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Halo Monitoring has several patents pending related to the products described in this manual.

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Warranty Information

Unless otherwise specified, all equipment has a 12-month limited warranty from the date of purchase against defects in material and workmanship. Any defective part will be replaced or repaired if used in the manner described in the myHalo Personal Monitoring and Alert System User Manual.

Limited Lifetime Warranty on Select Products

Select products have a limited lifetime warranty. Any defective part will be replaced or repaired if used in the manner described in the user manual. The warranty does not protect against intentional misuse or damage, including damage during shipment or damage from lightning. The following products are included in this category:

- 1. Home Gateway
- 2. Chest strap transmitter (does not include battery or fabric electrode strap)

Contact our Technical Support Department as described in the **Contact Information** section (below) to request assistance.

Exclusion of Warranties

Neither Halo nor provider nor any of Halo's licensors make any other warranty, expressed or implied, with respect to the Halo system and all other warranties, whether expressed or implied, are hereby disclaimed, including, without limitation, the implied warranties of merchantability and fitness for a particular purpose. In no event shall Halo be liable for any incidental, indirect, special, consequential or punitive damages, losses, costs or expenses of any kind, however caused and whether based in contract, tort, strict liability or any other theory of liability.

Contact Information

You can contact Halo Monitoring online at http://www.halomonitoring.com, phone: 1-888-971-HALO (4256), or email: support@halomonitoring.com.

Warnings and Disclaimers

- If you have a pacemaker or other intravenous cardiac device, DO NOT use the myHalo chest strap and transmitter before consulting with a physician.
- If you have a known skin allergy, or if you suspect an allergic reaction from using the myHalo chest strap and transmitter, please check the materials listed in *Appendix A: Specifications* on page 11 under **Technical Specifications** before using this product.



Regulatory Information

UL 1637 (Home Health Care Signaling Equipment) UL 1635 (Digital Alarm Communicator System Units)

Federal Communications Commission (FCC) Information Statement

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

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the installation 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 (receiver), the user or technician is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiver's antenna.
- Increase the separation between the myHalo device and receiver.
- Connect the myHalo device into an outlet on a circuit different from that to which the receiver is connected.
- Consult a qualified technician or an experienced radio/TV technician for help.

Possible interference can be determined by taking the following action:

- For the home gateway: turning the device off and on.
- For the chest strap: moving away from the receiver while wearing it, or charging the battery in a different location.



Overview

Welcome to the myHalo TM Personal Monitoring and Alert System. This guide will provide you with the information necessary for wearing and caring for the system. If you have a computer and an internet connection available, you can access the web portal to view status and manage account settings. Navigate to http://www.halomonitoring.com/UserGuide to download an extended User Guide that further explains this option.

Features of the myHalo System

The myHalo system is designed for seniors and their caregivers. It is much more than just a panic button worn for emergency situations. With those systems, the user must be conscious and physically able to push the panic button to summon help. The advanced technology and reliability built into the myHalo system allows users who are temporarily unable to call for help to still be protected.

The myHalo system provides:

- Advanced fall detection and alerts without user initiation since the chest strap transmitter is able to detect most falls and automatically contact the call center
- Monitoring and tracking vital signs such as heart rate and level of activity, plus skin temperature and sleep/wake patterns
- Cell phone text messages and email alerts to the caregiver(s)
- 24/7 call center monitoring support
- User friendly, easy-to-read, and private web portal interface for the user and/or caregiver
- Comfortable wireless chest strap and transmitter

Equipment Included

- One chest strap and one transmitter (optional second chest strap if purchased)
- Home gateway with wireless interface to the chest strap transmitter
- Power adapter for the home gateway and a power adapter for charging the chest strap transmitter battery
- Two cables for use during installation of the home gateway
- Quick Start and User Guide

Installation

The user or caregiver can install the myHalo system by the using the Installation Instructions included with the myHalo kit or if preferred, they may elect to use a Halo trained technician where available.



Additional Requirements for Installation

User Requirements

- Either a standard phone line or a broadband Internet connection for the home gateway's primary connection to the call center. When the Internet (rather than a phone line) provides the primary connection, it is recommended you use a phone line as a backup connection.
- An Internet connected home gateway requires an available Ethernet port on the user's home router or on the cable or DSL modem. If the Internet is provided through a DSL connection, a DSL filter (usually supplied by the Internet service provider) needs to be placed on the phone line connecting to the home gateway.
- In the event the Internet connection is down and power is still available, the gateway is designed to use the phone line as a backup connection to reach the call center.

