DMR

DIGITAL MOBILE RADIO ASSOCIATION

radtel

USER'S MANUAL

RT-6D/RT-6D Pro

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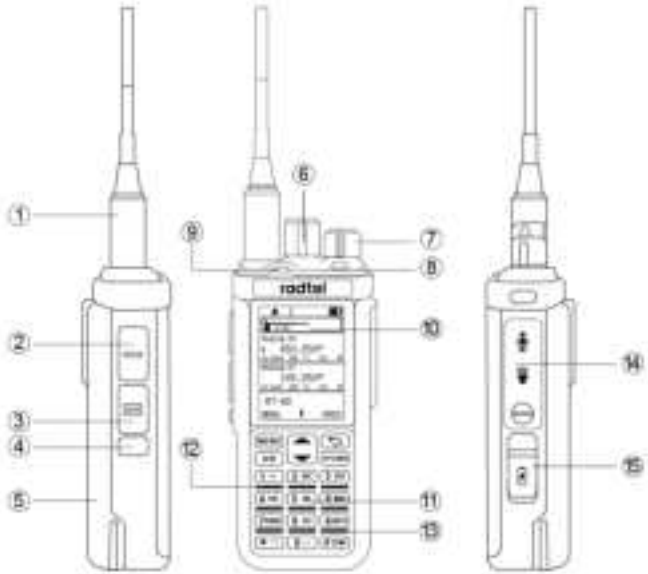
Familiar with Radio

Radio Diagram



①Antenna ②PTT ③Side-key 1 (Default open squelch)

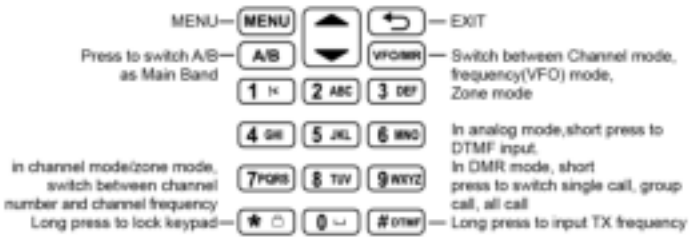
④Side-key 2(In VFO mode, switch Analog mode and digital model)

⑤Battery ⑥Channel & Menu Switching Knob ⑦ON/OFF/Volume Knob

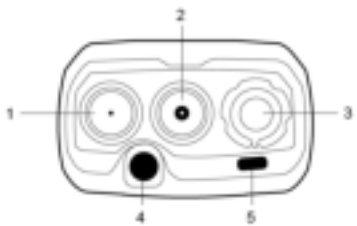
⑧ Indicator ⑨Alarm Button ⑩Display Screen ⑪Keypad ⑫ MIC

⑬ Speaker ⑭ Ear/Mic Port ⑮ Type-C Charging Port/Programmable Jack

Keys and Knobs Diagrams



TOP Keys/Buttons



1. **Antenna Port :** Used for all frequency transmission and reception.
2. **Channel Selector Knob:** Used to change frequency, channel number or change menus.
3. **Power Button/Volume Adjustment:** Used to turn the device on/off and adjust the volume.
4. **Yellow Button/Customizable Button:** Can be used for customized functions.
5. **LED Light:**
   Green Light: Indicates the device is receiving a signal.
   Red Light: Indicates the device is transmitting a signal.

Keypads Instruction

	Function Descriptions
PTT	Transmit or Exit
Side key 1	You can select the [Slaver PTT] option in the menu Key Define to use it as PTT-2 for transmission, which will disable the custom function.
	Definable long press and short press functions
Side key 2	Definable long press and short press functions
Yellow Key	Definable long press and short press functions
MENU	Confirm or Enter in Menu
	DTMF： A
⮌	Cancel or Exit Menu
	DTMF： D
A/B	Switch A or B band as the main band
VFO/MR	To Delete
	Switch the working mode between VFO frequency mode, channel mode
▲	Switch up the frequency, channel, or menu; long press to quickly scroll up
	DTMF：B
▼	Switch down the frequency,channel,or menu;long press to quickly scroll down
	DTMF：C
0	Short press:input number 0
	Long press to definable functions
	DTMF：0
	To input Number 0 or Space Bar
1	Short press to input Number 1
	Long press to definable functions
	DTMF：1
	To input Number 1/English Letters/Chinese Characters
2-9	Short press to input Number 2-9
	Long press to definable functions
	DTMF：2-9
	To input Number2-9/English Letters/Chinese Pinyin Codes
*	Short press to switch from channel frequency/channel number/channel Alias in channel mode
	Long press to lock the keypad
	DTMF：*
# DTMF	In analog mode, press to enter DTMF input. In DMR mode, short press to enter digital call, press again to switch between Individual call, Group call, All call
	DTMF： #
	To active inputting status and switch input methods

