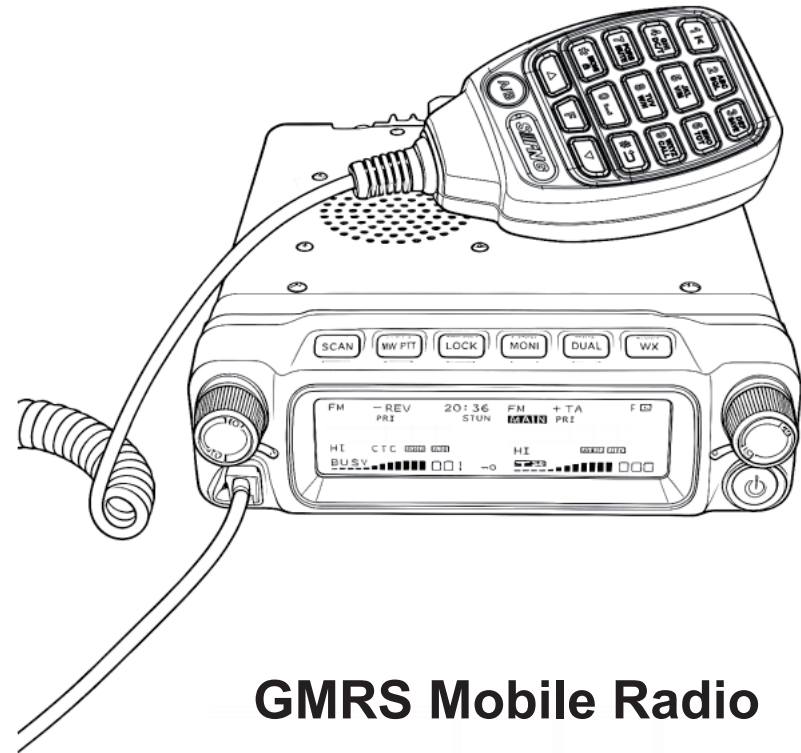




RECYCLED PACKAGING

FT7810



GMRS Mobile Radio

Instruction Manual



Catalogue

FUNCTIONS AND FEATURES	1
ACCESSORIES	2
Front Panel Controls & Switches	3-4
Microphone Switches	5
Basic Operations	6-8
Turning the transceiver On and Off	6
Adjusting the SQL and Audio	6
Frequency Navigation	6
Direct Keypad Frequency Entry	7
Scanning	7
Transmission	7
Separate the front Panel from Host	8
Attach the front panel back to the host	8
Quick Reference Guide	9-10
Mic Speaker Wired Diagram	10
Key Overview	10
CTCSS/DCS Operations	11-12
CTCSS Operation	11
DCS Operation	12
Menu (Settings) Mode	13-17
Specifications	18



FCC Declaration of Conformity

This device complied 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.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Important: Change or modifications not expressly approved by the manufacturer responsible for compliance could void the user's authority to operate the equipment.

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 50 cm between the radiator and your body.

Accord to that antenna length in different regions, only below type antenna was authorized use in the product.

Antenna Type: Monople

Antenna Gain: 2.15 dBi

The device maximum operation duty cycle is 50%.

FUNCTIONS AND FEATURES

This is a high-quality dual-frequency FM radio made with precision crafts-manship, designed specifically for amateur mobile transceivers for drivers, and embodies the concept of innovation and practicality.

The high-power output of this radio station comes from the MOSFET amplifier, with a DC heat sink and a temperature-controlled cooling fan, which can ensure that the radio station circuit is within the safe tempera- ture range.

The 1000 storage channels of this radio station can be used to save inde-pendent transmission frequencies ("Reception and transmission of differ- ent frequencies), built-in CTCSS, DCS, DTMF, 2T, 5T, MDC1200 encod- ing / decoding circuit.

Version notice:

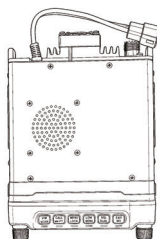
Europe version: Frequency ranges cover 144-146MHz, 430-440MHz (According to the "R ED 2014/53/EU" directive).

USA version: Complies with Part 95E and Part 15B FCC rules. Frequency information as following chart.

