**Advanced LCD Bed and** 

**Chair Monitor (CSM-BC400)** 

In these User Instructions, the word WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

The word CALITION means a notentially hazardous situation which, if not avoided, may result in minor or moderate injury. CAUTION also may be used to alert against unsafe

# **AWARNING**

Read and understand user instructions for using this monitor. Failure to follow all instructions may result in serious injury or death to the

1. 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/resident 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. A low battery is indicated by a chirping sound and flashing ALARM/LOW BATTERY LED, and the LCD will read "REPLACE BATTERY". Replace batteries immediately with four new AA alkaline batteries.

1. NEVER attempt to repair the monitor. Call Curbell at 800-235-7500 if the monitor fails to work.

**5.** Changes or modifications affecting compliance that are not expressly approved by Curbell could void the user's authority to operate

# **SPECIFICATIONS**

Power source	Four AA alkaline batteries (Energizer Industrial batteries or equivalent are recommended)     AC adaptor (output: DC 6V 300 mA)	
Approximate Battery Life	Normal use: 4.5 months In storage: 36 months	
Mounting	Chair: Attached Stainless Steel Clip Bed: Bed Mounting Bracket (CSM-BMB) Wall: Wall Mounting Bracket (CSM-WMB) Magnetic Mounting Bracket: (CSM-MMB) Velcro Strap: (CSM-VS)	
Dimensions	5.3" H x 3.5" W x 1.7" D	
Weight	Approximately 9.6 oz (not including batteries)	
Volume	Approximately 92 dB to 112 dB, +/- 5db at 10cm distance, or 0 dB with volume off option. (note – facility environment may effect ability to hear monitor alarm, test before using)	
FCC Specifications	Receiver frequency 433.92 MHz +/- 0.5	
Alarm Delay Settings (approximate)	Corded: 0 to 4 seconds Wireless: 1.5 to 5.5 seconds	

PAGE 1

MAP773E CSM-BC400 DFU.indd 1

# YOUR MONITOR

key on/key off

tamper-resistance

setting switch

LED status lights

call cord

iack for optional

Your CareSense Wireless Advanced LCD Bed and Chair Monitor (CSM-BC400) monitors a bed, chair, or room for occupancy. If a patient/resident attempts to leave the bed or chair, the monitor sounds an alarm. When you hear the alarm, check the patient/resident immediately

and chair exits using the following CareSense sensor pads.

activate an alarm notification when the designated usage time for the pad (45 days or 1 year) has expired.

Timed Corded Sensor Pads

• CSP-B45-TW10 (45 Day 10" x 30" Bed Pad)

• CSP-B365-TW20 (1 Year 20" x 30" Bed Pad)

The CareSense Wireless Advanced LCD Bed and Chair Monitor may also be used

Standard Non-Timed Sensor Pads

• CSP-B365-NC10 (1 Year 10" x 30" Bed Pad)

CSP-C365-NC10 (1 Year 10" x 15" Chair Pad

from the seat will activate the monitor alarm.

When the patient/resident attempts to exit the chair by unfastening the seat belt,

CS-SB2054 (Buckle)

CS-SB2054V (Velcro)

Floor Mat/Cushion

the floor mat, the monitor will alarm

. CS-FMS-C2448 (wired mat)

CS-FCS-C3668 (wired cushion)

Wireless Nurse Call Relay Monitor (CSM-WNCR1):

connected to the patient station to signal to Nurse Call. See "Using the Monitor with the Nurse Call Relay"

# **AWARNING**

Although the CareSense Wireless Advanced LCD Monitor is able to communicate up to 30 feet away from the patient/resident, it is recommend that the monitor be placed in close proximity to the patient/resident.

distance prior to putting the system into service.

# **AWARNING**

**NEVER** use this monitor in place of visual monitoring by a caregiver.

The CareSense Wireless Advanced LCD Bed and Chair Monitor System is intended for use only by trained healthcare professionals at healthcare facilities and not for consumer or residential use.

# **UNPACKING THE MONITOR**

Make sure you have the following parts:

1. Wireless Advanced Bed and Chair Monitor (CSM-BC400)

Four AA alkaline batteries.

3. Wall mount screws/sleeve

4. Velcro strap 5. One CareSense override key on chain

If you ordered any additional parts, check for them:

1. Wall Mounting Bracket (CSM-WMB) 2. Magnetic Mounting Bracket (CSM-MMB)

3. Bed Mounting Holder (CSM-BMB)

4. AC Power Adaptor/Cord (CSM-AC

Nurse Call Cable

Call Cord

7. Wireless Nurse Call Relay (CSM-WNCR1)

NOTE: Your monitor is shipped with a removable protective film overlay on the face. NOTE: Contact Curbell at 1-800-235-7500 if any parts are missing

PAGE 2

The CareSense Advanced Bed and Chair Monitor can be used to monitor both bed

The pads listed below also allow the monitor to track the in-use time of the pad and

• CSP-B45-TC10 (45 day 10" x 30" bed pad) • CSP-B365-TC10 (1 year 10" x 30" bed pad)

• CSP-B365-TC20 (1 year 20" x 30" bed pad) • CSP-C45-TC10 (45 day 10" x 15" chair pad) • CSP-C365-TC10 (1 year 10" x 15" chair pad)

