myHalo™ Monitoring

User Guide

Warranty Information

Warranty 12 months from purchase.

Contact Information

Halo Monitoring, http://www.halomonitoring.com, phone: 888-333-halo (888-333-4256), or email: support@halomonitoring.com.

Warnings and Disclaimers

If you have a pacemaker or other intravenous cardiac device, IT IS NOT RECOMMENDED YOU USE THE HALO CHEST STRAP. Please consult a physician before using the product.

If you have a known skin allergy or if you suspect an allergic reaction from using the system, please check the materials listed under Technical Specifications.

Regulatory Information

UL 1637 (Home Health Care Signaling Equipment)

UL 1635 (Digital Alarm Communicator System Units) Listed by ETL (Intertek)

Federal Communications Commission (FCC) Information Statement

The following FCC information applies to both the Chest Strap Transmitter FCC ID: WS91002 and the Home Gateway FCC ID: WS91005. The technician should verify operation during the initial installation, however the user may need to take action if problems occur later.

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), which can be determined by turning the Home Gateway off and on, or if the Chest Strap is suspected, by moving away from the receiver while wearing it, or moving it while charging the battery.

The user or technician is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receivers antenna.
- Increase the separation between the Halo device and receiver.

- Connect the Halo device into an outlet on a circuit different from that to which the receiver is connected.
- Consult the Halo qualified technician or an experienced radio/TV technician for help.

Overview

Welcome to the myHalo™ Personal Monitoring and Alert System. This guide will provide you with the information necessary for wearing and caring for your Halo monitor. It will also explain how to access the Web portal and manage your account settings.

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

- *Wearing your Halo Transmitter* on page 5
- *Charging the Battery* on page 6
- *Frequently Asked Questions* on page 7

Accessing the Web portal 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 following sections:

- *Logging Into the System* on page 8
- *Understanding the Main Page* on page 8
- *Managing Account Settings* on page 12
- *Viewing Events* on page 19

Additional Requirements for Installation of the Halo System

The **user** requires:

- A broadband Internet connection for the Home Gateway (Cable or DSL).
- A standard phone line connection for the Home Gateway as a backup to the Internet connection. If the Internet is provided through a DSL, a DSL filter (usually supplied by the Internet service provider) will need to be placed on the phone line connecting to the Home Gateway.

The **caregiver** requires a computer with:

- An internet connection
- Internet Explorer 7 or Mozilla Firefox
- Adobe Flash Player 9.0.124 or later

Optional: A cellular phone with text messaging support.

Wearing your Halo Transmitter

Step 1

Remove the strap and transmitter from the 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.
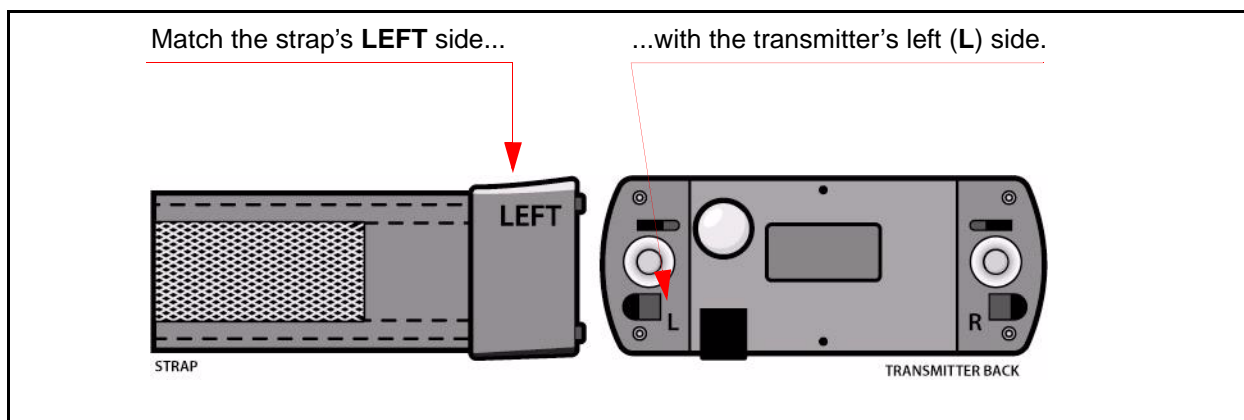

Match the strap's **LEFT** side...   ...with the transmitter's left (**L**) side.

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.