NO.	Channel Frequency TX/RX	NO.	Channel Frequency RX	Channel Frequency TX
1	462.5625	15	462.5500	462.5500 467.5500(Repeater)
2	462.5875	16	462.5750	462.5750 467.5750(Repeater)
3	462.6125	17	462.6000	462.6000 467.6000(Repeater)
4	462.6375	18	462.6250	462.6250 467.6250(Repeater)
5	462.6625	19	462.6500	462.65000 467.6750(Repeater)
6	462.6875	20	462.6750	462.675 467.6750(Repeater)
7	462.7125	21	462.7000	462.7000 467.7000(Repeater)
		22	462.7250	462.7250 467.7250(Repeater)

ACCESSORIES

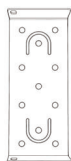
2.1 Standard Accessories



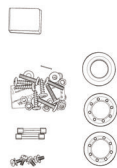
Fuselage



Hand mic



Mobile installation bracket



Screw / fuse



Power cable

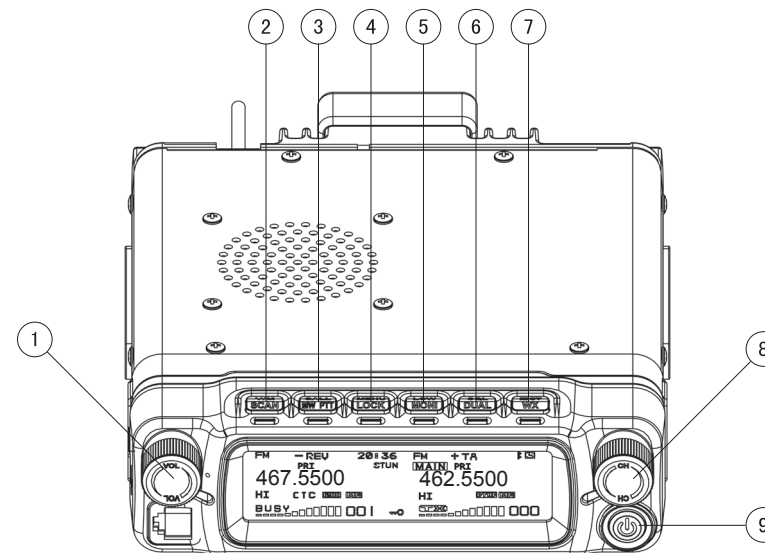


Instructions



Mount

Front Panel Controls & Switches



① Vol Knob

This control adjusts the audio level. Clockwise rotation increases the volume level. Press it briefly to switch A/B band.

② [V/M (SCAN)] Key

Press this key momentarily to switch the frequency control among the VFO and Memory Storage mode. Press and hold in this key for one second to frequencies Scan in VFO Mode, or Storage Channel Scan in Channel Mode.

③ [CALL (MW)] Key

Press this key momentarily to switch to calling mode. Press and hold in this key for one second in VFO mode to save the frequency to memory storage channel manually.

④ 【 MENU/LOCK 】 Key

Press this key momentarily to enter the menu, Press and hold in this key for one second to lock the keypad.

⑤ 【 LOW / MUTE 】 Key

Press this key momentarily to select the transmitter power output level ("LOW", "MID", "HI"). Press and hold in this key for one second to active mute function, the transceiver will be muted and "MUTE" was displayed when the Mute function is activated.

⑥ 【 SQL / DUAL 】 Key

Press this key momentarily to adjust the squelch level, Press and hold in this key to switch single/dual Display.

⑦ 【 EXIT / WX 】 Key

Press this key momentarily to exit menu. Press and hold in this key for one second to recall the weather broadcast channel.

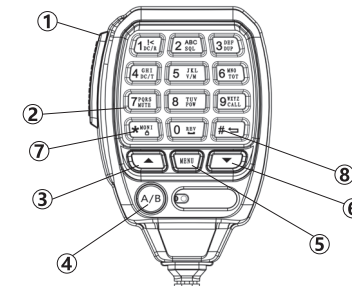
⑧ 【 PWR () 】 Key

Press and hold this key for one second to goggle the transceiver's power on and off.