**Timed Wireless Sensor Pads** 

• CSP-B365-TW10 (1 Year 10" x 30" Bed Pad)

 CSP-C45-TW10 (45 Day 10" x 15" Chair Pad) CSP-C365-TW20 (1 Year 10" x 15" Chair Pad)

with the following CareSense sensors:

 CSP-B45-NC4 (45 Day 4" x 30" Bed Pad) CSP-B45-NC10 (45 Day 10" x 30" Bed Pad)

• CSP-B365-NC4 (1 Year 4" x 30" Bed Pad)

• CSP-B365-NC20 (1 Year 20" x 30" Bed Pad)

CSP-C45-NC10 (45 Day 10" x 15" Chair Pad)

Toilet Seat Sensor Pad (TSP-TS-1) When the patient/resident attempts to exit the toilet, removing their body weight

Easy Release Seat Belt

the monitor will alarm

When the patient/resident attempts to exit the bed, and places their body weight on

• CS-FMS-W2448 (wireless mat)

The Wireless Nurse Call Relay Monitor allows the caregiver to place this Wireless Advanced LCD Bed and Chair Monitor outside of the patient room for increased common area alarm visibility. The Wireless Relay Monitor is placed next to and

Communication distance varies for each facility. Test at the desired

This monitor cannot prevent falls. The caregiver must make frequent visual inspections of the patient/resident to ensure the monitor is properly placed. Visual inspections by the caregiver are essential to reduce the risk of falls.

# **ACAUTION**

monitor will automatically be placed in a sleep mode **NOTE:** The pad will remain programmed to the monitor unless it is either

# **FEATURES**

# **STRAIN RELIEF**

tamper-resistance

override kev

CareSense

sensor pad/

floor mat jack

VOL

KEY

cord strain relief

contact area

LCD screen

reset button

delay, and

tone buttons

Nurse Call jack

velcro strap loop

optional use wall

nounting hole

The monitor's strain relief helps prevent damage to the cord and input jack if there is excessive tension on the cord. To use the strain relief, plug the sensor nad/seat helt/floor mat cord intot he monitor and run it around the strain relief as in the illustration below.



# **VOLUME CONTROL**

The monitor is factory set at the highest volume. To adjust the volume, the switch on the left side of the monitor must be in the "KEY OFF" position. or if in the "KEY ON" position, requires first overriding with the CareSense key (see "Tamper Resistance").

To Turn Volume Up

1. Press and hold the VOLUME button to turn up. The LED will read "VOL. ↑" and show bars on the bottom indicating the volume level,  $\boldsymbol{1}$  bar indicates the lowest sound level and 7 bars the highest (see illustration below). When the volume is set to zero, the LED will read "VOL, OFF"

2. Release the button when desired volume is reached.



# To Turn Volume Down

1. Press and release the VOLUME button, then press and hold button to turn down. The LED will read "VOL. +"

Tone Selection allows the caregiver to select between one of four tone options.

To change tones, press and release the TONE button located on the face of the

monitor until desired tone is selected. LED will read "TONE" with between one

The DELAY button controls the amount of time between when the patient removes

themself 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

To adjust the delay time, the switch on the left side of the monitor must be in

the "KEY OFF" position. or if in the "KEY ON" position, requires first overriding

NOTE: The delay function does not work with the floor mat/cushion. The alarm

The delay time is factory set at 0 seconds. To change the delay time, follow the

**NOTE:** The delay time range settings differ between the wireless pads (1.5 to

and distance between monitor and pad may effect delay time.

1. Press and hold button to increase time. LCD will read "DELAY ↑ XX SEC."

1. Press and release button, then press and hold button to decrease delay time

DELAソイ

O.Osec.

• Displays the number of life days remaining on the pad (see "Identifying

the remaining Life of the Pad and Low Pad Notification/Replacement").

NOTE: To perform either of the above functions, the switch on the left side

PAGE 4

of the monitor must be in the "KEY OFF" position, or if in the "KEY

ON" position, requires first overriding with the CareSense key (see

indicating the number of delay seconds (see illustration) 2. Release button when desired delay time is reached.

2. Release button when desired delay time is reached

The RESET button provides the following two functions

5.5 seconds) and the corded sensors (0 to 4 seconds). Environment

will always occur at 0 seconds delay regardless of the delay setting.

back onto the pad within the set delay time (between 0-4 seconds)

2. Release button when desired volume is reached

**TONE SELECTION** 

**DELAY CONTROL** 

with the CareSense key (see "tamper resistance")

below instructions:

Test before using.

**To Increase Delay Time** 

To Decrease Delay Time

The LCD will read "DELAY ★ XX SEC."

**RESET BUTTON** 

"Tamper Resistance").

· Cancels the alarm

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

and four note symbols signifying each of the four tone options.

# battery cover thumbscrew

**POWERING THE MONITOR** The CSM-BC400 is battery powered, with the ability to plug into AC power using the CSM-AC AC power adaptor/cord (sold separately) to minimize battery drain/

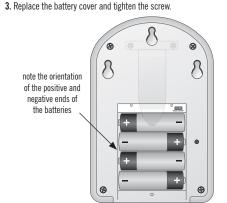
Installation of four AA alkaline batteries is required, even when using the AC power connection. The batteries serve as a backup in the event of a power outage.

