



Wireless Sentry™

Multiple Bed and Chair
Monitoring System

Operator's Manual for

***Receiver WR-3
Transmitter WT-2
Charger WC-1
Pendant WP-2
Floor Mat WFM-1
Repeater WSR-1***

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Introduction

The *Wireless Sentry* is a comprehensive multi-patient monitoring system designed to alert care givers at a central location. Using 900 MHz spread-spectrum digital technology, this completely wireless system provides extended range performance for up to sixteen locations. The system utilizes five main components – the 16-Station *Receiver* unit, the *Wireless Transmitter with Charging Cradle (Charger)*, the *Wireless Pendant*, the *Wireless Repeater* and the *Wireless Floor Mat*. (The last three items are optional.)

The *Wireless Sentry* system can monitor fall-prone residents from a bed or wheelchair and includes an “out-of-range” warning alert that sounds if the resident leaves a predetermined safe area.

The *Transmitter* WT-2 is a resident-monitoring device, powered by rechargeable batteries (included), that can be programmed into the *Receiver* WR-3, which is located at the nurses’ station. Monitoring pads are available for use with the *Transmitter* for wheelchair and bed applications.

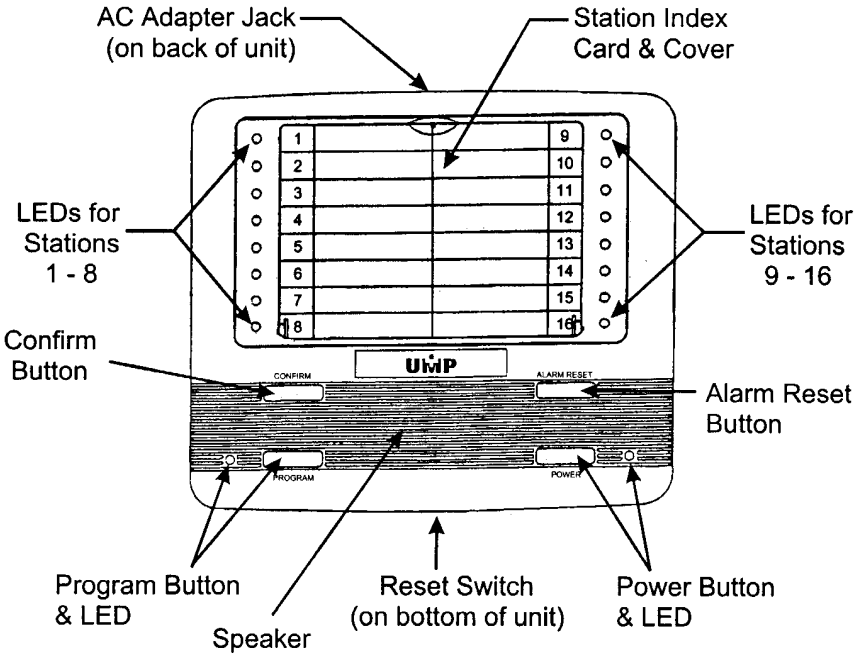
The optional *Pendant* WP-2 is a small, battery-operated device, about the size of a stopwatch, that can be programmed just like a *Transmitter*. It can then either hang on a cord around the resident’s neck or be strapped on the wrist. When the resident needs assistance, he or she presses a large button on the *Pendant*, and a silent signal is sent to the *Receiver* at the nurses’ station.

The optional *Floor Mat* WFM-1 is equipped with its own programmable transmitter and is placed beside a patient’s bed. When weight is placed on the mat, the transmitter sends an alerting signal to the *Receiver*.

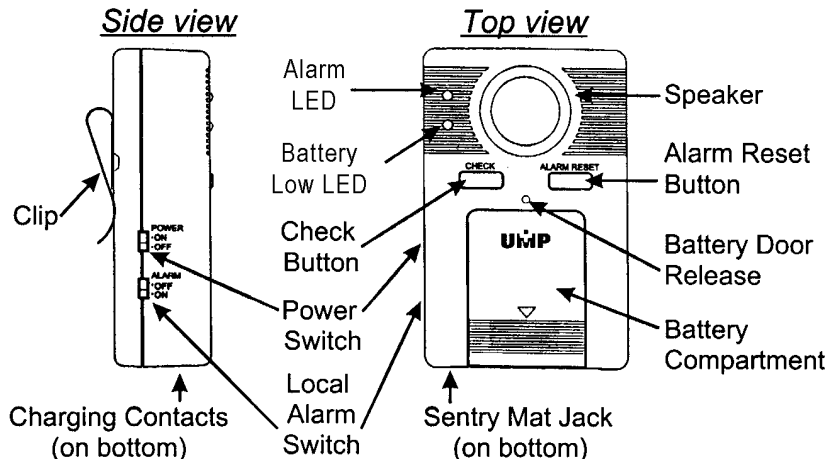
The optional *Repeater* WSR-1 is a device, shaped like a *Receiver*, that is placed on a wall or other convenient location between the *Transmitter* (or *Pendant* or *Floor Mat*) and the *Receiver*. It boosts the signal from the *Transmitter*, effectively extending its range.

