



# RADTEL

## 6 Bands

- 136-180MHz(TX/RX)
- 200-260MHz(TX/RX)
- 350-400MHz(TX/RX)
- 400-520MHz(TX/RX)
- 108-136MHz(AM RX)
- 66-108MHz(FM RX)
- Bluetooth 2.4G ISM

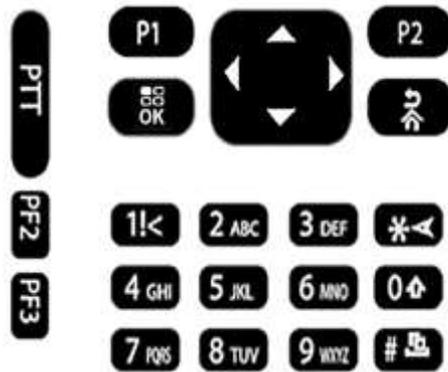
**RT-490**



## FUNCTIONS

1. Frequency band:
  - FM 65-108MHz (Receive)
  - VHF 108-136MHz (AM receive)
  - VHF 136-174MHz (RX&TX) or
  - UHF 220-260MHz (RX&TX) or
  - UHF 350-390MHz(RX&TX) or
  - UHF 400-520MHz(RX&TX)
  - BLW 2.4GHz ISM
2. Working mode: Frequency mode/Channel mode
3. FM Radio
4. Dual standby
5. 50 CTCSS/105 DCS
6. RX CTCSS/EICS ., TX CTCSS/DCS can be set individually
7. TOT
8. Voice encryption(Frequency Hopping)
9. Frequency Step: 2.5K/5K/6.25K/10K/12.5K/20K/25K/50K
10. Battery saving
11. Reverse Frequency / Talk around
12. VOX
13. Busy channel lockout
14. Low battery alert / Voltage display
15. Automatic backlight
16. Channel display: Frequency Channel name
17. Scan: Time/Carrier/Search
18. Frequency mode: Frequency difference+/Frequency difference-
19. Frequency mode: Frequency difference range: 0-99.99951VHz
20. Frequency mode: Edit/Save channel specs
21. 256 memory channels
22. Emergency
23. Frequency scan
24. DTMF
25. GPS (optional)
26. Boot interface customization
27. PC Programming
28. Wireless programming via Bluetooth(optional)

## KEYPAD FUNCTION DESCRIPTION



1. P1 - Short press: Switch A/B band.  
Long press: In channel mode, switch to channel display mode
2. P2 - Short press: Switch frequency mode and channel mode.  
Long press: Turn on/off ANI name display function

Functional keypad - Select/confirm



## ENTER MENU, THEN SELECT OPTION IN MENU LIST



Long press to quickly change menu option in Scan mode, or to change scan direction Up



Long press to quickly change menu option in Scan mode, or to change scan direction down



In the input state, undo clears information that has been Input

## NUMERIC KEYPAD



Input information while in programming menu or to input non-standard CTCSS/DCS and if needed use key



Short Press: Switch cycles through  
Reverse Frequency/Talk around/Normal mode

Long press: Lock/unlock keypad

Long press: (over 2 seconds): cycles between  
Active frequency/Channel scan

Short press in DTMF edit: Use \* key to end if less than 6 digits

Short press in FM mode: Activates FM channel scanning

**[SOS] Key** Long press to enter SOS function, short press to exit SOS

## KNOB FOR POWER VOLUME ON OR OFF

- Clockwise rotation: - If Off, turns Power on  
- If On, adjusts Volume Up

- AntiClockwise rotation: - If On, turns Power Off  
- If On, adjusts Volume Down

## STATUS INDICATOR

**Red Light** = TX (Transmit)    **Green Light** = RX Receive)

## PROGRAMMABLE SIDE KEYS

**Pre-set Side Keys** (*not programmable*):

- Side key 1 [**PTT**]: **P**ush **T**o **T**alk or in SOS mode, Short press to exit SOS
- Side key 3 [**PF3 Long Press**] Activates **MONI** (monitor mode)

**Programmable Side Keys** can be custom set via programming software

- Each offer the same selectable assignments
- Exception: Function **PTT\_B** is only assignable to PF2 Short Press for use\_while Dual Band Monitoring

**Assignment Selections for: [PF2 Short] [PF2 Long] or [PF3 Short]**



- **Radio** – to turn the FM broadcast On/Off
- **Scan** – to turn Scanning On/Off
- **TX Power** to be able to change from (**H**)igh to (**L**ow while Transmitting
- **Search** – Function prompts to manually enter a Frequency

**Understanding PTT B** – In Dual Band Monitoring, [**PF2 Short**] acts as a second PTT button. For transmit, the large [**PTT**] button sends talk to the displayed upper "**A-Band**" while the small custom [**PF2 Short**] will send talk to the Freq or Channel displayed on the lower "**B-Band**".

## MULTI KEYS

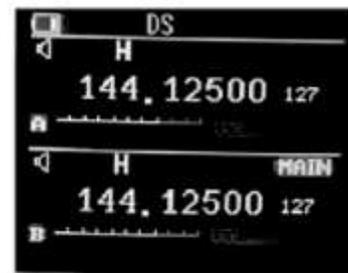
**1750Hz Tone:** Press both **PTT** and **MONI** (*PF3 Long*)

**DTMF:** Press both **PTT** plus numeric keys plus



to transit DTMF 0-9, ABCD\*#

## SCREEN DISPLAY



	DESCRIPTION
<b>CT</b>	CTCSS display
<b>DCS</b>	DCS display
<b>+</b>	Frequency difference +
<b>-</b>	Frequency difference -
<b>DS</b>	Dual Standby
	VOX
<b>R</b>	Reverse Frequency
<b>T</b>	Talk Around
<b>N</b>	Narrow Band
	Battery level display
	Keypad lock
<b>H</b>	High Power
<b>L</b>	Low Power
	Tone while DTMF transmitting
<b>AM</b>	AM Mode
<b>FM</b>	FM Mode
	Bluetooth Turn On
<b>GPS</b>	GPS Turn On
	Transmitting power
	Indicates audio amplitude transmitting and signal strength

## MENU LIST

*Note: When entering the menu, take note of whether selection is for [A] band or [B] band*

Menu #	Item	Options	Description
0	SQL	0...9	The lower the level, the easier it is to be disturbed, the higher the level, and the worse the sensitivity. Better to set as medium.
1	STEP	2.50K	Select the desired frequency Step to be used In frequency mode, to change frequency step pick from the option list.
		5.00K	
		6.25K	
		1 0.00K	
		12.50K	
		20.00K	
		25.00K	
		50.00K	
2	MEMCH	000 ... 256	Indicate the channel number to be stored. While storing a channel, if 'CH' is in front of the number it means this channel already has a channel associated/stored there. If the occupied number is desired, use DELCH function on the channel first then assign new freq to number being reused with MEMCH
3	DELCH	000 ... 256	Delete the channel parameters of the specified channel. If there is no 'CH' displayed, that means the channel has no parameters and the operation is invalid.

