TSC-3000R

MULTIBAND SCANNING RECEIVER

INSTRUCTION MANUAL

Manufactured by tti

www.ttikorea.co.kr

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CAUTIONS

- Please read these instructions carefully before operating your receiver. Your scanner is a complex and powerful unit with many functions. Please retain this manual for future reference. Any illegal use offending the national law is not allowed.
- **Never** connect the receiver to the power source other than the specified battery. Otherwise the damage to your receiver may occur.
- **Never** use the receiver in or near the mining area, near explosives or where signs indicate 'Blasting Area'. **Never** use or charge the receiver in a potentially explosive atmosphere.
- **Do Not** place the receiver in front of the vehicle airbag.
- **Do Not** operate the receiver on board the aircraft.
- **Always** charge the receiver at normal room temperature.
- **Always** replace the accessory jack cover when the jack is not in use.
- **Use only** munufacturer-supplied rechargeable battery in your receiver.
- **Do Not** expose the receiver to water. It is not waterproof.
- **Avoid** storing or charging the receiver in direct sunlight.
- **Avoid** storing the receiver in temperatures below -20°C or above +60°C .

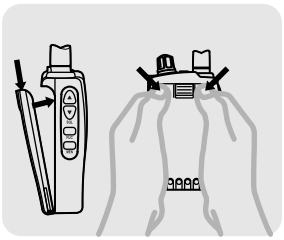
SUPPLIED ACCESSORIES

- **Scanner Receiver**
- **Antenna**
- **Lanyard Strap**
- **Rechargeable Battery Pack**
- **Earphone**
- **Charger Cradle**
- **Power Adaptor**

FITTING AND REMOVING THE BATTERY PACK

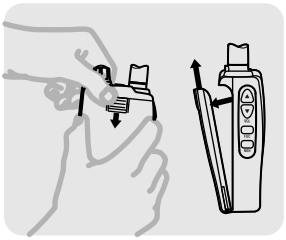
Fitting

1) Ensure the receiver is switched off.
2) Align the bottom of the battery pack with the securing slots in the base of the receiver.
3) Press the top of the battery pack into the back of the receiver until it 'clicks'.



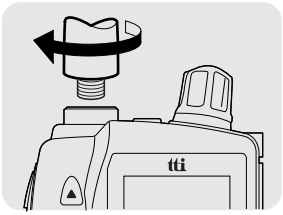
Removing

1) Ensure the receiver is switched off.
2) Holding the receiver in one hand, press down on the battery release catch.
3) List the top of the battery pack away from the receiver.



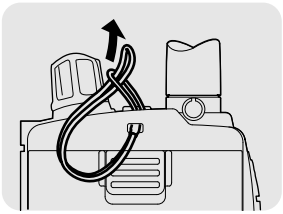
INSTALLING THE ANTENNA

1) Place the antenna onto the antenna socket on top of the radio.
2) Rotate the antenna clockwise to screw into place.
3) Do not over tighten.



INSTALLING THE LANYARD

1) Slide the small end loop of the lanyard through the slot in the rear of the receiver's top panel.
2) Feed the large end of the lanyard through the loop and tighten.



CHARGING THE BATTERY

Your scanner receiver is supplied with a rechargeable battery pack, desktop charging cradle and AC adaptor.

To charge the battery:

1) Fit the battery to the receiver (see instructions above). Ensure the receiver is switched off.

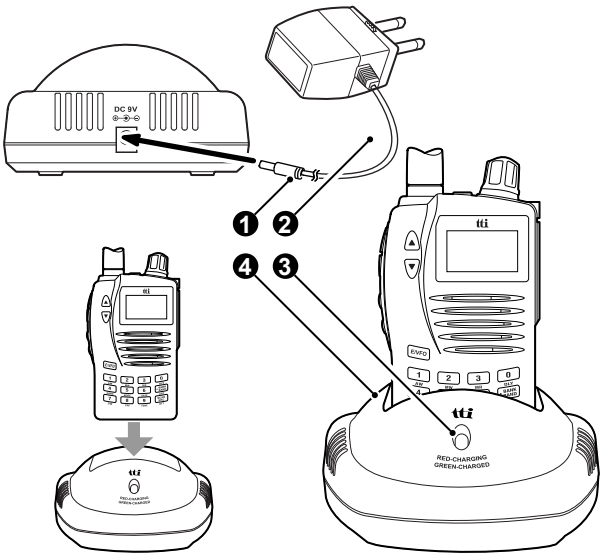
2) Connect the AC Adaptor to the charging cradle.

3) Plug the AC adaptor into a mains power outlet.

4) Insert the receiver into the charging cradle until it 'clicks' home. The charging LED will glow RED and charging will begin.

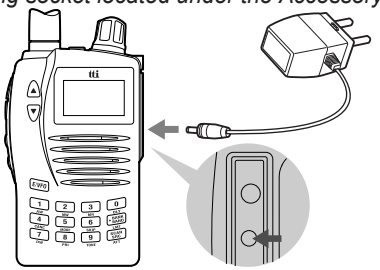
   - If the charging LED blinks RED and GREEN or does not light at all, remove the receiver into the cradle and reinsert it.

The charging time for a discharged battery is typically 12– 15 hours. When the battery is fully charged, the LED will turn GREEN.

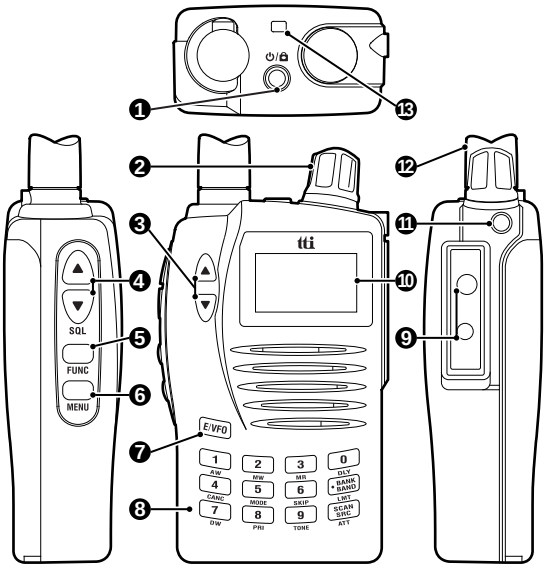


❶ Adaptor DC Plug ❷ AC Adaptor
❸ Charging LED ❹ Chaging Cradle

NOTE : *If you find yourself in a position where you need to charge the battery but the charging Cradle is not available, you can plug the AC Adaptor directly into the receivers charging socket located under the Accessory Jack cover.*



CONTROLS



❶ **Power On/Off Lock Button**
❷ **Control Knob**
❸ **Up/Down Keys**
❹ **Squelch Up/Down Keys**
❺ **Function Key**
❻ **Menu Key**
❼ **Enter/VFO Key**
❽ **Keypad**
❾ **Accessory Jack**
❿ **LCD Display**
⓫ **Jack Cover Securing Point**
⓬ **Antenna**
⓭ **Lanyard Slot**

❶ Power On/Off Lock Button
Turns the receiver on and off. Also Locks the keypad.

❷ Control Knob
Selects frequencies and channels and selects values from menus.

❸ Up/Down Keys
Adjusts the Volume and selects Menu items and frequency steps.

❹ Squelch Up/Down Keys
Opens and closes the squelch.

❺ Function Keys
Enables extended keypad functions.

