Sp🌎t Bot ™
Cellular

PRODUCT MANUAL

CONTENTS

1. INTRODUCTION

Every year more than $12B in goods are lost and over $100B are damaged during transport.

SpotBot is a reliable solution that allows you to keep track of your shipment and how it is being handled.

- Receive immediate alerts in case of mishandling with the impact level and location.
- Track your shipment with hourly location updates.
- Monitor your cargo environment with hourly temperature readings.

And, you can access all this information - wherever you are - through our web-based SpotSee Cloud.

SPOTBOT MAIN SPECIFICATIONS

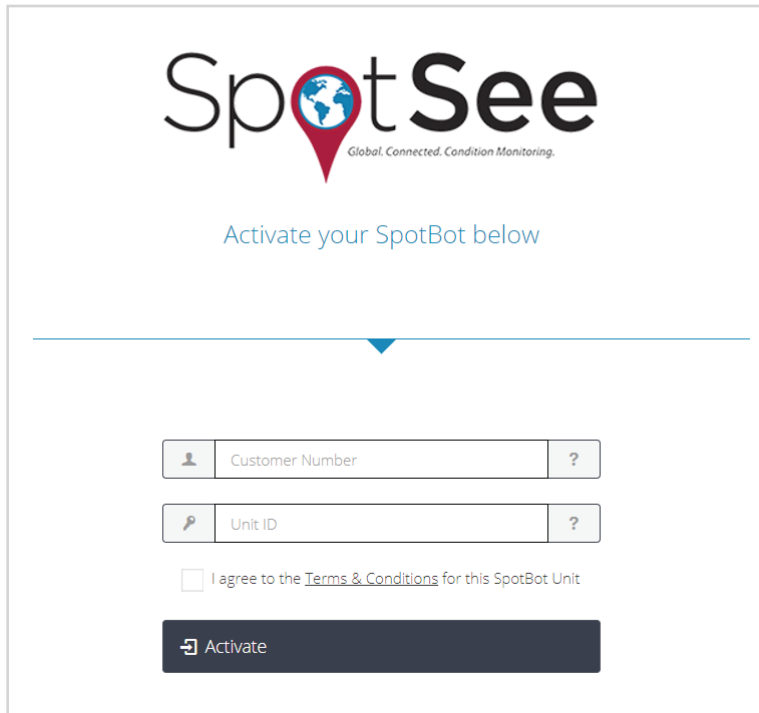|	
Dimensions	7.000" x 5.250" x 1.375" or 17.78 cm x 13.335 cm x 3.5 cm
Weight	1.304 lbs or 590 gr with batteries, 1.104 lbs or 500 gr without batteries
Impact detection	3-Axis, 200 g-force Digital MEMS Accelerometer
Other features	Location information
Temperature range	-40˚C to 85˚C or -40˚ F to 185˚F
Power Supply	Batteries: 6 x 1.5V Lithium AA Batteries (will work with 1.5V Alkaline AA batteries, although they are not recomended)
Battery life in normal cellular coverage conditions	1 (summary / event) per day 189 Days 1 (summary / event) per hour 70 Days (If Alkaline batteries are used, a lower battery life is expected)
Communication	Global cellular network

2. INITIAL SETUP

A. ACCOUNT ACTIVATION

NOTE: *STEP A is NOT necessary if your company has already purchased SpotBots and established an Administrator Account.*

SET UP OF ADMINISTRATIVE (ADMIN) ACCOUNT

1. If this is the first SpotBot purchase for your company, you must assign an ADMIN that will be responsible for user access for the account.

2. The ADMIN navigates to activate.spotsee.io to begin the activation process.

"Customer Number"
  Enter: Customer Number found on the packing list that shipped with the SpotBot, the customer invoice, or the order acknowledgement

"Unit ID"
  Enter: Unit ID from one of your SpotBots (found on front label)

  Click: *Activate*

3. Insert the ADMIN email address in the pop up box and click *Enter*
  A message will be sent to the ADMIN's email address from no-reply@shockwatch.com

  (NOTE: If this email is not received within approximately two (2) minutes, please contact the appropriate technical support number found on page 22 of this guide. Be sure to check spam or junk folders first).

4. Follow the link in the email to create your password.

B. ADDING OR EDITING USERS

1. Navigate to cloud.spotsee.io and log in using the ADMIN email address and password created in STEP 1

The admin will be able to view and manage other users and assets inside your company.

Clicking *Users* on the left side of the screen displays a list of all the existing users for your account.
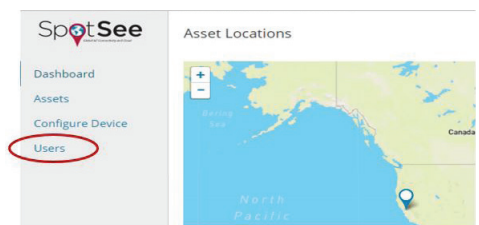
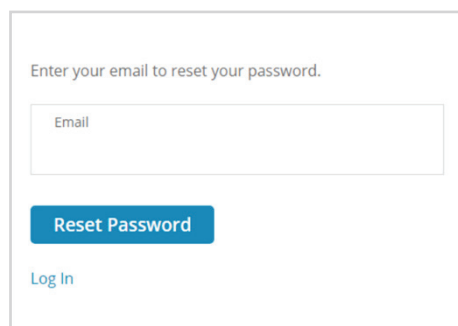You can edit a user by clicking on the *pencil icon* or add a user by clicking the *plus (+)* sign.
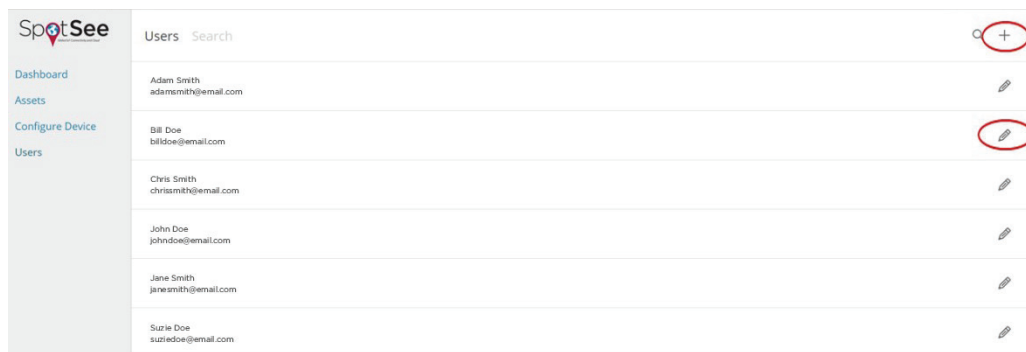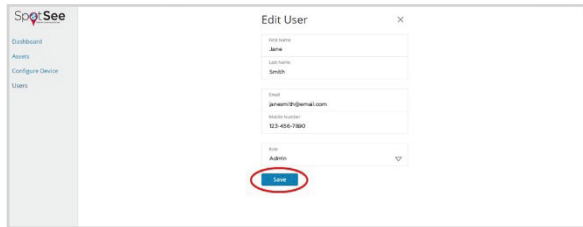
Once you are finished making changes to an existing user, be sure to click the *Save* button.

Once you are finished inputting all the fields for a new user, click the *Add* button
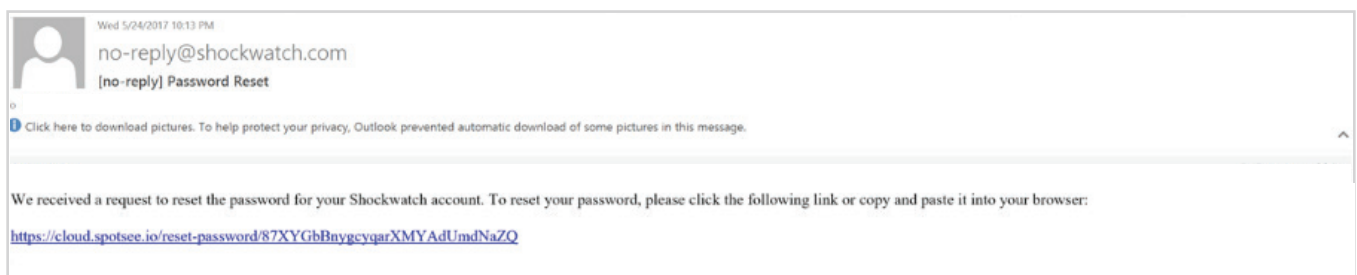
C. LOGIN AND PASSWORD RECOVERY

Go to cloud.spotsee.io and enter your email and password.

