MOTOROLA

MINITOR V

SELECTIVE CALL
ALERT MONITOR RECEIVER

USERS' GUIDE

Intrinsically Safe Radio Information

Anyone intending to use a radio in a location where hazardous concentrations of flammable materials exist (hazardous atmosphere) is advised to become familiar with the subject of intrinsic safety and with the National Electric Code NFPA 70 (National Fire Protection Association) Article 500 (hazardous [classified] locations). UL Approval labels are attached to the Minitor V pager to identify the unit as being UL Approved for specified hazardous atmospheres. This label specifies the hazardous Class/Division/Group which will appear as follows:

RAD DEV FOR HAZ LOC INT SAFE
DIV 1, I, CD; II, EFG Temp code T3C

RAD DEV FOR HAZ LOC INT SAFE
EXIA: DIV 1, I, CD; II, EFG-T3C

Substitution of Components may impair intrinsic safety.
The following is the Approved battery listing to be used for the UL Approved Minitor V.

WARNING

• Do not operate equipment in a hazardous atmosphere unless it is a type especially qualified (for example, UL Approved) for such use. An explosion or fire may result.
• Do not operate a UL Approved Product in a hazardous atmosphere if it has been physically damaged (for example, cracked housing). An explosion or fire may result.
• Do not replace or charge batteries in a hazardous atmosphere. Contact sparking may occur while installing or removing batteries and cause an explosion or fire.
• Do not replace or change accessories in a hazardous atmosphere. Contact sparking may occur while installing or removing accessories and cause an explosion or fire.

• Turn a radio off before removing or installing a battery or accessory.
• Do not disassemble a UL Approved Product unit in any way that exposes the internal electrical circuits of the unit.
• Do not substitute components. This could void the intrinsic safety rating.

INTRODUCTION

Congratulations on your purchase of the Motorola MINITOR V Alert Monitor. Motorola's advanced technology offers unique features and benefits that set the industry standards for performance, reliability, and styling. The compact alert monitor is offered in a variety of models including:

- One-Frequency Standard with VIBRA-Page™
- One-Frequency Standard Stored Voice and VIBRA-Page™
- Two-Frequency with Scan and VIBRA-Page™
- Two-Frequency Store Voice with Scan and VIBRA-Page™

Other user programmable options are available to provide a wide selection of features and special applications.

INSPECTION

Verify the model number information located on the label on the back of the alert monitor. Inspect the equipment thoroughly. If any part of the equipment has been damaged in transit, report the extent of the damage to the transportation company immediately.

BATTERY TYPES

The alert monitor is powered by one rechargeable Ni-MH battery pack.

BATTERY INSTALLATION

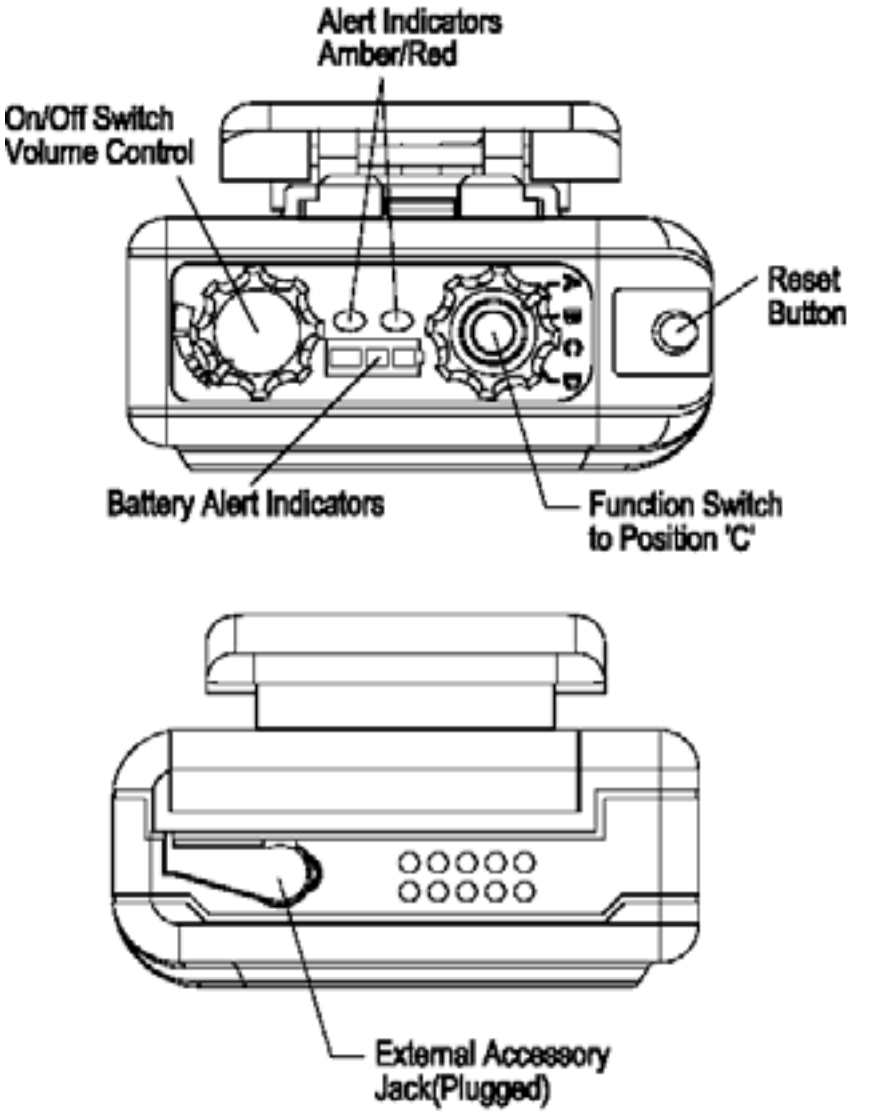
NOTE: For optimum performance, the Ni-MH battery pack must be fully charged before operating your alert monitor.