Note proper location of Halo emblem.
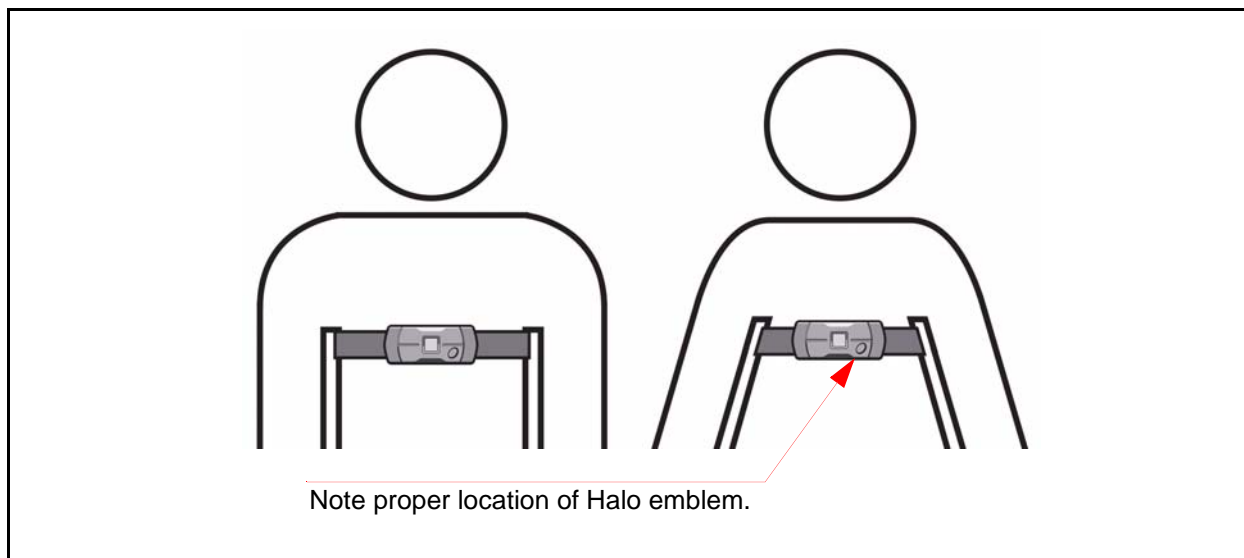
Figure 2. Proper Fitting of the Transmitter

Step 3

Adjust the strap to fit properly. Follow these simple guidelines and refer to Figure 2 on page 5 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.

Charging the Battery

Keep the transmitter charged. It is recommended that you charge the transmitter once a day.

Step 1

Remove the strap by disconnecting one of the snaps.

Step 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.

Step 3

Remove from the charger after 1-1.5 hours or when the battery is fully charged. Close the battery plug (to ensure the device remains water tight) and put the strap back on your body.
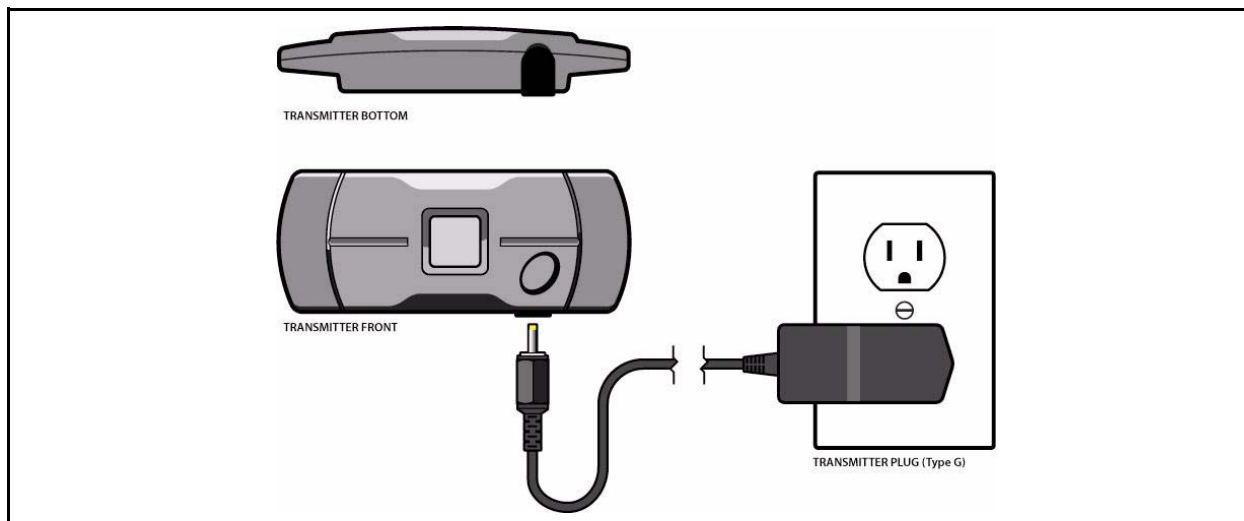

Figure 3. Charging the Battery

Frequently Asked Questions

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

A: Daily charging is recommended. The BATT 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.

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

A: Yes, but the Halo 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.

Q: What happens if I push the grey button?

A: While the Halo 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 Halo 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).

Q: How do I know my Halo system is working?

A: If you see a green **WAN** light and a green **PAN** light on your home gateway, then everything is working properly. Your home gateway device is also in constant communication with our central monitoring system, so we can detect any issue quickly. 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?

A: When needed, launder the strap on a gentle cycle and line dry. **Be sure to remove the transmitter before washing the strap!** Wipe the transmitter with a clean, slightly damp cloth.

Q: How do I contact Technical Support?

A: You can contact Halo Monitoring online at http://www.halomonitoring.com, phone: 888-333-halo (888-333-4256), or email: support@halomonitoring.com.

Navigating the Web Portal

Monitoring your 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.

