks red/blue alternately.

2. Press and hold the **[F BACK]** key.
3. Rotate the right **DIAL** knob to select **[49 Bluetooth]**, then press the right **DIAL** knob.
4. Press the right **DIAL** knob again.
5. Rotate the right **DIAL** knob to select “**ON**”.
The setting items are displayed.
6. Press the **[F BACK]** key.
7. Rotate the right **DIAL** knob to select **[DEVICE]**, then press the right **DIAL** knob.
8. Press the right **DIAL** knob.
The search starts, and the model name of the found Bluetooth® device is displayed in the list.
9. When the headset to be connected is displayed, press the **[F BACK]** key to stop searching.
10. Rotate the right **DIAL** knob to select the Bluetooth® headset to be connected.
11. Press the left **DIAL** knob.
12. Rotate the left or right **DIAL** knob to select **[CONNECT]**.
13. Press the right **DIAL** knob.
14. To return to the normal operation.



While connected to a Bluetooth® headset, the “*****” icon lights up on the **FTM-150R/FTM-150E** screen, and the received audio and operation beep will be heard from the Bluetooth® headset.

● Disable the Bluetooth® function

To cancel the Bluetooth® operation, just repeat the above procedures, selecting “**OFF**” in step 5 above.

● Subsequent Bluetooth® headset connection when the power is turned **ON**

- When the power is turned **OFF** while the Bluetooth® headset is connected, the next time the power is turned **ON**, the same Bluetooth® headset is searched for and automatically connected when found.
- If the Bluetooth® headset cannot be found, the “*****” icon blinks on the screen. If the power of the same Bluetooth® headset is turned **ON** in this state, it will connect automatically. If not, turn the **FTM-150R/FTM-150E** and Bluetooth® headset **OFF** and then **ON** again.
- To connect to other Bluetooth® headsets, refer to “Connect with another Bluetooth® headset”.

Transmit operation by pressing the button on the Bluetooth® headset

Pressing the "Call button"** on the Bluetooth® headset once will engage the **FTM-150R/FTM-150E** in transmit, and then a call can be made using the Bluetooth® headset. Press the "Call button"** again to return the **FTM-150R/FTM-150E** to receive.

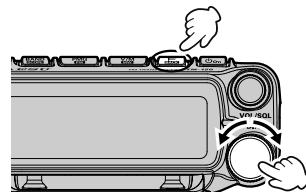
*The button name may differ depending on your Bluetooth® headset.

SSM-BT20: When the **Multi-Function** Key is pressed, a beep will sound and the **FTM-150R/FTM-150E** will continuously transmit.

Press the **Multi-Function** Key again, a beep will sound and the **FTM-150R/FTM-150E** will return to receive mode.

Remove a registered (paired) Bluetooth® device from the list

1. Turn the Bluetooth® headset you are currently using OFF.
2. Press and hold the **[F BACK]** key.
3. Rotate the right **DIAL** knob to select **[49 Bluetooth]**, then press the right **DIAL** knob.
4. Rotate the right **DIAL** knob to select **[DEVICE]** then press the right **DIAL** knob.
5. Rotate the right **DIAL** knob to select **[DEL ALL]**, then press the right **DIAL** knob.



All Bluetooth® headset are deleted from the device list.

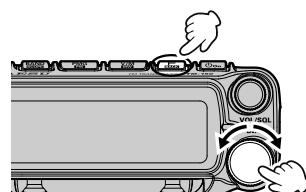


All registered Bluetooth® headsets are deleted. Headsets cannot be deleted individually

Bluetooth® received audio output

When a Bluetooth® headset is connected, the received audio can automatically be output from the headset only, or from both the headset and the transceiver speaker.

1. Press and hold the **[F BACK]** key.
2. Rotate the right **DIAL** knob to select **[49 Bluetooth]**, then press the right **DIAL** knob.
3. Rotate the right **DIAL** knob to select **[AUDIO]**, then press the right **DIAL** knob.