Note: *If a phone line is used for the primary connection, a second phone line is not necessary.*

- Enough table space for the myHalo home gateway.
 (L x W x H = approximately 7" x 9" x 2")
- An AC power receptacle that is not controlled by a wall switch.
- Properly configured Internet ports. If the user's equipment is installed in a facility using the Internet, please notify the network administrator that UDP port 123 and TCP ports 443 and 37215 must be unblocked to allow the service to work properly.
- Optional RJ31X phone jack.

 If the user's telephone line is occupied, the equipment is not able to obtain access to the phone line unless the user has his or her telephone provider install an RJ31X jack for connecting the phone line to the myHalo home gateway. If the user has the jack installed, the equipment interrupts the user's telephone in the event it detects an emergency or life-threatening situation. This is necessary to ensure the call center receives notification of the event. Contact a professional phone line installer for further details. If you have a home alarm system connected to the phone line, the installer should coordinate with the alarm system company to ensure that your home alarm service is not disabled or disrupted.
- Optional Uninterruptible power supply (UPS).
 Using a UPS in conjunction with the myHalo equipment provides battery backup power for the myHalo home gateway during an AC power failure and allows continued communication between the home gateway and the phone line during the power outage.
 Refer to the UPS manufacturer's installation instructions for setup.

Note: The UPS cannot guarantee communication through the Internet connection.

Surge Protector.

If a UPS is not used as described above, it is advised that you install a UL rated surge
protector to protect both the power connection and any phone line connections to the
equipment. In the event of a power surge or line spike, the equipment could be damaged

and become inoperable.



Caregiver Requirements

- A means of contacting the caregiver such as a standard phone or cell phone
- Optional: A cellular phone with text messaging support.

Optional for viewing the status of the loved one on the web:

- A computer with an Internet connection.
- Internet Explorer® 7 (or later) or Mozilla Firefox® 2 (or later).
- Adobe® Flash Player® 9.0.124 or later.

Guide Contents

Wearing and caring for the monitor requires only a few steps. These items are explained in the following sections:

- Wearing the Halo Transmitter on page 6
- Charging the Battery on page 7
- Frequently Asked Questions on page 8

Accessing the web portal by the user or the caregiver is quite simple and managing the account settings (once you are logged in) requires knowledge of just a few details. Web portal access is explained in the online version of this user guide, available for download from http://www.halomonitoring.com/UserGuide.



Wearing the Halo Transmitter

Step 1

Remove the strap and the transmitter module from the myHalo box. Loosen the strap and snap it to the transmitter on one side. Be sure to match the strap's **LEFT** side to the transmitter's left (**L**) side. Carefully align the snaps and press firmly to connect. See Figure 1.

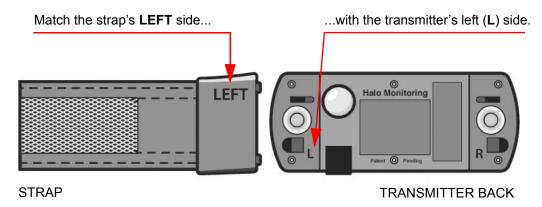


Figure 1. Connecting the Strap to the Transmitter

Step 2

Under your clothing, wrap the strap around your upper torso and connect the strap's **RIGHT** side to the transmitter's right (**R**) side. Make sure the Halo emblem is right-side-up and appears as shown in Figure 2. The silver button sensor on the back of the transmitter should be touching your skin.

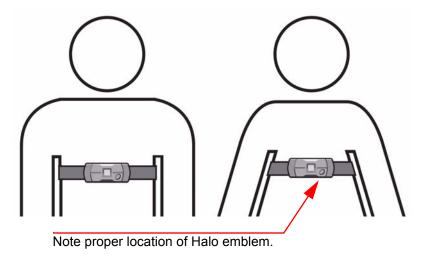


Figure 2. Proper Fitting of the Transmitter

Step 3

Adjust the strap to fit properly. Follow these simple guidelines and refer to Figure 2 for optimum transmitter performance:

• Wear the strap on your upper abdomen, no more than two inches below your sternum.



- When the strap is tight enough, you should be able to fit two fingers between the strap and your skin; however, the strap should not be so tight that it is uncomfortable, nor so loose that it slips down as you walk.
- Wear the strap daily. We recommend that you wear the strap continuously and only remove it when charging.