If you forgot your password, click *Forgot Password* to receive a password reset email.

Enter your email and click *Reset Password*.

Follow the link provided in the email to reset your password. If you can't find the email, please check in the spam or clutter folders.

D. SPOTBOT UNIT ACTIVATION

1. To activate your new SpotBot unit so that it will be visible in the SpotSee Cloud, navigate to the activation website: activate.spotsee.io

2. Enter "Customer Number" and "Unit ID" and click "Activate"
Message will appear stating that service has been activated for the Unit ID that was entered.

Access Port

Unit ID Number   On/Off   Reset   Micro USB Port
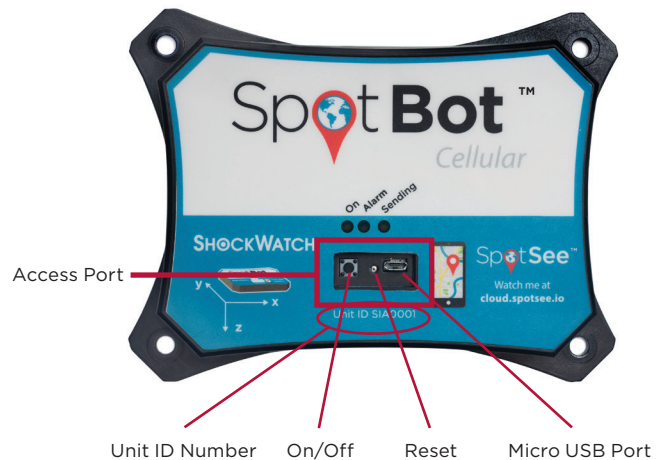
BATTERY INSTALLATION

1. Remove SpotBot unit and batteries from the box

2. Unscrew battery panel (see image to the right)

   Required to complete this step

3. Install the six (6) AA batteries provided in the direction notated within each battery slot and replace battery panel making sure that CE sticker is visible

BATTERY REPLACEMENT

• When replacing the batteries make sure you have all you need on hand. The SpotBot will keep settings for five (5) minutes without power so you can replace batteries.

• If the device goes longer than five (5) minutes without batteries, or if the SpotBot's batteries become depleted during a trip, you must repeat *Step 3. Configure your SpotBot.*

3. CONFIGURE YOUR SPOTBOT

1. Navigate to cloud.spotsee.io and log in using your email and password

2. Click on *Configure Unit* in the column on the left side of the web page
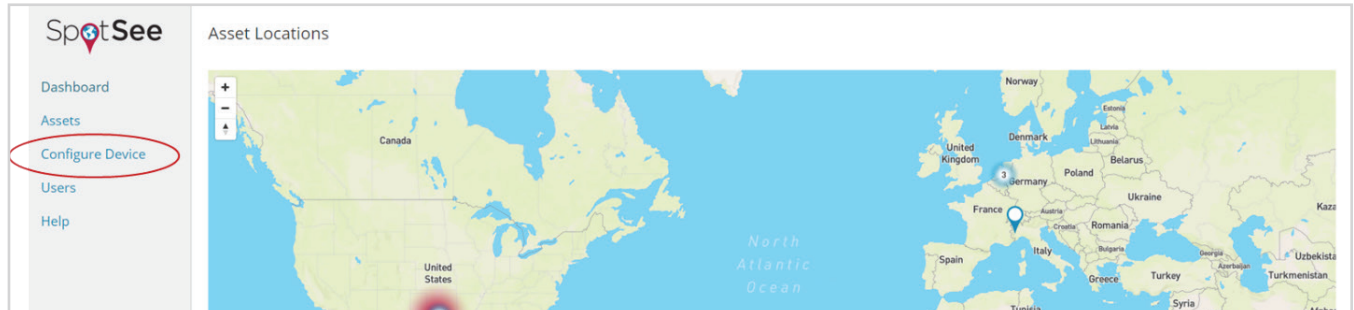
3. Go to "Initial Setup" and follow the steps for your chosen browser. Click *Launch Configuration Application* to launch and run the SpotBot Software.

   Please Note: *SpotBot Beta test customers must first delete existing SpotBot configuration application before completing this step.*
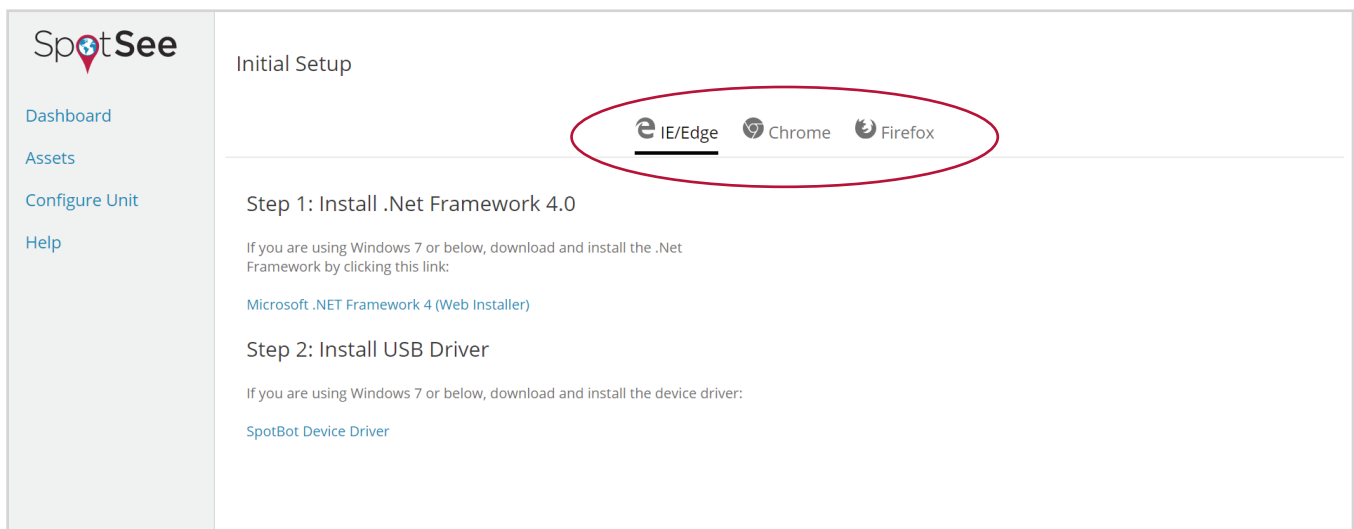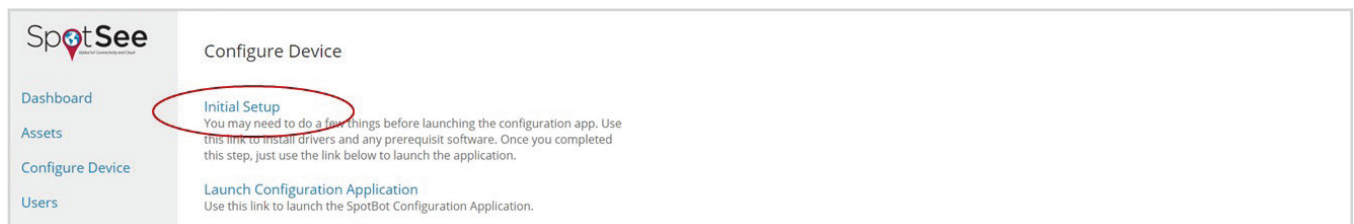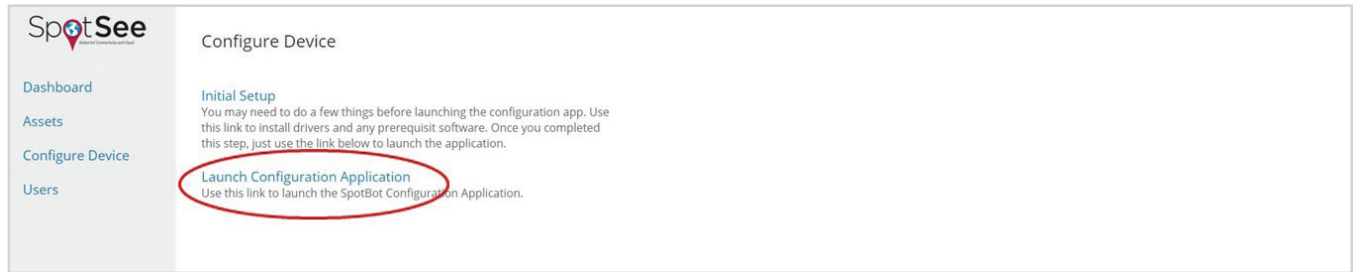
4. Remove the rubber cover from the front of your SpotBot unit