Logging Into the System

Launch your chosen web browser (i.e., Internet Explorer, Firefox, etc.) and enter the web address http://www.myhalomonitor.com. Log in with your user id and password as shown in Figure 4. The user id and password should have been provided to you during the installation process. We recommend changing your password during your first session. You are prompted to do this the first time you log in.
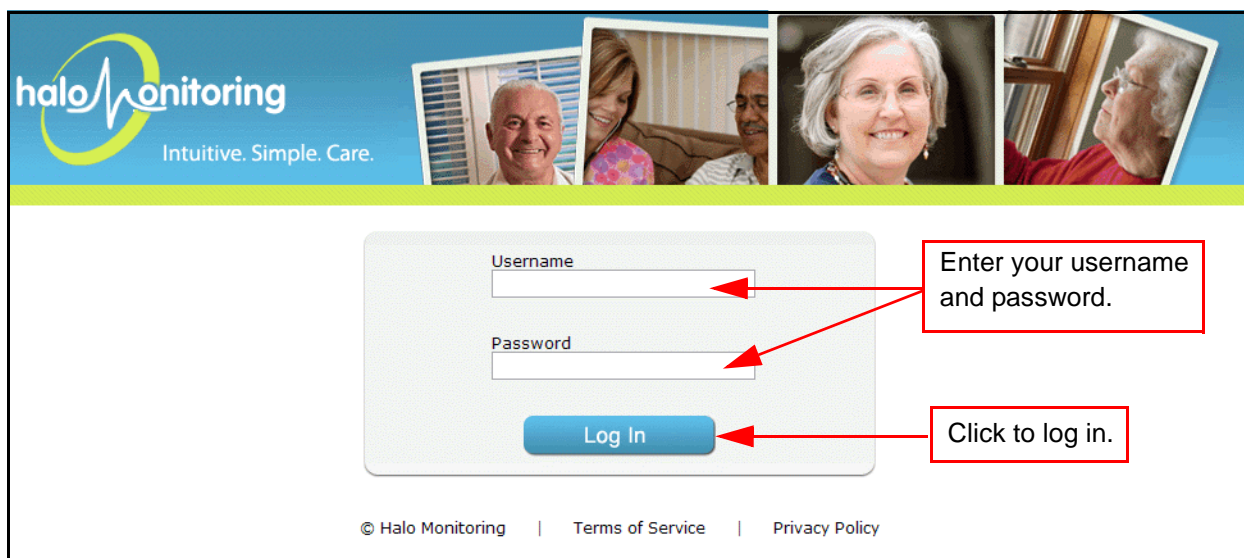
Figure 4. Web Portal Log In Page

Understanding the Main Page

The main page is displayed each time you log into the web portal. This page has two general areas that provide you with the information being gathered by the Halo Monitor. The two areas are the **Chart** and the **Dashboard**. These two areas are shown in Figure 5 on page 9 and explained in *Using the Chart* on page 9 and *Using the Dashboard* on page 11.

Figure 5. Web Portal Main Page

Using the Chart

The **Chart** is displayed in the left portion of the Main page. This area of the Main page consists of two graphs. The top graph displays the user's heart rate, variability, and skin temperature. Each of