❻ Menu Keys
Provides access to setup menus.

❼ Enter/VFO Keys
Confirms selections and selects the VFO mode

❽ Keypad
Allows direct entry of frequencies and selection of functions.

❾ Accessory Jack
Provides charging and earphone jacks.

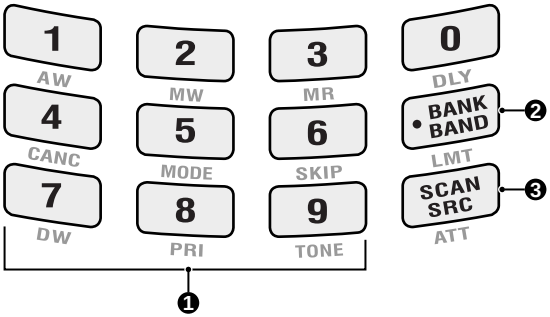
❿ LCD Display
Shows frequencies and selected functions.

⓫ Jack Cover Securing Point
Holds the accessory jack cover in place.

⓬ Antenna
Provides reception of signals.

⓭ Lanyard Slot
Allows connection of the Lanyard to protect the receiver from being accidentally dropped.

Direct Input Keys



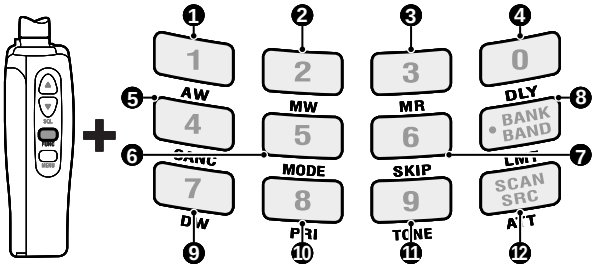
❶ Number Keys
Used to enter frequencies in VFO mode and to make direct selected of Banks in memory Read mode.

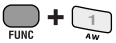
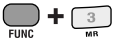
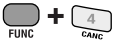
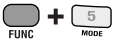
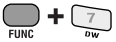
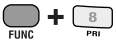
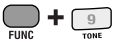
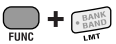
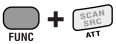
❷ Bank/Band Key
Used to change Memory Banks or Frequency Bands.

❸ Scan/Search Key
Used to activate or deactivate the Scan function in memory read mode or the Search function in VFO mode.

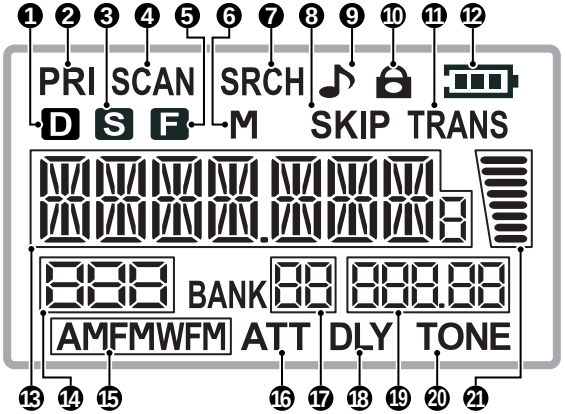
EXTENDED FUNCTION KEYS

The Keypad Keys on the front panel have secondary functions which are printed below each key. These secondary functions are accessed after pressing the **FUNC** key.



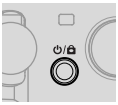
KEY	FUNCTION	DESCRIPTION
	Automatic Write	Automatically stores scanned frequencies in the Automatic Memory storage area.
	Manual Write	Allows manual storage of frequencies into the Manual Memory storage area.
	Memory Read	Allows reading of the frequencies in the stored memories.
	Cancel	Used to Cancel an incorrect input.
	Mode	Selects the receiver modes (AM, FM, WFM or Automatic).
	Skip	Used to Skip channels when Scanning or Skip frequencies when Searching.
	Dual Watch	Activates or Deactivates the Dual Watch function.
	Priority Channel	Activates or Deactivates the selection of a Priority Channel.
	Tone	Activates or Deactivates the selected CTCSS/DCS tone. The required tone is selected from the Menu function in VFO mode.
	Delay	Activates or Deactivates the Delay timer which determines how long the radio will wait on a frequency after a signal has disappeared. The Delay time is set from the Menu function.
	Limit:	Allows the entry of upper and lower frequency limits when Searching.
	Attenuator:	Activates or deactivates the signal attenuator to reduce the receiver's sensitivity in strong signal conditions.

LCD DISPLAY



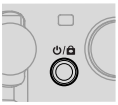
❶ Dual Watch
❷ Priority Channel
❸ Power Save
❹ Scan
❺ Function
❻ Memory
❼ Search
❽ Skip
❾ Key Tone & Beep Tone
❿ Keypad Lock
⓫ Data Transfer
⓬ Battery Charge Level
⓭ Frequency Display
⓮ Channel Indicator
⓯ AM, FM, WFM Mode
⓰ Attenuator
⓱ Bank Number
⓲ Scan Delay Timer
⓳ Frequency Step
⓴ Tone
㉑ Signal Meter

Turning the unit On or Off



Press and hold the RED Button on the top of the unit to turn the unit ON.
Press and hold the RED Button again to turn the unit OFF.

KEY Lock



Briefly press the RED Button on the top of the unit to turn the Key Lock ON.
Briefly press the RED Button again to turn the Key Lock OFF again.

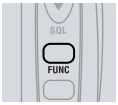
Volume

Press the ▲ key to increase the volume.
Press the ▼ key to decrease the volume.
The volume level will be displayed from 00 to 31.

Squelch

Press the ▲ key on the side of the radio to increase the Squelch setting and the ▼ key on to decrease the Squelch setting. The Squelch level will be displayed from 00 to 09. At maximum Squelch setting, 'AT' is selected which represents an automatic (preset) level setting.

Func Key



The **Func**tion key provides access to secondary functions associated with the front panel keys. The secondary function labels are printed below their respective keys.

Menu Key

The **Menu** key provides access to the radios settings. The settings menus will vary depending on which mode the receiver is in.

E/VFO Key [Enter/VFO]

Press the **E/VFO** key to select the VFO mode. Frequencies can now be entered directly from the Keyboard. Press the **E/VFO** key to Enter (accept) the selected frequency.

Note: *The receiver always selects the VFO mode each time it turned on.*

Control Knob

The **Control** knob is used to change the current display option.

In VFO mode, rotate the **Control** knob to change the displayed frequency at the selected frequency steps. Rotate lockwise to increase the frequency and counter clockwise to decrease the frequency.

In Menu mode, rotate the **Control** knob to change the selected setting.

In Channel memory mode, rotate the **Control** knob to step up or down through the memories.

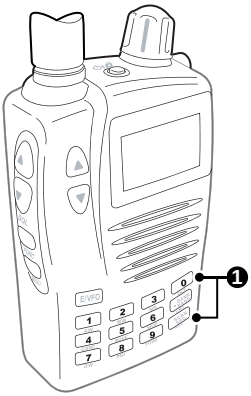
SELECTING FREQUENCIES

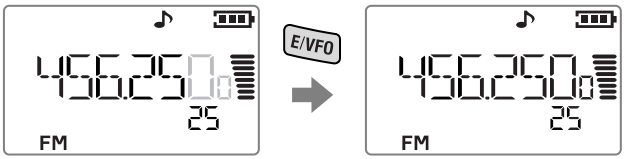
The receiver always selects the VFO mode when it is turned on. You can select frequencies using one of the following methods:

■ Direct Frequency Input

Enter frequencies using the numbered keypad. Don't forget to include the decimal point where applicable. When you have entered the required frequency, press the **E/VFO** key to accept it. If the frequency you have entered is not within the selected frequency step, it is automatically corrected to the nearest correct frequency.