5. Connect your computer to the SpotBot using the micro-USB cable provided

Access Port

Unit ID Number   On/Off   Reset   Micro USB Port
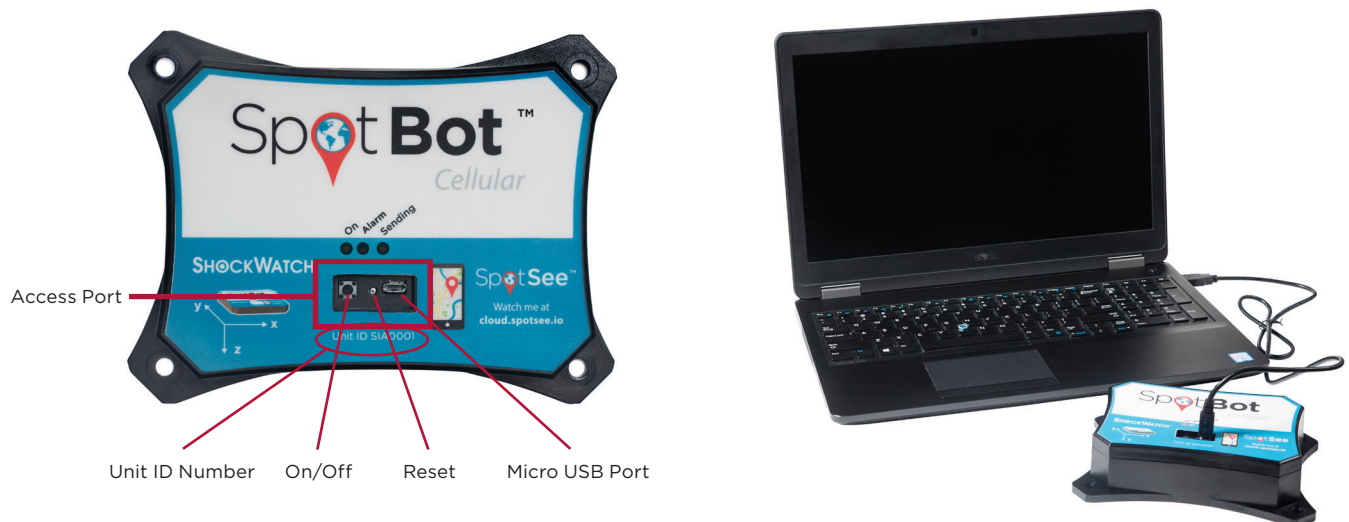
6. Push the *On/Off* button on the front of the SpotBot unit

   Unit ID will appear within the profile pop-up window (shown below)

7. Select the alarm threshold
   (minimum impact for which the
   SpotBot will start sending alerts)

8. Select the summary time
   (frequency in which the SpotBot will
   communicate its location and alarm
   count)

9. Press *Save*

9
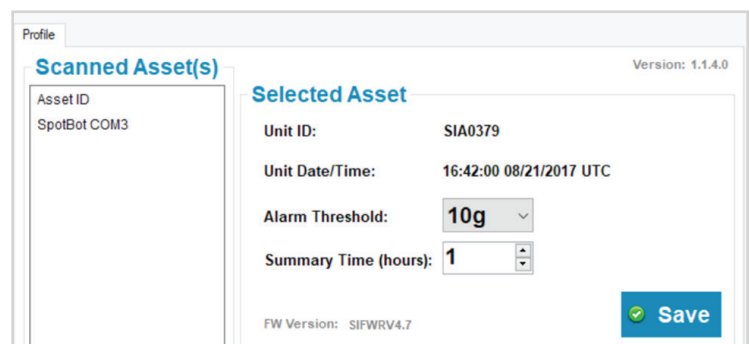
There is a tradeoff between the battery life and the summary time. If you need longer battery life, the summary time should be set to higher values. Please refer to the SpotBot main specifications for an indication of expected battery life. (Page 3)

After you press *Save,* the SpotBot will send a summary message with the new settings to the Spotsee Cloud via the cellular network.

Before you start a trip, verify you can see your SpotBot in the SpotSee Platform.

Login to your account at cloud.spotsee.io and you will be able to identify your SpotBot within the dashboard.
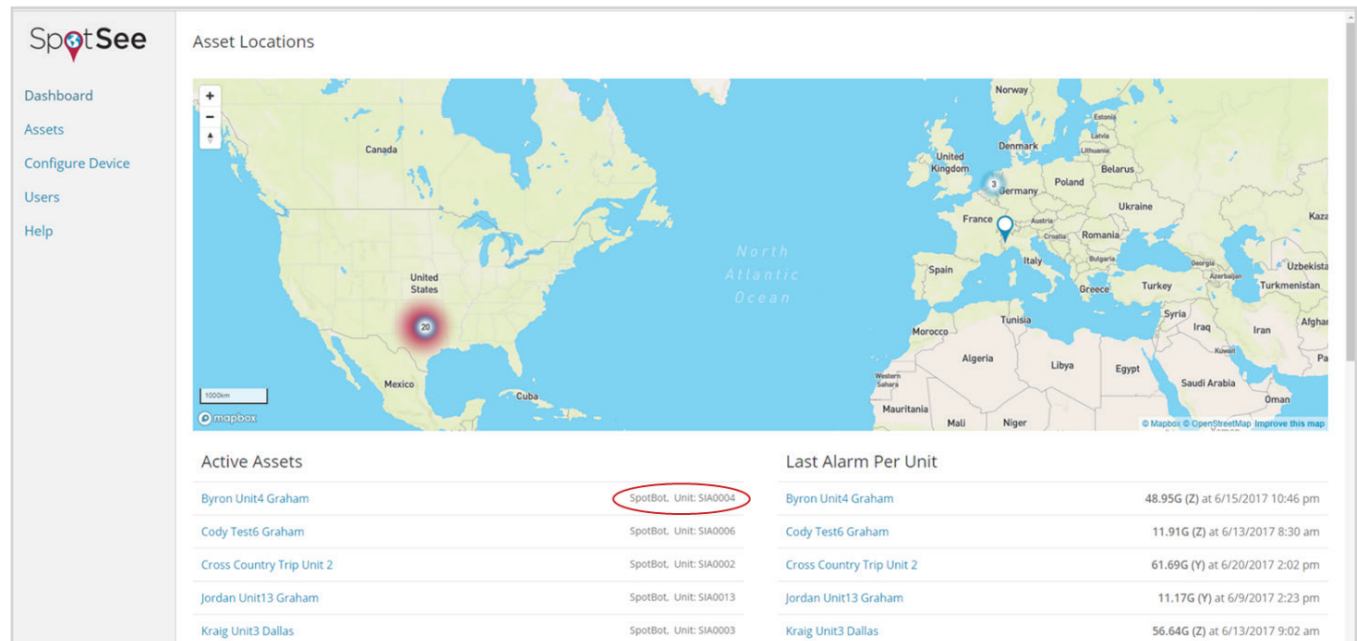
Finally, unplug the Micro-USB cable. Your SpotBot is ready to start a trip.