Menu #	Item	Options	Description
4	R-CTCSS	OFF	<p>OFF = No CTCSS required. To turn on, select a Standard CTCSS code from the list presented. If selected station does not continuously transmit the specific CTCSS code selected, then speaker is muted and nothing will be heard.</p> <p>List is Standard CTCSS Table. Select a Standard or for nonstandard CTCSS enter via keypad.</p>
		67.0 HZ ... 254.1 HZ	
5	R-DCS	OFF	<p>OFF = No DCS required. To turn on, select a Standard DCS code from the list presented. If selected station does not continuously transmit the specific DCS code selected, then speaker is muted and nothing will be heard.</p>
		DO23N, D743I,D754I	
6	T-CTCSS	OFF	No CTCSS code will be transmitted
		67.0 HZ ... 254.1 HZ	Transmits a specific and continuous sub-audible signal to unlock the squelch of a distant receiver often a Repeater. To turn on select a Standard CTCSS from the list.
7	T-DCS	OFF	No DCS code will be transmitted
		DO23N, D743I,D754I	Transmits a specific and continuous low-level digital signal to unlock the squelch of a distant receiver often a Repeater. To turn on select a Standard DCS from the DCS code options listed.
8	VOICEPRI	OFF, Encrypt (1,2,3,4)	Choose OFF if Encryption is not desired or there are (4) Encryption types available to choose from. Select one from options list.

Menu #	Item	Options	Description
9	CH-NAME	i.e. Fleet 5	Use Common Name List or Enter Custom Names using CPS Multiband PC Software
10	TXP	HIGH	High Power Transmitting
		LOW	Low Power Transmitting
11	SAVE	OFF	Off Battery saving
		NORMAL	Normal, for timeouts etc. to save battery
		SUPER	Super, shorter timeouts to save battery
		DEEP	Deep, minimum timeouts to save battery
12	ROGER	OFF	Turn Off
		ON	Turn On
13	TOT	30, 60, ... 480S	Number is from 30sec to 480sec and the max time for PTT transmission is indicated in 30 second steps
14	VOX	OFF	Enable VOX to speak into the mic to start transmit instead of pressing the PTT key.
		1, 2, ... 9	Activate by choosing the voice control sound intensity. Level 1 is most sensitive
15	W/N	WIDE	Wide mode
		NARR	Narrow mode
16	VOICE	OFF or ON	Voice prompts, turn Off or On
17	BEEP	OFF	Operation Beep prompts, turn Off or On
18	LANGUAGE	ENGLISH	English
		CHINESE	Chinese
19	BCL	OFF	Turn off <u>B</u> usy <u>C</u> hannel <u>L</u> ockout
		ON	Turn on <u>B</u> usy <u>C</u> hannel <u>L</u> ockout

Menu #	Item	Options	Description
20	SC-REV	TO	<u>Time scanning</u> , radio pauses scanning when it detects a signal, and after staying stopped for about 5 seconds, scanning continues even if the signal is still there
		CO	<u>Carrier Scanning</u> , radio pauses scanning when a channel is detected and keeps it on the same frequency until the signal disappears. There is a 2s delay between the disappearance of the signal and resumption of scanning to allow time for the response to begin transmission.
		SE	<u>Search Scanning</u> , radio exits scanning when detecting a signal and stays on the same frequency.
21	PF2 or SK2 SHORT PRESS		<b>[PF2 Short Press] Program for Function</b> <ul style="list-style-type: none"> <li>• Radio</li> <li>• <b>PTT_B (active in Dual Monitor mode)</b></li> <li>• Search</li> <li>• Scan</li> <li>• TX Power</li> </ul>
22	PF2 or SK2 LONG PRESS		<b>[PF2 Long Press] Program for Function</b> <ul style="list-style-type: none"> <li>• Radio</li> <li>• Search</li> <li>• Scan</li> <li>• TX Power</li> </ul>
23	PF3 or SK3		<b>[PF3 Long Press] Activates MONI (monitor)</b> <b>[PF3 Short Press] Program for Function</b> <ul style="list-style-type: none"> <li>• Radio</li> <li>• Search</li> <li>• Scan</li> <li>• TX Power</li> </ul>

Menu #	Item	Options	Description
24	ABR	ON	Background light is always ON
25	OFFSET	000 ... 99.995	In frequency mode, difference between TX and RX freqs. Enter using keypad or Customer Provided Software (CPS).
26	SFT-D	OFF	In frequency mode, turn off the TX/RX difference
		+	In freq mode, TX freq = RX freq PLUS freq diff
		-	In freq mode, TX freq = RX freq LESS freq diff
27	SCAN CTCSS	OFF/ON	Starts/Stop CTCSS scan. Right Arrow starts
28	SCAN DCS	OFF/ON	Starts/Stop DCS scan. Right Arrow starts
29	CTCSS SAVE MODE	ALL	Save ALL
		RX	Save Only Received CTCSS
		TX	Save Only Transmitted CTCSS
30	POWER ON MSG	LOGO	Photo (currently JJCC logo)
		VOLTAGE	Battery Voltage
31	ANI NAME	NUM1 ... NUM60	Select from list or Set custom Radio Name using Customer Provided Software
32	S-CODE	1,2...15	Select from list of 1 to 15 DTMF codes. The DTMF codes are programmed with Customer Provided Software.
33	DTMF CODE	OFF	Turn Off DTMF code transmit
		BOT	Press PTT to BEGIN transmit DTMF
		EOT	Release PTT to END transmit DTMF
		BOTH	Press PTT for BOTH to begin and again to end