LCD Icon Display

1.Keypad Lock **2.**Beep **3.**Scan **4.**RR Offline/TR Backward Frequency
5.Unread SMS **6.**Digital Call Hold Mode **7.**Battery Power
8.CXX Digital Channel Color Codes/CTC Analog Channel with Sub-tones/
DCS Analog Channel with Digital Sub-tones/
ENC Analog Channel with Encrypted Sub-tone/
MUT Analog Channel with Decoded Sub-tone
9.T1 or T2 Digital Time-slot/ AM or FM Analog RX Modulation
10.H/L: High/Low Power
11.AM or FM Analog Channel Reception Standard/
DMR D The Current Channel is a Digital Channel
12. Prompt Content Area **13.**User Name
14. Channel Number/Frequency Value
15. Channel Number/Area Number **16.**Main Frequency Icon **17.**Channel
18. Analog Signal Field Strength/Last Digital Call Record
19. Current Region (A or B) **20.**S9 Field Strength Meter

Charging Radio

Your two-way radio supports three charging methods:

1.Charging with the Radio in the Charging Dock
Insert the battery into the radio.
Place the radio into the charging dock.
Ensure the radio is properly seated in the charger.

2.Charging the Battery Alone in the Charging Dock
Remove the battery from the radio.
Insert the battery into the charging dock.
Make sure the battery is aligned correctly.

3.Charging via USB-C Cable
Plug a USB-C cable into the charging port on the side of the radio.
Connect the other end of the cable to a power adapter, computer, or power bank.

LED Indicator Status
Red Light: Charging in progress.
Green Light: Charging complete.

Note:
Use only the recommended charger and cables.
Do not charge in extreme temperatures.
Fully charge the battery before first use for optimal performance.
Not to use cell phone fast charger to charge this radio.

4.Basic Operation

4.1. Frequency Input

Switch to VFO Frequency Mode: Press the VFO/MR key to enter VFO Frequency Mode.

Enter the Frequency:
Use the numeric keypad to input the desired frequency.
The input must be either 6 digits or 8 digits, depending on the selected setting.

Frequency Input Settings:
Navigate to Menu →[Basic Set] → [Frequency Input 27].
Select [6 Bits] to allow 6-digit frequency input.
Select [8 Bits] to require 8-digit frequency input.

4.2 Input Repeater Frequency

Method One: Using the Menu

1.Set the Frequency Offset:
Go to Menu → Channel Set → 16.Offset Freq
Use the number keypad to input the desired frequency difference (offset)

Set the Offset Direction:
Go to Menu → Channel Set → 15 Offset Dir
Choose either "+" (upward) or "–" (downward) depending on how you want the transmit frequency to shift relative to the receive frequency.

Method Two: Quick Access
Long-press the # key to enter the TX Frequency menu.
Directly input the TX (transmit) frequency and press MENU to save it.

4.3 Transmitting and PTT Function Guide
① **Basic PTT Transmission**
Press the PTT button to transmit on the current frequency.
The indicator light turns red while transmitting.
If you're on a digital channel, it will switch to the digital calling interface, showing:
Called ID
Contact Name
Call Type: Private Call, Group Call, or All Call
② **Set Main PTT Transmission Frequency**
Navigate to:
Menu → Basic Set — 18 Main PTT TX
Select one of the following:
Area A: PTT will always transmit on A frequency
Main Area: PTT will always transmit on the main (active) frequency
③ **Transmit on B Frequency via Side-Key 1**
Go to:
Menu → Key Define → Slaver PTT
Enable this option to assign PTT function to Side-Key 1
Note: This will disable the shortcut function of Side-Key 1
When set, press Side-Key 1 to transmit on the B frequency.