Location of Controls

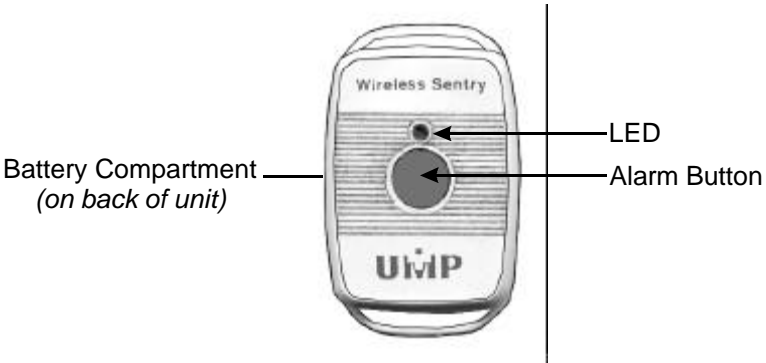
Receiver Unit (WR-3)



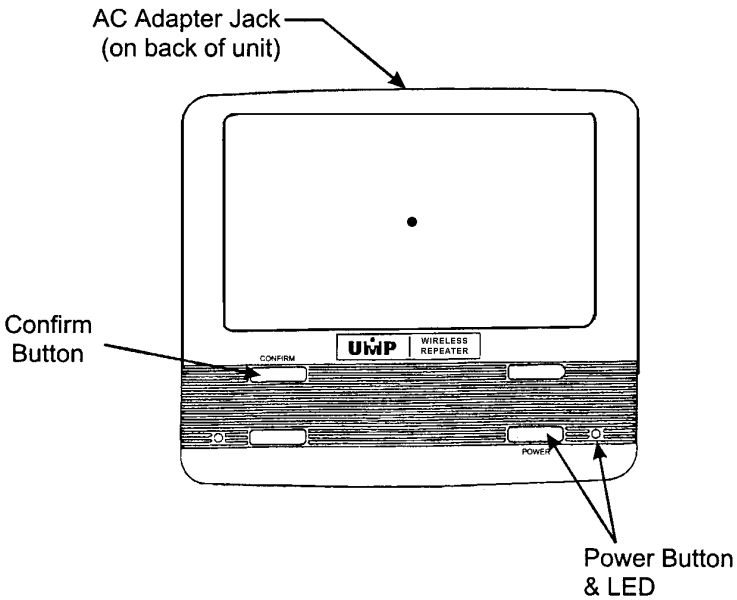
Transmitter Unit (WT-2)



Wireless Pendant (WP-2)



Repeater (WSR-1)



Unpacking

In the carton marked *Wireless Sentry™ Receiver Model WR-3*, you should find the following items:

- 1 Receiver unit (WR-3)
- 1 Pedestal
- 2 wall-mounting screws
- 1 AC Adapter with cable
- 1 Index Card
- 1 Set of Instructions

In the carton marked *Wireless Sentry™ Transmitter Model WT-2*, you should find the following items:

- 1 Transmitter unit (WT-2)
with rechargeable battery installed
- 1 Charging Cradle (WC-1)
- 1 AC Adapter with cable
- 1 Set of Instructions

The *Wireless Pendant™ Model WP-2* carton should contain the following:

- 1 Wireless Pendant (WP-2)
- 1 adjustable Velcro wrist strap
- 1 looped cord for neck wear
- 1 Set of Instructions

In the carton marked *Wireless Floor Mat™ Model WFM-1*, you should find:

- 1 29½" x 17½" plastic mat (WFM-1)
- 1 transmitter unit with short connecting cable
- 1 Set of Instructions

In the carton marked *Wireless Repeater™ Model WSR-1*, you should find:

- 1 Repeater unit (WSR-1)
- 1 Pedestal
- 2 wall-mounting screws
- 1 AC Adapter with cable
- 1 Set of Instructions

If anything is missing or damaged, or if you wish to purchase new or replacement items, contact UMP Customer Service at the following numbers:

Tel.: 888 716-0077 (Toll Free) or 718 499-0020

Fax: 732 583-6923 or 718 499-6494

Setting Up

Receiver Setup

1. Plug the adapter cable into the back of the *Receiver*, then plug the adapter into the wall outlet.
2. Turn on the unit by pressing the POWER button.
The red LED power indicator will go on.
3. Program the *Receiver*s as described below under *Programming*.

Station Index Card:

Use your fingernail or a coin to remove the clear plastic cover from the front of the *Receiver*. Then, on the Card, write in the room number and/or name of the resident to be assigned to each *Transmitter*, *Pendant* or *Floor Mat*. Replace cover.

Locating the Receiver on a Wall or Desk:

Once the *Receiver* has been programmed, it can be placed on the wall by inserting the two keyhole slots on the back onto the studs of a telephone wall plate. Alternately, you can put two screws (included) or nails into a convenient spot on the wall, with one screw located 2 $\frac{3}{4}$ " above the other. The screws or nails should extend 3/16" from the wall so that the keyhole slots on the back of the *Receiver* can be slipped over them.

The *Receiver* can also be set up on a desk or counter by attaching the back of the unit to the plastic Pedestal that is included in the packaging of the unit. This sets the unit at a convenient angle on a flat surface.

Transmitter Setup

Replacing the Battery Pack: The *Transmitter* comes with a new, rechargeable battery pack already installed. When it eventually becomes necessary to replace the battery pack, follow these steps:

1. Insert the tip of a large paper clip or similar object into the small hole just above the battery compartment door. Press down while pushing back the door in the direction of the arrow.
2. Remove the old battery pack. Follow instructions for safe disposal in *Safety Instructions for Transmitter Battery Pack* on page 15.
3. Attach a new battery pack and insert into battery compartment. Snap compartment door back into place.

Setting up the Charging Cradle:

Plug the adapter cable into the *Charging Cradle (Charger)* and then into the wall outlet.

Setting up the Transmitter before programming:

1. Before using a particular *Transmitter* unit for the first time, charge it for at least 14 hours by placing it into the *Charging Cradle*. The red LED on the *Charging Cradle* will light when the *Transmitter* is properly inserted. This procedure will help lengthen the life of the battery.
2. Slide the POWER switch on the side of the *Transmitter* to ON.
3. Set the ALARM switch on the side of the unit to select whether or not an audible alarm sound is required when an alarm is active.
4. Program the *Transmitter* into the *Receiver WR-3* according to the directions in the *Programming* section below.

Pendant Setup**Replacing the Batteries:**

1. Remove the 2 screws on the back of the *Pendant* and lift off the cover of the battery compartment.
2. Pry out the old batteries with a pen or small screwdriver.
3. Place the new batteries into position, being sure to align the polarities correctly. Match the "+" sign on the batteries with the "+" marked in the battery compartment.
4. Before screwing the battery cover back in place, press the blue circle on the front of the *Pendant* to be sure the batteries have been installed correctly and are operational. The LED should go on.
5. Reprogram the device if necessary (see *Programming* below).

Setting up the Pendant:

The *Pendant* can either be placed around the resident's wrist using the white Velcro strap (included), or hung around his or her neck with the looped cord (included).

Wireless Floor Mat Setup

Replacing the Batteries:

The *Floor Mat's* transmitter comes with new batteries installed. When it becomes necessary to replace them, use the following procedure:

1. Use a coin to remove the battery cover on the transmitter by placing it in the slot and turning it slightly in a clockwise direction.
2. Pry out the old batteries with a pen or small screwdriver.
3. Place three new batteries into position, being sure to align the polarities correctly. The "+" sign on each battery should be facing upward.
4. Twist the battery cover back into place. The red LED on the transmitter should blink briefly if the batteries are installed correctly and are operational.

Setting up the Floor Mat:

Connect the *Floor Mat* transmitter to the jack attached to the mat. Be sure the transmitter is positioned over the rectangular shape in the plastic case on the mat, with the battery cover facing up. Reprogram the device if necessary (see *Programming* below). Set the mat onto the floor beside the bed where the patient is most likely to contact it if he or she leaves the bed.

