

# Fall Management System M200 Fall Monitor

## Setup & User Guide



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## **Important Recommendation**

STANLEY Healthcare's systems are designed to assist staff in providing a high degree of safety for people and assets and therefore should be used as a component of a comprehensive safety program of policies, procedures, and processes. As with every safety system, STANLEY Healthcare highly recommends regular system operational checks to verify functional integrity.

There are no known issues with the usage of this equipment in association with other investigations or treatments at the facility.

## **Cautions and Warnings**

## **A**CAUTION **A**

FAILURE TO HEED THE FOLLOWING CAUTIONS COULD RESULT IN HARM TO YOUR SYSTEM OR CAUSE IT TO FUNCTION IMPROPERLY, INTERMITTENTLY, OR NOT AT ALL.

- Use the M200 Fall Monitor only with approved accessories.
- Remove batteries when the Monitor is not in use to avoid battery power loss.
- Use care when connecting the Sensormat® pads. Gently remove or connect cords using the retaining tab. Pulling on cords may damage them and/or result in system failure.

## **A**WARNING **A**

FAILURE TO HEED THE FOLLOWING WARNINGS COULD RESULT IN INJURY TO OR THE DEATH OF PERSONS IN YOUR CARE.

- A low battery condition in the Monitor is indicated by the Low Battery indicator flashing YELLOW once every 3 seconds, a Negative Confirmation Tone, as well as a "Low Battery" voice indication. Immediately change the monitor's batteries.
- Test the M200 Fall Monitor and Sensormat pad before each use and inspect the cords and pads for signs of damage. Immediately replace any components with signs of wear or damage.
- Sensormats may not be effective with air type bed mattresses or air type chair cushion pads; test before using.
- Do not place the monitor within 0.3 m (1 ft.) of and facing the resident. Placing the Monitor on a wheelchair back is acceptable as long as the monitor is facing away from the resident.
- The M200 Fall Monitor is only one part of your facility's fall management program. The M200 Fall Monitor is not a substitute for proper nursing care or routine visual monitoring by caregivers. The effectiveness of the M200 Fall Monitor relies entirely on an immediate response by the caregiver to the M200 Fall Monitor system alarm.
- The M200 Fall Monitor system will not stop a person from leaving a bed or chair. It is intended only to alert a caregiver that a patient or resident may need assistance. Other interventions may be required.
- Keep the Sensormat pad flat at all times. Folding the pad may damage it. Do not use the pad if it has been folded.
- Do not immerse the Sensormat pads in liquids. The pad will not operate properly if the pad is exposed to excessive liquids. If the pad is immersed in liquid, discard it immediately.
- Operators of this equipment must be familiar with the functions and usage as described in this manual, and must be properly trained in the resident care policies and procedures of the facility.
- Any modification of this equipment is not allowed, voids all warranties, and may result in injury to or death of persons in your care.

### CAUTION

RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

### ATTENTION

RISQUE D'EXPLOSION SI LA PILE EST REMPLACÉE PAR UN TYPE INCORRECT. SE DÉBARRASSER DES PILES USAGÉES SELON LES INSTRUCTIONS.

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### M200 Fall Monitor Package Contents



## Introduction

The STANLEY Healthcare M200 Fall Management System uses a pressure-sensitive pad to detect the presence of a patient/resident, and a monitor to notify facility staff in the event of premature departure from a bed, chair, or toilet seat.

## **Check Your Shipment**

The M200 Fall Monitor package includes:

- I Monitor with wheelchair clip and built-in bumper
- 1 Wall Mount Bracket Kit including 4 anchors and screws, 4 Dual Lock<sup>®</sup> fasteners (Part# WMB-1000)
- □ 1 Battery Compartment Cover (open-window version)
- □ 3 3V CR123A Lithium Batteries (not rechargeable)
- □ This document (0980-165-000)

## **Other Components Sold Separately**

- □ Sensormat<sup>®</sup> pads available in the following models:
  - 14 day (73030 Chair; 74030 Bed)
  - 30 day (73000, 73010 Chair; 74000, 74010 Bed)
  - 45 day (93010 Chair; 92010 Bed)
  - 90 day (73001, 73011 Chair; 74001, 74011 Bed)
  - 180 day (93020 Chair; 92020 Bed)
  - 1 year (93030 Chair; 92030 Bed)
- □ Toilet Pad (Part# 75000, 75001)
- Commode Pad (Part# 75002)
- □ Floor Pad (Part# 93045)
- Seatbelt (Part# 0707-945), Seatbelt Extender (Part# 0707-946)
- □ Wall Mount Bracket Kits (Part# WMB-1000)
- □ Bed and Chair Wire Clip (Part# BMB-1000)
- □ Nurse Call Cable (Part# 0707-569) grey, 8', ¼" mono plug
- Remote call button (Part# 0707-566) with Y-splitter (Part# 0440-137)
- Battery Compartment Cover (fully-closed version) (Part# BDC-1000)
- □ Replacement battery multi-pack (BAT-080)
- □ Power supply (ADP-080)

## **Overview**

The M200 Fall Management System consists of pressure-sensitive Sensormat pads which detect the presence of a patient/resident, and a monitor which provides staff with alarm information.

The monitor provides Pad Exit alarms and Confirmation tones.

If the patient/resident exits the bed or chair pad for longer than a pre-selected number of seconds (0, 1 or 2), the monitor issues visual and auditory alarms to alert staff that the patient/resident may need immediate assistance. For the floor pad, the alarm is sounded when pressure is added to the pad.

