

USALERT

WatchDog Voice Pager



PROGRAMMING MANUAL

1. INSTALLATION SETUP

The USAlert WatchDog 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 and WatchDog LT 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.

The WatchDog 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 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 programming software from the WatchDog folder of the large CD to the desktop WatchDog 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 programming software again.

To place WatchDog into programming mode:

To program, simply place the Watchdog 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.

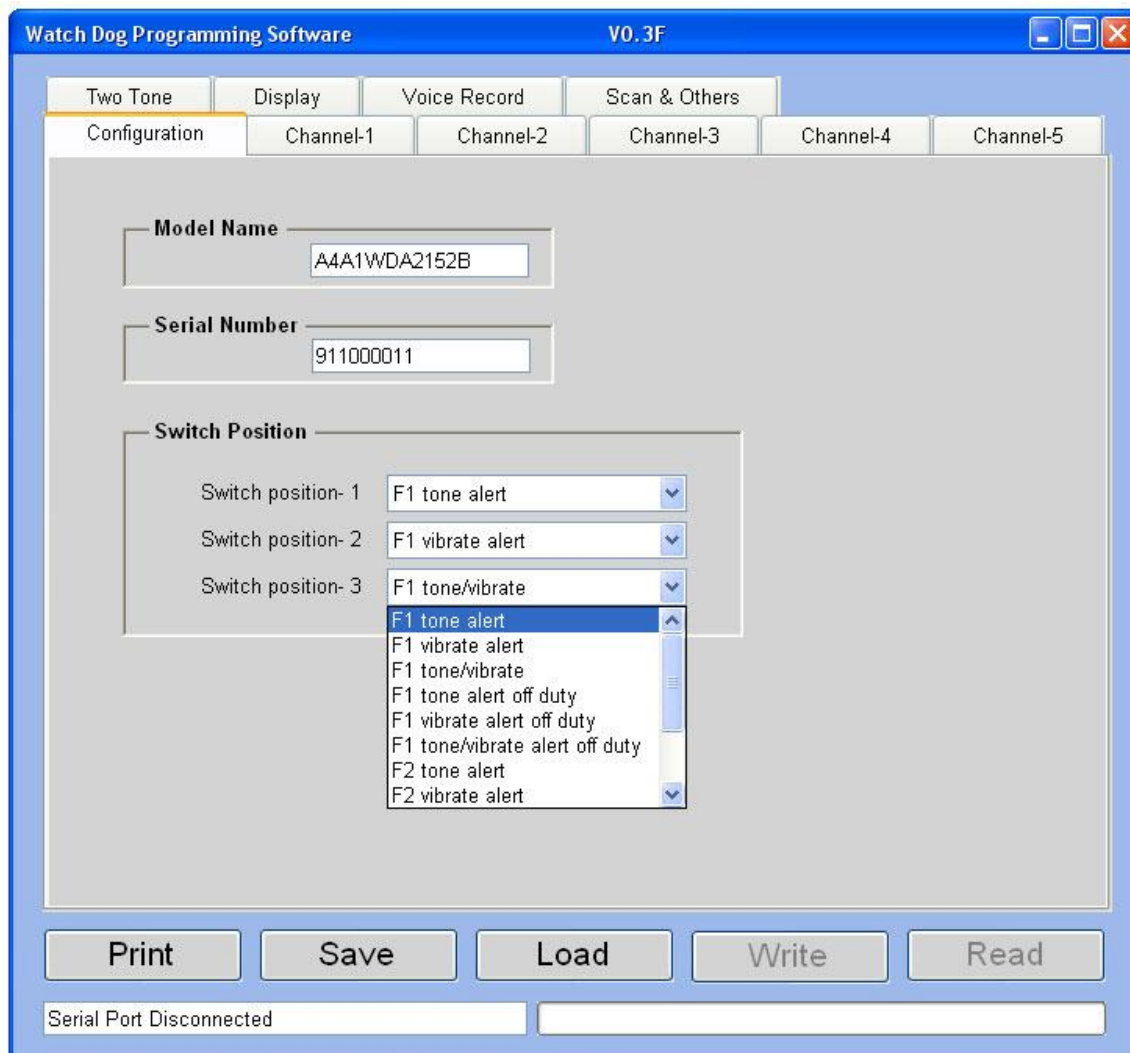
3. START-UP SCREEN

When the Watchdog 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 allows you to setup your 3-Position Function Switch. Use the dropdown lists to see the choices available for each switch position. F1 stands for Frequency 1 and F2 stands for Frequency 2. Both F1 and F2 are set from the pager's front panel menu. With WatchDog firmware version 5.20 or later, both F1 and F2 can be set to any of the available channels on your pager (channels 1, 2, 3, 4 or 5).

Note: to determine the firmware version of your pager, first turn the pager off. Hold down the top-mounted reset button and turn the pager on. The firmware version will appear on the pager's display.



3-Position Function Switch Selections

F1 Tone Alert - Position will audibly alert when paged on any address for Frequency 1. If the volume knob is turned all the way down, the pager will not audibly alert.