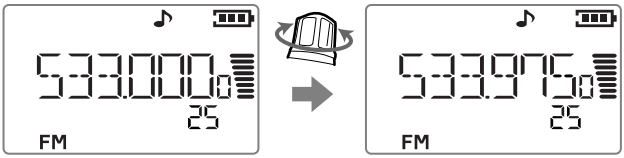
*e.g. Entering 456.25 followed by **E/VFO** results in 456.2500 being selected.*



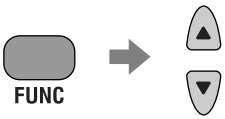


■ **Using the Control Knob**

First select the required starting frequency using the Direct Frequency Input method, then rotate the **Control** knob to step up or down in frequency from the starting point. The frequency will change in the selected frequency step.



- To change frequency in 1 MHz steps, press the **Func** key, then press the ▲ or ▼ keys to change the frequency. (*F is displayed while the Func mode is active*).



- To change frequency in 10 MHz steps, press the **Func** key, then rotate the **Control** knob to change the frequency. (*F is displayed while the Func mode is active*).

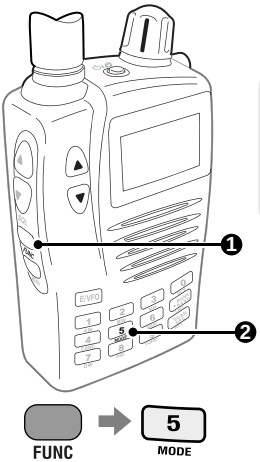
***Note** : The Func mode clears a few seconds after the last key press or control knob change.*

■ Mode Selection

By default, the receiver automatically selects the modulation Mode most commonly used for each band (see the Frequency Band chart for the default modes for each band)

To manually select a different Mode, press **Func** followed by the **MODE** key. Each press will step through the Mode settings in the following order:

AM - FM - WFM (Wideband FM) - Auto



To automatically have the receiver select the mode for the band you are on, select the **Auto** Mode.

■ Frequency Step Selection

By default, the receiver automatically selects the frequency Steps most commonly used for each band (see the Frequency Band chart for the default Steps for each band).

To select a different step :

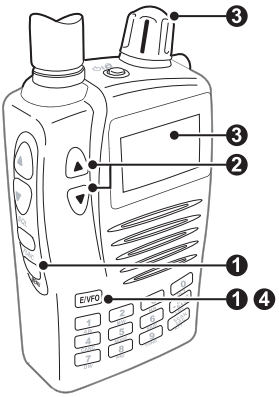
1) In VFO mode press **MENU.**

2) Press the Volume ▲ or ▼ keys until STEP is displayed

3) Turn the Control knob until the desired frequency step is displayed.

4) Press **E/VFO** to confirm the selection.

The following frequency steps are available label :



5 kHz
6.25 kHz
8.33 kHz*(108-135.99127MHz)
9 kHz**(0.504-1.620MHz)
10 kHz
12.5 kHz
15 kHz
20 kHz
25 kHz
30 kHz
50 kHz
100 kHz
500 kHz
Auto

If Auto is selected the receiver will automatically select the appropriate default.
Frequency Step for each band.

FREQUENCY BANDS

The Scanner supports the following Frequency Bands

Frequency Band	Start up Frequency	Default Mode	Default Step
150 kHz to 495 kHz		AM	5 kHz
504 kHz to 1.620 MHz	1.5 MHz	AM	5 kHz
1.625 MHz to 29.995 MHz	5 MHz	AM	5 kHz
30 MHz to 87.975 MHz	51 MHz	FM	25 kHz
88 MHz to 107.950 MHz	88 MHz	WFM	50 kHz
108 MHz to 135.975 MHz	118 MHz	AM	25 kHz
136 MHz to 255.100 MHz	150 MHz	FM	25 kHz
255.1125 MHz to 382.100 MHz	370 MHz	FM	12.5 kHz
382.125 MHz to 769.800 MHz	430 MHz	FM	25 KHz
769.8125 MHz to 960.100 MHz	850 MHz	FM	12.5 KHz
960.125 MHz to 1309.975 MHz	1295 MHz	FM	25 kHz

■ Band Search

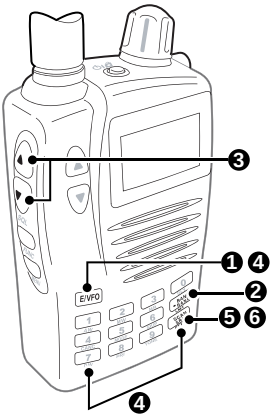
Use the Search function to locate active frequencies in one or more bands

1) Press the **E/VFO** key to select VFO Mode. *(Note: the receiver automatically selects the VFO mode when it is turned on).*

2) Press the **BAND** key to select the required Band. There are 10 factory preset Bands to choose from (see Frequency Band Table).

3) Set the Squelch level using the Squelch ▲ or ▼ keys so that the noise just disappears.

4) Select a start frequency to Search from. To do this, enter the frequency on the keypad, then press **E/VFO** key.



5) Press the **SCAN SRC** key briefly. The 'SRCH' icon will be displayed and the receiver will Search the selected Band starting from the start frequency. Once the end of the band is reached the Search continues at the beginning of the selected Band.

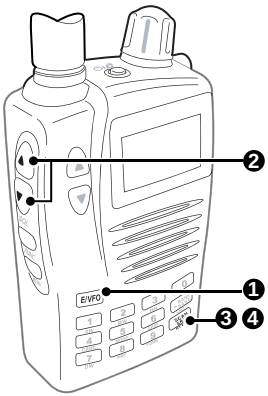
6) To stop the Search, press the **SCAN SRC** key again.

- During the Search, press the **BANK BAND** key to move to the next Band.
- To change the Search direction rotate the Control knob clockwise or counter clockwise.
- The receiver will stay on an active channel according to the Scan Timer settings in the VFO Menu. If the Scan Timer is set to '5 seconds', the receiver will continue Searching after 5 seconds even if the channel is still busy. If the Scan Timer is set to 'Busy', the receiver will remain on the busy frequency for as long as it stays busy, then resume searching when the signal disappears.

■ Full Search

The Full Search function searches the entire scanner frequency range for signals.

1) Press the **E/VFO** key to select VFO Mode. *(Note: the receiver automatically selects the VFO mode when it is turned on*).
2) Set the Squelch level using the Squelch ▲ or ▼ keys so that the noise just disappears.
3) Press and hold the **SCAN SRC** key for 2 seconds. The 'SRCH' icon will be displayed and the receiver will Search the entire frequency range of the receiver.



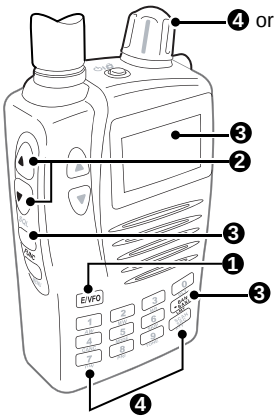
4) To stop the Search, press the **SCAN SRC** key again.