NOTE: Once batteries are installed, the monitor needs to be either syncronized to a wireless pad (and kept within approximately 30 feet of each other) or have a corded pad plugged into it within five minutes, otherwise a PAD/SIGNAL LOST notification will occur

# **INSTALLING THE BATTERIES**

1. Unscrew and remove the battery cover

2. Install the four included AA batteries. Make sure they are oriented correctly (see the illustration below)



# **TURNING THE MONITOR OFF**

When you want to place the monitor out of use for any given period of time, remove all cords from the monitor and press the RESET button to cancel the alarm. The

sychronized to another pad or the monitor has a corded pad plugged into it. Therefore, if placing the monitor out of service for extended periods, removal of the batteries is recommended

PAGE 3

# PAUSE FEATURE

This optional setting prevents the monitor from alarming for 30 seconds when pressing the Reset button while, for example, the caregiver takes the patient

1. Turn the PAUSE ON/OFF switch located in the battery compartment to ON to enable the monitor to operate the Pause feature.



# 2. The patient/resident should be positioned on the pad or have the seat belt

3. Press the RESET button to prevent it from alarming for 30 seconds. The LCD will read "STANDBY XX SEC." indicating the number of seconds remaining

4. During the 30 second Pause Mode period, the patient/resident may be removed from the pad or the seat belt can be unfastened without activating an alarm. If the patient/resident is placed back on the pad or the seat belt is fastened, the monitor will reactivate.

NOTE: If the sensor cord is removed during the pause mode, the monitor will alarm when the 30 seconds have expired (no cord removal alarm will occur with the floor mat/pad).

5. When the 30 seconds have expired:

• If the patient/resident has not been placed back on the pad/seat belt refastened, the monitor will go into a sleep mode

 If the patient/resident has been placed back on the pad/seat belt refastened, the monitor system will reactivate.

NOTE: When the PAUSE switch is in the OFF position, the RESET button will only serve to cancel the alarm.

# TAMPER RESISTANCE

This optional setting allows the caregiver to place the monitor in a tamper resistant mode by turning the switch on left side of monitor from KEY OFF to KEY ON. When in the KEY ON mode:

• The Reset/Pause, Volume, Delay, and Tone controls on the monitor will not function unless first overridden by the CareSense Key. This is accomplished by positioning the KEY icon on CareSense Key over the matching KEY icon on the top right face of the monitor (see illustration below) and holding it over the icon until one of the control buttons is pressed.



• If the alarm has been activated, the alarm may be canceled as soon as the CareSense Key is positioned over the KEY icon on the monitor (there's no need to press RESET button to cancel the alarm)

NOTE: When the switch is in the KEY OFF position, the Reset/Pause, Volume, Delay, and Tone controls on the monitor are fully operational (no caregiver key is required to override).

# **CALL CORD USE**

connected, will remain on until reset

When connected to the monitor, a Nurse Call Cord allows the patient/resident to activate the monitor alarm and, if Nurse Call is connected, place a call to the Nurse's Station (works with "normally open" nurse call systems only).

• 1/4" call cord plug is inserted into the monitor receptacle labeled "CALL CORD"

• The monitor alarms only when the call cord button is depressed (the LCD will read "NURSCALL ALARM")— when the button is released, the monitor alarm will cease. Nurse Call, if connected, will remain on until it is reset at the patient station.

• If the Call Cord is removed from the monitor, the monitor will alarm, and a

call will be placed to the Nurse's Station (if connected). The LCD will read

"CALLCORD LOST". The alarm may be cancelled by pressing the RESET

PAGE **5** 

button or reinserting the Call Cord jack into the monitor. Nurse call, if

# **TESTING THE MONITOR**

# **AWARNING**

ALWAYS test 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 wireless
- pad/mat, synchronize to the monitor (see "Wireless Chair and Bed Pad Use" or 'Wireless Floor Mat Use") 4. Plug the AC power cord into an outlet (optional for battery backup and to
- minimize battery replacement) 5. When placing pressure on the pad or when fastening the seat belt, the following will occur confirming that the cord is connected/pad is synchronized and the
- batteries have been installed properly: • The monitor will beep (if the volume is on) and the red ALARM/LOW BATTERY LED will flash two times simultaneously.
- . The LCD will read "IN USE"

• The green IN USE LED will blink approximately every two seconds

NOTE: When using the floor mat or floor cushion, the IN USE LED will not blink and the LCD will not read "IN USE" when operational (as when used with

a pad or the seat belt). Follow step 6 to insure proper function 6. When doing one of the following

- Bed, Chair or Toilet Seat Pad pressure is being applied and released
- Seat Belt the seat belt is fastened

. The monitor will alarm (if volume is on)

- Floor Mat/Cushion step onto the mat/cushion Call Cord – press the call cord button
- The following will occur, confirming that the unit is operational:
- The red ALARM/LOW BATTERY and side LEDs will flash
- The LCD will read "ALARM" • Nurse Call will alarm (if connected)
- 7. To cancel the alarm, press the RESET button and reset Nurse Call at the Patient Station (if connected).