⑨ 【 DIAL 】 key

This rotary switch is used for tuning, memory selection and most function settings. The microphone Up/DOWN duplicate the functions of this knob.

Microphone Switches



① PTT Switch

Press this switch to transmit, and release it to receive.

② Keypad

These 12 keys generate DTMF tones during transmission. In the receive mode, the 9 keys (0-9) can be used for direct frequency entry and/or direct numeric recall of the memory channels.

③ ▲ Button

In Frequency mode, Press this key for frequency adding, In Channel mode, press this key for previous channel. Short press it for last option in Menu operation, Press PTT + ▲ KEY to transmit ID code of default listing of DTMF / 2Tone / 5Tone / MDC1200

④ A / B Button

Press this button for A / B bands switch. Short press it to exit when the radio is under the interface of Menu operation or DTMF ID Enterring.

⑤ Menu Button

Press this button to enter Menu settings, Press and hold it for 1 seconds for switching between single / Dual Display.

⑥ ▼ Button

In Frequency Mode, press it for frequency minus, In Channel Mode, press it for next channel. Press it for next menu selection in menu operation interface, and press and hold PTT + ▼ for 1000Hz / 10450Hz / 1750Hz / 2100Hz tone transmission.

⑦ * Button

In standby status, short press it to active busy feature, press and hold it for 2 seconds to lock or unlock keypad. In Channel name editing interface, Short press it for input method switching.

⑧ # Button

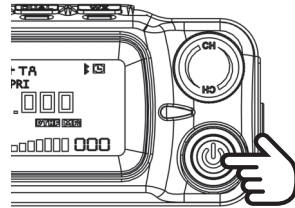
In standby Status, push it temporarily to enter DTMF ID code, then press PTT to call out.

In DTMF working mode, enter dialed ID by short pressing this key, then press PTT to call out, Press and hold it for 2 seconds for Scanning under standby.

Basic Operations

Turning the transceiver On and Off

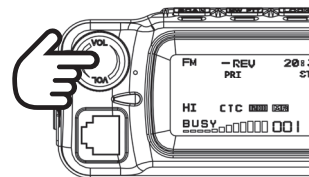
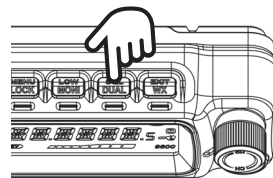
1. To Turn the transceiver on, press and hold in the PWR key for one second.
2. to turn the transceiver off, again press and hold in the PWR key for one second.



Adjusting the SQL and Audio

Volume Level

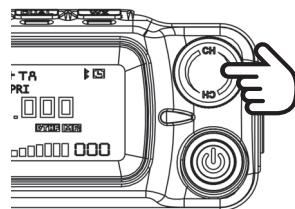
1. SQL level: Press 【SQL/DUAL】 Key, then Rotate Dial Knob to adjust the SQL Level.
2. Audio Volume: Press 【SQL/DUAL】 key to adjust the SQL Level to Zero firstly, then clockwise rotate the VOL key for a moderate audio Volume.
Please take the background noise as reference.



Frequency Navigation

Tuning Dial

Rotating the DIAL knob allows tuning in the pre-programmed steps. Clockwise rotation of the DIAL knob causes the FT7810 to be tuned towards a higher frequency, while counter-clockwise rotation will lower the operating frequency.
Press the DIAL knob momentarily, then rotate the DIAL Knob to change the frequency steps to 1MHz per step. This feature is extremely useful for making rapid frequency excursions over the wide tuning range of the FT7810.