4. HOW TO USE YOUR SPOTBOT

A. BEGIN MONITORING

Begin Monitoring – Press *On/Off* button in the access port. The "On" and "Sending" lights will both flash green.

In Use (No Alarm) – When the SpotBot is in use and not in process of sending an alarm to the SpotSee Cloud, the "On" light will flash green every minute if no alarm has occurred. This light will flash yellow if the unit has low battery life.

Alarm Triggered – When SpotBot experiences an impact above the "Alarm Threshold," the "Alarm" (red) as well as the "On" and "Sending" (green) lights will flash at different intervals. The lights continue to flash as the SpotBot unit sends the alarm data to the SpotSee Cloud.

> ## TIP
>
> A good way to verify if the trip is active is to produce an alarm. Place a notepad on your desk and drop the SpotBot from 3 inches (8cm) onto the notepad. You will see all three (3) LEDs flash if the trip is started and no LEDs if the trip is not started.

Unit Status Check – To check the status of the SpotBot unit, press the *On/Off* button for one (1) second. If the "On" light flashes green and the "Alarm" light flashes red, an alarm has occurred. If the "Alarm" light does not flash, then no alarm has occurred.

B. STOP MONITORING

Stop Monitoring - Press and hold the *On/Off* button (for approximately five (5) seconds) until all three (3) lights stop flashing and remain on.

The reason you need to hold the button to stop the trip is to prevent people from stopping the trip while in transit with a simple push of the button. This way stopping the trip is a deliberate action. As long as there is cellular coverage, a notice will be sent to the SpotSee user if the trip has been stopped or the device has been reset, so you know immediately if someone has tampered with the device.

5. SPOTSEE PLATFORM

A. THE DASHBOARD

The SpotSee Cloud enables you to monitor and control your assets from any location. Upon logging into the cloud platform you will see your dashboard. This page will show the last known location of all your SpotBot units (referred to as assets), a list of all your active assets and the most recent alarm for each one.
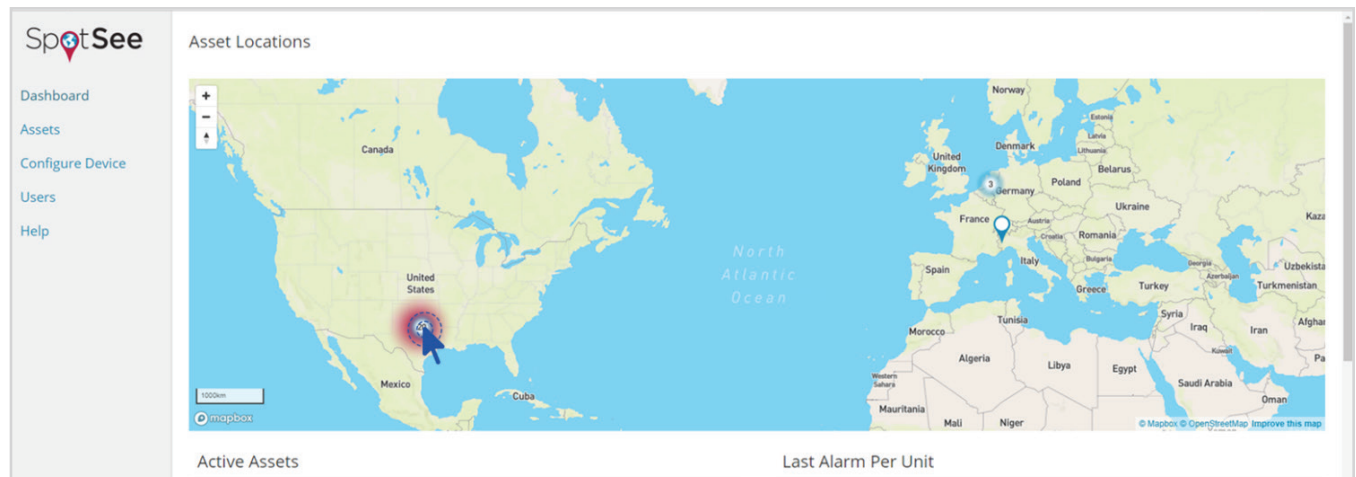
If active assets or units are positioned in the same location, it will show the number of units in that location.

By clicking on the units in a specific area, the map will zoom in until you can see individual units.
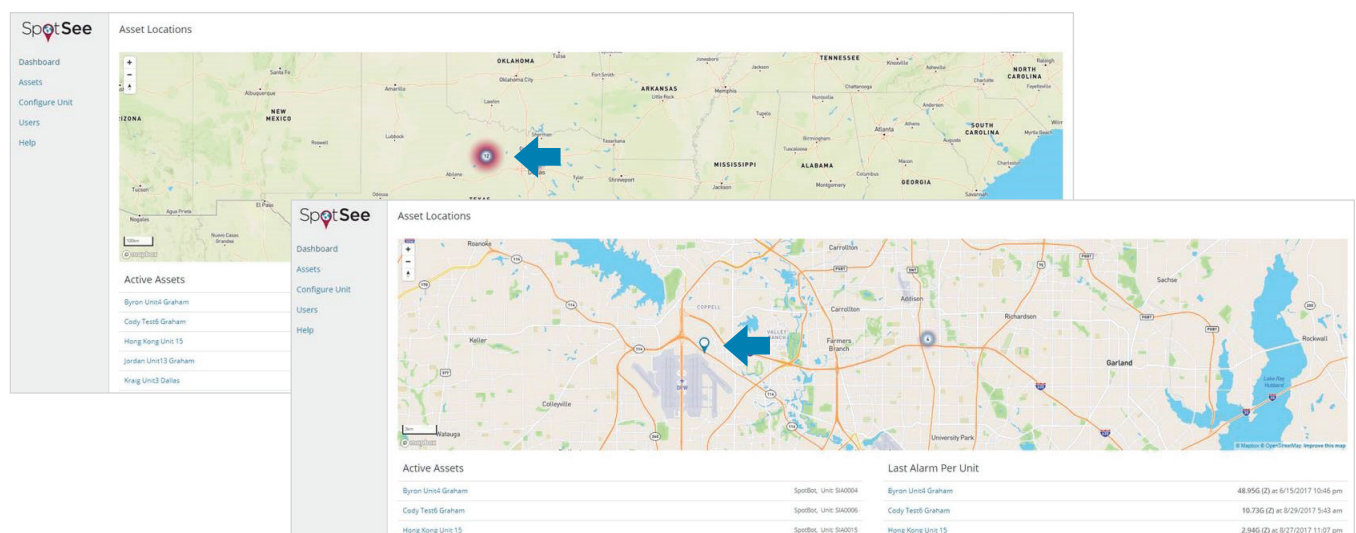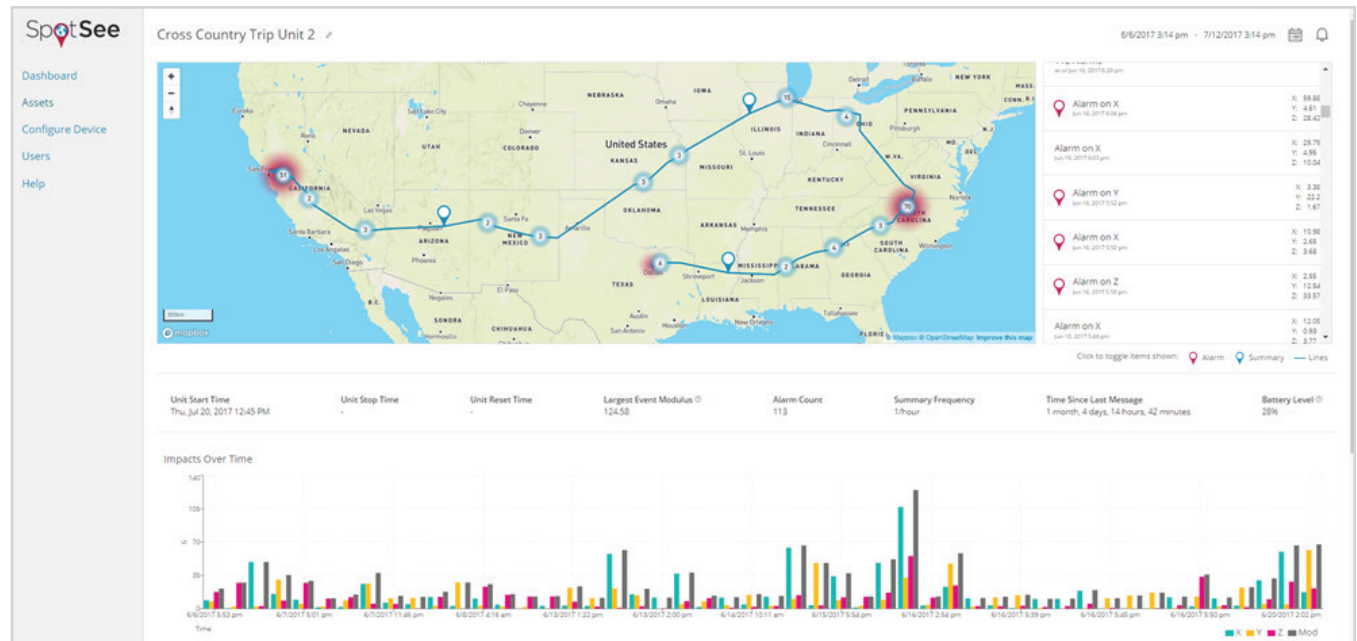

