



Installation guide for the
communication devices for
instadose[®] line of dosimeters.

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Overview

This document provides installation guidelines for the instadose line of communications devices:

- instaLink Hotspot
- instaLink USB
- instadose App

Let's begin.

InstaLink Hotspot

The InstaLink Hotspot station will listen and communicate with instadose+ dosimeters only that are within range. Once the data is captured it is relayed to Mirion's secure servers. Key features include:

- Preloaded software designed to be plug and play
- Ethernet or WiFi capabilities (Ethernet is standard)
- Bluetooth 4.0 (BLE) CE and FCC certified
- BLE communication can range from up-close to 25' or greater depending on the physical environment and line of sight
- Constant monitoring
- Size: 8"x 4"
- Potential to capture data from 1 up to 10 dosimeters at one time. Data capture and transmission speeds will vary depending on vicinity of the dosimeter to the hotspot.



Installation Guidelines

InstaLink Hotspots can be mounted in hallways or break rooms. The preferred location to mount an InstaLink Hotspot is anywhere dosimeters are stored. Once you have determined the locations within your facility we recommend testing the communication range for optimal data collection.

Each InstaLink Hotspot requires internet connectivity and access to *.instadose.com / port 443 to capture and communicate dose reads. The InstaLink Hotspot is designed to be plug and play ready when using Ethernet connectivity. WiFi connectivity is available, but not recommended due to potential slower connection speeds, disconnections, and password/ username requirements within the facility. If you would like to use WiFi, please consult with our IT department.

Once powered on and connected to your network, the Hotspot will attempt to establish a connection to the instadose data service. This can take up to 2 minutes. When a successful connection is established, the status indicator light on the front of the InstaLink Hotspot will blink Green. If the LED flashes RED, then most likely your network is not able to access the instadose data service.

Status indicator lights decoded:

- **Green:** Connected and in listening mode a green light will flash intermittently.
- **Blue:** May appear quickly when communicating with a dosimeter or sending data.
- **Red:** Can mean the following:
 - Network connection error
 - Software issue
 - Reading issue

Capturing Dose Reads



Button on the back of the badge.

During the account setup process an automatic calendar date and time to transmit dose data was set.

At the scheduled date and time, the badge will attempt to transmit data to Mirion's secure servers. If communication does not occur, the badge will attempt to communicate every hour for 24 hours without intervention.

If the dosimeter is unable to communicate, the data will be stored until the next successful connection is established. Additionally, manual reads can be performed at anytime by pressing the button on the back of the badge.

When performing manual reads push and hold the button on the back of the badge at least 3 seconds or until you see a green light flash on the top of the badge. Wait until another series of green or red light flashes this will alert you of a successful communicated read.

If you are within sight of the instaLink Hotspot you will be able to see a blue light on the front of the panel.



Blue indicator light.

InstaLink USB

The InstaLink USB is a Bluetooth antenna that can be connected to any workstation with internet access. For the instaLink USB to work it must be connected and the “id2monitor” driver must be installed. The minimum BLE communication can range from up-close to 25’ or greater depending on the physical environment and straight line of sight.



Installation Guidelines

The preferred location to connect the instaLink USB is on an active workstation that is centrally located where dosimeters are stored. It is not recommended to connect the instaLink USB to a workstation that requires users to log-in and out after each session.

The following requirements are necessary to install and capture dose data:

- The active Windows based workstation must have internet connectivity (specifically to *.instadose.com / port 443)
- Installation of the ID2Monitor application

Additional items to note:

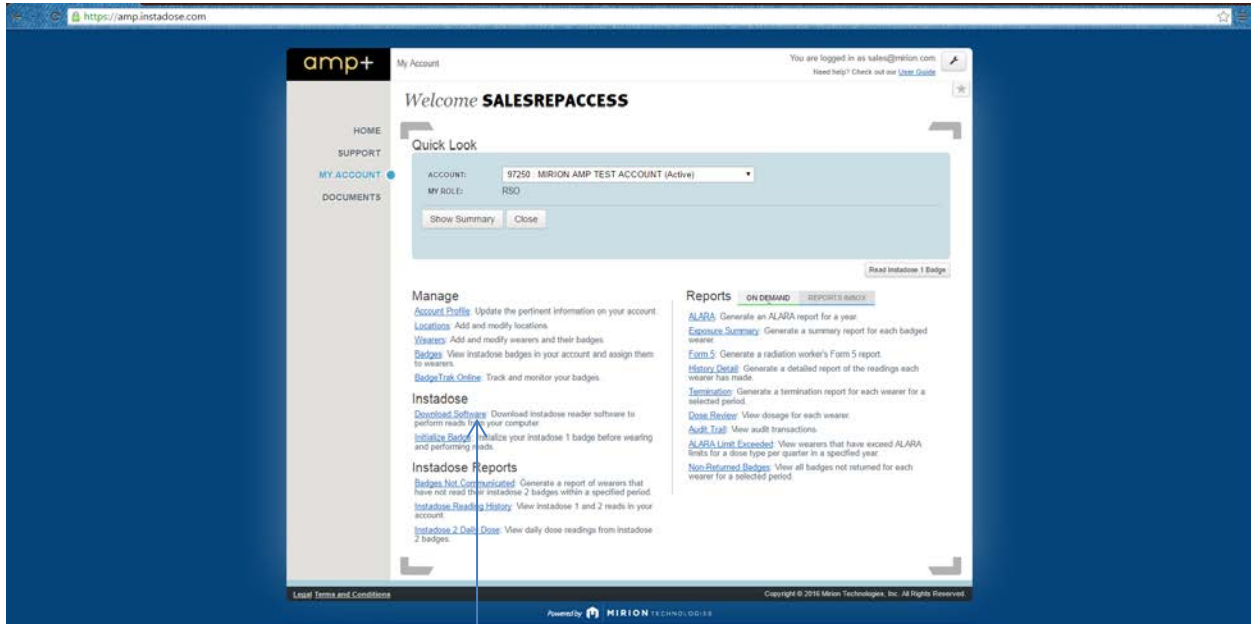
- The ID2Monitor application will be launched each time a user logs into the workstation and will run in the background
- Communication will cease if the workstation (not the display) goes into Powersaving mode. This is a limitation of Windows. Most environments have an automatic Powersave setting mandated by the IT department.
- Potential to capture data from 1 up to 10 dosimeters at one time. Data capture and transmission speeds will vary depending on vicinity of the dosimeter to the usb.

Download ID2 Monitor

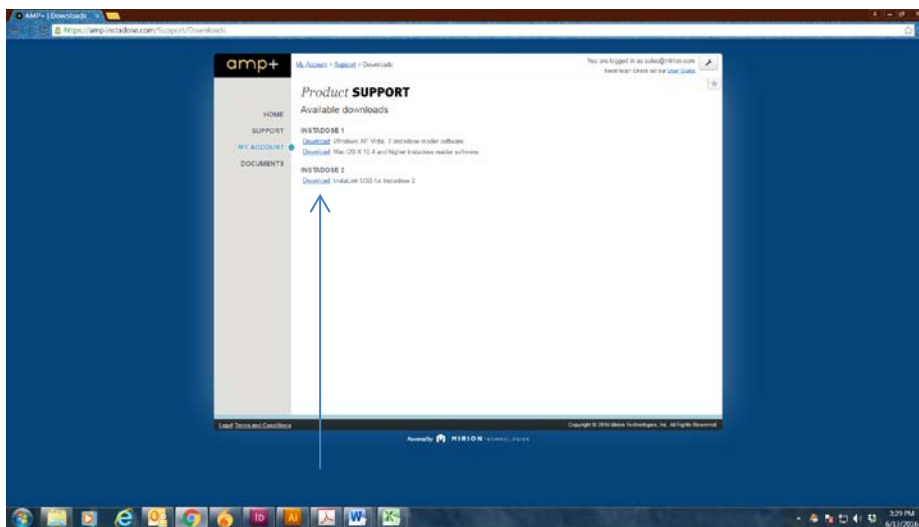
To install the ID2Monitor application, follow the steps below.

Step 1: launch a web browser (chrome is recommended) and login to your account at www.instadose.com.

From your homescreen click “Download Software” located under the Manage heading under the instadose section.