If a technical problem prevents the pad from monitoring (e.g., pad or Nurse Call cable disconnect, low battery condition, etc.), the monitor issues visual and Confirmation tones to notify staff.

If a Nurse Call system is connected, alarms can be sent to the Nurse Call station. The staff member, having been alerted that a patient/resident is exiting the bed or chair, must provide immediate assistance.

All audible alarms can be cancelled by pressing the Reset Button on the front of the monitor.

## **Hardware Features**



## **Speaker**

The speaker allows the Monitor alarm (and recorded message, if added) to be audible.

## **Reset Button**

The Reset Button is used to display the monitor's status without disrupting the monitoring session, to cancel audible alarms, and to put the monitor into Hold or Suspend Mode. Hold or Suspend Mode is used to suspend patient/resident monitoring to allow staff to move the

patient/resident temporarily (adjust bedding, trip to the toilet, etc.)

Button press duration variations are as follows:

- A single press is used to hear the monitor's Delay status or cancel any audible alarms.
- Two presses are used to set the delay. See "Setting the Alert Delay" on page 5.
- A 3 second press is used to place the monitor in Hold Mode for 30 seconds. See "Hold Mode (30 Seconds)" on page 23.
- A 5 second press is used to place the monitor in Suspend Mode for 2 minutes (120 seconds). See "Suspend Mode (2 Minutes)" on page 24.

## **Front Panel Status Indicators**

The front panel Status Indicators include the following 3 icons:

- Alert Delay 1s
- Alert Delay 2s
- Low Battery







### Alert Delay Icons (1 second and 2 second)

When the Alert Delay is set to 1 or 2 seconds, the corresponding icon will be lit (blinking when using battery only). If the delay is set to 0 seconds, no icon will be lit.

1-	20	5
15	65	Cart

### **Setting the Alert Delay**

The Alert Delay is set by a sequence of presses on the Reset Button as follows:

1. A single press (when not in Alarm mode) results in the following audible indication: "Alarm Delay is X seconds." For example, if the delay is set to 2 seconds, you will hear "Alarm delay is 2 seconds."

2. Two presses (see Note below) while not in alarm mode changes the delay setting from the current setting to a new one (i.e., cycles through from 0s to 1s to 2s, then back to 0s etc.):

a. '0' second delay will be changed to '1' second delay and the following audible indication will be played: "Alarm Delay is set to 1 second." The 1s icon will be lit (blinking when using batteries only).

b. '1' second delay will be changed to '2' seconds delay and the following audible indication will be played: "Alarm Delay is set to 2 seconds." The 2s icon will be lit (blinking when using batteries only).

c. '2' second delay will be changed to '0' second delay and the following audible indication will be played: "Alarm Delay is set to 0 seconds." No icon will be lit.

**Note:** In the two presses required for changing the Delay settings, a short pause is required between the two presses (i.e., do not perform a "double-click.")

#### Hardware Features

### Low Battery Icon



The Low Battery reminder (LED and audible message) initiates approximately 7 days before the battery is fully drained of power. It is important to replace all three batteries at the same time.

- When using battery power, and the battery power is low, the low battery LED blinks yellow once every 3 seconds.
- When connected to external power, and the backup battery is low, the low battery LED illuminates yellow constantly.

**Note:** When using a power supply, keep the three batteries in the monitor as back-up power.

• Remove the batteries if you will not be using the monitor for an extended period of time.

For information about expected battery life, see "Batteries" on page 25.

### Low Battery Audible Indications

In low battery, a Low Battery Beep is repeated once every minute.

After each alarm clearance, a "Low battery" message is announced within 3 seconds.

### **Battery Covers**

The battery cover is used to protect the batteries, and depending on the version chosen, it also serves to allow, or restrict access to the control settings.

- 1 Open-window cover allows easy access to the following control settings:
  - Volume
  - Tone
  - Illumination intensity
  - Record button
  - Play button
  - Recording indication LED
- **2** Fully-closed cover (optional) provides tamper resistance to the control settings

The open-window version is attached by default. The fully-closed cover can be purchased separately.

	<b>100</b>
Healthcare M200 Read User Guide for complete operating instructions, warnings, and cautions.	Healthcare M200 Real User Guide for complete operating instructions, warnings, and cautions.
MN: K200 SKU: FM.2000 Centrete to CANICSA C22 2: No. 205-R Centrete to CANICSA C22 2: No. 205-R Starley Security Solutions, Inc. Lincoln, NE: 68503 www.stanleyhealthcare.com	MM: M200 SKU: FM-2000 Centions to UL 1069 and UL 2560 Cention to CANL'SCA 22 No.255A Starley Security Solutions, Inc. Lincoln, NE 68503 WWW.stanleyhealthcare.com
•	•
Included	Optional

Tighten the retention screw on the lower corner of the door to secure the battery cover in place.

## **Control Settings**



- A. Use these control settings to adjust the audible Alarm Volume, Tone, and LED Illumination Intensity. For a description of these switches, see "Monitor Setup" on page 12.
- B. The Playback and Record buttons, Recording red LED and the Microphone are used to record custom audible/voice messages up to a maximum of 15 seconds, after which a Positive Confirmation Tone sounds. For instructions on recording a custom message for an Exit Alarm, see "Recording Custom Pad Alarms" on page 14.
- C. The DIP Switches are used to configure features for the M200 monitor. See "DIP Switch Settings" on page 15 for a description of the DIP Switch settings.

### Ports

The following ports are located on the bottom side of the monitor.



