WatchDog LT
Alert Monitor Receiver

USER GUIDE

This users guide has been developed for the WatchDog LT paging alerting receiver.

The USAlert WatchDog LT pager has been developed specifically for the public safety environment for alerting firemen and other emergency personnel. In addition to public safety systems the WatchDog LT pager can be used in any radio system that requires tone alerting and channel monitoring. The all new WatchDog LT pager offers many new and exciting features over other previous generation voice pagers.

CHANGING BATTERIES

Locate the metal tab under the top of the belt clip. Lift the tab slightly towards the belt clip and slide the belt clip up from the bottom of the pager and remove the belt clip.

Remove the captive screw located under the belt clip location. Lift off the battery door and remove and replace the batteries. Note that the batteries all face in the same direction. Observe proper polarity when reinserting the batteries.

Turn the pager on to make sure the batteries are inserted properly and then turn the pager back off. Replace the battery door and tighten the captive screw. Caution to not over tighten the screw.

Reinstall the belt clip by depressing the tab and the metal latch inwards towards the top of the belt clip.

Note that there are two slide rail features on both sides the metal latch on the belt clip. These features mate with groves in the back cover for the belt clip. Slide the belt clip back into place. You will feel and hear a click sound when the belt clip has been fully slid down into its proper location.

WATCHDOG LT PAGER CONTROLS AND FUNCTIONS

On / Off and Volume Control

The on / off volume control is located on the top of the pager and allows turning the pager on or off and provides a continuous adjustment for the audio and alert levels providing the alert is not set for the maximum volume option.

Four Position Function Switch

The four position function switch is located on the top of the pager in the center. Each position can be individually programmed for the channel desired, selective call mode, monitor mode, alert type and type scan.

Reset button

The reset button is located on the top of the pager and is typically used to reset the audio and put the pager back into the standby mode. It can also be used to place the pager into the “quick monitor” or “audio lock on” mode of operation. Depress the reset button and release in less than .75 seconds and the pager will return to the standby mode. Press and

hold for .75 but less than 1.5 seconds and the pager will enter monitor mode. Press for more than 1.5 seconds and the audio will lock on and remain on continuously until reset.

Front Control Buttons and Voice Memory Control
There are three buttons located on the front of the pager for voice memory message control. The right button will initiate playback. The left and center buttons will allow selection of stored messages in a forward or reverse direction.

Messages memory is 4 minutes and all messages stored dynamically. Each time the right button is depressed the last message stored will replay or repeat from the beginning. Using the left or center button can change the message to be played once playback has been initiated.

Deleting messages – To delete all message hold down the top reset button and power off the pager. All messages will be removed from memory.

Voice Memory Playback in Detail
WatchDog LT models can dynamically record up to 4 minutes of messages. Messages can be played back using the right button to initiate play back and then using the left and center buttons to select which message to replay. If no message is stored the pager will emit a short beep.

Depressing the right front button will start message playback. Each time the right button is depressed the last message stored will replay or repeat from the beginning. Using the left or center button can change the message to be played once playback has been initiated.

Deleting messages in accomplished by depressing and holding the top reset and power off the pager. All messages will be removed.

FEATURES AND OPTIONS

Quick Monitor

The WatchDog LT pager allow entering the channel monitor mode ("quick monitor") using the top reset button only when the four position function switch is in a selective call position. Simply depress the top reset button and hold for 0.75 second then release the reset button. The pager will emit a short beep and automatically begin channel monitoring. The traffic of the channel selected by the four position function switch can now be monitored. To exit channel monitoring simply depress and release the reset switch. The WatchDog LT will now return to selective call standby.

Audio Lock

The WatchDog LT "audio lock" function allows opening the audio at any time regardless of the three position function switch. Simply depress the reset button for approximately 1.5 seconds. The pager will emit a short beep at 0.75 seconds (continue to hold the reset button) and you will hear two short beeps at 1.5 seconds. After the two short beeps release the reset button and you are in the audio lock mode.

Audio lock mode is useful in lower signal conditions where voice quality (reception) may be changing due to pager movement. With the audio is locked on you might be able to move while listening to a message to achieve best position for reception. If your WatchDog LT has two frequency capabilities then the audio lock function is active for the channel selected by the function switch.

To exit the audio lock mode simply depress and release the reset button. The WatchDog LT will now return to selective call standby.

Audio Function Modes

Revert to Carrier Squelch - 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 button is depressed and released. At this time the pager will return to selective call standby.

Manual Reset - After receipt of an alert the pager will open the audio channel for messaging and lock the audio on until the reset button 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 drop at which time the audio will automatically reset. The pager automatically returns to selective call standby.