Menu #	Item	Options	Description
34	DTMFST	OFF	No DTMF prompt when key pressed to transmit DTMF
		DT-ST	Prompt for DTMF when transmit key pressed
		ANI-ST	Auto prompt when transmitting DTMF
		DT + ANI	DTMF prompt whether automatically transmitting DTMF or pressing transmit key
35	AUTOLOCK	OFF	Turns off auto keypad lock
		5s,10s,15s	Select time to turn on the auto keypad locking
36	SCAN ADD	SCAN ADD	Not changeable, SCAN ADD is on
37	TONE	1000Hz, 1450Hz, 1750Hz, 2100Hz	Select Tone from List. Tone can be simultaneously sent by holding down [PTT] and pressing [PF2].
38	PTT-LT	Millisecs: 0,100,200, 400, 600, 800,1000	Ms Delay time before auto DTMF transmits
39	MENU EXIT TIME	5,10...60s	Control seconds of time before MENU exits
40	VOX DELAY	0.5s...2.0s	Control the seconds of time for VOX to react
41	RP_STE	OFF, 1s,2s,3s ...10sec	Due to the delay of the repeater, noise appears when receive instant signal. Adjust to eliminate the tail. To ensure if the repeater is working or not, set to OFF
42	RPT_RL	OFF, 1s,2s,3s ...10sec	Adjust the length of time the tail sound appears. If not needed set to OFF
43	ANI Function	OFF or ON	Turns function OFF or ON
44	MDF-A	FREQ	In Multi Display Mode the 'A' band (Upper line) displays the Option selected here: <u>FREQ</u> for Frequency, <u>CH</u> for Channel Number and <u>NAME</u> for Channel Name.
		CH	
		NAME	

Menu	Item	Options	Description
45	MDF-B	FREQ	In Multi Display Mode the 'B' band (Lower line) displays the Option selected here: <u>FREQ</u> for Frequency, <u>CH</u> for Channel Number and <u>NAME</u> for Channel Name.
		CH	
		NAME	
46	TDR	OFF or ON	Dual watch (monitor A and B at same time).
47	TX-A/B	OFF	Dual standby mode, transmits to Channel or Frequency from Active/Main band
		A	Select which Band will be transmitted when PTT is pressed while TDR (Dual Watch mode) is ON.
		B	<ul style="list-style-type: none"> <li>- Select "A" to Press PTT and Talk on "A" Band</li> <li>- Select "B" to Press PTT and Talk on "B" Band</li> </ul>
48	STE	OFF or ON	If ON then after releasing the PTT, radio sends turn-off code to suppress instant noise of receiver. If OFF no turn-off code is sent.
49	AL-MOD	ON SITE	Alarm sounds for On-site Emergency
		SOUND	Send emergency voice
		CODE	Send emergency code
50	GPS	OFF or ON	Turns GPS function either OFF or ON
51	BLUETOOTH	OFF or ON	BLUETOOTH function OFF or ON. When activated ON, Android Smartphone can Bluetooth SCAN to PAIR to "walkie-talkie". This is required for using Android programming APP "Super Walkie-Talkie" to remotely program the RT-490.
52	DISPLAY RX TIME	OFF or ON	Turns DISPLAY TIME function either OFF or ON
53	RESET	VFO	VFO: Clears the memory channels out
		ALL	ALL: Resets the radio, memory and all settings back to factory defaults.

## MENU OPERATION

1. Press  then enter menu via up/down key
2. Press  again to enter the menu function
3. Select option via up/down key
4. Press  to confirm and go back to main menu
5. Press  to exit menu and go back to normal working mode

*Note: Step, TX power, Wide/Narrow band, CTCSS/DCS, frequency changes etc., can ONLY be set valid while in Frequency Mode*

## OTHER FUNCTION DESCRIPTIONS

1. Dual PTT – Set side Key2  as PTT-B
  - a. Press [**PTT**] to transmit on 'A' band
  - b. Short Press [**PF2**] (*when set to PTT\_B*, to transmit on 'B' band.
2. AM Mode – 108-136Mhz, Receive ONLY
3. Scan Mode – Set for TO or CO or SE mode
  - a. [**TO**] **Time scanning**, radio pauses scanning when it detects a signal, after staying stopped for about 5 seconds, scanning continues even if signal is still there
  - b. [**CO**] **Carrier Scanning**, radio pauses scanning when a channel is detected, stays on same frequency until the signal disappears. There is a 2s delay between the disappearance of the signal and resumption of scanning to allow time for the response to begin transmission.
  - c. [**SE**] **Search Scanning**, radio exits scanning when detecting a signal and stays on the same frequency.

## FM FUNCTION

Turn on FM function, screen will display current FM frequency

1. Press Up or Down keys to change FM frequency or
  - a. Input frequency via keypad.
  - b. FM frequencies are from 65Mhz to 108Mhz
  - c. Press  key to auto scan FM freq in FM mode.
2. Adjust volume via Power/Volume knob
3. Press FM key again to exit FM mode

Note: FM function can also be custom set as Short Press PF2 or PF3 side key custom

## FREQUENCY SCAN

Scan other radio's CTCSS/DCS and frequency to make a contact.

1. Set a PF side key custom function for Frequency Scan. Select the frequency band from UHF or VHF or 200M or 350M
2. After defining, turn it on through the customized side key can be used to begin scanning of the selected band.
3. After scanning the frequency, it will continue to scan CTCSS/DCS. If there is no CTCSS/DCS, the screen will display 'NONE' and end the scan. At this time, the scanned data can be saved to the designated channel through by using the lock/ok key 

The frequency scan function can also be re-launched using the Alternate method using the UP or Down keys to start the next frequency scan.

## ANI NAME DISPLAY

Name indicator can be customized so that display reveals the selected name from the possible 60 group names that can be selected.

- 50 groups are default named 'Radio 1' to 'Radio 50'
- 10 groups (rest of the 60) are editable via programming software.

## DTMF ENCODE

### 1) Quick Transmitting DTMF Encode:

In transmitting status, press digit key , \*,# to transmit DTMF encode 0-9, ABCD\*#. Press key to continuously encode transmit then, release key to end encode transmitting

### 2) Transmitting DTMF Encode after editing:

In standby mode, press [#] key to enter DTMF edit menu and Input 0-9, ABCD\*#, if less than 6 digits press [#] to end edit. Then Press PTT key to transmit DTMF.

