THANK YOU!

We are grateful you chose WEIERWEI for your land mobile radio applications.We believe this easy-to-use transceiver will provide dependable and reliable communication to personnel operating at peak efficiency.

WEIERWEI transceivers incorporate the latest in advanced technology.As a result,we feel strongly that you will be pleased with the quality and features of this product!

PRECAUTIONS

Please observe the following precautions to prevent the transceiver damaged:

- This device emits Radio Frequency (RF) energy. Caution should be observed when operating this device.
- Do not modify this transceiver unless instructed by this manual or by WEIERWEI .
- Never hold the antenna of the transceiver while transmitting.
- Never operate the transceiver with an earphone at high volume level, hearing experts advise against continuous high volume operation.
- Never operate the transceiver while driving a vehicle, safe driving requires your full attention.
- Turn off your transceiver while taking on fuel, or while park in gasoline service station.
- Never connect the transceiver to a power supply of more than 10V DC, or to a power supply using reverse polarity, this will ruin the transceiver.
- Never expose the transceiver to rain, wet areas, or any liquids, the transceiver may be damaged.
- Do not operate the transceiver near unshielded electrical blasting caps or in an explosive atmosphere.
- Be careful when operating the transceiver for a continuously periods of time the body will become hot.
- Avoid using or placing the transceiver in direct sunlight or in areas with temperatures above +60°C.
- Place the transceiver in a secure place to avoid inadvertent use by children.
- Avoid the use of chemical agents when cleaning, as they can damage the surface of the transceiver.
- If an abnormal odor or smoke is detected coming from the transceiver, turn OFF the power immediately and remove the battery pack from the transceiver. Contact a WEIERWEI service station or your dealer.

FCC Caution:

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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 product generates RF electromagnetic energy during transmit mode.

This radio is designed for and classified as “Occupational Use Only”, meaning it must be used only during the course of employment by individuals aware of the hazards, and the ways to minimize such hazards. This radio is NOT intended for use by the “General Population” in an uncontrolled environment.

This radio has been tested and complies with the FCC RF exposure limits for “Occupational Use Only”. In addition, the product complies with the requirement:

FCC OET Bulletin 65 Edition 97-01 Supplement C, Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields.

CONTENTS

UNPACKING AND CHECKING EQUIPMENT

Carefully unpack the transceiver. We recommend that you identify the items listed in the following table before discarding the packing material. If any item is missing or has been damaged during shipment, file a claim with the carrier immediately.

Supplied Accessories

ITEM	QUANTITY
Li-ion Battery Pack	1
Rubber Antenna	1
Adapter	1
Desktop Charger	1
Belt Clip	1
Hand Strap	1
User Manual	1

PREPARATION

Installing/Removing the Li-Ion Battery Pack

1.To install the battery pack, fit the extensions at the bottom of the battery into the slots at the bottom of the transceiver's body. Press the top part of battery towards the transceiver until a "click" sound is heard (Figure 1).

2.To remove the battery pack, slide the battery released latch in the top middle of battery, downwards. Pull the top part of battery away from the transceiver's body, and lift the battery from the transceiver's body (Figure 2).

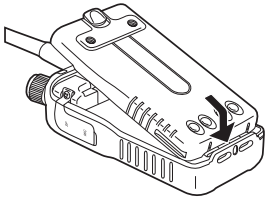


Figure 1

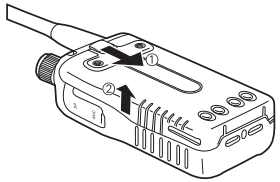


Figure 2

Li-Ion Battery Pack Precautions

1. Do not recharge the battery pack if it is already fully charged. Doing so may cause the life of the battery pack to shorten or the battery pack may be damaged.
2. After recharging the battery pack, disconnect it from the charger. If the charger power is reset (turned **ON** after being turned **OFF**), recharging will start again and the battery pack will become over-charged.
3. Do not use the transceiver while charging the battery pack. We recommend you switch the transceiver power **OFF** while charging is taking place.
4. Do not short the battery terminals or dispose of the battery by fire.
5. Never attempt to remove the casing of the battery pack.

Charging the Li-ion Battery Pack

The battery pack is not charged at the factory, please charge it before use. Initially charging the battery pack after purchase or extended storage (greater than 2 months) will not bring the battery pack to its normal operating capacity. After repeating the charge/discharge cycle two or three times, the operating capacity will increase to normal.

1. Make sure the battery pack contacts are in contact with the charging terminals.
2. Slide the battery pack or transceiver with a battery pack into the desktop charger.
3. The charging LED lights red and charging begins.
4. After charging about 4 hours, when the light turns to green, it means the battery pack is fully charged.
5. Then you can take off the battery pack or transceiver with the battery pack and use it.

Installing/Removing the Antenna

1.Screw the antenna into the connector on the top of the transceiver by holding the antenna at its base and turning it clockwise until secure (Figure 1).