these items can be hidden from view by deselecting the checkbox. The bottom graph toggles between the number of steps they have taken or their activity level. Activity information is also summarized in the pie chart in the lower right corner indicating either resting or not resting. The user must be horizontal for the system to register them as resting. You can switch between steps and activity by selecting the radio button in front of the appropriate item to display. Specific details are displayed on the chart at any point in time by hovering the mouse arrow over an area on the chart.
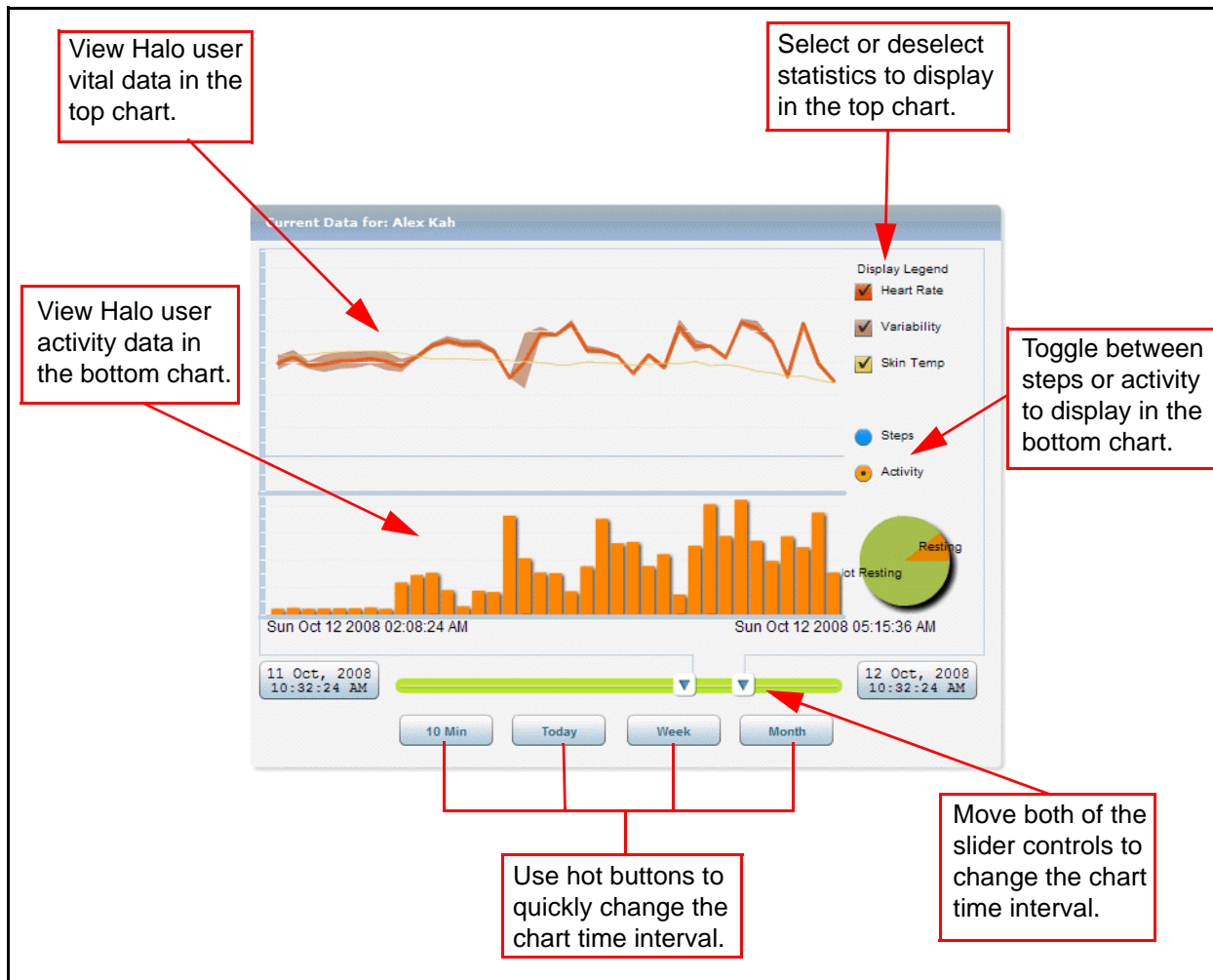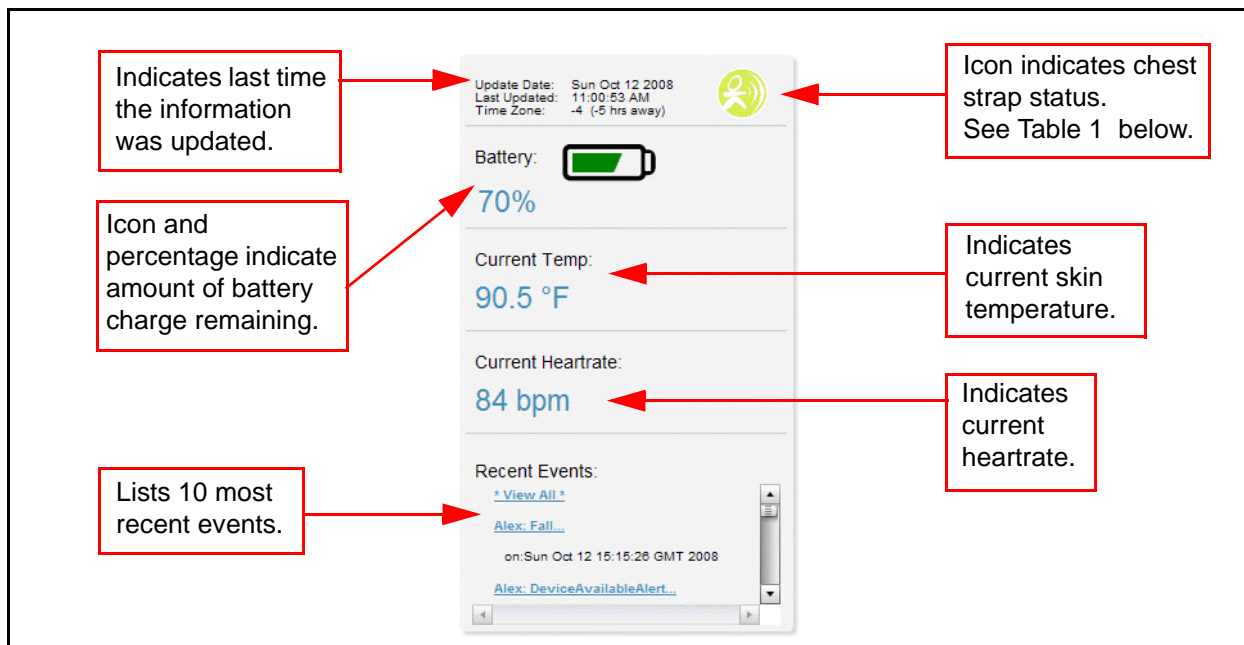
Figure 6. The Chart

The time interval shown in the chart can be altered by clicking and dragging either side of the slide bar at the bottom of the chart. The date and time displays in the boxes provided on either side of the slide bar. Hot buttons are provided to quickly change the time period shown as **30** minutes, **Today**, **Week**, or **Month**.

Using the Dashboard

The second general area of the Main page is the Dashboard. This area indicates the current status of the strap, the battery level remaining in the monitor, the last time the information was updated, as well as the current skin temperature and heart rate. See Figure 7 for more details.

The Dashboard also lists the ten most recent events. These events can range from the strap being fastened, to a user falling. More details can be viewed for any of the events by clicking on its hyperlink. These events are explained in greater detail in the section *Viewing Events* on page 19.

Indicates last time the information was updated.

Icon and percentage indicate amount of battery charge remaining.

Lists 10 most recent events.

Icon indicates chest strap status. See Table 1 below.

Indicates current skin temperature.

Indicates current heartrate.