#### a) In edit mode:

- i) Press  to delete encode
- ii) Press  exit DTMF edit mode.

## GPS FUNCTION

Press the [Right arrow] to enter the GPS positioning interface.

- **GPS mode is not available if Blue Tooth is ON**
- GPS interface option can also switch coordinate display mode and image mode.
- GPS includes a backtracking function and GPS can store the starting point position in advance. The GPS provides real time viewable direction and distance from current position to ensure that you won't get lost in the wild.



First, press Menu key  to access menu item 50 GPS and turn it ON then press Exit key . Next press the right arrow key  to see the My Place screen, then press the right arrow key again  to see the radio searching for your position.

**How to access the GPS screens on the Radtel RT-490**

## WIRELESS PROGRAMMING VIA SMARTPHONE BLUETOOTH

1. From the Android Play Store, install the free Blue Tooth programming application “Super Walkie-Talkie”.
2. If not found, use the smartphones internet browser to go to Radtels website to download the Android application here:  
<https://www.radtels.com/pages/software-download>
3. In the list find “Bluetooth\_App\_for\_android.apk” and click to download.
4. Next open the “Files” icon to find the downloaded APK file just downloaded, click to load (may have to temp change setting so allow loading an APK that wasn’t in the Play Store)
5. The App icon created on the smartphone as part of the installation process is named “Super Walkie-Talkie”
6. Next, using the radio’s keypad menu, select Menu #51 and turn Bluetooth ON.
7. Next on the smartphone, “Settings; Connections; Bluetooth; SCAN to see a new icon “walkie-talkie”, click to Pair smartphone to radio.
8. Next start the smartphone App “Super Walkie-Talkie” and click on option “Connect”, if you don’t get Success, then reboot smartphone and off/on radio power. Try again.



## LOCATING SOFTWARE FOR PC WINDOWS PROGRAMMING

A. **RT-490 FREE Programming software** is found here:

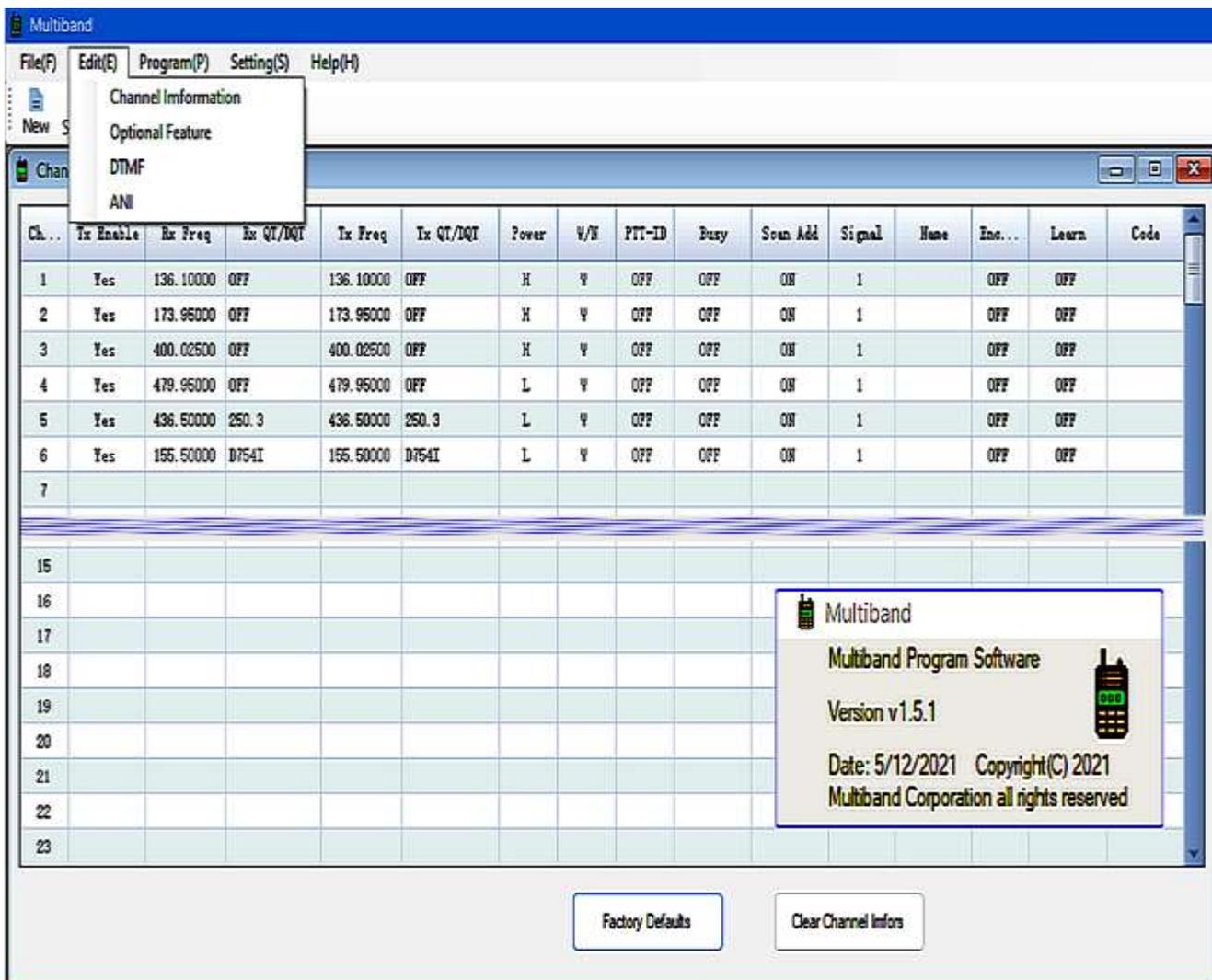
<https://www.radtels.com/pages/software-download>

This Customer Programming Software (CPS) for MS Windows PC is in a downloadable ZIP file, from Radtel's download page, click on the file named:

9)  Radtel RT-490 6 Bands Radio Software 

Auto download will download a ZIP file named "Radtel\_RT-490.zip" that contains an executable Setup file installation program "mysetup.exe".

