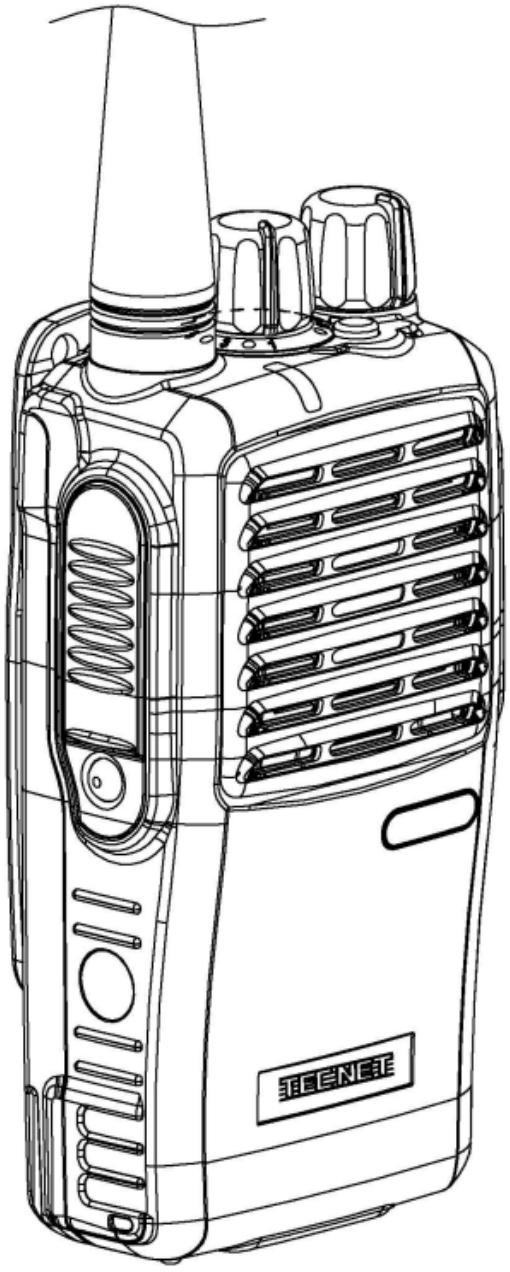
TP-5000 Series

Programming Manual



TecNet International, Inc.

TP- 5000 Series Portable Radio

Programming Manual

Please read prior to use…

This manual is intended for use by qualified technicians and includes information pertaining to the programming of the TP- 5000 series.

The programming software is subject to change without prior notice to improve its performance.

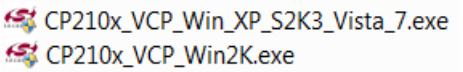
Programming Manual contents, pictures, and displays may differ from the product provided.

NOTES:

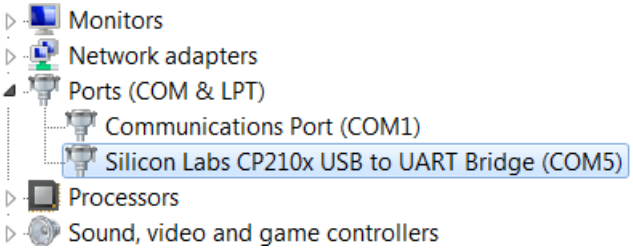
Required Equipment: ACC-505 or ACC-505N programming software, CP210x USB driver software (included on the ACC-505 and ACC-505N), and ACC-8050E programming cable.

1. Place the ACC-505N into the CD drive and open it. Files include the programming software, cable drivers and this document.