- **Power Supply** This is used to connect a 5V/2A power supply. NOTE: Use only the power supply provided by STANLEY Healthcare (ADP-080).
- **Nurse Call Cable** This is used to connect a Nurse Call cable (0707-569 sold separately).
- Sensormat Pad (PAD 1 and PAD 2) These are used to connect two pads at the same time. See "Using Sensormat Pads" on page 17.

## **Additional Features**

The monitor is latex-free and includes a bumper around the perimeter for added durability.

## **Alarm and Status Indicators**

## **Reset Button Red LED**

The Reset Button flashes red to indicate that a pad exit has occurred. The alarm LED is easily seen from a distance of 4 meters (13 feet) in normal facility lighting conditions. The Alarm State Indicator is red at this time as well.

## **Reset Button Green LED**

The Reset Button flashes green while it is being armed and in monitoring mode with the illumination settings

of "1" or"2." When operated by external power, the LED is constantly on. See "Illumination Intensity (Lightbulb icon)" on page 13.

## **Reset Button Amber LED**

The Reset Button flashes amber to indicate Hold or Suspend Modes. Amber flashes once every 1 second in Hold mode and once every 2 seconds in Suspend mode.

In the last 5 seconds of Suspend mode, it flashes twice per second.

## **Status Indicator Icons**

Based on the selected delay, the icon's green LED illuminates as follows:

- Delay is set to '0s' no icon is illuminated
- Delay is set to '1s' the '1s' icon is illuminated
- Delay is set to '2s' the '2s' icon is illuminated

When connected to external power, the corresponding LED illuminates constantly.

When powered by batteries only, the corresponding LED blinks once every 3 seconds.







## **Audible Alerts**

The monitor provides three types of audible alerts:

- Pad Alarms
- Positive Confirmation Tones
- Negative Confirmation Tones

## Pad Alarms

Pad Alarms are sounded when a patient/resident removes their weight from the Sensormat pad while the monitor is armed. An alarm will also occur when weight is applied to a floor pad.

There are 4 alarm tones that can be used in conjunction with the Red Alarm LED flashes. See "Tone Selection (Music Note icon)" on page 12. There is no alarm tone when the monitor "Volume" is set to "NC" and a Nurse Call cable is connected.

## **Confirmation Tones**

Confirmation Tones (positive and negative) are sounded to verify success or failure of an operation. These tones are much quieter than the Alarm tone.

### **Positive Confirmation Tones**

A Positive Confirmation Tone may indicate any of the following:

- successful association of monitor and pad
- Nurse Call cable plugged in
- monitoring has begun when the monitor has been armed

### **Negative Confirmation Tones**

A Negative Confirmation Tone may indicate any of the following:

- Nurse Call cable disconnected
- Two pads with weight applied to them at the same time
- Voice playback or record buttons pressed when the feature is not enabled or no message has been recorded

## Low Battery Beep

In low battery, a Low Battery Beep is repeated once every minute.

## **Monitor Setup**

If the optional closed-window cover is being used, loosen the battery cover screw and remove the battery cover to reveal the control settings.

## Volume (Speaker icon)



There are 4 Volume settings for the Pad Alarms:

- 1 Low
- 2 Medium
- 3 High
- NC (Nurse Call) If a Nurse Call jack is plugged in and this setting is selected, the local alarm sound is suppressed completely, and the alarm is sent to the Nurse Call station. If NC is selected and there is no Nurse Call cable connected, the volume will be high.

## Tone Selection (Music Note icon)



There are 4 different Alert tones available for selection:

- · Low-pitched series of 3 beeps followed by 2 beeps
- High-pitched fast series of Low and High beeps
- Low-pitched slow series of High and Low beeps
- Low-pitched fast series of Low and High beeps

## Illumination Intensity (Lightbulb icon)



The Illumination Intensity switch controls the brightness of the LED flashes around the Reset Button and Alert Delay icons while the monitor is armed and using batteries only.

Switch positions are as follows:

- Position 0 No blinking
- Position 1 LED blinks medium brightness
- Position 2 LED blinks full brightness

**Note:** When operated by external power, and the switch is set to "1" or "2", the LED remains constantly on.

## **Recording Custom Pad Alarms**

Note: The Voice Recording Alarm feature (DIP switch position 1B) must be enabled in order to allow a recording to be made. See "DIP Switch Settings" on page 15.



Microphone

The Playback and Record buttons are found on the back of the monitor. The microphone is located outside the battery compartment as shown above.

- 1. Press and hold the Record button, beside the microphone icon. The Red LED flashes while the button is depressed, indicating that the device is recording.
- 2. Speak in a clear voice towards the microphone (not more than about 10 cm [4 inches] away) and release the microphone button when finished; the Red LED will stop flashing.
- Press the Playback button to hear the recorded message. 3.

**Note:** Messages can be recorded at any time except during an alarm.

**Note:** Recorded message length can be up to a maximum of 15 seconds at which time a Positive Confirmation Tone sounds indicating the recording time is over.

## **DIP Switch Settings**



The M200 contains DIP switches on the back of the monitor allowing you to configure various features by manually toggling the switch from "A" to "B." See the table below.

	1	2	3	4
	See "Recording Custom Pad Alarms" on page 14.	See "Latching and Non-Latching" on page 16.	See"Suspend Mode (2 Minutes)" on page 24.	See "Interfacing with a Nurse Call System" on page 30.
A	Disable the use of the recorded message – A user can not record or listen to a recorded message, and the message will not be played.	Non-latching – Local Audio and Visual alarms are reset when the patient/resident returns to the pad.	Disable Suspend mode	Normally Open (NO) Nurse Call system. – The NO system looks for a switch to close for an alarm.
В	Enable the use of the recorded message – Play the recorded message followed by the selected alarm tone.	Latching – The alarm con- tinues even if the patient/resident returns to the pad.	Enable Suspend mode	Normally Closed (NC) Nurse Call system. – The NC system looks for a switch to open for an alarm.

