



A TRIMBLE COMPANY



# Telog® HPR-32A/iA

Hydrant Pressure Recorder  
User Guide



Version 1  
July 2020

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### Revision History

Date	Version	Content
7/2020	V1	Initial publication of document

# Legal Notices

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## Release Notice

This is the July 2020 release of the Telog HPR-32A/iA Hydrant Pressure Recorder User Guide.

## Limited Warranty Terms and Conditions

**Product Limited Warranty.** Subject to the terms and conditions set forth herein, Trimble Inc. (“Trimble”) warrants that for a period of twelve (12) months from date of purchase this Trimble product (the “Product”) will substantially conform to our publicly available specifications for the Product and that the hardware and any storage media components of the Product will be substantially free from defects in materials and workmanship.

**Warranty Remedies.** If the Product fails during the warranty period for reasons covered by this limited warranty and you notify us of such failure during the warranty period, we will repair OR replace the nonconforming Product with new, equivalent to new, or reconditioned parts or Product, OR refund the Product purchase price paid by you, at our option, upon your return of the Product in accordance with our product return procedures then in effect.

## Official Language

THE OFFICIAL LANGUAGE OF THESE TERMS AND CONDITIONS IS ENGLISH. IN THE EVENT OF A CONFLICT BETWEEN ENGLISH AND OTHER LANGUAGE VERSIONS, THE ENGLISH LANGUAGE SHALL APPLY.

## Supplier’s Declaration of Certification

HPR-32A/iA is certified to NSF/ANSI 61 and 372.

## Registration

Go to [www.trimble.com/register](http://www.trimble.com/register) to register the new product. You can also choose to receive information about your product’s updates and new products.

# Contents

<b>Glossary of Terms</b>	<b>6</b>
<b>Text Conventions</b>	<b>6</b>
<b>About the Device</b>	<b>7</b>
Introduction	7
Hardware	8
Software Applications	9
<b>Getting Started</b>	<b>11</b>
Create Unity Application Accounts	11
Out of the Box	11
Tamper a Call	11
Initial Wake Up Call - Tamper a Call	11
HPR In Service - Tamper a Call	12
How to Tamper a Call	12
<b>Integrate a Device</b>	<b>13</b>
Add a Device using Bluetooth	13
Add a Device Using a Manual Tamper	17
Search Function	20
<b>Assign a Device to an App Site</b>	<b>22</b>
Install a Device on a New Site	22
Install a Device on an Existing Site Without an RTU	24
Replace a Device on an Existing Site	25
Uninstall a Device from a Site	26
<b>Configure a Device</b>	<b>27</b>
Call Schedule	27
Sampling Rate and Recording Interval	31
Pressure Impulse Settings	33
Alarm Management	37
Notification Groups	38
Configure Alarms	40
<b>Mount a Device and Physical Connections</b>	<b>43</b>
Mount the HPR-32A/iA Onsite	43
Install the Security Cover - Optional	45
<b>Maintenance</b>	<b>47</b>
Shipping and Handling	47
<b>Use and Care</b>	<b>47</b>
Cleaning	47

Replacing the BP-4 Lithium Battery Pack	47
Battery safety	47
Updating the Battery Replacement Date in the App	49
<b>Troubleshooting</b>	<b>51</b>
<b>Appendix A - Telog HPR-32A/iA Specifications</b>	<b>53</b>
Appendix B - Tamper a Call	56
Communication/Tamper Switch Cable - Tamper a Call	56
BLE Dongle - Tamper a Call	57

## Glossary of Terms

Term	Definition
Communication/Tamper Switch Cable	A cable that connects to the 5-pin Communication port on the HPR and is used to initiate a remote wireless call or local direct communication.
Bluetooth (BLE) Dongle	Bluetooth Low Energy device that plugs into a USB port on a PC to facilitate a local, wireless connection to the HPR.
HPR	Hydrant Pressure Recorder
Pressure	Water under force that is measured in pounds per square inch (PSI).
RTU	Remote Telemetry Unit
Tamper a Call	The act of forcing the HPR to initiate a wireless call, also referred to as a "Tamper Call".
Telog Enterprise	Provides remote access to the HPR using a PC to communicate with the HPR, configure the HPR, and view data and alarms from the HPR.
Telogs for Windows	Used to configure and program HPR operating parameters and data collection options with a PC.
Telog HPR-32A/iA	Telog Recording Telemetry Unit (HPR) model HPR-32A/iA.
Trimble Unity	Provides remote access to the HPR using a PC/tablet/computer/mobile device to configure the HPR, and view data and alarms from the HPR.