Figure 7. Dashboard

Table 1. Status Icons Descriptions

Icon	Description
	In Range. The user is in range of the gateway and the strap is fastened.
	Unhooked. The strap is not fastened.
	Device Unavailable. The transmitter is out of range or the battery is dead.
	Offline. The gateway is offline.

Managing Account Settings

Several caregiver accounts can be created to monitor the user. To access this portion of the Web portal, use the **My Links** selection from the menu bar at the top of the page shown in Figure 8. Select **Caregivers** from the drop-down list. This will open the **Account Settings** page shown in Figure 9 on page 13. The following topics are some of the tasks that can be performed from this portion of the Web portal:

- *Creating a new account* on page 13
- *Changing the order in which the caregivers are notified* on page 14
- *Changing a caregiver's status* on page 14
- *Editing your profile* on page 15
- *Changing your password* on page 16
- *Setting Alert Notification* on page 17
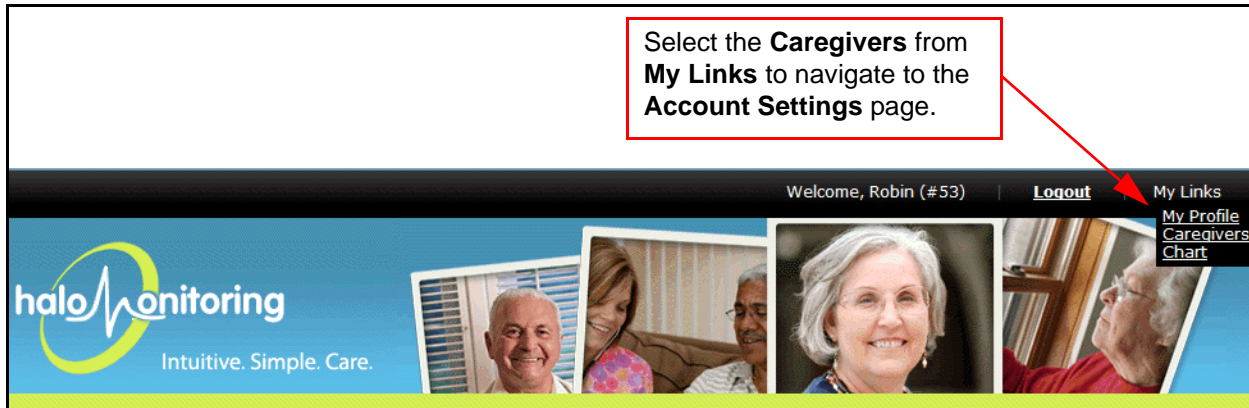
Figure 8. Using My Links

Creating a new account

1. Select the **User** from the top left portion of the page.

2. Select **Add Caregiver** from the bottom right portion of the page (as shown in Figure 9 on page 13). This will open a dialog box.

3. Enter the email address for the new caregiver and select **Next** (as shown in Figure 10). An email will be sent to the user for them to activate their account.
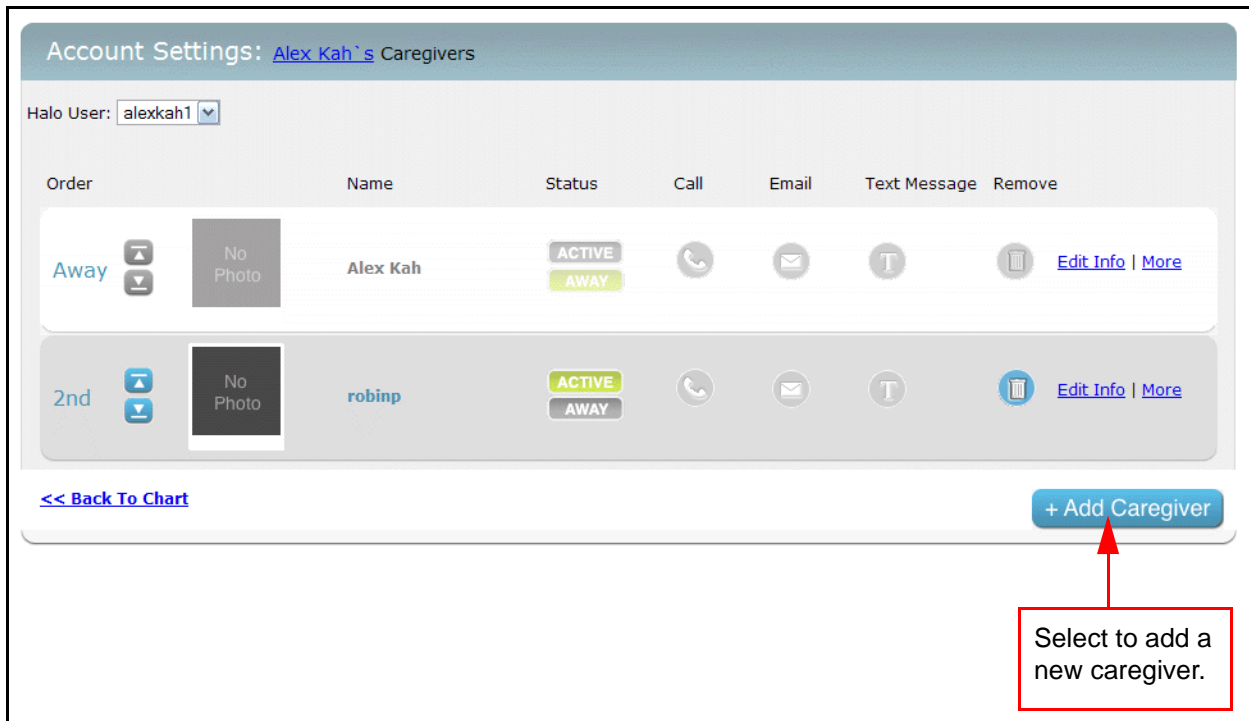

