

## **GENERAL DESCRIPTION**

The transceiver is a micro-miniature multiband FM transceiver with extensive receive frequency coverage, providing local-area two-way amateur communications along with unmatched monitoring capability. We appreciate your purchase of our transceiver, and encourage you to read this manual thoroughly, and learn about many exciting features.

## PRECAUTIONS

- ◆ Refer service to qualified technicians only.
- ◆ Do not disassemble or modify the transceiver for any reason.
- ◆ Do not expose the transceiver under direct sunlight long or to extremely hot condition.
- ◆ Do not place the transceiver on the unstable surface.
- ◆ Keep the transceiver out of dust, moisture, water.
- ◆ Do not operate the transceiver or charger the battery pack under explosive conditions

## SAFETY

It is important that the operator is aware of and understands hazards common to the operation of any transceiver.



### WARNING

**Please turn the transceiver off at the following locations:**

- ◆ In explosive atmospheres (inflammable gas, dust particles, metallic powders, grain powders, etc.).
- ◆ While taking on fuel or while parking at gasoline service stations.
- ◆ Near explosives or blasting sites.
- ◆ In medical institutes or aircrafts.

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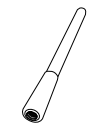
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## UNPACKING AND CHECKING EQUIPMENTS

Carefully unpack the transceiver. We recommend that you identify the items listed in the following table before discarding the packing material. If any items are missing or have been damaged during shipment, please contact the dealers immediately.

### ◆ Standard Accessories

ITEM	QUANTITY
Antenna	1 (UHF&VHF dual Band)
AC Adapter	1
Li-ion Battery	1
Belt Clip	1
Hand Strap	1
Instruction Manual	1



Antenna



Belt Clip



Li-ion Battery



Hand Strap



AC Adapter

## INSTALLATION OF ACCESSORIES

### ◆ ANTENNA INSTALLATION

The supplied antenna provides good results over the entire frequency range of the transceiver. However, for enhanced based station medium-wave and shortwave reception, you may wish to connect an external antenna, as the supplied antenna is very small and can not be expected to provide high performance at these frequencies.

To install the supplied antenna, hold the bottom end of the antenna and screw it onto the mating connector on the transceiver until it is snug. Do not over-tighten by use of extreme force. (See PIC 1)

#### Note:

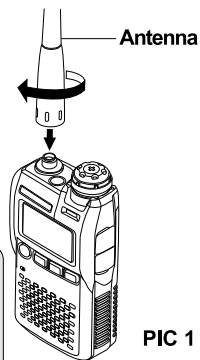
- ◆ Never transmit without having an antenna connected.
- ◆ When installing the supplied antenna, never hold the upper part of antenna while screwing it onto the mating connector on the transceiver.
- ◆ If using an external antenna for transmission, ensure that the SWR presented to the transceiver is 1.5:1 or lower, to avoid excessive feedline loss.

### ◆ BELT CLIP INSTALLATION

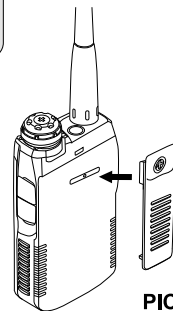
If necessary, install the belt clip into the location on the back of the battery. (See PIC 2)

#### Note:

Do not use the glue to fasten the screw, while installing the belt clip. Otherwise, the acrylic acid of the glue may damage the battery panel.



PIC 1



PIC 2

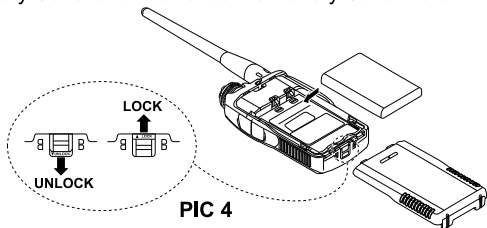
## ◆ SP.&MIC. INSTALLATION

Insert the speaker/microphone plugs into the SP.&MIC. Jacks of the transceiver. (See PIC 3)

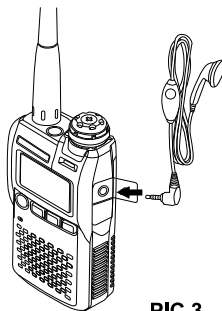
## ◆ BATTERY PACK INSTALLATION

The battery pack is a high-performance Li-ion battery providing high capacity in a very compact package. Under normal use, the battery may be used for approximately 400 charge cycles, after which operating time may be expected to decrease. If you have an older battery that is displaying diminished capacity, you should replace the battery with a new one. Installation of the battery is easy and quick:(See PIC 4)

- 1.Slide the Battery Cover to the latch position and then slide the Battery Cover toward the bottom to remove it.
- 2.Install the battery into the Battery Compartment.
- 3.Replace the Battery Cover and then slide the Battery Cover Latch into the Lock position.



