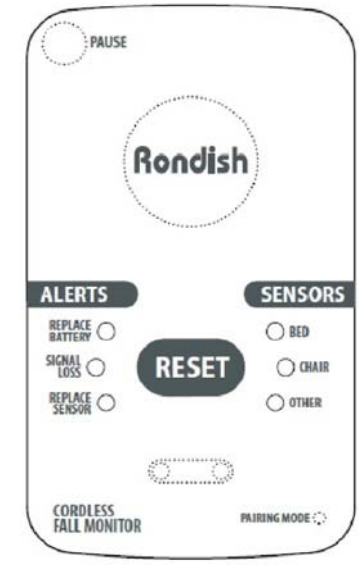


# CORDLESS MONITOR (NGM-31)

## DIRECTIONS FOR USE



## SAFETY INFORMATION

In these User Instructions, a **WARNING** is a statement that alerts the user to the possibility of injury, death, or other serious adverse reactions associated with the use or misuse of the device.

A **CAUTION** is a statement that alerts the user to the possibility of a problem with the

device associated with its use or misuse. Such problems include device malfunction, device failure, damage to the device or damage to other property.

**WARNING**

Failure to comply with this warning may result in injury or death. This device is not suitable for all at-risk-for-fall individuals. Restraints may still be required. This device is not a substitute for visual monitoring by a caregiver. Pressure pad and pull-string monitors are prone to difficulties. Be sure the cord cannot entangle or choke the user. The manufacturer does not claim that this device will prevent bed or chair related falls without fall. Test this device before each use. Read the instructions.

- WARNING**
- Read, understand, and retain the user instructions for using this monitor. Failure to follow all instructions may result in serious injury or death to the patient.
- ALWAYS** test the monitor before each use. **NEVER** use if the monitor fails to sound alarm in a test. **ALWAYS** retest the monitor if the unit is dropped.
  - NEVER** use a monitor in place of visual monitoring by the caregiver. This monitor cannot prevent falls. The caregiver must make frequent visual inspections of the patient to ensure the monitor is properly placed. Visual inspections by the caregiver are essential to reduce risk for falls.
  - NEVER** use with a low battery. Replace batteries with three new AA alkaline batteries.
  - NEVER** attempt to repair the monitor. Call Rondish at (852) 25416685 if the monitor fails to work.
  - ALWAYS** keep or mount the monitor out of the reach of the patient.
  - Cables associated with the use of this monitor present a tripping and/or entanglement hazard.
  - This monitor is not intended to be used as a replacement for a nurse call system.
  - This monitor is accessory equipment which is intended to be interfaced with nurse call system for supplementary operation and does not initiate the emergency or call code signaling.
  - This monitor can only activate a facility nurse call system when it is connected to the system by an appropriate nurse call cable. **ALWAYS** test the monitor and the connection to the nurse call system before use.
  - Although this monitor is able to communicate up to 30 feet away from the sensor, it is recommended that the monitor be placed in close proximity to the sensor. Communication distance varies for each facility, based upon such factors as the building environment, the number of monitors being used, and the proximity between them, which may lead to a lost signal. Test at the desired distance prior to putting the system into service (recommended to test at 1.5 times the distance at which the monitor will be used).

# YOUR MONITOR

## THE NGM-31

This fall management monitor monitors a bed, chair, or room for occupancy. If a patient tries to leave the bed or chair, the monitor sounds an alarm. When you hear the alarm, check the patient immediately. This is a single patient fall monitor that you can pair up to three cordless sensors pads/devices or one corded sensor pad/device. When three cordless sensors are paired, you will only be able to monitor one at a time but can effortlessly transfer the patient from paired sensor pad/device to another paired sensor pad/device. It can be used for bed and chair exits using corded and cordless sensors, including standard and timed bed and chair pads, toilet seat

**WARNING**

Never use this monitor in place of visual monitoring by a caregiver. This monitor cannot prevent falls. The caregiver must make frequent visual inspections of the patient to ensure the monitor is properly placed. Visual inspections by the caregiver are essential to reduce the risk of falls.

**CAUTION**

This Bed and Chair Monitor System is intended for use only by trained healthcare professionals at healthcare facilities and not for consumer or residential use.

## INDICATIONS FOR USE

- This fall management monitor may benefit the following patients:
- Patients who may have diminished cognitive or mobility abilities;
  - Patients experiencing disorientation, dizziness, drowsiness or frequent urination caused by medication;
  - Patients who have been assessed to be at a risk of falling or who have a history of falling;
  - Patients who frequently or routinely get out of bed without warning or calling for assistance; and
  - Patients who are required to be on mandatory bedrest.

**WARNING**

The Rondish system should **NEVER** be used as the only means for monitoring:

- agitated, combative or suicidal patients
- patients at extreme risk of life-threatening fall (ex. patients with bone injuries or previous hip fractures)

The Rondish System may not be suitable for all high fall-risk patients, and other interventions may be required.