Step 2: Click “Download” under instadose 2



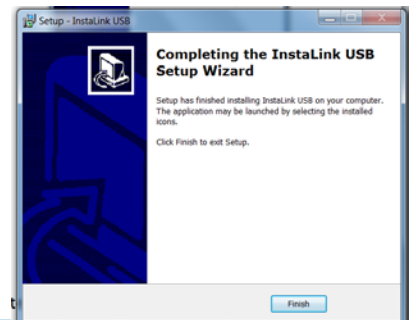
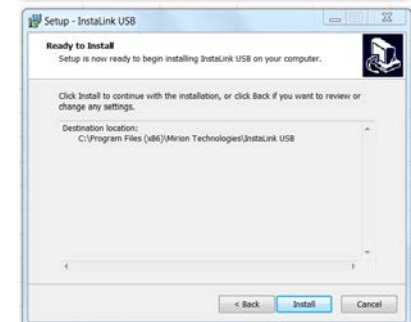
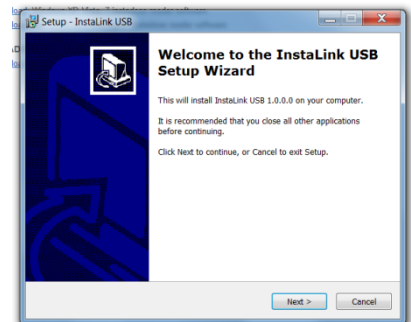
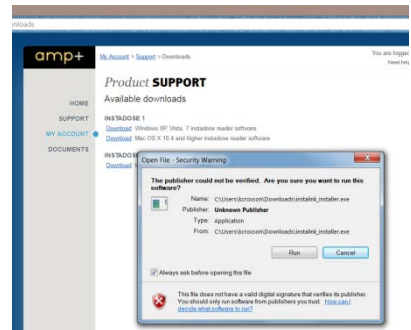
Depending on your browser you will be asked different questions to save the driver software on your system. *Example: be careful to select to show all secure and unsecure information, the answer is different between versions of Internet Explorer. Read the warnings and answer to show all. For IE8, this means answer NO! For IE9 you will be warned that the instalink_installer.exe is not commonly downloaded and could harm your computer click Actions> and select Run> this program anyway.*

Step 3:

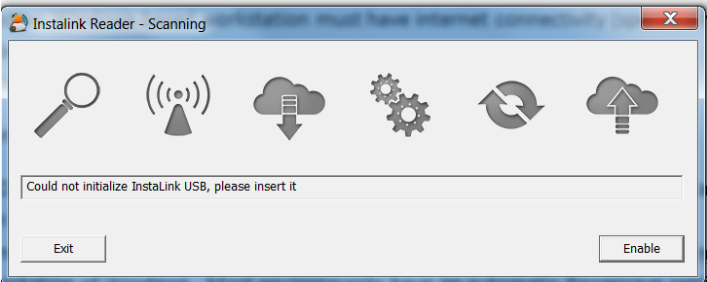
- Select to Save> the instalink_installer.exe to a location of your choice, such as your desktop or folder you will know where it is.
- During the installation, there may be warnings or requests to continue such as the one shown, just click “Run” and continue the installation.
- If the system gives you a warning to allow access, please allow the process access.
- You may see a security warning the publisher could not be verified click “Run”.

Step 4:

- The installation wizard will begin and show a screen similar to the screen shown.
- Continue the installation by clicking “Next”.
- On the Select Destination Location, you can browse for a new location or click “Next”.
- On the Ready to install screen click “Install”.
- Once the Wizard has completed the setup, click Finish>.



A status indicator bar can be viewed on the workstation to determine connectivity and reading status.



Capturing Dose Reads



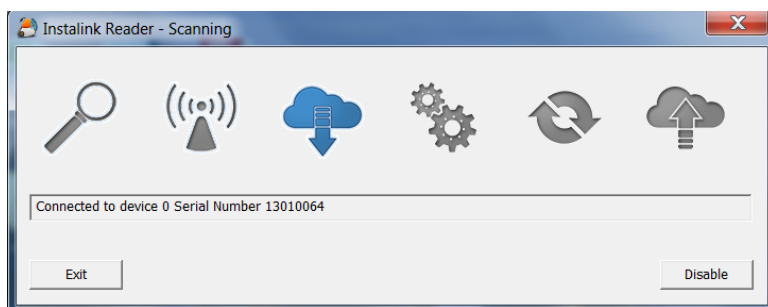
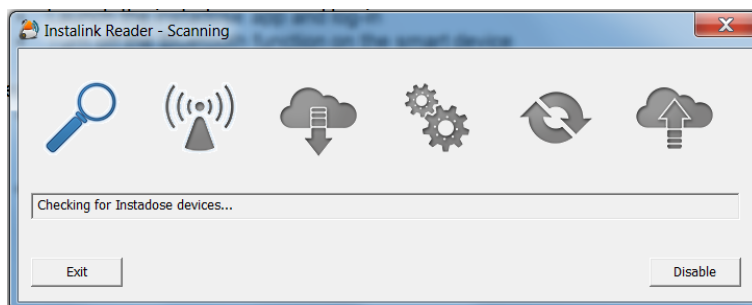
Button on the back of the badge.