4. Rotate the right **DIAL** knob to select **[AUTO]** or **[FIX]**.

AUTO: The received audio comes from only the Bluetooth® headset.

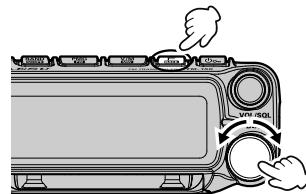
FIX: The received audio comes from both the Bluetooth® headset and the speaker of this transceiver.

5. Press the right **DIAL** knob to complete the setting.

Changing the Frequency Step

The **DIAL** knob rotation frequency step may be changed. Normally, use the factory default setting of “**AUTO**”.

1. Press and hold the **[F BACK]** key.
2. Rotate the right **DIAL** knob to select **[26 STEP]**, then press the right **DIAL** knob.
3. Rotate the right **DIAL** knob to set the frequency step.
4. Press the right **DIAL** knob to complete the setting.



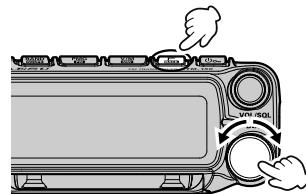
i

- The default setting, of the frequency step is set to “**AUTO**”, which automatically provides a suitable frequency step according to the frequency band.
- The frequency steps that can be selected depend on the frequency band.

Changing the Transmit Power Level

The transmit power level can also be changed using the function list.

1. Press the **[F BACK]** key.
2. Rotate the right **DIAL** knob to select **[TX PWR]**, then press the right **DIAL** knob.
With the factory default setting, it is registered in the “Function list” that is displayed when you press the **[F BACK]** key.
3. Rotate the right **DIAL** knob to select the transmit power output.
“**LOW**”→“**MID**”→“**HIGH**”
4. Press the right **DIAL** knob to complete the setting.



i: The factory setting is “**HIGH**”.

- When the “**TX PWR**” function is assigned to the **[P1]**, **[P2]**, **[P3]** or **[P4]** key of the microphone, the assigned key may be used as the Transmit Power Level select key.
 1. Press and hold the **[F BACK]** key.
 2. Rotate the right **DIAL** knob to select **[25 MIC PROGRAM KEY]**, then press the right **DIAL** knob.
 3. Rotate the right **DIAL** knob to select a key to assign a function **[P1]** / **[P2]** / **[P3]** / **[P4]** then press the right **DIAL** knob.
 4. Rotate the right **DIAL** knob to select a “**TX POWER**” then press the right **DIAL** knob.
- The transmit power output can be set individually for each frequency band (144MHz or 430MHz bands) and memory channel.



For additional details on the following Functions, refer to the Advanced Manual which may be downloaded from the Yaesu website.

Tone squelch feature

The tone squelch opens the speaker audio only when a signal containing the specified CTCSS tone is received. By matching the tone frequency with the partner station in advance, a quiet standby is possible.

Digital Code squelch (DCS) feature

DCS (Digital Coded Squelch) function allows audio to be heard only when signals containing the matching DCS code are received.

PAGER (EPCS) feature

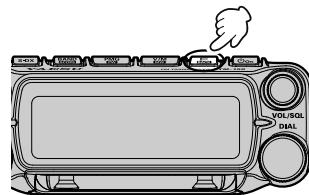
This feature allows calling specified stations only, by using a pager code that combines two CTCSS tones. Even when the person who is called is not near the transceiver, the information is displayed on the LCD to indicate that a call was received. When the call is received, the bell sounds.

Using Menu List

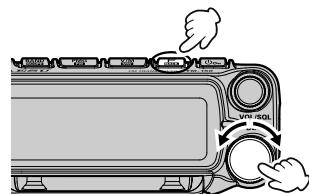
The Menu list Mode permits configuring the various functions to accommodate individual operating needs and preferences.

