



**Radioddity**

# **ANALOG PROGRAMMING GUIDE**



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## Cable Driver Installation

1-Pin connector programming cable (package included) (for FS&PR-T2)

2-Pin K connector programming cable (package included) (for FS&PR-T3/GA-2S/GA-510/R2/GS-5B)

### Compatible System

Latest Windows system (i.e. Windows 7, Windows 8, Windows 10)

### Cable Driver and Guideline

Download the corresponding driver which matches your computer system (Win7/Win8/Win10).

- The driver for 1-pin connector programming cable is included in the programming software package.
- The drivers for 2-pin K connector programming cable are available on radioddity.com -> Support -> Others.



## Others

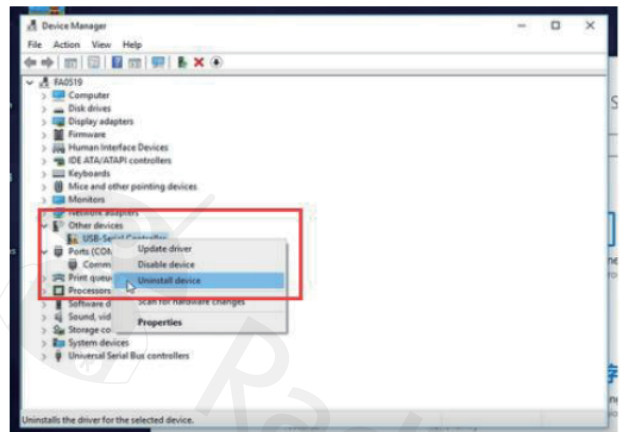
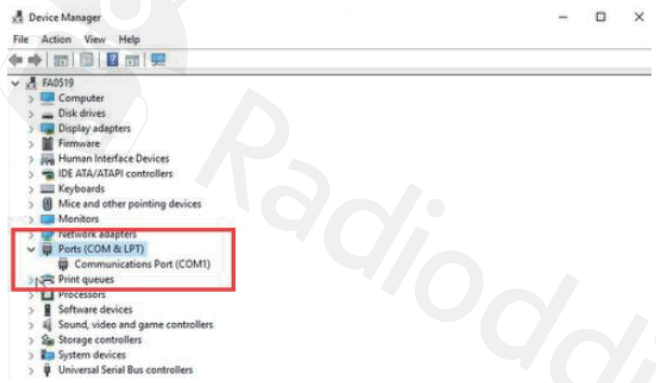
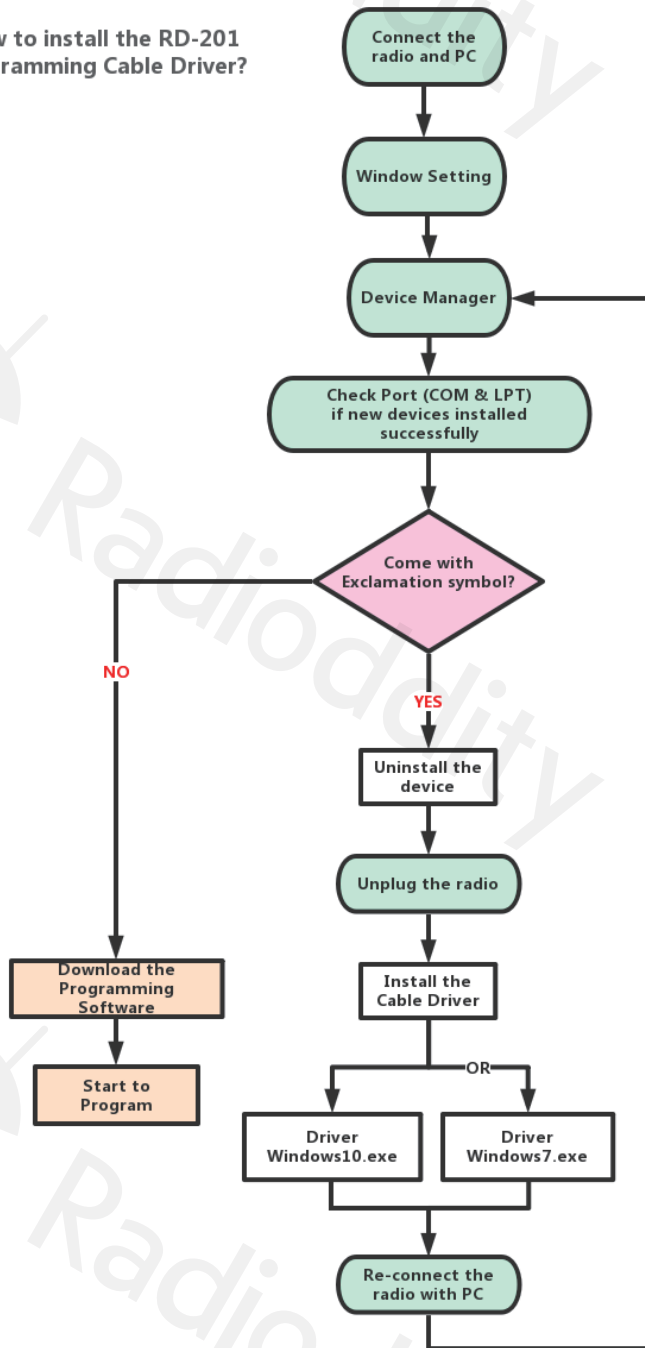
- ↓ UPDATED InstaBox i90 Wooden Radio Manual
- ↓ CHIRP for All BaoFeng Radios
- ↓ Driver Installer of Win10 Programming Cable Software [28-020-977]
- ↓ Baofeng MINI Mobile Car Radio Programming Software
- ↓ Radioddity DMR Quick Start Guide
- ↓ Radioddity DMR Programming Tips
- ↓ GD-77 & RD-5R Codeplugs (NC/FL/CA) 20180705
- ↓ Installation Guideline of Baofeng Programming Cable & Driver [28-020-122]
- ↓ Radioddity RD-201 Programming Cable Driver [28-020-531]