2.Turn the antenna counter-clockwise until you can remove it (Figure 2). Never carry the transceiver by holding the antenna.

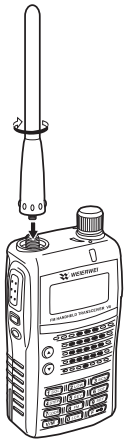
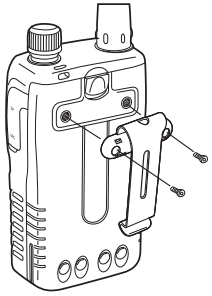


Figure 1

Figure 2

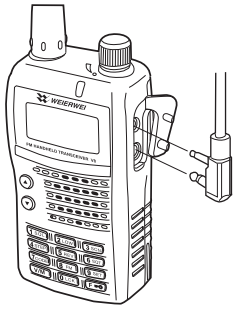
Installing the Belt Clip

If necessary,use the supplied screws to install the belt clip at the back of battery pack.



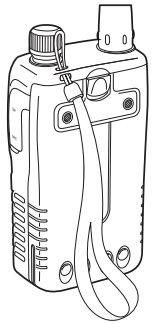
Installing the Earphone

Insert the earphone plugs into the earphone jacks.



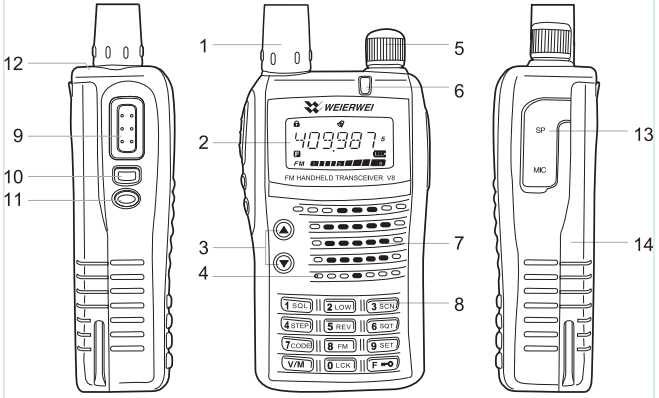
Installing the Hand Strap

If necessary, slide the hand strap through the loop on the top of the body as illustrated below to facilitate carrying the transceiver.



GETTING ACQUAINTED

Orientation



1. **Antenna**
   Rubber/Tele antenna using for receiving or transmitting a signal.
2. **LCD Display**
   On the display you will see various indicators which show what function you have selected.
3. **Up (▲) & Down (▼) Key**
   Up or down when selecting an operating frequency, channel, menu, value or others.
4. **Internal Microphone**
   Input the audio signal while you talk.

5. **Power Switch/Volume Control**
Rotate clockwise to switch power On or to increase the audio output level; Rotate counter-clockwise to switch power Off or to reduce the audio output level.

6. **TX/RX Indicator**
Light green while receiving a signal, when FM radio activates or when the squelch is open; Lights red while transmitting.

7. **Speaker**
Output the audio.

8. **Keypad**
Input frequency, memory channel or function selection etc.

9. **PTT Switch**
Push and hold to transmit, release to receive.

10. **Lamp Key**
Push to light the LCD backlight, re-push to turn off the backlight.

11. **Squelch Key**
Push and hold to open the squelch temporarily and monitor the operating frequency.

12. **Hand Strap Hook**
The loop on the top of transceiver, it is facilitated to carrying the transceiver.

13. **Earphone/ Data Cable Jack**
Connects an earphone; or connects a data cable for PC software programming.

14. **Li-Ion Battery Pack**
Supply the power to the transceiver.

Keypad Description

Key	What You Operate
1 SQL	Press [**F**] + [**1**] key to adjust the squelch level.
2 LOW	Press [**F**] + [**2**] key to switch between the high/low power output level.
3 SCN	Press [**F**] + [**3**] key to activate scanning of memory channels or frequencies.
4 STEP	Press [**F**] + [**4**] key to select the channel step size as follows: 5.00, 6.25, 10.00, 12.50, 25.00, 37.50, 50.00, 100.00 KHz
5 REV	Press [**F**] + [**5**] key to activate the following duplex functions in order. • Plus duplex operation, "⊞" appears. • Minus duplex operation, "⊟"appears. • Simplex operation, no indicator appears.
6 SQT	Press [**F**] + [**6**] key to select the 7 types of squelch tones/codes.
7 CODE	Press [**F**] + [**7**] key to select the TX/RX tones and codes.
8 FM	Press [**F**] + [**8**] key to activate the FM radio.
9 SET	Press [**F**] + [**9**] key to enter the menu mode.
0 LCK	In memory mode, press [**F**] + [**0**] key to lock out the memory channels you don't want to scan.
V/M	Press [**V/M**] key to switch VFO or MR mode. Press [**F**], than press [**V/M**] to save memory channel.
F	Press [**F**] key to activate the second function with other keys. Press [**F**] key 2 seconds to lock the keypad.