Click "mysetup.exe" to install the CPS Software (CPS) named "Multiband" and a desktop icon that looks like this.

A screenshot of the Multiband software interface. The window title is 'Multiband'. The menu bar includes 'File(F)', 'Edit(E)', 'Program(P)', 'Setting(S)', and 'Help(H)'. A dropdown menu is open under 'Edit(E)', showing options: 'Channel Information', 'Optional Feature', 'DTMF', and 'ANI'. The main area is a table with columns: 'Ch...', 'Tx Enable', 'Rx Freq', 'Rx QT/DQT', 'Tx Freq', 'Tx QT/DQT', 'Power', 'V/H', 'PTT-ID', 'Busy', 'Scan Add', 'Signal', 'Name', 'Enc...', 'Learn', and 'Code'. The table contains 6 rows of data for channels 1 through 6. At the bottom right, there is a software information box with a mobile phone icon, text: 'Multiband', 'Multiband Program Software', 'Version v1.5.1', 'Date: 5/12/2021 Copyright(C) 2021', and 'Multiband Corporation all rights reserved'. At the bottom center, there are two buttons: 'Factory Defaults' and 'Clear Channel Infos'.

Optional Feature **Multiband [Defaults]**

Time Out Timer(TOT)[s] <input type="text" value="OFF"/> Squelch Level <input type="text" value="3"/> VOX <input type="text" value="OFF"/> Vox Delay <input type="text" value="1.0s"/> Voice Prompt <input type="text" value="ON"/> Auto BackLight <input type="text" value="15s"/> WorkMode A <input type="text" value="VFO"/> WorkMode B <input type="text" value="VFO"/> Scan Mode <input type="text" value="CO"/> Battery Save <input type="text" value="Normal"/>	<b>A Band Freq Mode</b> Freq <input type="text" value="146.02500"/> MHz Tx Power <input type="text" value="High"/> Rx QT/DQT <input type="text" value="OFF"/> Tx QT/DQT <input type="text" value="OFF"/> W/N <input type="text" value="Wide"/> Step <input type="text" value="12.50 KHz"/> SFT_D <input type="text" value="OFF"/> Offset <input type="text" value="00.0000"/> MHz Signal Code <input type="text" value="1"/> Encryption <input type="text" value="OFF"/>	<b>B Band Freq Mode</b> Freq <input type="text" value="440.02500"/> MHz Tx Power <input type="text" value="High"/> Rx QT/DQT <input type="text" value="OFF"/> Tx QT/DQT <input type="text" value="OFF"/> W/N <input type="text" value="Wide"/> Step <input type="text" value="12.50 KHz"/> SFT_D <input type="text" value="OFF"/> Offset <input type="text" value="00.0000"/> MHz Signal Code <input type="text" value="1"/> Encryption <input type="text" value="OFF"/>
Channel_A Display <input type="text" value="CH + Name"/> Channel_B Display <input type="text" value="CH + Name"/> DTMF ST <input type="text" value="ANI Side Tone"/> PTT Delay <input type="text" value="600ms"/> 本机ID <input type="text" value="1"/> Rx Timer <input type="text" value="OFF"/> Key Short <input type="text" value="FM"/> Key Long <input type="text" value="Scan"/> Key3 Short <input type="text" value="Power"/>	Tail Noise Clear <input type="text" value="ON"/> RPT Noise Clear(ms) <input type="text" value="OFF"/> RPT Noise Delay(ms) <input type="text" value="OFF"/> Power On Msg <input type="text" value="picture1"/> Menu Auto Quit <input type="text" value="10s"/> Keyboard Auto Lock <input type="text" value="OFF"/> ANI Display <input type="text" value="OFF"/> Save QT Scanned <input type="text" value="All"/> Tone <input type="text" value="1750Hz"/>	<input checked="" type="checkbox"/> Alarm Sound Alarm Mode <input type="text" value="SITE"/> Roger <input type="text" value="OFF"/> Dualstandby Tx <input type="text" value="OFF"/> <input checked="" type="checkbox"/> TDR <input checked="" type="checkbox"/> FM Radio <input type="checkbox"/> KB_Lock <input type="checkbox"/> BCL <input type="checkbox"/> GPS <input checked="" type="checkbox"/> Beep <input type="checkbox"/> Enable Tx(350M )
<input type="button" value="Default"/>		<input type="button" value="Close"/>

The Radtel logo is displayed in a white rectangular box with the word "radtel" in a bold, blue, lowercase sans-serif font.

## bluetooth guide

Instructions for pairing an Android Smartphone to the Radtel RT-490 Six Band Handheld radio

Also includes instructions for installing and utilizing Radtels Free smartphone programming Application designed to provide easy options editing using Radtels "Super Walkie Talkie" Android App.

# Finding, Installing and Setup for Smartphone Bluetooth Programming Software

## For Android Smartphone

1. Go to the Android Play Store, install the free Blue Tooth programming application Super Walkie-Talkie”.
2. If not found, use the smartphones internet browser to go to Radtels website to download the Android application here:  
<https://www.radtels.com/pages/software-download>
3. In the list find “Bluetooth\_App\_for\_android.apk” and click to download

Or scan this barcode to install Bluetooth programming app.



4. Next open the “Files” icon to find the downloaded APK file just downloaded, click to load (may have to temp change setting so allow loading an APK that wasn’t in the Play Store)
5. The App icon created on the smartphone as part of the installation process is named “Super Walkie-Talkie”
6. Next, using the radio’s keypad menu, select Menu #51 and turn Bluetooth ON.
7. Next on the smartphone, “Settings; Connections; Bluetooth; SCAN to see a new icon “walkie-talkie”, click to Pair smartphone to radio.
8. Next start the smartphone App “Super Walkie-Talkie” and click on option “Connect”, if you don’t get Success, then reboot smartphone and off/on radio power. Try again.



## For Apple iPhone

Please Copy 多段王 in Chinese and search for app in Apple Store.



(Sorry that we don't have an English name, but you will find the option to change to English is within the app.)

