

# ***USALERT***

## **WatchDog LT Voice Pager**



**PROGRAMMING MANUAL**

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# 1. INSTALLATION SETUP

The USAlert WatchDog LT programmer consists of a programming fixture, a serial communications cable, a USB communications cable, a USB to Serial Adapter, a large programming CD and a small computer drivers CD. Both WatchDog LT and WatchDog Voice Pagers use the same programming hardware and software, so only one installation is required. The software files required for the installation can also be downloaded from the USAlert website at [www.usalertllc.com](http://www.usalertllc.com).

The WatchDog LT programming fixture uses a DB9 serial connector for data communications. Connecting the fixture to your computer can be accomplished in either of two ways, serially or by USB. Ensure that your Serial and USB ports are operational by checking the Device Manager in your computer's Control Panel for any issues.

## **Serial Communication**

If you wish to use serial communication to program, connect the DB9 – DB9 serial communications cable to an available COM port on your computer and also the WatchDog programming fixture. Note the COM port number you are connecting (COM 1, COM2, COM3, etc.) as this will be required on the opening screen of the programming software. Continue with the “Run the Programming Software” step below.

## **USB to Serial Communication**

If a serial COM port is not available or you would like to use a USB connection from your computer to the programming fixture, a USB to Serial Adapter must be used and configured. Perform the following steps to configure the adapter.

**IMPORTANT: Do not plug anything into the USB port of your computer until instructed.** Unexpected results can occur if the following procedure is not performed in the correct order.

Install the USB-Serial Adapter software. This file, named “PL2303\_Prolific\_DriverInstaller\_v110.exe” is located on the large CD in the “USB to Serial Converter/Prolific USB to Serial V110” folder. Create a new folder on your computer desktop called WatchDog LT and copy the file into your new folder.

Insert the small CD into your CD-ROM drive. This small CD contains the drivers necessary to configure the USB to Serial Adapter. An Adapter installation manual can also be found on the CD in the “User's Manual” folder.

Double-click the “PL2303\_Prolific\_DriverInstaller\_v110.exe” file to run the installer and follow the on-screen prompts. Clicking the “Finish” button completes the adapter software installation.

**You now connect the USB cable with the serial adapter attached to an available USB port on your computer.** This will automatically install the device driver software. When this has completed, note the COM port number you are connecting (COM 1, COM2, COM3, etc.) as this will be required on the opening screen of the programming software. Connect the other end of the serial adapter to the serial communications cable, then connect the serial cable to the programming fixture.

## **2. RUN THE PROGRAMMING SOFTWARE**

Copy the WatchDog LT programming software from the WatchDog folder of the large CD to the desktop WatchDog LT folder. This file is currently named "J10 J100 CCP User ---.exe" where "---" is the software version. Double-click the file to run it.

You may need a version of Microsoft .NET Framework software to run the application if it fails to run initially. This file, named "Net\_Framework\_2-0.exe" is located on the large CD in the WatchDog/Net Framework folder. Double-click on it to install and then run the WatchDog LT programming software again.

### **To place WatchDog LT into programming mode:**

To program, simply place the Watchdog LT into the programmer and turn the pager on with the Function Switch in Position 1.

### **To get out of programming mode:**

Once finished programming, take the pager out of the programmer, turn the pager off, and then turn back on. Your new programming settings should now be in effect.

## **3. START-UP SCREEN**

When the Watchdog LT programming software is first opened, you will see a screen that reads "RS-232 Port Select." This is where you enter the COM Port used to connect the programming fixture to the computer. If you are not sure which port you are plugged into, checking the Device Manager in your Control Panel will sometimes show the setting, depending upon your operating system. With a powered-on pager in the fixture, if the "Read" and "Write" buttons at the bottom of the screen are not highlighted, then you may have an incorrect port setting.