At the scheduled date and time, the badge will attempt to transmit data to Mirion's secure servers. If communication does not occur, the badge will attempt to communicate every hour for 24 hours without intervention.

If the dosimeter is unable to communicate, the data will be stored until the next successful connection is established. Additionally, manual reads can be performed at anytime by pressing the button on the back of the badge.

When performing manual reads push and hold the button on the back of the badge at least 3 seconds or until you see a green light flash on the top of the badge. Wait until another series of green or red light flashes this will alert you of a successful communicated read.

If you are at the workstation with the instaLink USB connected you can launch the status indicator from the tray to view the communication process.



Instadose App

The instadose app for smart devices is application software that securely communicates dose data to Mirion's servers. The app allows you to view dose history, dosimeter assignment details, dose reads and status.

The Instadose app requires the following:

- Login - credentials can be created online via instadose.com or the AMP+ website
- Once logged in, the communication feature must be activated by the end user.
- The mobile device must be awake for communication to be successful



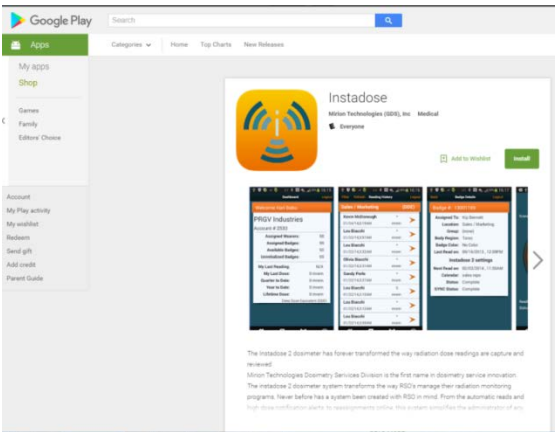
The Instadose Application OS / Hardware:

- iOS – version 7.0 and above on any iOS device (iPhone, iPad, iPod)
- Android supported on the following OS versions
 - Jellybean (4.3.x)
 - KitKat (4.4 – 4.4.4)
 - Lollipop (5.0 – 5.1)
 - Marshmallow (6.0)

Installation Guidelines

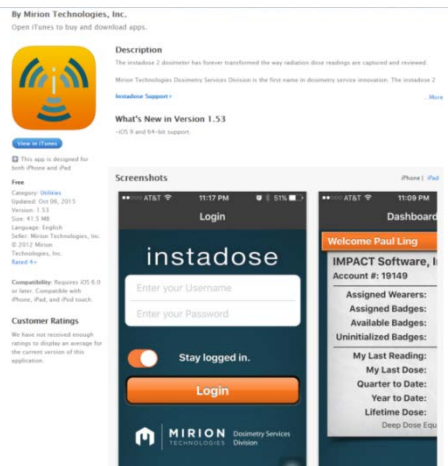
Installation for apple devices

1. Open the iTunes Store app
2. Tap the magnifying glass to open the search function and type in “instadose”
3. Then tap “Get” to install the free app
4. Use the supplied username and password to log-in to the instadose app



Installation for android devices:

1. For android devices open the Google Play app
2. Type in “instadose” to the Search bar
3. Tap “install”
4. Use the supplied username and password to log-in to the instadose app