- During the Search, press the **BANK BAND** key to move to the next Band.
- To change the Search direction rotate the Control knob clockwise or counter clockwise.
- The receiver will stay on an active channel according to the Scan Timer settings in the VFO Menu. If the Scan Timer is set to '5 seconds', the receiver will continue Searching after 5 seconds even if the channel is still busy. If the Scan Timer is set to 'Busy', the receiver will remain on the busy frequency for as long as it stays busy, then resume searching when the signal disappears.

■ Limited Search

You can limit the search between two user-selectable frequency limits.

1) Press the **E/VFO** key to select VFO Mode. *(Note: the receiver automatically selects the VFO mode when it is turned on).*
2) Set the Squelch level using the Squelch ▲ or ▼ keys so that the noise just disappears.
3) Press **Func** followed by the **LMT** key. [L1] is displayed.

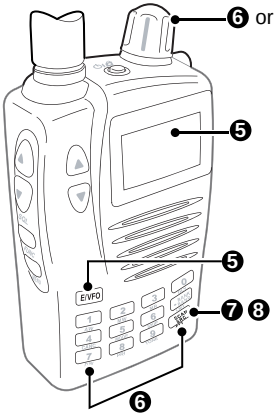


❸

4) Enter the First frequency using the keypad or the Control knob.

5) Press **E/VFO** when done. [L2] is displayed.

❺



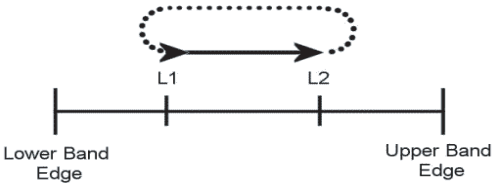
6) Enter the Second frequency using the keypad or the Control knob.

7) Press **SCAN SRC.** The Limited Search will begin, searching upwards from the first frequency to the second in a continuous cycle.

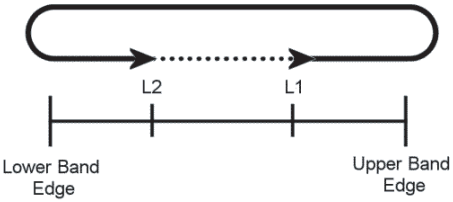
8) To stop the Search, press the **SCAN SRC** key again.

- To change the Search direction rotate the Control knob clockwise or counter clockwise
- The receiver will stay on an active channel according to the Scan Timer settings in the VFO Menu. If the Scan Timer is set to '5 seconds', the receiver will continue Searching after 5 seconds even if the channel is still busy. If the Scan Timer is set to 'Busy', the receiver will remain on the busy frequency for as long as it stays busy, then resume searching when the signal disappears.

NOTE: *The Limit Search always Searches upwards in Frequency. If the first frequency is lower than the second it will search between the two frequencies. If the first frequency is higher then the second it will search outside the two frequencies.*



L1 is a lower frequency than L2



L1 is a higher frequency than L2

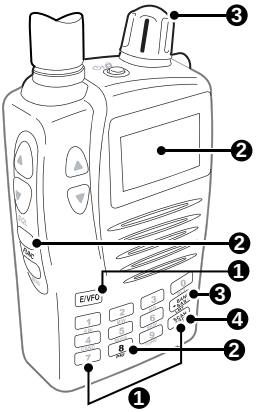
Example.

1st Frequency	2nd Frequency	Frequencies Searched
40 MHz	50 MHz	40 - 50 MHz
50 MHz	40 MHz	1309.995 MHz, 150 KHz-40 MHz

■ Priority Search

Priority Search allows you to insert a Priority Channel into the frequency Search. When the Search is activated, the receiver will visit the Priority channel or frequency at an interval set by the 'Priority Time' in the Menu setup.

To perform a Priority Search using a frequency as the Priority channel:



1) Enter the required Priority channel frequency using the Keypad then press **E/VFO.**

2) Press **Func PRI.** The selected frequency is now the Priority Channel.

3) Press **Band/Bank** to select the required frequency band you wish to scan.

4) Press **Scan/Src.** The receiver will begin searching the selected Band and will switch to the Priority channel at an interval set by the 'Priority Time' setting in the setup menu.

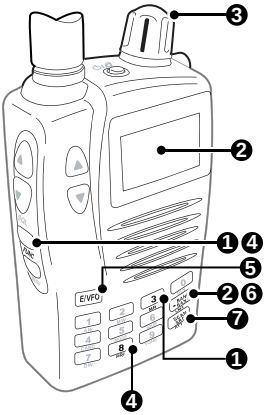
To perform a Priority Search using a stored channel as the Priority channel:

1) Press **Func MR** to select the Memory Read mode.

2) Press **Bank/Band** to select the required memory bank.

3) Rotate the **Control Knob** to select the required channel.

4) Press **Func PRI.** The selected channel is now the Priority Channel.



5) Press the **E/VFO** key to select VFO mode.

6) Press **Band/Bank** to select the required frequency band you wish to search.

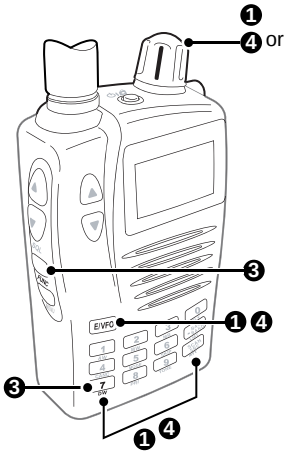
7) Press **Scan/Src.** The receiver will begin searching the selected Band and will switch to the Priority channel at an interval set by the 'Priority Time' setting in the setup menu.

Notes:

- If a signal is received, the receiver will remain on the active frequency for the duration of the 'Busy Timer' setting in the Menu setup. If the 'Busy timer' is set to Busy the receiver will stay on the active channel for as long as the signal is present.
- To change the frequency band while searching, briefly press **Band/Bank** key.
- To change the search direction while searching, rotate the control knob clockwise or counter clockwise.

■ Dual Watch

The Dual Watch function lets you constantly monitor two frequencies for activity.



To set the Dual Watch function:

1) Enter one of the required frequencies using the Control knob or Keypad then press **E/VFO.**

2) Adjust the squelch so that the receiver is muted.

3) Press **Func DW.**

4) Enter the second frequency using the Control knob or the Keypad then press **E/VFO.**

5) The Dual watch begins automatically. If a signal is received, the receiver will remain on the active frequency for the duration of the 'Busy Timer' setting in the Menu setup. If the 'Busy timer' is set to Busy the receiver will stay on the active

To stay on an active frequency indefinitely or to stop the Dual Watch function press **Func DW** again. The receiver will exit the Dual Watch function.

MEMORY BANKS

The scanner memory storage area has a capacity of 1300 locations. These are split into specific segments as follows:

1000 Manual Storage Memories.
200 Automatic Storage Memories
50 Limited Search Memories (2 x 25 pairs)
50 Dual Watch memories (2 x 25 Pairs)

■ Manual Memories

The Manual Memory area allows the user to manually store up to 1000 individual frequencies. It is split into memory banks with a maximum capacity of 40 memory banks, each containing 25 memory locations (40 x 25 = 1000).

However the memory capacity of each bank is flexible up to a maximum of 100 memories per bank, but at a reduction in the number of banks available.