2. Install the correct cable driver for your operating system.

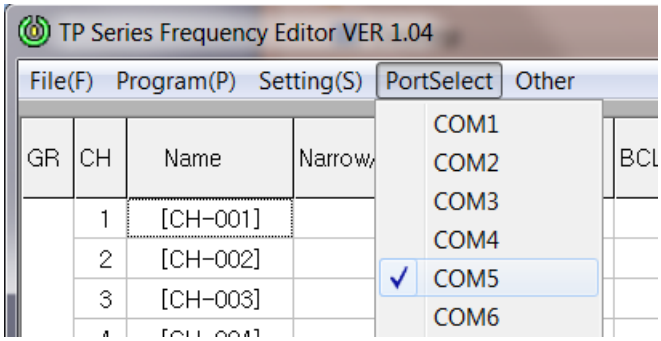


Next plug the ACC-8050E programming cable into the computer. You should receive a message that a new device has been found. The computer should automatically assign a port number to the new cable. This can be verified by looking in the Device Manager under Ports. In this example it is COM5.



3. Double click on the ACC-505 or ACC-505N programming software to begin the installation process. Follow the directions on the screen.

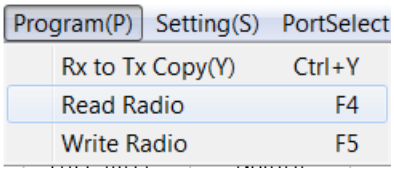
4. Run the programming software and select the proper port. The checkmark indicates the selected port.

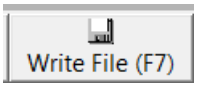


5. Plug the programming cable into the side of the radio and turn the radio on.
   It is best to read the radio and save the factory file. Below describes this procedure.
   With the radio on, the cable plugged in and the correct port number selected, read the radio.

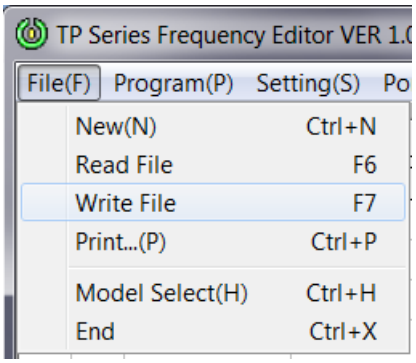
This is done by either clicking on the 

button, pressing F4 on the keyboard or by selecting it from the drop down menu under Program (P).



Next, a window will say “Do you want to read channel data from the radio?” click on Yes. The radios preprogrammed frequencies will be displayed. Next, click on File (F)/Write File as shown or click on the 

button. The shortcut key is F7.



Type in the File Name and click Save.

6. The main frequency screen is shown below. Each option is described.

GR: group; only one group is available for this model.

CH: channel number

Name: channel name. These cells can’t be changed.

Narrow: there are 2 releases of the software. One supports narrow band only and the other does both wide and narrow band. Narrow band uses 12.5 kHz channel spacing with a maximum of 2.5 kHz modulation.

2Tone: if yes, it places the radio into 2-tone mode.

BCLO: busy channel lockout. If the channel is busy, TX is not allowed.

COM: compander

SCR: scrambler

RX/TX: note; the columns for receive and transmit frequencies are the same, therefore only one is explained below.

FRQ: type in the frequency in MHz and press enter.

Step: this cell cannot be changed. It displays how the programmer divides the frequency. It

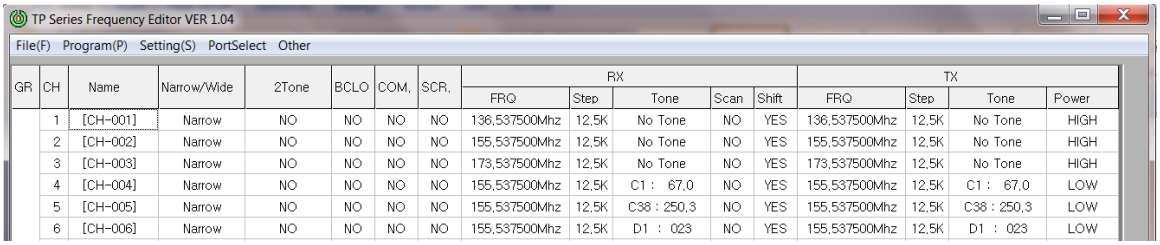
does not indicate wide/narrow band.