F1 Vibrate Alert - Position will alert by vibration when paged on Frequency 1, regardless of where the volume control knob is set.

F1 Tone/Vibrate - Position will audibly alert and vibrate when paged on Frequency 1. If volume knob is turned all the way down, it will only vibrate.

F1 Tone Alert Off Duty - Position will NOT audibly alert for addresses that have been set to Off Duty on Frequency 1. Off Duty operation is described further in the “On/Off Duty Setup” section of the Channel Programming Screen below.

F1 Vibrate Alert Off Duty - Position will NOT alert by vibration for addresses that have been set to Off Duty on Frequency 1. Off Duty operation is described further in the “On/Off Duty Setup” section of the Channel Programming Screen below.

F1 Tone/Vibrate Alert Off Duty - Position will NOT audibly alert and vibrate for addresses that have been set to Off Duty on Frequency 1. Off Duty operation is described further in the “On/Off Duty Setup” section of the Channel Programming Screen below.

F2 Tone Alert - Position will audibly alert when paged on any address for Frequency 2. If the volume knob is turned all the way down, the pager will not audibly alert.

F2 Vibrate Alert - Position will alert by vibration when paged on Frequency 2, regardless of where the volume control knob is set.

F2 Tone/Vibrate - Position will audibly alert and vibrate when paged on Frequency 2. If volume knob is turned all the way down, it will only vibrate.