## Latching and Non-Latching

### Monitor

Latching: Requires staff to clear all local alarms by pressing the Reset Button.

Non-Latching: Allows the monitor to be reset by re-applying weight to the pad or by pressing the Reset Button.

### Nurse Call Output

**Note:** The following descriptions apply to the Nurse Call output of the monitor. Your Nurse Call system may behave differently depending on how your system is configured. **Test before using with the Nurse Call system.** See "Interfacing with a Nurse Call System" on page 30.

Latching: Nurse Call output stays active until the staff has cleared the monitor by pressing the Reset Button.

Non-Latching: Nurse Call output stays active until either weight has been reapplied to the pad or the Reset Button has been pressed on the monitor.

Note: Floor Pads always follow Latching behavior.

## **Using Sensormat Pads**

**Note:** The monitor has the ability to connect two pads at one time, but is intended to only monitor a single patient/resident with the other pad available for transfer of the patient/resident from one pad to the second. A Negative Confirmation Tone is sounded if weight is placed on both connected pads at the same time.

Sensormat pads are designed to sense body-weight distributed over an area. Place the Sensormat pad either on a bed or chair, directly underneath the patient/resident.

**Only use Sensormat pads manufactured by STANLEY Healthcare for use with the M200 Monitor.** See "Other Components Sold Separately" on page 1.

Pad testing should be done either by sitting or lying on the pad, or by pressing down firmly with the palm of your hand.

For more information on pad testing see "Testing the Sensormat Pads" on page 20.

Refer to each pad's instructions for use printed on the pad.

**Note:** Pads are for single patient/resident use and should be replaced on or before their warranty period expiry date (calculated from date of In-Use).

## Bed

Place the Sensormat pad across the width of the bed, on top of the mattress. A top sheet and/or incontinence pad may be placed above the Sensormat pad.

The preferred pad location is directly under the patient/resident's buttocks 8 to 13 cm (three to five inches) below the bend in the mattress when the head of the bed is elevated.

Effective operation of the Sensormat pad in the alternative location, behind the patient/resident's back, is dependent upon their weight and the articulation angle of the bed.

Sensormat pads may not be effective with all air-type bed mattresses, and effectiveness may be impacted by the patient/resident's weight. Test before using. See "Testing the Sensormat Pads" on page 20.

The use of anti-skid strips to secure the Sensormat pad to the mattress is optional.

## Chair/Wheelchair

Place the Sensormat pad across the width of the chair or wheelchair seat. For best sensitivity, place the Sensormat pad above any other pads. An incontinence pad may be placed above the Sensormat pad.

Adjust the position so that it fits directly under the patient/resident's buttocks. The most favorable location is toward the rear of the seat, close to the chair back.

Sensormat pads may not be effective with all air-type chair cushions, and effectiveness may be impacted by the patient/resident's weight. Test before using. See "Testing the Sensormat Pads" on page 20.

The use of anti-skid strips to secure the Sensormat pad to the seat of the chair is optional.

## Toilet

Ensure the toilet seat is clean and dry. Place the adhesive towards the seat ring, positioning it between the seat and the bowl.

Test the Toilet Sensormat pad before each use. See "Testing the Sensormat Pads" on page 20.

## Commode

Ensure the commode is clean and dry. Place the adhesive towards the seat ring, positioning it between the seat and the commode frame.

Test the Commode Sensormat pad before each use. See "Testing the Sensormat Pads" on page 20.

## Seatbelt

For installation instructions, see the installation guide enclosed with the Seatbelt. A Seatbelt Extender (0707-946) may also be purchased separately.

Test the Seatbelt before each use. See "Testing the Sensormat Pads" on page 20.

## **Floor Sensormat Pad**

Place the pad on the floor beside the bed or chair, taking care to position it such that the patient/resident makes contact when exiting the bed or chair. Unlike the chair or bed pads, the floor pad alarms when pressure is applied, instead of when the pressure is removed from the pad.

Test the Floor Pad before each use. See "Testing the Sensormat Pads" on page 20.

**Note:** Floor Pads always follow Latching behavior. See "Latching and Non-Latching" on page 16.

## **Testing the Sensormat Pads**

Test the Sensormat Pad and M200 monitor before first use, each time the system is put into use, and daily thereafter.

## Bed, Chair, Toilet and Commode

- 1. Connect the pad to the monitor. If two pads are required, connect both pads and test each pad individually.
- 2. Apply FULL and FIRM palm pressure with your hand to the Sensormat pad and maintain pressure for at least three seconds while the Monitor arms.
- **3.** Verify the Reset Button LED flashes green during the three second period, and is followed by a Positive Confirmation Tone.
- 4. Release hand pressure.
- 5. After a delay of up to two seconds (depending on configured delay settings), verify the Monitor generates a Pad Alarm. The Alarm State Indicator and Reset Button should continuously flash red and sound a local audible alert.
- **Note:** If a Nurse Call system is connected and the volume is set to NC, there is no local audible alert.
  - 6. If the Monitor is connected to a Nurse Call system, verify that an alarm was triggered on that system.
  - 7. Press the Reset Button on the Monitor to cancel the alarm.
  - 8. If a Low Battery message is announced at this time, replace all batteries (see "Replacing Monitor Batteries" on page 25) and repeat the above test procedure.
  - 9. If the Monitor Pad Alarm cannot be verified as above, check all connections and repeat this test procedure.
  - If the Pad Alarm still does not sound, DO NOT place the pad or Monitor into service and follow your facility's procedures for product maintenance.