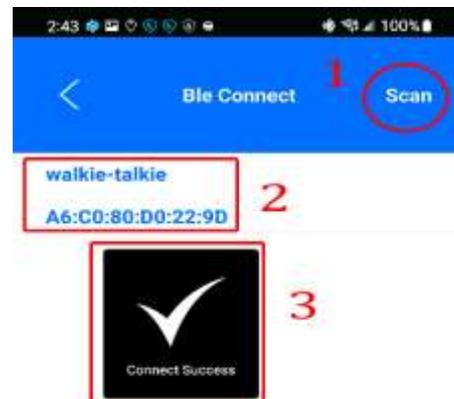
The following section titled “RT-490 – Pairing the Smartphone to the Radio” provides a screen by screen further walk through of this process followed by addition screen instructions for actually programming Channel numbers, Frequencies and Channel Names onto the RT-490.

## RT-490 – Pairing the Smartphone to the Radio

This Bluetooth tutorial guides through setting up the phone and RT-490 to use the Android version of the RT-490 Customer Programming Software 'Super Walkie-Talkie'. All actions were captured as screen shots performing this process and the screens are in order Left to Right.

Follows these steps;

1. Use Smartphones 'Settings' to turn on Bluetooth and Pair the RT-490 to the phone.
2. From smartphones Bluetooth screen you will Scan for the RT-490's Bluetooth name.
3. On the radio, use the RT-490 Menu setting #51 and turn on Bluetooth option which causes the RT-490 to broadcast its Pairing request as Bluetooth id 'walkie-talkie'.
4. Now go back over to the phone Settings and Scan for Bluetooth devices, you should see 'walkie-talkie' appear. Click on it to do the pairing.
5. Open the phone's app 'Super Walkie-Talkie and from the first screen click on Connect.



- 1 - Should see a spinning circle where the word 'Scan' is above, if not, click on Scan.
- 2 - If the phone saw the bluetooth identifier, (and the app also finds it, then it will display the words 'walkie-talkie' with a mac code below it.
- 3 - Click on 'walkie-talkie' and the app will attempt to pair the App to the phones bluetooth. If it works, see the badge 'connect success'

# RT-490 How To Start Programming the Radio

## Super Walkie Talkie



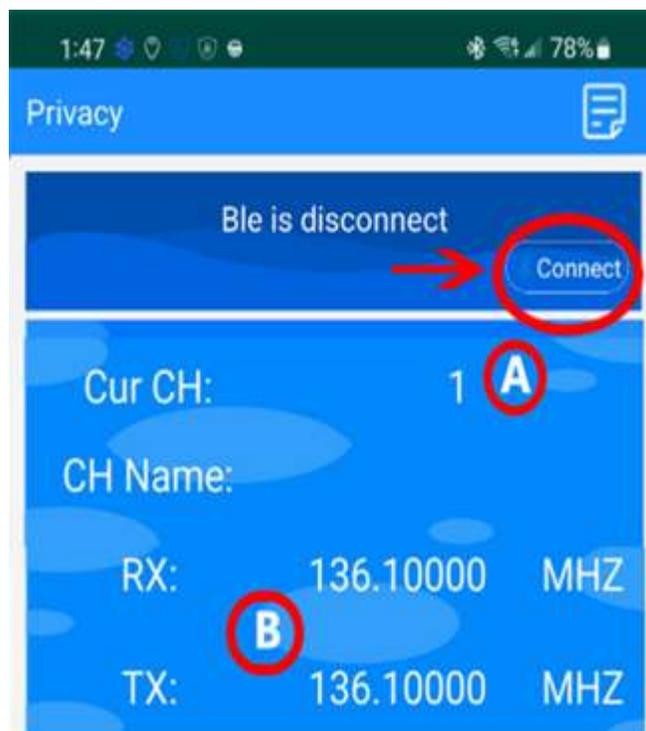
This first screen is where the real magic begins. When app 'Super Walkie Talkie' is loaded, first screen to appear is the one to join the RT-490 to the Smartphone app.



Click on the word '**Connect**' to begin connection process and a small spinning wheel replaces word 'Connect' as the process continues. If the RT-490 has its Bluetooth turned on using the radio's keyboard Menu option #51, then the app will identify the radio and the spinning wheel is replaced by the word '**Disconnect**'.

When finished programming click on '**Disconnect**' and that will un-join the phone from the app and at the same time it will send a command to the RT-490 to Turn Off Bluetooth.

*Next more detail on making and saving changes to the Radio*



Click on 'READ' below to read radio's current settings ('Programming' appears in radio's display).

Next follow these steps to modify:

- A) Click on the channel number (initially it will be 1). A drop list is presented for selecting the channel number to be modified.
- B) Clicking on either of the Freq numbers presents a a box for entering a new freq number to assign to the working channel just picked.
- C) Click on Global Selection to go to the other option screens, then Return here after making any changes.
- D) When finished programming channels, freqs and options, Click on Write to write/download the changes to the RT-490 radio.



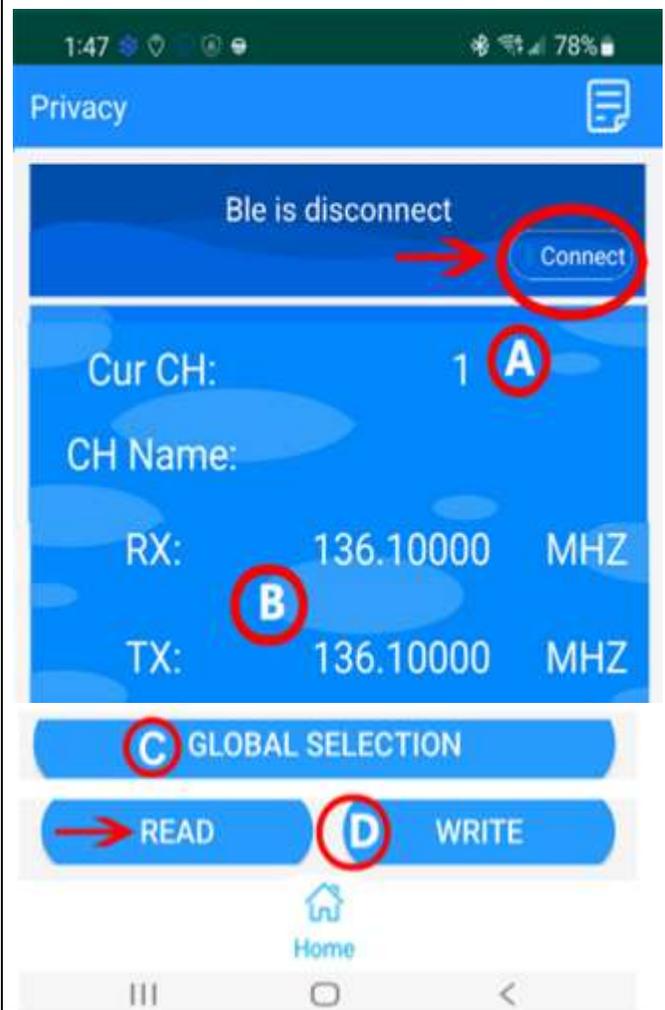
# RT-490 – Reading and Writing Changes to the Radio

## How to make changes and enter data on the smartphone

Once Phone and Radio are connected in App there are a few things to work with.