Tone: select the desired CTCSS, DCS or IDCS from the pull down menu.

Scan: select Yes to place the channel in the scan list.

Shift: select Yes if the programmed channel has a birdie during receive.

Power: select High (5W/4W) or Low power (1W).



GR	CH	Name	Narrow/Wide	2Tone	BCLO	COM.	SCR.	RX					TX			
								FRQ	Step	Tone	Scan	Shift	FRQ	Step	Tone	Power
	1	[CH-001]	Narrow	NO	NO	NO	NO	136,537500Mhz	12,5K	No Tone	NO	YES	136,537500Mhz	12,5K	No Tone	HIGH
	2	[CH-002]	Narrow	NO	NO	NO	NO	155,537500Mhz	12,5K	No Tone	NO	YES	155,537500Mhz	12,5K	No Tone	HIGH
	3	[CH-003]	Narrow	NO	NO	NO	NO	173,537500Mhz	12,5K	No Tone	NO	YES	173,537500Mhz	12,5K	No Tone	HIGH
	4	[CH-004]	Narrow	NO	NO	NO	NO	155,537500Mhz	12,5K	C1 : 67,0	NO	YES	155,537500Mhz	12,5K	C1 : 67,0	LOW
	5	[CH-005]	Narrow	NO	NO	NO	NO	155,537500Mhz	12,5K	C38 : 250,3	NO	YES	155,537500Mhz	12,5K	C38 : 250,3	LOW
	6	[CH-006]	Narrow	NO	NO	NO	NO	155,537500Mhz	12,5K	D1 : 023	NO	YES	155,537500Mhz	12,5K	D1 : 023	LOW

7. File (F) and Program (P) menus are self explanatory.

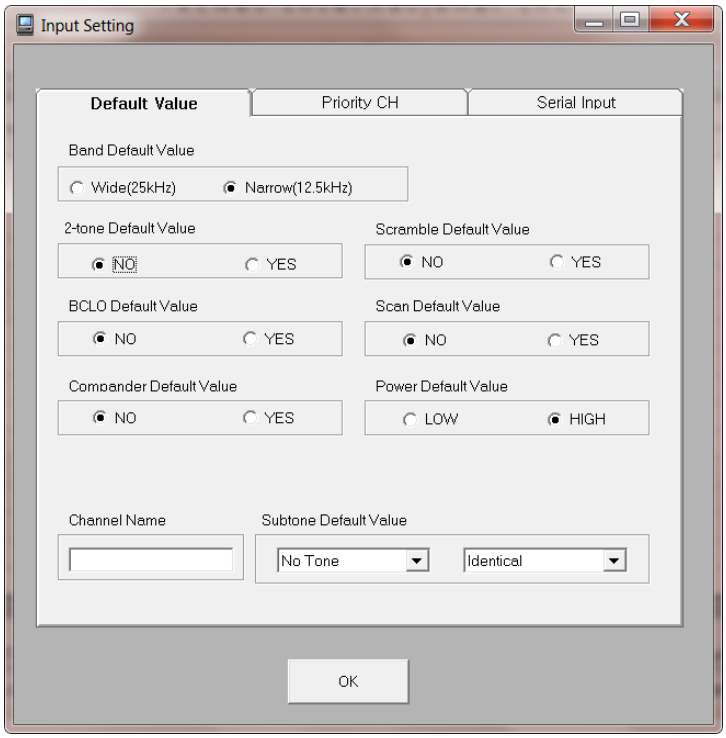
8. Settings (S)

   Input Settings…(I): there are 3 tabs at the top of the screen. Each is explained below.

   Default Value: defaults can be setup on the frequency screen so each field need not be setup manually. This is helpful when many channels are required. It is possible to add a channel name by typing one in at the Channel Name field. It could be useful on identifying the frequency to the channel.