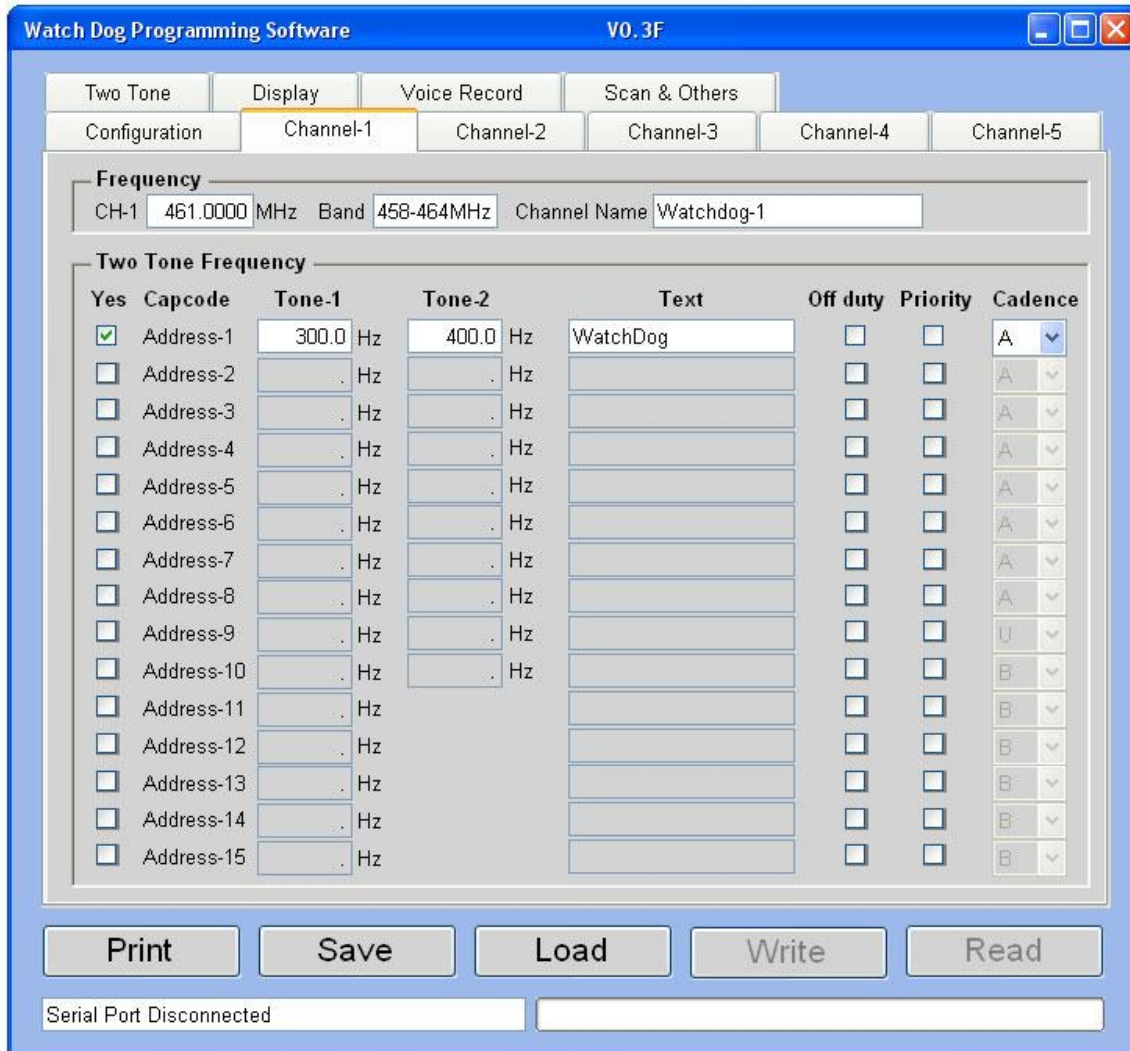
F2 Tone Alert Off Duty - Position will NOT audibly alert for addresses that have been set to Off Duty on Frequency 2. Off Duty operation is described further in the “On/Off Duty Setup” section of the Channel Programming Screen below.

F2 Vibrate Alert Off Duty - Position will NOT alert by vibration for addresses that have been set to Off Duty on Frequency 2. Off Duty operation is described further in the “On/Off Duty Setup” section of the Channel Programming Screen below.

F2 Tone/Vibrate Alert Off Duty - Position will NOT audibly alert and vibrate for addresses that have been set to Off Duty on Frequency 2. Off Duty operation is described further in the “On/Off Duty Setup” section of the Channel Programming Screen below.

Scan - If you would like to Scan, this function must be selected on Function Switch Position 2. Scan operation is described further in the Scans & Others Screen below.

5. CHANNEL PROGRAMMING SCREEN



The first entry on the Channel screen is your Frequency. A Channel Name description can be entered here, but will only appear on the pager’s display if the “Standby Screen” dropdown list on the “Display” screen is set to “Channel Name”. This allows your pager to display the channel you are on at any given time.

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.

In the Text field for each address, you can enter a description for that address. When you are paged on a given address, the text you enter here will appear on the pager’s display.