You can access each individual SpotBot by clicking on the *location icon* or on the *asset name* in any of the lists.

B. ASSET PAGE

When you drill down into an individual SpotBot page, you will be able to access more detailed information about the specific SpotBot.

THE MAP

On the map you will see all the locations your SpotBot reported to the SpotSee Platform.

The map will show the location pin (alarms and summaries) clustered by proximity. By clicking the numbers on the map, the map will zoom in until you can see individual pins.
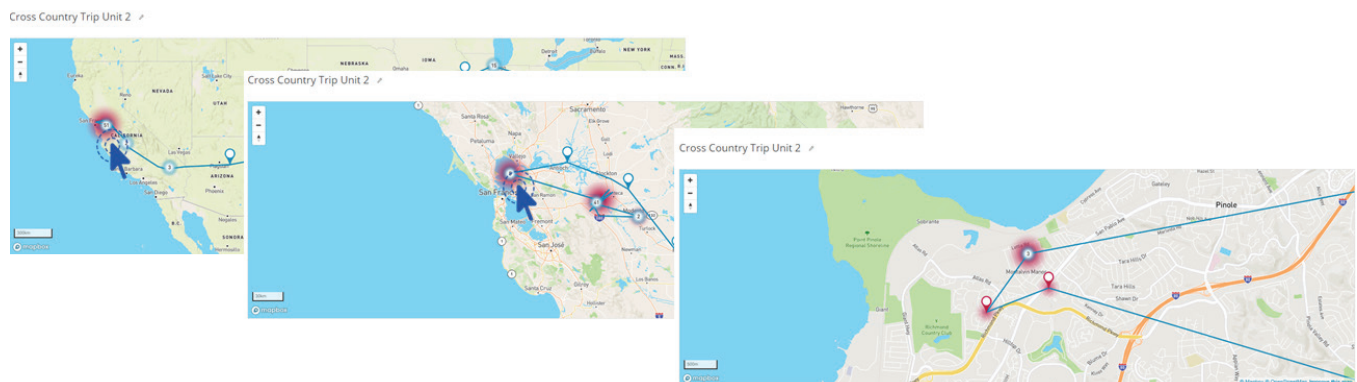
The red heat map around the numbers indicates there is at least one alarm within that cluster. The heat map grows with the number of alarms in that location or area.

A blue pin represents a summary (with location and count of all alarms registered by the unit since the last data reset).

A red pin represents an alarm issued by the SpotBot. The SpotBot will issue an alarm if the impact is higher than the alarm threshold as defined in Section 3 - Configure your SpotBot.

On the right side of the map is a list of alarms and summaries for the unit. The alarm shows the main axis and the x, y, and z values recorded.

If you prefer to see only the alarms, click on the *Summary* label.

The summaries will be removed from the map and the list and only the alarms will show.
When summaries are turned off the icon at the bottom changes from blue to gray.
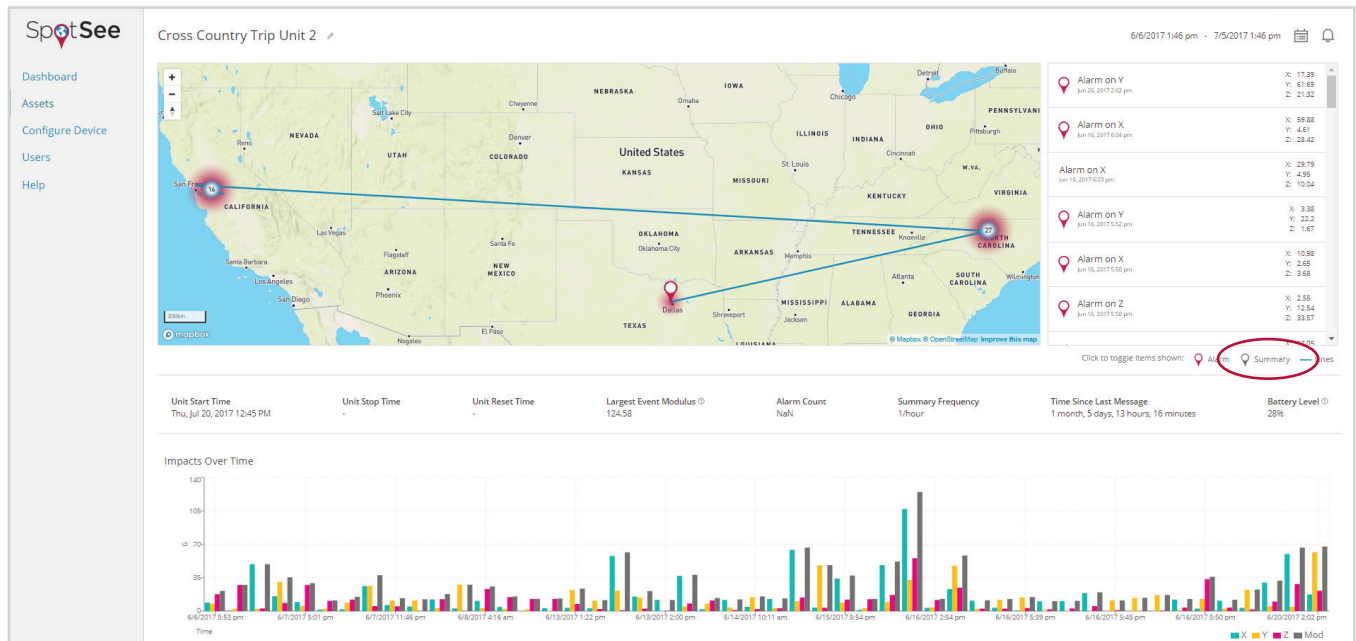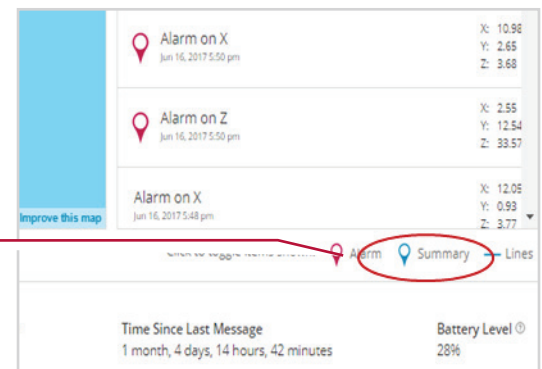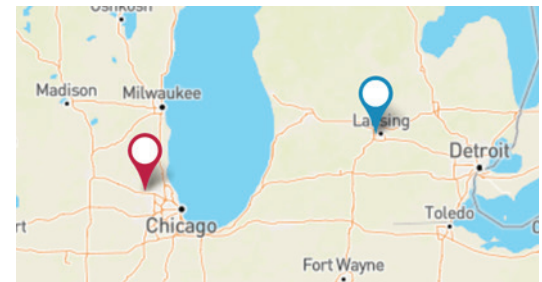
You can do the same with the alarm label if you wish to only see summaries.