4.4 Receiving and Digital Call Display
When receiving a signal, the indicator light turns green.
If the current channel is a digital channel, it will enter the digital calling interface, displaying:
Caller ID
Caller Name
Calling Type:
Private Call
Group Call (shows Group ID)
All Call

4.5 DMR Encryption
Three types of encryption are supported:
ARC, AES128, AES256
To enable encrypted communication between two radios, the following conditions must all be met (none are optional):
1.Same Encryption Type
(e.g., both radios using AES128)
2.Same Encryption Serial Number
(ensures matching encryption profiles)
3.Same Encryption Key(s)
(the actual key values must match exactly)

4.6 Dial Call (Digital Channel Only)
1.Enter Dial Interface
Press # while on a digital channel to access the dial interface.
2.Switch Call Type
Press # again to toggle between Individual Call, Group Call, or All Call.
To input caller ID via keypad and delete via VFO/MR key and press PTT to make a call.

4.7 DTMF (Dual-Tone Multi-Frequency)
4.7.1 DTMF Inputting and Sending
1.Press #DTMF to enter the DTMF input interface (analog channel only).
2.Use the keypad to enter the DTMF code.
Press VFO/MR to delete characters.
3.Press PTT to send the DTMF code.
The device will transmit the code after a preset delay time.

4.7.2 DTMF Decoding (Receiving)
When receiving on an analog channel, and DTMF decoding is enabled:
The screen will display the sender's DTMF code.

4.7.3 DTMF Sending During Transmission
While transmitting on an analog channel, you can press keys on the keypad to send corresponding DTMF tones in real-time.

4.7.4 DTMF Remote Monitor
1.Set a DTMF Monitor Code and enable [DTMF Control].
2.Other radios send the same Monitor Code via DTMF.
3.Upon successful decoding, this radio will automatically transmit for 60 seconds to allow for remote monitoring.

4.7.5 DTMF Stun / Kill / Activate (Be careful to use this function)
1.Configure the desired DTMF codes for Stun, Kill, and Activate, and enable [DTMF Contro].
2.When another radio sends the corresponding code:
Stun: The radio can receive but cannot transmit or use keypad input.
Kill: The radio becomes completely unusable until reactivated.
Activate: Restores normal operation from either Stun or Kill state.
Important:
Always set an Activate Code when using Stun/Kill codes — otherwise, the radio cannot be restored once disabled.

4.8 Text Input
4.8.1 Switching Input Modes & Deleting Input
Press the # key to switch between input methods.
Press the * key to delete characters while in text input mode.

4.8.2 Number Input
Press the number keys (0–9) to input digits.

4.8.3 English Letter Input Modes 【AB】 【abc】
Keys 2–9 are used to input corresponding Eng sh letters.
Press 0 to insert a space.
Press 1 to input English symbo s.
To cycle through letters on the same key, press the key repeatedly:
Example: Pressing 2 once inputs "A", twice inputs "B", and three times inputs "C".

4.8.4 Pinyin Input Method (PY1 / PY2)
PY1: Standard Chinese character set.
PY2: Extended set including rare and trad tional Chinese characters.
Enter pinyin using the numeric keypad.
Use the ▲/▼ keys to scroll through pinyin suggestions.
Press the A/B key to confirm and proceed to the character selection.
Use ▲/▼ again to scroll through Chinese characters, and press A/B to confirm your choice.

4.9 Function of Key Define
[1. None] None function of side buttons/keys.
[2.H/L Power] To switch high/low power of current channel.
[3.Dual Standby]To turn on/off dual standby. The power saving mode is invalid once the dual standby turns on.
[4.TX Priority] To switch the priority receive (RX) mode, select either[Edit] or[Busy]
When set to Busy mode, the main frequency will automat cally return to the calling frequency once the call ends.
[5.Scanning]Press this button to enter scan mode. Press any key to exit.
[6.Backlight On-off]Press to turn on/off backlight.
[7.Brightness] Set LCD brightness.
[8.FM Radio]
①: Press the assigned button to enter FM mode. Press the PTT key to exit.
②: Press the * key to switch FM between frequency mode and channel mode.
In frequency mode, use the number keys to enter the FM frequency.
In channel mode, use the number keys to select FM channels.
③: Long Press the * key to toggle FM search between Single Channe and Full Band modes.
In Single Channe Search, press and hold the UP or DOWN key to egin searching. The search stops when an active channel is found.
In Fu Band Search, up to 16 channels will be scanned and stored automatically.
[9.Talk around]Use this function to switch the repeater frequency mode to either Talk-Around or Frequency Reverse:
In Talk-Around mode, transmission occurs on the receive (RX) frequency.
In Frequency Reverse mode, the RX and TX frequencies are swapped.
[10.Alarm] Press this button to activate the emergency alarm. An alarm sound will be emitted.Press any key to exit the alarm status.
[11.Zone Select] Select the zone numbers.
[12.SQ] Set the SQL leve .
[13.Freq Step] Frequency step setting.
[14.DA Switch(VFO)] In VFO mode, switch between digital mode and analog mode.
[15.Save CH] Save the frequency and tone into a channe .
[16.Monitor] Activate the squelch.
[17.VOX] Set VOX voice transmission on.
[18.Roger Beep] Set the roger beep tone.
[19.Freq Detect]The function as frequency measurement or one click copy frequency.
[20.CTC/DCS Scan] Set to scan CTC/DCS tone.
[21.Send Single Tone] After pressing the trigger button, the device will transmit a single tone signal on the current frequency. Press any key to stop transmission.
[22.RX Modulation] In analog channels, the reception demodulated using AM or FM.
[23.Spectrum] Analog Spectrum function.
[24.NOAA Mode] Press this button to enter into NOAA scanning mode, and switch NOAA channe s via channel knob. The radio will start to scan NOAA automat cally when not any operation for 8S. The fo lowings are NOAA frequencies.