For example, in an extreme case where each bank is programmed with the maximum 100 memories, the number of banks available would be reduced to 10 (10 banks x 100 memories = 1000 memory capacity).

The default Manual memory banks are labelled 00 to 39.

■ Automatic Memories

The Automatic Memory area can store up to 200 frequencies in two banks of 100 memories. The automatic memory is used when searching a band of frequencies. The scanner can automatically store any active frequencies it finds while searching.

The Automatic Memory banks are labelled A0 and A1

■ Limited Search Memories

The Limited Search Memories consists of 50 memory locations split into 25 pairs of frequencies. The Limited Search function allows you to specify the upper and lower frequency limits of a section of frequency band that you wish to scan. These frequency limit 'pairs' can be stored in the Limited Search memories for recall at a later time.

The Limited Search Memory Upper and Lower limits are identified as A and b.

The 25 pairs are therefore labelled A00, b00 to A24, b24

■ Dual Watch Memories

The Dual Watch function allows the radio to switch between two selected frequencies. The Dual Watch Memories consists of 50 memory locations split into 25 pairs of frequencies.

The two Dual Watch frequencies are identified as A and b. The 25 pairs are therefore labelled A00, b00 to A24, b24.

STORING FREQUENCIES INTO THE MEMORIES

■ Manual memories

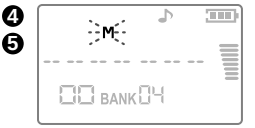
To manually store a frequency into one of the manual memories:

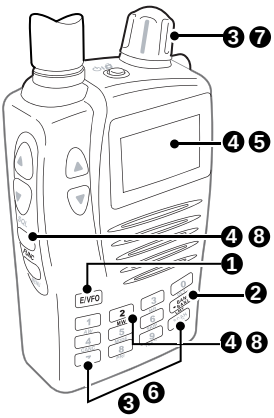
1) Press the **E/VFO** key to select VFO Mode.

2) Press the **BAND** key to select the required Band.

3) Select the frequency that you want to store using the number keys or the control knob.

4) Press **Func MW** to enter the Memory Write mode.





5) The receiver will find and display an empty memory bank and memory location automatically.

6) If required, use the number keys to select a new memory bank e.g. for memory bank 16 press 1 and 6

7) To change the memory location, rotate the control knob.

8) Press **Func MW** again to store the frequency.

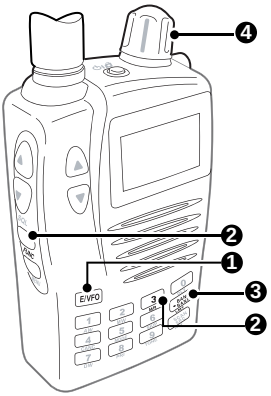
To recall a frequency from the manual memories:

1) Press the **E/VFO** key to select VFO Mode.

2) Press **Func MR.** The receiver will enter the Memory Read mode.

3) To step through the memory banks press the **BANK** key or enter the memory bank directly using the numbered keys. Memory banks are numbered 00 to 39

4) Select the required channel using the control knob.



■ Automatic Memories

The Automatic Memory holds frequencies that are stored automatically while doing a Band Search

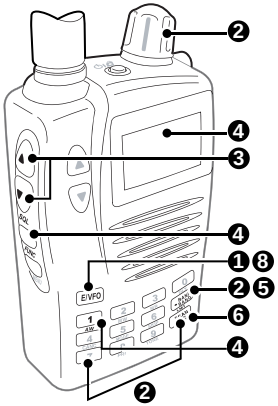
To store frequencies into the Automatic Memories:

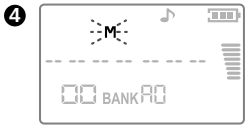
1) Press the **E/VFO** key to select VFO Mode.

2) Select the band and frequency that you wish to begin searching from.

3) Set the squelch level to a point where the receiver is just quiet.

4) Press **Func AW** to select the Automatic Write mode.





5) Press the **Bank** key to select the required memory bank (A0 or A1).

6) Press the **SCAN/SRC** key to begin scanning.

7) As active frequencies are found they are automatically stored in the select memory bank. When all 100 channels are fully stored the receiver will Beep.

8) To exit from the Automatic memory mode, press the **E/VFO** key.

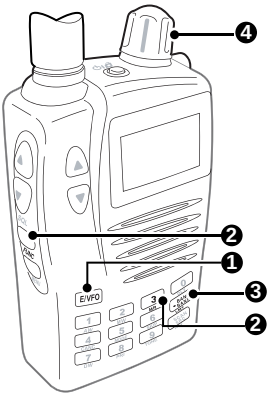
To recall a frequencies from the Automatic Memories

1) Press the **E/VFO** key to select VFO Mode.

2) Press **Func MR.** The receiver will enter the Memory Read mode.

3) Press the **BANK** key repeatedly to step through the memory banks until A0 or A1 are selected.

4) Select the required channel using the control knob.



■ Limited Search Memories

Here you will be storing a pair of frequencies that represents the upper and lower limits of a section of frequency band you wish to search for signals.

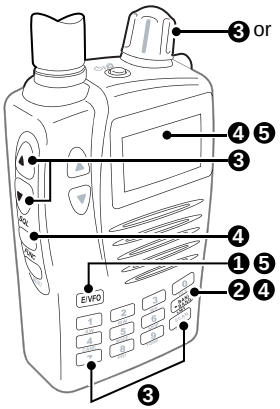
To store a pair of frequency limits into the Limited Search Memories.

1) Press the **E/VFO** key to select VFO Mode.

2) Press the **Band** key to select the required band.

3) Enter the frequency that represents one end of the range you wish to search.

4) Press **Func LMT**. L1 will flash on the display to indicate that you are entering the first frequency limit



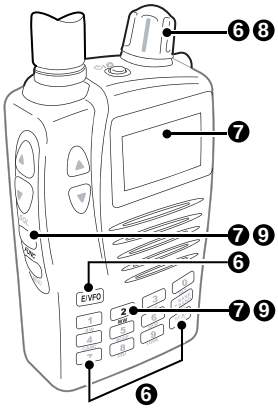
❹

5) Press the **E/VFO** key to accept. L2 will flash on the display to indicate you are now entering the second limit frequency.

❺

6) Enter the second frequency limit then press **E/VFO** to accept it.

7) Now press **Func MW.** The receiver enters the Memory Write mode and selects the **Pr** memory bank.



8) Use the control knob to select an empty channel to store the frequency pair.

9) Press **Func MW** again to store the frequencies.

The selected frequencies limits will be stored as a pair of channels in locations Axx and bxx where xx is the channel number you selected in step 8

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To recall a frequency limit pair from the Limited Search Memories

1) Press the **E/VFO** key to select VFO Mode.

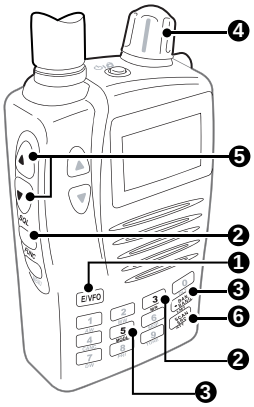
2) Press **Func MR**. The receiver will enter the Memory Read mode.

3) Press the **BANK** key repeatedly to step through the memory banks until **Pr** is displayed or press **MODE** key to directly access **Pr** blank

4) Select the required channel using the control knob.

5) Set the squelch level to a point where the receiver is just quiet.