## Text Conventions

Term	Definition
Click	Using a computer interface (such as a mouse cursor) to press on an online application button or menu option.
Select	Choosing between multiple menu options on the screen or a radio button.
Tap	Touching a mobile device screen to make a selection.

## About the Device

➤	<a href="#">Introduction</a>
➤	<a href="#">Hardware</a>
➤	<a href="#">Software Applications</a>

### Introduction

The Telog® Hydrant Pressure Recorder (HPR) models HPR-32A and HPR-32iA are self contained wireless, cell-enabled, battery-powered pressure recorders that are mounted directly on a hydrant to measure and record water pressure. The HPR-32iA also provides high-resolution impulse data.

When connected to the Trimble Unity applications, the HPR collects and delivers data to the app that is used to monitor the system, provide reporting and analysis tools and workflows used to monitor sites, provide alarm notifications, and support configuration updates.

The HPR-32A/iA recorder:

- Collects data from an internal pressure sensor
- Stores data to internal memory
- Transfers data to an application based on a user-configured schedule and alarm triggers
- Receives configuration updates from the application after transferring data

This document describes the Telog® Hydrant Pressure Recorders (HPR) HPR-32A/iA, what they do, how they interface with the Trimble Unity applications, and the basics of how to use the application to manage and configure the HPR.

For detailed information and training about how to use the Trimble Unity applications:

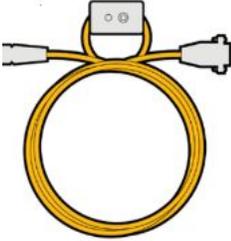
- Help link in the application provides access to documentation and a video on how to use the application
- Trimble Water offers a number of training options including web-based and onsite delivery
- Send requests to [Trimblewater\\_sales@trimblewater.com](mailto:Trimblewater_sales@trimblewater.com) or call +1 888-835-6437 for Trimble Water Support.

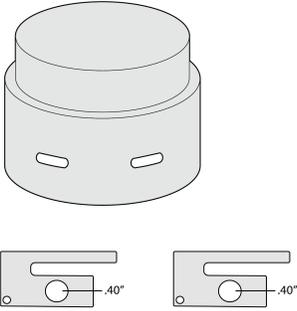
The information in this guide supplements the information in the Trimble® *HPR-32A/iA Quick Start Guide* that is available with the HPR and online at: [HPR-32A Quick Start Guide](#) or [HPR-32iA Quick Start Guide](#)

## Hardware

The HPR-32A/iA are pressure recorders that are mounted directly on a hydrant to measure and record water pressure. The HPR-32iA also provides high-resolution impulse data.

The HPR hardware and related equipment includes:

Hardware	Description	Diagram
HPR-32A/iA	<p>The HPR-32A/iA is a low-profile, self-contained unit that is installed on a 2.5" hose nozzle outlet on a hydrant.</p> <p>Size: 5" diameter x 3.5"</p> <p><b>NOTE:</b> the device is Bluetooth enabled when it is shipped.</p>	
Cu-CTS	<p>Communication/Tamper Switch cable is used to Tamper a Call or connect the HPR-32A/iA to a PC.</p> <p>Length: 8'</p> <p><i>Optional - Ordered separately</i></p> <p><b>NOTE</b> - A C-USB-RS232 adapter cable may be necessary to complete the physical connection to a PC depending on the ports on the PC.</p>	
C-USB-RS232	<p>Serial to USB Adapter cable is used to connect the Communication/Tamper Switch cable to a USB port on a PC.</p> <p><i>Optional - Ordered separately</i></p>	
C-BLE-D	<p>Bluetooth Low Energy (BLE) Dongle is used to make a local wireless connection between the HPR and a PC running Telogers for Windows. Max range is 20' in an open field, line-of-site setting.</p> <p><i>Optional - Ordered separately</i></p>	

Security Cover	<p>High impact nylon security cover that prevents vandalism. Two lockout hasps included.</p> <p><i>Optional - Ordered separately</i></p>	
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## Software Applications

This document focuses on the HPR-32A/iA being connected to the Trimble Unity applications. However, the HPR-32A/iA can interface with the following Trimble applications.