On / Off Duty Setup

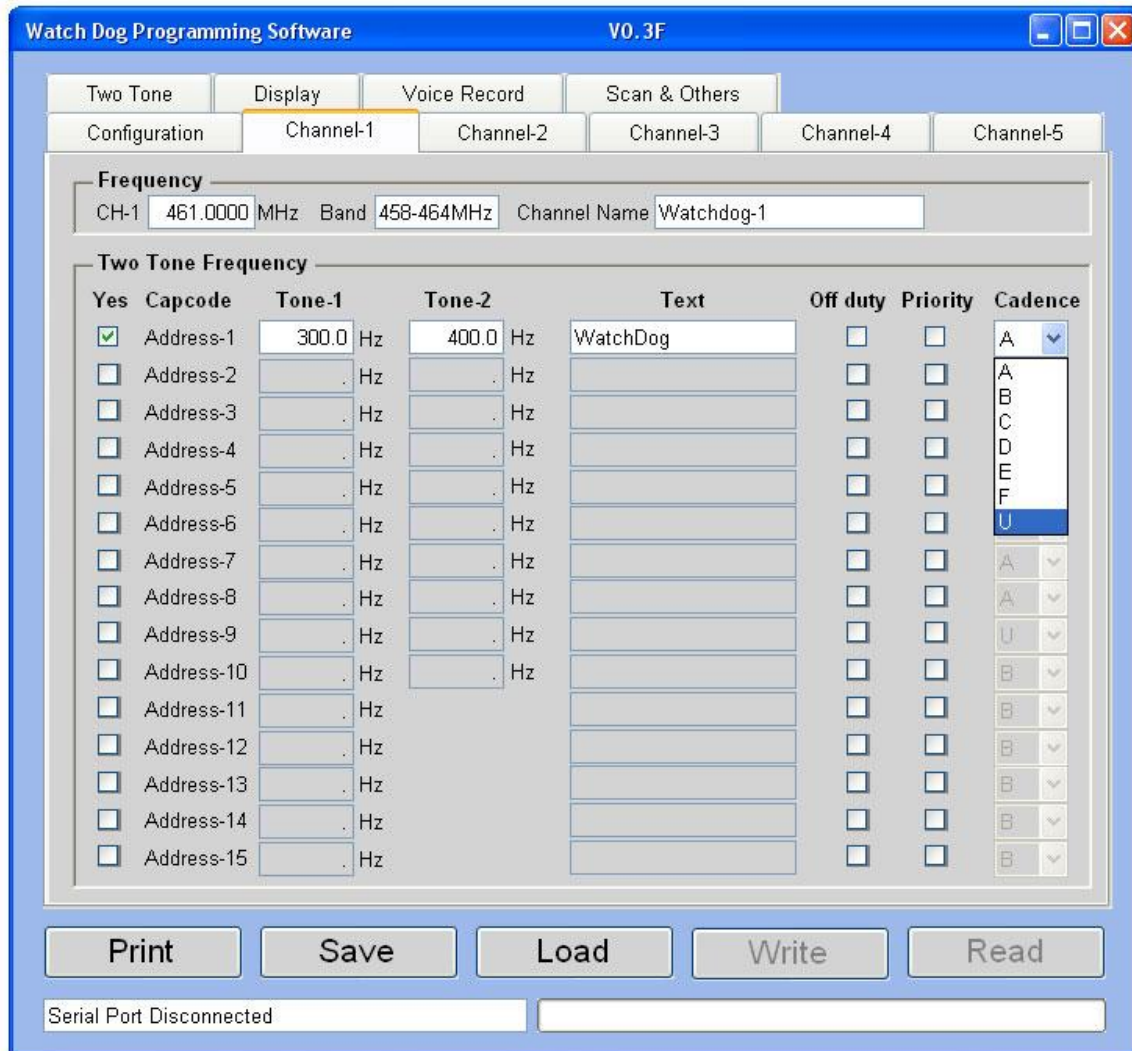
If you have set any of your position switches in the Configuration screen to On / Off Duty, you will now set up which tones you would like to receive while in that position. Check the box next to any tones that you DO NOT want to alert while in On / Off Duty. Leave boxes unchecked next to tones that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



Multiple Channels

If you have multiple 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. You will then repeat the procedures above for the rest of your channels.