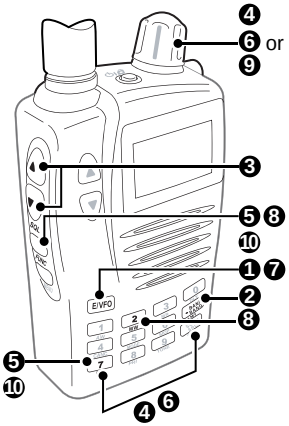
6) Briefly press **SCAN/SRC**. The radio will begin scanning between the selected frequency limits.



■ Dual Watch Memories

The Dual Watch memories are used to store a pair of frequencies that will be monitored when the Dual Watch feature is enabled. Up to 50 frequencies (25 pairs) can be stored.

To store a pair of Dual Watch frequency into the Dual Watch Memories



1) Press the **E/VFO** key to select VFO Mode.
2) Press the **Band** key to select the required band.
3) Adjust the Squelch so the receiver is muted.
4) Enter one of the frequencies that you wish to monitor.
5) Press **Func DW**. The 'D' Dual Watch icon will be displayed.
6) Enter a second frequency using the control knob or the number keys.
7) Press the **E/VFO** key to accept. The Dual Watch function will begin.
8) Now press **Func MW**. The receiver enters the Memory Write mode and selects the **Du** (Dual Watch) memory bank.

9) Use the control knob to select an empty channel to store the frequency pair.
10) Press **Func MW** again to store the two frequencies. They will be stored Axx and bxx where xx is the empty channel you selected.

To recall a pair of Dual Watch frequencies from the Dual Watch Memories

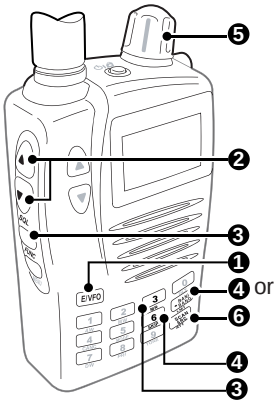
1) Press the **E/VFO** key to select VFO Mode.

2) Set the squelch level to a point where the receiver is just quiet.

3) Press **Func MR.** The receiver will enter the Memory Read mode.

4) Press the **BANK** key repeatedly to step through the memory banks until **Du** is selected or press **SKIP** to directly access **Du** bank.

5) Select the required channel using the control knob.

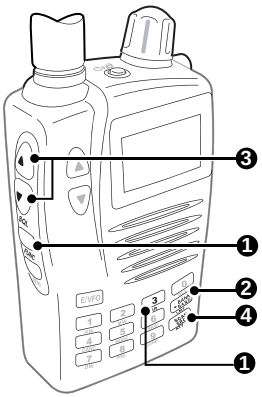


6) Briefly press the **SCAN/SRC** key. Dual Watch will begin with the receiver monitoring the channels in the selected Dual Watch memory.

■ Band Scan

Use the Scan function to locate active channels among the memorized channels in one or more banks.

1) Press **Func MR** to select the Memory Read mode.
2) Press **Bank/Band** to select the preferred memory bank.
3) Set the squelch level to a point where the receiver is just quiet.
4) Press **Scan/Src**. The receiver will begin scanning the selected Band.



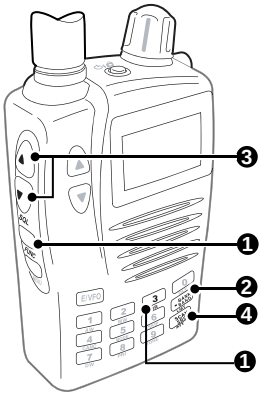
Notes:

- *If a signal is received, the receiver will remain on the active channel for the duration of the 'Busy Timer' setting in the Menu setup. If the 'Busy timer' is set to Busy the receiver will stay on the active channel for as long as the signal is present.*
- *To change the bank while searching, briefly press **Band/Bank** key.*
- *To change the scan direction while scanning, rotate the control knob clockwise or counter clockwise.*

■ Full Scan

The Full Scan function scans the entire memorized channel range for signals.

1) Press **Func MR** to select the Memory Read mode.
2) Press **Bank/Band** to select the preferred memory bank.
3) Set the squelch level to a point where the receiver is just quiet.
4) Press and hold **Scan/Src** for 2 seconds. The receiver will begin scanning the entire full Bands.



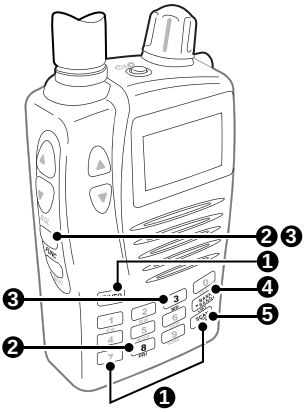
Notes:

- *If a signal is received, the receiver will remain on the active channel for the duration of the 'Busy Timer' setting in the Menu setup. If the 'Busy timer' is set to Busy the receiver will stay on the active channel for as long as the signal is present.*
- *To change the bank while searching, briefly press **Band/Bank** key.*
- *To change the scan direction while scanning, rotate the control knob clockwise or counter clockwise.*
- *The full scan function works only within the Manual Memory Banks(00 through 39 Banks).*

■ Priority Scan

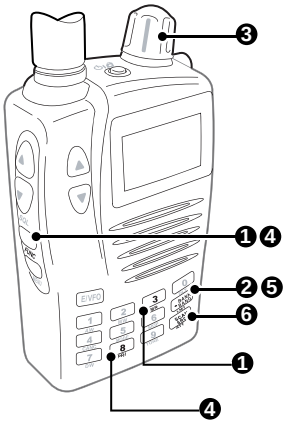
Priority Scan allows you to insert a Priority channel or frequency into the channel Scan. When the Scan is activated, the receiver will visit the Priority channel or frequency at an interval set by the 'Priority Time' in the Menu setup.

To perform a Priority Scan using a frequency as the Priority channel:



1) Enter the required Priority channel frequency using the Keypad then press **E/VFO**.
2) Press **Func PRI**. The selected frequency is now the Priority Channel.
3) Press **Func MR** to select the Memory Read mode.
4) Press **Bank/Band** to select the preferred memory bank you wish to scan.
5) Press **Scan/Src**. The receiver will begin scanning the selected Band and will switch to the Priority channel at an interval set by the 'Priority Time' setting in the setup menu.

To perform a Priority Scan using a stored channel as the Priority channel:



1) Press **Func MR** to select the Memory Read mode.
2) Press **Bank/Band** to select the required memory bank.
3) Rotate the **Control Knob** to select the required channel.
4) Press **Func PRI**. The selected channel is now the Priority Channel.
5) Press **Band/Bank** to select the preferred channel bank you wish to scan.
6) Press **Scan/Src**. The receiver will begin scanning the selected Bank and will switch to the Priority channel at an interval set by the 'Priority Time' setting in the setup menu.

Notes:

- *If a signal is received, the receiver will remain on the active channel for the duration of the 'Busy Timer' setting in the Menu setup. If the 'Busy timer' is set to Busy the receiver will stay on the active channel for as long as the signal is present.*
- *To change the channel Bank while searching, briefly press **Band/Bank** key.*
- *To change the search direction while searching, rotate the control knob clockwise or counter clockwise.*

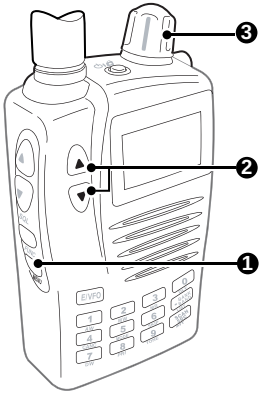
MENU SETTINGS

The Menu settings will vary depending on the selected mode.