1	162.55000M	2	162.40000M	3	162.47500M
4	162.42500M	5	162.45000M	6	162.50000M
7	162.52500M	8	161.65000M	9	161.77500M
10	161.75000M	11	162.00000M		

[25.Remote Monitor] Available for digital channels and Individual Call Contact. Press this button to make a 15-second call to monitor the surrounding sounds.
[26-28.Remote Stun/Kill/Wake Up] Available for digital channels and Individual Call only. Press this button to Stun/Kill/Activate appointed radios. The stun radio can receive signals and do nothing. The killed radios cannot be used only do activate them to remove from Stun and Kill status.
[29.Online Check] Available for digital channels and Individual Call only. Press this button to check the radios turn on and at same channels or not.
[30.Promiscuos]
When Promiscuous mode is disabled
A DMR radio receives on a single time slot and a specific Talk group.
If there are voice signals from other Talk groups on the channel, even with the same frequency and Color Code, the radio normally will not decode or play them.

When Promiscuous mode is enabled
The radio will receive and decode all Talk group voice traffic on the current frequency and time slot, not just the Talk group you have set.
In other words, as long as the Color Code and time slot match, you can hear any Talk group communication on the channel.
[31.New SMS] enter into new SMS message edit interface
[32.Jump to SMS Menu] enter into SMS menu box
[33.Dual Slot on-off] Set dual time slot on or off
[34.Slot Switch] Switch time slot 1/2
[35.CC Switch] Switch color code
[36.DMR Enc off] Set the DMR encryption keys
[37.Jump to TG list] Jump to RX Talk Group lists
[38.GPS] Set to activate GPS position
[39.GPS Manual Rec] Manually record GPS coordinates
[40.Query GPS Track] Go to GPS Track Query
[41.APRS Beacon] Jump to APRS beacon list to query beacons

Menu Specifications

The Menu include Basic Settings, Key Define, Analog Settings, Digital Settings,Channel Settings,Zone Settings,Message,FM Radio,Extended.

01 Basic Settings

Menu	Sub Menu	Function
01 Radio Name	Edit name	Set radio name or callsign, Press * to delete input, press # to select input method.
02 Voice Prompt	On off	Turn on/off voice prompt.
03 Key Beep	On off	Turn on/off keypad beep.
04 Lock Timer	Off, 5s-600s	The time to lock keypad.
05 Light Timer	Off, 5s-600s	The time to Turn off the backlight
06 Brightness	0-4 level	Choose the brightness level of the background light
07 Menu Exit	Off-600s	Set the time return to main screen
08 Dual Standby	On off	Select dual standby or single standby.
09 TX priority	Edit	Always transmit at main band.
	Busy	Switch to busy channel as the main band.
10 Freq Step	0.25K,1.25K,2.5K,5K, 6.25K,10K,12.5K,20K, 25K,50K,100K,500K, 1M,5M	Set the frequency or scan step
11 Talk Around	Off, Talk Around, Invert Freq	Set repeater mode or normal mode. **Talk Around:** Direct communication mode without using a repeater. **Invert Frequency:** Swap the transmit and receive frequencies.
12 Save Mode	Off,1:1-1:3	Set the power saving ratio, dual frequency standby mode without entering power-saving mode
13 Scan Mode	CO	The walkie talkie stops scanning and remains at the same frequency when it detects a signal; Until the signal disappears. There is a 2-second delay between signal disappearance and scan recovery