PIC 4



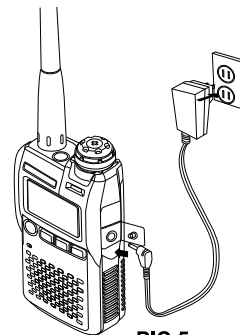
PIC 3

## ◆ BATTERY CHARGING

If the battery has never been used, or its charge is depleted, it may be charged by connecting the Battery Charger, as shown in the illustration, to the EXT DC Jack. If only 12-16 Volt DC power is available, the optional DC Adapter (with its cigarette lighter plug) may also be used for charging the battery.

While the battery is being charged, the display will indicate (See PIC 5), this S-meter will deflect according to the charging status, and the TX/BUSY indicator will glow red. When the charging is finished, the TX indicator will glow green.

The charger is only designed for the charging of our battery, and is not suitable for other purposes. Please be advised that the charger may contribute noise to TV and radio reception in the immediate vicinity, so we do not recommend its use adjacent to such devices.

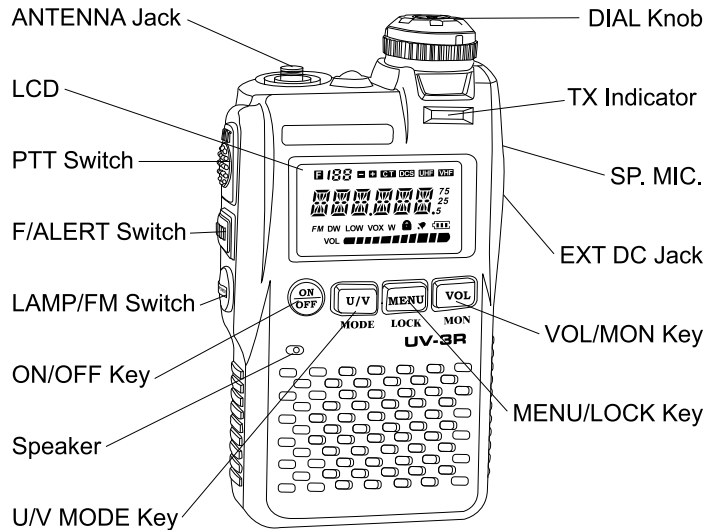


PIC 5

### Important Note:

- 1) Perform the battery charging where the ambient temperature range is 41°F~95°F (+5°C ~+35°C).Charge out of this range could cause damage to the battery pack.
- 2) If the charge is not completed in 4-5 hours, the battery may be deteriorated. Do not attempt to forcibly charge the battery, please contact the dealer.
- 3) If you do not use the transceiver for a long time, remove the battery pack from the transceiver, as battery leakage could cause damage to the transceiver and the battery pack.
- 4) While in storage, the charge will drain slightly over time and the battery should be recharged 50% each six months.