   Priority CH: Type in the channel number you wish to be the priority channel then click on Apply. The channel must also be included in the scan list before it can be selected. The priority channel will be highlighted in green under Scan.

   Serial Input: This is used to input a string of channels that are evenly spaced in frequency. The RX input button will fill in the receive frequencies. If you wish to duplicate these frequencies on the TX side, chose the RX to TX Copy button.



9. 5TONE…

5Tone ID

Own ID: this is the radio's specific identifier. 5 tones can be sent at the beginning or end of a transmission. It can be 3~6 digits in length.

STUN ID: the unit can be stunned by a 3~7 digit code. Stunning the radio will make it inoperative until it is revived by a different code. A stunned radio will display a red LED every 5 seconds for 5 seconds.

REVIVE ID: this code will place the radio back into operation if it has been stunned. Code length is 3~7 digits.

5TONE Configuration

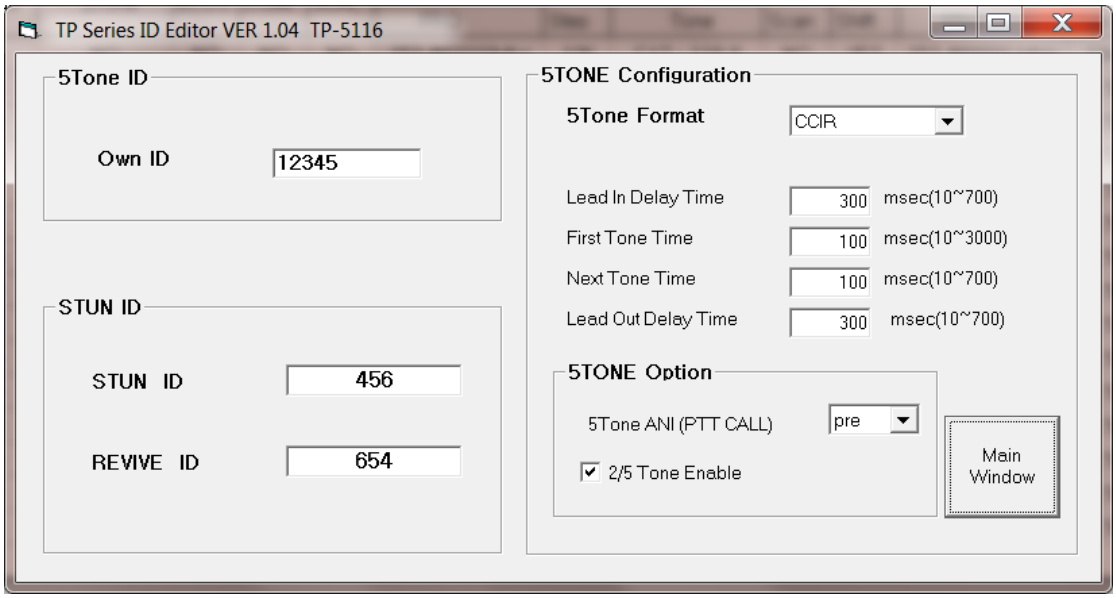
5Tone Format: select 1 of 8 formats.

Lead In Delay ~ Lead Out Delay: select the appropriate timing of each for the format used.

5TONE Option

5Tone ANI (PTT call): select from off, pre and post.

2/5 Tone Enable: check this box to enable both 2 tone and 5 tone.



10. 2Tone…

Using the Tone Selection chart select the code type and first digit. Double-clicking the frequency in the chart will automatically fill in Tones A and Tones B on the right. Next, type in the desired Space Time. If no space is required, use 500mS.

To input the frequencies into the radio make sure the cable is connected and the radio is turned on. Click on the Calculate button. When finished click on the Main Window button.

In order to make 2 tone operate, select Yes for the appropriate channel and reprogram the radio.