Figure 9. Creating a New Caregiver Account

Figure 10. Adding a New Account

Once the user has activated their account, they can set up their preferred method (or methods) for being contacted. This can be one, two, or all three of the following: phone call, email, or text message. Select the icon under each heading to activate it. A green icon indicates that the notification type is enabled. Be sure to check the **Edit Info** page to make sure the phone numbers and email addresses are correctly entered. Refer to *Setting Alert Notification* on page 17 to select which types of events notify the caregiver.

Changing the order in which the caregivers are notified

The order in which the caregivers are displayed is the order in which they are contacted when an event occurs. Once the new caregiver has been added, you can change their order by clicking and dragging the user box either above or below another user on the page. (See Figure 11 on page 15.)

Changing a caregiver's status

At any time after the caregivers have been set up, you can return to the **Account Settings** page to change the caregiver's status. This status indicates whether a caregiver will be unavailable to receive notification such as when on vacation or away for a period of time. Select **Active** to activate the caregiver to receive notifications. Select **Away** to temporarily disable notification for this caregiver. (See Figure 11 below.)
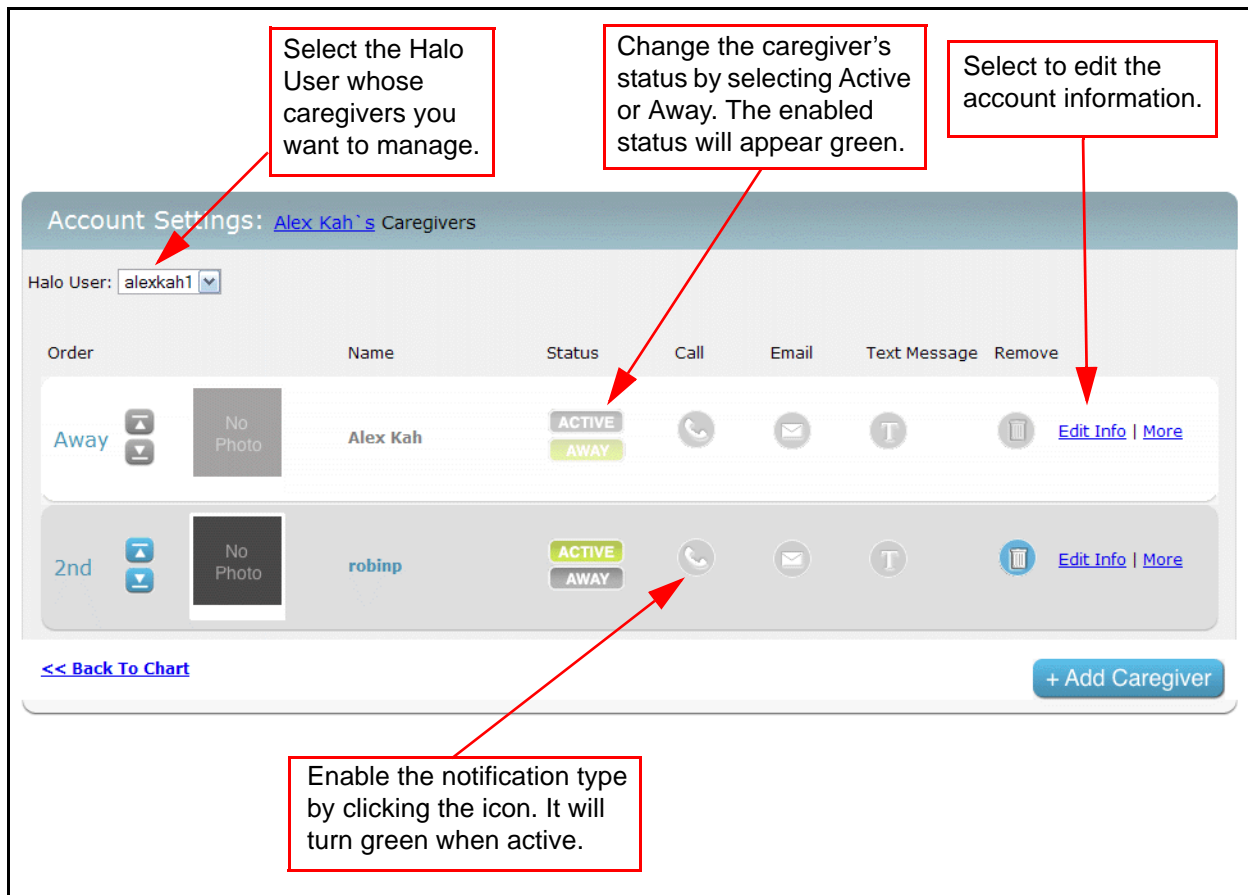
Figure 11. Modifying Caregiver Accounts