## GETTING ACQUAINTED

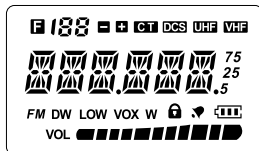


## THE DEFINITION OF THE CONTROL

[DIAL]Knob	The main tuning Dial is used for setting the operating frequency, and is used for audio volume level, menu selections, and other adjustments. To rotate this Dial knob, pull the knob to unlock the mechanical dial lock, and then rotate the Dial knob.
[PTT]Switch	Press this switch to transmit, and release it to receive, after your transmission is completed.
[VOL/MON]Key	Press and Hold the key to disable the noise squelching action, allowing you to hear very weak signals near the background noise level.
[ON/OFF]	Press and hold this key for two seconds to toggle the transceiver's power on and off.
[F/ALERT]	Just press to activate the 'Alternate' key function, such as setting Scanning, Memory Write Mode etc. Press and hold the switch to activate the Alarm function.
[MENU/LOCK]	Just press the key, entering into the MENU. Rotate the DIAL knob, will see different functions setting under the MENU. Press and Hold the key, activate the Key Lock or disable the Key Lock. (Note: After the keypad is locked, the operations of the [F/ALERT], [UV MODE], [LAMP/FM] will be invalid.)
[UV/MODE]	Just press to switch the VFO UHF Mode and VHF Mode. Press and Hold to switch frequency control between VFO and Memory Systems.
[LAMP/FM]	Just press to light the Torch. Press and Hold to activate the FM Radio Function.
F+[MENU/LOCK]	Press the [F/ALERT], then press [MENU/LOCK], to Activate the Scanning Function.
F+[UV/MODE]	Press the [F/ALERT], then press [UV/MODE], to Activate the 'Memory Write' mode (for memory channel storage).
F+[DIAL]	Press [F/ALERT], then rotate the [DIAL] knob, to increase or decrease the frequency at $\pm 1$ MHz.
[VOL/MON]+ [DIAL]	Press [VOL/MON], then rotate the [DIAL] knob, to adjust the volume level.

## LCD DISPLAY

The display icons appear when certain operations are performed or certain specific features are activated. It will help you to know the meaning of the indicator and know how to set functions.



ICON	DESCRIPTION	OPERATION
<b>F</b>	Secondary Keypad Active	Press [F/Alert] Key
<b>188</b>	Memory Channel Number	Rotate the [DIAL] knob
<b>CT</b>	CTCSS Operation	[MODE] -01
<b>DCS</b>	DCS Operation	[MODE] -01
<b>UHF</b>	UHF 400-470MHz	[U/V] Key
<b>VHF</b>	VHF 136-174MHz	[U/V] Key
<b>FM</b>	FM Radio(87-108MHz)	[LAMP/FM] Key
<b>LOW</b>	Low/High Output Power	[MODE] -07
<b>VOX</b>	VOX Function Active	[MODE] -06
<b>W</b>	Wide/Narrow Bandwidth	[MODE] -13
	Keypad Lock Active	
	Keypad Beeper ON	[MODE] -05
	Battery Indicator	
	Repeater Shift Direction	[MODE] -11
<b>DW</b>	Dual Watch Active	[MODE] -08
	Audio Volume Level	

## COMBINATION KEY FUNCTION

### ◆Tone Calling(1750Hz)

Press and hold in the button [PTT] and [VOL] to enter the Tone Calling Mode(1750Hz). The transceiver send out the signal (1750Hz). Release the button [VOL] to exit.

### ◆Restore to Default Factory Setting

Press and hold the key [U/V] + [ON/OFF] to Power ON the transceiver will restore to the default factory setting.

Factory Default Setting as:400.000MHz, No CTCSS/DCS, Low Output power, Battery Save, Volume Level 5, SQ 5, Key Tone ON, other settings OFF.



Menu Item	Description	Settings
1	RXCODE	OFF*CTCSS, DCS
2	TXCODE	OFF*CTCSS, DCS
3	SQL (Squelch)	0-9
4	LIGHT (LCD Illumination)	OFF/ON /KEY
5	BEEP(Keypad Beeper)	OFF-ON
6	VOX	OFF/1-9
7	POWER (RF Output Power)	HIGH/LOW
8	DW(Dual Watch/UHF&VHF)	ON/OFF
9	STEP	5/6,25/10/12.5/20/25KHz
10	OFFSET	0-37.995/0-69.995MHz
11	SHIFT	0/-/+
12	STE	ON/OFF
13	W/N	WIDTH/NARROW
14	SAVE	ON/OFF
15	TOT	OFF/30/60/90/120/180S
16	SCANM	TO/CO
17	RELAYM	ON/OFF
18	BCLO	ON/OFF

## MENU SETTING

Press [ MENU/LOCK ], come to MENU [01] RXCODE

001  
RXCODE

Press [ MENU/LOCK ], turn clockwise or counterclockwise [ DIAL ], come to MENU [02]TX CODE.

