

Troubleshooting Guide for i-ALERT[®] 2 Bluetooth Equipment Health Monitor



i-ALERT2 troubleshoot guide 2016 0316

1. **How do I turn off the Bluetooth Radio or shutdown and reset the unit?**

The Bluetooth Radio can be toggled on/off by holding a magnet over the raised Bluetooth icon found on the lower right corner of the i-ALERT2 Equipment Health Monitor. When the magnet is within range the LED's will illuminate in a pattern to indicate which mode the i-ALERT2 monitor will toggle if the magnet is removed at that time. The red (bottom) led will light immediately after the magnet is in range; removing the magnet at this time will do nothing. After ~2 seconds the blue (middle) LED will illuminate; removing the magnet at this time will toggle the Bluetooth radio on/off. There are other modes that can be entered based on the length of time the magnet is applied.

Table of modes

Mode	Remove Magnet	Approximate time
Bluetooth Radio Toggle	While Blue (Middle) LED On	3 sec
Unit Shutdown	While Green(Top) LED On	6 sec
Full Unit Reset	After All 3 LED's Go out	12 sec

2. **My unit appears to be off (it is not blinking), what do I do now?**

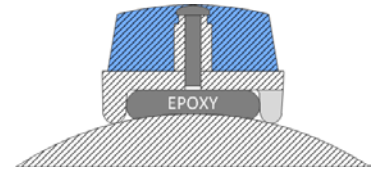
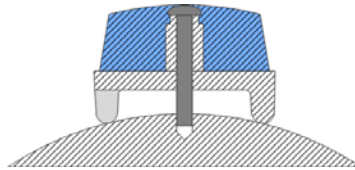
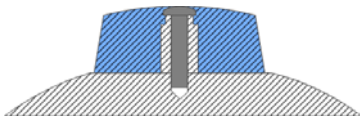
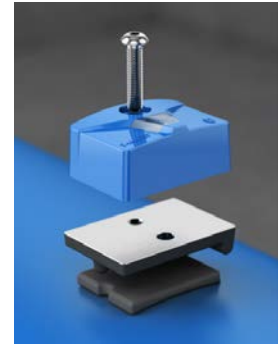
1. The unit is in a factory sleep mode: The unit will turn ON when the sticker is removed from the LED window and it is exposed to light. (Note: If it is located in a dark environment you may need to shine a light on the unit.)
2. The unit has been shutoff: The unit can be turned back on by placing a magnet over the lower right hand side (on the raised Bluetooth icon) until the green LED is illuminated. If magnet is not removed before all 3 LED's light up the process must be restarted.
3. The unit has no power: To achieve the intrinsically safe rating, the battery is encapsulated and cannot be replaced. If the unit is within the warranty period check with your sales contact about a replacement. If it is not, then a new unit can be purchased through ITT contact or Authorized Distributor which can be found using the distributor locator built into the App.

3. **How do I install (or re-install) the i-ALERT2 Equipment Health Monitor?**

Method 1: The i-ALERT2 monitor can be installed by using the center fastener directly to a pump or device with a 2.25"L x 1.6"W slot and a threaded hole to accept a ¼-28 x 1.125" screw. This is the preferred mounting, and the slot is standard on i-Frame Pump models.

Method 2: The i-ALERT2 monitor can be installed by using a ¼-28 x 1.5” screw that goes through the i-ALERT2 device, through mounting adapter (p/n C10824A), and into a drilled and tapped hole in the equipment.

Method 3: The i-ALERT2 monitor can be installed by using a ¼-28 x 1.125” screw that goes through the i-ALERT2 device and into mounting adapter (p/n C10824A). The mounting adapter can be adhered to the desired location using an epoxy putty that is appropriate for the given application.



Mill a slot	Drill and tap	Epoxy ¹
Screw: ¼-28 x 1.125in	Screw: ¼-28 x 1.5in	Screw: ¼-28 x 1.125in
Slot: 2.25in L x 1.6in W	Tap: ¼-28 UNF x ¼in deep	Epoxy: application specific
Temperature: ★★★★★	Temperature: ★★★	Temperature: ★★
Vibration: ★★★★★	Vibration: ★★★	Vibration: ★★★
Prep Time: ★★	Prep Time: ★★★	Prep Time: ★★★★★

¹ Epoxy not included

4. After installation, how do I associate the i-ALERT2 Equipment Health Monitor with the monitored equipment?

If the i-ALERT2 monitor is used as a retrofit part, the first user to connect to the device will need to configure the i-ALERT2 monitor.

1. If the monitored machine (pump) has a valid ITT serial number it is only necessary to enter it in the App and the appropriate data fields are automatically populated. The curve, BOM, and datasheet will be visible. If there are any issues with the information displaying, please contact us at i-alert2@itt.com

2. If the monitored machine does not have a valid ITT serial number or is not a pump, the user will be required to fill out typical name plate information (model, manufacturer, equipment type, etc.). In this case the pump curve, and datasheet will not be visible; the BOM can be manually added.