Menu	Sub Menu	Function
13 Scan Mode	TO	When the walkie talkie detects a signal, it stops scanning and remains at the same frequency. After preset time, the walkie talkie will continue scanning even if the signal is still present
	SE	Upon detecting a signal, the walkie talkie exits the scan and remains at this frequency
14 Scan Direction	UP, DOWN	Set the scanning direction
15 Scan Dwell Timer	0-30	Set the scan stop time for TO scan mode
16 Scan Interval	0-30	Set scan interval time
17 Scan Return	Original CH	Return to current channel or original channel after scanning
	Current CH	
18 Scan Start freq		Setting the frequency begin to scan from
19.Scan End Freq		Setting the frequency end of scanning
20. Carrier LED	On/Off	Enable/disable carrier LED light
21 Alarm Type	Local Alarm	Radio emit the alarm sound
	Remote Alarm	Radio emit the alarm sound and other radio will receive the alarm tone Both radios emit alarm sound
	Local+Remote	Transmit in main area or always transmit
22Area A Mode	CH mode	Set the Channel mode, Frequency mode or zone mode
	Zone mode	
	Freq mode	
23 Area A Show	Show CH No Show Freq Show Alias	Set the display way in the selected mode
24 Area A Zone	Zone1-Zone256	Set the zone numbers
25 Area B Mode	CH mode Zone mode Freq mode	Set the Channel mode, Frequency mode or zone mode

Menu	Sub Menu	Function
26 Area B Show	Show CH No Show Freq Show Alias	Display channel number or only frequency or channel name
27 Area B Zone	Zone-001- Zone-256	Set the zone numbers
28 Freq Input	6 bits, 8 bits	Display 6 bits or 8 bits frequency
29 CT/DCS Code Show	On/off	In the main interface channel display, show CTC (DCS) or the actual CTC/DCS value, such as "67.0" or "D023N".
30 CH Alias Color	Blue,Green,Red, Yellow,White, Fuchsia,Pink, Orange,Tomato, CyanGolden	Use the selected option's color to display the channel name.
31 Reverse CH	On/off	Reverse the switching direction when changing channels using the channel knob and the up/down keys.Save the frequency and tone into channels.
32.RX RSSI Refresh	Off,100-2000ms	Refresh interval of the signal meter during reception.
33. APO	On/off	Enable or disable the auto sleep timer.
34 APO Timer		Set the auto sleep timer duration.
35 AWU	On/off	Enable or disable auto wake-up.
36 AWU Timer		Set the auto wake-up timer duration.
37 Save CH	CH-0001-toCH-1024	To save a frequency or tone into a channel.
38 Delete CH	CH-0001-toCH-1024	To delete a frequency or tone in the channel.
39 Initialization	Yes/No.	The frequency data will return to the last programming status.
40 Version	Radio ver.	Show radio version and time.
41 DMR Version	Dmr ver.	Show DMR version.
42 Flash IC	25Q256 (32MB)	Show the flash IC capacity.

02 Key Define

Menu	Sub Menu	Function
01 Slaver PTT	1.None,	Set the side key 1 as the PTT button
02 Side key 1 S 03 Side key 1 L 04 Side key 2 S 05 Side key 2 L 06 0 Press Long 07 1 Press Long 08 2 Press Long 09 3 Press Long 10 4 Press Long 11 5 Press Long 12 6 Press Long 13 7 Press Long 14 8 Press Long 15 9 Press Long	2.Hi/L Power 3.Dual standby 4.Tx priority, 5.Scanning, 6.Backlight on/off 7.Brightness 8.FM radio, 9.Talk around 10.Alarm 11.Zone Selection 12.SQ 13.Freq Step 14. DA Switch(VFO) 15. Save CH 16. Monitor 17. VOX 18.Roger Beep 19.Freq Detect 20.CTC/DCS scan 21.Send Single Tone 22. RX Modulation 23. Spectrum 24. NOAA CH 25.Remote Monitor 26.Remote Stun 27.Remote Kill 28.Remote wakeup 29.Online check 30.Promiscuos 31.New SMS 32.Jump to SMS Menu 33.Dual Slot On-off 34.Slot Switch 35.CC Switch 36.DMR Enc off 37.Jump to TG List 38.GPS 39.GPS Manual Rec 40.Query GPS Track 41.APRS Beacon	Set the side key 1, side key 2, Num0-9 short press or long press