1) Press the **MENU** Key to access the Menu settings

2) Press the volume ▲ ▼ keys to step through the Menu items.

3) Rotate the Control knob to change the values of each Menu item



ENGLISH

■ **VFO Mode**

FUNCTION	DESCRIPTION	VALUES
Busy Timer	Determines how long the receiver will wait on a busy channel while Scanning or Searching. When 'Busy' is selected, the receiver will stay on the busy channel as long as it remains busy.	Busy, 5 Seconds
Tone	Selects the required CTCSS or DCS tone. The tone is then activated or deactivated by pressing **Func TONE.**	See CTCSS/DCS Table
Priority Time	Sets how long the receiver wil wait before visiting the selected Priority channel when Scanning or Searching.	1 - 10 Seconds
Memory	Shows the available Manual Memory left in the receiver.	0 - 1000
Step	Sets the Frequency Step in kHz. When Auto is selected the receiver automatically uses a factory preset frequency step for each band.	5, 6.5, 8.33, 9, 10, 12.5, 15, 20, 25, 30, 50, 100, 500, Auto
Beep	Activates or deactivates the key-press beeps.	ON, OFF
Delay	Determines how long the radio will wait on a frequency after a signal has disappeared while scanning or Searching.	1 - 10 Seconds

■ Memory Read Mode

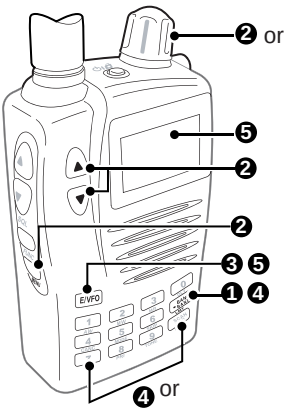
FUNCTION	MEANING	DESCRIPTION
CH CLR	Channel Clear	Erases the selected channel.
bA CLR	Bank Clear	Erases all the channels in the selected Bank.
ALL CLR	All Clear	Erases all memories in the receiver.
CH Move	Channel Move	Moves a frequency from one channel to another.
CH Copy	Channel Copy	Copies a frequency from one channel to another.
bA Copy	Bank Copy	Copies an entire bank of frequencies to another Bank.

ENGLISH

■ Bank Copy

To copy one bank of frequencies to another

1) Select the bank that you would like to copy from.
2) Press Menu, then use the Control Knob or the volume ▲▼ keys to select 'bA Copy'
3) Press **E/VFO** to accept.
4) Now select the Bank you wish to copy it to using the number keys or the **BANK/BAND** key.
5) Press **E/VFO** again to copy the original Bank to the new Bank. The original Bank will remain unchanged.



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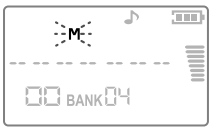
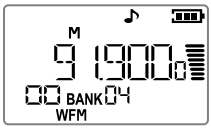




■ Channel Copy

To copy one channel to another

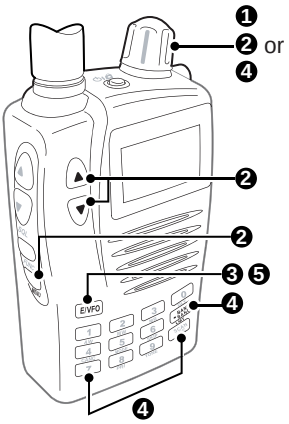
1) Select the channel that you would like to copy from.

2) Press Menu, then use the Control Knob or the volume ▲▼ keys to select 'CH Copy'

3) Press **E/VFO** to accept. The receiver will then automatically select the next empty channel in the same Bank.

4) If you don't wish to use the empty channel selected by the receiver, use the **Control** Knob, number keys or the **BANK/BAND** key to select the preferred channel and Bank.

5) Press **E/VFO** again to copy the original channel to the new channel. The original channel will remain unchanged.



■ Channel Move

To Move one channel to another.

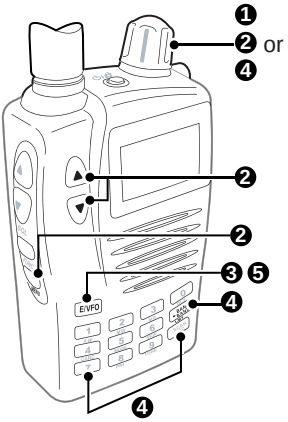
1) Select the channel that you would like to move from.

2) Press Menu, then use the Control Knob or the volume ▲ ▼ keys to select 'CH Move'

3) Press **E/VFO** to accept. The receiver will then automatically select the next empty channel in the same Bank.

4) If you don't wish to use the empty channel selected by the receiver, use the **Control** Knob, number keys or the **BANK/BAND** key to select the preferred channel and Bank.

5) Press **E/VFO** again to move the frequency to the new channel. The original channel will now be empty.



■ All Clear

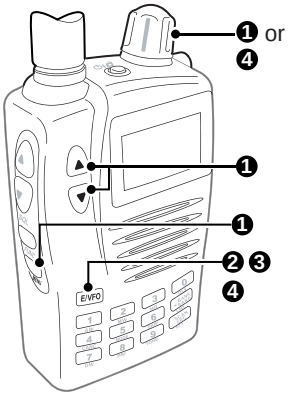
To erase ALL data from the memories

1) Press Menu, then use the Control Knob or the volume ▲ ▼ keys to select 'ALL CLR'

2) Press **E/VFO.** 'dEF yES' will be displayed.

3) To continue with the All Clear, press **E/VFO** again.

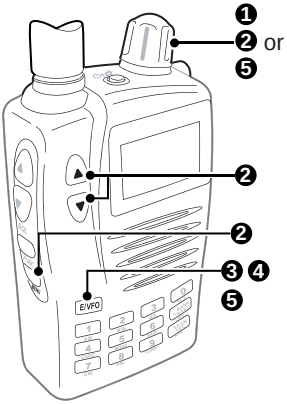
4) To cancel the All Clear, use the **Control** knob to select 'dEF NO' then press **E/VFO.**



■ **Bank Clear**

To erase a channel from the memory

1) Select a channel within the Bank that you wish to erase.
2) Press Menu, then use the Control Knob or the volume ▲ ▼ keys to select 'bA CLR'.
3) Press **E/VFO.** 'dEF yES' will be displayed.
4) To continue with the Bank Clear, press **E/VFO** again.
5) To cancel the Bank Clear, use the **Control** knob to select 'dEF NO' then press **E/VFO.**



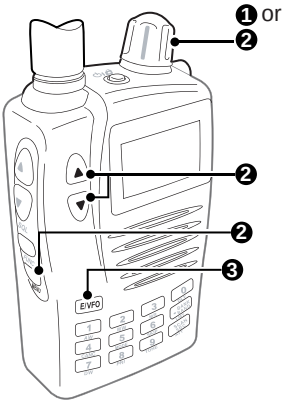
■ Channel Clear

To erase a channel from the memory

1) Select the channel you wish to erase.

2) Press Menu, then use the Control Knob or the volume ▲▼ keys to select 'CH CLR'.

3) Press **E/VFO** to erase the channel.