Application	Devices Supported	Description
Trimble Unity Online	PC Computer Tablet	<p>Cloud-based software application that is accessed online with a PC/tablet and used to configure and view the data for HPR-32A/iA.</p> <p>The link to access the online application is provided in your welcome email.</p> <p>Ensure you have a Trimble Unity account set up and can log in to the online account before beginning the installation process.</p>
Unity RM	Mobile Device Tablet	<p>Downloaded onto a mobile device, the software application is used to install and view data for HPR-32A/iA.</p> <p>The mobile application can be downloaded from the App Store on Android/iOS devices.</p> <p>Ensure you have a Trimble Unity account set up and can log in to the mobile app before beginning the installation process.</p>
Telogers for Windows® 6.51 or later	PC	<p>Optional legacy software application that provides local access using a PC to communicate with the HPR to receive data and alarms from the HPR, and configure the HPR. Use the Tamper Switch Cable or BLE Dongle (to connect wirelessly) to Tamper a Call and configure the HPR.</p> <p><b>NOTE</b> - For reliable connectivity using a BLE Dongle, the PC must be within 20' of the HPR in an open field, line-of-site setting.</p>

		<ul style="list-style-type: none"> <li>● Contact Trimble Water Sales to acquire Telogers for Windows.</li> <li>● Refer to the <a href="#">Trimble Water - Support Document Library</a> for access to the <i>Telogers Field Guide - Telogers 101</i> for more in-depth information.</li> </ul> <p>To access the <i>Telogers Field Guide - Telogers 101</i> manually:  <a href="http://trimblewater.com">trimblewater.com</a> -&gt; Support &amp; Resources -&gt; Support -&gt; Support Documents -&gt; <i>Telogers Field Guide - Telogers 101</i>)</p>
Telog® Enterprise 6.51 or later	PC Computer	<p>Optional legacy software application that provides remote access to the installed HPR using a PC/computer to communicate with the HPR, receive data and alarms from the HPR, and configure the HPR.</p> <ul style="list-style-type: none"> <li>● Contact Trimble Water Sales to acquire Telogers Enterprise.</li> <li>● Refer to the <a href="#">Trimble Water - Support Document Library</a> for access to the <i>Telogers Enterprise Software Installation Manual</i> for more in depth information.</li> </ul> <p>To access <i>Telogers Enterprise Software Installation Manual</i> manually:  <a href="http://trimblewater.com">trimblewater.com</a> -&gt; Support &amp; Resources -&gt; Support -&gt; Support Documents -&gt; <i>Telogers Enterprise Software Installation Manual</i></p>

## Getting Started

➤	<a href="#">Create Unity Application Accounts</a>
➤	<a href="#">Out of the Box</a>
➤	<a href="#">Tamper a Call</a>

Trimble Water recommends that before the HPR-32A/iA is installed on a hydrant, the user should complete the tasks in this document in the order they are presented. Many of the tasks can be completed in the office before installing the HPR onsite, especially in the event of inclement weather conditions or locations that are difficult to access.

Before attempting to install the device, perform the following initial tasks.

### Create Unity Application Accounts

1. Using a laptop/PC/computer, access the Unity online application using a Chrome web browser to create an account: <https://app.trimbleunity.com/>
2. Using a mobile device/tablet, download the application onto your mobile device from the App Store on Android/iOS devices
3. Create both accounts and log in using the information provided in your Welcome email

### Out of the Box

- Unpack the HPR, as well as any equipment that was ordered and is included with the HPR
- Have on hand a mobile device and PC/tablet/computer

### Tamper a Call

Tampering a Call refers to activating the Bluetooth functionality that forces the HPR to make a wireless cellular call to connect to and communicate with the Unity application.