03 Analog Set

Menu	Sub Menu	Function
01 SQ level	0-10	Setting the squelch to Off will fully open the squelch.Squelch mutes the receiver when no signal is present. A lower squelch level makes the receiver more susceptible to interference, while a higher level reduces sensitivity.It is recommended to set the squelch to a middle level for optimal performance.
02 TX Start Tone	On, off	Configure a tone to play before transmitting
03 TX End Tone	OFF Roger Beep 1 Roger Beep 2 Radio Name	A tone or the radio name to be sent after transmitting
04 Single Tone	1750Hz	Adjust the tone frequency and assign'14.Send Single Tone' in the Key Define menu to send it
05 VOX On-off	On/Off	Set Vox on off
06 VOX TH	0-254	Set VOX Activate threshold
07 VOX Delay	0-5	Set VOX delay time
08 Detect Range	Frequency range	Choose the frequency range for detecting signals from other radios. After that, config ure buttons and assign '26. Freq Step' in the Key Define menu
09 Repeater Delay	0-2000ms	Set the repeater delay time. This sets how long the repeater remains active after the incoming signal stops.
10 Mic Gain	0-31	Set Microphone Receiving sensitivity. The higher the value,the more sensitivity the Mic. Receive volume adjustment,with a relatively large change in the adjustment step
11 DAC Gain	0-15	Set Band A speaker volume.The higher the value, the louder the speaker.To avoid audio distrotion, don't turn up the speaker volume too high.
12 A SPK Gain	0-63	Set Band B speaker volume.The higher the value,the louder the speaker.To avoid audio distrotion,don't turn up the speaker volume too high.

Menu	Sub Menu	Function
13 B SPK Gain	0-63	When experiencing blocked reception during calls, this value can be increased; when encountering frequent interference, this value can be decreased
14 Glitch TH	0-10	When experiencing blocked reception during calls, this value can be increased; when encountering frequent interference,this value can be decreased
15 DTMF Delay	0-2000ms	Set DTMF delay time
16 DTMF Interval	30-200ms	Set the Interval time of two DTMF codes
17 DTMF Duration	30-200ms	Set the lasting time of individual DTMF code
18 DTMF Mode	Off, Tx start, Tx end, Both	Set the mode of transmit the DTMF code
19 DTMF Select	01-16	Select DTMF code 1-16
20 DTMF Display	On,off	DTMF code will show up on the display
21 DTMF TX Gain	0-127	Set DTMF Transmit Gain,recommend value 64
22 DTMF RX TH	0-127	Set DTMF Receive threshold,recommend value 24
23 DTMF Control	On, off	Turn on off DTMF control

04 Digital Setting

Menu	Sub Menu	Function
01 Personal ID	00000001	Digital ID from 1-16776415
02 Call Tone	On off	Turn on off call tone
03 Call End Tone	On off	Turn on off call end tone
04 Group Hold	0000	This radio make calls within the appointed time after the end of group call, and the receiving part will be the called one.
05 Single Hold	0000	This radio make calls within the appointed time after the end of individual call, and the receiving part will be the called one
06 SQ level	0-16	Set digital squelch level
07 Mic Gain	0-15	Set Microphone Gain
08 A SPK Gain	0-15	Set Band A speaker gain
09 B SPK Gain	0-15	Set Band B speaker gain
10 Contacts Set	Contact list, add contract	Used to add, delete, or modify the radio's contact information.There is one and only one 'All Call' contact,which cannot be modified or deleted.The Contact ID can be set within the range of 1 to 16777415
11 TG List Set	Talk Group list set	Allows adding, deleting, or modifying the unit's receiver group list. Use the Menu key to select group call contacts (selected members will have a black background). Press the Return key to deselect
12 Encryption Set	Key 1-256	[Encryption Key Setting] allows you to change the DMR voice encryption information of the unit
13 Send DTMF	On/off	Turn on/off send DTMF
14 Called Hold	0-60	Call Hold on
15 Call Log		Show caller IDs
16 Clear All Log		Delete All caller log
17 Address Book		Contacts Address book