6. TWO-TONE SCREEN

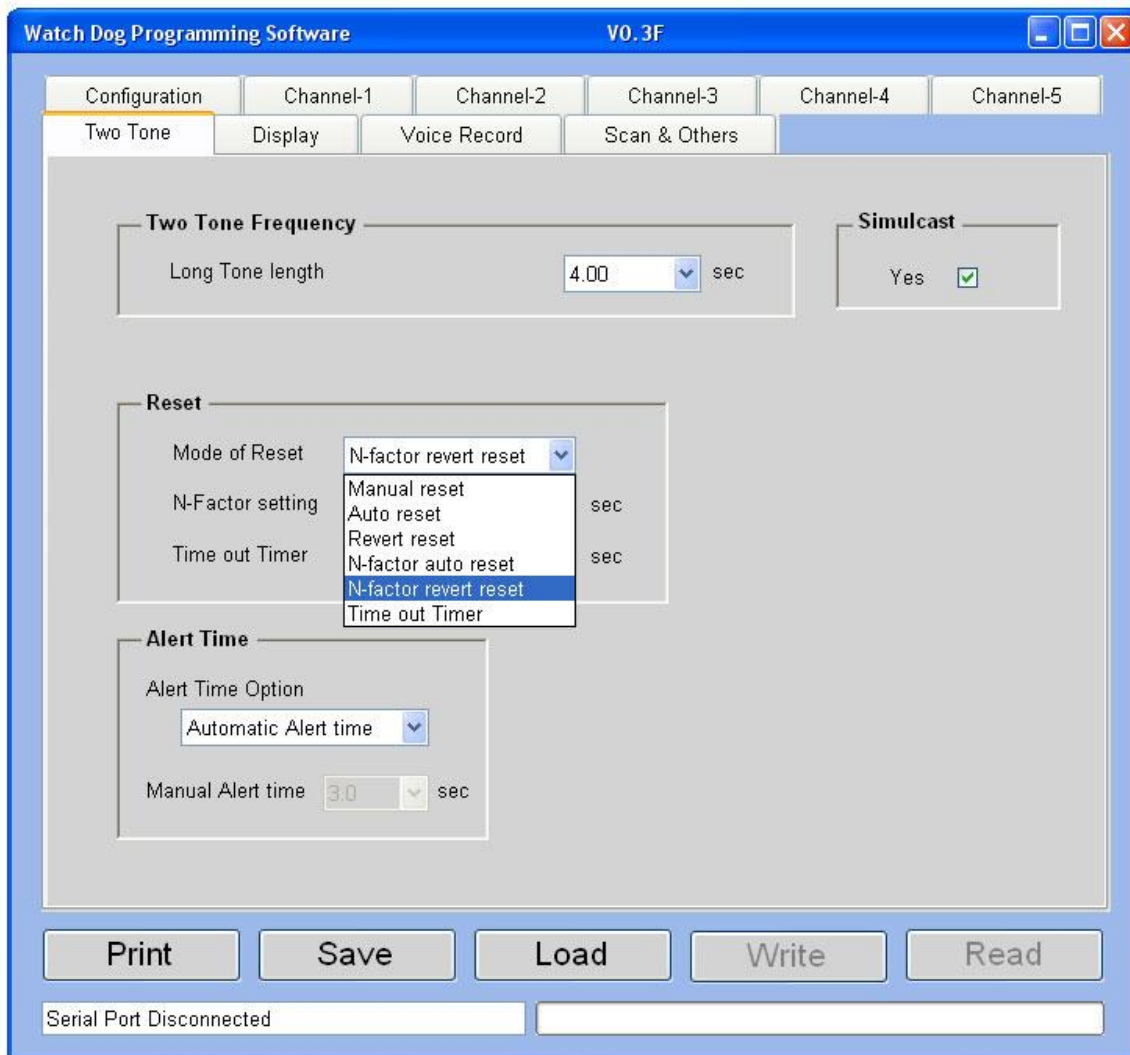
The screenshot shows the 'Watch Dog Programming Software' window with the 'Two Tone' tab selected. The window has a blue title bar and a menu bar with 'Configuration', 'Channel-1', 'Channel-2', 'Channel-3', 'Channel-4', and 'Channel-5'. Below the menu bar are sub-tabs: 'Two Tone', 'Display', 'Voice Record', and 'Scan & Others'. The main area contains three sections: 'Two Tone Frequency' with a 'Long Tone length' dropdown set to '4.00 sec'; 'Simulcast' with a 'Yes' checkbox checked; 'Reset' with 'Mode of Reset' set to 'N-factor revert reset', 'N-Factor setting' set to '3.0 sec', and 'Time out Timer' set to '60.0 sec'; and 'Alert Time' with 'Alert Time Option' set to 'Automatic Alert time' and 'Manual Alert time' set to '3.0 sec'. At the bottom are buttons for 'Print', 'Save', 'Load', 'Write', and 'Read', and a status bar showing 'Serial Port Disconnected'.