## UNPACKING THE MONITOR

Inspect monitor and all components/accessories before initial use and do not use if any defects or shipping damage is discovered by initial inspection. Make sure you have the following parts:

- Cordless Single Patient Device FM Monitor
  - Three AA alkaline batteries.
  - Plastic wall mount with screws
  - Nylon strap
- If you ordered any additional parts, check for them:
- Metal Wall Mounting Bracket
  - Magnetic Mounting Bracket

- Bed Mounting Holder
- AC Power Adaptor/Cord
- Nurse Call Cable
- Call Cord

## SPECIFICATIONS

|                          |  |
|--------------------------|--|
| Power source             | Batteries are the primary source of power for the monitor.<br>Three AA (IEC LR6) alkaline batteries are required. High quality alkaline batteries with a capacity of 2000mAh or greater are recommended.<br>Monitor will not operate without batteries installed.<br>AC adaptor (optional) can be for the used to extend battery life of monitor.<br>AC Power: Class 2 AC Adaptor (Output: DC 6V 300mA). |
| Approximate Battery Life | Normal use: 6 months (without AC adaptor)<br>In storage: 36 months (remove from monitor)   |
| Mounting                 | <b>Included:</b><br>Chair: Attached Plastic Clip<br>Strap: Plastic Nylon Strap<br>Wall: Plastic Wall Mounting Bracket<br><b>Optional:</b><br>Bed Mounting Bracket<br>Metal Wall Mounting Bracket<br>Magnetic Mounting Bracket  |
| Dimensions               | 4.7" H x 3" W x 1.3" D   |
| Approximate Weight       | 8 oz (not including batteries)   |
| Operating Temperature    | 10° C - 40° C  |
| Operating Humidity       | 30% - 75%  |
| Operating Environment    | Indoor use   |
| Volume Settings          | "LO" setting is 89dB. "HI" setting is 108dB.<br>"NC OFF" is silent when connected into Nurse Call. If not connected to Nurse Call it will default to "LO" setting. (NOTE: facility environment may affect ability to hear monitor alarm, test before using)  |
| Alarm Delay Settings     | 0 seconds, two seconds, 4 seconds  |
| Tone                     | Three <b>PANEL 1</b> options   |

## INSTALLING THE BATTERIES

- Unscrew and remove the battery cover.
- Install the three included AA batteries (Energizer Industrial batteries or equivalent are recommended). Make sure they are oriented correctly (see the illustration below).
- Always use new alkaline batteries and replace them all at the same time. Do not mix battery types/brands.
- Replace the battery cover and tighten the screw.

5. See "Testing the Monitor".

**NOTE:** If the monitor was synchronized to a cordless sensor pad/device, it will remain so if the batteries are removed and reinstalled.

**CAUTION**

Only use a Rondish AC adaptor. Use of other AC adaptors may damage the monitor.

NEVER use monitor without battery cover secured in place. NEVER use monitor if corrosion is found in or around battery compartment or battery terminals.

This monitor is intended for use only by trained healthcare professionals at healthcare facilities and not for consumer or residential use.

The installation of batteries is required even if using an AC adaptor. The monitor will not function without power. Do not put foreign materials in the battery compartment. Risk of explosion if battery is replaced by an incorrect type.

## POWERING THE MONITOR

This monitor is battery powered, with the ability to plug into AC power using the 6 Volt AC power adaptor/cord (CSM-AC sold separately) to minimize battery drain/ replacement. Installation of three AA alkaline batteries is required, even when using the AC power connection. The batteries serve as a backup in the event of a power outage.

**NOTE:** This monitor will not run on AC power without batteries installed. A Low Battery Low-Grade alarm (87 dB chirp, the RED "REPLACE BATTERY" LED flashes, and nurse call is notified (if connected)) will activate and continue, until all three AA batteries are replaced with three new AA batteries.

- Turning the Monitor Off:**
- When you want to place the monitor out of use for any given period of time:
- Unpair the cordless sensor pad(s)/device(s) from the monitor (see "Unpair Sensor Pad/Device from the Monitor" in the "Cordless Sensor Pad/Device Use" section).
  - Remove all cords from the monitor.
  - Press the RESET button to cancel the alarm.

**NOTE:** If placing the monitor out of service for extended periods, remove the batteries. Dispose of the monitor and batteries if there is evidence of corrosion.

## MOUNTING THE MONITOR

Mount the monitor where access is convenient to the caregiver, such as on the wall, but at a minimum of two feet from the patient.

The monitor is to be securely mounted before use. The monitor can be mounted in several different ways, including:

Use the mounting clip on the back of the unit – the mounting clip can be slid over any thin material such as the back of a wheelchair or can be used with optional mounting accessories – the Rondish Bed Mounting Bracket, the Rondish Magnetic Mounting Bracket, Metal Wall Mounting Bracket or the Included Plastic Wall Mounting Bracket.

Use the nylon strap loop – thread the Nylon strap (provided with the monitor) through the plastic nylon strap loop on the back of the unit and use the Nylon loop to attach the monitor to a bed or wheelchair rail.

The Nylon Strap and the Plastic Wall Mounting bracket are included with the monitor. The Rondish Bed Mounting Bracket, the Rondish Magnetic Mounting Bracket and the Wall Mounting Bracket are sold separately and are not included with the monitor. Call your Rondish representative for more information.

**WARNING**

NEVER drill holes or mount the screws where the drill or screws may contact live electrical circuits. Exercise caution when installing the wall mount screws and sleeves.

NEVER use the monitor if it cannot be securely mounted.

ALWAYS test the monitor before each use. NEVER use the monitor if it fails to alarm in testing.

# FEATURES

## VOLUME CONTROL

The volume switch (located on the back of the monitor, inside the battery compartment) allows the caregiver to adjust volume to three levels: "HI" (the highest volume setting at 108dB), "LO" (lower volume setting at 89dB), "NC OFF" (alarm will be silent when connected into Nurse Call). The monitor is factory set at

the highest volume "HI".