## Seatbelt

- Visually inspect the Seatbelt for damage. Verify that the stitching around the magnet housing is complete and attached appropriately. If damage is found, discard the unit and do not place into service.
- 2. Connect the Seatbelt to the Monitor.
- 3. Close the Velcro® clasp around the magnet housing and wait at least three seconds while the Monitor arms.
- 4. Verify the Reset Button LED flashes green during the three second period, and is followed by a Positive Confirmation Tone.
- 5. Separate the Velcro clasp.
- After a delay of up to two seconds (depending on configured delay settings), verify the Monitor generates a Pad Alarm. The Alarm State Indicator and Reset Button should continuously flash red and sound a local audible alert.
- **Note:** If a Nurse Call system is connected and the volume is set to NC, there is no local audible alert.
  - 7. If the Monitor is connected to a Nurse Call system, verify that an alarm was triggered on that system.
  - 8. Press the Reset Button on the Monitor to cancel the alarm.
  - 9. If a Low Battery message is announced at this time, replace all batteries (see "Replacing Monitor Batteries" on page 25) and repeat the above test procedure.
  - **10.** If the Monitor Pad Alarm cannot be verified as above, check all connections and repeat this est procedure.
  - **11.** If the Pad Alarm still does not sound, DO NOT place the Seatbelt or Monitor into service and follow your facility's procedures for product maintenance.

#### Cleaning

### **Floor Pad**

- 1. Connect the Floor Pad to the Monitor. If two pads are required, connect both pads and test each pad individually.
- 2. Step onto the Floor Pad.
- Verify the Monitor generates a Pad Alarm. The Alarm State Indicator and Reset Button should continuously flash red and sound a local audible alert.
- **Note:** If a Nurse Call system is connected and the volume is set to NC, there is no local audible alert.
  - 4. If the Monitor is connected to a Nurse Call system, verify that an alarm was triggered on that system.
  - 5. Press the Reset Button on the Monitor to cancel the alarm.
  - 6. If a Low Battery message is announced at this time, replace all batteries (see "Replacing Monitor Batteries" on page 25) and repeat the above test procedure.
  - 7. If the Monitor Pad Alarm cannot be verified as above, check all connections and repeat this test procedure.
  - If the Pad Alarm still does not sound, DO NOT place the pad or Monitor into service and follow your facility's procedures for product maintenance.

## Cleaning

The monitor and the Sensormat pad may be cleaned with a damp cloth or sponge using mild disinfectants. Never use alcohol, acidic or harsh petroleum-based cleaners.

**Note:** The Sensormat Pad is for single patient/resident use only.

## **Using the Monitor**

Once connected to the pad, and with no patient/resident on the pad, the monitor is ready for a patient/resident to get on the pad.

When a patient/resident has been detected on the pad, the Reset Button flashes green for 3 seconds before arming, allowing time for the patient/resident to shift around slightly until a comfortable position is achieved. The arming is indicated by a Positive Confirmation Tone.

Any exit from the pad during the first 3 second flash period cancels the arming process.

After arming, the monitor sounds a Pad alarm on a pad exit.

**Note:** The Floor Pad has no arming stage and alarms immediately upon weight being applied.

## Hold Mode (30 Seconds)

Hold Mode is used to allow the caregiver 30 seconds to remove a patient/resident from a monitored pad without triggering an alarm. If the patient/resident's weight is applied to the pad (3 seconds of constant weight pressure on the pad) while in Hold mode, normal monitoring resumes. A positive tone is heard and the amber blinking stops.

- 1. While the patient/resident is being monitored on the pad, press and hold the Reset Button on the monitor for 2 seconds\*. An audible indication "Hold mode 30 seconds" is announced.
- 2. A 30 second timer is set. The patient/resident can now be removed from the pad without triggering an alarm.
- 3. The Reset Button flashes amber once per second for 30 seconds. When Hold mode is over, an audible positive indication is announced.
- 4. To move out of Hold mode before the 30 seconds has passed, press and hold the Reset Button for 2 seconds, or return the patient/resident to the pad. The Reset Button stops blinking, followed by a Positive Confirmation Tone. If there is weight applied to the pad the monitor will arm.
- 5. When the timer runs out, the monitor resumes normal operation.

\* If you press for 2 seconds, and Suspend mode has been enabled, a Positive Confirmation Tone is heard instead of the voice announcement. If you continue to press for an additional 2 seconds, the Monitor moves into Suspend mode with an audible indication "Suspend Mode, 2 minutes."

## Suspend Mode (2 Minutes)

Suspend Mode is used to allow the caregiver 2 minutes to remove a patient/resident from a monitored pad without triggering any alarms. If the patient/resident's weight is applied to the pad while in Suspend mode, normal operation is not resumed - other than duration, that is the difference between Hold and Suspend. A positive tone is heard and the amber blinking stops.

- Note: The Suspend function (DIP switch position 3B) must be enabled. See "DIP Switch Settings" on page 15. Hold mode can also be used when Suspend mode is enabled by pressing for 2 seconds. When a Positive Confirmation Tone is sounded and if the button is released at that time, then the monitor moves to Hold mode. If you continue to press for 2 more seconds, the monitor moves to Suspend mode.
  - 1. While the patient/resident is being monitored on the pad, press and hold the Reset Button on the monitor for 4 seconds. An audible indication "Suspend mode 2 minutes" is announced.
  - 2. A 2-minute timer is set. The patient/resident can now be removed from the pad without triggering an alarm.
  - 3. The Reset Button flashes amber once per two seconds for 115 seconds. A rapid blinking (once per 0.5 sec) occurs in the last 5 seconds to warn that the Suspend mode is about to end. When Suspend mode is over, an audible Positive Confirmation Tone is sounded.
  - To move out of Suspend mode before the 2 minutes has passed, press and hold the Reset Button for 2 seconds. The Reset Button stops blinking.
  - 5. When the timer runs out, the monitor resumes normal operation.