If the following picture is not clear, please check this link

[https://cdn.shopify.com/s/files/1/0011/7220/9721/files/RD-201\\_Cable\\_Driver\\_Installation.png?v=1576652703](https://cdn.shopify.com/s/files/1/0011/7220/9721/files/RD-201_Cable_Driver_Installation.png?v=1576652703)

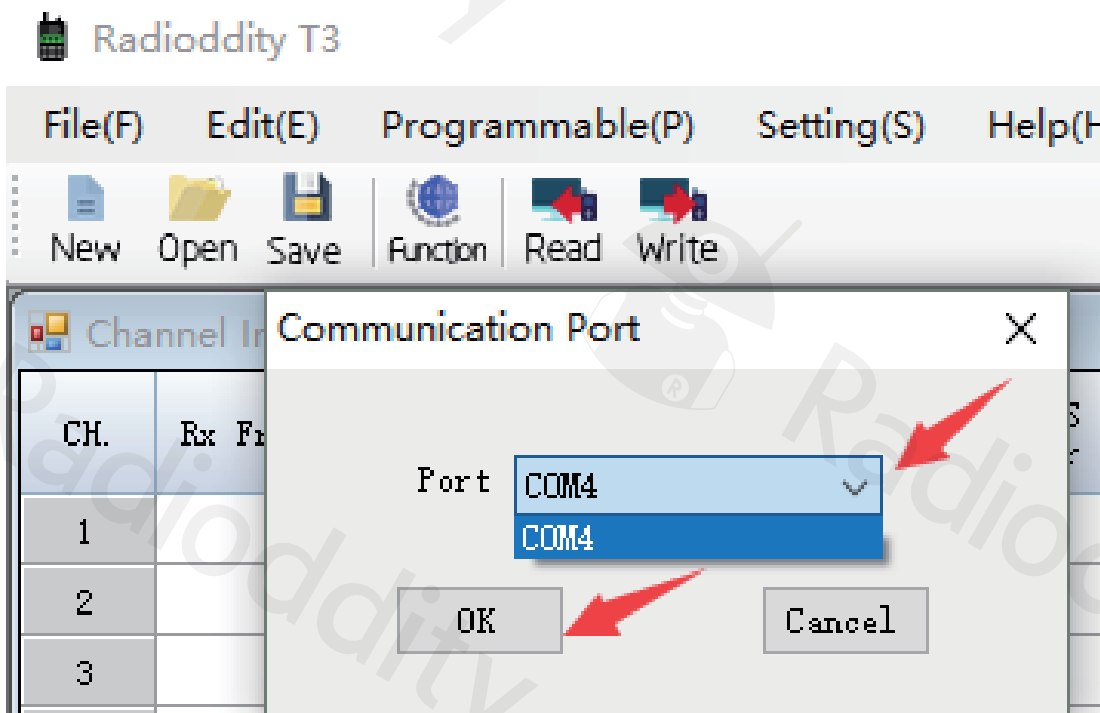
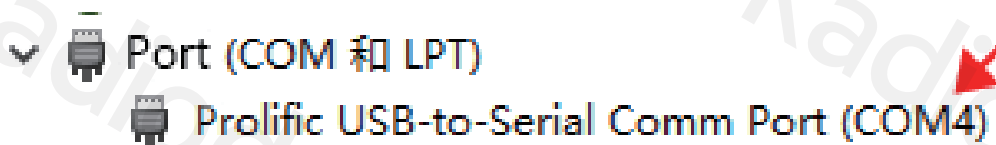
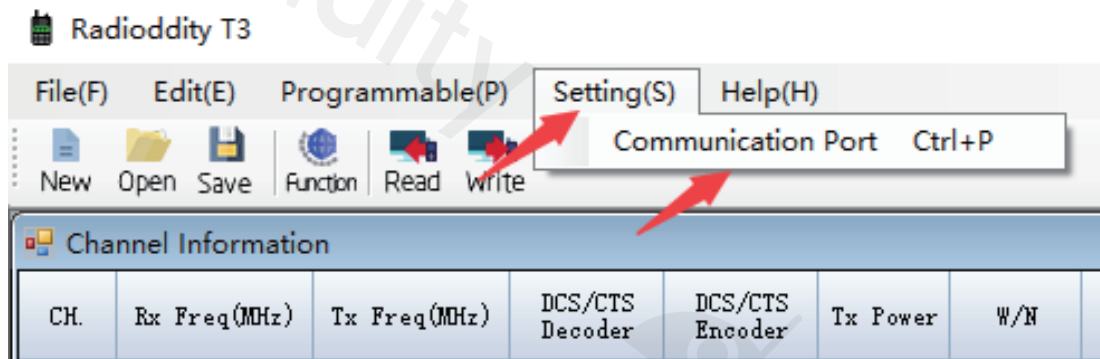



### How to install the RD-201 Programming Cable Driver?



## Radio Reading

After the driver is installed correctly, connect your radio to the computer with the programming cable and turn on the radio. Download and run the Radioddity computer programming software, click Setting → Port menu, select the corresponding port number according to the port number showed in device manager, click “OK”.



To read the current data from the radio to your PC to create an initial programming template: click Programmable → Read Data From Device/Radio, or simply click the  icon.



Radioddity T3

File(F) Edit(E) Programmable(P) Setting(S) Help(H)

New Open Save Function Read Write

Channel Information Read

CH.	Rx Freq(MHz)	Tx Freq(MHz)	DCS/CTS Decoder	DCS/CTS Encoder	Tx Power
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Radioddity T3

File(F) Edit(E) Programmable(P) Setting(S) Help(H)

New Open Save Function Read Write

Channel Information

Read

CH.	Read
1	
2	
3	
4	
5	
6	
7	

Start Cancel



Radioddity T3

File(F) Edit(E) Programmable(P) Setting(S) Help(H)