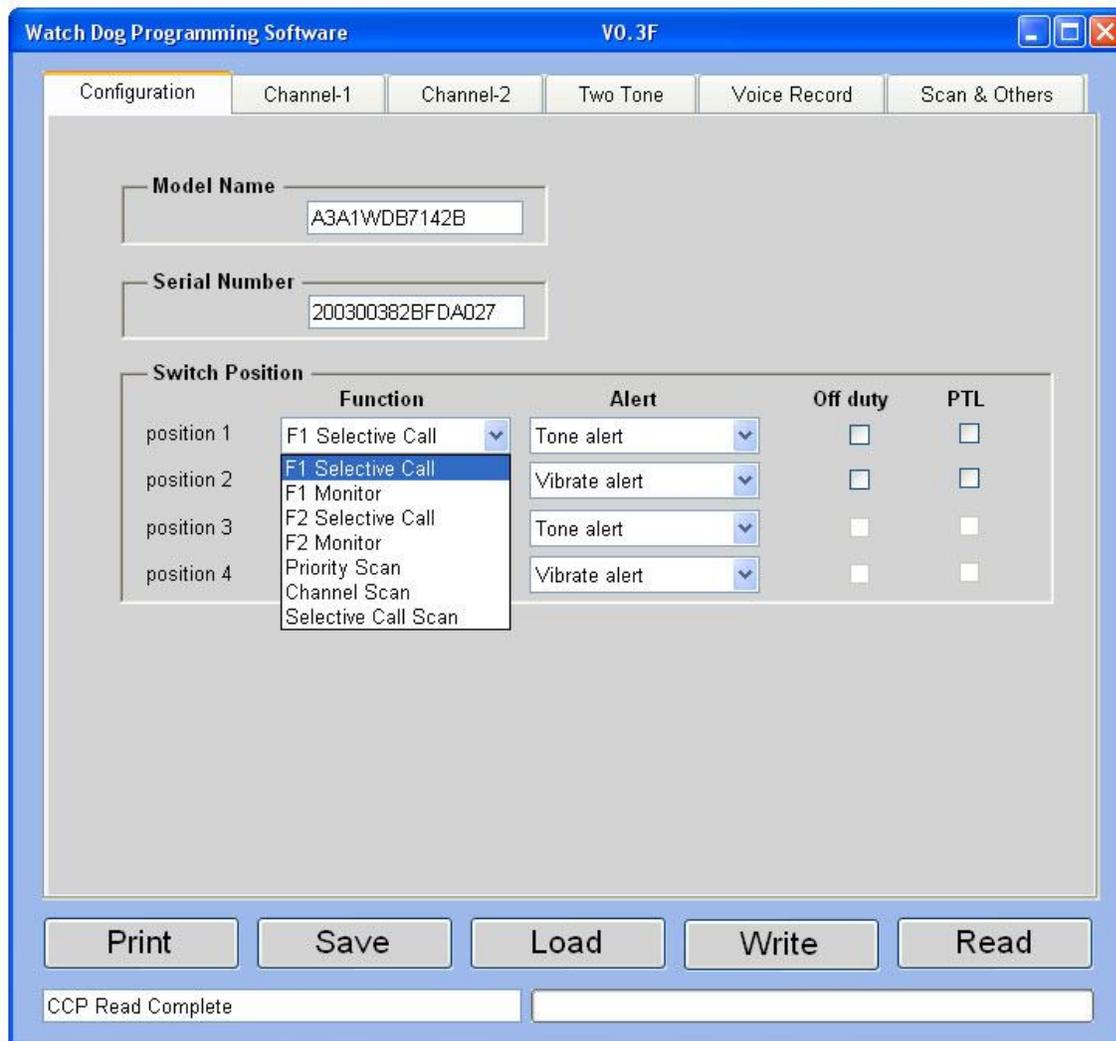
## 4. CONFIGURATION SCREEN

Once you have passed the opening port screen, you will see the configuration screen. This default screen is for programming the WatchDog pager. To see the configuration screen for programming a WatchDog LT pager, an LT pager must first be "Read". With the WatchDog LT pager in the programming fixture, click the "Read" button. If a "CCP Read Complete" message is seen at the bottom left of the screen, the WatchDog LT configuration screen is then displayed. This allows you to choose how you would like your 4-position switch to be setup. Use the drop-down boxes to see the different choices you will have for each switch. F1 stands for Frequency 1. F2 stands for Frequency 2 and will be whatever you program as Channel 2.