## **Batteries**

- Batteries only: 90 days expected battery life with normal use.
- Power Supply with batteries: It is recommended to replace the backup batteries once every 2 years. If the monitor's Low Battery Icon is lit, change the batteries immediately.
- It is suggested that you remove the batteries if the monitor will not be used for an extended length of time.
- It is important to replace all the batteries together when you are replacing the batteries. The Low Battery icon LED flashes yellow (with a Negative Confirmation Tone) when the monitor batteries are low (approximately within 7 days of depletion). The Low Battery icon stays lit when using a power supply.



## **Replacing Monitor Batteries**

### **Removing Batteries**

- 1. Loosen the battery cover screw, and lift the cover.
- 2. Remove the batteries, ensuring that you remove the positive (+) end of each battery first.

**Note:** Dispose of used batteries according to your local environmental laws and guidelines.

### **Inserting Batteries**

- Insert the batteries into the battery compartment, by pressing the negative (-) end of each battery against the corresponding spring, then sliding the positive (+) end into the contact. The monitor immediately performs a self-test. The LED flashes green and the speaker sounds a Positive Confirmation Tone.
- 2. Close the battery cover, and tighten the cover screw.

## **Power Supply**

When using a Power Supply, the 3 batteries must be installed for back-up power. When the Power Supply is used and the batteries are installed, power is drawn only from the external power source.

The Power Supply used must supply 5V/2A only. Currently, model ADP-080, (sold by STANLEY Healthcare) is the only approved Power Supply for the M200 in North America. For Power Supplies approved for other countries, please contact STANLEY Healthcare.



## **Monitor Mounting/Installation Options**

The monitor may be mounted on a chair, wall, bed footboard or headboard, or a wheelchair.

WARNING: Do not place the monitor within 0.3 meters (1 ft.) of and facing the patient/resident. However, placing the monitor on a wheelchair back is acceptable as long as the monitor is facing away from the patient/resident.

## Wall Mounting

To mount the monitor on a wall, use a Wall Mount Bracket Kit (WMB-1000 - provided with the monitor).

The mounting bracket should be attached to the wall with the included screws or Dual-Lock fasteners.

If using a Nurse Call system, a ¼" plug connected Nurse Call cable is also required. A grey 8 ft ¼" plug to ¼" plug cable is available separately from Stanley Healthcare (0707-569).

- 1. Select a flat surface for Monitor installation, where staff can easily reach the monitor and where pads and other required accessories can be connected.
- 2. Attach the Wall Mount Bracket using screws, or Dual-Lock fasteners for easier removal.
- 3. Strain relief should be used with the Pad cords and/or Nurse Call cable as shown here:



- 4. Slide the monitor down into the bracket from the top until the release button clicks.
- 5. Insert the Nurse Call cable plug into the Nurse Call port in the monitor. Plug the other end into the facility's Nurse Call system receptacle.

## Wheelchair Mounting

Use the Wheelchairl clip (included) to attach the monitor to objects up to 5/16'' thick (e.g., the back of a wheelchair). If not required, the clip may be removed by using a small flat-head screwdriver to lift the retention tab located in the center of the clip.



# Chair or Bed Footboard/Headboard Mounting (Optional)

Use the Bed and Chair Wire Clip (BMB-1000) to attach the monitor to objects  $\frac{5}{16}$ " to  $2\frac{1}{4}$ " thick (e.g., the headboard of a bed).



To attach the bracket to the monitor, position the bracket so that one of the hooks clips over the bottom of one of the rails on the backside of the monitor. By pulling on the top end of the bracket, it will clip over the top of the rail. Do the same on the other side of the monitor. You can then install the monitor as required.

# Interfacing with a Nurse Call System

### A WARNING A

Test the connection before use to verify that the 1/4" plug on the installed Nurse Call equipment is fully compatible with the 1/4" port on the M200 Monitor and that the equipment's test call is successfully received by the facility's Nurse Call system.

If the test call is not successful, do not use this incompatible plug with the M200 monitor or Nurse Call system.

The monitor can be used to trigger a Nurse Call system that works with call button circuits that are either Normally Open (closing when the call button is depressed), or Normally Closed (opening when the call button is depressed).

When a plug is inserted into the port on a monitor a Positive Confirmation Tone is sounded. This does not indicate that the remainder of the Nurse Call system is connected. Test before use.

The monitor accepts a ¼" mono plug that can be wired to a Nurse Call system. The monitor provides an audible indication - Positive Confirmation tone when connected, Negative Confirmation Tone when removed. When installing a Nurse Call plug, use the strain relief of the Wall Mount Bracket in the manner shown in "Wall Mounting" on page 27, to secure the cable. In order to provide proper cable restraint, the cable (up to 0.2" in diameter) should be inserted before the monitor is placed on the wall mount bracket.

If your Nurse Call system does not provide a compatible input or if you want to wire a push button cord in parallel with the monitor, contact your biomedical department to obtain the appropriate adapter.