Direct Keypad Frequency Entry

The keypad of DTMF microphone may be used for direct entry of the operating frequency. To enter a frequency from the keypad, just press the numbered digits in the proper sequence. there is no "decimal point" key on the microphone keypad.
For example: To enter 462.5500 MHz, press 【4】→【6】→【2】→【5】→【5】→【0】→【0】

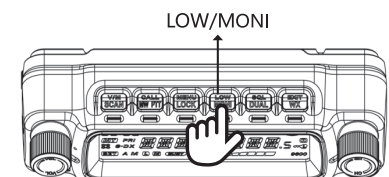
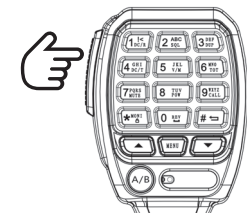
Scanning

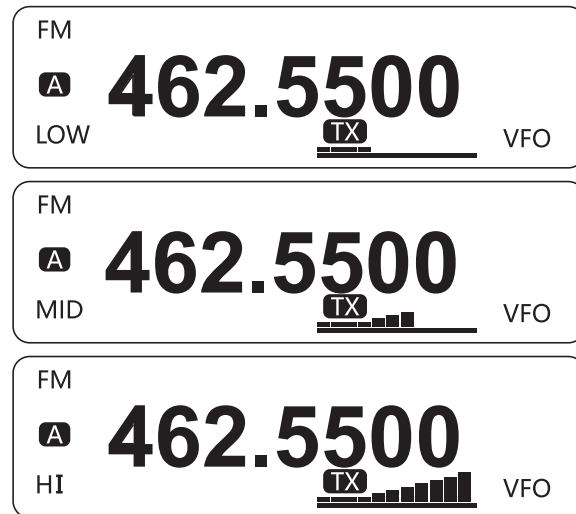
From the VFO Mode, Press and hold in 【V/M (SCAN)】 key for more than 1 seconds to initiate scanning toward a higher frequency, respectively, The FT 7810 will stop when it receives a signal strong enough to break through the squelch threshold. Restart the scan mode, you can set it by entering Scan in the Menu→Scan mode Rotate the DIAL knob to change the direction of the scan, clockwise rotate the DIAL knob to scan toward a higher frequency, counter-clockwise rotate the DIAL knob to scan toward a lower frequency (you can also change the direction of the scan by pressing the ▲ key or ▼ key on the microphone. Press 【V/M (SCAN)】 key again or PTT switch to stop Scanning.

Transmission

To transmit, simply close the PTT (push to talk) switch on the microphone when the frequency is clear. Hold the microphone approximately 1" (25mm) from your mouth, and speak into the microphone in a normal voice level. When your transmission is complete, release the PTT switch, the transceiver will revert to the receive mode.

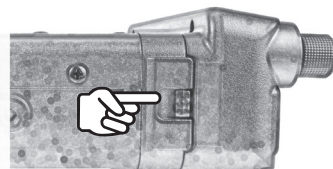
Changing the transmitter power level You can select from among a total of three transmitter power levels of your FT7810. To change the power level, press the LOW / MUTE key to select one of three power settings. During transmission, the Bar Graph will deflect in the display, according to the power output selected.





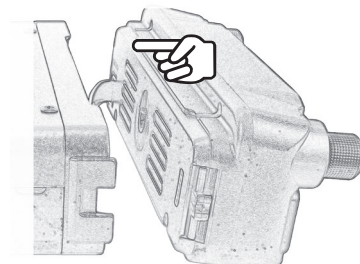
Separate the front Panel from Host

Push the switch on the left of front panel to separate the front panel from host.



Attach the front panel back to the host

Place the lock hole on the right of front panel into the latch on the left side of host, then slightly push the left side of front panel to attach it to the host



Quick Reference Guide

VOL Knob

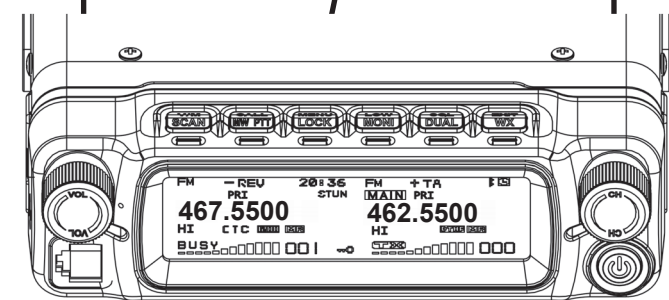
Rotate it to adjust the audio level Press it briefly to switch A/B Band

Keypad Lock

Press and hold it for 1 second

DIAL Knob

Rotate it to select operating frequency Press and hold it for 1-2seconds for scan.