**NOTE:** Volume may not be adjusted when in the alarm mode.

**NOTE:** Volume setting "NC OFF" is silent ONLY if the nurse call cable is plugged into the monitor's nurse call jack. Whenever the "NC OFF" setting is selected and the nurse call cable is not connected or removed from the monitor's Nurse Call 1/4" Jack, the volume will no longer be silent and will default to the "LO" setting.

**WARNING**

When "NC OFF" is selected, make sure the nurse call cable is correctly connected from the monitor's Nurse Call 1/4" Jack to the patient station at the wall. If the volume setting is the "NC OFF" and the nurse call cable is plugged into the monitor's nurse call 1/4" jack but not connected into the patient station at the wall, it will not sound an audible alarm from the monitor's speaker and will not notify a caregiver if a patient is up or has fallen. Always test before using with a patient when "NC OFF" selected and nurse call cable issued.

**CAUTION**

To reduce the risk of impacting patient hearing, keep audible alarm output a minimum distance of two feet from patient or caregiver. Do not point the speaker directly at patient or caregiver. Do not obstruct the speaker.

## TONE SELECTION

The tone switch (located on the back of the monitor, inside the battery compartment) allows the caregiver to select between one of three tone options: single beep, double beep or triple beep.

## CANCEL/RESET BUTTON

The CANCEL/RESET button provides the following functions:

- Cancel the alarm from a sensor pad/device.
- Resets an alert for "Replace Battery", "Signal Loss" or "Replace Sensor".
- Resets and clears all cordless sensor pads/devices from the monitor (see "Unpair Sensor Pad/Device from the Monitor" in the "Cordless Sensor Pad/Device Use" section)
- Resets and clears a cordless sensor pad/device that is outside of the monitor range when the alert of a "Signal Loss" occurs.
- Cancel the "PAUSE" mode (see "Pause Feature" under the "Features" section)

# CORDLESS SENSOR SETUP

This monitor can be paired with up to three cordless sensor pads or devices at once.

**NOTE:** When pairing additional cordless sensor pads/devices, they are done one at a time.

**NOTE:** This Monitor is intended to be a "single patient use" device. Two like devices (such as a two cordless chair sensor pads or two cordless bed sensor pads) cannot be paired to the monitor at the same time. If attempting to pair a second bed or chair sensor pad with the monitor, it will overwrite the bed or chair that is currently paired.

**NOTE:** It is not recommended to use the weight of the patient in place of the caregiver's hand for pairing the cordless sensor pad to the monitor.

**NOTE:** You may need to relocate the monitor and the sensor pad to a different location during the pairing process, to avoid the unplanned pairing of another sensor pad or device in range.

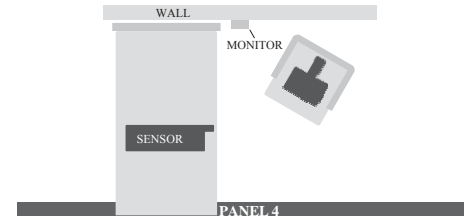
## INSTALL THE TRANSMITTER

The transmitter needs to be activated and connected to the pad/mat prior to use. See the transmitter's Directions for Use.

**NOTE:** Some cordless devices have built-in transmitters

**NOTE:** Best performance and range is achieved by proper placement of the transmitter and antenna in the sensor pocket, and the monitor is installed facing the transmitter as close together as possible. See the sensor pad's Directions for Use for proper placement of the transmitter.

**PRECAUTION:** Many structural factors like metal, body mass, and other construction materials can, and in some cases, dramatically reduce range and performance. As a final check, try moving the monitor closer to the pad and re-test.



## DELAY CONTROL

The DELAY switch (located on the back of the monitor, inside the battery compartment) controls the amount of time (three options: 0, 2 or 4 seconds) between when the patient removes them off of the pad and when the monitor alarms. This function can reduce false alarms if, for example, the patient momentarily

shifts off the pad, and then back onto the pad within the set delay time of 2 or 4 seconds.

**NOTE:** The delay function does not work with the floor mat/cushion. The alarm will always occur at 0 seconds regardless of the delay setting.

**NOTE:** The delay time range settings are the same for cordless and corded sensor pads/devices (0, 2 and 4 seconds). Environment and distance between monitor and pad may effect delay time. Test before using.

## PAUSE FEATURE

This optional setting prevents the monitor from alarming for 60 seconds when pressing the "PAUSE" button while, for example, the caregiver takes the patient out of bed.



- Press the "PAUSE" button located on the upper left hand corner of the face of the monitor to enter the 60 second pause mode. During the 60 second PauseMode:
  - ? The "PAUSE" button will blink red, indicating the monitor is in the pause mode for the next 60 seconds.
  - ? The patient may be removed from the sensor pad or the seat belt may be unfastened for 60 seconds without activating an alarm.

- ? Pressing CANCEL/RESET button anytime during the pause mode will the remaining time and if the patient is not removed from the sensor pad, it will reactivate the alarm as normal.
- ? If the sensor cord is removed during the pause mode, the monitor will alarm immediately and will cancel the remaining time.
- ? If the patient returns back to the pad, or if the seat belt is refastened, it will

- end the pause mode immediately and the monitor system will reactivate (will activate alarm as normal if the patient removes off the pad/seat belt is unfastened again).
  - ? Once the patient has exited for more than 5 seconds, it will end the Pause mode.
- When the 60 seconds have expired:
    - ? If the patient has not been placed back on the pad/seat belt refastened, the monitor will go into a sleep mode.
    - ? If the patient has been placed back on the pad/seat belt refastened, the monitor system will reactivate.