If requesting information on interfacing the monitor to a Nurse Call system, please have the following information available:

- The brand and model of your Nurse Call system
- A description of the system's call cord or pillow speaker, including the type of plug and number of pins in the plug
- Whether your Nurse Call system is Normally Open or Normally Closed

If this information is not available, you may still contact us for assistance, and we will be glad to help you.

## Nurse Call (NC) Alarms

The Nurse Call plug can be used in all 4 volume settings (1, 2, 3, and NC). When a Nurse Call jack is plugged in and the monitor's alarm volume is set to "NC", alarms are muted on the monitor locally. The "NC" volume defaults to a High setting if no Nurse Call plug is connected.

**Note:** Refer to the Nurse Call system documentation for details on cancelling alarms at the Nurse Call station.

## Compatibility

The M200 system is compatible with STANLEY Healthcare's Arial® system. An adapter (Part# 54031) can be purchased from STANLEY Healthcare.

## **Audible Alarms and Tones**

Description	Tone or Audible Message
Pad Alarm	As selected or custom recording
Monitor's mode changed from arming to armed	Positive Confirmation Tone
New pad connection	Positive Confirmation Tone
Nurse Call cable connected	Positive Confirmation Tone
Voice recording time is over (more than 15 seconds)	Positive Confirmation Tone
Low battery	(Negative Confirmation Tone) Audible message: Low Battery
Nurse Call cable disconnected	2 beeps (Negative Confirmation Tone)
Set Hold mode	Audible message: Hold mode 30 seconds
Set Suspend mode	Audible message: Suspend mode 2 minutes
Delay State	Audible message: Alarm Delay is x Second(s)
Delay State Change	Audible message: Alarm delay is set to x Second(s)

### Acknowledgement

The following website has been used to furnish various audible tones for the M200 monitor:

http://www.freesfx.co.uk

## **System Specifications**

Monitor Specifications	
Model Number	M200
Battery Type:	CR123A Lithium 3V, Qty 3, replaceable
Typical Life:	90 days battery life with typical usage.
Low Battery:	Approx. 7 days warning
Dimensions (W x H x D)	Approx. 8.5 x 14.8 x 4.0 cm (3.4 x 5.70 x 1.65 in)
Weight	Approx. 275 g (9.70 oz) (with batteries) 175 g (6.17 oz) (without batteries)
Operating Temp.	0 - 50 °C (32 - 125 °F)
Relative Humidity	5 - 90 % RH (non-condensing)
Mounting	BMB-1000 - Wall Mounting Kit Removable Wheelchair Clip - objects up to 5/16" thick Large wire clip - objects from 5/16" to 2¼" thick
Audible Indicators	"Low " Minimum Level $\approx$ 78 dBA - at 1 foot from monitor "Medium" Medium Level $\approx$ 85 dBA - at 1 foot from monitor "High" Maximum Level $\approx$ 96 dBA - at 1 foot from monitor
LED Indicators	Reset Button:
	Green - Start-up, Arming/Armed, Button Press Ded Alema
	Ked - Pad Alarm Amber, Hold/Successed Mode
	Status Indicator Icon
	Green - Delay Settings
	Yellow- Low Battery

## **Regulatory Compliance**

## FCC

### 47 CFR Part 15, Class B Device

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.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

### **Industry Canada**

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

### RoHS

RoHS Directive – 2011/65/EU

**UL Certification** 

Conforms to UL1069 Certified to CAN/CSA C22.2 No. 205-R



Listing #: 3064149

## Warranty Information

#### LIMITED WARRANTY: STANLEY® HEALTHCARE CONTROL UNITS

#### 1. WARRANTOR:

This Limited Warranty is given by Stanley Security Solutions, Inc., 4600 Vine Street, Lincoln, NE 68506 (d/b/a STANLEY Healthcare).

#### 2. DURATION:

This Limited Warranty begins on the date the product is delivered to the purchaser and continues for a period of two years (new units) or one year (refurbished units).

#### 3. TO WHOM THIS LIMITED WARRANTY IS GIVEN:

This Limited Warranty is given to the original purchaser of STANLEY Healthcare's products only.

#### 4. PRODUCTS COVERED:

This Limited Warranty applies to the STANLEY Healthcare M200 Fall Monitor.

#### 5. WHAT IS COVERED UNDER THIS LIMITED WARRANTY:

Defects in material and workmanship which occur within the defined duration of this limited warranty. Warrantor makes no other warranties expressed or implied, including without limitation, warrantor makes no warranty as to merchantability or fitness for a particular purpose.

#### 6. WHAT IS NOT COVERED UNDER THIS LIMITED WARRANTY:

a) ANY INCIDENTAL, INDIRECT, OR CONSEQUENTIAL LOSS, DAMAGE, OR EXPENSE THAT MAY RESULT FROM ANY DEFECT, FAILURE, OR MALFUNCTION OF THE CONTROL UNITS.

b) ANY INCIDENTAL, INDIRECT, OR CONSEQUENTIAL LOSS, DAMAGE, OR EXPENSE THAT MAY RESULT FROM USE OF THE CONTROL UNITS WITH ANOTHER MANUFACTURER'S PRESSURE SENSITIVE MAT, SENSING DEVICE, OR OTHER FALL PREVENTION PRODUCT.

#### NOTE: SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO YOU.

c) Any defects or damage to the Control Units that may result from use of the Control Units with another manufacturer's parts, pressure sensitive mat, sensing device, or other fall prevention product.

d) Any failure that results from an accident, purchaser's abuse, neglect or failure to operate the Control Units in accordance with the instructions provided in the owner's manual(s) supplied with the Control Units.

e) Any Control Units which have the serial numbers altered, defaced or removed.

f) Any Control Units which have been altered or modified in any way without the express written consent of STANLEY Healthcare.

g) Any Control Units which have been repaired other than by STANLEY Healthcare.