Basic Transceiver Modes

This section introduces you to the basic modes you can select on this transceiver.

■ VFO Mode

VFO is an abbreviation of Variable Frequency Oscillator. Frequencies for both transmitting and receiving are generated and controlled by the VFO.

Switch the power ON, in this mode you can change the desired operating frequency by using [▲]/[▼] key or thru numeric keypad direct input.

■ Memory Recall Mode

Memory Recall Mode is used for operation on memory channels which store programmed frequencies.

Press [V/M] to select, in this mode you can change memory channels, using the [▲]/[▼] key or numeric keypad, where you stored frequencies or related data. You can not enter this mode unless you program one memory channel at least.

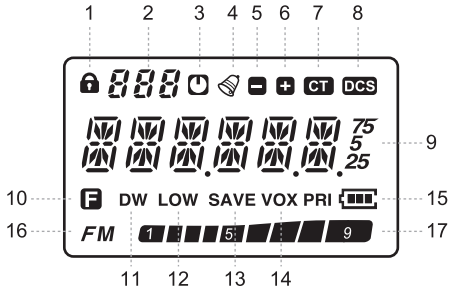
■ Menu Mode

Menu is used for programming infrequently changed values or conditi ons of functions.

Press [F-⊃], [9 SET] to select, in this mode you can change menu number by using [▲]/[▼] key.

LCD Function Disp:ay

On the LCD disp:ay you wi:: see various indicators which show what functions you have se:ected. Sometimes you may not reca:: what these indicators mean or how to se:ect them. :n such a case, you wi:: find the fo::owing description very usefu:.



1. **Key Lock Indicator**
   Appear when the key lock function is activated.
2. **Memory Channel Number Indicator**
   Show the selected memory channel number.
3. **Auto Power Off Indicator**
   Appear when the auto power off function is in use.
4. **Key Tone Indicator**
   Appear when the key tone function is activated.
5. **Minus Duplex Indicator**
   Appear when minus duplex is selected.
6. **Plus Duplex Indicator**
   Appear when plus duplex is selected.
7. **CTCSS Tone Indicator**
   Appear when CTCSS tone is activated.
8. **DCS Code Indicator**
   Appear when DCS code is activated.
9. **Frequency Readout**
   Display a variety of information, such as operating frequency, menu contents or memory names.
10. **Second Function Select Indicator**
    Appear when press [F] for second function select.
11. **Dual Watch Indicator**
    Appear when dual watch for FM radio is in use.
12. **Low Power Output Indicator**
    Appear when select the low power output level.
13. **Power Save Indicator**
    Appear when the power save is in use.

14. **VOX Indicator**
    Appear when the hands-free VOX function is in use.
15. **Battery Indicator**
    Show the relative battery life.
16. **FM Radio Indicator**
    Appear when the FM radio is in use.
17. **S/RF Meter**
    Show the relative strength of received signal while receiving;
    Show the relative power output level while transmitting.

BASIC OPERATION

Turning Transceiver On/Off

1. Turn the [**Power**] switch clockwise to turn ON the transceiver.
   • A music tone sounds.
2. To turn OFF the transceiver, turn the[**Power**]switch counter-clockwise.

Adjusting Audio Volume

Turn the [**Volume**] control clockwise to increase the audio output level and counter-clockwise to decrease the audio output level.

• If background noise is inaudible because of the squelch function, press and hold [**Squelch**] key, then turn [**Volume**] control to set the audio level you desire.

Adjusting Squelch Level

The purpose of the Squelch is to mute the speaker when no signals are present. With the squelch level correctly set, you will hear sound only while actually receiving signals. The higher the selected squelch level, the stronger the signals must be, to receive. The appropriate squelch level depends on the ambient RF noise conditions.

1. Press [F], [1 SQL].
   • The current squelch level appears.
2. Use [▲]/[▼] key to select a squelch level from 0 to 9.
   • “Level 0” indicates continuously open setting, “Level 1” is loose squelch (for weak signals) and “Level 9” is tight squelch (for strong signals).
   • Select just the level at which the background noise eliminated when no signal is present.
3. Press any other than [**Lamp**] and [**Squelch**] key to complete the setting.

Setting a Frequency

Select VFO mode, use the [▲] key to increase the frequency, and [▼] key to decrease the frequency.

• If you can not select a particular frequency, the frequency tuning step size needs to be changed.

a. Press [V/M] to select VFO mode

b. Press [F], [4 STEP] to switch between step size 5, 6.25, 10, 12.5, 25, 37.5, 50, 100KHz.
   • You can also select frequencies with the numeric keys in VFO mode.