The SpotSee platform will trace the trip path by default when you open the unit page. If you do not wish to see the path, you can remove it by clicking the lines icon.

The map will then show all the location points without the path.
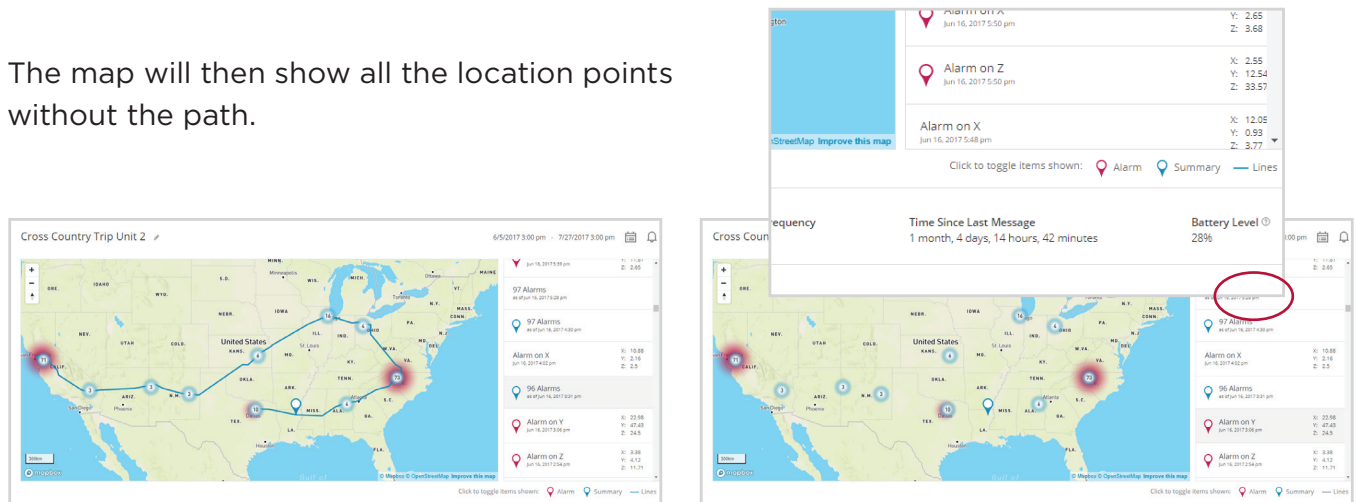
INFORMATION TAB

Below the map is a table with relevant current information about the unit.

Unit Start Time	Unit Stop Time	Unit Reset Time	Largest Event Modulus ⓘ	Alarm Count	Summary Frequency	Time Since Last Message	Battery Level ⓘ
Thu, Jul 13, 2017 4:55 PM	-	Fri, Jun 30, 2017 3:20 PM	50.9	4	24/hour	1 hour, 8 minutes	87%

Unit Start Time – indicates last time a trip was started in a unit (as described in 4.A.).

Unit Stop Time – indicates the last time a unit was stopped (as described in 4.B.)

Unit Reset Time – indicates last time the unit's data was reset (see more in Step 6.B.)

Largest Event Modulus – largest impact received by the SpotSee platform since the unit was reset.* *NOTE: Modulus takes the x, y, and z directional impacts into consideration and summarizes the combined result of all three axes. It is is calculated as* $\sqrt{x^2 + y^2 + z^2}$

Alarm Count – number of alarms recorded by the unit since it was reset.

*Summary Frequency* – the frequency in which the unit will send a summary

Time Since Last Message – this field indicates the last time a message was received from the SpotBot. In case this value is larger than the summary frequency, this field works as warning of lack of cellular coverage or mishandling of the SpotBot.

Battery Level – indicates the battery level of your unit. When this level reaches lower percentages, it is advised to change batteries before sending the unit on a trip.

To guarantee data integrity, the SpotBot has a battery preservation feature. The SpotBot will turn off the radio when the unit reaches 25% battery life but will still record the events in the unit. At 15% battery, the unit will stop recording, but the data will remain stored in the unit until the battery is completely depleted.
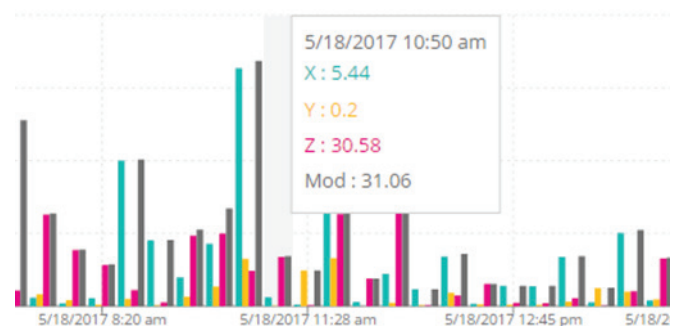
IMPACTS OVER TIME

Below the information tab you can find a graph of impacts over time with X,Y,Z and Modulus, representing the impact levels of all the alarms detected by the SpotBot. X,Y and Z axes directions can be found in the front label of the unit:
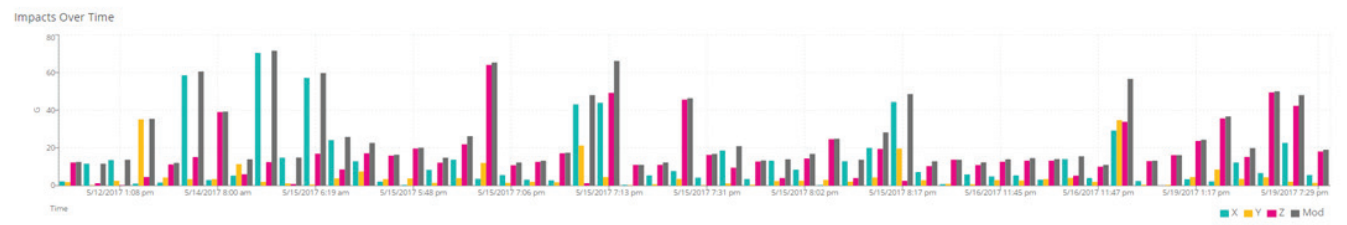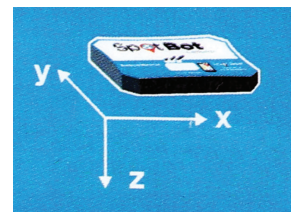

Hovering the cursor over the bars in the chart will allow you to see the individual values for each impact.

This is true for all the graphs represented on the SpotSee platform.

IMPACT HISTOGRAM

Below the "Impacts Over Time" graph, you will find the "Impact Histogram." This chart tells you how many impacts you had over a certain impact level. This graph divides the impact values into intervals called bins. Each bar on the histogram represents the number of measurements falling within a bin.
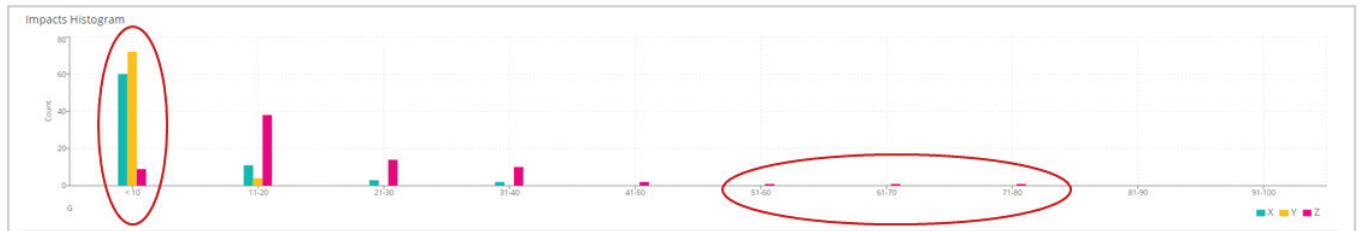
In this example, most impacts fall within the <10 G bin. We can also see the unit had one impact in each of the higher G ranges.