Menu List Operation

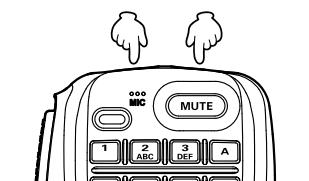
1. Press and hold the [**F BACK**] key.
The Menu list will be displayed.



2. Rotate the right **DIAL** knob to select the desired item in the Menu list, then press the right **DIAL** knob.
 - Press the [**F BACK**] key to return to the previous screen.
 - Rotate the left **DIAL** knob, or press the [**UP**] / [**DWN**] key on the microphone to scroll through the 17 categories in the Menu List (See below):



DISPLAY ↔ TX ↔ RX ↔ MEMORY ↔ CONFIG ↔
↔ AUDIO ↔ SIGNALING ↔ SCAN ↔ DATA ↔
↔ SD CARD ↔ OPTION ↔ RESET/CLONE



3. When there is no deeper level of menu items, go to step 4.
When there is a deeper level of menu items, rotate the right **DIAL** knob to select the desired item, then press the right **DIAL** knob.
4. Rotate the right **DIAL** knob to change the setting value.
5. Press the [**F BACK**] key twice to return to normal operation.

Tables of Menu list Operations

Note: For details, refer to the Advanced Manual (download from the Yaesu website).

Menu Number / Item	Description	Selectable options (Options in bold are the default settings)
DISPLAY		
1: FREQUENCY INPUT	Enter frequency directly or display memory channel list.	---
2: LCD DIMMER	Sets the screen brightness.	OFF / MID / MAX
3: LCD CONTRAST	Sets the screen contrast.	1 - 5 - 9
4: BAND SCOPE	Scope Display width setting.	NARROW / WIDE
5: S-METER SYMBOL	Selects the S- & TX PO meter Symbol.	TYP1 / TYP2 / TYP3 / TYP4
6: BACKLIGHT COLOR	Selects the screen color.	WHITE / AMBER
TX		
7: TX POWER	Set the transmit power level.	HIGH / MID / LOW
8: MIC GAIN	Microphone sensitivity setting.	MIN / LOW / NORMAL / HIGH / MAX
9: VOX		
VOX	Setting VOX function	OFF / LOW / HIGH
DELAY	Set the VOX delay time.	0.5 sec / 1.0 sec / 1.5 sec / 2.0 sec / 2.5 sec / 3.0 sec
VOX MIC	Selects the function of the VOX operation.	FRONT / REAR
10: AUTO DIALER	DTMF code automatic transmit setting.	OFF / ON
11: TOT	TX time out setting.	OFF / 1 min / 2 min / 3 min / 5 min / 10 min / 15 min / 20 min / 30 min
RX		
12: FM BANDWIDTH	Set the FM transmit modulation level.	WIDE / NARROW
13: RX MODE	Select the receive mode.	AUTO / FM / AM
14: SUB BAND		
SUB BAND	Sub Band ON/OFF (lower screen display).	OFF / ON
SUBBAND MUTE	Sub Band mute setting.	OFF / ON
MEMORY		
15: HOME CH	Recall the home channel.	---
16: MEMORY LIST	Displays the Memory channel list screen.	---
17: MEMORY LIST MODE	Displays a list of memory channels in memory mode.	OFF / ON