CLONING STORED MEMORIES WITH ANOTHER UNIT

The memories stored in your receiver can be transferred to or from another TSC-3000R receiver. To perform this function you will need a TCC-1010 cloning cable (available separately).

Cloning is performed as follows:

1) Place the two radios side by side and connect the cloning cable as shown in the diagram below.

2) Switch on the radio whose memories you are copying from (Master) pressing and holding Func MODE. "CLON TX" appears on the display.

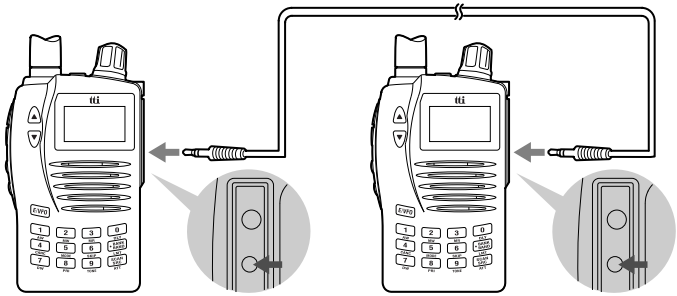
3) Switch on the radio whose memories you are copying to (Slave) pressing and holding Func MODE. "CLON TX" appears on the display. Rotate the Control Knob to select "CLON RX".

4) Press E/VFO on the Master radio and on the Slave radio. Both radios will emit a confirmation beep and "CONNECT" appears on the displays.

5) "dATA TX" and "dATA RX" appears on each display of the Master radio and the Slave radio.

6) "CLON OK" appears on the displays of both radios.

Once cloning has completed successfully, switch both radios on and remove the cloning cable. You can now access the frequencies you have transferred



CE Declaration

CE 0678 CE version of TSC-3000R which diplays the CE symbol on the product label, complies with the essential requirements of the European Radio and Telecommunication Terminal Directive 1999/5/CE.

Safety Requirements

For Charging the rechargeable battery pack, only a CE approved AC Adaptor complying with the following specifications must be used :

*INPUT : AC 230V 50Hz
*OUTPUT : DC 9V 300mA

SPECIFICATIONS

■ **General**

- Frequency coverage : 0.150-1309.995 MHz
- Number of memory channels : 1300 (incl. limited search memories, dual watch meemories and auto write memories)
- Frequency resolutionn : 5, 6.25, 8.33 *, 9 **, 10, 12.5, 15, 20, 25, 30, 50, 100, 500KHz & Auto.

  * Selectable between 108 - 135.99127 MHz

  * * Selectable between 0.504 - 1.620 MHz
- Operation temperature range : -10°C to +60°C
- Reference frequency stability : ± 6 ppm°C (-10°C to +60°C)
- Power supply requirement : 3.7V Li-Ion pack
- Current drain
  Stanby (power saved) : 50mA typical
  max. audio : 320mA typical
  charging(at 9V DC) : 300mA typical
- Antenna connector : SMA (50Ω)
- Dimensions (proj. not included) : 62.5(W) x 98.0(H) x 32.6(D)mm
- Weight(approx.) : 220g

  * Specifications are subject to change without prior notice or obligation.

■ Receiver

- Receive system : Triple-conversion superheterodyne.
- Intermediate frequencies
  1st : 266.7 MHz, 2nd : 19.65 MHz, 3rd : 450 KHz
- Sensitivity and squelch sensitivity (except spurious points):

FM (1 kHz/3.5 kHz Dev. 12dB SINAD)
1.625 - 4.995 MHz : 0.35 uV typ.
5.000 - 179.995 MHz : 0.35 uV typ.
118.000 - 246.995 MHz : 0.25 uV typ.
247.000 - 329.995 MHz : 0.28 uV typ.
330.000 - 469.995 MHz : 0.36 uV typ.
470.000 - 832.995 MHz : 0.56 uV typ.
833.000 - 999.995 MHz : 0.5 uV typ.
1000.000 - 1309.995 MHz : 0.89 uV typ.

WFM (1 kHz/52.5 kHz Dev. 12dB SINAD)
76.000 - 108.000 MHz : 0.89 uV typ.
175.000 - 221.995 MHz : 0.71 uV typ.
470.000 - 770.000 MHz : 1.7 uV typ.

AM (1 kHz/30% MOD. 10dB SINAD)
0.495 - 4.995 MHz : 1.3 uV typ.
5.000 - 29.995 MHz : 0.8 uV typ.
118.000 -136.000 MHz : 0.56 uV typ.
220.000 - 246.995 MHz : 0.56 uV typ.
247.000 - 329.995 MHz : 0.71 uV typ.

- Sensitivity
  AM/FM : More than 15 kHz/-9dB
  Less than 150 kHz/-60dB
  WFM : More than 150 kHz/-6dB
- AF output power : 500mW typical at 40% distortion with an 8Ω load
- Ext.speaker connector : 3-conductor 3.5(d) mm (1/5") 8Ω

NOTES

DECLARATION OF CONFORMITY

We, TTI Tech Co., Ltd. (TTI house, 1163-4, Gaepo-dong, Gangnam-gu, Seoul, Korea) declare on our sole responsibility that this equipment complies with the essential requirements of the Radio and Telecommunications Terminal Equipment Directive, 1999/5/EC, and that any applicable Essential Test Suite measurements have been performed.

Kind of equipment: **WIDEBAND RECEIVER**

Type-designation: **TSC-3000R**

Version (where applicable):

This compliance is based on conformity with the following harmonised standards, specifications or documents:

EN 301 783-1	V1.1.1
EN 301 783-2	V1.1.1
EN 301 489-1	V1.6.1
EN 301 489-15	V1.2.1
EN 60950-1	2001

CE0678

Seoul, NOV . 10 ,2006

Place and date of issue

H. J. Lee
Senior Manager

Signature

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Authorized Representative

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The WEEE Regulations

Waste electrical products must not be disposed of with household waste. This equipment should be taken to your local recycling center for safe treatment.

Des produits électriques de rebut ne doivent pas être débarassés avec la perte de ménage. Cet équipement devrait être pris à votre centre de réutilisation local pour le traitement sûr.

Die Elektronik-Schrottverordnung verlangt, dass elektronische Geräte, wenn sie nicht mehr gebraucht werden, nicht über den normalen Hausmüll entsorgt werden, sondern bei öffentlichen Sammelstellen abgegeben werden sollen.
Sollten Sie Ihr Gerät einmal nicht mehr benötigen, dann geben Sie es z.B. bei den kommunalen Sammelstellen zum kostenlosen Recycling ab. Sie helfen damit dem Umweltschutz und ermöglichen die Wiederverwendung wertvoller Stoffe aus dem Elektronik-Recycling. Nicht mehr benötigte Batterien oder Akkus entsorgen Sie bitte entleert!

I prodotti elettrici non più utilizzabili non devono essere deposti nei rifiuti domestici. E' importante consegnare tutti i materiali ad un appropriato centro di riciclaggio per un trattamento sicuro.

Los productos eléctricos inútiles no se deben disponer con la basura de la casa. Este equipo se debe llevar su centro de reciclaje local para el tratamiento seguro

Os produtos eléctricos irrecuperáveis não devem ser colocados juntamente com o lixo doméstico. Estes, deverão ser colocados em locais destinados a reciclagem para tratamento seguro e apropriado

Part Number:820-TS30-000
Version A