Install your batteries as follows:

1. Release the battery lock, and slide the battery pack latch towards the right to unlock the battery pack.
2. Press the clip.
3. Slide out on the battery pack as shown below.
4. Slide in the battery pack into place, and then slide the battery pack latch to the locked position.

CAUTION: If the batteries are improperly installed, the alert monitor will not function and the batteries will not charge.

STANDARD FEATURES AND CONTROLS (All Models)



ON/OFF Switch/Volume Control

The ON/OFF SWITCH/VOLUME CONTROL is a combined single control located on the top of the alert monitor as shown above. Turning the control knob a few degrees in a clockwise direction applies power to the receiver, and an audible beep is sounded to indicate that the alert monitor is turned on. As the control is rotated in a clockwise direction, the volume level of any received

message and alert tone is increased. Rotating the control in the opposite (counterclockwise) direction reduces the audio level, and turns the alert monitor off.

Audible/Visual Alert Indicators

When your alert monitor is initially turned on, both the red and amber LEDs on the control panel light and an alert tone is sounded until the decoder circuit power-up is complete. Thereafter, whenever a properly encoded message is received, the red LED flashes and an audio alert is sounded.

If the battery voltage falls below the level required for reliable operation, a low battery pulse tones sounds and the red LED flashes. Following any subsequent audio message, the momentary low battery pulse tone is repeated until the battery pack is recharged or replaced. If the function switch is set to a vibrate position, just the red LED flashes to indicate a low battery state.

Function Switch

According to the specific model ordered, the function switch will be configured to 4 positions. Different function modes (monitor/selective call, scan, etc.) can be configured for any position of the switch.

Channel Monitoring

When the function switch is set to a monitor position, all voice communications on the selected channel is heard through the speaker. When monitoring channel 1 or 2 all ordered alert options are functional.

Reset Button

After receipt of a properly coded message and after completion of that message, the alert monitor will automatically reset to the programmed operational mode

(see Field Installed Options section for reset options). Some of these reset functions will place the pager in the monitor more. In these cases, or when the manual reset function is programmed into the pager, press the reset button to return your alert monitor to the standby mode.

External Speaker Jack

When the alert monitor is used in high-noise environments or when privacy is needed, an optional Motorola approved lapel speaker or earpiece can be connected to the external accessory jack located on the top control panel. The jack is fitted with a protective plug.

NOTE: To prevent entry of dust and moisture, the plug should be inserted whenever the external accessory jack is not being used.

Belt Clip Feature

An integral part of the clip on the back of your monitor is a security hook. This hook is intended to allow easy removal of the alert monitor, while at the same time preventing the unit from being pulled off your belt.