Editing your profile

Your profile information contains your name, email address, phone number, and other details used by the system to notify you. This information can be changed at any time by selecting **My Profile** from the **My Links** menu shown in Figure 12. Enter the new information and select **Update** to save the changes (see Figure 13 on page 16).
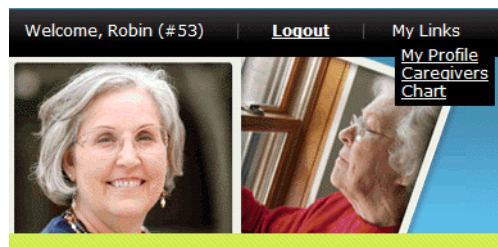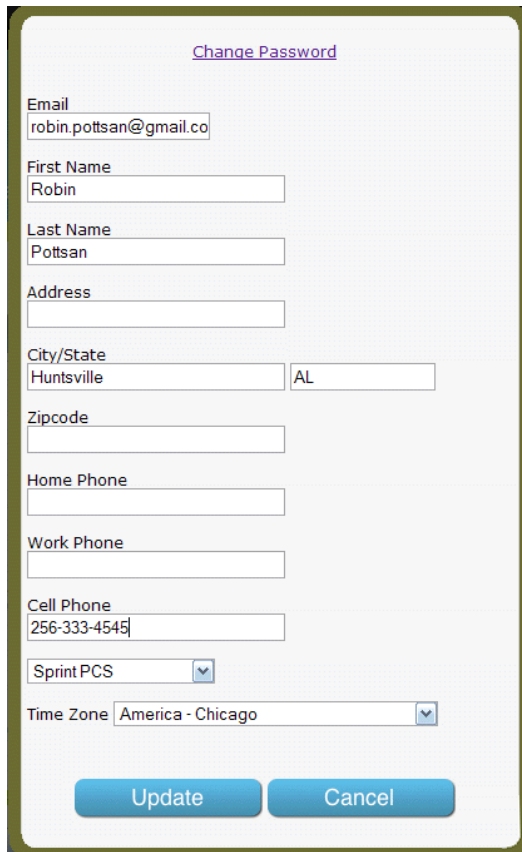

Figure 12. Accessing My Profile from My Links Menu

Figure 13. Editing Your Profile

Changing your password

Your password can be changed from the **My Profile** section of the Web portal. Select **My Profile** from the **My Links** menu shown in Figure 10. Select **Change Password** at the top of the **My Profile** dialog box (shown in Figure 13). Enter your current password, the new password, confirm the new password by entering it a second time, and then select **Update** to save.

Setting Alert Notification

There are a number of alert types that can be sent to you as a caregiver, either by a phone call, email, or text message. Change the alert notifications through the **Account Settings** page shown in Figure 14. Select **More** from the caregiver's account settings to open the **Alert Notification** page shown in Figure 15 on page 18.

Select to change the alert notification.
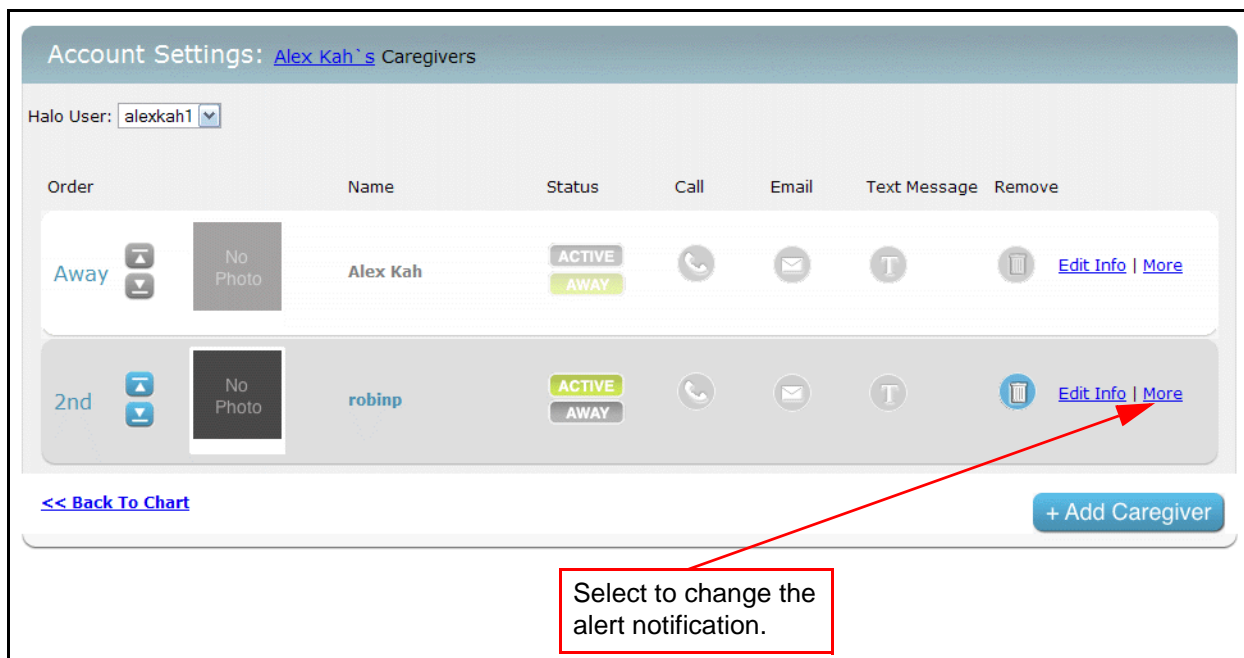
Figure 14. Changing Alert Notification for Caregiver Accounts

Scroll through the list of alerts and select any of the three methods for notification: phone call, email, or text message. By clicking on the icon for the notification type, the icon changes to green, indicating it is enabled for the alert type. You do not have to select a notification method for all of the alert types. The icons in Table 2 on page 18 represent each of the methods for notification.