Switch Position	Function	Alert	Off duty	PTL
position 1	F1 Selective Call	Tone alert	<input type="checkbox"/>	<input type="checkbox"/>
position 2	F1 Selective Call	Vibrate alert	<input type="checkbox"/>	<input type="checkbox"/>
position 3	F1 Monitor	Tone alert	<input type="checkbox"/>	<input type="checkbox"/>
position 4	F1 Monitor	Vibrate alert	<input type="checkbox"/>	<input type="checkbox"/>

## Four Position Function Switch Selections

- F1 Selective Call
- F1 Monitor
- F2 Selective Call
- F2 Monitor
- Priority Scan
- Channel Scan
- Selective Call Scan



## SELECTIVE CALL

Selective call operation allows the alerting receiver to remain muted until a proper tone address has been received. After tone detection, the receiver will typically open the audio path for the following voice message.

## MONITOR

Monitor operation is simply allowing the alerting receiver to open the audio path any time the carrier is present. This function can be programmed to automatically occur immediately following address detection or by simply depressing the reset switch for approximately 0.75 seconds in any selective call function switch position. This will place the WatchDog LT into channel monitor mode.

### **Priority Scan**

If Priority Scan is selected, the WatchDog LT pager will alternately search from frequency 1 to frequency 2 looking for the presence of carrier. Alerting can only occur on priority channel (F1). If channel activity is detected on F1 then the LT will lock on F1 and remain on F1 until channel activity ceases. At this time the scan function will resume. If channel activity is detected on F2, the WatchDog LT pager will process voice on F2 and periodically scan back to F1 looking for presence of a carrier. Anytime channel activity is detected on the primary channel, the pager will lock on that channel.

### **Channel Scan**

When the WatchDog LT is in the Channel Scan mode, it will alternately search from frequency 1 to frequency 2 looking for presence of a carrier. The primary function of channel scan is to allow monitoring of any activity on either channel. Only one channel can be actively monitored at a time. If activity is detected on either F1 or F2, the WatchDog LT pager will lock on that channel until channel activity ceases. At this time the pager will resume scanning between channels.

### **Selective Call Scan**

The Selective Call Scan mode allows the WatchDog LT to silently scan from channel to channel looking for address tones. The pager will only open the audio path based on detection of an address and not just channel activity. If a proper address is detected, the LT will alert and open the audio path for messaging.

### **Alert Selection**

All three alert selections, Tone Alert, Vibrate Alert, and Tone & Vibrate Alert are available for each of the four function switch settings.

### **On / Off Duty and PTL**

The On / Off Duty and PTL (Push to Listen) functions are available for selection in any Selective Call function mode of the 4 position function switch including Selective Call Scan.