TEMPERATURE

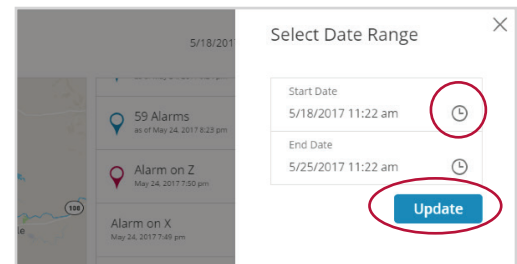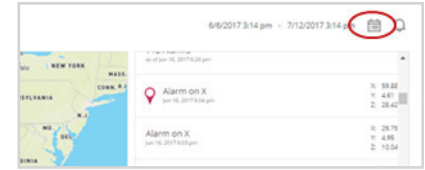Temperature is also recorded by the SpotBot.

C. ASSET PAGE SETTINGS

CHANGE DATE RANGE

By selecting the calendar icon positioned on the top right of the page you can select to view data for a different date range.
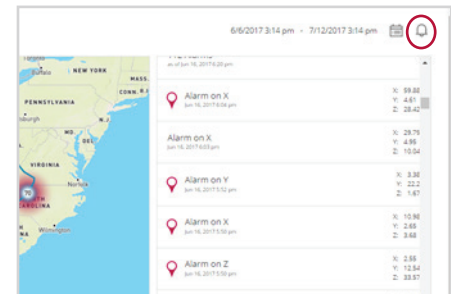
The default date range is the last seven (7) days.

Select the desired start and end dates and then click *Update*. New data may take a few moments to load.

SET NOTIFICATION EMAILS

SpotSee Cloud allows you to define multiple emails to receive alarm notifications.

Click on the *notification icon* to set-up emails.

Enter the new email address and click the *plus (+)* sign to add it to the list. Once you are done adding email addresses, click *Update* to save the list.

The emails you choose to receive notifications will receive an email every time the SpotSee platform receives an alarm from that specific SpotBot. Please make sure to check the spam and clutter folders and add no-reply@shockwatch.com to your address book to avoid the spam and clutter folders.
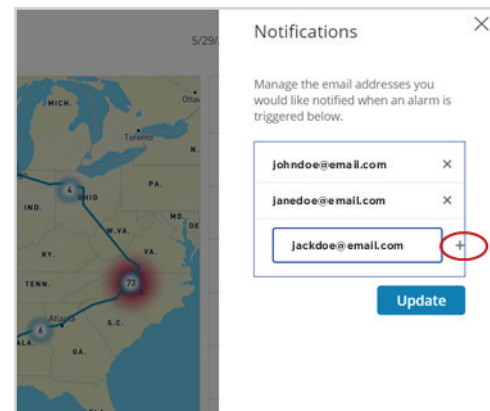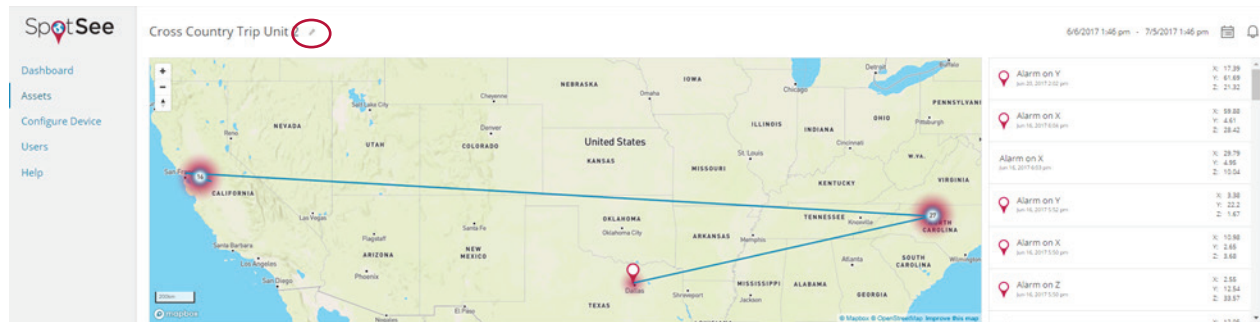
no-reply@shockwatch.com
[SpotSee] Unit10 Dallas Alarm

An alarm occured on asset Unit10 Dallas
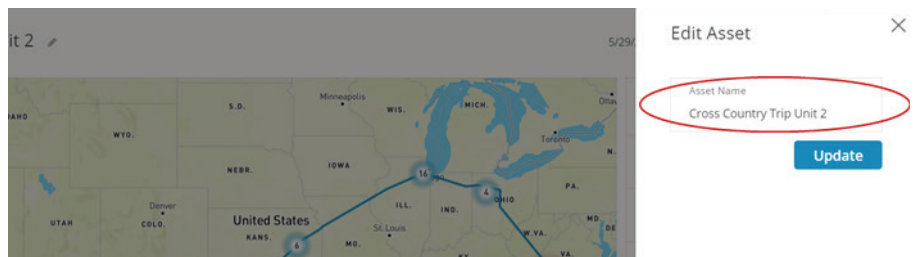
A 41.94G G force was detected on axes Z

CHANGE ASSET NAME

While on the "Assets" page, you can edit the Asset's Name by clicking the pencil icon next to the unit name.

Enter the chosen name and click *Update*.

19

6. MANAGING DATA RECORDED IN YOUR SPOTBOT

A. ACCESS A PDF OR CSV REPORT IN YOUR SPOTBOT

In addition to viewing data on the SpotSee Cloud, you can download a PDF report of the trip directly from the device using the USB port. This report is saved on the unit in case cellular transmission is poor or there is no network when an impact occurs. This way, you never miss an event.

To retrieve this report, simply plug the SpotBot into the computer with the USB cable provided.

A drive will open on your computer (if the drive doesn't open automatically, press *On/Off Button*).
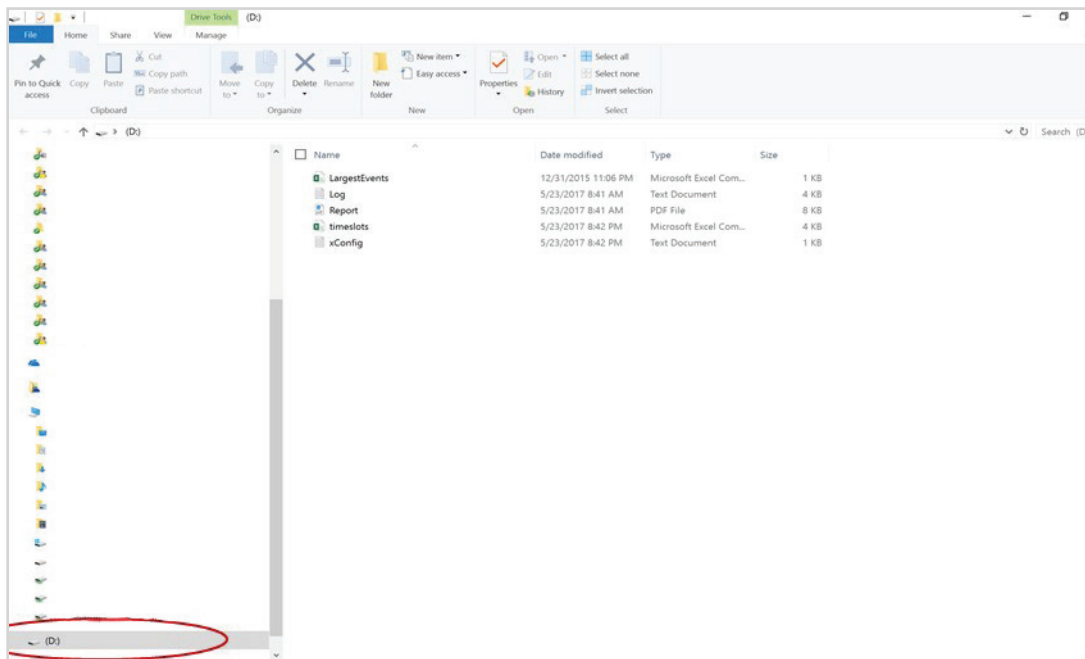
Open the new drive and copy the PDF file called "Report" to your computer. The events are also available in the Excel or CSV file, "Largest Events."