#### Initial Wake Up Call - Tamper a Call

Because the HPR is shipped in a dormant state, the user has to Tamper a Call to:

- Make a wireless cellular connection to the Unity application
- Wake up the HPR and exit the dormant state

- Deliver configuration information to the HPR
- Initiate data delivery
- Register the HPR with the Unity application

### **HPR In Service - Tamper a Call**

- Force a wireless cellular connection to the Unity application
- Deliver configuration changes to the HPR outside of the call schedule
- Connect to the HPR for troubleshooting purposes

### **How to Tamper a Call**

Tamper a Call using any of the following methods:

- Bluetooth Scan - the Unity application scans for HPRs in the immediate vicinity to initiate a Tamper Call.
- Application menu option - Using the “Tamper a Call” app menu option on the HPR Details screen (once the device has been installed on the application site).
- Tamper Switch Cable - a cable is attached to the HPR to initiate the Tamper Call. Refer to [Communication/Tamper Switch Cable - Tamper a Call](#) for specifics.
- BLE Dongle - uses a small USB device that plugs into a PC to initiate a Bluetooth Tamper call using Legacy Telog software. Refer to [BLE Dongle - Tamper a Call](#) for specifics.
- Battery removal - removing the battery for at least 5 minutes generates a Tamper Call when the battery is reinstalled. This method is reserved for emergencies only. Refer to [Troubleshooting](#) for specifics.

## Integrate a Device

➤	<a href="#">Add a Device using Bluetooth</a>
➤	<a href="#">Add a Device Using a Manual Tamper</a>
➤	<a href="#">Search Function</a>

**NOTE:** Data values on the screen captures are examples, data related to your device will be different.

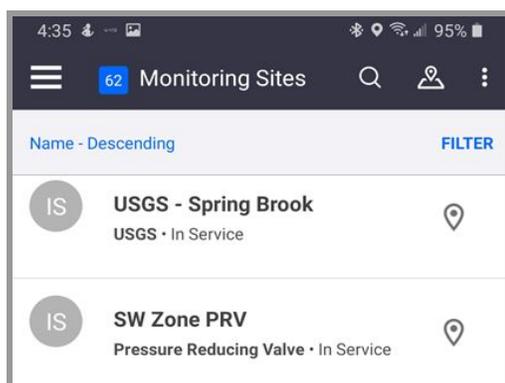
**NOTE:** The screens in Unity use the term RTU generically to represent all devices being managed by the application, including an HPR.

### Add a Device using Bluetooth

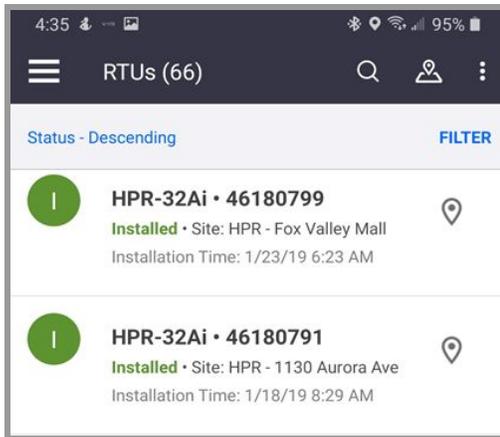
Add a device to the Unity application to have the app identify and manage the device.

Before starting, have on hand the:

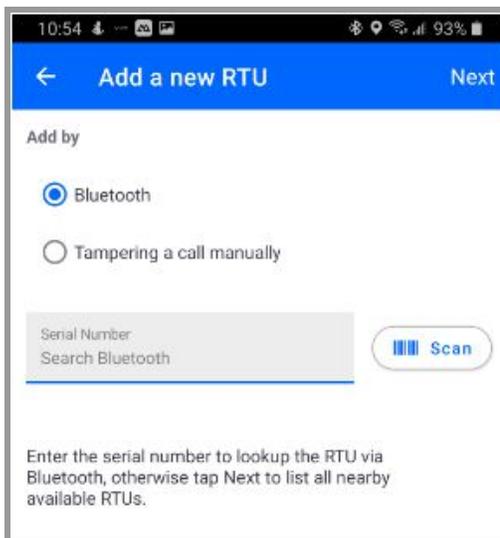
- HPR
  - Mobile device
1. Launch the **Unity Android or iOS mobile app** from your mobile device.
  2. Enter your **organization** and tap on **Next**.
  3. Enter your **username** and **password**, tap on **Sign In**. The **Monitoring Sites** screen is displayed.