GR	CH	Name	Narrow/Wide	2Tone
	1	[CH-001]	Narrow	YES
	2	[CH-002]	Narrow	NO

11. Config…

DTMF

DTMF ANI Enable: check this box to send DTMF during transmit.

Pre: sends DTMF at the beginning of PTT.

Post: sends DTMF when PTT is released.

GENERAL: sends standard DTMF tones. 1~5 digits in length.

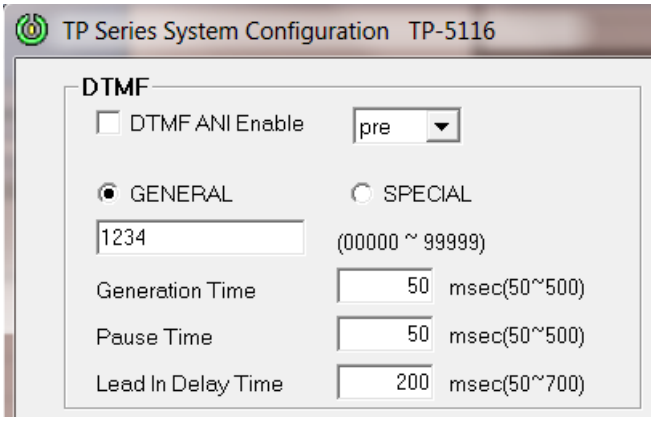
SPECIAL: sends special characters designed for the Korean police.

Digits sent can be from 1 to 99,999.

Generation Time: the length of each digit. Range: 50msec ~ 500msec

Pause Time: the length between each digit. Range: 50msec ~ 500msec

Lead In Delay Time: the time from when PTT is pressed or released before the digits are sent. Range: 50msec ~ 700msec



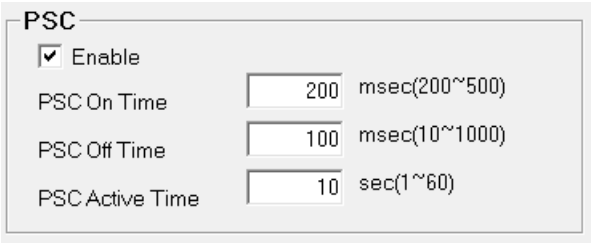
12. PSC. Power Save/Battery Save can substantially increase the battery time between charges by pulsing the receiver on and off.

Enable: check the box to enable Power Save.

PSC On Time: the length of time the receiver is on. Range: 200msec ~ 500msec

PSC Off Time: the length of time the receiver is off. Range: 10msec ~ 1000msec

PSC Active Time: the length of time from RX, TX and channel change when power saving starts.

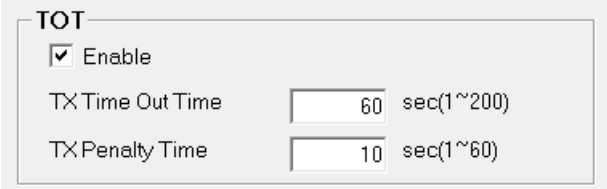


13. TOT. Time-Out Timer. This limits the length of time the radio can transmit. Useful in conserving battery power and preventing transmitter failure.

Enable: check the box to enable the TOT.

TX Time Out Time: Range, 1sec ~ 200sec

TX Penalty: the length of time before transmit can begin after the radio has timed out.



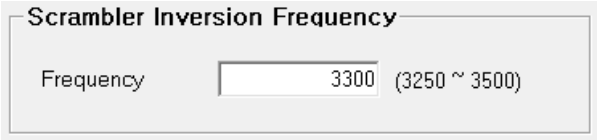
14. VOX. Voice Activated Transmit. Normally used for headset operation.

Enable: check the box to enable VOX.

VOX Sensitivity: there are 10 levels with 10 being the most sensitive.