- 1) **READING** - If you want to start with the RT-490's existing program, then with your programming cable plugged in and your radio turned on, select the option at the bottom "**READ**".
- 2) **CHANNEL SELECTING** - You must work on Channels individually, Click on the number next to the words "**CurCH:**" (**Item (A)** in the graphic), at first it's the number '1'. From there the App presents a drop down list of channel numbers, scroll and click on the Channel number desired.
- 3) **CHANNEL NAME** – After selecting a number, you are returned to the main screen and from there, click in the area to the right of '**CH Name:**' and a keyboard pops up allowing the typing of a name.

- 4) **FREQUENCY RX or TX** – entering or changing a frequency is the same for either RX or TX (**Item (B)** in the Graphic). If the channel selected already has a frequency number, simply click on it to reset to blank. If the frequency is blank, click on the blank and the numeric keyboard pops up for you to enter numbers in the '\_\_\_\_.\_\_\_\_'.
- 5) **GLOBAL SELECTION** – **Item (C)** offers change screens for a number of options. Next page explains. After making those changes, you return here.
- 6) **WRITING** – **Item (D)** after making all changes **Channel**, **CH Name**, **RX** or **TX** freqs, you may write the new config out to the radio, Click Write.



# RT-490 – Changing Global Selections

## HOW TO MODIFY GLOBALS – Channel, Freq, Optional or ID Code Setting

Various configuration screens are available to edit RT-490 options. These are the same options #1 to #53 that can be changed in any of 3 ways:

- A. Using the RT-490's keypad Menu
- B. Connecting USB Programming cable and using the PC software, *'Multiband'*
- C. Using a Smartphone and Bluetooth connecting the Smartphone App 'Super Walkie-Talkie' to the RT-490 with Bluetooth turned on.

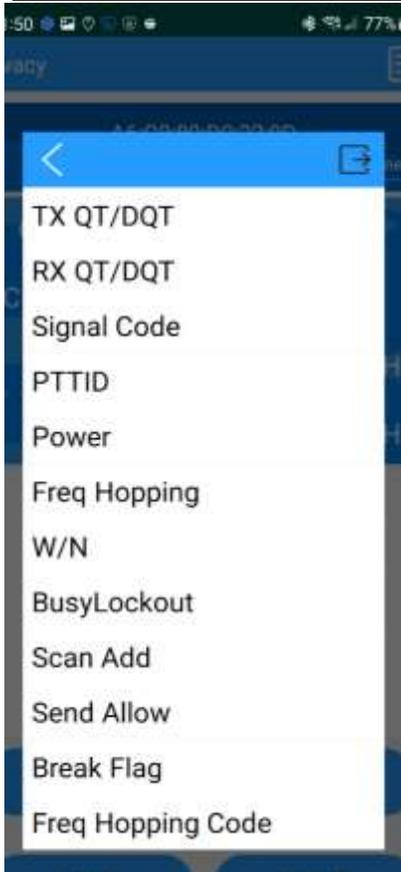


Each method can manipulate the same Options that are grouped into (4) categories – [Channel](#), [Freq](#), [Optional](#), [ID Code Setting](#). The options and a brief explanation of the choices can be found in the RT-490 User Manual on the pages that contain Menu tables for the 53 customizable settings.

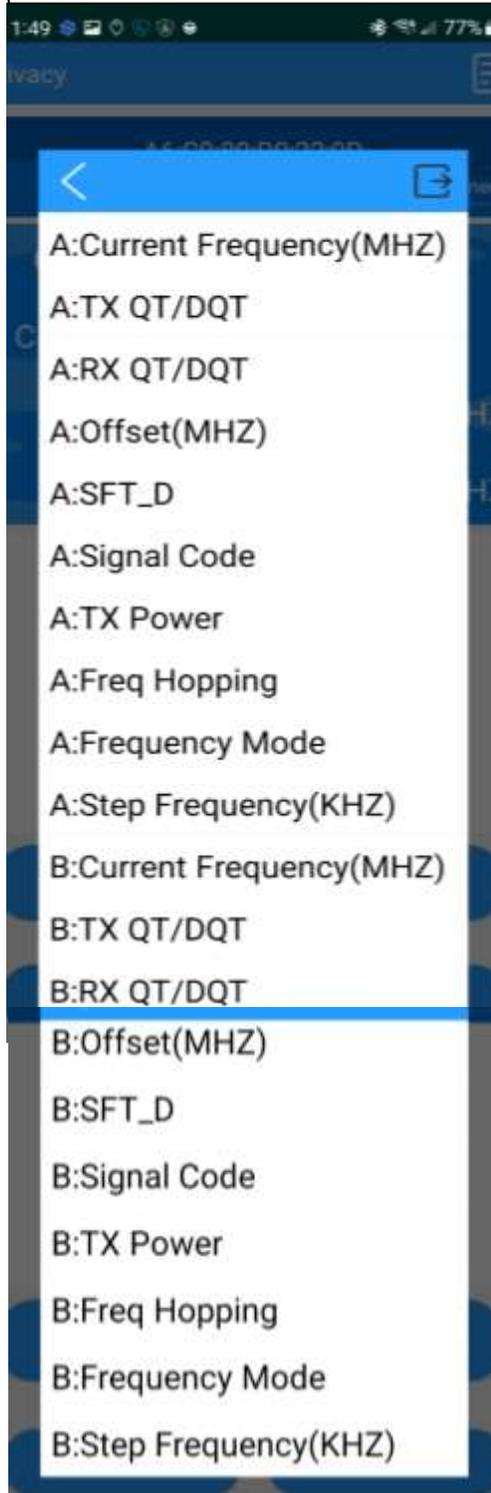
1. Select '**GLOBAL SELECTION**' to view the popup for the 4 options.
2. Pick either 'Channel' or 'Freq' or 'Optional' or 'ID Code Setting'
3. Change are a back and forth operation. Example: Select Optional, then Channel Options, then Power to see drop down list with H for High, L for Low. Select H, click OK and you will be brought back to Options.
4. Note that Changes made without a WRITE are in effect for the current session but are lost when the radio is turned off.
5. For a more permanent save, at any time Click on Home then **WRITE**.