4. Tap on the **menu icon** (☰) in the upper left corner of the screen to display a submenu.
5. Under **Remote Monitoring**, tap on **RTUs** to display the **RTUs** list. (For a customer with their first device, there may be nothing listed.)



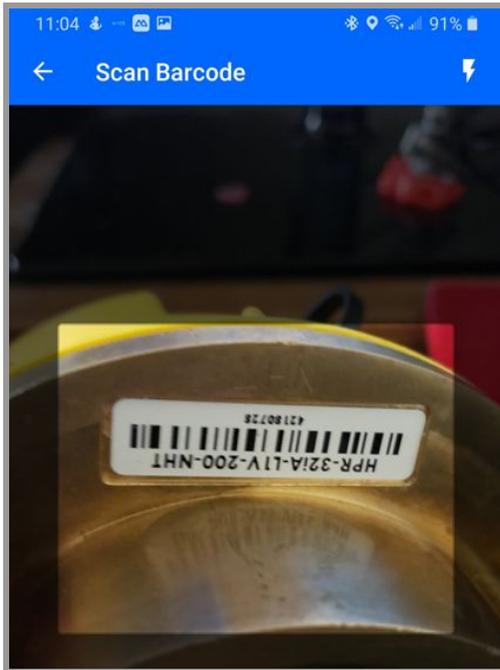
6. Tap on the plus sign  on the bottom right of the screen to display the **Add a new RTU** screen.



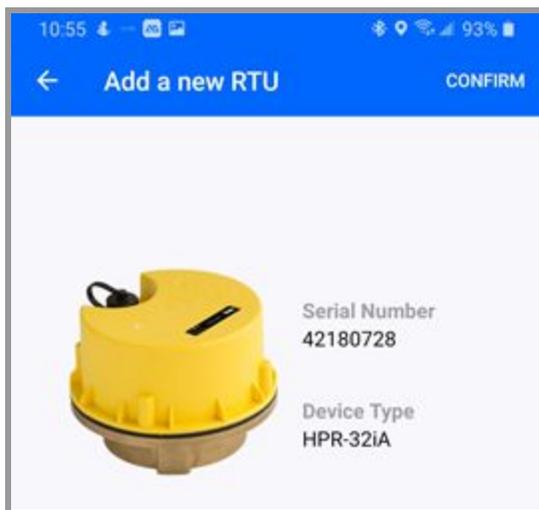
**NOTE:** For current customers, if your account has exceeded the maximum number of subscriptions, a message will direct the user to contact professional services at Trimble Water to resolve the issue.

7. Ensure **Bluetooth** is selected. There are three ways to have the app recognize the device:
  - **Scan Bluetooth:** Tap on **Next** in the upper right corner of the screen to initiate a **Bluetooth scan** of devices within 20' of the immediate area; Or
  - **Serial Number:** Enter the **device serial number** in the **Serial Number** text box and tap on **Next** to scan for the device; Or
  - **Scan Barcode:** Tap on **Scan** with the serial number text box empty. The app displays the **Scan Barcode** screen. Hold the **Scan Barcode** screen facing the **device barcode**, ensure the

barcode is inside the viewfinder rectangle and scan for up to 30 seconds until the app auto-populates the text box with the **serial number**.



8. The **Bluetooth LE Scan** screen displays a picture of the device and ID information:
  - If the **correct HPR** is displayed, tap on the **HPR picture**. The **Is this your RTU?** message is displayed. Review the data to ensure it is the HPR being added. If correct, go to step 9.
  - If the **correct device** is not displayed, tap on the left arrow in the header to return to the **Add a new RTU** screen and begin the process again. Consider using a different method to have the app recognize the device.
9. Tap on **Confirm**. The **Add a new RTU** screen with Serial Number and Device Type is displayed.