## PAIRING MODE

Before any sensor can be paired with the monitor, it must first be placed in pairing mode. Press the "Pairing Button" on the monitor for approximately two seconds until you hear a beep.



The following will occur indicating that you are now in the pairing mode and ready to pair a cordless sensor pad/device to the monitor.

? The "PAIRING MODE" LED on the front of the monitor and it should be in RED

? The monitor will remain in the pairing mode for 20 seconds

**NOTE:** If you need to exit the pairing mode, you must wait for the 20 second period to expire.

**NOTE:** Once programmed, the pad/mat will remain programmed/paired to the monitor, unless if it is Unpaired (see "Unpair Sensor Pad/Device from the Monitor" in the "Cordless Sensor Pad/Device Use" section).

**NOTE:** Pads will remain in memory but be temporarily inoperable if:

- ? A Corded pad is plugged into monitor during which the cordless function is disabled.
- ? Batteries from the monitor are removed
- ? The pad has expired
- ? Transmitter signal is lost

# CORDLESS SENSOR SETUP (CONTINUED)

## PAIRING A SENSOR PAD OR MAT

**Pairing a Cordless Sensor Pad to the Monitor**

While in the pairing mode, use your hand to place pressure on the cordless sensor pad and then release pressure to pair the pad to the monitor. The following will occur indicating that the monitor and pad are now successfully paired to each other and ready for use:

The monitor will sound a long beep  
The "PAIRING MODE" LED on the front of the monitor will go off

When pressure is placed and held on the pad, the following will occur, confirming that system is functioning properly:

The Monitor will beep twice  
The green "BED", "CHAIR" or "OTHER" LEDs in the "SENSORS" section, will blink two times

The green "BED", "CHAIR" or "OTHER" LEDs in the "SENSORS" section, will blink approximately every three seconds

When pressure is released from the pad, the monitor will alarm. Press the CANCEL/RESET button to cancel the alarm.

**NOTE:** It is not recommended to use the weight of the patient in place of the caregiver's hand for pairing the cordless sensor pad to the monitor.

**NOTE:** You may need to relocate the monitor and the sensor pad to a different location during the pairing process, to avoid the unplanned pairing of another sensor pad or device in range.

## Pairing a Cordless Floor Mat to the Monitor

While in the pairing mode, stand on the mat for approximately five seconds. The following will occur indicating that the monitor and mat are now successfully pair to each other and ready for use:

The monitor will sound a long beep  
The "PAIRING MODE" LED on the front of the monitor will go off

**NOTE:** The green "BED", "CHAIR" or "OTHER" sensor LEDs, will NOT blink. When pressure is placed on the mat, the monitor will alarm. Press the CANCEL/RESET button to cancel the alarm.

## Pairing a Device to the Monitor

See the device's Directions for Use for instructions on pairing it with this monitor.

## Unpairing a Sensor Pad/Device from the Monitor

The cordless sensor pad/device should be unpaired from the monitor in the event that it is to be placed out of service and/or moved out of proximity to the monitor (unless a corded pad is connected to the monitor). To Unpair the cordless sensor pad/device from the monitor:

- Press and hold the pairing button on the back of the monitor for approximately two seconds to enter the pairing mode (see "PAIRING SENSOR PAD(S) THE MONITOR" above for more detail).
- Press the "CANCEL/RESET" button (see illustration above), the monitor will keep three times confirming that all Cordless Sensor Pad(s)/Device(s) are no longer pair to the monitor.

**WARNING**

This monitor is only compatible with Curbell sensors, and Curbell accepts no responsibility or liability for the use of sensors from other manufacturers with this monitor. Only use Curbell sensor pads with Curbell monitors.

# CORDED SENSOR SETUP

- Plug the sensor cord into the monitor's sensor jack.
- Run the sensor's cord around the strain relief, as in the illustration below.

The monitor's strain relief helps prevent damage to the cord and input jack if there is excessive tension on the cord.

If you are moving a patient from a cordless sensor pad/device to a corded pad, there is no need to pair or unpair to the different sensor pad/device.

? When the monitor is connected to the corded pad/device, it will communicate only with the corded pad/device and not with the cordless sensor pad(s)/device(s)

? When the monitor is disconnected from the corded pad/device, it will alarm, but automatically communicate again with the Cordless Sensor Pad/Devices after pressing the CANCEL/RESET button.

# TRANSMITTER SIGNAL LOSS NOTIFICATION/REPLACEMENT

In the event that the Cordless Sensor Pad/Device and monitor are not communicating, a Low-Grade alarm will activate from the monitor (chirp, the "SIGNAL LOSS" LED under the "ALERTS" section, will blink yellow and nurse call will be notified (if connected) indicating one of the following:

The pad/mat has been out of signal range from the monitor for approximately six minutes and they must be moved closer to each other. The range is up to 60 feet,

but it may be less depending on the building environment. Once the signal is lost, the Cordless Sensor Pad to the monitor. A paired cordless sensor pad that has been taken outside of range and brought back into range of the monitor will remain connected to the monitor.

The pad/mat has been out of signal range from the monitor for approximately six minutes and you do not anticipate the cordless sensor pad coming back into proximity of the monitor. Press "CANCEL/RESET" button to cancel the alarm and then press and hold the "CANCEL/RESET" button for two seconds to unpair the out-of-range, cordless sensor pad.