New Open Save Function Read Write

Channel Information

CH.	Rx Freq(MHz)	Tx Freq(MHz)	DCS/CTS Decoder	DCS/CTS Encoder	Tx Power	W/N	Scan Add	Busy Lock	Jump Freq
1	462.56250	462.56250	OFF	OFF	HIGH	NARROW	ON	OFF	ON
2	462.58750	462.58750	OFF	OFF	HIGH	NARROW	ON	OFF	ON
3	462.61250	462.61250	OFF	OFF	HIGH	NARROW	ON	OFF	ON
4	462.63750	462.63750	OFF	OFF	HIGH	NARROW	ON	OFF	ON
5	462.66250	462.66250	OFF	OFF	HIGH	NARROW	ON	OFF	ON
6	462.68750	462.68750	OFF	OFF	HIGH	NARROW	ON	OFF	ON
7	462.71250	462.71250	OFF	OFF	HIGH	NARROW	ON	OFF	ON
8	467.56250	467.56250	OFF	OFF	LOW	NARROW	ON	OFF	ON
9	467.58750	467.58750	OFF	OFF	LOW	NARROW	ON	OFF	ON
10	467.61250	467.61250	OFF	OFF	LOW	NARROW	ON	OFF	ON
11	467.63750	467.63750	OFF	OFF	LOW	NARROW	ON	OFF	ON
12	467.66250	467.66250	OFF	OFF	LOW	NARROW	ON	OFF	ON
13	467.68750	467.68750	OFF	OFF	LOW	NARROW	ON	OFF	ON
14	467.71250	467.71250	OFF	OFF	LOW	NARROW	ON	OFF	ON
15	462.55000	462.55000	OFF	OFF	HIGH	NARROW	ON	OFF	ON
16	462.57500	462.57500	OFF	OFF	HIGH	NARROW	ON	OFF	ON

## Channel Information

The following is an introduction to each term.

\*Different models have different functions, please refer to the actual software display.

Name	Meaning	Setting	Description
RX Freq	Receiving frequency	VHF:136-174MHz UHF:400-520MHz FRS: 462-467MHZ PMR: 446.0-446.2MHZ	
TX Freq	Transmitting frequency	VHF:136-174MHz UHF:400-520MHz FRS: 462-467MHZ PMR: 446.0-446.2MHZ	



Name	Meaning	Setting	Description
RX QT/DQT DCS/CTS Decoder	Receiving CTCSS/DCS	Refer to the DCS table and CTCSS table in the manual.	Mutes the speaker of the transceiver in the absence of a specific low level digital signal. If the station you are listening to does not transmit this specific signal, you will not hear anything.
TX QT/DQT DCS/CTS Encoder	Transmitting CTCSS/DCS	Refer to the DCS table and CTCSS table in the manual.	Transmits a specific low-level digital signal to unlock the squelch of a distant receiver (usually a repeater).
POWER	Transmit power	HIGH / LOW	High power: 10W Middle: 5W LOW 1W
W/N	Channel bandwidth	WIDE / NARROW	Wideband (25 kHz bandwidth) or narrowband (12.5 kHz bandwidth).
PTT-ID	When to send the PTT-ID	<b>OFF</b> does not send code; <b>BOT</b> press PTT button to send code; <b>EOT</b> release PTT button to send code; <b>BOTH</b> press and release; <b>PTT</b> button to send code	Codes are sent during either the beginning or end of a transmission.
Busy	Busy Channel Lockout	OFF/ON	<b>ON:</b> If the channel is occupied, when you press the [PTT] key on this channel, the radio will make a beep tone and will not transmit any signal. <b>OFF:</b> No matter if the channel is occupied, the radio will transmit the signal when you press the [PTT] key.
Scan add		OFF/ON	In the scan mode, whether add the channel to the scan list. <b>ON:</b> the channel is added to scan list; <b>OFF:</b> the channel cannot be scanned.
Signal	Signal code	1-15	Selects 1 of 15 DTMF codes. The DTMF codes are programmed with software and are up to 5 digits each
Name	Customize channel name		Support alphanumeric channel name.





## A Mode - Optional Feature (Only for GA-510/GS-5B)

Click Edit – Optional Feature, you can set up more functions for the radio.

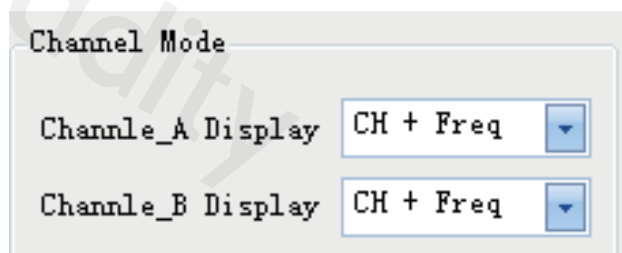
### Basic Setting

Name	Meaning	Setting	Description
TOT (Time Out)	Transmission time-out timer	15-600(s)	This feature provides a limits transmission time to a programmed value. This will promote battery conservation by not allowing you to make excessively long-time transmissions and in the event of a stuck PTT switch, it can prevent interference to other users as well as battery depletion.