Microphone Jack

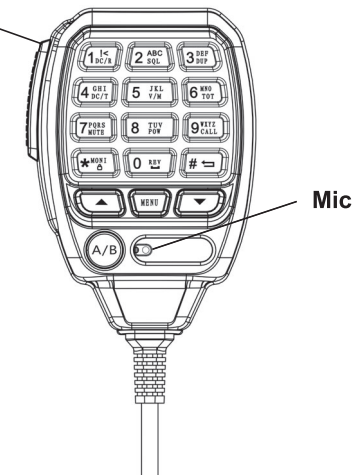
Connect to hand Microphone

PWR Key

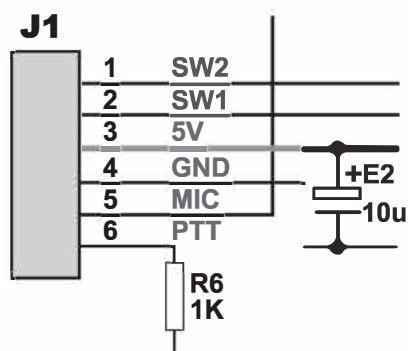
Press and hold it for 1 second

Push-to Talk Key (PTT)

Speak into microphone in a normal voice level while pressing this switch



Mic Speaker Wired Diagram



Key Overview

Key	Press Key briefly	Press and Hold Key
	VFO & Channel Mode Switch	Scan Start
	Fast switch to Call Mode	Memory Channel Storage
	Enter Menu	Keypad Lock
	HI/MID/Low Output Power Selection	MUTE ON/OFF
	Adjust Squelch Level	Single/Dual Display Switch
	Exit Menu	NOAA Weather Forecast Channel ON/OFF

CTCSS/DCS Operations

CTCSS Operation

Many repeater systems require that a very-low-frequency audio tone be superimposed on your FM carrier in order to activate the repeater. This helps prevent false activation of the repeater by radar or spurious signals from other transmitter. This tone system called "CTCSS" (Continuous Tone Coded Squelch System), is included in our FT-7810 and it very easy to activate. CTCSS setup involves two actions: Setting the tone mode and then setting of the tone frequency.

1). RX CTCSS

1. Press **[MENU/LOCK]** key to select "Program"
2. Press **[MENU/LOCK]** key again to enter the next menu, then rotate DIAL knob to select "2. CTCSS/DCS Decode"
3. Press **[MENU/LOCK]** key, then rotate DIAL knob to select "CTCSS"
4. Press **[MENU/LOCK]** key, select your desired CTCSS Tone Frequency, press key again to save the new setting
5. Press repeatedly or PTT switch on the microphone to exit Menu

2). TX CTCSS

1. Press **[MENU/LOCK]** key to select "Program"
2. Press **[MENU/LOCK]** key again to enter the next menu, then rotate DIAL knob to select "3. CTCSS/DCS Encode"
3. Press **[MENU/LOCK]** key, then rotate DIAL knob to select "CTCSS"
4. Press **[MENU/LOCK]** key, then Rotate DIAL Knob to select your desired CTCSS Tone Frequency, press key again to save the new setting
5. Press **[MENU/LOCK]** repeatedly or PTT switch on the microphone to exit Menu

CTCSS Code									
67.0	69.3	71.9	74.4	77.0	79.7	82.5	85.4	88.5	91.5
94.8	97.4	100.0	103.5	107.2	110.9	114.8	118.8	123.0	127.3
131.8	136.5	141.3	146.2	151.4	156.7	159.8	162.2	165.5	167.9
171.3	173.8	177.3	179.9	183.5	186.2	189.9	182.8	196.6	199.5
203.5	206.5	210.7	218.1	255.7	229.1	233.6	241.8	250.3	254.1



DCS Operation

Another form of tone access control is Digital Code Squelch, or DCS. It is a newer, more advanced tone system which generally provides more immunity from false paging than does CTCSS. The DCS Encoder/Decoder is built into our FT-7810, and operation is very similar to that just described for CTCSS. Your repeater system may be configured for DCS, if not, it is frequently quite useful in simplex operation if your friend(s) use transceiver equipped with this advanced feature.