INDICATORS and TROUBLESHOOTING sections of this manual. For further

PAGE 6

assistance, read the directions supplied with the sensor pad, mat, cushion,

NOTE: If there is any other visual or audible alarm, see the LED/LIGHT ALARM

or seat belt or call Curbell toll-free at 1-800-235-7500.

# **USING THE MONITOR WITH CHAIR AND BED PADS**

# CORDED CHAIR AND BED PAD USE

- This section applies to the following corded chair and bed pads
- CSP-B45-TC10 CSP-B365-TC10
- CSP-B365-TC20
- CSP-C45-TC10
- CSP-C365-TC10

## **Install the Pad and Monitor**

1. Write the "Put into Use Date" on the pad

2. Position the sensor pad where the buttocks of the patient/resident 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 pad may be placed under air or foam chair or mattress pads. However, we cannot guarantee that the products will work correctly in all circumstances, and strongly encourage a thorough testing of the products in this manner prior to use with a patient

3. Plug the sensor pad cord into the monitor's Sensor Pad jack.

4. Run the sensor pad cord around the strain relief (see "Using the Strain Relief").

5. Plug in the Nurse Call cord (see "Using the Monitor with Nurse Call"), Call Cord (see "Call Cord Use"), and/or the AC power cord if applicable.

# Test the Pad Before Use

See "Testing the Monitor."

# Put the Monitor into Service

1. Mount the monitor where access is convenient to the caregiver, such as on the wheelchair, bed or on the wall.

2. Position the patient/resident on the sensor pad.

3. When pressure is applied to the pad, the monitor will beep (if the volume is on) and the red ALARM/LOW BATTERY LED will flash two times simultaneously. Then the LCD will read "IN USE", and the green IN USE LED will blink approximately every two seconds confirming that the cord is connected and the batteries have been

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 printed on the sensor pad or call Curbell toll-free at 1-800-235-7500.

# **WIRELESS CHAIR AND BED PAD USE**

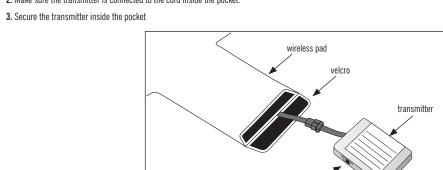
- This section applies to the following wireless chair and bed pads: CSP-B45-TW10
- CSP-B365-TW10 CSP-B365-TW20

CSP-C45-TW10

CSP-C365-TW10

Activate/Install the Transmitter The pad must first be connected to a wireless transmitter (CSP-TW-TX1), and the transmitter must be turned on.

1. Check the date written on the Transmitter. If it has expired or is close to expiring, it is advised not to use it, and dispose of it and replace it with a newer transmitter 2. Make sure the transmitter is connected to the cord inside the pocket.



successfully synchronized to each other and ready for use

Synchronize the Pad to the Monitor 1. Press the wireless programming button located on the back of the monitor (see illustration on page 3) until the IN USE LED on the face of the monitor blinks three times and

the monitor beeps three times simultaneously, and the LCD reads "PROGRAM MODE" indicating that it is now in the programming mode The monitor will remain in the "programming mode" for 25 seconds. If no activity occurs within this 25 second period, the monitor will immediately exit the programming mode. 2. Place pressure on the sensor pad and then release pressure to synchronize the pad with the monitor. The following will occur indicating that the monitor and pad are now

## . When pressure is placed on the pad, The red LEDs will blink two times, then the LCD will read "IN USE" and the green IN USE LED will blink approximately every two seconds indicating that they are functioning properly.

Install the Pad

The monitor will sound a long bee

1. Write the "Put into Use Date" on the pad 2. Position the sensor pad where the buttocks of the patient/resident 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 or mattress pads. However, we cannot guarantee that the products will work correctly in all circumstances, and strongly encourage a thorough testing of the products in this manner prior to use with a patient/resident.

# Test the Pad Before Use

See "Testing the Monitor.

Put the Monitor into Service

1. Mount the monitor where access is convenient to the caregiver, such as on the wheelchair, bed, or on the wall. 2. Plug in the Nurse Call cord (see "Using the Monitor with Nurse Call"), Call Cord (see "Call Cord Use"), and/or the AC power cord, if applicable.

Position the patient/resident on the sensor pad.

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4. When pressure is applied to the pad, the monitor will beep (if the volume is on) and the red ALARM/LOW BATTERY LED will flash two times simultaneously. Then the LCD will read "IN USE", and the green IN USE LED will blink approximately every two seconds confirming that the cord is connected and the batteries have been 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

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4/20/10 2:03 PM

directions printed on the sensor pad or call Curbell toll-free at 1-800-235-7500.

# Install the Floor Mat/Cushion and Monitor

- Place the floor mat, or floor cushion in the desired location, such as a critical doorway or next to a bed.
- 2. Plug the floor mat/cushion cord into the monitor's Sensor Pad jack.
- 3. Run the floor mat/cushion cord around the strain relief (see "Using the Strain Relief").
- Plug in the Nurse Call cord (see "Using the Monitor with Nurse Call"), Call Cord (see "Call Cord Use"), and/or the AC power cord, if applicable.

# Test the Floor Mat Before Use

See "Testing the Monitor."