### **On / Off Duty**

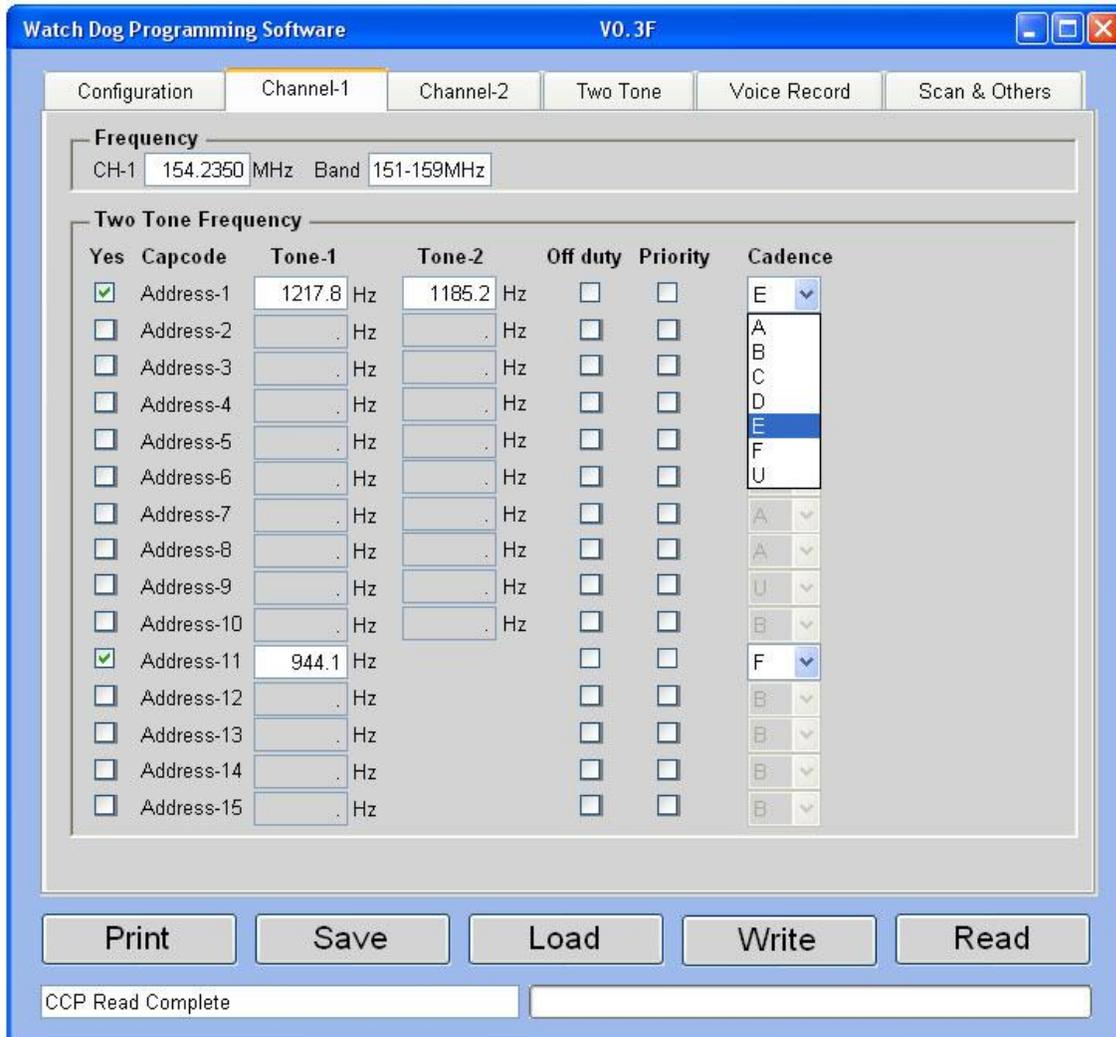
Checking the Off duty box on any function switch position enables Off Duty operation when the pager is set to that function switch position. Addresses desired for Off Duty operation must also be checked in the Channel Programming screens. These addresses will NOT alert if the function switch is set to a position programmed for Off Duty operation.

### **Push to Listen**

This option forces the user to push the reset button to "listen" to the message.

**Warning: Release of the reset button will also cancel voice storage.**

## 5. CHANNEL PROGRAMMING SCREEN



The first entry on the Channel screen is your Frequency. The next step is to enter your Tones. To do this, check yes for an address set and fill in your tones. If you are using long tones, they should be inserted in addresses 11 thru 15.

### On / Off Duty Setup

If you have set any of your position switches in the Configuration screen to On / Off Duty, you will now set up which tones you would like to receive while in that position. Check the box next to any tones that you DO NOT want to alert while in On / Off Duty. Leave boxes unchecked next to tones that you would like to receive while in On / Off Duty.

### Priority

If you check the Priority box next to a given set of tones, they will ALWAYS audibly alert only, even if you have the pager set to a vibrate position.

### Cadences

There are seven different sounds to choose from when you are alerted. If a set of tones is set for Tone U, the pager will ALWAYS tone alert and vibrate when calls are received on those tones. To listen to each cadence, please visit [www.usalertllc.com/downloads.htm](http://www.usalertllc.com/downloads.htm).

## Two Channels

If you have two channels in your pager, click the next channel tab that is available. There will be a check box that reads “Ch-2 Yes?” and you must check this box for that channel to be activated.