Just as in CTCSS operation, DCS requires that you set the tone mode to DCS and that you select a tone code.

1). RX DCS

1. Press **[MENU/LOCK]** key to select "Program"
2. Press **[MENU/LOCK]** key again to enter the next menu, then rotate DIAL knob to select "2. CTCSS/DCS Decode"
3. Press **[MENU/LOCK]** key, then rotate DIAL knob to select "DCS N or DCS I"
4. Press **[MENU/LOCK]** key, then Rotate DIAL Knob to select your desired RX DCS code, press **[MENU/LOCK]** key again to save the new setting
5. Press **[MENU/LOCK]** repeatedly or PTT switch on the microphone to exit Menu

2). TX DCS

1. Press **[MENU/LOCK]** key to select "Program"
2. Press **[MENU/LOCK]** key again to enter the next menu, then rotate DIAL knob to select "3. CTCSS/DCS Encode"
3. Press **[MENU/LOCK]** key, then rotate DIAL knob to select "DCS N or DCS I"
4. Press **[MENU/LOCK]** key, then Rotate DIAL Knob to select your desired TX DCS code, press **[MENU/LOCK]** key again to save the new setting
5. Press **[MENU/LOCK]** repeatedly or PTT switch on the microphone to exit Menu

DCS Code												
023	025	026	031	032	036	043	047	051	053	054	065	071
072	073	074	114	115	116	122	125	131	132	134	143	145
152	155	156	162	165	172	174	205	212	223	226	226	243
244	245	246	251	252	255	261	265	265	266	271	274	306
311	315	325	331	332	343	346	351	356	364	365	371	411
412	413	423	431	432	445	446	452	454	455	462	464	465
466	503	506	516	523	526	532	546	565	606	612	624	627
631	632	654	662	664	703	712	723	731	732	734	743	754

Menu (Settings) Mode

1. Press **[MENU/LOCK]** key to select "settings"
2. Rotate DIAL knob or press the **[▲]** **[▼]** keys on the microphone to select the desired Menu
3. Press **[MENU/LOCK]** key momentarily to enable adjustment of the selected menu item, then rotate the DIAL knob to perform the actual adjustment.
4. After completing your selection and adjustment, press **[MENU/LOCK]** key momentarily to save the new setting, then repeatedly press **[MENU/LOCK]** key or the microphone's PTT switch to exit to normal operation.

Menu ("Set") Mode

Settings	Function	Available Values	Default Values
1. Audio	1. Key tone	OFF/ON	ON
	2. Tone Volume	Level 1 to Level 8	Level 5
	3. SUB MUTE	OFF/ON	ON
	4. Speaker Selection	MODE-1/MODE2/Both	MODE-1
2. Display	1. CH MODE A	Frequency+CH/Channel/Chanel Name	Frequency+CH
	2. CH MODE B	Frequency+CH/Channel/Chanel Name	Frequency+CH
	3. Brightness	Brightness 1/ Brightness 2/ Brightness 3/ Brightness 4/ Brightness 5	Brightness 5
	4. Sub CH Display	OFF/ON	OFF
	5. Power-on Interface	Preset Log/Preset Msg/Voltage	Voltage
	6. Alias send	OFF/ON	OFF
	7. Alias	Empty	Empty
	8. Alias Pre time	50-2000(ms)	300(ms)
	9. Backlighting Time	Close/5 seconds/10 seconds/ 30 seconds/5 minutes	Always on
	11. Background color	7 color options available	white
	12. Time	Modification Date	