**NOTE:** For customers using Telog Enterprise, the **RTU Call Configuration** screen is displayed.

Enter the **contact information** in the **Destination to call** field. Tap on **Next**.

10. Determine whether to **Enable Dormant Mode?** on the **Add a new RTU** screen:

- If the device is being installed immediately, do not select **Enable Dormant Mode**, go to step 11.
- If the device is not being installed immediately, select **Enable Dormant Mode after calling** to preserve the battery after the initial wake up call activates the device.



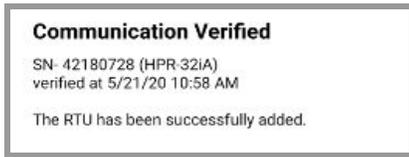
11. Tap on **Next**. The **RTU Added!** screen is displayed with a **Verifying communication** message and a progress status bar. The device is calling to connect to the app, performing a Tamper via Bluetooth, and registering the device to add to the list of RTUs.

- If the verification is successful, a **Communication Verified** message will be displayed. In the event that **Enable Dormant Mode after calling** was selected, dormant mode will be applied to the device after the call has completed. Go to step 12.
- If the verification is unsuccessful, a **Communication failed** message will be displayed and the option to try again will be displayed.

Tap . If repeated attempts fail, contact Trimble Unity Support.

12. Tap on **Done**. The **Retrieving Remote Monitoring Sites** message is displayed. The device will synchronize with the cloud to retrieve any updates and add the device to the **RTU** list. Once the

system has completed these updates, the **RTU Details** screen appears with a confirmation message.



- If the device is in **Dormant mode**, the status will be displayed on the screen.
- If the device is not in **Dormant mode** and you want it to be, a **More** menu will be displayed.  
Click on **More** -> **Enable dormant mode** to save the battery.

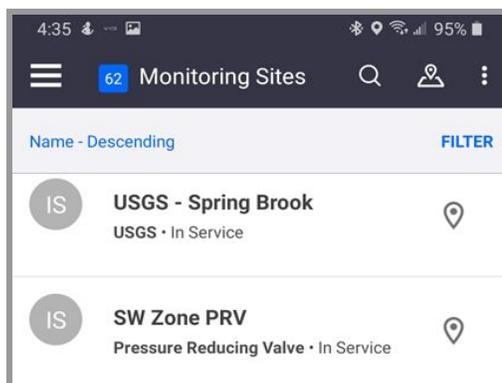
13. Go to [Assign a Device to an App Site](#).

## Add a Device Using a Manual Tamper

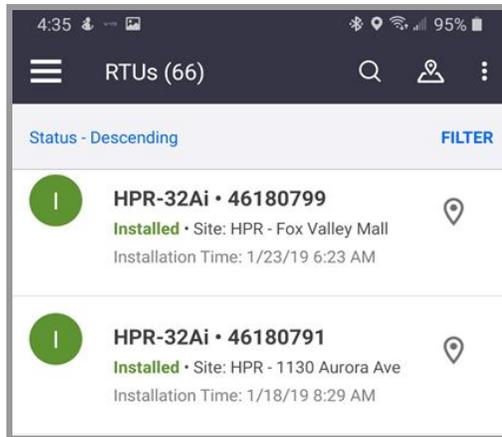
Before starting, have on hand the:

- HPR
- Mobile device or tablet
- Tamper cable

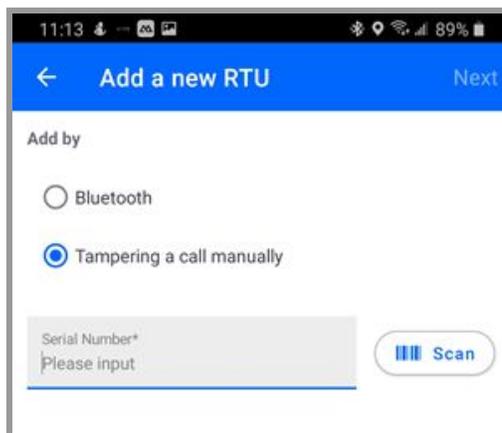
1. Launch the **Unity Android** or **iOS mobile app** from your phone or tablet.
2. Enter your **organization** and tap on **Next**.
3. Enter your **username** and **password** and tap on **Sign In**. The **Monitoring Sites** screen is displayed.