Menu Number / Item	Description	Selectable options (Options in bold are the default settings)
18: PMG		
PMG TIMER	Scan resume time after there is no signal when receiving in PMG mode simultaneously.	1sec / 2sec / 3sec
PMG CLEAR	Cancel the registration of all PMG channels.	---
CONFIG		
19: BEEP	Beep volume setting.	OFF / LOW / HIGH
20: BAND SKIP	Set the frequency bands that can be selected.	AIR: ON / OFF VHF: ON / OFF UHF: ON / OFF OTHER: ON / OFF
21: RPT ARS	Repeater auto shift setting.	OFF / AUTO
22: RPT SHIFT	Repeater shift direction setting.	AUTO / - / +
23: RPT SHIFT FREQ	Repeater TX offset setting.	0.00MHz to 99.95MHz (0.60MHz)
24: RPT REVERSE	Reverses the transmit and receive frequencies while working through a repeater.	NORMAL / REVERSE
25: MIC PROGRAM KEY		
P1	Program the function assigned to the Microphone [P1] key.	OFF / 2nd PTT / SCAN / HOME CH / RPT SHIFT / REVERSE / TX POWER / SQL OFF / T-CALL / WX / DW
P2	Program the function assigned to the Microphone [P2] key.	Default values: P1: 2nd PTT P2: HOME CH P3: TX POWER P4: WX (T-CALL:European Version)
P3	Program the function assigned to the Microphone [P3] key.	
P4	Program the function assigned to the Microphone [P4] key.	
26: STEP	Frequency tuning step.	AUTO / 5.00 kHz / 6.25 kHz / (8.33kHz*) / 10.00 kHz / 12.50 kHz / 15.00 kHz / 20.00 kHz / 25.00 kHz / 50.00 kHz / 100.00 kHz *only for Air Band
27: CLOCK TYPE	Clock shift setting.	A / B
28: APO	Automatic power OFF time setting.	OFF / 0.5 hour / 1.0 hour / 1.5 hour / 2.0 hour to 12.0 hour (1.0 hour steps)
AUDIO		
29: REAR SP OUT	Output level of the main body speaker.	0 % to 100 % (10 % steps)
30: FRONT SP MUTE	Set the Repeater Shift direction.	CONTINUE / AUTO MUTE
SIGNALING		
31: DTMF	Load DTMF Autodialer Memories.	---
32: DTMF MEMORY	Set the DTMF auto dialer channel and code (16 characters).	1 to 9

Menu Number / Item	Description	Selectable options (Options in bold are the default settings)
33: SQL TYPE	Select a squelch type.	OFF / TONE ENC / TONE SQL / REV TONE / DCS / PR FREQ / PAGER / (DCS ENC) / (TONE DCS) / (DCS TSQ) *The options in the parentheses are available when the SQL expansion is ON.
34: TONE SQL FREQ or DCS CODE	Set the CTCSS Tone Frequency or the DCS code.	CTCSS: 67.0 to 254.1 (Hz) (100.0Hz) DCS: 104 standard DCS codes (023)
35: SQL EXPANSION	Separate squelch type setting for transmit and receive.	OFF / ON
36: PAGER CODE	Pager individual code settings.	RX-CODE 1: 01 - 05 - 50 RX-CODE 2: 01 - 47 - 50 TX-CODE 1: 01 - 05 - 50 TX-CODE 2: 01 - 47 - 50
37: PR FREQUENCY	User programmed reverse tone frequency.	300Hz - 1500Hz - 3000Hz (100Hz steps)
38: BELL RINGER	Recall sound length setting.	OFF / 1 time / 3 times / 5 times / 8 times / CONTINUOUS

SCAN

39: SCAN	Engages the Scan operation..	---
40: DUAL RECEIVE MODE	Dual receive operation setting.	OFF / PRIORITY SCAN
41: DUAL RX INTERVAL	Dual receive reception interval setting. (Only enabled when "40 DUAL RECEIVE MODE" is set to "PRIORITY SCAN".)	0.5sec / 1.0sec / 2.0sec / 3.0sec / 5.0sec / 7.0sec / 10sec
42: PRIORITY REVERT	The transmission operation during dual receive always transmits on the home channel.	OFF/ON
43: SCAN RESUME	Set the resume operation after scanning stops on a signal.	BUSY / HOLD / 1 sec / 3 sec / 5 sec