05 Channel Settings (in Analog Mode)

Menu	Sub Menu	Function
01 CTC/DCS	off,CTC, DCS	Press * to switch sub tone type
02 RX CTC/DCS	Receive CTC/DCS	Press * to switch sub tone type
03 TX CTC/DCS	Transmitting CTC/DCS	Press * to switch sub tone type
04 TX Freq	Transmit frequency	Input Transmit frequency
05 DCS Encrypt	Standard, Encrypt 1-3, Mute Code	Set up as[Encrypt 1/2/3] to encrypt with standard DCS and only valid for DCS. Set up as [Mute Code],the sub-tone of current channel is invalid and use [Mute Code 1/2/3] as sub-tone of current channel.
06 Mute Code		To decode non-standard digital sub-tone via one-click privacy decode function
07 Band Width	Wide, Narrow	Set the bandwidth 12.5KHz or 25KHz
08 Tail Tone	Off,55Hz No Shift,120° Shift, 180° Shift,240° Shift	Set the tail tone
09 Scrambler	Off, 1-8	Set the voice scrambler
10 Busy Lock	Off,Carrier Match,CTC/DCS Match	Busy channel lockout
11 TX Power	High/Low	Power level
12 Scan Add	Add, Remove	Set up as [Remove] ,the radio will not scan this channel while scanning
13 TOT	off, 5-600s	Time out timer
14 CH Alias		Set the channel alias
15 Offset Dir	+ or -	Set up [Offset Freq] before setting up frequency direction. When selects [Upward] , the TX frequency = RX frequency + frequency difference. When selects [Downward], the TX frequency = RX frequency - frequency difference
16 Offset Freq	Offset frequency	Set up frequency difference as 0, if need to turn off the frequency difference of current channel
17 RX Demodulation	FM/AM/SSB	FM/AM/SSB
18 Limit RX/TX	RX+TX, Only RX, Only TX	Set to enable/disable TX/RX

05(2) Channel Settings (in Digital Mode)

Menu	Sub Menu	Function
01 DMR Mode	Dual Slot off Dual Slot on	There is no time slot difference when set up as[Dual Slot Off], and can communicate with each other once the frequency and color code are the same.The radios can communicate only with same time slot when set up as [Dual Slot On]
02 DMR Slot	Slot 1/Slot 2	Select the DMR time slot for the current channel
03 Color Code	0 - 15	Select the color code of the current channel
04Contacts	All Call	Setting the call contact for the current channel
05 RX TG List	off	Set the receive group call list for the current channel
06 Encryption	Off,Key1---256	Setting the current channel voice call key
07 TX Politely	Impolite	Transmits whether or not it is in the receive state
	Carrier Match	The current channel is prohibited from transmitting as long as there is a signal
	CC match	Prohibit transmitting only if the colour code matches
08 TX Power	Low/High	Current channel high and low transmit power
09 Scan Add	Add, Remove	Add or remove to scan lists
10 TOT	Off, 5s-600s	Set the time out timer
11 CH Alias	Channel name	Edit the channel name
12 Offset DIR		Frequency difference direction of the current channel
13 Offset Freq	Offset freq	Set offset frequency
14 TX Freq		Input Transmit frequency
15 Promiscuous	On/off	Set Promiscuous On/off
16 Channel ID		Set Channel ID
17CH ID Selection		Select Radio ID or Channel ID
18Limit RX/TX		Set to enable/disable TX/RX

06 Zone Settings

There are 256 zone for setting, You may edit each zone name and zone channels, there are 1024 channel in each zone.

07 Message

Menu	Sub Menu	Function
01 New SMS	Edit message	[New SMS]Can be edited and press menu key to select [Send]or[Save].SMS can be sent to the receiver via [Conatacts] or [Dial No.] to select ID and sending type. To switch call types to [Individual] or [Group Call] via └── key while under [Dial No.] status. The editing SMS text will be save to[Drafts], when set up as[Save].
02 Inbox	Store SMS	To save the incoming SMS and up to 256 pieces of SMS.Each SMS includes followings: ① Time: receiving time; ② Type: Individual/group/all call; ③ ID: the sender ID ④ Name: the contacts in the contact list. If not in the list, this item is blank. ⑤Text: SMS text. The number means the line number. You can do the following operation after reading the SMS: [Reply](Edit reply SMS and send to sender)、[Forward] (Forward the SMS to others) or [Delete]
03 Outbox	Send SMS	To save sent SMS, and up to 256 pieces of SMS,Each SMS includes followings ① Time: Sending Time ② Status: Sent or Fail; ③Type: Private/Group/All Call ④ ID: Receiver ID ⑤ Name: the contacts in the contact list. If not in the list, this item is blank. ⑥ Text: SMS text. The number means the line number. You can do the following operation after reading the SMS: [Resend](Re-send the SMS)、[Forward](Forward the SMS to others) or [Delete]
04 Drafts	Edit SMS draft	Save unfinished SMS,and up to 256 pieces of SMS
05 Default SMS	Preset SMS	Pre-edited and programmed SMS via PC, and save up to 16 pieces
06 Clear All SMS	Delete all SMS	Delete all things of [Inbox],[Outbox],[Drafts]
07 SMS Format	Default/Moto	Set SMS format as default or moto
08 SMS Font	Unicode/GBK	Set SMS font as Unicode or GBK