## Put the Monitor into Service

- Mount the monitor where access is convenient to the caregiver, such as on the bed or on the wall.
- 2. Position the patient/resident.
- NOTE: When using with the floor mat or floor cushion, the IN USE LED will not blink when operational (as when used with a pad or the seat belt). Follow the "Testing your Monitor" instructions to insure proper function.
- 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 floor mat's/cushion's directions for use, or call Curbell toll-free at 1-800-235-7500.

# **SEAT BELT USE**

# Install the Seat Belt and Monitor

- To install the seat belt, first Unscrew one screw on each side of the wheelchair that holds the seat in place. These screws will be in different locations depending on the type of wheelchair.
- 2. Attach the seat belt to the wheelchair by lining up the grommet holes on the seat belt with the screw holes. Placing the seatbelt between the seat and wheelchair frame is preferred. Re-insert the screws through both the seat belt and wheelchair to hold the seat belt in place. Make sure the screws are tightened.
- Adjust the seat belt to the desired length using the black buckle that holds the adjustment strap in place.
- 4. Plug the seat belt cord into the monitor's Sensor Pad jack.
- 5. Run the seat belt cord around the monitor's strain relief (see "Using the Strain Poliof")
- 6. Plug in the Nurse Call cord (see "Using the Monitor with Nurse Call"), Call Cord (see "Call Cord Use"), and/or the AC power cord, if applicable.

# Test the Seat Belt Before Use

See "Testing the Monitor."

## Put the Monitor into Service

- Mount the monitor where access is convenient to the caregiver, such as on the wheelchair.
- Position the patient/resident and fasten the seat belt around the waist of the patient/resident.
- 3. When the seat belt is fastened, the monitor will beep (if the volume is on) and the red ALARM/LOW BATTERY LED will flash two times simultaneously. Then the LCD will read "IN USE" and the green IN USE LED will blink approximately every two seconds confirming that the cord is connected and the batteries have been installed properly.
- 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 seat belt's directions for use or call Curbell toll-free at 1-800-235-7500.

# **WIRELESS FLOOR MAT USE**

## Activate/Install the Transmitter

The mat must first be connected to a wireless transmitter (CSP-TW-TX1), and the transmitter must be turned on.

- Check the date written on the Transmitter. If it has expired or is close to expiring, it is advised not to use it, and dispose of it and replace it with a newer transmitter.
- Make sure the transmitter is connected to the cord inside the pocket.
   Secure the transmitter inside the pocket



# Synchronize the Mat to the Monitor

- Press the programming button located on the back of the monitor (see illustration on page 3). The IN USE LED on the face of the monitor will blink three times, and the monitor will beep three times indicating that it is now in the programming mode.
- The monitor will remain in the "programming mode" for 25 seconds. If no activity occurs within this 25 second period, the monitor will immediately exit the programming mode.
- 2. Stand on the mat for approximately five seconds until the monitor sounds a long beep, the red ALARM/LOW BATTERY LED flashes, and the LCD reads "FLOOR MAT ALARM", indicating that the monitor and mat are now successfully synchronized to each other and ready for use. The alarm will be in the alarm mode. To cancel the alarm, step off the may and press the reset button.

# Install the Floor Mat

1. Place the floor mat (CS-FMS-W2448) in the desired location, such as a critical doorway or next to a bed.

# Test the Floor Mat Before Use

See "Testing the Monitor."

# Put the Monitor into Service

- 1. Mount the monitor where access is convenient to the caregiver, such as on the bed or on the wall.
- Plug in the Nurse Call cord (see "Using the Monitor with Nurse Call"), Call Cord (see "Call Cord Use"), and/or the AC power cord, if applicable.
   Position the patient/resident.
- **NOTE:** When using the floor mat of floor cushion, the IN USE LED will not blink when operational (as when used with a pad). Follow the "Testing the Monitor" instructions to insure proper function.
- 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 floor mat's directions for use or call Curbell toll-free at 1-800-235-7500.

# **TOILET SEAT SENSOR USE**

# Install the Pad and Monitor

- Mount the Monitor where access is covenient to the caregiver such as the
   wall
- 2. 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 "humper"
- Route the sensor pad cord discreetly. Remove the adhesive backing from sensor cord holders and secure to desired surface.
- 4. Plug the sensor pad cord into the monitor's Sensor Pad jack.
- 5. Run the sensor pad cord around the monitor's strain relief (see "Using the Strain Relief")
- 6. Plug in the Nurse Call Cable (see "Using the Monitor with Nurse Call"), Call Cord (see "Call Cord Use"), and/or the AC power cord if applicable

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# Test the Pad Before Use

See "Testing the Monitor."

# Put the Monitor into Service

- Mount the monitor where access is convenient to the caregiver, such as on the wall.
- 2. Position the patient/resident on the toilet seat
- 3. When pressure is applied to the pad, the monitor will beep (if the volume is on) and the red ALARM/LOW BATTERY LED will flash two times simultaneously. Then the LCD will read "IN USE", and the green IN USE LED will blink approximately every 2 seconds confirming that the cord is connected and the batteries have been installed properly.
- 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 or call Curbell toll-free at 1-800-235-7500.

PAGE 🛈

# **MOVING A RESIDENT FROM ONE PAD/SENSOR TO ANOTHER**

# WIRELESS TO WIRELESS PAD/MAT

If you are moving a patient/resident from one type of wireless pad (bed pad, chair pad, or floor mat) to another type of wireless pad, you will need to reprogram the monitor for the new pad.