DATA

44: DATA BAND	DATA band selection settings.	MAIN BAND / SUB BAND / A-BAND FIX / B-BAND FIX
45: DATA SPEED	DATA communication baud rate settings.	1200 bps / 9600 bps

SD CARD

46: BACKUP		---
47: SD INFORMATION	Displays the total capacity and free space of the MicroSD Card.	---
48: SD FORMAT	Initializing the micro-SD card.	---

Menu Number / Item	Description	Selectable options (Options in bold are the default settings)
OPTION		
49: Bluetooth (Requires optional Bluetooth® Unit BU-5)		
Bluetooth	Bluetooth headset setting.	OFF / ON
DEVICE	Bluetooth device list.	---
AUDIO	Set whether received audio is heard from both the Bluetooth® headset and the transceiver speaker, or only from the connected Bluetooth® device.	AUTO / FIX
50: VOICE MEMORY (Requires optional Voice Guide Unit FVS-2)		
PLAY/REC	Recording operation settings.	FREE 5min / LAST 30sec
ANNOUNCE	Setting conditions for frequency announcement.	OFF / MANUAL / AUTO
LANGUAGE	Setting the language to announce.	ENGLISH / JAPANESE
VOLUME	Setting the announcement volume.	HIGH / MID / LOW
RX MUTE	Setting to mute received audio during announcements and playback.	OFF / ON
51: FVS REC	Start recording the received audio.	---
52: TRACK SELECT	Selecting the audio track to play.	ALL / 1 - 8
53: FVS PLAY	Start playing the recorded sound.	---
54: FVS STOP	Stop recording / playing.	---
55: FVS CLEAR	Erase all recorded audio.	---
56: FVS GUIDE	The frequency of the operating band will be announced.	---
RESET/CLONE		
57: This → Other	Send all settings to other FTM-150R/FTM-150E.	---
58: Other → This	Receive all settings from other FTM-150R/FTM-150E.	---
59: SOFTWARE VERSION	Display the software version.	Main Ver. / Sub Ver.
60: MEMORY CH RESET	Erase registered memory channels.	---
61: FACTORY RESET	Return all settings to factory default.	---
62: WX ALERT	Weather alert operation setting.	OFF / ON

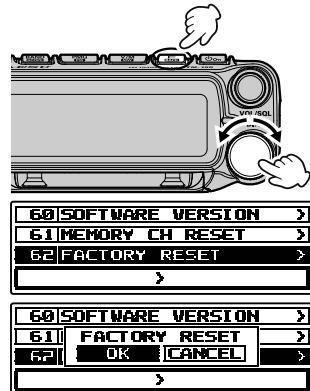
Caution

When the All Reset function is performed, all data registered in the memory will be deleted. Be sure to note the settings on paper or back up the data on a microSD memory card.

All Reset

To restore all transceiver settings and memory content to the factory defaults.

1. Press and hold the **[F BACK]** key.
The SETUP MENU screen will be displayed.



2. Rotate the right **DIAL** knob to select **[62 FACTORY RESET]**, then press the right **DIAL** knob.
“FACTORY RESET” appears on the LCD.
3. Rotate the right **DIAL** knob to select “OK”, then press the right **DIAL** knob to reset all.

Memory Channel Reset

To erase only the registered all memory channels.

1. Press and hold the **[F BACK]** key.
The SETUP MENU screen will be displayed.



2. Rotate the right **DIAL** knob to select **[61 MEMORY CH RESET]**, then press the right **DIAL** knob.
“MEMORY CH RESET” appears on the LCD.
3. Rotate the right **DIAL** knob to select “OK”, then press the right **DIAL** knob to delete all memory contents.