## 6. TWO-TONE SCREEN

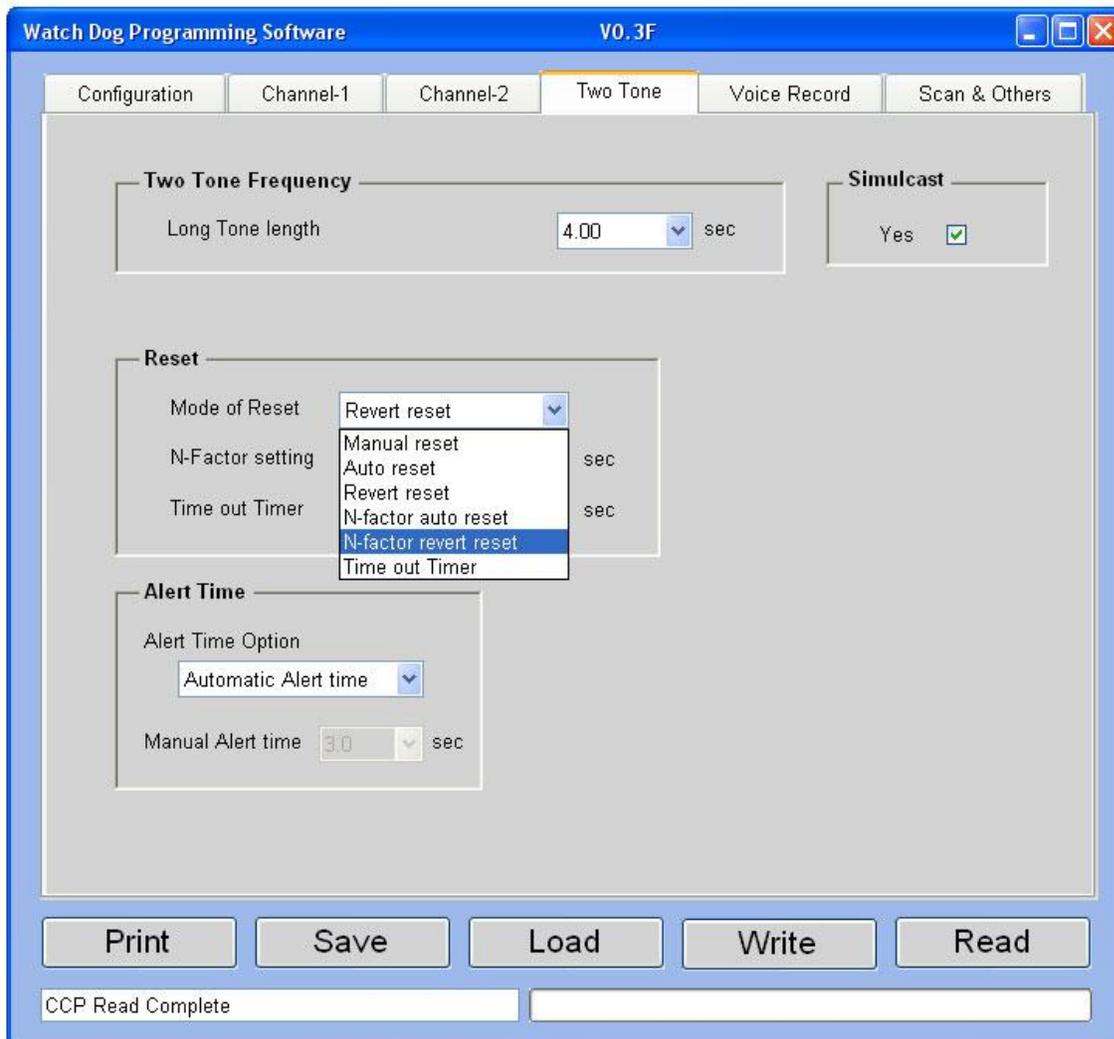
The screenshot shows the 'Two Tone' configuration screen in the Watch Dog Programming Software. The window title is 'Watch Dog Programming Software V0.3F'. The interface includes several tabs: 'Configuration', 'Channel-1', 'Channel-2', 'Two Tone' (selected), 'Voice Record', and 'Scan & Others'. The main configuration area is divided into three sections: 'Two Tone Frequency', 'Reset', and 'Alert Time'. The 'Two Tone Frequency' section has a 'Long Tone length' dropdown set to '4.00 sec'. The 'Reset' section has a 'Mode of Reset' dropdown set to 'Revert reset', an 'N-Factor setting' dropdown set to '3.0 sec', and a 'Time out Timer' dropdown set to '60.0 sec'. The 'Alert Time' section has an 'Alert Time Option' dropdown set to 'Automatic Alert time' and a 'Manual Alert time' dropdown set to '3.0 sec'. A 'Simulcast' checkbox is checked. At the bottom, there are buttons for 'Print', 'Save', 'Load', 'Write', and 'Read'. A status bar at the very bottom shows 'CCP Read Complete'.