Capturing Dose Reads



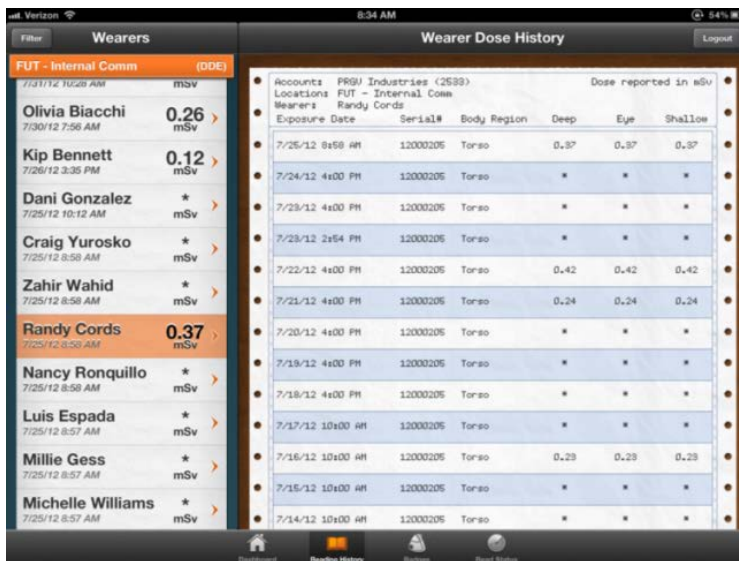
Button on the back of the badge.

At the scheduled date and time, the badge will attempt to transmit data to Mirion's secure servers. If communication does not occur, the badge will attempt to communicate every hour for 24 hours without intervention.

If the dosimeter is unable to communicate, the data will be stored until the next successful connection is established. Additionally, manual reads can be performed at anytime by pressing the button on the back of the badge.

When performing manual reads push and hold the button on the back of the badge at least 3 seconds or until you see a green light flash on the top of the badge. Wait until another series of green or red light flashes this will alert you of a successful communicated read.

Click on the instadose app and tap on "Reading History" and refresh the data, by pulling down on the screen. If the communication was successful you will see a time and date stamp of the read you just performed.



Reading History.

Step by Step Communication Process

Pairing never occurs in the communication process, instead direct connections are established.

All communication is initiated by the dosimeter. The process of communication can be described as follows:

- Instadose dosimeter will advertise (via Bluetooth) that it is ready to transfer dose data. The duration of the advertisement is limited to 60 seconds.
- Once a valid communication source is connected to Dosimeter, the following steps occur

Instadose Communication Method (ICM)	Instadose Wireless Dosimeter (IWD)
Listen for instadose wireless dosimeter (IWD)	Begin Advertising after Manual or Calendar read initiated
Detects dosimeter – requests serial # & firmware version	Communicates serial # & firmware version
Retrieves serial #, FW Hashkey from database– requests IWD FW Hashkey	Communicates FW Hashkey
Validates FW Hashkey – if valid, requests Time from IWD	Communicates internal time
Validates if time is within one minute of UTC, if not, the time is sent to dosimeter	Updates internal time (if requested)
Checks database to see if any parameters need to be updated on IWD. If so communicate updates	Update requested parameter values
Checks database to see if dose read calendar needs to be updated. If so, communicates new calendar	Update new calendar
Ask IWD for dose records from specific pointer forward	Communicate dose records
Validate database has received all dose records. If so, communicate acknowledgement to IWD (Dose validation includes Hashkey validation for each dose record)	Wait for / receive acknowledgement
Send disconnect to IWD	Disconnect from ICM

At any time during the communication process, the connection will be terminated if:

- Invalid identification is presented (Serial #, device Hashkey)
- The dosimeter moves out of range of the Bluetooth connection
- Connectivity to the instadose database is lost

If the connection is terminated for a valid dosimeter before all pending dose records have been successfully communicated, the next communication occurrence will commence from where it left off.

Frequently Asked Questions

InstaLink Hotspot FAQs

Where is the best location to install the instaLink Hotspot?

The ideal location is on a wall with direct line of sight to the badge holder and/or other location used for storing badges while they are not in use.

Should the instaLink be installed in a computer technology/server room?

Generally no. The instaLink uses the wireless BlueTooth standard to periodically receive information from the badges. It needs to be located with 25 feet of the badge storage location.

Can the instaLink be installed behind a desk?

While it is possible the instaLink will experience a sufficient connection to the badges behind other equipment, it is best to keep it as out in the open as possible. The wireless range and communication reliability will be maximized with fewer obstructions between the instaLink and instadose+ badges.

Does the instaLink Hotspot require a local network connection?

Yes; by default the instaLink is configured to join a local network using DHCP.

Does the instaLink Hotspot require Internet access?