**WARNING**

ALWAYS Make sure to test the cordless sensor pad when it is brought back into range of the monitor, by pressing and releasing with your hand to initiate alarm.

The monitor will beep twice  
The "BED" or "CHAIR" LED under the "SENSOR" section will flash green two times

The "BED" or "CHAIR" LED will blink green approximately every two seconds

## Seat Belt Sensor

- To install the seat belt, refer to the direction of use provided with the seat belt sensor.
- Position the patient in the wheel chair and fasten the seat belt around their waist.
- Adjust the seat belt to the desired length using the buckle that holds the adjustment strap in place.
- When the seat belt is fastened, the following will occur, confirming that the cord is connected and the batteries have been installed properly:

The monitor will beep twice  
The "OTHER" LED under the "SENSOR" section will flash green two times

The "OTHER" LED will blink green approximately every three seconds

## Toilet Seat Sensor

- Remove the adhesive backing from the sensor pad and adhere the sensor pad to the underside of the toilet seat so the pad covers toilet seat "bumper."

- Route the sensor pad cord discreetly. Remove the adhesive backing from cord holders and secure to desired surface.
- Position the patient on the toilet.
- When pressure is applied to the pad, the following will occur, confirming that the cord is connected and the batteries have been installed properly:

The monitor will beep twice  
The "OTHER" LED under the "SENSOR" section will flash green two times

The "OTHER" LED will blink green approximately every three seconds  
Nurse call will be notified (if connected)

## Floor Mat/Cushion

- Place the floor mat or floor cushion in the desired location, such as a critical doorway or next to a bed.

- Position the patient.

- When pressure is applied to the floor mat/cushion, the following will occur, confirming that the cord is connected and the batteries have been installed properly:

The monitor will beep twice  
The "OTHER" LED under the "SENSOR" section will flash green two times

The "OTHER" LED will blink green approximately every three seconds  
Nurse call will be notified (if connected)

# MOVING A PATIENT BETWEEN A CORDLESS AND CORDED SENSOR

If you are moving a patient from a cordless sensor pad/device to a corded sensor pad/device, there is no need to reprogram to the different pad.

When the monitor is connected to the corded sensor pad, it will communicate only with the corded sensor pad and not with the cordless sensor pad(s)/device(s)

When the monitor is disconnected from the corded sensor pad, it will alarm, but automatically communicate again with the cordless sensor pad(s)/device(s) after pressing the "CANCEL/RESET" button.



**WARNING**

This monitor is only compatible with Curbell sensors, and Curbell accepts no responsibility or liability for the use of sensors from other manufacturers with this monitor. Only use Curbell sensor pads with Curbell monitors.

# PLACE THE SENSOR AND PATIENT

## Bed and Chair Pads

- Write in the "Put into use Date" on all pads, and the "Pad Replacement Date" if you are using the monitor with the standard corded pads.

- Position the sensor pad where the buttocks area of the patient will be placed (see the diagram on the sensor pad), with the pad stem coming out the back of the chair or side of the bed. In some circumstances, the sensor may be placed under air or foam chair pads. However, we cannot guarantee that the products will work correctly in all circumstances. Therefore, a thorough testing of the products in this manner is required prior to use with a patient.

- Position the patient in the bed or chair.
- When pressure is applied and held to the corded sensor pad, the following will occur, confirming that the cord is connected and the batteries have been installed properly:

The monitor will beep twice  
The "OTHER" LED under the "SENSOR" section will flash green two times

The "OTHER" LED will blink green approximately every three seconds  
Nurse call will be notified (if connected)

When pressure is applied and held to the cordless sensor pad, the following will occur, confirming that the cord is connected and the batteries have been installed properly:

The monitor will beep twice  
The "BED" or "CHAIR" LED under the "SENSOR" section will flash green two times

The "BED" or "CHAIR" LED will blink green approximately every two seconds



## TESTING THE MONITOR

### ⚠ WARNING

ALWAYS test the monitor before each use. NEVER use if the monitor fails to sound its alarm in testing.

NEVER use if the monitor cannot be securely mounted to the wheelchair, headboard, or door bracket.

1. Visually inspect the monitor for physical damage. If damage is noted, remove it from service.
2. Make sure the monitor is securely mounted to the wheelchair, headboard, wall bracket, or magnetic bracket.
3. Connect the sensor to the monitor. If you are using the monitor with a Cordless Sensor Pad/Device, make sure to pair to the monitor (see "Cordless Sensor Pad/ Device Use").
4. Plug in the nurse call cord (see "Using the Monitor with Nurse Call").
5. Plug the AC power cord into an outlet (this step is optional, since the monitor runs on battery power).

6. When placing and holding pressure on the pad or when fastening the seat belt, the following will occur confirming that the cord is connected/pad is pair and the batteries have been installed properly:

The monitor will beep twice (if the volume is on) and the "OTHER" LED under the "SENSORS" section will blink green two times simultaneously.

The green "OTHER" LED under the "SENSORS" section will blink approximately every three seconds.

**NOTE:** When using the floor mat the green "BED", "CHAIR" or "OTHER" sensors LEDs, will NOT blink. When pressure is placed on the mat, the monitor will alarm. Press the CANCEL/RESET button to cancel the alarm.

7. When a bed, chair, or toilet seat pad has pressure applied and then released, a seat belt is unfastened, or a floor mat/cushion is stepped on, the following will occur, confirming that the unit is operational!:

The monitor will alarm (if volume is on).

The CANCEL/RESET button will flash and the "BED", "CHAIR" or "OTHER" LED will flash red.