### Long Tone Length

When you set the Long Tone Length, it will look for the tone for the amount of time set and then alert for the remainder of the time the tone is sent out. For example, dispatch sends out the long tone for seven seconds. If you have your Long Tone Length set to the default of four seconds, it will look for the tone for that length of time and then alert for the remaining three seconds.

### Simulcast

For systems running with multiple transmitter towers, check this box. Systems with a single tower can uncheck the box.



## Mode of Reset

There are six different modes you can choose from to set the way that your pager resets after pages are received: Manual Reset, Auto Reset, Revert Reset, N-Factor Auto Reset, N-Factor Revert Reset, and Time-out Timer.

**Manual Reset:** After receipt of an alert, the pager will open the audio channel for messaging and lock the audio on until the reset switch is depressed and released. At this time, the pager will return to Selective Call standby.

**Auto Reset:** After receipt of an alert, the pager will open the audio channel for messaging. The audio will remain open until the carrier drops, at which time the audio will automatically reset. The pager automatically returns to Selective Call standby.

**Revert Reset:** Revert operation allows the pager to automatically switch from Selective Call to channel monitoring after receipt of an alert. The pager will remain in channel monitoring until the reset switch is depressed and released. At this time, the pager will return to Selective Call standby.

**N-Factor Auto Reset:** Adding the N time delay to revert operation causes the WatchDog LT pager to disregard the state of the carrier during the N time. The N time

begins immediately after the alerting cycle and ends on N timeout. At this time the WatchDog LT will enter normal auto reset operation.

**N-Factor Revert Reset:** Adding the N time delay to revert operation causes the WatchDog LT pager to disregard the state of the carrier during the N time. The N time begins immediately after the alerting cycle and ends on N timeout. At this time the WatchDog LT will enter normal revert to carrier squelch operation.

**Time-Out Timer:** After receipt of an alert, the pager will open the audio channel for messaging. The audio will remain open until the pre-programmed “timeout” has expired. The timeout timer is initiated at the start of the alert cycle and ends on the timeout time. The pager will then automatically returns to Selective Call standby.

### **N-Factor Setting**

If your carrier drops after sending out tones, you may need to use N-Factor. The “N-Factor Setting” function allows the pager to essentially ride thru the carrier drop after tones are transmitted and to continue to record the message. The N time is programmable in length to allow for system variations. Select an N time that is longer than the carrier drop to prevent early termination of message recording. If the carrier typically drops for one second, then program the N time to two seconds. In this case, after the two second N time out, the pager will resume watching the carrier to signal when to stop recording.