Name	Meaning	Setting	Description
Squelch Level		0-9	Mutes the speaker of the transceiver in the absence of a strong signal. Squelch is either OFF or 1 - 9 levels. The higher level, the stronger the signal must be to in-mute the speaker.
VOX	Voice operated TX	0-10	When enabled, the radio can be triggered to transmit by voice without pressing the PTT button. Adjust the gain level to an appropriate sensitivity to allow smooth transmission. The higher the gain level, the more sensitive the speaker is.
Voice switch		ON/OFF	Toggle voice prompt switch
Language		Chinese/English	Switch the language of menu display and voice prompt
Auto backlight	Display time	OFF/0-10 (s)	Time-out for the LCD backlight.
Work mode		VFO	CHs is channel quantity
		Channel	

### Channel Mode



You can customize the display on Channel A/B:

**CH + Name:** Display Channel Number and Channel Name (Name column in Channel information part)

**CH + Freq:** Display Channel Number and Frequency



## DTMF

Name	Setting	Description
DTMF ST (DTMF side tone of transmit code)	<b>OFF:</b> No DTMF Side Tones are heard	Determines when DTMF side tones can be heard from the transceiver speaker
	<b>KB Side Tone:</b> Side Tones are heard only from manually keyed DTMF codes	
	<b>ANI Side Tone:</b> Side Tones are heard only from automatically keyed DTMF codes	
	<b>KB ST+ANI ST:</b> All DTMF Side Tones are heard	
Save mode	OFF/Mode 1/Mode 2/Mode 3	Selects the ratio of sleep cycles to awake cycles (Mode 1/Mode 2/Mode 3). The higher number the longer the battery lasts. When enabled, a word or two might be missed when the frequency being monitored becomes active.
Scan mode	<b>TO:</b> Time Operation - scanning will resume after a fixed time has passed	Scanning Resume Method
	<b>CO:</b> Carrier Operation -Scanning Resume Method scanning will resume after the signal disappears	
	<b>SE:</b> Search Operation scanning will not resume	
PTT_ID	<b>OFF:</b> No ID is sent	When to Send PTT-ID; Codes are sent during either the beginning or end of a transmission.
	<b>BOT:</b> The selected S-CODE is sent at the beginning	
	<b>EOT:</b> The selected S-CODE is sent at the ending	
	<b>BOTH:</b> The selected SCODE is sent at the beginning and ending	
PTT Delay	0-30ms	Signal code sending delay
KB_LOCK		If you select this option, the keyboard is locked. Holding the [*] key for 2 seconds will unlock the keypad.



Name	Setting	Description
AutoLock (automatic keypad lock)		When it is ON, the keypad will be locked if not used in 8 seconds. Holding the [*] key for 2 seconds will unlock the keypad.
BCL (busy channel Lock-out)		<b>Check:</b> If the channel is occupied, when you press the [PTT] key on this channel, the radio will make a beep tone and will not transmit any signal. <b>Uncheck:</b> No matter if the channel is occupied, the radio will transmit the signal when you press the [PTT] key.
Beep (keypad beep)		Allows audible confirmation of a key press

## Frequency mode

**STEP:** Select the value of frequency change in VFO/Frequency mode when scanning or pressing the keys.

**SFT\_D:** Enable access of repeaters in VFO/Frequency Mode ([OFF]: TX = RX (simplex); [+]: TX will be shifted higher than RX in frequency; [-]: TX will be shifted lower than RX in frequency).