Nurse call will alarm (if connected).

8. To cancel the alarm, press the RESET button and reset nurse call at the patient station (if connected).

**NOTE:** If there is any other visual or audible alarm, see the LED/LIGHT ALARM INDICATORS and TROUBLESHOOTING sections of this manual. For further assistance, read the directions supplied with the sensor pad, mat, cushion, or seat belt or call Rondish at (852) 25416685.

The monitor and cordless pad utilize radio signals to communicate to one another. Communication distance varies for each facility. Although the monitor is able to communicate up to 30 feet away from the sensor, it is recommended that the monitor be placed in close proximity to the sensor. Test at the desired distance before putting the system into service. In order to confirm a reliable link, test at a longer range than the intended use. See the list below:

| Actual Distance (Pad to Monitor) | Test Distance (Pad to Monitor) |
|----------------------------------|--------------------------------|
| 6 FT                             | 9 FT                           |
| 10 FT                            | 15 FT                          |
| 15 FT                            | 23 FT                          |
| 20 FT                            | 30 FT                          |
| 30 FT                            | 45 FT                          |

In order to maximize range, the user should:

Avoid mounting the NGM-31 to a metal, brick or plaster surface.

Avoid placing the pad and NGM-31 on opposite sides of a wall or large metal objects.

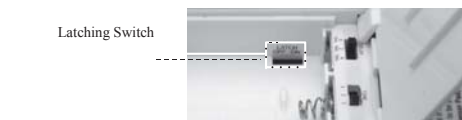
Whenever possible, the pad transmitter should be positioned horizontally and the NGM-31 mounted upright.

## NURSE CALL SETUP

The monitor can be connected to a nurse call system, so that when the alarm is activated, a call will be placed to the nurse's station. The monitor is compatible with a normally open nurse call system only, using a 1/4" mono nurse call jack.

To connect the monitor to your nurse call system at the patient station, plug one end of the nurse call connection cable into the monitor's NURSE CALL jack, and the other end of the nurse call connection cable into the 1/4" jack on the patient station (at the wall).

The monitor is factory set to be non-latching (compatible with industry-standard latching nurse call systems). To change the monitor to latching (compatible with a non-latching nurse call systems), change the position of the Latching On/Off Switch (located in the battery compartment) to "ON".



**NOTE:** You may need an ada system simultaneously (call Rondish to order) plug into the nurse call system simultaneously (call Rondish to order).

**NOTE:** Nurse call may alarm when initially inserting the nurse call cable plug into the patient station. To cancel the alarm, reset nurse call at the patient station.

**NOTE:** Volume may not be adjusted when in the alarm mode.

**NOTE:** Volume setting "NC OFF" is silent ONLY if the nurse call cable is plugged into the monitor's nurse call jack. Whenever the "NC OFF" setting is selected and the nurse call cable is not connected or removed from the monitor's 1/4" nurse call jack, the volume will no longer be silent and will default to a "LO" volume setting of 89dB.

### ⚠ WARNING

If the nurse call cable is removed from the wall jack, the nurse call system will alarm, but the monitor will not alarm. Once the nurse call system alarm is cancelled at the patient station (at the wall), no audible alarm will be able to activate if the monitor's volume was set to "NC OFF". To enable an audible alarm under this scenario, do one or more of the following:

? Set the monitor's volume to the "LO" or "HI" audible setting.

? Remove the nurse call cable from the monitor (which will reset the monitor's volume to the "LO" volume setting).

? Reconnect the nurse call cable to the wall jack (other end of the nurse call cable must also be plugged into the monitor's jack) allowing for the nurse call system's audible alarm.

### ⚠ CAUTION

Removal of the nurse call cable from the nurse call patient station will not cause the monitor to alert. It is recommended that the nurse call system be tested and set up to alert if the cord is removed.

## TESTING NURSE CALL

1. When placing and holding pressure on the sensor pad or when fastening the seat belt, the following will occur confirming that the cord is connected/pad is paired and the batteries have been properly installed:

The monitor will beep twice.

The green "BED", "CHAIR" or "OTHER" LEDs in the "SENSORS" section, will blink two times.

The green "BED", "CHAIR" or "OTHER" LEDs in the "SENSORS" section, will blink approximately every three seconds.

**NOTE:** You may need to relocate the monitor and the sensor pad to a different location during the pairing process, to avoid the unplanned pairing another sensor pad or device in range.

2. Test the unit by doing one of the following:

Bed or Chair pad – apply pressure to the pad and release.

Seat Belt – unfasten.

Floor Mat/Cushion – step onto the mat.

The following will occur:

The monitor alarm will sound.

The "BED", "CHAIR" or "OTHER" LEDs in the "SENSORS" section flash yellow.

The "CANCEL/RESET" button will flash.

The nurse station alarm will activate when the local alarm sounds (if connected).

3. To cancel the alarm, press the "CANCEL/RESET" button on the face of the monitor, and reset nurse call at the patient station (if connected).

4. Test nurse call jack removal alarms:

If the nurse call jack is removed from the monitor, the monitor will alarm, but a call will not be placed into your nurse call system. To cancel the monitor alarm, either reinsert the nurse call cable, or press the cancel/reset button.

If the nurse call jack is removed from the nurse call patient station, a call will be placed into your nurse call system, but the monitor will not alarm. To cancel the nurse call alarm, reset nurse call at the patient station and/or reinsert the nurse call jack.