Repeater Setup

1. Plug the AC adaptor into the wall socket and connect the other end to the jack on the back of the *Repeater*.
2. Press the POWER button to turn the unit on.
The red LED should be on.
3. Program the *Repeater* (see *Programming* below).
4. Once the *Repeater* has been programmed, it can be placed on a wall by inserting the two keyhole slots on the back onto the studs of a telephone wall plate. Alternately, two screws (included) or nails can be inserted into a convenient spot on the wall, with one screw located 2 $\frac{3}{4}$ " above the other. The screws or nails should extend $\frac{3}{16}$ " from the wall so that the keyhole slots on the back of the *Repeater* can be slipped over them. The *Repeater* should be located somewhere between the farthest *Transmitter* and the *Receiver*.

The *Repeater* can also be set up on a desk or counter by attaching the back of the unit to the plastic Pedestal that is included in the package. This sets the unit at a convenient angle on a flat surface.

5. Once the *Repeater* is set up, no further attention is required since all alarm signals will be passed along automatically to the *Receiver*.

Programming

Before programming, turn on the *Receiver* by pressing the POWER button.
The red LED power indicator will light.

To Program a Transmitter Location:

NOTE: Before using a particular *Transmitter* unit for the first time, charge it for at least 14 hours by placing it into the *Charging Cradle*. The red LED on the *Charger* will light when the *Transmitter* is properly inserted. This procedure will help lengthen the life of the battery.

1. Press the PROGRAM button on the *Receiver* for 2 seconds.
The green LED will light and the LED indicating the first empty station location will flash.
2. Press the PROGRAM button to select the desired empty location.
The LED of each empty station will light up in turn each time the button is pushed.
3. Press the CHECK button on the *Transmitter* until a long beep is heard from the *Receiver* and the station LED stops flashing.
4. Press PROGRAM to program the next empty station,
OR
Press CONFIRM on the *Receiver* to return to normal monitor mode.

Programming can be checked at any time by pressing the CHECK button on the Transmitter.

To Program a Pendant Location:

1. Press the PROGRAM button on the *Receiver* for 2 seconds.
The green LED will light and the LED indicating the first empty station location will flash.
2. Press the PROGRAM button to select the desired empty location.
The LED of each empty station will light up in turn each time the button is pushed.
3. Press and hold the ALARM button on the *Pendant* until you hear a long beep from the *Receiver* and the station LED stops flashing.
4. Press PROGRAM to program the next empty station,
OR
Press CONFIRM on the *Receiver* to return to normal monitor mode.

To Program a Wireless Floor Mat Location:

1. Press the PROGRAM button on the *Receiver* for 2 seconds.
The green LED will light and the LED indicating the first empty station location will flash.
2. Press the PROGRAM button to select the desired empty location.
The LED of each empty station will light up in turn each time the button is pushed.
3. Apply pressure to the *Floor Mat* to activate the mat's transmitter; the LED on the transmitter will start to flash. You will hear a long beep from the *Receiver* and the station LED will stop flashing.
4. Press PROGRAM to program the next empty station,
OR
Press CONFIRM on the *Receiver* to return to normal monitor mode.
5. Verify the programming by activating the *Wireless Floor Mat* to confirm that the alarm signal is received correctly.

To Program a Repeater:

NOTE: *Repeaters* can only be programmed into the first four station locations of the *Receiver*.

1. Press the PROGRAM and CONFIRM buttons on the *Receiver* for two seconds. *The green LED will light. The first available station LED (of Locations 1 through 4) will flash.*
2. Press the CONFIRM button on the *Repeater* until you hear a long beep from the *Receiver* and the station LED stops flashing.
3. Press CONFIRM on the *Receiver* to return to normal monitor mode.

Operation

Monitoring by Transmitter:

1. Plug the monitoring pad into the Sentry Mat jack in the bottom of the fully charged and programmed *Transmitter*.
2. When pressure on the pad is detected, a confirmation beep will sound (if the ALARM switch on the *Transmitter* is in the ON position). This activates the *Transmitter*. The *Receiver* will start monitoring the status of that station automatically.
3. Every 90 seconds, the red ALARM LED on the *Transmitter* will light briefly as the *Transmitter* sends out a silent signal to the *Receiver*. When the signal is first received, the corresponding LED on the *Receiver* turns off, indicating that all is well.