Scan (Two-Frequency Models Only)

All alert monitors that are equipped with two frequencies are capable of scanning the two channels for selective call or monitoring purposes.

STORED VOICE MODEL FEATURES AND CONTROLS

The alert monitors that include the stored voice feature can store up to 8 minutes of voice messages. Messages are stored according to their length. If preferred, the alert monitor can be programmed for stored voice fixed message lengths of 30, 60 or 120 seconds. Messages can be deleted

by either incoming new messages replacing older messages or by turning the receiver off.

Unread Message Indicator
The red LED turns on if there are any unread messages.

Reminder Alert
The pager generates a reminder alert approximately every two minutes when an unread message exists.

Voice Memo
When the alert monitor is powered on or the function select switch is moved to a new position, a voice prompt will be played to announce the mode that the pager is in. This feature is available with the stored voice pagers only and can be disabled through the programming software.

FIELD INSTALLED OPTIONS

Fixed-Alert, Audio-Only Volume Control
When this option is installed, the alert tone is factory preset (non-adjustable) at the maximum volume level. Turning the volume control varies only the voice message volume level.
NOTE: Use of audio accessories is not recommended with this option.
Time-Out Auto Reset
This feature allows the alert monitor to be automatically reset after a predetermined amount of time. This places the alert monitor back in standby mode to help conserve battery power.

Several alert monitor field programmable options are available to include the following:

- Priority Scan
- Non Priority Scan
- Silent Scan
- Alert Duration
- Priority Alert
- On/Off Duty
- Reset Options
  - Carrier Reset
  - Delayed N Carrier Reset
  - Manual Reset
  - Revert Reset
  - Time Out Reset
  - Delayed N Revert Reset
- Stored Voice Options
  - Max Message Lengths
  - Call Reminder
- Push-To-Listen

Contact a Motorola authorized paging system dealer or call 1-800-548-9954 for the addition of these features.

OPERATION

Perform the following steps to condition your alert monitor for operation:

1. Set the FUNCTION switch to a tone-alert position.
2. Rotate the ON-OFF SWITCH/VOLUME CONTROL clockwise to turn on the alert monitor. Eight short beep sounds occur and both LEDs light, indicating that power is applied.
3. Set the FUNCTION switch to a monitor position.
4. Listen for a transmission and adjust the volume control to a comfortable listening level.
5. If no transmission is heard, hold down the RESET button and adjust the background noise to a comfortable listening level. It may be necessary to readjust the volume when a voice signal is present.
6. Set the FUNCTION switch to the desired operating mode, i.e., selective call tone, selective call vibrate, monitor, scan, etc.
7. Turn off the monitor by rotating the ON-OFF SWITCH/VOLUME CONTROL counterclockwise until a click is heard and the mechanical stop is reached.

SCAN OPERATION

Priority Scan

If the alert monitor is programmed for priority scan, the frequency programmed as F1 is designated as the priority channel. If there is no traffic on F1, the alert monitor alternately listens to F1 and F2 until a transmission is detected. If a transmission is detected on F1, the alert monitor stays on that channel until the transmission ceases. The alert monitor only decodes tones on the F1 channel. No tones are decoded on the F2 channel.

If the alert monitor detects a transmission on F2 it stops on F2 then listens for transmissions on F1. Scan back time is programmable and can be set to 0.5, 1, or 2-second increments. If a transmission is detected on F1, the alert monitor switches to F1 cutting off any transmission on F2. When switching from F2 to F1, the alert monitor listens for any tones and alerts if the proper tones are detected. It should be noted that the detection of tones is very dependent on the duration of the tone sent over the air. To ensure reliable alerting, it is recommended that this feature only be used when the first tone duration transmitted is one second or more.

Non-priority Scan

In the non-priority scan mode, the alert monitor alternately listens on F1 and F2 for any transmission. A transmission on either channel causes the alert monitor to stop on that channel until the signal disappears. In non-priority scan, the alert monitor decodes tones on either F1 or F2 provided the alert monitor has listened to the appropriate channel at the correct time. However, it should be noted that if the alert monitor is listening to traffic on F2 and an alert is transmitted on F1, the alert monitor will not hear that signal until the transmission on F2 is finished. Therefore, an emergency alert could be missed if the alert monitor is listening to traffic on one channel with tones being sent out on the other channel.