**NOTE:** Nurse call may alarm when reinserting the nurse call cable plug into the patient station. To cancel the alarm, reset nurse call at the patient station.

**NOTE:** If there is any other visual or audible alarm, see the LED/LIGHT ALARM INDICATORS and TROUBLESHOOTING sections of this manual. For further assistance, read the directions supplied with the sensor, or call Rondish at (852) 25416685.

### ⚠ WARNING

The nurse call system should be tested and set up to alert when the nurse call connection cable from the monitor is removed from the patient station.

### ⚠ CAUTION

Removal of the nurse call cable from the nurse call patient station will not cause the monitor to alert.

## TROUBLESHOOTING AND NOTIFICATIONS

## TROUBLESHOOTING

| SYMPTOM   | POSSIBLE SOLUTIONS   |
|---|--|
| No power  | Check the battery connection and replace all three batteries with new AA batteries (Energizer Industrial batteries or equivalent are recommended).               |
| Chirping sound and yellow "REPLACE BATTERY" LED blinks  | Replace all three batteries with new AA batteries (Energizer Industrial batteries or equivalent are recommended).  |
| False alarms occur  | Check sensor placement (see "Place the Sensor and Patient").   |
|   | Increase the delay setting (see "Delay Control").  |
|   | Check for proper connection between the monitor and sensor.  |
|   | Check for wear or damage to the sensor.  |
|   | Check LEDs under the "ALERTS" section of the monitor (see the "LED Light/Alarm Indicators" chart below).   |
| Audible alarm not loud enough   | Check to see if volume setting is set to NC OFF or LO and increase volume level to HI.   |
| Alarm constantly sounds   | Check LEDs under the "ALERTS" section of the monitor (see the "LED Light/Alarm Indicators" chart below).   |
| No alert is given to the facility's nurse call system   | Check the connection between monitor and the nurse call patient station.   |
|   | Verify that your nurse call system is a normally open configuration.   |
|   | The system requires a 1/4" mono nurse call jack and/or an adaptor for compatibility (Call Curbell for adaptor information).                                      |
| Alarm delay does not respond in set time  | Verify the setting on the alarm delay switch (see "Delay Control").  |
| Cordless sensor pad/device does not pair to the monitor   | Check that the transmitter in the sensor pad is securely connected with no visible cord or connector damage.   |
|   | Check the "Transmitter Expiration Date" written on the transmitter to see how long it has been in service and if past due.                                       |
|   | Check that the transmitter's ON/OFF switch has been permanently turned ON. The red STATUS/IN USE light on the transmitter blinks approximately every 30 seconds. |
|   | Check that no part of the pad/mat (including in the neck of the sensor) is folded and/or creased.  |
|   | Check that the sensor is in a flat position on a flat surface with no heavy blanket, gel, or foam interfering.   |
|   | Check that the pad is within 30 feet of the monitor.   |
| Check that the transmitter and transmitter antenna are properly connected and positioned to maximize range and performance (see the "cordless mat use" illustration). |  |
| Check that a corded sensor pad is not plugged into the monitor.   |  |
| The nurse call alarm automatically cancels shortly after it is initiated  | You have a non-latching nurse call system. Change the Latching On/Off switch to "ON" (see the Nurse Call Setup section).   |