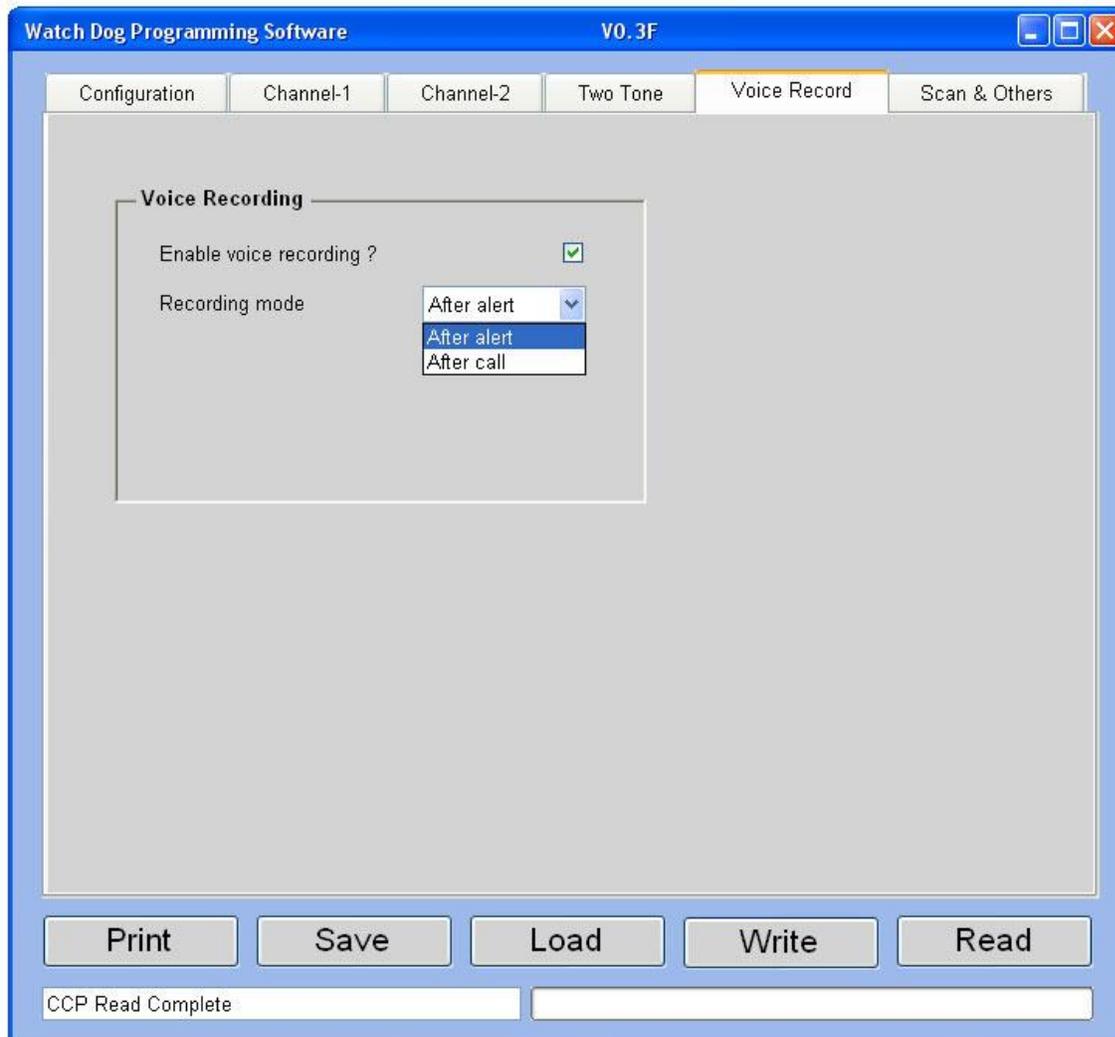
### **Time out Timer**

Set the number of seconds you want the audio to remain open after receipt of an alert in Time out timer reset mode.

### **Alert Time**

This is the amount of time the pager will alert after it receives its tones. It is recommended that you use automatic alert time so that you do not miss part of the message being received.