Specifications

● General

Frequency Range	: TX 144 - 148MHz 430 - 450MHz
	: RX 108 - 137MHz (AIR Band) 137 - 174MHz (144MHz HAM / VHF Band) 174 - 400MHz (VHF Band) 400 - 550MHz (430MHz HAM / UHF Band)
Channel Steps	: 5 / 6.25 / 8.33 / 10 / 12.5 / 15 / 20 / 25 / 50 / 100kHz (8.33kHz: only for Air band)
Mode of Emission	: F2D, F3E
Frequency Stability	: $\pm 2.5\text{ppm}$ (-4°F to +140°F [-20°C to +60°C])
Antenna Impedance	: 50Ω
Supply Voltage	: Nominal 13.8V DC, negative ground
Current Consumption (approx.)	: 0.7A (Receive) 11A (50W TX, 144MHz/430MHz)
Operating Temperature Range	: -4°F to +140°F [-20°C to +60°C]
Case Size (W x H x D)	: Radio unit 5.47" x 1.66" x 5.2" (139 x 42 x 132mm) (w/o Fan) Controller 5.47" x 2.1" x 0.7" (139 x 53 x 18mm) (w/o Knob)
Weight (approx.)	: 3.1 lbs (1.4kg) (with Radio Unit, Controller, Control Cable)

● Transmitter

RF Power Output	: 50W / 25W / 5W
Modulation Type	: F2D, F3E: Variable Reactance Modulation
Maximum Deviation	: $\pm 5\text{kHz}$
Spurious Emission	: At least 60dB below
Microphone Impedance	: 2kΩ

● Receiver

Circuit Type	: Double-Conversion Super heterodyne
Intermediate Frequency	: 1st: 56.75MHz (Main Band) 55.85MHz (Sub Band) 2nd: 450kHz
Sensitivity	: 108 - 137MHz, @AM 0.8µV TYP for 10dB SN 137 - 140MHz, @FM 0.2µV for 12dB SINAD 140 - 150MHz, @FM 0.2µV for 12dB SINAD 150 - 174MHz, @FM 0.25µV for 12dB SINAD 174 - 222MHz, @FM 0.3µV TYP for 12dB SINAD 222 - 300MHz, @FM 0.25µV TYP for 12dB SINAD 300 - 336MHz, @AM 0.8µV TYP for 10dB SN 336 - 420MHz, @FM 0.25µV TYP for 12dB SINAD 420 - 470MHz, @FM 0.2µV for 12dB SINAD 470 - 550MHz, @FM 0.2µV TYP for 12dB SINAD
Selectivity (-6dB/-60dB)	: NFM, AM 12kHz / 30kHz
AF Output	: 3W (8Ω, THD10%, 13.8V) Internal Speaker 3W (8Ω, THD10%, 13.8V) External Speaker
AF Output Impedance	: 8Ω
Strength of secondary radio waves	: 4nW and below

● Bluetooth (Optional BU-5)

Version	: Version 4.2
Class	: Class 2

Specifications are subject to change without notice, and are guaranteed within the 144/430MHz amateur bands only.

The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by YAESU MUSEN CO., LTD. is under license. Other trademarks and trade names are those of their respective owners.

About internal spurious signals

The internal oscillator frequency relationship below may cause some effect on the receiver mixer and IF circuits. However, this is not a malfunction (refer to the calculation formulas below: n is any integer).

- Reception frequency = 16 MHz x n times
- Reception frequency = 12 MHz x n times
- Reception frequency = 57.6 MHz x n times
- Reception frequency = 44 MHz x n times

YAESU LIMITED WARRANTY

Limited Warranty is valid only in the country/region where this product was originally purchased.

On-line Warranty Registration:

Thank you for buying YAESU products! We are confident your new radio will serve your needs for many years! Please register your product at www.yaesu.com - Owner's Corner

Warranty Terms:

Subject to the Limitations of the Warranty and the Warranty Procedures described below, YAESU MUSEN hereby warrants this product to be free of defects in materials and workmanship in normal use during the "Warranty Period." (the "Limited Warranty").