002  
TXCODE

Press [ MENU/LOCK ], turn clockwise or counterclockwise [ DIAL ], come to MENU [03] SQL.

003  
SQL

Press [ MENU/LOCK ], turn clockwise or counterclockwise [ DIAL ], come to MENU [04] LIGHT.

004  
LIGHT

Press [ MENU/LOCK ], turn clockwise or counterclockwise [ DIAL ], come to MENU [05] BEEP.

005  
BEEP

Press [ MENU/LOCK ], turn clockwise or counterclockwise [ DIAL ], come to MENU [06] VOX.

006  
VOX

Press [ MENU/LOCK ], turn clockwise or counterclockwise [ DIAL ], come to MENU [07] POWER.

007  
POWER

Press [ MENU/LOCK ], turn clockwise or counterclockwise [ DIAL ], come to MENU [08] DW.

008  
DW

Press [ MENU/LOCK ], turn clockwise or counterclockwise [ DIAL ], come to MENU [09] STEP.

009  
STEP

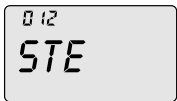
Press [ MENU/LOCK ], turn clockwise or counterclockwise [ DIAL ], come to MENU [10] OFFSET.

010  
OFFSET

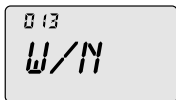
Press 【 MENU/LOCK 】 turn clockwise or counterclockwise  
【 DIAL 】 , come to MENU [11] SHIFT.



Press 【 MENU/LOCK 】 , turn clockwise or counterclockwise  
【 DIAL 】 , come to MENU [12]STE.



Press 【 MENU/LOCK 】 , turn clockwise or counterclockwise  
【 DIAL 】 , come to MENU [13] W/N.



Press 【 MENU/LOCK 】 , turn clockwise or counterclockwise  
【 DIAL 】 , come to MENU [14] SAVE.



Press 【 MENU/LOCK 】 , turn clockwise or counterclockwise  
【 DIAL 】 , come to MENU [15] TOT.



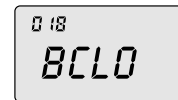
Press 【 MENU/LOCK 】 , turn clockwise or counterclockwise  
【 DIAL 】 , come to MENU [16] SCANM.



Press 【 MENU/LOCK 】 , turn clockwise or counterclockwise  
【 DIAL 】 , come to MENU [17] RELAYM.



Press 【 MENU/LOCK 】 , turn clockwise or counterclockwise  
【 DIAL 】 , come to MENU [18] BCLO.



**NOTE:**

- ◆ Press the key 【 UV/MODE 】 ,confirm the setting, and EXIT the functions setting.
- ◆ Under the VFO mode, turn clockwise or counterclockwise 【 DIAL 】 to increase or decrease the frequency.

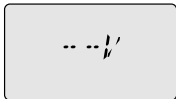


## OPERATION

### ◆ POWER ON/OFF

1. Be sure the Battery Pack is installed, and the battery is fully charged.

Connect the antenna to the top panel ANTENNA jack.



2. Press and hold the key [ ON/OFF ], the current DC supply voltage will appear on the LCD for 2 seconds, and beeps will be heard, the display will resume its normal indication of the operating frequency.

3. To turn the transceiver off, press and hold the key [ ON/OFF ] again for one second.

### ◆ ADJUSTING THE VOLUME LEVEL

Pull the [ DIAL ] knob to unlock the mechanical dial lock, then rotate the [ DIAL ] knob after press the key [ VOL/MON ], to set the desired audio level. Clockwise rotation increased the volume level.

## ADVANCED OPERATION

### ◆ SETTING RX CODE

You may sometimes want to hear calls from only specific persons or groups. In this case, use the selective call allows you to ignore unwanted calls from other persons who are using the same frequency.

**Set the receiving signal according to the below instructions:**

- 1) Press [ MENU/LOCK ], rotate the [ DIAL ] knob, come to MENU [1]: RXCODE
- 2) Then press [ U/V ] key, enter the set mode.
- 3) Clockwise or counterclockwise rotation of [ DIAL ] knob to select from OFF /67.0-754N, press [ MENU/LOCK ] again, to select the code (Positive or negative), such as 023N---023I.