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 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 will enter normal auto reset operation.

N-Factor Revert Reset: Adding the N time delay to revert operation causes the WatchDog 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 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. DISPLAY SCREEN

Watch Dog Programming Software V0.3F

Configuration Channel-1 Channel-2 Channel-3 Channel-4 Channel-5

Two Tone Display Voice Record Scan & Others

Special Text

Power up message Welcome WatchDog

Standby screen Special text

Standby screen special text Watch Dog

2 tone address special text Special Text

Time & Date

Date format MM/DD

Push to Listen Option

Push to Listen No

LCD & Back light

LCD hold time 10

Back light hold time 5

Back light on option Press any key

Print Save Load Write Read

Serial Port Disconnected

Power-Up Message

Enter the text to display when you turn on your pager.

Standby Screen

The Standby Screen has selections for displaying three types of information. These choices are the time and date, a special text message of your choice, or the name of the current channel. If you select "Channel Name", that text will be entered on the Channel screen(s). If you select "Special Text", that text can be displayed in either of the two ways described below.

Standby Screen Special Text and 2 Tone Address Special Text

If "Special Text" is selected in the Standby Screen and also in "2 Tone Address Special Text", the text entered in "Standby Screen Special Text" will be displayed.

If "2 Tone Address Number" is selected in "2 Tone Address Special Text", the address number (ADR01, ADR02, etc) of the alerted channel will appear in the display.

Date Format

Set the date format to Month-Date or Date-Month.

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.

If set to “Yes”, it can be disabled or enabled through the pager’s front panel menu.

LCD Hold Time

The amount of time the LCD displays information before going into standby mode with only the standby mode icon displayed. Selections are 10, 30, or 60 seconds, or non-limit that does not turn off the display. Battery life is decreased accordingly with longer display times.