Limitations of Warranty:

- A. YAESU MUSEN is not liable for any express warranties except the Limited Warranty described above.
- B. The Limited Warranty is extended only to the original end-use purchaser or the person receiving this product as a gift, and shall not be extended to any other person or transferee.
- C. Unless a different warranty period is stated with this YAESU product, the Warranty Period is three years from the date of retail purchase by the original end-use purchaser.
- D. The Limited Warranty is valid only in the country/region where this product was originally purchased.
- E. During the Warranty Period, YAESU MUSEN will, at its sole option, repair or replace (using new or refurbished replacement parts) any defective parts within a reasonable period of time and free of charge.
- F. The Limited Warranty does not cover shipping cost (including transportation and insurance) from you to us, or any import fees, duties or taxes.
- G. The Limited Warranty does not cover any impairment caused by tampering, misuse, failure to follow instructions supplied with the product, unauthorized modifications, or damage to this product for any reasons, such as: accident; excess moisture; lightning; power surges; connection to improper voltage supply; damage caused by inadequate packing or shipping procedures; loss of, damage to or corruption of stored data; product modification to enable operation in another country/purpose other than the country/purpose for which it was designed, manufactured, approved and/or authorized; or the repair of products damaged by these modifications.
- H. The Limited Warranty applies only to the product as it existed at the time of the original purchase, by the original retail purchaser, and shall not preclude YAESU MUSEN from later making any changes in design, adding to, or otherwise improving subsequent versions of this product, or impose upon YAESU MUSEN any obligation to modify or alter this product to conform to such changes, or improvements.
- I. YAESU MUSEN assumes no responsibility for any consequential damages caused by, or arising out of, any such defect in materials or workmanship.
- J. TO THE FULLEST EXTENT PERMITTED BY LAW, YAESU MUSEN SHALL NOT BE RESPONSIBLE FOR ANY IMPLIED WARRANTY WITH RESPECT TO THIS PRODUCT.
- K. If the original retail purchaser timely complies with the Warranty Procedures described below, and YAESU MUSEN elects to send the purchaser a replacement product rather than repair the "original product", then the Limited Warranty shall apply to the replacement product only for the remainder of the original product Warranty Period.
- L. Warranty statutes vary from state to state, or country to country, so some of the above limitations may not apply to your location.

Warranty Procedures:

1. To find the Authorized YAESU Service Center in your country/region, visit www.yaesu.com. Contact the YAESU Service Center for specific return and shipping instructions, or contact an authorized YAESU dealer/distributor from whom the product was originally purchased.
2. Include proof of original purchase from an authorized YAESU dealer/distributor, and ship the product, freight prepaid, to the address provided by the YAESU Service Center in your country/region.
3. Upon receipt of this product, returned in accordance with the procedures described above, by the YAESU Authorized Service Center, all reasonable efforts will be expended by YAESU MUSEN to cause this product to conform to its original specifications. YAESU MUSEN will return the repaired product (or a replacement product) free of charge to the original purchaser. The decision to repair or replace this product is the sole discretion of YAESU MUSEN.

Other conditions:

YAESU MUSEN'S MAXIMUM LIABILITY SHALL NOT EXCEED THE ACTUAL PURCHASE PRICE PAID FOR THE PRODUCT. IN NO EVENT SHALL YAESU MUSEN BE LIABLE FOR LOSS OF, DAMAGE TO OR CORRUPTION OF STORED DATA, OR FOR SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR INDIRECT DAMAGES, HOW EVER CAUSED; INCLUDING WITHOUT LIMITATION TO THE REPLACEMENT OF EQUIPMENT AND PROPERTY, AND ANY COSTS OF RECOVERING, PROGRAMMING OR REPRODUCING ANY PROGRAM OR DATA STORED IN OR USED WITH THE YAESU PRODUCT.

Some Countries in Europe and some States of the USA do not allow the exclusion or limitation of incidental or consequential damages, or a limitation on how long an implied warranty lasts, so the above limitation or exclusions may not apply. This warranty provides specific rights, there may be other rights available which may vary between countries in Europe or from state to state within the USA.