Follow the appropriate instructions for "Wireless Bed and Chair Pad Use" or "Wireless Floor Mat Use".

# WIRELESS TO CORDED PAD/MAT/SEATBELT

If you are moving a patient/resident from a wireless pad/sensor to a corded pad, there is no need to reprogram to the different pad:

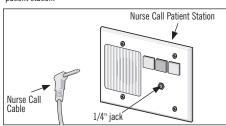
- When the monitor is connected to the corded pad, it will communicate only with the corded chair pad and not with the wireless bed pad
- When the monitor is disconnected from the corded pad/sensor, it will alarm, but automatically communicate again with the wireless pad/floor mat after pressing the RESET button.

# **USING THE MONITOR WITH NURSE CALL**

# **NURSE CALL SETUP**

This 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. Follow these steps to connect the monitor to your Nurse Call system at the patient station.

- Plug one end of the optional Nurse Call cable into the jack on the side of the monitor labeled "NURSE CALL".
- Plug the unplugged end of the Nurse Call cable into the 1/4" jack on the patient station.
- NOTE: You may need an adaptor (call Curbell to order) to enable the alarm and a Nurse Call Cord to plug into the Nurse Call System simultaneously.
- 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.



# **TESTING NURSE CALL**

- Plug the AC power cord into an outlet (optional for battery backup and to minimize battery replacement).
- 2. When placing pressure on the pad or when fastening the seat belt, the following will occur confirming that the cord is connected/pad is synchronized and the batteries have been installed properly:
- The monitor will beep (if the volume is on) and the red ALARM/LOW BATTERY LED will flash two times simultaneously.
- The LCD will read "IN USE"
- The green IN USE LED will blink approximately every two seconds
- NOTE: When using with the floor mat of floor cushion, the IN USE LED will not blink when operational (as when used with a pad or the seat belt). Follow the "Testing your Monitor" instructions to insure proper function.
- 3. 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/cushion
- Call Cord press the call cord button
- The following will occur:

   The monitor alarm will sound (if volume is on)
- The red ALARM/LOW BATTERY LED and side LEDs will flash
- The LCD will read "ALARM".

  The nurse station alarm will activate when the local alarm sounds.
- 4. To cancel the alarm, press the RESET button and reset Nurse Call at the Patient Station (if connected).
- 5. 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 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 iack.
- 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 read the directions supplied with the sensor pad, mat, cushion, or seat belt or call Curbell toll-free at 1-800-235-7500.

# USING THE MONITOR WITH THE NURSE CALL RELAY

The Wireless Nurse Call Relay Monitor (CSM-WNCR1) allows the caregiver to place the CSM-BC400 monitor outside of the patient room for increased common area alarm visibility, and to place the CSM-WNCR1 monitor next to and connected to the patient station to signal Nurse Call.

- Follow "Synchronizing the Pad/Mat to the Monitor" steps for both monitors in the "Wireless Bed and Chair Pad Use" on page 7. This will allow the pad to wirelessly communicate with both monitors at the same time.
- 2. Mount the CSM-WNCR1 where the nurse call cable may be plugged into the nurse call system, such as on the bed or on the wall. The CSM-WNCR1 must then be connected to the nurse call system in order to be able to signal nurse call.
- 3. Mount the CSM-BC400 outside of the patient room on, such as on the door jamb using the CSM-MMB magnetic mounting bracket, no more than 30 feet apart from the wireless pad.
- **NOTE:** The allowable wireless communication distance varies for each facility.

  Test at the desired distance prior to putting the system into service.
- 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 Relay Monitor's directions for use or call Curbell toll-free at 1-800-235-7500.

Event	Possible Solutions	
No power	Replace battery	
	Check battery connection	
	Check for connection to AC power or power cord damage	
Chirping sound	Check for low pad (see "Low Pad Notification/Replacement")	
	Check for low battery (see "Low Battery Notification/Replacement")	
	Check for lost signal (see "Transmitter Signal Lost Notification/Replacement")	
False alarms occur	Check for proper connection/synchronization between the monitor and sensor	
	Check for proper connection to AC power or power cord damage	
	Check for wear or damage to the sensor	
	Check for low pad (see "Low Pad Notification/Replacement") or low battery (see "Low Battery Notification/Replacement")	
Audible alarm is not loud enough	Increase volume level	
Alarm constantly sounds	Replace the sensor, pad transmitter (see "Transmitter Signal Lost Notification/Replacement"), or batteries	
No alert is given to the facility's nurse call system	Check the Nurse Call connection between the monitor and the 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)	
Alarm delay does not respond in set time	Verify the setting on the alarm delay switch	