4. Tap on the **menu icon** (☰) in the upper left corner of the main screen to display a submenu.
5. Under **Remote Monitoring**, tap on **RTUs** to display the **RTUs** list. (For a customer with their first device, there may be nothing listed.)

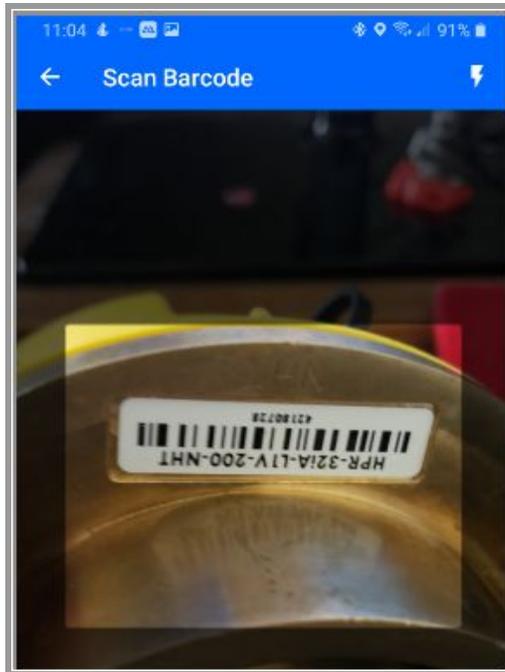


6. Tap on the plus sign  on the bottom right on the screen, the **Add a new RTU** screen is displayed.

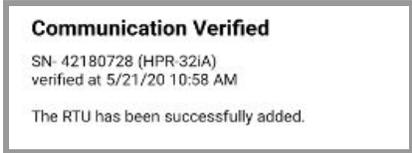


**NOTE:** For current customers, if your account has exceeded the maximum number of subscriptions, a message will direct you to contact professional services at Trimble Water to resolve the issue.

7. Under **Add By**, select **Tampering a call manually**. The **Scan Barcode** screen appears.



8. Hold the **Scan Barcode** screen facing the **device barcode**, ensure the barcode is inside the viewfinder rectangle and scan for up to 30 seconds until the app auto-populates the text box with the **serial number**. Tap on the **HPR picture** to select it and display the **Add a new RTU** screen.
9. Determine whether to **Enable Dormant Mode?**:
  - If the device isn't being installed immediately, select the **Enable Dormant Mode after Calling** checkbox to preserve the battery, tap on **Next**. Go to step 10.
  - If the device is being installed immediately, tap on **Next**.
10. On the **Add a new RTU** screen, the **Tamper RTU to call** message is displayed.
11. Perform the [Tamper a Call](#) procedure using a Tamper Cable. Refer to [Communication/Tamper Switch Cable - Tamper a Call](#) for details.
12. Once the **Tamper call** has connected, the app displays the **Verifying communication CALL STATUS: IN\_PROGRESS** message and automatically attempts to verify the data connection; progress is displayed on a status bar.
  - If the **verification** is successful, a **Communication Verified** message will be displayed. Go to step 13.
  - If the **verification** is unsuccessful, a **Communication failed** message will be displayed. Click on the **left arrow** in the header to go back to the **Add new RTU** screen and begin the verification again. If subsequent attempts fail, contact Trimble Unity Support.



13. Tap on **Done**. The **Retrieving Remote Monitoring Sites** message is displayed. The device will synchronize with the cloud to retrieve any updates and add the device to the RTU list. Once the system has completed these updates, the **RTU Details** screen appears with a confirmation message.

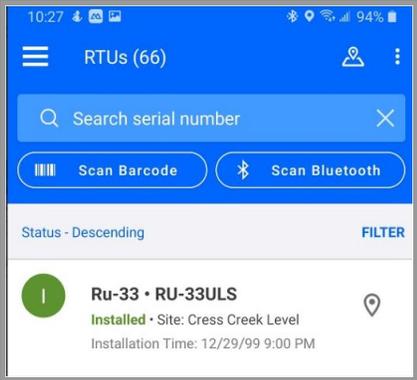
- If the device is in **Dormant mode**, the status will be displayed on the screen.
- If the device is not in **Dormant mode** and you want it to be, a **More** menu will be displayed. Click on **More -> Enable dormant mode** to save the battery.