→ OFF → 67.0 → 023N → 023I

#### NOTE:

[CTCSS:67Hz---254.1Hz(50 groups);

DCS:023N-754N(104 groups)

**754N-MENU-754I]**

- 4) Press [ U/V ] key to save the setting and EXIT. Press [ MENU/LOCK ] or [ PTT ], EXIT to normal operation.



### ◆ SETTING TX CODE

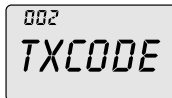
**Set the transmitting signal according to the below instructions:**

- 1) Press [ MENU/LOCK ], rotate the [ DIAL ] knob, come to MENU [2]: TXCODE
- 2) Then press [ U/V ] key, enter the set mode.
- 3) Clockwise or counterclockwise rotation of [ DIAL ] knob to select from OFF / 67.0-754N, press [ MENU/LOCK ] again, to select the code (Positive or negative), such as 023N---023I.

→ OFF → 67.0 → 023N → 023I

#### NOTE:

[CTCSS:67Hz---254.1Hz(50 groups);DCS: 023N-754N(104 groups)]



4) Press [ U/V ] key to save the setting and EXIT. Press [ MENU/LOCK ] or [ PTT ] EXIT to normal operation.

### ◆ SQUELCH ADJUSTMENT ( SQL )

Squelch System allows you to mute the background noise when no signal being received. The Squelch system make 'Standby' operation more pleasant, and significantly reduces battery current consumption. Please adjust the Squelch level according to the following instructions:

- 1) Press [ MENU/LOCK ] , rotate the [ DIAL ] knob, come to MENU [3]: SQL
- 2) Then press [ U/V ] key, come to the default setting level SQL 5
- 3) Clockwise or counterclockwise rotation of [ DIAL ] knob to adjust between 0/1/2/3/4/5/6/7/8/9
- 4) Select the level at which the background noise is just eliminated when there is no signal. Press [ U/V ] key to save the setting.
- 5) Press [ MENU/LOCK ] or [ PTT ] , EXIT to normal operation.



### ◆ LCD BACKLIGHT ON/OFF/AUTO ( LIGHT )

UV-3R includes a reddish illumination lamp which aids in nighttime operation. The red illumination yields clear viewing of the display in a dark environment, with minimal degradation of your night vision. Three options for activating the lamp are provided:

**KEY:** Illuminates the LCD when any key pressed.

**ON:** Illuminates the LCD continuously.

**OFF:** Disables the LCD lamp.



Here is the procedure for setting up the Lamp mode:

- 1) Press [ MENU/LOCK ] , rotate the [ DIAL ] knob, come to MENU [4]: LIGHT.
- 2) Then press [ U/V ] key to enter the set mode.
- 3) Clockwise or counterclockwise rotation of [ DIAL ] knob to set ON/OFF/AUTO
- 4) Press [ U/V ] key to save the setting.
- 5) Press [ MENU/LOCK ] or [ PTT ] , EXIT to normal operation.

### ◆ KEYPAD BEEPER ON/OFF ( BEEP )

If the Keypad Beeper will inconvenience you (especially being operated in the silent room), you may disable the Beeper according to the following instructions:

- 1) Press [ MENU/LOCK ] , rotate the [ DIAL ] knob, come to MENU [5]: BEEP
- 2) Then press [ U/V ] key to enter the set mode.
- 3) Clockwise or counterclockwise rotation of [ DIAL ] knob to set ON/OFF
- 4) Press [ U/V ] key to save the setting.
- 5) Press [ MENU/LOCK ] or [ PTT ] , EXIT to normal operation.



**ON:** The beeper being activated, LCD displays icon.

**OFF:** The beeper being disabled.

### ◆ VOICE OPERATED TRANSMISSION ( VOX )

VOX eliminates the necessity of manually switching to the transmission Mode each time you

want to transmit. The transceiver automatically switches to transmission mode when the VOX circuitry senses that you have begun speaking into the microphone. Please set according to the following instructions:

1) Press [ MENU/LOCK ], rotate the [ DIAL ] knob, come to MENU [6]: VOX



2) Then press [ U/V ] key to enter the set mode.

3) Clockwise or counterclockwise rotation of [ DIAL ] knob to set: OFF/1/2/3/4/5/6/7/8/9

4) Press [ U/V ] key to save the setting.