Monitoring by Pendant

In an emergency, the *Receiver* can be activated using the *Pendant*. Pressing the ALARM button once will transmit an alarm signal to the *Receiver*, and the alarm sound on the *Receiver* will be activated. The LED on the *Pendant* will flash to help the care giver identify the source of the alarm signal.

To stop the alarm sound on the *Receiver*, press the ALARM RESET button on the *Receiver*. The corresponding location LED will also go off. The *Pendant* will be disabled for about 6 seconds after sending the alarm signal. After this time, the *Pendant* will reset itself automatically and can then be used again.

Checking for Programmed Locations

To see which stations are active and thus being monitored at any time, press and hold the CONFIRM button on the *Receiver*. The LEDs of the stations being actively monitored will light up.

Erasing a Programmed Location

1. Press PROGRAM and ALARM RESET together on the *Receiver* and hold for 2 seconds.
The first programmed location LED will flash.
2. Press PROGRAM to select the next location.
3. Press ALARM RESET to erase a location.
A long beep will be heard and the LED will go OFF.
4. Press CONFIRM to return to normal monitor mode.

Erasing a Repeater Programmed into the Receiver

1. Press and hold CONFIRM + PROGRAM + ALARM RESET at the same time. The LED for the first programmed *Repeater* location will flash.
2. Press PROGRAM to select another *Repeater* location if necessary.
3. Press ALARM RESET to erase the selected *Repeater* location.
4. Press CONFIRM to return to normal operation.

Alarm Signals at the Receiver

1. When an alarm is triggered, the corresponding LED location on the *Receiver* will flash rapidly and a rapid dual-tone sound will be heard.
2. The caretaker should press the ALARM RESET button to indicate that someone will visit the patient.
The corresponding LED will stop flashing but remains lit. The beep on the Receiver will continue.

3. If more than one alarm is received, pressing the ALARM RESET button again will select the next alarm location.
4. Press the CONFIRM button to select the station to visit.
The beep at the Receiver will stop but the LED will remain on.
5. When the problem causing the Alarm situation is corrected, the *Transmitter* will send a signal to the *Receiver* to turn off the LED.

NOTE: If the alarm was from a *Pendant*, the LED will be off at this point. If the alarm was from a *Wireless Floor Mat*, the LED and beep will be off at this point, but will reactivate if the *Floor Mat* is still pressurized.

Alarm Signals at the Transmitter

1. When pressure on the monitoring Sentry Mat is removed, the red ALARM LED on the *Transmitter* will turn on and an alarm tone will sound at the *Transmitter* (if the ALARM switch on the side of the *Transmitter* is in the ON position).
2. At the same time, an alarm will sound and the corresponding LED will turn on at the *Receiver*.

Resetting an Active Alarm Signal

1. When pressure is placed back on the monitoring pad, both the *Transmitter* and the *Receiver* will return to their normal state.
2. An active alarm can be reset by pressing the ALARM RESET button on the *Transmitter*.

Turning Off Alert Signals

Press the ALARM RESET button on the *Receiver* until the light stops flashing. Press CONFIRM to turn off the alarm sound.

For *Transmitter* WT-2, the red station light on the *Receiver* will remain ON until the alerting situation is cleared.

For *Pendant* WP-2 and *Wireless Floor Mat* WFM-1, the red light will turn off.

Out-of-Range Monitoring (for Wireless Transmitter only)

After being programmed into the *Receiver*, the *Transmitter* will send silent signals to the *Receiver* approximately every 90 seconds to indicate that it is within a safe range. If the *Transmitter* is carried beyond the safe range (Out-of-Range), the *Receiver* will emit light and sound indications to alert the care giver. These alerting signals can be reset in the same way as a normal alarm.

Operating procedure in this case is the same as described above in *Alarm Signals at the Receiver*, except that the audible signal is a slow single-tone alarm.

An Out-of-Range signal should never be ignored, since the patient is virtually unmonitored while the *Receiver* is sending out this signal.

NOTE: Out-of-Range is not checked when the *Transmitter* is turned off.

Battery-Low Indication

At the Receiver:

When a Battery-Low signal is received, the corresponding LED will flash and a slow single-tone beep will be heard at the *Receiver*. (If the battery voltage drops below a certain level, the *Transmitter* will shut off to prevent unpredictable behavior, and no signal will be received.)