Yes. As instadose+ badges connect to complete badge reads, internet access is required to make a secure connection to Mirion servers. No badge information is stored on the instaLink thus it is important that Internet access is available at the expected badge read times.

What if my network uses a proxy to reach the Internet?

The instaLink may be configured to use your proxy server for Internet access.

What methods may be used to connect the instaLink Hotspot to my local network?

Either wired Ethernet or Wireless. Wired is the preferred default and is required at least temporarily to configure the wireless connection.

On what network ports must the instaLink be allowed to communicate?

The instaLink uses secure port 443 (SSL) to transmit data to Mirion servers.

What data is being transmitted or stored on the instaLink Hotspot?

The instaLink does not store any data and only transmits non-personal data including Serial #, FW version, Manufacturer (Mirion), Device name (Instadose+), and Dose Records.

How does the instaLink Hotspot trigger badge reads?

The instaLink does not trigger badge reads; it stands ready waiting for an instadose+ badge to request a connection and accepts badge data when it does so.

What does the button on the front of the instaLink do?

Nothing

What do the different status light colors and flashing patterns indicate?

Green: Connected and in listening mode a green light will flash intermittently.

Blue: May appear quickly when communicating with a dosimeter or sending data.

Red: Can mean the following:

- Network connection error
- Software issue
- Reading issue

instaLink USB FAQs

For the first time use on this computer, do I need to do anything other than just plug the instaLink USB into a USB port?

Yes, the instaLink USB Reader software must be downloaded and installed upon its first use on a given computer.

How do I download and install the instaLink USB Reader software onto my desktop or laptop PC?

You can download the reader from the instadose.com site.

Do I need my IT administrator's approval to install the instaLink USB Reader software?

Many organizations require administrative permissions to install any software on their computers.

Please download the software and your computer will disallow the installation if an authorized IT administrator is required.

What happens when I unplug the instaLink USB?

The driver will continue to operate, but will indicate it is unable to communicate with the instaLink USB.

During this time, no badge reads will be possible.

Is it safe to unplug the instaLink USB?

Yes, but it is not recommended.

After I push the badge read button, how long should it take for a badge read to complete?

It can take anywhere from a few seconds to one minute to complete a badge read. Environmental factors vary and the duration can lengthen when there is a large amount of BlueTooth wireless communication activity.

How will I be able to know that a successful badge read was completed?

If you are looking at the instaLink USB Reader window, you will see the status of the current communications progress in the status box of the driver and the communication icons will progressively highlight as completed. Once the read is complete, there will be no indication of the prior communication on the instaLink USB Reader. A successful badge read will be displayed in "Reading History" on AMP+.

instadose Mobile App FAQs

What is the mobile application called?

"instadose"

Where do I go to download the instadose app?

Apple App Store: search "instadose"

Google Play Store: search "instadose"

Do I have to log in to my instadose.com account in order to complete a badge read?

Yes, account login is required to activate the badge scan function

Can I complete a first time initialization of my instadose⁺ badge using the instadose app?

Yes, the first time you activate the scan function and complete a badge read will initiate your badge.

Will the instadose app automatically complete badge reads on my set frequency?

No, you must actively log in on your instadose app and activate the scan function.

How do I complete a manual badge read using the instadose app?

Log in on your instadose app and select the "Read Status" tab. Activate the scan function then manually complete the badge read by pressing and holding the read button on the badge until the green light flashes (three seconds).

How will I know that the read was completed successfully?

If you are looking at the Read Status text, you will see the status of the current communications progress. Once the read is complete, there will be no indication of the prior communication in that text box. A successful badge read will be displayed in "Reading History".

How long should it take to see the instadose app process the read after I pressed the read button?

It can take anywhere from a few seconds to one minute to complete a badge read. Environmental factors vary and the duration can lengthen when there is a large amount of BlueTooth wireless communication activity.

How long should it take to view the badge read and any exposure after a badge read is completed?

It can take anywhere from a few seconds to one minute to complete a badge read. Environmental factors vary and the duration can lengthen when there is a large amount of BlueTooth wireless communication activity.

Should I push the badge read button over and over again until I see the read complete successfully?

A manual badge read is triggered by pressing and holding the button down for three seconds. Once the status light flashes green, the read process has been triggered. It is not necessary to press the button again unless you determine the badge did not connect and transmit the badge read information.

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