To enable a notification method, select the icon representing it. A green icon indicates it is enabled. It is not required that you select a method for all alert types.
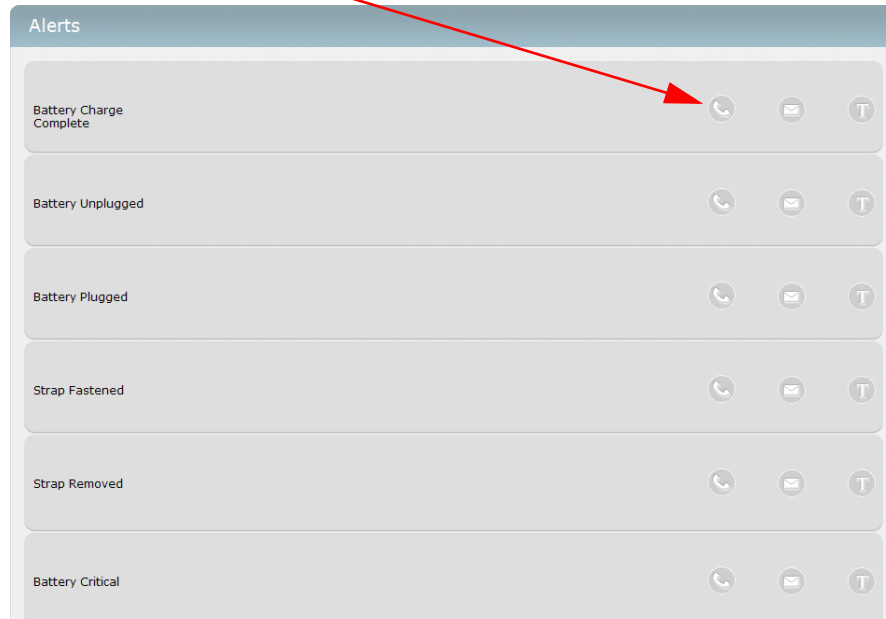
Figure 15. Setting the Alert Notifications

Table 2. Methods for Alert Notification

Icon	Description
	Enables phone call notification.
	Enables email notification.
	Enables text messaging.

Viewing Events

Events are activities that are logged by the Halo System and can range from normal events (like fastening the strap) to severe events (such as the user falling). Each event is logged by the system and viewed on the **Events** page. Access to the **Events** page is available from the events listing in the **Dashboard** on the **Main** page (shown in Figure 16).

Figure 16. Accessing the Event Page

When viewing the events listed on the **Events** page, the most current event appears at the top of the list. Additional events can be viewed by scrolling to the bottom of the page and using the navigation arrows to continue through the additional pages.

> **NOTE:** *Events can also be accessed from the* **My Links** *menu in the upper right corner.*

Figure 17. Viewing Events

Event information includes the date and time the event occurred, the type of event, and a description of what happened. It also indicates the Halo user's heartrate, skin temperature, and body position at the time of the event. There are three event categories: **Severe** - indicated in red; **Caution** - indicated in yellow; and **Normal** - indicated in green.

Appendix A Specifications

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

Intended Use

The intended use of this device is a home health care personal monitoring and alert system for seniors and their caregivers. The accelerometer is used to sense rapid change in direction such as a fall.

Technical

Power Output: 1mW max
Operating Frequency: 2400 - 2483.5 MHz
Operating Channel: 11
Operation Mode: DSSS (Direct Sequence Spread Spectrum)
Data Rate: 250kbs max burst

Temperature Range: 32° to 120° F
Accuracy of heart rate monitor: $\pm$ 4 bpm, under steady state conditions

Physical Properties

Chest Strap

Battery type: Factory installed Lithium Polymer (not user accessible)
Battery life rating: xxxx1 year

Material

Case: Lexan (polycarbonate plastic)
Skin Temperature Sensor: Copper with trivalent Chrome finish
Strap material: [Polar wording] Polyurethane, Fabric: Nylon
46 %, polyester 32%, natural rubber (latex) 22%

Appendix B: Indicators

The Home Gateway has multiple LED indicators on the front (see Figure 18) that provide information about its current state. These indicators are LEDs that illuminate in various colors, depending on the status. Refer to Table 3 for a description of each indicator and color.

Figure 18. Home Gateway Front Panel

Table 3. Indicators and Switches

Indicator	Description
Power	Solid Green - The Home Gateway is powered on.
Status	Flashing Green once per second - Normal conditions.
WAN	Solid Green - The Home Gateway has established a connection with the health server. Solid Red - There is a problem with the connection.
PAN	Solid Green - The Home Gateway has established a connection with the Chest Strap Transmitter. Solid Red - There is a problem with the connection.
BATT	Solid Green - The battery level is above 50%. Solid Amber - The battery level is between 25% and 50%. Solid Red - The battery level is below 25% and needs charging. A flashing **BATT** LED indicates that the chest strap is plugged in and the battery is being charged.
ALARM	Flashing Red - An alarm condition is detected. To disable the alarm, press the **RESET** button on the Gateway's front panel.