Settings	Function	Available Values	Default Values
3. Key Function	1.Key Lock	Panel Key/Hand Key/ Panel+Hand	Panel Key
	2.Knob Unlock	OFF/ON	OFF
	3.PTT Lock	OFF/ON	OFF
4.DTMF	1. Automatic response	Turn off / Sound Alert / Sound Alert and Respond	Sound Alert and Respondv
	1. Pre Time	50-2000(ms)	50(ms)
	2. First Digit Time	100-1000(ms)	100(ms)
	3. Digit Duration Time	80-2000(ms)	80(ms)
	4. Digit Gap Time	80-2000(ms)	80(ms)
	5. Side Tone	OFF/ON	OFF
	6. DTMF Key Locked	OFF/ON	OFF
5.Two Tone	1. Pre Time	0 - 5 (S)	0.5(S)
	2. 1 st Tone Duration	0.5 - 4 (S)	0.5(S)
	3. 2 nd Tone Duration	0.5 - 4 (S)	0.5(S)
	4. Long Tone Duration	0.5 - 10 (S)	0.5(S)
	5. Gap Time	0 - 2 (S)	0.5(S)
	6. Side Tone	OFF/ON	OFF
	7. Auto Reset Time	1 - 255 (S)	10(S)
6.Five Tone	8. Decoding Response	No / Beep / Beep and reply	Sound Alert and Respond
	1. Pre Time	0 - 2550 (ms)	300(ms)
	2. Decode Standard	ZVEI1/ZVEI2/ZVEI3/CCIR1/ CCIR2/CCIR3/EEA/EIA	ZVEI1
	3. Decoding Response	None/Beep Tone/ Beep Tone & Respond	None
	4. Side Tone	OFF/ON	OFF
	5. PTT ID Pause Time	5-75(S)/OFF	OFF

Settings	Function	Available Values	Default Values
7.MDC 1200	1. Pre Time	0 - 5000 (ms)	300(ms)
	2. PTT ID Decode	OFF/ON	OFF
	3. Preamble Bit Sync	0 - 96	5
	4. PTT Short Beep	OFF/ON	OFF
	5. PTT ID Pause Time	5-75(S)/OFF	off
8.Others	1. Frequency Step	2.5 - 50KHz	25KHz
	2. Tail	OFF/Silent//120°/180°/240°/55°	55°
	3. TOT	1 - 40 (min)	5 (min)
	4. Auto Shutdown	OFF/30/60/90/120/180 MIN	OFF
	5. Fan Control	OFF/ON/AUTO	AUTO
	6. SQL Hang Time	OFF/125ms/250/500ms	OFF
	7. Beat Shift	OFF/ON	OFF
	8. TBST	1000/14501750/2100Hz	1750Hz
	9. Weather Alarm	OFF/ON	OFF
	10. Denoise Mode	OFF/ON	OFF
	11. ROGER	OFF/TONE/MDC1200	OFF

Program	Function	Available Values	Default Values
1.Channel Name	Name channel manually	Chinese/English/Numeric	None
2.Receive Frequency	Change RX freq Manually	108-616M	Current freq
3.Transmit Frequency	Change TX freq Manual	136-174M/400-490M	Current freq
4.CTCSS/ DCS Decode	Set CTCSS/DCS for RX freq manually	None/CTCSS/DCS N/DCS I	None
5.CTCSS/ DCS Encode	Set CTCSS/DCS for TX Freq manually	None/CTCSS/DCS N/DCS I	None
6.Band Width	Band width setting	Narrow/Wide (20K)/Wide (25K)	Wide(25K)
7.Transmit Power	Output Power Setting	Low/Mid/High	High



Program	Function	Available Values	Default Values
8.Busy Lock	Busy channel Lock	OFF/ON	OFF
9.PTT Prohibit	PTT Setting	OFF/ON	OFF
10.Optional Signaling	Signaling Type Selection	OFF/DTMF/2 Tone/5 Tone/MDC1200	OFF
11.Squelch Mode	Receive Squelch Mode	Carrier,CTCSS/DCS,Optional Signal,CTC/DCS & Optional Signal,CTC/DCS Optional Signal	Carrier
12.Scan Skip	Channel Scan Skip Setting	OFF/ON	OFF
13.PTT-ID	Signaling PTT-ID Setting	OFF/BOT/EOT/BOTH	OFF
14.Offset Freq	Offset freq setting	144M/430M	0.6M/7.6M
15.Offset Direction	Offset Direction Setting	None/Plus/Minus	None