#### 7. RESPONSIBILITIES OF WARRANTOR UNDER THIS LIMITED WARRANTY:

a) In the event of a defect, malfunction, or other failure of the product not caused by any misuse or damage to the product while in the possession of purchaser, the warrantor will remedy the failure or defect without charge to the purchaser within a reasonable time. The remedy will consist of repair or replacement of the product, or refund of the purchase price, at the warrantor's option. If the product is no longer available, warrantor will supply purchaser with a comparable product or refund the purchase price at warrantor's option. If the product at warrantor's option. However, the warrantor will not elect refund unless it is unable to provide replacement, and repair is not commercially practicable and cannot be made within a reasonable time, or unless the purchaser is willing to accept such refund.

b) If this product or one of its component parts contains a defect or malfunction, after a reasonable number of attempts by the warrantor to remedy the defects or malfunctions, the purchaser will be entitled to either a refund or replacement of the product or its component part or parts. Replacement of a component part includes its free installation.

#### 8. RESPONSIBILITIES OF THE PURCHASER UNDER THIS LIMITED WARRANTY:

a) Disinfect the Control Unit, if necessary, so that it is reasonably free from infectious matter.

b) Package the Control Unit with a minimum of two inches of shock absorbent packaging material. Deliver or ship the Control Unit to:

Stanley Security Solutions, Inc., 4600 Vine Street, Lincoln, NE 68506 (d/b/a STANLEY Healthcare). Freight costs, if any, must be borne by the purchaser.

c) Use the Control Unit with reasonable care and in accordance with the supplied owner's manual.

## THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

#### LIMITED WARRANTY: STANLEY® HEALTHCARE SENSORMAT® PADS

#### 1. WARRANTOR:

This Limited Warranty is given by Stanley Security Solutions, Inc., 4600 Vine Street, Lincoln, NE 68506 (d/b/a STANLEY Healthcare).

#### 2. DURATION:

This Limited Warranty begins on the date the product is delivered to the purchaser and continues for a period of one year or for the duration of the warranty stated on the Sensormat label from the date first installed, whichever comes first.

#### 3. TO WHOM THIS LIMITED WARRANTY IS GIVEN:

This Limited Warranty is given to the original purchaser of STANLEY Healthcare's products only.

#### 4. PRODUCTS COVERED:

This Limited Warranty covers all STANLEY Healthcare Sensormats.

#### 5. WHAT IS COVERED UNDER THIS LIMITED WARRANTY:

Defects in material and workmanship which occur within the period described in paragraph 2. Warrantor makes no other warranties expressed or implied, including without limitation, warrantor makes no warranty as to merchantability or fitness for a particular purpose.

#### 6. WHAT IS NOT COVERED UNDER THIS LIMITED WARRANTY:

a) ANY INCIDENTAL, INDIRECT, OR CONSEQUENTIAL LOSS, DAMAGE, OR EXPENSE THAT MAY RESULT FROM ANY DEFECT, FAILURE, OR MALFUNCTION OF THE SENSORMAT ANY INCIDENTAL, INDIRECT, OR CONSEQUENTIAL LOSS, DAMAGE, OR EXPENSE THAT MAY RESULT FROM USE OF THE SENSORMAT WITH ANOTHER MANUFACTURER'S CONTROL UNIT OR OTHER FALL PREVENTION PRODUCT.

#### NOTE: SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO YOU.

b) Any defects or damage to the Sensormat that may result from use of the Sensormat with another manufacturer's parts, control unit, or other fall prevention product.

c) Any failure that results from an accident, purchaser's abuse, neglect or failure to operate the Sensormat in accordance with the instructions provided on the Sensormat label.

d) Any Sensormat which has the serial numbers altered, defaced or removed.

e) Any Sensormat which has been altered or modified in any way without the express written consent of STANLEY Healthcare.

f) Any Sensormat which has been repaired other than by STANLEY Healthcare.

#### 7. RESPONSIBILITIES OF WARRANTOR UNDER THIS LIMITED WARRANTY:

a) In the event of a defect, malfunction, or other failure of the product not caused by any misuse or damage to the product while in the possession of purchaser, the warrantor will remedy the failure or defect without charge to the purchaser within a reasonable time. The remedy will consist of repair or replacement of the product, or refund of the purchase price, at the warrantor's option. If the product is no longer available, warrantor will supply purchaser with a comparable product or refund the purchase price at warrantor's option. However, the warrantor will not elect refund unless it is unable to provide replacement, and repair is not commercially practicable and cannot be made within a reasonable time, or unless the purchaser is willing to accept such refund.

b) If this product or one of its component parts contains a defect or malfunction, after a reasonable number of attempts by the warrantor to remedy the defects or malfunctions, the purchaser will be entitled to either a refund or replacement of the product or its component part or parts. Replacement of a component part includes its free installation.

#### 8. RESPONSIBILITIES OF THE PURCHASER UNDER THIS LIMITED WARRANTY:

- a) Disinfect the Sensormat, if necessary, so that it is reasonably free from infectious matter.
- b) Package the Sensormat unfolded and in a flat position. Deliver or ship the Sensormat to Stanley Security Solutions, Inc., 4600 Vine Street, Lincoln, NE 68506 (d/b/a STANLEY Healthcare). Freight
- costs, if any, must be borne by the purchaser.

c) Use the Sensormat with reasonable care and in accordance with the supplied owner's manual.

## THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

## Notes:



#### www.StanleyHealthcare.com

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