CAUTION! Although the transmitter is water resistant, it cannot be submerged in water. Do not wear the device in a pool or bathtub. Showering while wearing the device is fine as long as the battery charger port cover is closed.

Charging the Battery

Keep the transmitter charged. It is recommended that you charge the transmitter once a day. If necessary, the home gateway issues an audible reminder consisting of a one second beep followed by three shorter beeps to indicate that the transmitter battery requires charging promptly.

- 1. Remove the strap from your chest by disconnecting one of the snaps using a slight twisting motion to unsnap the strap from the transmitter module.
- 2. Open the battery charge port by pulling on the plastic plug. Insert the charger plug into the charge port. Connect the other end to your electrical outlet as shown in Figure 3.
- 3. Remove from the charger after 1 to 1.5 hours or when the battery is fully charged (see *Frequently Asked Questions* on page 8, item #1). Close the battery plug (to ensure the device remains water tight) and put the strap back on your body.

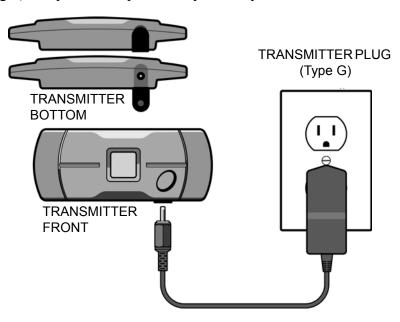


Figure 3. Charging the Battery



Frequently Asked Questions

Q: How do I know when my battery needs charging?

A: Daily charging is recommended. The **BATTERY** indicator on your home gateway turns red when the battery becomes extremely low. You can also monitor the battery charge level by logging in to the web portal at www.myhalomonitor.com. If necessary, the home gateway issues an audible reminder consisting of a one second beep followed by three shorter beeps to indicate that the transmitter battery requires charging promptly. The audible reminder is cancelled by charging the transmitter.

Q: I want to remove the strap for a period of time. Is that okay?

A: Yes, but the system provides the greatest protection when the transmitter is being worn. For that reason, we recommend that you wear it as much as possible. The strap can be removed for short periods of time. If you forget to replace the strap, a notification reminder is sent to your caregiver. A second strap can be purchased for use while the other strap is being laundered and/or drying.

Q: What happens if I push the grey button?

A: While the transmitter is designed to provide automatic emergency response with no action on your part, there may be times when you feel the need to call for help. The square button in the center of your strap is for your peace-of-mind and to be used in emergencies. When you are wearing the transmitter, it should be easy to find the button, even through clothing. If you press the button, one of our operators will attempt to call you at home and/or your designated caregiver(s). If the operator does not receive an answer, they will call an emergency responder.

Q: How do I know my system is working?

A: The LEDs on the home gateway indicate the system status. Refer to Table 1 on page 12 for an description of the LEDs. If we detect that your device is not working for any reason, we will notify your caregiver so the problem can be resolved quickly.

Q: How do I clean my strap and transmitter or the home gateway?

A: Wipe the transmitter with a clean cloth, slightly dampened with water or isopropyl alcohol. Be careful not to accidently push the panic button on the transmitter. As needed, hand launder the strap in warm water with a mild laundry detergent containing no bleach or fabric softener, rinse well in warm water. Towel dry the strap and finish by line drying it. Do not soak the strap longer than it takes to hand wash and rinse it. **Be sure to remove the transmitter before washing the strap!** The home gateway may be dusted with a dry cloth, but do not use a spray cleaner or water.

Q: What should I do if the chest strap transmitter is accidently submerged in water?

A: If submerged in less than four inches of water for less than 15 seconds, remove it from the water and dry it off. Open the battery charger port cover and with the opening pointed downward, shake it while carefully observing if any water comes out of the port. If water does come out, do not use the transmitter. Contact customer service for further instructions.



- Q: Can I charge the chest strap transmitter battery while wearing it?
- A: No, always remove the transmitter before charging the battery.
- Q: What happens to the system during a home power failure?
- A: During a power failure, the chest strap transmitter continues to collect and record vital data. When the power is restored, the home gateway receives and sends the data via the Internet (or phone line). If you provide an AC power backup source for the home gateway, such as a UPS, the home gateway continues to operate with the phone line connection as long as the battery in the UPS is able to provide power.
- Q: Do I need an Internet connection as well as a standard phone line?
- A: The myHalo home gateway supports either the Internet or a standard phone line as the primary connection to the call center for transmitting data collected from the chest strap transmitter. When the Internet is the primary connection and is down (or inoperable for any reason), the home gateway uses the standard phone line as a backup connection. A compliant cable and modular plug is provided with this product for connecting to the phone line.