The PDF report will summarize the entire trip, including a list of the ten (10) highest events recorded as well as a histogram of all the alerts recorded by the SpotBot, even if cellular transmission was not available or was limited during any part of the journey. In the report, you will notice that events above the alarm threshold are shown in red.

The file LargestEvents.xls will have the fifty (50) largest recorded impacts. This file can also be a good source of information.

The remaining files are system files and have no trip related information.

We recommend downloading the PDF report from the device directly after each trip. If damage occurs to your asset during the trip but there is no alert showing in the SpotSee Cloud, the device may have recorded an impact that it was unable to send due to limited cellular reception (i.e. on a ship or in a rural area).
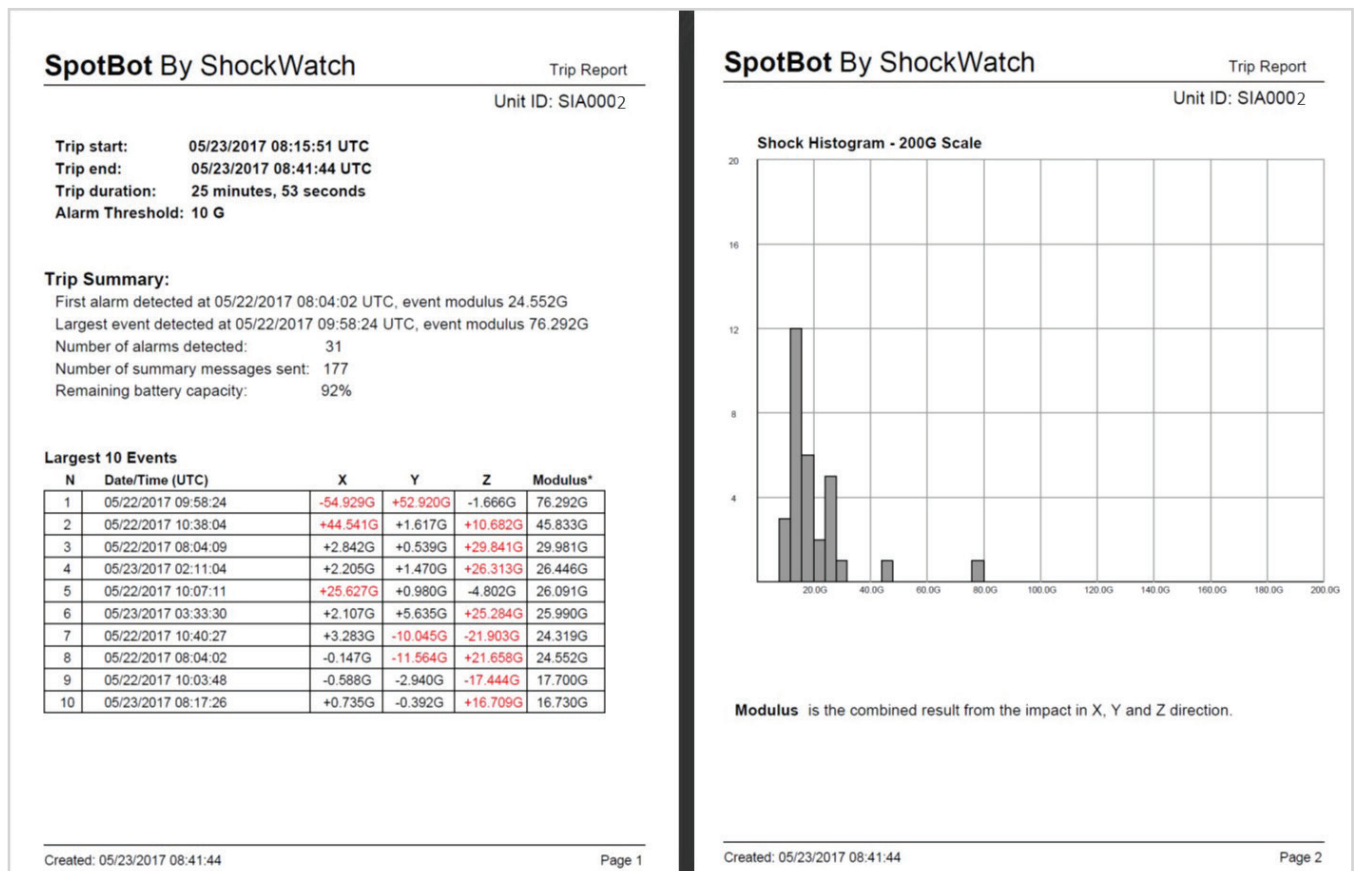
B. CLEAR THE TRIP DATA

Once you have downloaded the PDF report and before starting a new trip, you can clear the SpotBot data by pressing the *Reset Button* (recessed button). You may need a pen or pencil to press this button. It is designed to be recessed so the button is not pressed by accident during transit.
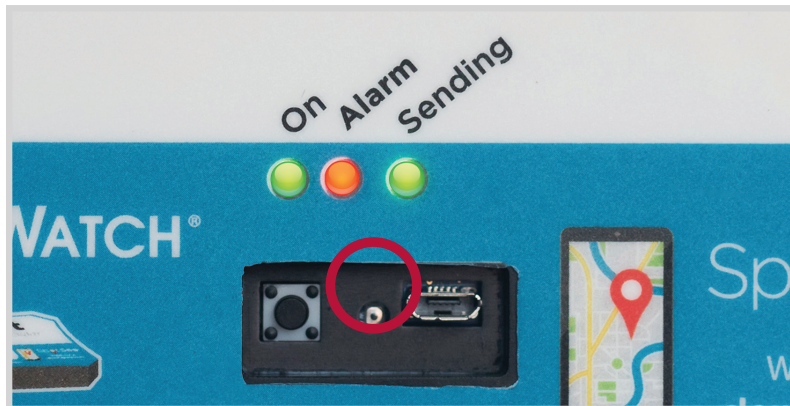
This action will clear all the data on the device and in the report tables, allowing you to start a new monitoring.

NOTE: All transmitted data from the trip will still be stored in the SpotSee platform.

7. CONTACTS

TECHNICAL SUPPORT

Email: techsupport@shockwatch.com

ShockWatch Canada & Americas
US: +1 800-466-0101
Outside US: +1 214-736-4579

ShockWatch Europe, Middle East, Africa:
+31.55.7370 148

ShockWatch Asia-Pacific:
+86 138-1884-4157

CUSTOMER SUPPORT

Email: orders@shockwatch.com

ShockWatch Canada & Americas
US: +1 800-419-1454
Outside US: +1 214-736-4578

ShockWatch Europe, Middle East, Africa:
+31.55.7370 246

ShockWatch Asia-Pacific:
+86 21-6034 7267

8. REGULATORY COMPLIANCE

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the
  receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

U.S./Canada Regulatory Compliance Information

To satisfy FCC RF exposure requirements for mobile and base station transmission devices, a separation distance of 20 cm or more should be maintained between the antenna of this device and persons during operation. To ensure compliance, operation at closer than this distance is not recommended. The antenna(s) used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Industry Canada Statements

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that permitted for successful communication.