5. *If I move an i-ALERT2 Equipment Health Monitor to another machine what do I need to do?*

Please bear in mind that the i-ALERT2 monitor is associated with a specific piece of rotating equipment and must be re-associated through the App if the device is moved to a different machine. The steps to complete this within the App are as follows:

1. Go into App and from “Scan For Devices” page select the i-ALERT2 monitor you would like to re-assign or assign
2. Go to Main Menu
3. Go to “Equipment Info” Menu
4. Under “Commands” tap “Erase All Stored Data from i-ALERT2” and confirm
5. Go back to “Scan for Devices” and select the i-ALERT2 monitor. The i-ALERT2 tag name will revert to the original 12 character ID
6. Re-associate the i-ALERT2 monitor with the new equipment – following the steps outlined in question #4 above.

6. *What are the default alarm and warning levels for the i-ALERT2 Equipment Health Monitor?*

The default temperature alarm triggers at 80 °C (176°F). The default vibration warning is set to 0.4 ips (RMS) and the default vibration alarm is set to 0.5 ips (RMS). After 25 hours of runtime, a baseline measurement is completed and the vibration thresholds are automatically set. Warning threshold will be set at 1.75 times the average baseline level, and the alarm threshold is set to 2 times the average baseline level. The auto-baseline minimum level is an alarm level of 0.1 ips (RMS) and the maximum alarm level is 1.5 ips (RMS).

7. *How are the alarm and warning levels for the i-ALERT2 Equipment Health Monitor configured?*

Alarm and warning levels are set automatically (see question 6) or they are user defined through the App. User can set levels (not exceeding 1.5 ips, RMS) as desired by:

1. Go into App, select the i-ALERT2 monitor you would like to assign or re-assign
2. Go to Main Menu
3. Go to Equipment Info
4. Tap (highlight) Alarms and Warnings
5. Change setting as desired using “+” and “-“
6. When finished entering all fields, click “Save”

If the thresholds are entered manually, the automatic baseline feature is disabled.

8. *What is the process for getting a new baseline?*

If a baseline is desired after the thresholds are set the process can be triggered by:

1. Go into App, select the i-ALERT2 monitor you would like to baseline
2. Go to Main Menu
3. Go to Equipment Info
4. Under “commands” tap “Request New Baseline”

Note: This process will require 25 hours of equipment runtime to establish
This video link shows the procedure: <https://youtu.be/o740Yho4HjA>

9. I do not see any pump/ machine product information - what should I check?

1. Internet connection.
2. Confirm that the pump is an ITT model, or the data has been entered manually.
3. If the Internet connection is active, and it is an ITT pump, contact the ITT sales team about any missing records.

10. I do not see any i-ALERT devices for devices on the scan screen – what should I check?

1. Confirm that Bluetooth is turned on in the phone and
2. that the devices are within range (30 -100ft).
3. Restart Bluetooth
4. Restart the App

11. Why am I not seeing an FFT every 5 minutes during an alarm?

The i-ALERT2 monitor records an FFT when it measures two consecutive vibration readings in an alarm state. A period of 48 hours must elapse for the alarm FFT functionality to resume.

12. I cannot log in.

Confirm that the phone is connected to the internet, and the login ID and Password are correct. If the problem persists, contact ITT by email at i-alert2@itt.com.

13. How do I see individual data points when viewing an FFT or trend graph?

1. Individual data points can be viewed by press and hold on the graph and hold to slidethrough using the cursor.
2. Data points can also be viewed by clicking the upload icon, where individual points can be viewed in tabular format.
3. Raw data (CSV format) can be exported via email by tapping the upload icon a second time.

14. Why is there no trend data showing on the weekly trend?

Weekly trend data only appears after 2 weeks of use. A six month trend is comprised of weekly averages of temperature, vibration and kurtosis.

15. How do I clear individual i-ALERT2 data or remove old devices from the App?

1. Open App and select “scan for devices” page

2. Swipe left on the desired i-ALERT2 tag name
3. Tap “delete”

16. How do I have multiple users on the same phone/tablet.

Only one user can be logged into the app at a time. To log-out of the app:

1. Go to “Main Menu”
2. Tap “User Settings”
3. Tap “Logout”

17. Why does the temperature reading not agree with other sensors?

In most cases the temperature will agree within a few degrees with other devices. There are factors which can significantly affect temperature readings such as ambient temperature, airflow over the sensor and mounting method. Temperature as measured by the i-ALERT2 is intended to identify changes over one or more trend periods, which can be indicative of a problem in the equipment.

18. Why do the runtime hours disagree with expected values?

In some cases where the vibration levels are extremely low (e.g. very smooth running motor), the runtime as measured by the i-ALERT2 can differ from other sources.

19. The i-ALERT2 report shows old data.

1. Download new information
2. Download new FFT
3. Wait for download to complete

In general, if the i-ALERT2 has been in communication with a smart device (tablet, phone) which has been connected to the web, the data can be recovered up to the last device connection time.

20. My i-ALERT2 monitor has stopped working within the warranty period. How do I obtain a replacement?

If your i-ALERT2 monitor has failed within the warranty period, you must first contact ITT for a RMA to return the failed unit, and obtain a warranty form required for replacement. Please contact us by email at i-alert2@itt.com and we will assist.