## 7. VOICE RECORD SCREEN



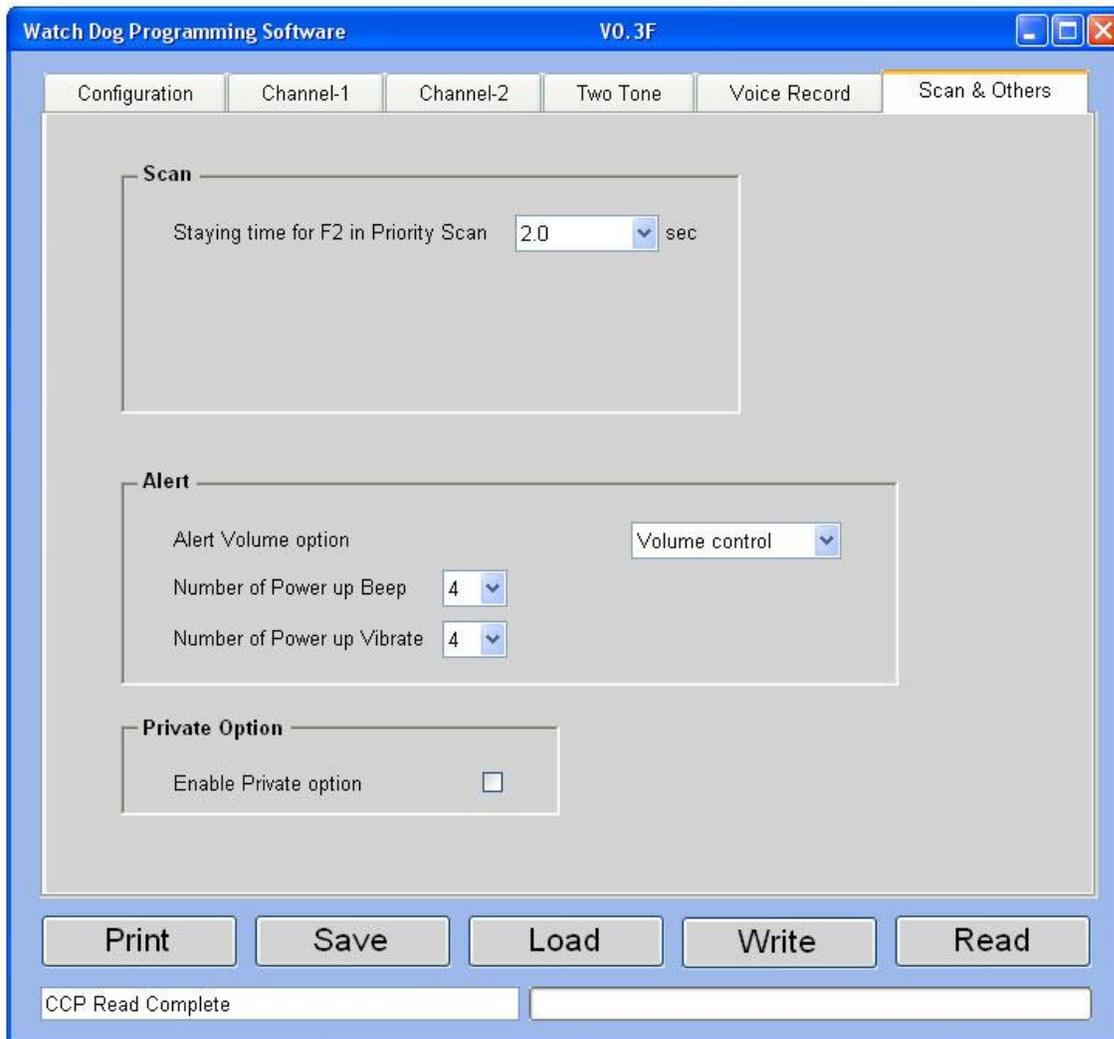
**Enable voice recording?** - allows you to enable or disable Voice Recording.

**Recording mode** – allows you to select when you would like to start recording voice messages, after alert or after call.

Select “After alert” in situations where the system transmits a voice message immediately following the tones with no disruption in the continuous transmission of the carrier. If your system uses this mode of operation, the N time delay should not be used.

Select “After call” in situations where the carrier drops following the transmission of tones and then comes up again to send the voice message. This setting will eliminate recording of tones when several sets of tones are transmitted prior to the message transmission. Revert with N time delay is recommended in these cases. If using the “After call” setting for voice recording you need to make sure the carrier is ALWAYS interrupted prior to sending the voice traffic else recording will not be initiated.

## 8. SCAN & OTHERS



The Scan option will only be available for pagers that have more than one frequency.

### **Staying time on F-2 for Priority Scan**

This is the amount of time the pager will stay on F2 before it goes back to the priority channel (Ch. 1).

**Alert Volume Option** - This can be set to volume control which allows you to control volume with the knob on top of the pager. It can also be set to maximum, in which case your pager will alert at its highest volume at all times.

**Number of Power Up Beeps and Vibrate:** The number of times your pager beeps and vibrates when turned on.

### **Private Option**

If you check this option, the pager will not be able to monitor the channels using the reset switch located on top of the LT pager. This can be used to keep people from listening in when they are not paged.