# LED LIGHT/LCD/ALARM INDICATORS

**TROUBLESHOOTING** 

EVEIIL	LED LIGHT, LGD, AND AUDIDIE AIATHI INDICATORS	COTTECTIVE ACTION
System is functioning properly (ex. patient/ resident is on pad)	The green IN USE LED blinks, LCD reads "IN USE" (does not apply when used with floor mat/cushion sensors)	No action required
Patient/resident attempts exit:  Pressure is removed from the sensor pad Seat belt is unfastened Pressure is placed on floor mat/cushion	Full Grade Alarm notification:  • Audible alarm at set volume  • The red ALARM/LOW BATTERY and side LEDs flash  • LCD will read "ALARM"  • Nurse Call notified (if connected)	Press the RESET button to cancel the alarm     Reset Nurse Call (if connected)     Test the unit (see "Testing the Monitor")
Sensor pad, floor mat/cushion, or seat belt cord is disconnected from the monitor or wireless pad signal is lost     Sensor pad or floor mat signal is lost from the monitor	Full Grade Alarm notification:  • Audible alarm at set volume  • Yellow PAD/SIGNAL LOST LED and/or red ALARM/LOW BATTERY and side LEDs flash  • LCD will read "SENSOR/PAD LOST" or "PAD ALARM"  • Nurse Call notified (if connected)	Reconnect cord (this will cancel the alarm)     Reset Nurse Call (if connected)     Test the unit (see "Testing the Monitor")
Control Buttons (reset, volume, delay and tone) do not work	Check if switch on left side of the monitor is in the "KEY ON" mode	CareSense override key is required when in the "KEY ON" mod or switch to the "KEY OFF" mode (see "Tamper Resistance")
Low Battery	Low Battery/Low Grade Alarm notification: Chirp Red ALARM/LOW BATTERY LED flashes LCD will read "LOW BATTERY" Nurse Call notified (if connected)	Press the RESET button to cancel the alarm     Reset Nurse Call (if connected)     The low grade alarm will repeat every 24 hours if the batteriare not replaced. A full grade alarm (below) will occur after two days     Replace with four new AA batteries     Test unit (see "Testing the Monitor")
	Replace Battery/Full Grade Alarm notification:  • Audible alarm at set volume  • Red ALARM/LOW BATTERY LED flashes  • LCD will read "REPLACE BATTERY"  • Nurse Call notified (if connected)	Press the RESET button to cancel the alarm     Reset Nurse Call (if connected)     Full grade alarm will continue to activate until the batteries are replaced     Replace with four new AA batteries     Test unit (see "Testing the Monitor")
Low Pad	Low Pad/Low Grade Alarm notification:  • Chirp  • Yellow PAD/SIGNAL LOST LED flashes  • LCD will read "2 PADLIFE DAYS" (reads "1 PADLIFE DAY" at 1 remaining day)  • Nurse Call notified (if connected)	1. Press the RESET button to cancel the alarm 2. Reset Nurse Call (if connected) 3. The low grade alarm will repeat every 24 hours if the pad is replaced. A full grade alarm (below) will occur after two days 4. Replace with new CareSense pad 5. Test unit (see "Testing the Monitor")
	Replace Pad/Full Grade Alarm notification:  • Audible alarm at set volume  • Yellow PAD/SIGNAL LOST LED flashes  • LCD will read "REPLACE PAD"  • Nurse Call notified (if connected)	Press the RESET button to cancel the alarm     Reset Nurse Call (if connected)     Full grade alarm will continue to activate until the pad is removed/replaced     Replace with new CareSense pad     Test unit (see "Testing the Monitor")
Wireless Transmitter Signal Lost	Low Grade Alarm notification:  Chirp  Yellow PAD/SIGNAL LOST LED flashes  LCD will read "SIGNAL LOST"  Nurse Call notified (if connected)	See "Transmitter Signal Lost Notification/Replacement"

NOTE: if there are any other visual or audible alarms, call Curbell toll-free at 1-800-235-7500

# **REPAIR, CLEANING AND CARE**

# **REPAIR**

# **AWARNING**

NEVER attempt to repair a monitor. Call Curbell at **800-235-7500** if the monitor fails to work.

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# CLEANING AND CARE

- Use a damp cloth
- Clean with a non-aggressive, disinfectant cleaner
- Do not submerge the monitor in any liquid.
  The sensor pad is sealed for protection against moisture, but it is recommended that when using the chair or bed sensor pad with an incontinent patient/resident, the sensor pad be covered with a moisture

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barrier to prevent saturation of the sensor pad.

# PAD NOTIFICATION/ REPLACEMENT The timed pad technology (timed corded and timed wireless pads only) has an internal clock which will count down the life of the pad only when the pad is connected/synchronized to the monitor and pressure is applied to the pad. The monitor will automatically activiate an alarm notification to replace the pad at

**IDENTIFYING THE** 

**REMAINING LIFE OF** 

THE PAD AND LOW

TROUBLESHOOTING AND NOTIFICATIONS

the pad by pressing the RESET button (when the monitor is in the "Pause Off" mode — see "Pause Feature").

When the pad reaches two remaining life days, the monitor will activate a low grade alarm (chirp, PAD/SIGNAL LOST LED flashes and Nurse Call will be notified if connected). The LCD will read "2 PADLIFE DAYS" (reads "1 PADLIFE

the end of its life. The LCD will read the number of days remaining in the life of

DAY" at 1 remaining day)

The monitor alarm may be temporarily canceled by pressing the RESET button, and reseting Nurse Call at the Patient Station (if connected) to allow time for continued use until the pad is replaced.

The pad alarm will reactivate every 24 hours until the pad has fully expired at which time a continual full grade alarm will sound (audible alarm at set volume, yellow PAD/SIGNAL LOST LED flashes, the LCD will read "REPLACE PAD" and Nurse Call will be notified if connected) until monitor is reset and pad is replaced.