Scan	Function	Available Values	Default
1.Scan CTCSS	Scan CTCSS Tone Freq	67 - 254.1Hz	-
2.Scan DCS	Scan DCS Code	023 - 754N	-
3.Scan Mode	Set the mode of next Tone Search Scan Restart	Time/Carrier/Search	Carrier
4.Scan Detect CTC/DCS	Enable or Disable Scan Detect CTC/DCS	OFF/ON	ON
5.Scan Hang Time	Scan restart Time	0.5 - 10 (S)	2(S)
6.VHF Scan Range	Scan Frequency Range in VFO Mode	Scan Range (VHF)/ Scan Range (UHF)	136-174MHz/ 400-490MHz
7.Scan Group A	10 Scan Groups in Band A	ALL/G-01 to G-10	ALL
8.Scan Group B	10 Scan Groups in Band B	ALL/G-01 to G-10	ALL
9.Scanning Reception Mode	Set scanning reception mode setting	Automatic / FM / AM	Automatically

Reset Procedure

In the event of erratic operation of the transceiver, it is possible that data on the microprocessor may have become corrupted. While this is a highly unusual situation, the only path to recovery may involve resetting of the microprocessor. Here is how to do this:

1. Press **【MENU/LOCK】** key momentarily to select "Factory Reset"
2. Again Press **【MENU/LOCK】** key, then rotate DIAL knob to select the desired Reset Mode.
 1. VFO, clear all frequencies of VFO Mode to factory defaults. 2. ALL, Clear all memories and other settings to factory defaults.
3. Press **【MENU/LOCK】** key to complete the reset procedure.
4. The transceiver will restart again when the reset completed.



Specifications

General	
Frequency Range	462.5500-462.7250MHz
	467.5500-467.7250MHz
Channel Step	12.5/25KHz
Antenna Impedance	50 ohms,unbalanced (Built-in Duplex-er Antenna)
Frequency Stability	±5ppm@-14°F to +140°F (-10°C to +60°C)
Operating Temperature Range	-14°F to +140°F (-10°C to +60°C)
Supply Voltage	13.8V DC ±15%,negative ground
Current Consumption (typical)	Rx: 0.5A(Squelched)
	Tx: 9A (144MHz ,50W)
	9A(435MHz,45W)
Case Size (W×D×H)	5.7"×1.8"×7.5"
	(144×45×189mm)(w/o Knobs & fans)
Weight (Approx.)	2.2lb(1.0kg)
Transmitter	
Power Output	462 MHz Main Channels:44.15dBm (Conducted)
	462 MHz interstitial channels:36.98 dBm (ERP)
	467 MHz Main Channels:43.94dBm (Conducted)
Modulation Type	Variable Reactance
Maximum Deviation	±5KHz (Wide),±2.5KHz (Narrow)
Spurious Radiation	Better than -60dB
Microphone Impedance	2k ohms
Data Socket Impedance	10K ohms

§95.1743 Minor GMRS operators

Operators under the age of 18 will not be held personally responsible, pursuant to §95.343, for improper operation of a GMRS repeater or base station. The holder of the individual license under which the minor operates is solely responsible for any improper operation that occurs while an individual under the age of 18 is operating the station

Warnings:

The Radio is preconfigured with 8 GMRS repeater channels: 467.5500, 467.5750,467.6000, 467.6250, 467.6500, 467.6750, 467.7000,and 467.7250 MHz, device that is used to increase the range of two way radios.

Repeaters will receive a transmission on one frequency and simultaneously rebroadcast that transmission on a different frequency. Repeaters are often set up in a fixed location and connected to an antenna that is mounted at a higher elevation to provide better range than is normally available with radio-to-radio (simplex) communications. Using GMRS repeaters can significantly increase the range of your radio, but just tuning to one of the repeater channels is not necessarily going to work. You first have to be sure there is a repeater listening on that channel's frequency, and you have to be within range of that repeater.

467.5500, 467.5750,467.6000, 467.6250, 467.6500, 467.6750, 467.7000,and 467.7250 MHz. In basic terms, a repeater is a It is important to keep in mind that a GMRS repeater is not necessarily intended for public use. They are owned by individuals and are sometimes intended for private use or require permission to use. Before connecting to a GMRS repeater, be sure that you have permission or that the owner is fine with public use. The description on the my GMRS website usually indicates if permission is required and provides a way to get in touch with the owner.