Silent Scan

In the silent scan mode, the alert monitor alternately listens on F1 and F2 for alert tones. Detection of alert tones on each channel causes the alert monitor to stop on that channel until the signal disappears. In the silent scan

more, the alert monitor decodes tones on either F1 or F2 provided the alert monitor has listened to the appropriate channel at the correct time. However, it should be noted that if the alert monitor is listening to traffic on F2 and an alert is transmitted on F1, the alert monitor will not hear that signal until the transmission on F2 is finished. Therefore, an emergency alert could be missed if the alert monitor is listening to traffic on one channel with tones being sent out on the other channel. Scan back time is set to 0.25 seconds. To ensure reliable alerting, it is recommended that this feature only be used when the first tone duration transmitted is one second or more.

STORED VOICE OPERATION

Selective Call Position:

In this position, the message is simultaneously stored as you receive the voice communication. The message recording cycle is complete under any of the following conditions:

- When the maximum message length is complete
- When the squelch circuit no longer detects carrier signal
- When the delayed “N” cycle is complete
- When the timed-out reset cycle is complete

If channel traffic occurs after the page and message, and before carrier signal is lost, that will also be stored in memory. After storage is complete and carriers drops, the alert monitor responds according to the programmed reset mode. The alert monitor can be reset by pressing the RESET button at any time.

Scan/Monitor Positions
In these positions, the message is stored only when a properly encoded message is received. Other communications monitored on the channel that do not alert your monitor are not stored.

Selective Playback of Message(s)
To playback a particular message in memory, press the PLAYBACK button. Pressing once replays the newest message in memory. Twice replays the second most recent message and so on. Messages cannot be played back during message recording.

You may also playback older messages by pressing the PLAYBACK button as you are listening to a message. If you are listening to the most recent message, and want to listen to an older message, press the PLAYBACK button while listening to the current message. The playback switches to an older message if it is still in storage.

If there are no messages in memory, a “memory empty” tone is heard while the PLAYBACK button is pressed.

***NOTE*:** A message is considered read if playback has been initiated for more than 30 seconds or the end of the message is reached, whichever occurs first.

BATTERY LIFE
Battery life depends upon the number of calls received and length of each call, capacity and charge of the battery, and the mode of operation. A battery gauge, located between the knobs on top of the pager can be

used to determine remaining battery capacity. To enable the battery gauge, press the reset button. This will illuminate the LED in the battery gauge. Three LED are present and represent approximately one-third of the battery capacity.

CLEANING YOUR PAGER

To clean smudges and grime from the exterior of your pager, use a soft, non-abrasive cloth moistened in a mild soap and water solution. Use a second cloth moistened in clean water to wipe the surface clean. Do not immerse in water. Do not use alcohol or other cleaning solutions.

REPAIR AND MAINTENANCE

Your alert monitor, properly handled, will provide quality service for years. However, should it ever require service, call 1-800-548-9954 for instructions.

ACCESSORIES

Motorola offers several accessories to increase communications efficiently and provide many unique benefits. Consult your Motorola sales representative for a complete list of accessories, prices, and applications.

- Desktop Battery Charger
- Desktop Battery Charger Amplifier with Antenna and Relay
- Earpieces
- Lapel Speaker
- Nylon Carrying Case

Regulatory Agency Compliance

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

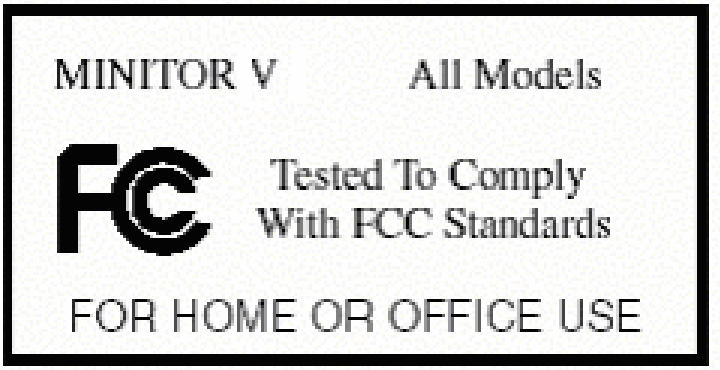
However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

• Reorient or relocate the receiving antenna.

• Increase the separation between the equipment and receiver

• Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

• Consult the dealer or an experienced radio/TV technician for help.



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