After replacing the pad, test unit to make sure pad is good (see "Testing the Monitor")

# **AWARNING**

**NEVER** use the monitor with an outdated pad. An outdated pad is indicated by an intermittent chirping sound or full grade alarm at set volume and PAD/SIGNAL LOST or ALARM/LOW BATTERY LED. Replace an outdated pad immediately with a new pad.

# LOW BATTERY NOTIFICATION/ REPLACEMENT

When the batteries need replacing, the monitor will activate a low grade alarm (chirp, the red ALARM/LOW BATTERY and side LEDs will flash, and the LCD will read "LOW BATTERY") and Nurse Call will be notified (if connected)

- The monitor alarm may be temporarily canceled by pressing the RESET button and reseting Nurse Call at the Patient Station (if connected) to allow time for continued use until batteries are replaced. The battery alarm will reactivate every 24 hours for two days, after which time a continual full grade alarm (audible alarm at set volume, red ALARM/LOW BATTERY LED flashes, the LCD will read "REPLACE BATTERY", and Nurse Call will be notified if connected) will sound if attempting to reactivate the monitor until the monitor is reset and the batteries are removed/replaced.
- Replace low batteries with four new AA alkaline batteries.
- After replacing the batteries, test the unit to make sure the batteries are good (see "Testing the Monitor").
- **NOTE:** Any attempt to operate with AC plugged in and batteries NOT installed will result in a full grade low battery alarm.

# **AWARNING**

**NEVER** use the Monitor with low batteries. Low batteries are indiciated by an intermittent chirping sound and a flashing ALARM/LOW BATTERY LED. Replace low batteries immediately with four new AA alkaline batteries.

# AC POWER LOST NOTIFICATION

When the AC power to the monitor is lost, the monitor will activate a low grade alarm (chirp, the red ALARM/LOW BATTERY LED flashes, the LCD will read "AC LOST", and Nurse Call will be notified if connected). To cancel the alarm, reinsert the AC power cord and/or press the reset button, and reset Nurse Call at the patient station (if connected).

NOTE: Batteries must be installed to achieve the power lost notification

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# TRANSMITTER SIGNAL LOST NOTIFICATION/ REPLACEMENT

In the event that the wireless pad/mat and monitor are not communicating, a low grade alarm will activate from the monitor (chirp, the PAD/SIGNAL LOST LED will flash, the LCD will read "SIGNAL LOST", and Nurse Call will be notified (if connected) indicating one of the following:

- The wireless transmitter is not turned on.
- The monitor has not been synchronized to a wireless pad and/or does not have a corded pad plugged into it.
- The pad/mat has been out of signal range from the monitor for approximately five minutes and they must be moved closer to each other (within approximately 30 feet). Once the signal is lost, it may be necessary to resynchronize the sensor to the monitor.
- The pad/mat or transmitter requires replacement (check expiration date)
- A transmitter isn't recommended to be used if it is estimated to expire before the pad. If however, the transmitter does expire while in use, the monitor will set off a continual alarm:
- Audible alarm (chirp)
   Vallow PAD/SICNAL LOST
- Yellow PAD/SIGNAL LOST LED flashes
   LCD reads "REPLACE PAD TX"
- LCD reads "REPLACE PAD IX"
   Unable to cancel alarm using reset
- Unable to reset Nurse Call signal alarm for continued use

# To Replace the Transmitter

If the transmitter has expired:

1. Open the pocket neck of the pad, remove the transmitter from the pocket,

and disconnect from the cord (see illustration on page 6/7)

Dispose of the transmitter and replace with a new one.
 Velcro seal the transmitter inside the pocket

Use" or "Wireless Floor Mat Use" sections.

Synchronize the new transmitter and pad with the monitor. See
 "Synchronize the Pad to the Monitor", in the "Wireless Chair and Bed Pad

# **AWARNING**

This unit 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 unit 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 unit does cause harmful interference to radio or television reception, which can be determined by turning the unit 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 unit and receiver.
- Connect the unit 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.

# WARRANTY

- Curbell Electronics, Inc. warrants to the original purchaser that this CareSense Wireless Advanced LCD Bed and Chair Monitor is reasonably free from defects in manufacture for a period of two years from the date of delivery to the original
- Curbell Electronics, Inc. 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.

   CURBELL ELECTRONICS, INC. DOES NOT WARRANT THIS CARESENSE
- WIRELESS ADVANCED LCD BED AND CHAIR MONITOR 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
- THERE ARE NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, AND NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. CURBELL ELECTRONICS, INC., SHALL NOT BE LIABLE UNDER THIS WARRANTY (OR UNDER ANY OTHER LEGAL THEORY) FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.
- If you need to return a unit for service under this warranty:

   Call your Curbell representative to obtain a
- Return Authorization (RA) Number
- Pack devices well
- Send it freight pre-paid to:
   Curbell Electronics, 20 Centre Drive, Orchard Park, NY 14127
- Urroell Electronics, 20 Centre Drive, Orchard Park, NY 14127
   Include the original shipping date and description of the problem to avoid delays



(800) 235-7500 • (716) 667-2520 • Fax: (716) 667-7775

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