This Limited Warranty is void if the label bearing the serial number has been removed or defaced.

Changes or modifications to this device that are not expressly approved by YAESU MUSEN could void the user's authorization to operate this device.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference including received, interference that may cause undesired operation.

The scanning receiver in this equipment is incapable of tuning, or readily being altered, by the User to operate within the frequency bands allocated to the Domestic public Cellular Telecommunications Service in Part 22.

The YAESU MUSEN is not responsible for any changes or modifications not expressly approved by the party responsible for compliance. Such modifications could void the user's authority to operate the equipment.

This device complies with ISED's applicable license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

DECLARATION BY MANUFACTURER

The Scanner receiver is not a digital scanner and is incapable of being converted or modified to a digital scanner receiver by any user.

WARNING: MODIFICATION OF THIS DEVICE TO RECEIVE CELLULAR RADIOTELEPHONE SERVICE SIGNALS IS PROHIBITED UNDER FCC RULES AND FEDERAL LAW.

CAN ICES-3 (B) / NMB-3 (B)

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.

This equipment complies with FCC/IC radiation exposure limits and meets the FCC radio frequency (RF) Exposure Guidelines and RSS-102 of the IC radio frequency (RF) Exposure rules. This equipment has very low levels of RF energy that is deemed to comply without testing of specific absorption rate (SAR).

This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

YAESU

Declaration of Conformity

Type of Equipment:	144/430MHz Digital/Analog Transceiver
Brand Name:	YAESU
Model Number:	FTM-150R
Manufacturer:	YAESU MUSEN CO., LTD.
Address of Manufacturer:	Omori Bell port D building 3F, 6-26-3 Minamioi, Shinagawa-ku, Tokyo 140-0013 JAPAN

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions; (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

The technical documentation as required by the Conformity Assessment procedures is kept at the following address:

Company: Yaesu U.S.A.

Address: 6125 Phyllis Drive, Cypress, CA 90630, U.S.A.

Telephone: (714) 827-7600

EU Declaration of Conformity

We, Yaesu Musen Co. Ltd of Tokyo, Japan, hereby declare that this radio equipment FTM-150E is in full compliance with EU Radio Equipment Directive 2014/53/EU. The full text of the Declaration of Conformity for this product is available to view at <http://www.yaesu.com/jp/red>

ATTENTION – Condition of use

This transceiver operates on frequencies that are regulated. Use of the Transmitter in the EU countries shown in the accompanying table is not permitted without authorization. Users should consult their local spectrum management authority for licensing conditions applicable to this equipment.

AT	BE	BG	CY	CZ	DE
DK	ES	EE	FI	FR	EL
HR	HU	IE	IT	LT	LU
LV	MT	NL	PL	PT	RO
SK	SI	SE	CH	IS	LI
NO	–	–	–	–	–

Disposal of Electronic and Electrical Equipment

Products with the symbol (crossed-out wheeled bin) cannot be disposed as household waste.

Electronic and Electrical Equipment should be recycled at a facility capable of handling these items and their waste by-products.

Please contact a local equipment supplier representative or service center for information about the waste collection system in your country.



YAESU
Radio for Professionals

Copyright 2024
YAESU MUSEN CO., LTD.
All rights reserved.

No portion of this manual may be
reproduced without the permission of
YAESU MUSEN CO., LTD.

YAESU MUSEN CO., LTD.
Omori Bellport Building D-3F
6-26-3 Minami-Oi, Shinagawa-ku, Tokyo, 140-0013, Japan

YAESU USA
6125 Phyllis Drive, Cypress, CA 90630, U.S.A.

YAESU UK
Unit 4, Concorde Park, Concorde Way, Segensworth North,
Fareham, Hampshire PO15 5FG, United Kingdom

2406-AS
Printed in Japan