Transmitting

1. Never transmitting without an antenna, doing so may damage the transceiver.
2. To prevent interference, listen on the channel before transmitting by pressing and holding [**Squelch**] key.
3. When ready to begin transmitting, press and hold [**PTT**] switch and speak in a normal voice level.
   • The TX/RX indicator on the top panel lights red and S/RF meter shows the output power level.
   • Speaking too close to the microphone, or too loudly, may increase distortion and reduce intelligibility of your signal at the receiving transceiver.
4. When you finish speaking, release [**PTT**] switch to receive.

Note: If you transmit continuously for more than 3 minutes (Default setting of TOT), the internal time-out timer generates a warning beep and the transceiver stops transmitting. In this case, release [**PTT**] switch and let the transceiver cool down for a while, then press [**PTT**] switch again to resume transmitting.

Transmit Power Selection

The transceiver has two output levels to suit your operating requirements. Low output power during short-range communications may reduce the possibility of interference to other stations and will reduce current consumption.

1. Press [F→]], [2 LOW].
   • The current power output level appears.
2. Use [▲]/[▼] key to select High/Mid/Low output power level.
3. Press any key other than [**Lamp**] and [**Squelch**] key to complete the setting.

MENU OPERATION

Menu Access

1. Press [F→]], [9 SET] to enter Menu mode.
   • The menu appears.
2. Use the [▲]/[▼] to select the desired Menu Number.
3. Press [F→] to switch the selection, then use the [▲]/[▼] key to switch ON/OFF or select numeric values. Press [F→] again to complete the setting.
4. Press any key other than [**Lamp**] and [**Squelch**] key to exit Menu mode.

Menu Configuration

No	Item	Description	Operation
001	APO	Automatic Power Off	OFF, 1-15 Hours
002	APRO	Voice Compander /Scrambler	OFF/COMP /SCRAMB
003	BANK	Bank of Channel	ON/OFF
004	BATSAV	Battery Saver	ON/OFF
005	BCLO	Busy Channel Lock Out	ON/OFF
006	BEEP	Keypad Beeper	ON/OFF
007	CKSFT1	Clock Shift 1	ON/OFF
008	CKSFT2	Clock Shift 2	ON/OFF
009	DC VLT	DC Voltage	Show Current Battery Voltage
010	DW	Dual Watch when Use FM Radio	ON/OFF
011	LAMP	LCD/Keypad Illumination	OFF/CONT/KEY

012	LOCK	Transceiver Lock Mode	K+S/PTT/KEY/ALL
013	MSGSET	Power On Message	Program by User
014	NAME	Modes of Channel Display	FREQ/ALPHA
015	NM SET	Set-up Name of Memory Channel	Program by User
016	OFFSET	Offset Frequency for Duplex	00.000~37.995MHz
017	OPNMSG	Power On Display	OFF/DC/MSG
018	PSWD	Password Protection	ON/OFF
019	PSWD W	Program the Password	Program by User
020	ROGER	Roger Tone	ON/OFF
021	SCN MD	Scan Method	TO/CO
022	STE	Squelch Tail Elimination	ON/OFF
023	TOT	Time-Out Timer	OFF, 1-7 Minutes
024	TXSTOP	Transmitting Inhibit Function	ON/OFF
025	VOX	Hands-free VOX Function	ON/OFF
026	VOX D	VOX Delay Time	1S, 2S, 3S, 4S
027	VOX S	VOX Sensitivity	1-8
028	VXB	VOX Busy	ON/OFF
029	WIDNAR	Wide/Narrow Band Selection	WIDE/NARROW

1. Automatic Power Off (APO)

Automatic Power Off is a background function that monitors whether any keys have been pressed, or whether any control has been turned. After the setting time passes without operations, **APO** will automatically turn OFF the power. However, 1 minute before the power turns OFF, a series of warning tones sound.

Access Menu No.1 (**APO**) to switch the function ON (1-15 hours) or OFF (default).

2. Voice Compander /Scrambler

APRO offers 3 modes of selection, please access Menu No.2 (**APRO**) to select COMP/SCRAMB/OFF functions.

a. **COMP**: Voice Compander, for clear and load audio output;

b. **SCRAMB**: Voice Scrambler, to keep your conversation private;

c. **OFF**: Switch Off both functions.

3. Bank of Channel (BANK)

If Channel No. 1 – 16, it will appear BANK 1;

If Channel No. 17 – 32, it will appear BANK 2;

If Channel No. 33 – 48, it will appear BANK 3;

If Channel No. 49 – 64, it will appear BANK 4;

If Channel No. 65 – 80, it will appear BANK 5;

If Channel No. 81 – 96, it will appear BANK 6;

If Channel No. 97 – 112, it will appear BANK 7;

If Channel No. 113 – 128, it will appear BANK 8.

4. Battery Saver (BATSAV)

The battery saver function decreases the amount of power used when a signal is not being received and no operations are being performed (no keys are being pressed and no switches are being turned). While the channel is not busy and no operation is performed for 5 seconds, battery saver activates. When a signal is received or an operation is performed, battery save is disabled.

- Access Menu No. 4 (**BATSAV**) to switch the function ON (default) or OFF.
- **SAVE** indicator will appear when the function switches on.