5) Press [ MENU/LOCK ] or [ PTT ], EXIT to normal operation.

**NOTE:**

Grade 7-9: the Most Sensitive VOX Gain Level—Set under silent conditions.

Grade 4-6: the Medium Sensitive VOX Gain Level—Set under common conditions.

Grade 1-3: the Least Sensitive VOX Gain Level—Set under too much noise conditions.

When VOX function is activated, the LCD will display the ICON 'VOX'.

### ◆ HIGH/LOW RF OUTPUT POWER SELECTION ( POWER )

Select the High/Low RF Output Power, please set according to the following instructions:

1) Press [ MENU/LOCK ], rotate the [ DIAL ] knob, come to MENU [7]: POWER

2) Then press [ U/V ] key to enter the set mode.

3) Clockwise or counterclockwise rotation of [ DIAL ] knob to set: HIGH/LOW

4) Press [ U/V ] key to save the setting.



5) Press [ MENU/LOCK ] or [ PTT ], EXIT to normal operation. When set the LOW output power, the LCD will display the ICON [ LOW ], and not display the ICON [ HIGH ], when set the HIGH output power.

### ◆ DUAL WATCH FEATURE ( DW )

The transceiver's Scanning features include a two-channel scanning capability, which allows you to operate between UHF channel and VHF channel in the VFO mode, while periodically checking a user-defined channel for activity. If one channel is received the signal, the scanner will pause on that channel.

Please activate the DW feature according to the following instructions:

1) Press [ MENU/LOCK ], rotate the [ DIAL ] knob, come to MENU [8]: DW

2) Then press [ U/V ] key to enter the set mode.

3) Clockwise or counterclockwise rotation of [ DIAL ] knob to set: OFF (disables the Dual Watch feature)/ON (activates the Dual Watch feature)

4) Press [ U/V ] key to save the setting.

5) Press [ MENU/LOCK ] or [ PTT ], EXIT to normal operation.



### ◆ SETTING CHANNEL STEP (STEP)

1) Press [ MENU/LOCK ], rotate the [ DIAL ] knob, come to MENU [09]: STEP

2) Then press [ U/V ] key to enter the set mode.

3) Clockwise or counterclockwise rotation of [ DIAL ] knob to set: 5 /6.25/10/12.5/20/25.00 KHz

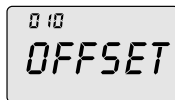


- 4) Press [ U/V ] key to save the setting.
- 5) Press [ MENU/LOCK ] or [ PTT ] , EXIT to normal operation.

### ◆SETTING OFFSET FREQUENCY (OFFSET)

Offset frequency is the difference between the transmit and receive frequency. This transceiver offset frequency range can be from 0 to 69.950MHz.

- 1) Press [ MENU/LOCK ] , rotate the [ DIAL ] knob come to MENU [10]: OFFSET



- 2) Then press [ U/V ] key to enter the set mode.
- 3) Clockwise or counterclockwise rotation of [ DIAL ] knob to set: 0-37.995MHz/0-69.995MHz
- 4) Press [ U/V ] key to save the setting.
- 5) Press [ MENU/LOCK ] or [ PTT ] , EXIT to normal operation.

**Note:**

Offset direction and offset frequency are only used when your transceiver is in frequency mode, in order to make it transmit and receive in different frequencies.

### ◆SETTING FREQUENCY SHIFT DIRECTION (SHIFT)

Frequency shift means that:

1. Transmit frequency is higher than receive frequency, this is called positive offset (+)
2. Transmit frequency is lower than receive frequency, this is called negative offset (-)

3. Turn off offset.

Please activate the SHIFT feature according to the following instructions:

- 1) Press [ MENU/LOCK ] , rotate the [ DIAL ] knob, come to MENU [11]: SHIFT
- 2) Then press [ U/V ] key to enter the set mode.
- 3) Clockwise or counterclockwise rotation of [ DIAL ] knob to set: 0/-/+
- 4) Press [ U/V ] key to save the setting.
- 5) Press [ MENU/LOCK ] or [ PTT ] , EXIT to normal operation.



**Note:**

If the offset transmit frequency is beyond the limited range, it can not transmit. In this case, adjust the receive frequency or the offset frequency to make the transmit frequency goes within the range.