At the Transmitter:

1. When the *Transmitter* battery runs low, the green LED on the *Transmitter* flashes and a Battery-Low signal is transmitted to the *Receiver*.
2. The *Transmitter* should be put into the *Charging Cradle* for recharging.
3. When the battery is fully charged, both *Transmitter* and *Receiver* will return to their normal state.

Charging a Transmitter

To minimize the loss of battery power, it is a good idea to leave the *Transmitter* in its *Charger* overnight.

Normal Charging:

1. Switch off the *Transmitter*.

2. Set the *Transmitter* into the *Charger*, being sure that the charging contacts on the bottom of the *Transmitter* touch the corresponding contacts in the *Charger*.
3. The red LED on the *Transmitter* will flash when the battery is fully charged.

Monitoring While Charging:

NOTE: SPECIAL FEATURE!

The Transmitter can monitor a patient even while it is recharging in the Charging Cradle. To do this:

1. Disconnect the monitoring pad and re-connect it to the jack on the *Charger*.
2. Set the *Transmitter* into the *Charger*. The unit will provide normal service when the POWER switch is on.

Transmitter Logout and Standby Mode

“Transmitter Logout” deactivates a particular *Transmitter*, but does not cancel its programming. When a unit has been logged out, it is in Standby mode, meaning it is no longer active, but is still programmed.

To log out a Transmitter:

Press and hold the ALARM RESET button on the *Transmitter* until a long beep is sounded. The local alarm and the ALARM LED will go off, and the unit will return to Standby mode.

After log-out, the monitoring mat can be unplugged without triggering an alarm. The out-of-range detection will be temporarily disabled. Pressing the CHECK button on the *Transmitter* will still activate the station LED on the *Receiver*. The *Transmitter* is still programmed, but is inactive (the station LED will not light up when you press CONFIRM on the *Receiver*).

To log in the Transmitter:

The *Transmitter* automatically logs in again to the *Receiver* when the POWER is switched on or the monitoring mat is re-installed.

Safety Instructions:

Transmitter WT-2 Battery Pack

CAUTION

TO REDUCE THE RISK OF FIRE OR INJURY, READ AND FOLLOW THESE INSTRUCTIONS:

1. Use only a battery pack supplied by Universal Medical Products, Inc., in Transmitter WT-1 of the UMP *Wireless Sentry™* monitoring system.
2. Do not dispose of the battery pack in a fire. The cells may explode. Check with local codes for possible special disposal instructions.
3. Do not attempt to open or mutilate the battery pack. The chemicals are corrosive and may cause damage to the eyes or skin, and may be toxic if swallowed.
4. When handling batteries, be careful not to short the battery with conducting materials such as rings, bracelets, and keys. The battery or conducting material may overheat and cause burns.
5. Follow the charging instructions as outlined in the Owner's Manual.
6. Observe proper polarity orientation between the battery and battery charger.



Ni-Cd

Contains Nickel-Cadmium
Rechargeable Battery.
Must be recycled or
disposed of properly.

FCC Warning

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

Radio Frequency Interference

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.

- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that on which the receiver is needed.

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

Limited Warranty

UNIVERSAL MEDICAL PRODUCTS, INC., guarantees the quality and workmanship of the *Wireless Sentry™* Receiver and each Transmitter, Charger, Pendant, Floor Mat and Repeater for a period of one (1) year from date of purchase. This warranty is in force provided there is no evidence of misuse or improper installation.

Under the conditions of this warranty, UNIVERSAL MEDICAL PRODUCTS, INC., agrees to repair and return any defective or inoperative *Wireless Sentry™* units, components, or parts within 30 days without charge.

Units, components or parts that are determined not to be covered by this warranty because of time, abuse/misuse, or improper installation, will be repaired or replaced on an established cost repair basis within 30 days.

UNIVERSAL MEDICAL PRODUCTS, INC., DOES NOT CLAIM THAT THE WIRELESS SENTRY™ SYSTEM WILL PREVENT BED- AND CHAIR-RELATED FALLS WITHOUT FAIL. IT DOES CLAIM THAT, WITH A COORDINATED EFFORT FROM THE INSTITUTION NURSING STAFF AND AN ACCEPTABLE FALLS PREVENTION PROGRAM, THE *WIRELESS SENTRY™* SYSTEM CAN HELP TO REDUCE THE NUMBER OF FALLS THAT OCCUR WITHIN AN INSTITUTION.

All questions or inquiries should be directed to:

UNIVERSAL MEDICAL PRODUCTS, INC.
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