5. Busy Channel Lock Out (BCLO)

When receiving a signal, if **BCLO** function switches on, it will forbid transmitting a signal in order to make sure the channel no interference.

- Access Menu No. 5(**BCLO**) to switch the function ON or OFF(default).

6. Keypad Beeper (BEEP)

The transceiver beeps each time you press a key on the keypad. You can also switch this function OFF.

- Access Menu No.6(**BEEP**) to switch the function ON(default) or OFF.

7. Beat Shift 1 (CKSFT1)

Shift the microprocessor system clock frequency per channel to prevent interference.

8. Beat Shift 2 (CKSFT2)

Shift the secondary IC system clock frequency per channel to prevent interference.

9. Display the DC Voltage (DC VLT)

Access to Menu No. 9 to check the current battery voltage.

10. Dual Watch When Use FM Radio (DW)

When the FM radio is used, the transceiver receives a signal, the transceiver will automatically switch FM radio OFF and receive to the signal, 5 seconds after stop receiving the signal, the FM radio function will automatically switch ON again. When the DW function switches OFF, your transceiver will not scan for any signal and FM radio works continuously.

11. Select the LCD/Keypad Illumination Mode (LAMP)

You can access Menu No. 10 to turn ON/OFF the background lamp of keypad or LCD display.

a. **OFF**: There is no background lamp, when you press any key;

b. **KEY**: When you press any key, the background lamp of keypad and LCD display will turn on and will keep for 5 seconds. If there is no any key operation within 5 seconds, the timer will be reset, when you do not need the lamp, press [**Lamp**] to turn OFF.

c. **CONT**: The background lamp of keypad and LCD display will keep lighting even you do not have any operation.

12. Transceiver Lock Modes (LOCK)

Press [F] (2 seconds) to switch the Lock function ON/OFF. There are 4 modes of transceiver lock. Access Menu No. 11 to select:

a. **K+S**: The keypad and Up/Down key to be locked.

b. **PTT**: Only lock the PTT switch.

c. **KEY**: Only lock the numeric keypad.

d. **ALL**: Lock all the keys and buttons except [F].

13. Power On Message (MSGSET)

You can set up a message display when switch on transceiver using up to 5 alphanumeric characters.

a. Access Menu No. 13.

b. Press [F→] to input the first alphanumeric character.

- The first digit blinks.

c. Use the [▲]/[▼] key to select the first alphanumeric character.

- You can choose “0” ~ “9”, “A”~ “Z”, “-”, “+”, “*” or a blank.

d. Press [9 SET] to input the next character.

e. Repeat **Step c** and **Step d** to input up to 5 digits.

- After editing the 5th digit, press [9 SET] to save.
- If want to clear previous character, please press [7 CODE] to replace.
- If want to clear all characters and re-edit, press [V/M].

14. Modes of Channel Display (NAME)

You can access Menu No. 14 to select the display mode you desire:

a. **ALPHA**:Display the memory channel name which is edited by yourself.

b. **FREQ (default)**: Display the frequency.

15. Set-up Name of Memory Channel (NM SET)

You can set-up memory channel name by using up to 5 alphanumeric characters. You can only edit the memory channel name under memory channel mode.

a. Please access Menu No. 15 to edit.

b. Press [F→] to input the first alphanumeric character.

- The first digit blinks.

c. Use the[▲]/[▼] key to select the first alphanumeric character.

- You can choose “0” ~ “9”, “A”~ “Z”, “-”, “+”, “*” or a blank.

d. Press [9 SET] key to input the next character.

e. Repeat **Step c** and **Step d** to input up to 5 digits.

- After edit the 5th digit, press [F→] to save.
- If want to clear previous character, please press [7 CODE] to replace.
- If want to clear all characters and re-edit, press [V/M].

16. Set Up Offset Frequency for Duplex (OFFSET)

Select an offset frequency between Transmitting and Receiving in free memory channel.

a. Access Menu No. 16.

b. Press [F→], then input an offset frequency directly from keypad.

- Frequency Range for selection: 00.000MHz ~ 37.995MHz

c. Press [F→] to complete the setting.

17. Power On Display (OPNMSG)

You can use Menu No. 17 to select a mode when switch transceiver on:

a. **OFF** (default): directly shows frequency or memory channel.

b. **DC**: show the current DC Voltage.

c. **MSG**: show the opening message which are edited by yourself in Menu No.13.

18. Password Protection (PSWD)

Please access Menu No. 18 to switch this function ON (or OFF).

Note: You have to input the password (Access Menu No. 19 to program) in advance before switching this function on.

19. Program the Password (PSWD W)

Please access Menu No. 19 to input 4 numbers, if you want to re-input, please press [V/M] key.

20. Roger Tone (ROGER)

If you switch this function on, there will be a beep tone when finish the conversation. Please access Menu No. 20 to switch Roger Tone ON (or OFF).