VOX Off Time: the length of time the radio continues to transmit when speech stops. Range: 1000msec ~ 10,000msec

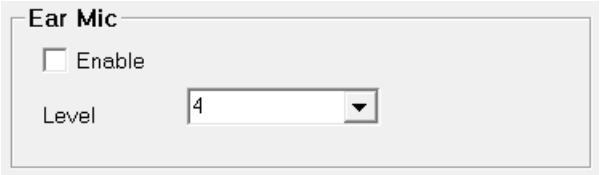
15. Scrambler Inversion frequency is adjustable from 3250Hz to 3500Hz. It is designed to work with other brands of radios.



16. Ear Mic. It is used to set the volume of an audio accessory.

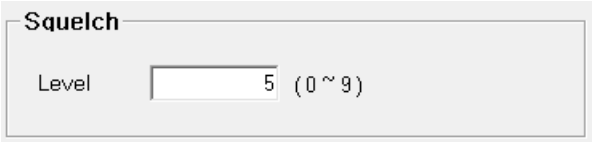
Enable: check this box to enable the Ear Mic.

Level: there are 7 levels with 1 being the loudest.



17. Squelch

There are levels 0 ~ 9 with 9 being the tightest squelch.



18. Scan

Priority Scan TX: checking the box will enable Priority Scan TX. A priority channel must be selected and be in the scan list. If PTT is pressed while in the scan mode, TX is on the priority channel. When a call is received on a non-priority channel, TX is allowed on that channel as long as PTT is pressed during the dwell time.

Priority Only TX: Checking the box will enable Priority Only TX. If PTT is pressed at any time, TX is on the priority channel.

TX Channel

Home: transmit is on the channel from which scan was initiated.

Last Receive: transmit is on the last channel that was received.

Current Scan: transmit occurs on any available channel in the scan list.

RX Type

Carrier: scan will stop on the channel and have audio as long as the carrier is present. It does not matter if a CTCSS or DCS code in on the channel.

S-A Combination: scan will not stop on the channel unless the correct CTCSS or DCS code is correct for the channel.

Scan Dwell Time: the time from which receive stops until scan resumes. Timer works in conjunction with transmit if the Dwell After TX is checked. Range: 100msec ~ 10,000msec

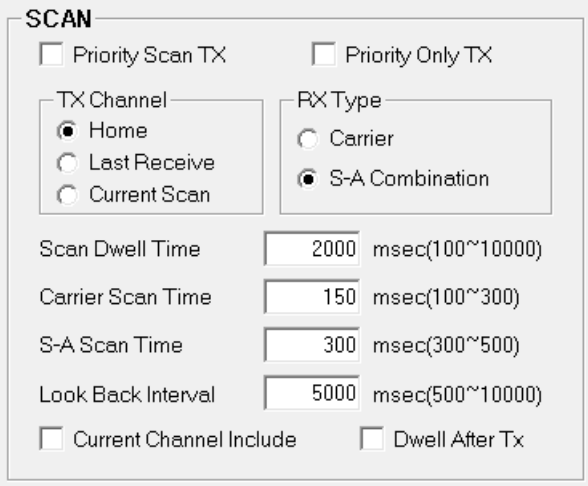
Carrier Scan Time: the time the receiver checks for a valid carrier frequency. Range: 100msec ~ 300msec

S-A Scan Time: once carrier has been detected, it is the time used to validate a tone or DCS code. Range: 300msec ~ 500msec

Look Back Interval: how often the radio checks for activity on the priority channel when receiving on a non-priority channel. Range: 500msec ~ 10,000msec

Current Channel Include: if checked, the radio will add the channel from which scan was initiated.

Dwell After TX: if checked, the radio will remain on the channel for the Scan Dwell Time after PTT is released.



19. Emergency OPTION (Alarm). The radio will transmit an alarm sound when a programmable button is programmed for Emergency.

    Emergency Call One Shot: when the button is pressed, it transmits an alarm tone for approximately 8 seconds.