Q: How do I contact Technical Support?

A: You can contact Halo Monitoring online at http://www.halomonitoring.com, phone: 1-888-971-HALO (4256), or email: support@halomonitoring.com.



Navigating the Web Portal

Monitoring your user status or the status of a loved one from the web portal is easy. Becoming familiar with a few web pages provides you with the necessary tools for successfully using the system. This section explains navigating and using the different areas of the web portal. If you have a computer and an internet connection, a User Guide which includes the Web Portal information is available for download from http://www.halomonitoring.com/UserGuide.

• Selecting a previously removed caregiver reinstates the caregiver and all their information that was previously entered. The caregiver will appear on the screen shown in Figure 9.Inviting a caregiver by email sends a request to the caregiver. You will be prompted to enter their email address and assign the order in which they are to appear in the caregiver list. A caregiver that does not have email can also be added. You will be prompted to enter their pertinent information, such as name, address, and contact information.

Refer to Figure 4 on page 10 for an explanation of which option to select for the caregiver you are adding.

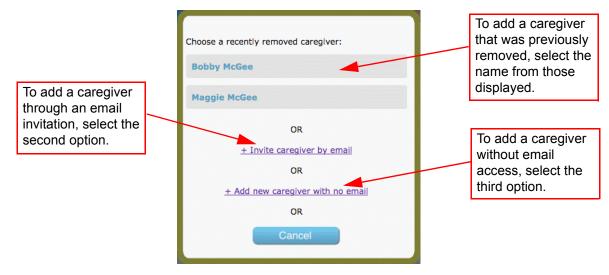


Figure 4. Adding a Caregiver Account



Appendix A: Specifications

This appendix provides standard specifications for the myHalo Personal Monitoring and Alert System, including the strap worn by the user.

Intended Use

This product is intended to be used as a home health care personal monitoring and alert system for seniors and their caregivers. The transmitter contains an accelerometer that sense rapid change in direction such as a fall.

Technical

Power output: 1 mW maximum

Operating frequency: 2400 - 2483.5 MHz

Operating channel: 11

Operation mode: direct sequence spread spectrum (DSSS)

Data rate: 250 kbs max burst

Operating temperature range: 32 to 120 degrees F

Accuracy of heart rate monitor: ± 4 bpm, under steady state conditions

Physical Properties

Chest Strap

Battery type: Factory installed lithium polymer (not user accessible)

Battery life rating: 1 year

Material

Case: lexan (polycarbonate plastic)

Skin temperature sensor: copper with trivalent chrome finish or stainless steel

Strap material: polyurethane

Fabric: 46 % nylon, 32% polyester, 22% natural rubber (latex)



Appendix B: Indicators

The home gateway has multiple indicators on the front (see Figure 5) that provide information about its current state. These indicators are LEDs that illuminate in various colors, depending on the status. Refer to Table 1 for descriptions of each indicator.



Figure 5. Home Gateway Front Panel

Table 1. Indicators

Indicator	Description
POWER LED	Solid green - The home gateway is powered on.
STATUS LED	Flashing green once per second - Conditions are normal.
WAN LED	The WAN LED represents the status of the Internet or Phone Line connection, depending on which method is being used.
	Internet connected systems: Solid green - The home gateway has established a connection with the health server. Solid red - There is a problem with the connection.
	Phone Line connected systems: Off - Normal Solid Green - Normal, gateway is using the line Solid Amber - Line is in use or off-hook Solid Red - Gateway is unable to dial-in or communicate with the server
PAN LED	Solid green - The home gateway has established a connection with the chest strap transmitter. Solid red - There is a problem with the connection.
BATTERY LED	Solid green - The battery level is above 40%. Solid amber - The battery level is between 20% and 40%. Solid red - The battery level is below 20% and needs charging. Flashing - The transmitter is plugged in and the battery is being charged. The LED color indicates the current charge level as specified above.
ALARM LED/ RESET Button	Solid red LED and audible alarm - An alarm condition is detected. To disable the alarm, press the RESET button on the home gateway's front panel.