21. Scan Methods (SCN MD)

You can access Menu No. 21 to select scan method (**TO/CO**).

22. Switch On/Off Squelch Tail Elimination (STE)

When finish communication, there is a tail squelch, you can access Menu No. 22 to eliminate.

Note: Both of the transceivers should switch squelch tail elimination on in order to use this function.

23. Time-out Timer (TOT)

The Time-Out Timer (TOT) limits the time of each transmission. The built-in time-out timer limits each transmission time to a maximum of 7 minutes. Just before the transceiver stops the transmission, a warning beep sounds. It is necessary to protect the transceiver from thermal damage.

• Access Menu No. 23, use [▲]/[▼] to select the desired time and press [F] to complete the setting.

24. Transmitting Inhibit Function (TXSTOP)

You can disable the TX function to prevent unauthorized individuals from transmitting, or to eliminate the risk of accidentally transmitting by yourself.

• Access Menu No. 24 to switch ON (or OFF).

25. Hands-Free VOX Function (VOX)

VOX allows you to transmit hands-free with the transceiver or thru a headset. When operating VOX, you must set a VOX gain level. This setting allows the transceiver to recognize sound levels. If the microphone is too sensitive, it will begin transmitting when there is noise in the background. If it is not sensitive enough, it will not pick up your voice when you begin speaking. Be sure to adjust the VOX gain level to an appropriate sensitivity to allow smooth transmission.

Please access Menu No. 25 to switch ON (or OFF).

Note:

- When VOX function switches on, please directly speak to MIC to transmit.
- When stop speaking, the Voice-Operated Transmitter will automatically stop transmitting and wait for receiving.
- If you set a high Sensitivity of VOX, when receive a signal, it maybe directly transmit the transceiver just received.

26. VOX Delay Time (VOX D)

In order to avoid that your latest transmitting will not be transmitted, please delay the hands-free VOX delay time. You can access Menu No. 26 and use [▲]/[▼] to select the desired timer (1S, 2S, 3S, 4S) and press [F] to complete the setting.

27. VOX Sensitivity (VOX S)

Because of different volume & tone, everybody can find a suitable VOX Sensitivity for himself, please use VOX S to select the best suitable sensitivity. Access Menu No. 27 and use [▲]/[▼] to select the sensitivity (1~8 level) and press [F] to complete the setting.

28. VOX Busy (VXB)

When receive a signal in order to avoid VOX transmitting to mix, you can access to Menu No.28 and use [▲]/[▼] to switch ON (or OFF), then press [F] to complete the setting.

29. Wide/Narrow Band Selection

You can access Menu No. 29 to select the desired channel bandwidth.

OPERATING THRU REPEATERS

Compared to simplex communication, you can usually transmit over much farther distances by using a repeater. Repeaters are typically located on a mountain top or other elevated location. Often they operate at higher ERP (Effective Radiated Power) than a typical station. This combination of elevation and high ERP allows communications over considerable distances.

Flow Chat for Repeater Access

Select a receive frequency.

↓

Select an offset Direction.

↓

Select an offset frequency.

↓

Activate the Tone function, if necessary.

↓

Select a tone frequency, if necessary.

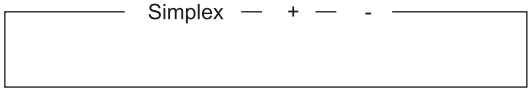
↓

Press the [PTT] switch.

Selecting Offset Direction

Select whether the transmit frequency will be higher (+) or lower (-) than the receiver frequency.

1. Select the desired RX frequency.
2. Press [F], [5 REV].
   - Each time you repeat this key operation, the offset direction changes as shown below.



Selecting Offset Frequency

Select how much the TX frequency will be offset from the receiving frequency.

1. Press [F], [9 SET] to access Menu Mode.
2. Select Menu No. 16 (**OFFSET**).
3. Press [F], then enter directly the appropriate offset frequency.
   - Frequency Range: **00.000MHz – 41.995MHz(VHF)**
     00.000MHz – 69.995MHz(UHF)
4. Press [F] again to complete the setting.
5. Press any key other than [**Lamp**], [**Squelch**] to exit.

CTCSS/DCS

You may sometimes want to hear calls from only specific persons or groups. The CTCSS/DCS allows you to ignore (not hear) unwanted calls from other persons who are using the same frequency. Simply select the same CTCSS/DCS as selected by the other persons in your group. A CTCSS tone is sub-audible tone and is selectable from among the 50 tone frequencies and a DCS tone is from among the 214 normal and reverse codes.

Using CTCSS/DCS

1. Press [F], [6 SQL]and use[▲]/[▼] to select the CTCSS/DCS functions.
   - There are 7 modes of CTCSS/DCS function for selection:

a. **OFF**: Transmitting/Receiving without any CTCSS/DCS;
b. **TONE**: Only Transmitting with CTCSS tone;
c. **CTCSS**: Both Transmitting and Receiving with CTCSS tone;
d. **D CODE**: only Transmitting with DCS codes;
e. **DCS**: both Transmitting and Receiving with DCS codes;
f. **T DCS**: Transmitting with CTCSS, Receiving with DCS;
g. **D TSQL**: Transmitting with DCS, Receiving with CTCSS.