### ◆SETTING SQUELCH TAIL ELIMINATION (STE)

Please activate the STE feature according to the following instructions:

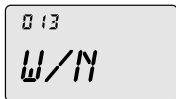
- 1) Press [ MENU/LOCK ] , rotate the [ DIAL ] knob, come to MENU [12]: STE
- 2) Then press [ U/V ] key to enter the set mode.
- 3) Clockwise or counterclockwise rotation of [ DIAL ] knob to set: ON/OFF
- 4) Press [ U/V ] key to save the setting.
- 5) Press [ MENU/LOCK ] or [ PTT ] , EXIT to normal operation.



## ◆SETTING WIDE OR NARROW BANDWIDTH (W/N)

Please activate the W/N feature according to the following instructions:

- 1) Press [ MENU/LOCK ], rotate the [ DIAL ] knob, come to MENU [13]: W/N
- 2) Then press [ U/V ] key to enter the set mode.
- 3) Clockwise or counterclockwise rotation of [ DIAL ] knob to set: Wide /Narrow
- 4) Press [ U/V ] key to save the setting.
- 5) Press [ MENU/LOCK ] or [ PTT ], EXIT to normal operation.



## ◆SETTING BATTERYPACK SAVEMODE (SAVE)

Please activate the SAVE feature according to the following instructions:

- 1) Press [ MENU/LOCK ], rotate the [ DIAL ] knob, come to MENU [14]: SAVE
- 2) Then press [ U/V ] key to enter the set mode.
- 3) Clockwise or counterclockwise rotation of [ DIAL ] knob to set: ON/OFF
- 4) Press [ U/V ] key to save the setting.
- 5) Press [ MENU/LOCK ] or [ PTT ], EXIT to normal operation.

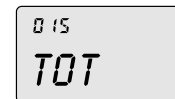


## ◆SETTING TIME OUT TIMER (TOT)

The TOT is designed to prevent your radio to transmit too long. When the transceiver is exceeding the preset time limit, it will stop transmitting and give you a warning signal.

Please activate the TOT feature according to the following instructions:

- 1) Press [ MENU/LOCK ], rotate the [ DIAL ] knob, come to MENU [15]: TOT
- 2) Then press [ U/V ] key to enter the set mode.
- 3) Clockwise or counterclockwise rotation of [ DIAL ] knob to set: OFF/30S/60S/90S/120S/150S/180S
- 4) Press [ U/V ] key to save the setting.
- 5) Press [ MENU/LOCK ] or [ PTT ], EXIT to normal operation.



## ◆SETTING SCAN MODE (SCANM)

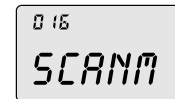
The transceiver has two scanmodes .

TO: After signal in channel disappears the transceiver will start scanning if without any operation within 5 seconds.

CO: After the transceiver stopped on a signal it will resume scanning again when signal disappears after 3 seconds.

Please activate the SCANM feature according to the following instructions:

- 1) Press [ MENU/LOCK ], rotate the [ DIAL ] knob, come to MENU [16]: SCANM
- 2) Then press [ U/V ] key to enter the set mode.
- 3) Clockwise or counterclockwise rotation of [ DIAL ] knob to set: TO/CO
- 4) Press [ U/V ] key to save the setting.
- 5) Press [ MENU/LOCK ] or [ PTT ], EXIT to normal operation.



## ◆SETTING RELAY MESSAGE (RELAYM)

Please activate the RELAYM feature according to the following instructions:

- 1) Press [ MENU/LOCK ], rotate the [ DIAL ] knob, come to MENU [17]: RELAYM
- 2) Then press [ U/V ] key to enter the set mode.
- 3) Clockwise or counterclockwise rotation of [ DIAL ] knob to set: ON/OFF
- 4) Press [ U/V ] key to save the setting.
- 5) Press [ MENU/LOCK ] or [ PTT ], EXIT to normal operation.

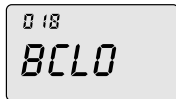


## ◆ BUSY CHANNEL LOCKOUT (BCLO)

This function is to prevent that interfere others who is on communicating. If the selected channel has been used by others, then press PTT the transceiver will transmit a alarm prompt, release the PTT, the alarm will disappear and the transceiver will return to the receivemode.