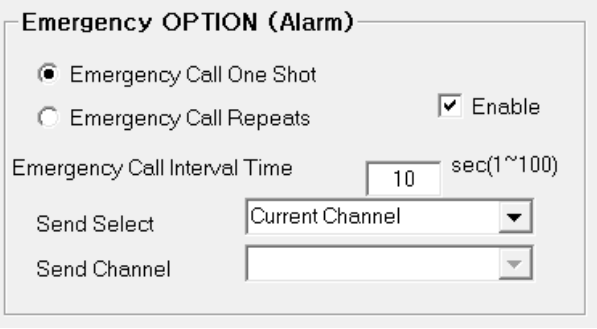
    Emergency Call Repeats: when the button is pressed, it transmits an alarm sound repeatedly until the unit is turned off.

    Enable: checking the box enables the Emergency Call feature.

    Emergency Call Interval Time: when programmed for Emergency Call Repeats, it is the pause time between the repeated emergency calls.

    Send Select: the emergency call can be sent on either the current channel or an assigned channel.

    Send Channel: this is the Assigned Channel number for the Emergency Call. Only a programmed channel can be selected.



20. OPERATION FLAG

    TX Inhibit: if checked, transmit is not allowed on any channel.

    Beep: if checked, radio emits a beep when a button is pressed.

Start Sound: if checked, radio has a startup tone when turned on.

Low Battery Alert: if checked, radio beeps when battery needs charging.

Key Lock: if checked, all buttons except for PTT are disabled. The channel switch is disabled also.

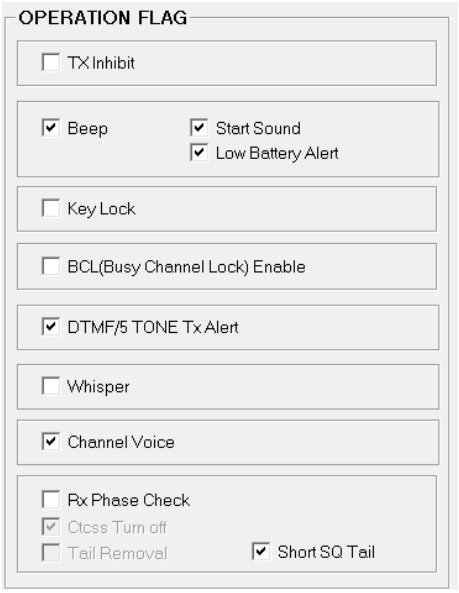
BCL (Busy Channel Lock) Enable: if checked, when a channel is receiving, transmit is not allowed.

DTMF/5 TONE Tx Alert: if checked, DTMF and 5 Tone are enabled.

Whisper: if checked, microphone gain is increased to pickup low voice levels.

Channel Voice: if checked, channel annunciation will be heard when the channel selector is rotated.

RX Phase Check/Tail Removal/Short SQ Tail: these three are used to eliminate squelch tails. CTCSS Turn Off is not used. Select the one that works best for your system.



21. Key Assign…

There are 2 assignable buttons on the radio with a total of 4 functions. These include the short press and the long press. There is the red button on the top of the radio and the small round button located under the PTT button. Under the drop down menus there are 20 choices including a No Function option. Only Monitor is described below because the rest are self explanatory.

Monitor On/Off: a press will enable the monitor function while a second press will turn it back off.

Monitor Momentary: monitor is active as long as the button is held.

22. Port Select (this is described on the first page of the manual)

23. Other

Default Data: when entering this filed, you will be prompted for a password. Typically this is 1234. There are 2 columns, one with the default data and one that can be read from the radio. It is recommended that this data not be changed. Permanent damage to the radio can occur.

Radio Records: basic information can be extracted from the radio by clicking on the Read Records button.

Password Delete: the password from Default Data can be deleted and changed using this option.

Stun Delete: a password is required to un-stun a radio. Please contact Technical Support at TecNet if this occurs.

We hope this guide will get you properly educated in programming the TP-5000 series of radios. If you have any questions, feel free to call us at 1-800-456-2071 or 913-859-9515.