- **TONE/CTCSS**: When these functions is selected, the indicator " CT " appears.
- **D CODE/DCS**: When these function is selected, the indicator " DCS " appears.
- **T DCS/D TSQL**: When these functions is selected, the indicator " CT " and " DCS " both appear.

Selecting CTCSS/DCS Frequency

1. Press [F], [6 SQT] to select the CTCSS/DCS function.
2. Use [▲]/[▼] to select a mode you desired and press [F] to confirm.
3. Press [F] + [7 CODE] to set CTCSS/DCS.
4. Use [▲]/[▼] to select the RX CTCSS/DCS.
5. Then press [F] and use [▲]/[▼] to select the TX CTCSS/DCS.
6. Press [F] to complete the setting.

Standard CTCSS Tones Table

1 - 67.0	11 - 94.8	21 - 131.8	31 - 171.3	41 - 203.5
2 - 69.3	12 - 97.4	22 - 136.5	32 - 173.8	42 - 206.5
3 - 71.9	13 - 100.0	23 - 141.3	33 - 177.3	43 - 210.7
4 - 74.4	14 - 103.5	24 - 146.2	34 - 179.9	44 - 218.1
5 - 77.0	15 - 107.2	25 - 151.4	35 - 183.5	45 - 225.7
6 - 79.7	16 - 110.9	26 - 156.7	36 - 186.2	46 - 229.1
7 - 82.5	17 - 114.8	27 - 159.8	37 - 189.9	47 - 223.6
8 - 85.4	18 - 118.8	28 - 162.2	38 - 192.8	48 - 241.8
9 - 88.5	19 - 123.0	29 - 165.5	39 - 196.6	49 - 250.3
10 - 91.5	20 - 127.3	30 - 167.9	40 - 199.5	50 - 254.1

Standard DCS Codes Table

017	054	132	212	263	346	445	523	654
023	065	134	223	265	351	446	526	662
025	071	143	225	266	356	452	532	664
026	072	145	226	271	364	454	546	703
031	073	152	243	274	365	455	565	712
032	074	155	244	306	371	462	606	723
036	114	156	245	311	411	464	612	731
043	115	162	146	315	412	465	624	732
047	116	165	251	325	413	466	627	734
050	122	172	252	331	423	503	631	743
051	125	174	255	332	431	506	632	754
053	131	205	261	343	432	516	645	

MEMORY CHANNEL

In memory channels, you can store frequency and related data which you often use. Then you need not re-program these data each time. You can quickly recall channels wanted by simple operation.

Storing Data in Memory Channel

1. Select the desired frequency and related data using **VFO** mode.
2. Press [F].
   - A memory channel number appears.
3. Use [▲]/[▼] key to select the memory channel number to save.
4. Press [V/M] to complete.
   - The selected frequency and related data are stored in the memory channel.
   - If the channel selected in the previous step already contained data, the new data will overwrite the old one.

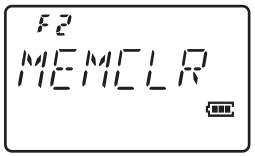
Recalling Memory Channel

1. Press [V/M] again to enter Memory Recall mode.
   - you can not enter this mode unless you program one memory channel at least.
   - The memory channel used last will be recalled.
2. Use [▲]/[▼] to select the desired memory channel.
   - To restore **VFO** mode, press [V/M].

Clearing Memory Channel

1. Recall the desired memory channel which will be erased.
2. Switch OFF the power of the transceiver.
3. Press [F] + Power On.
   - A confirmation message appears.

4. Use [▲]/[▼] to select **MEMCLR** menu, then press [F] to confirm. The memory channel will be cleared.



Naming Memory Channel

You can name memory channels using up to 5 alphanumeric characters. When you recall a named memory channel, its name appears on the LCD instead of the channel number. Names can be callsign, repeater names, names of people, ect.

1. Select the desired memory channel number.
2. Press [F], [9 SET] and use [▲]/[▼] to access Menu No. 15.
3. Press [F] to enter Memory Name mode.
   - The first digit blinks.
4. Use the [▲]/[▼] key to select the first alphanumeric character.
   - You can choose “0” ~ “9”, “A”~ “Z”, “-”, “+”, “*” or a blank.
5. Press [9 SET] to input the next character.
   - The second digit blinks.
6. Repeat **Step 4** and **Step 5** to enter up to 5 digits.
   - After edit the 5th digit, press [F] to save.
   - If want to clear previous character, please press [7 CODE] to replace.
   - If want to clear all characters and re-edit, press [V/M].