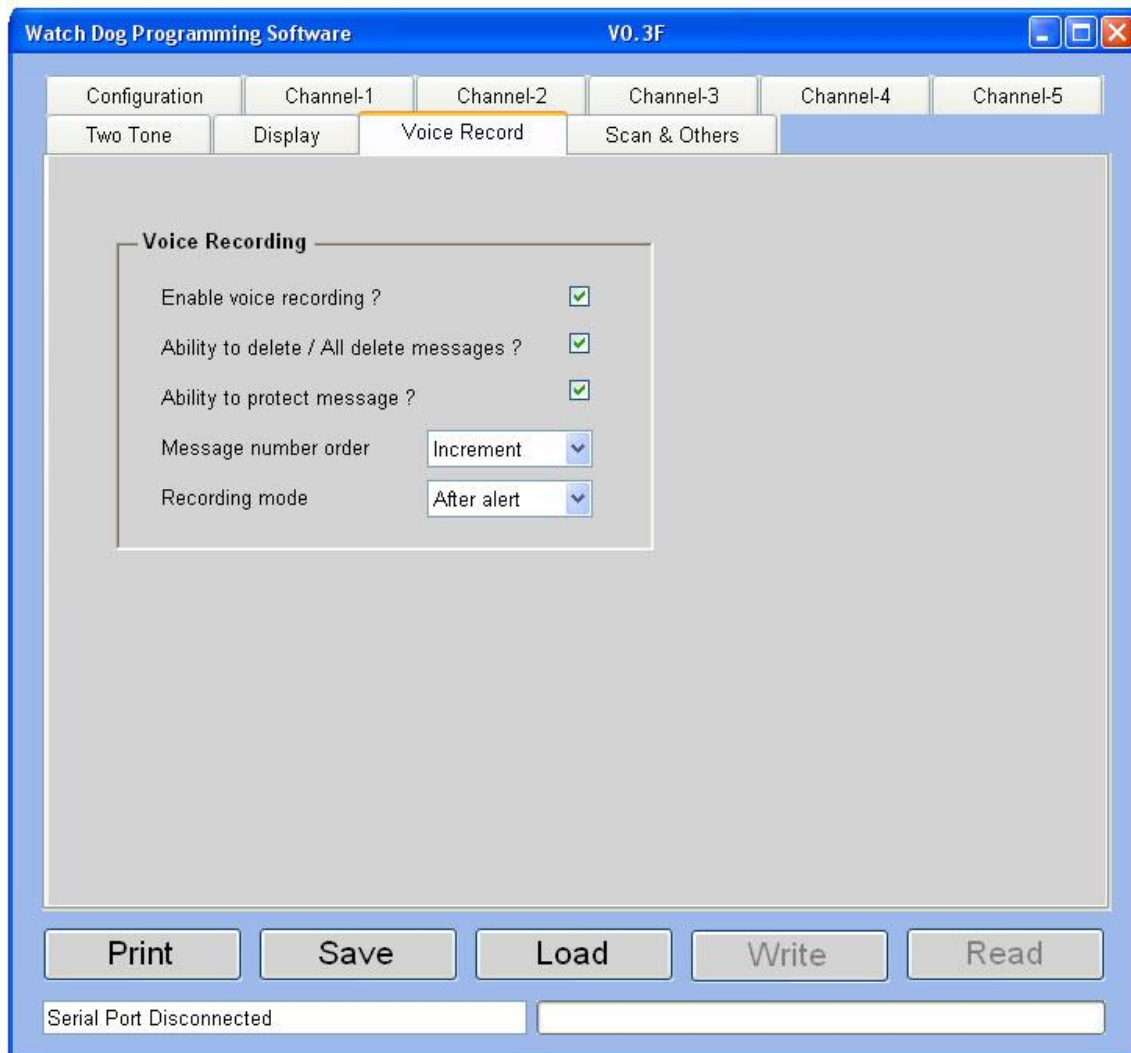
Back Light Hold Time

The amount of time the back light will remain on once activated. 5, 10, and 30 seconds are the selections.

Back Light On Option

Selecting the “Press any key” option will not activate the backlight when a message is received. Selecting the LCD on time” option will activate the backlight when a message is received. The backlight will activate when pressing any of the pager’s keys or buttons for either selection.

8. VOICE RECORD SCREEN



The Voice Record Screen is only available on Stored Voice models.

Enable voice recording? – enables or disables Voice Recording.

Ability to delete / All delete messages? – allows you to delete individual messages or delete all messages from the pager's front panel menu.

Ability to protect message? – allows you to protect individual messages from being erased when message memory is exceeded. Protecting messages is performed from the pager's front panel menu.