08 FM Radio

Menu	Sub Menu	Function
1. RX Standby	On off	Turn of off radio when rx mode
2. CH List	FM radio channels	Set 16 FM radio channels

09 Extend(Optional) Available only RT-6D PRO Version.

Menu	Sub Menu	Function
GPS	1.GPS On-off	GPS function switch
	2.GPS Baudrate	GPS communication baud rate
	3.UTC Zone	UTC time zone
	4.PC Monitor	When enabled, the PC can receive data reported by the GPS module through a serial port monitoring tool.
	5.Coordinate Type	GPS coordinate display format: Degrees, Degrees/Minutes,or Degrees/Minutes/Seconds.
	6.Speed Unit	Speed unit
	7.Distance Unit	Distance unit
	8.Altitude Unit	Altitude unit
	9.Fixed Latitude	Fixed latitude in fixed coordinates
	10.Fixed Longitude	Fixed longitude in fixed coordinates
	11.Fixed Altitude	Fixed altitude in fixed coordinates
	12.Mileage	Total moving distance
	13.Mileage Type	Total mileage accumulation mode: either auto reset on power-up or continuous accumulation
	14.Clear Mileage	Clear total mileage
	15.Manual record	Manually record GPS coordinates
	16.GPS Auto Record	Automatically record GPS coordinates
	17.GPS Record Time	Time interval for automatic GPS coordinate recording
	18.Query Track	Query GPS coordinate track
	19.Clear Track	Clear GPS coordinate track

Menu	Sub Menu	Function
APRS	1.APRS On-off	Set APRS on or off
	2.Station Mode	Station type: Fixed coordinates or GPS mobile coordinates
	3.Beacon Setup	APRS beacon settings
	4.Beacon Mode	APRS beacon type
	5.DIGI SETUP	APRS retransmission settings
	6.APRS RX CH	APRS receive channel
	7.APRS TX CH	APRS beacon transmission channel (for timed transmission)
	8.Demod Tone	APRS decode prompt tone
	9.TX Data Upload	APRS transmit data reporting to PC
	10.RX Data Upload	APRS receive data reporting to PC
	11.Beacon Pop-up	Automatically pop up the decode window after beacon decoding
	12.PTT Priority	PTT priority transmission content
	13.PTT Delay	APRS beacon transmission delay time
	14.RX CH Mute	Mute APRS transmit channel
	15.Beacon Save	APRS beacon saving method
	16.Beacon List	APRS beacon list
	17.Beacon List CLR	Clear APRS beacon list
	18.APRS Init	Initialize APRS settings

Specifications

General Partt	
Frequency Range:	**RX**
	FM: 64-108MHz
	AM: 108-136MHz
	Analog Frequency:136-520MHz
	Digital Frequency:136-174MHz 400-470MHz
	TX
	Analog Frequency:136-174MHz 400-470MHz
	Digital Frequency:136-174MHz 400-470MHz
Channel Capacity	1024 Channels +2*VFO Channels
Channel Spacing (W/N)	Analog: 25KHz/12.5KHz Digital: 12.5KHz
Digital Protocol	ETSI-TS102361-1,-2,-3
Voltage	7.4V DC
Working Mode	Same frequency simplex or different frequency simplex
Antenna	External Antenna
Frequency Stability	±2.5ppm
Working Temperature	−20 ~ +60℃
Dimension	149*64*37mm about 300g
Transmitting	
Modulation Mode	Analog: F3E Digital: 4FSK
Maximum deviation (W/N)	≤5KHz /≤2.5KHz
SNR (W/N)	-45dB/ -40dB
TX Current	≤1500mA
Receiving	
Sensitivity (W/N)	0.22μV/ 0.25μV 12dB SINAD
Inter modulation (W/N)	65dB/ 60dB
Audio Distortion	<5%
Audio Output Power	≤1W (16Ω)
RX Current	≤350mA
Standby Current	≤70mA

Note: The above specifications and indicators are subject to change without prior notice or responsibility due to technical improvement!