Switch Memory Name/Channel Display

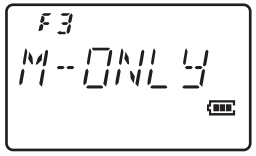
After storing memory names, you can switch the display between memory name and channel number.

1. Press [V/M] to enter Memory Recall Mode.
2. Press [F], [9 SET] and access to Menu No. 14.
   • Refer to **"Modes Of Channel Display (Name)"**(Page 21**)**.

Channel Display Function

When this function is switched ON, the transceiver displays only a memory channel number instead of a frequency.

1. Press [F] + Power On to switch this function ON (or OFF).
   • A menu appears.
2. Use [▲]/[▼] to select **M-ONLY** menu, then press [F] to complete the setting.



Initializing Memory

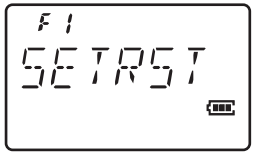
If your transceiver seems to be malfunctioning, initializing the transceiver may resolve the problem.

Remember that you need to re-program memory channels after initialization. On the other hand, initialization is a quick way to clear all memory channels.

■ Partial Initialization (VFO)

Use to initialize all settings except the Memory Channels and Memory Channel Lockout.

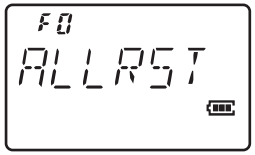
1. Press [F] + Power On.
   • A confirmation message appears.
2. Use [▲]/[▼] to select **SETRST** menu, then press [F] twice to finish.



■ Full Initialization (Memory)

Use to initialize all settings.

1. Press [F] + Power On.
   • A confirmation message appears.
2. Then press [F] twice to finish.



SCAN

Scan is an useful function for hands-off monitoring of your favorite channels. By becoming comfortable with all types of scan, you will increase your operating efficiency.

Scan Resume Method

Before using scan, it's necessary to decide under what condition you want your transceiver to continue scanning after detecting and stopping for a signal. You can choose one of the following modes. The default is Time-Operated mode.

■ **Time-Operated Mode (Default)**

Your transceiver stops scanning when detecting a signal, remains for approximately 5 seconds, and then continues to scan even if the signal is still present.

■ **Carrier-Operated Mode**

Your transceiver stops scanning when detecting a signal and remains on the same channel until the signal drops out. There is a 2 seconds delay between signal drop-out and scan resumption to allow time for any responding stations to begin transmitting.

Note: Pressing and holding [**Squelch**] causes the transceiver to stop scanning; releasing [**Squelch**] causes it to resume scanning.

Selecting Scan Resume Method

1. Press [F], [9 SET] to enter Menu Mode.
2. Select Menu No. 21 (**SCN MD**).
3. Press [F] and then use [▲]/[▼] to select Time-Operated (**TO**) or Carrier-Operated (**CO**) mode.
4. Press [F] to finish setting.
5. Press any key other than [F], [**Lamp**], [**Squelch**] to exit Menu mode.

VFO Scan

VFO Scan allows you to scan all frequencies from the lowest to the highest frequency on the band. The current frequency step size is used.

1. In VFO mode, Press [F], [3 SCN].
   - Scan starts at the frequency currently displayed.
   - To reverse the scan direction, use [▲] (upward scan) or [▼] (downward scan).
2. To quit VFO Scan, press any key other than [**Lamp**] and [**Squelch**].

Memory Channel Scan

Memory Scan allows all memory channels to be scanned.

1. Press [F], [3 SCN].
   - Scan starts with the channel last recalled.
   - To reverse the scan direction, use [▲] (upward scan) or [▼] (downward scan).
3. To quit Memory Scan, press any key other than [**Lamp**], [**Squelch**].

Locking Out Memory Channel

You can lock out memory channels that you prefer not to monitor during Memory Channel Scan.

1. Use [▲]/[▼] to select the memory channel to be lock out.
2. Press [F], [0 LCK] to switch Lockout ON (or OFF).

FM RADIO

Switch On/Off FM Radio

1. Press [F⇨] + [8 FM] to switch the FM Radio ON (or OFF), a "*FM*" indicator and the current FM Radio Frequency will appear on the LCD display.
   - Make sure that the antenna is installed, otherwise, the FM radio will not receive any signal.
2. Use [▲]/[▼] to select a frequency, or enter digits directly from the keypad (87.500MHz~108.475MHz).

Set Up FM Radio Memory Channel

1. Select a frequency in FM radio VFO mode.
2. Press [F⇨].
   - You can see " F " blinking.
   - A Memory Channel Number apprears.
3. Use [▲]/[▼] to select a Memory Channel Number.
4. Press [V/M] to complete the setting.

Recall FM Radio Memory Channel

1. Press [V/M] to enter FM radio memory recall mode.
   - The FM radio memory channel used last is recalled.
2. Use [▲]/[▼] to select the desired memory channel.
   - You can not recall empty memory channels.
   - To restore FM radio VFO mode, press [V/M] again.