**Offset:** Specifies the difference between the TX and RX frequency.

(For the explanation of TX Power, RX QT/DQT, TX QT/DQT, W/N, Signal, please refer to the section 3)

**A Band Freq Mode**

Freq  MHz

FHSS

Tx Power

Rx QT/DQT

Tx QT/DQT

W/N

Step

SFT\_D

Offset  MHz

Signal

**B Band Freq Mode**

Freq  MHz

FHSS

Tx Power

Rx QT/DQT

Tx QT/DQT

W/N

Step

SFT\_D

Offset  MHz

Signal

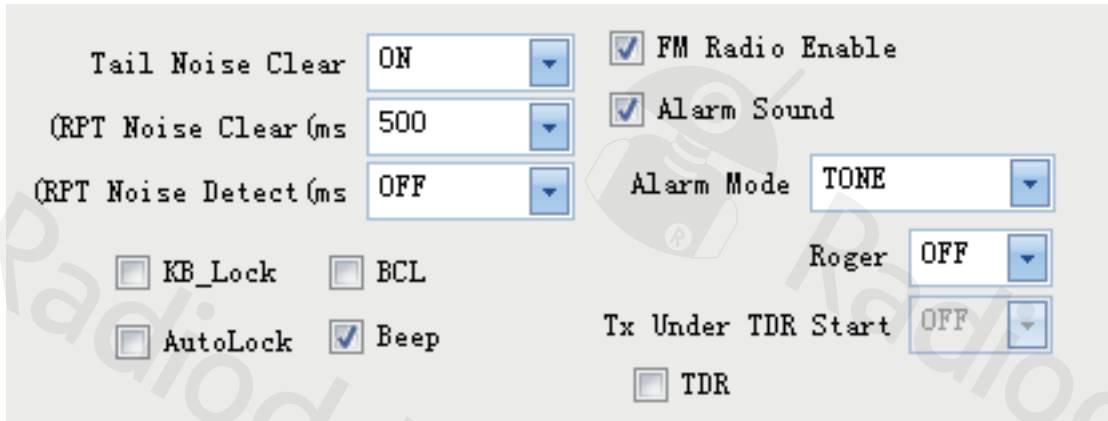


## Backlight and Sound

**RPT Noise Clear:** Squelch Tail elimination

**RPT Noise Detect:** Trunk tail delay

(For the explanation of TX Power, RX QT/DQT, TX QT/DQT, W/N, Signal, please refer to the section 3)



## FM Radio

**FM Radio Enable:** When you check this option, FM Radio function will be activated on the radio.

**Roger:** Send an end-of-transmission tone and indicate to other stations that the transmission has ended

**TX Under TDR Start:** Transmit selection while in Dual Watch mode, when enabled, priority is returned to selected display once the signal in the other display disappears.

**TDR:** Dual Watch mode, the ability to monitor two channels at once can be a valuable asset.

## B Mode - Function Setting (Only for FS&PR-T2/FS&PR-T3/GA-2S/R2)

\*Different models have different functions, please refer to the actual software display.

**SQL:** Squelch Level--0-9. Mutes the speaker of the transceiver in the absence of a strong signal. Squelch is either 0 or 1 - 9 levels. The higher the level, the stronger the noise is muted in the speaker.

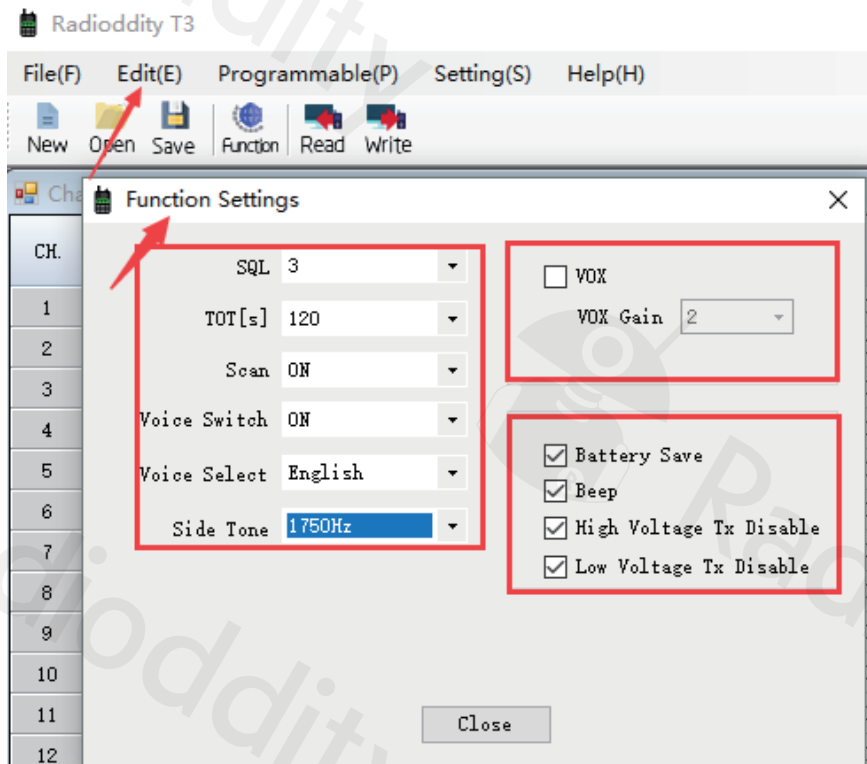
**TOT:** Transmission time-out timer--30-300s, This feature provides a limits transmission time to a programmed value. This will promote battery conservation by not allowing you to make excessively long-time transmissions and in the event of a stuck PTT switch, it can prevent interference to other users as well as battery depletion.