*The following pages have screen prints of every Global Setting screen so you may associate the Smartphone app options to ones in the manual.*

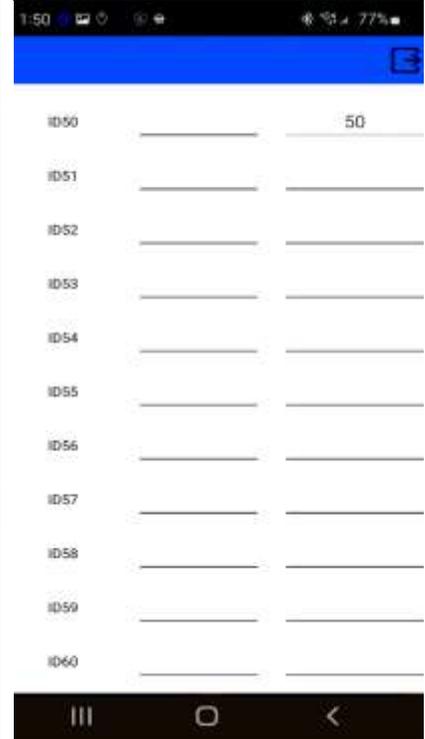
## CHANNEL OPTIONS



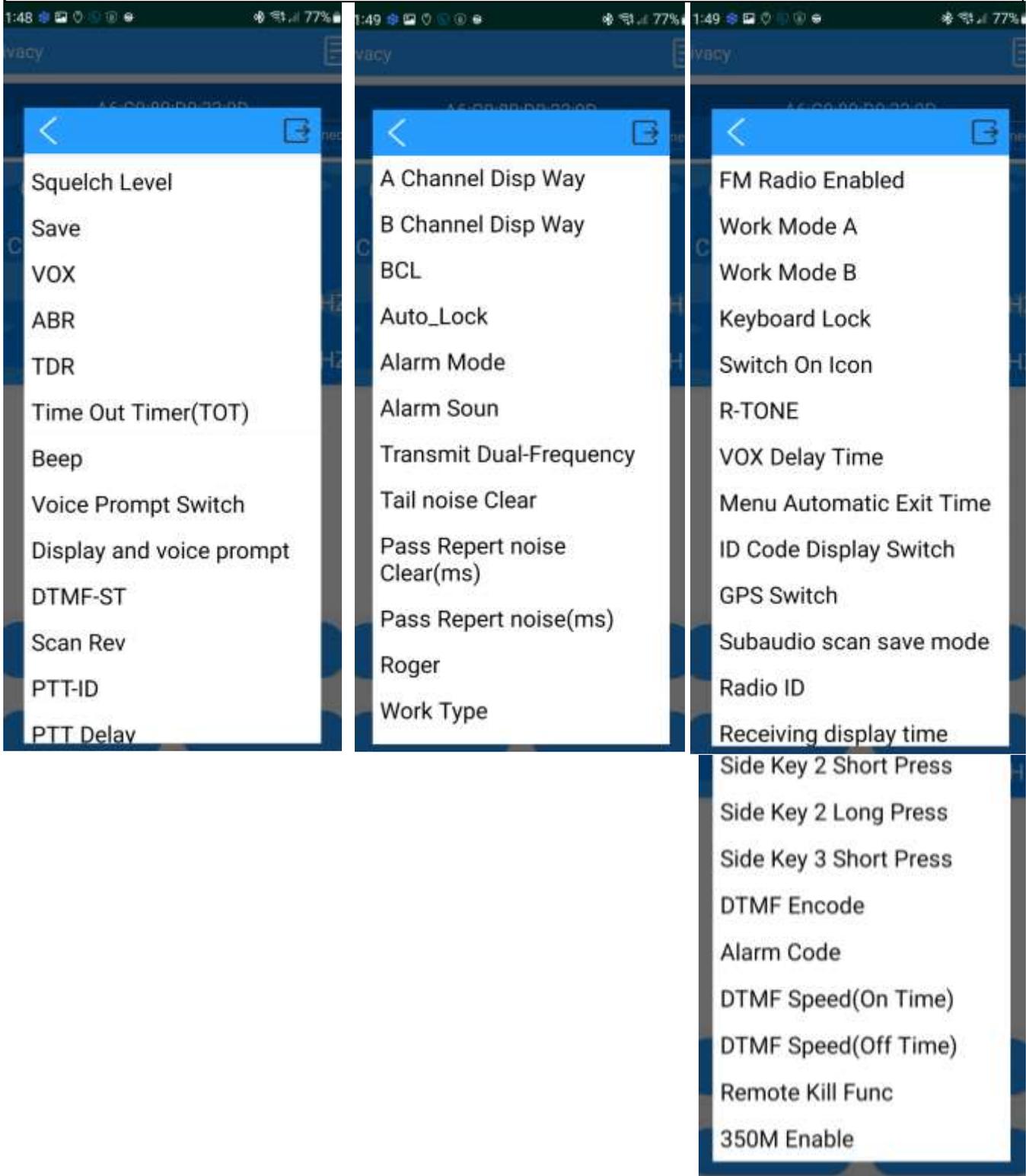
## FREQ OPTIONS



## ID CODE SETTING



# OPTIONAL OPTIONS



1. To enable Bluetooth and GPS function, please check this video

<https://youtu.be/H6UJkGVDR5g>

2. To pair with smartpone, please check this video

<https://youtu.be/kbBEcw6-ldY>

For any question, please contact us by email [Kevin@radtel.com.cn](mailto:Kevin@radtel.com.cn)

or by WhatsApp: +8615860705619 we are pleased to help you