Please activate the BCLO feature according to the following instructions:

- 1) Press [ MENU/LOCK ], rotate the [ DIAL ] knob, come to MENU [18]: BCLO
- 2) Then press [ U/V ] key to enter the set mode.
- 3) Clockwise or counterclockwise rotation of [ DIAL ] knob to set: ON/OFF
- 4) Press [ U/V ] key to save the setting.
- 5) Press [ MENU/LOCK ] or [ PTT ], EXIT to normal operation.



## ■ ADDITIONAL FUNCTIONS AND SETTINGS

## ◆ MEMORY CHANNEL STORAGE (MEMORY CHANNELS 01-99)

Store the Memory Channel according to the following instructions:

- Select the desired frequency while operating in the VFO mode. Be sure to set up any desired CTCSS or DCS tones, as well as any repeater offset.
- Press [ F/A ] button, then press [ U/V ] key, Channel 01-99 will flash on the LCD, rotate [ DIAL ] knob to store the channel between channel 01-99.
- Press [ U/V ] key to save the setting.
- Repeat the process above, to store other channels.

### Note:

Repeater offset frequency should be set via programming software

## ◆ EMERGENCY ALARM FEATURE

Press and hold the [ F/A ] button about 2 seconds, come to the Emergency Alarm Mode, emergency alarm will be heard, press [ PTT ] button, EXIT to normal operation .

## ◆ FM RADIO FUNCTION

- 1) Press and hold the button [ L/R ], come to the FM Radio Mode.
- 2) Rotate the [ DIAL ] knob to adjust the frequency. (The FM broadcast coverage is 87.0MHz to 108.0MHz, Frequency step as 100KHz).
- 3) Then press and hold the [ L/R ] button, EXIT the FM Radio Mode.
- 4) Press [U/V] for a while ,this function will be switching FM Radio frequency mode and channel mode

Saving radio channel operation steps are as follows:

- 1) In frequency mode, select your required frequency.
- 2) Press [ F/Alert ] and then press [ U/V ], channel 01-15 will be flashing on LCD displays, Rotate [ DIAL ] knob to choose one channel in the channel 01-15
- 3) Press the [ U/V ] key and the data of frequency will be saved into the channel.

**Note:**  
In the FM radio mode, the communication between the transceivers is priority. That means in the FM radio mode, when the signal comes, the transceiver will automatically exit the FM radio mode.

### ◆ FM RADIO SCANNING

In the FM Radio mode, press [ F/A ] button, then press [ MENU/LOCK ] key to scan the complete band. Clockwise or counterclockwise rotation of [ DIAL ] knob to scan the band from low to high or from high to low. When searching for a certain channel, the scanning will stop at the channel. Rotate the [ DIAL ] knob, continuously to scan from low to high or from high to low. Press any key to exit the scanning.

### ■ TROUBLESHOOTING GUIDE

PROBLEMS	SOLUTIONS
No Power	Check battery installation and/or replace batteries.
Voltage Capacity Quickly Goes Out	The battery life is over, replace new one.
Can't Communicate with Other Group Members	Verify that the frequency and the CTCSS you are using are the same as those of your group members
Hear the Voice from Other Groups	Change your CTCSS for the channel. You also need the CTCSS for all the radio in your group.

### ■ SPECIFICATIONS

Frequency Range	VHF136-174 & UHF400-470MHz (Dual-Band)
Channel Capacity	99CH+1CH
Channel Spacing	5/6.25/12.5/25KHz
Operated Voltage	3.8V
Standard Battery	1200mAh
Frequency Stability	8 hours
Battery Life(5-5-90 duty cycle)	2.5ppm(-20°C-60°C)
Operated Temperature	-30°C - +60°C
Antenna Impedance	50 Ω
Dimension	47mm x 81mm x 23mm
Weight	About 130g
R.F Power Rating	2W
Modulation	F3E
Spurious Emission	≥65dB
FM Noise	45dB(N)/42dB(W)
Transmitting Current	≤1.4A
Sensitivity (12dB SINAD)	0.2uV
Spurious Response Rejection	≤-60dB
Audio Output Power@8Ω	≤1.7V
Receiver Current	≤400mA
Standby Current	≤75mA