**Scan:** Scan Function ON/OFF.


**Voice Swtich:** Voice Swtich ON/OFF

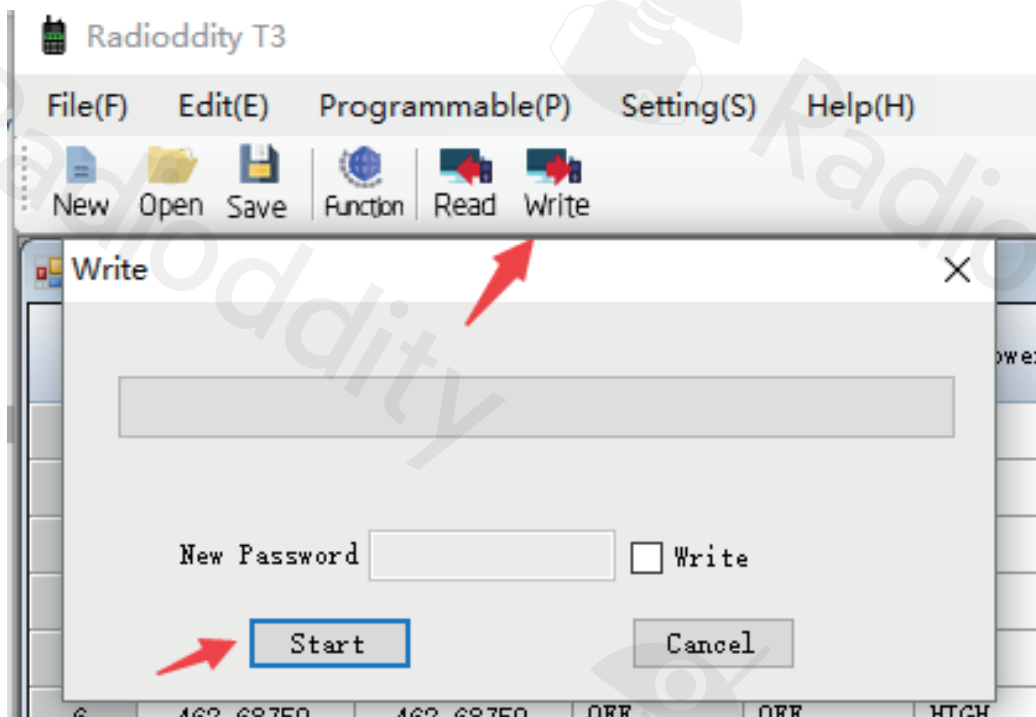
**Voice Select:** Voice for English/ Chinese

**VOX:** Level--1-5. When enabled, the radio can be triggered to transmit by voice without pressing the PTT button. Adjust the gain level to an appropriate sensitivity to allow smooth transmission. The higher the gain level, the more sensitive the speaker is.



## Write and Save

After finishing the programming, click Programmable -> Write Data To Radio, or click the  icon to write and save the setting to the radio. It is suggested to reboot the radio after programming to save the new settings.





<https://www.radioddity.com/>



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