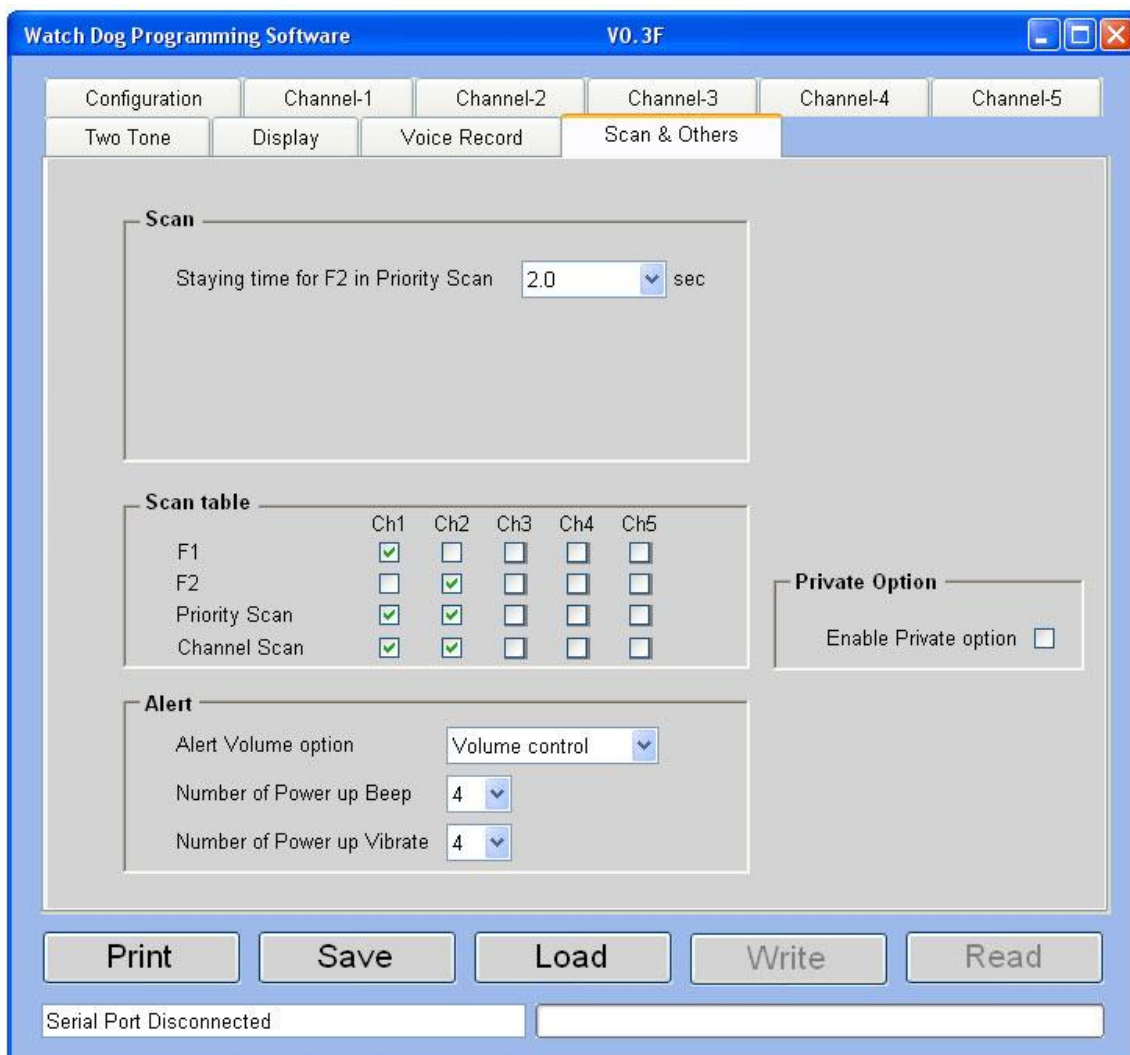
Message number order – select whether to increment or decrement the number of your messages.

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.

9. 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 (F1).

Scan Table

The Scan Table sets up channel operation for F1 (Frequency 1), F2 (Frequency 2), Priority Scan, and Channel Scan. F1 can be set to any of the active channels, but only one channel can be selected as F1. F2 works in the same way, only one active channel can be selected as F2. Priority Scan can be set to work on any or all active channels, with F1 as the Priority Channel. Channel Scan also can be set to operate on any or all active channels. All selected channels will be scanned.

Note: Selective Call Scan is not included here because it cannot be changed. It will always be the F1 and F2 selections.

Watchdog Scan Modes

Priority Scan

If Priority Scan is selected, the WatchDog 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 WatchDog 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 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 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 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 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 WatchDog pager will alert and open the audio path for messaging.

In order to return to the scan mode the pager must first enter selective call standby. This is done automatically if the audio function is programmed for "auto reset" or "timeout". If programmed for "revert" or "manual reset" then the reset button must be depressed and released. The WatchDog will then resume selective call scan.

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 WatchDog pager. This can be used to keep people from listening in when they are not paged.