Timeout Reset - After receipt of an alert the pager will open the audio channel for messaging. The audio will remain open until the preprogrammed "timeout" has expired. The timeout timer is initiated at the start of the alert cycle and ends based on the preprogrammed timeout time. The pager will then automatically returns to selective call standby.

Revert with N Time Delay - 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.

Auto Reset with N Time Delay - 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.

LOW BATTERY ALERT

The WatchDog LT pager will provide an audible tone alert "beep beep" to indicate a low battery condition. The audible low battery reminder is every 2 minutes.

Additionally, the WatchDog LT has a three level LED battery level indicator on top of the pager. All three bars lit represents fully charged batteries.

WatchDog Scan Operation

The WatchDog LT pager provides three types of scan. Channel scan, selective call scan and priority scan.

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 carrier. The primary function of channel scan is to allow monitoring 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.

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 WatchDog LT pager 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 then the WatchDog LT pager will process voice on F2 and periodically scan back to F1 looking for presence of carrier. Anytime channel activity is detected on the primary channel the pager will lock on that channel.

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 WatchDog LT will alert and open the audio path for messaging. After the messaging period the pager will continue to function based on the "audio function" programmed such as "revert to carrier squelch", "auto reset", manual reset and so on.

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 LT will then resume selective calls scan.

Alerting Features

The WatchDog LTis capable of alerting in three different ways. Tone alerting, vibrate alerting and tone / vibrate alerting. The three position function switch can be pre-programmed for the type of alert desired and in which switch position.

Tone Alerting - If tone alert is selected the WatchDog LT pager will emit an audible tone alert immediately following proper address detection. The alert duration is generally controlled by the length of a transmitted address tone.

Vibrate Alerting - If vibrate alert is selected the WatchDog LT pager will vibrate immediately following proper address detection. The vibrate alert duration is generally controlled by the length of a transmitted address tone.

Tone / Vibrate Alerting - When tone / vibrate is selected the WatchDog LT pager will alternately tone alert then vibrate alert for the duration of the alerting cycle. The duration of the alerting cycle is typically controlled by a transmitted address tone.

Revert or Auto Reset with N Time Delay and Voice Memory Operation

There are two normal operating modes commonly used in public safety communications systems with reference to transmissions of tones and voice messaging. The first method is to transmit tones with voice messaging immediately following the tones with no disruption in the continuous transmission of the carrier. If your system uses this mode of operation then the N time delay should not be used.
The second system mode allows the carrier to drop following the transmission of tones for about one second then up again to process voice messaging. If your system utilizes this mode and your WatchDog LT is equipped with voice memory then selection of "revert with N time delay" is recommended. Why?

Message recording in most voice pagers use the end of the alerting cycle to signal the voice memory device to begin recording and use the carrier squelch function to control when to stop recording. The end of pagers alerting cycle is normally controlled by the end of the second tone in a two tone sequential transmission or the end of the long tone in a single tone transmission. In systems that drop the carrier after tone transmissions the pager would begin recording after the alert cycle but stop recording immediately due to no carrier present.

The "N Time" 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. Other words 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 the pager will resume watching the carrier to signal when to stop recording.

WATCHDOG CHARGER

The WatchDog series charger is both a smart charger and a rapid charger. It will charger both the WatchDog pager and a spare set of NiMH batteries simultaneously or individually.

The rapid charge period is approximately 3-4 hours from a completely discharged state. A typical recharge period for moderately discharged batteries is approximately 2 hours.

There are three colored LED's on the front of the charger. The green led indicates power is applied to the charger and the two red LED's indicate charging for the pager and spare batteries.

Recommended steps to begin using the WatchDog series charger:

a. Plug the wall transformer into the charger base.
b. Then plug the wall transformer into an appropriate AC wall socket. The WatchDog charger will operate from a normal 117 vac source.
c. The green led should turn on.
d. Insert the pager or spare batteries or both into their corresponding positions in the charger. The spare batteries all face in one direction as the label indicates in the spare battery compartment.
e. The red led closest to the green led will flash when the pager is inserted properly and in a normal charging cycle.
f. The outboard red led will flash for charging the spare batteries.

CHARGING INDICATIONS

After the pager or spare batteries are inserted into their proper locations the corresponding red LED will begin to flash. This indicate charging is underway. When the charge cycle nears completion the corresponding red LED will begin to flash at a faster rate indicating the batteries are close to a full charge. When the charge cycle is completed the red LED will be on continuously. At this time the charger will enter a trickle charge mode to maintain the charge on the batteries. If the pager or spare battery RED led does not light and the pager or spare batteries are inserted properly then there may be a battery failure.

DO NOT RECHARGE ALKALINE BATTERIES.

The WatchDog charger has been designed to properly recharge and maintain NiMH batteries.
Other types may cause improper operation of the charge.