## LED LIGHT/ALARM INDICATORS

| EVENT  | LED LIGHT AND AUDIBLE ALARM   | CORRECTIVE ACTION   |
|--|---|---|
| System is functioning properly (ex. patient is on pad)   | The "BED, CHAIR or OTHER" LEDs in the "SENSORS" section will blink green every 3 seconds (does not apply when used with floor mat/cushion sensors)  | No action required.   |
| Patient attempts exit:<br>Pressure is removed from the sensor pad<br>Seat belt is unfastened<br>Pressure is placed on floor mat/cushion<br>Movement detected by the Motion Sensor<br>Pressure is removed from the toilet seat sensor | <b>Full-Grade Alarm notification:</b><br>Audible alarm at set volume<br>The "BED, CHAIR or OTHER" LEDs will flash yellow<br>The "CANCEL/RESET" button will flash<br>Nurse call notified (if connected)  | 1. Press the CANCEL/RESET button to cancel the alarm.<br>2. Reset nurse call (if connected).<br>3. Test the unit (see "Testing the Monitor").   |
| Sensor pad, floor mat/cushion or seat belt cord is disconnected from monitor   | <b>Full-Grade Alarm notification:</b><br>Audible alarm at set volume<br>The "OTHER" LED will flash yellow<br>The "SIGNAL LOSS" LED in the "ALERTS" section will flash yellow<br>The "CANCEL/RESET" button will flash<br>Nurse call notified (if connected)  | 1. Press the CANCEL/RESET button to cancel the alarm.<br>2. Reconnect the cord.<br>3. Reset nurse call (if connected).<br>4. Test the unit (see "Testing the Monitor").   |
| Replace Battery  | <b>Replace Battery/Final Alarm notification when battery life has expired:</b><br>Audible chirp<br>"REPLACE BATTERY" LED in the "ALERTS" section will blink red<br>The "CANCEL/RESET" button will flash<br>Nurse call notified (if connected)   | 1. Press the CANCEL/RESET button to cancel the alarm (the red LED will continue to blink).<br>2. Reset nurse call (if connected).<br>3. The alarm will repeat in 24 hours after reset, if the batteries are not replaced.<br>4. Replace with three new AA batteries (Energizer Industrial or equivalent are recommended).<br>5. Test unit (see "Testing the Monitor").  |
| Change Sensor Pad (timed pads only)  | <b>Replace Pad/Continual Low-Grade Alarm notification when 10 days of life remain on the sensor pad:</b><br>Audible chirp<br>"REPLACE SENSOR" LED blinks yellow<br>"BED", "CHAIR" or "OTHER" will blink yellow<br>The "CANCEL/RESET" button will flash<br>Nurse call notified (if connected)  | 1. Press the CANCEL/RESET button to cancel the alarm (the yellow LED (10 days reminder notifications, every 24 hours) will continue to blink).<br>2. Reset nurse call (if connected).<br>3. Low-Grade alarm will repeat every 24 hours for 10 days with the LED changing from yellow to red after the fifth day (if the pad is not replaced in a continual Full-Grade alarm (below) will occur after 10 days).<br>4. Replace with a new Curbell pad (if using a cordless pad, see "Cordless Sensor Pad/Device Use").<br>5. Test unit (see "Testing the Monitor").   |
|  | <b>Replace Pad/Hi Grade Alarm notification when sensor pad life has expired:</b><br>Audible alarm at set volume<br>"REPLACE SENSOR" LED Flashes red<br>The "CANCEL/RESET" button will flash<br>Nurse call notified (if connected)   | 1. Full-Grade alarm will continue to activate until the pad is removed/replaced.<br>2. Replace with a new Curbell pad (if using a cordless pad, see "Cordless Sensor Pad/Device Use").<br>3. Test unit (see "Testing the Monitor").   |
| The nurse call cable is removed from the nurse call patient station at the wall  | Call is placed into nurse call system (monitor will not alarm unless other end of the cable is removed from monitor).   | 1. Reset nurse call at the patient station to cancel the nurse call alarm.<br>2. Reconnect the cable.   |
| The nurse call cable is removed from the monitor   | <b>The monitor will alarm (a call will NOT be placed into the nurse call system unless the cable is removed from the nurse call patient station at the wall).</b><br>Audible alarm at set volume (If set to "NC OFF" it will be the same level as the "LO" volume setting).<br>The "SIGNAL LOSS" LED in the "ALERTS" section will flash yellow.<br>The "CANCEL/RESET" button will flash.<br>Nurse call notified (if connected). | 1. Press the CANCEL/RESET button to cancel the alarm.<br>2. Reconnect the cable.  |
| AC power is lost (AC cord disconnected or power outage)  | <b>Low-Grade Alarm notification:</b><br>Audible alarm at set volume<br>The "SIGNAL LOSS" LED in the "ALERTS" section will flash yellow<br>The "CANCEL/RESET" button will flash<br>Nurse call notified (if connected)  | 1. Reconnect the cord or press CANCEL/RESET button to cancel the alarm.<br>2. Reset nurse call (if connected).  |
| Cordless Transmitter Signal Lost   | <b>Low-Grade Alarm notification:</b><br>Audible alarm at set volume<br>The "SIGNAL LOSS" LED in the "ALERTS" section will flash yellow<br>The "CANCEL/RESET" button will flash<br>Nurse call notified (if connected)  | Make sure that the sensor pad is within 30 foot unobstructed range of the monitor.<br>Check that the transmitter in pocket has not been turned off and the red status in-use light flashes approximately every 30 seconds.<br>Make sure that the patient is not lying or sitting directly on the sensor transmitter.<br>The transmitter and transmitter antenna are set up properly (see the "cordless mat use" illustration).<br>Make sure that rubber bands and clips are used to secure the bed sensor pad to the bed so the sensor is properly positioned under the buttocks area and the transmitter hangs off the side of mattress, preferably on the same side of bedroom as the monitor.<br>Make sure that no walls or metal objects are between the pad and monitor. For more information, see "Transmitter Signal Lost Notification/Replacement". |

## CLEANING AND CARE

Use a damp cloth.

Clean with a non-aggressive, disinfectant cleaner (a 1:100 bleach solution is recommended).

Do not submerge the monitor in any liquid.

Cleaning/disinfecting equipment between patients according to facility guidelines and protocol is recommended.

## REPAIR

### ⚠ WARNING

NEVER attempt to repair a monitor. Call Rondish at (852) 25416685 if the monitor fails to work.

## WARRANTY

Rondish Company Limited warrants to the original purchaser that this fall management monitor is reasonably free from defects in manufacture for a period of two years from the date of delivery to the original purchaser.

Rondish Company Limited reserves the right to determine if any material or parts are to be repaired or replaced.

Any replacement parts are warranted only for the remainder of the original warranty period for the unit.

RONDISH COMPANY LIMITED DOES NOT WARRANT FALL MANAGEMENT MONITORS FOR FAILURE TO PERFORM DUE TO ACCIDENT, CASUALTY, MISUSE, OR ABUSE: FIRE, LIQUID DAMAGE, LIGHTNING, VANDALISM, TAMPERING, IMPROPER SETUP, OPERATION, MAINTENANCE OR TESTING; UNAUTHORIZED SERVICE OR IMPROPER REPAIR; OR USE EXCEEDING TWO YEARS.

THERE ARE NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, AND NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. RONDISH COMPANY LIMITED, SHALL NOT BE LIABLE UNDER THIS WARRANTY (OR UNDER ANY OTHER LEGAL THEORY) FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

### FCC warning statements:

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.

Any changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

NOTE: 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.

### RF exposure statement:

This equipment complies with FCC radiation exposure requirement set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance.

Conforms to UL Std. 1069

Manufactured for

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