14. Go to [Assign a Device to an App Site](#).

### Search Function

To find an HPR that has been installed on the app.

1. On the **RTUs** list screen, tap on **Filter**.
2. On the **RTUs** screen, tap on **Search serial number** in the header.



3. Select the **scan** method:
  - **Scan Barcode:**
    - i. Tap on **Scan Barcode**, the **Scan Barcode** screen is displayed.
    - ii. Hold the **Scan Barcode** screen facing the **device barcode**, ensure the barcode is inside the viewfinder rectangle and scan for up to 30 seconds until the app auto-populates the text box with the **serial number**.
      - If the search is successful, the system displays the **RTU Details** screen.
      - If unsuccessful, try again.

- **Scan Bluetooth:**
  - i. Tap on **Scan Bluetooth**, to initiate a **Bluetooth scan** of devices in the immediate area (within 20'). The **Bluetooth LE Scan** screen displays a picture of the device(s) and relevant data.
    - If the **correct HPR** is displayed (scroll down if necessary), tap on the **HPR picture** to select it. The system displays the **RTU Details** screen.
    - If unsuccessful, try again.

## Assign a Device to an App Site

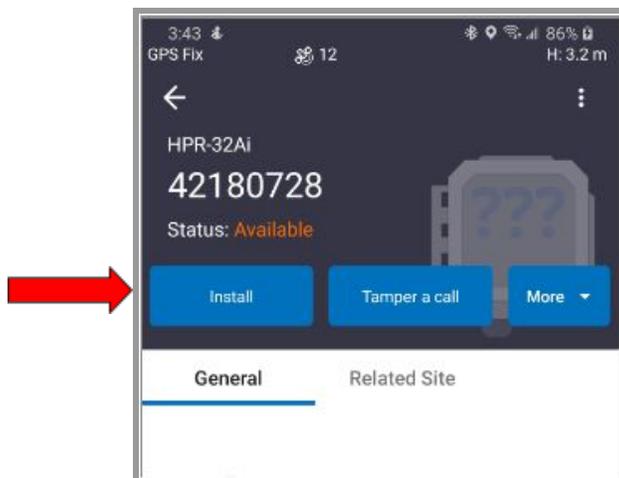
➤	<a href="#">Install a Device on a New Site</a>
➤	<a href="#">Install a Device on an Existing Site Without an RTU</a>
➤	<a href="#">Replace a Device on an Existing Site</a>
➤	<a href="#">Uninstall a Device from a Site</a>

Now that the device has been added to the Unity app, assign (install) the device to the remote monitoring site it will be associated with. This can be a new or existing remote monitoring site.

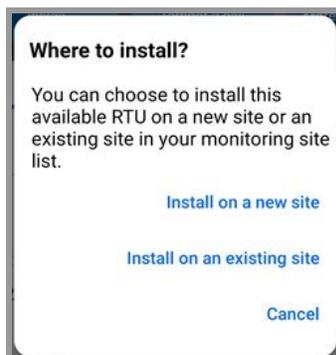
### Install a Device on a New Site

To install the HPR on a new remote monitoring site:

1. On the **RTU details** screen for the newly added **HPR**, tap on **Install**. The **Where to Install?** message is displayed.



2. Tap on **Install on a new site**.



3. On the **Install on a new site** screen, the **Serial Number** will be displayed, enter:
  - **Site Name\***: the name of the site.

11:06 GPS Fix 90% H: 12 m

← Install on a new site Install

RTU Serial Number  
42180728

Site Name\*  
Cog High School

Site type\*  
Hydrant Pressure

Site group  
- Please Select -

Location\*\*  
Lat: 41.78094512 Long: -88.15968563

CAPTURE MAP CLEAR

Timezone\*  
(GMT-08:00) Pacific Time (US & Canada)

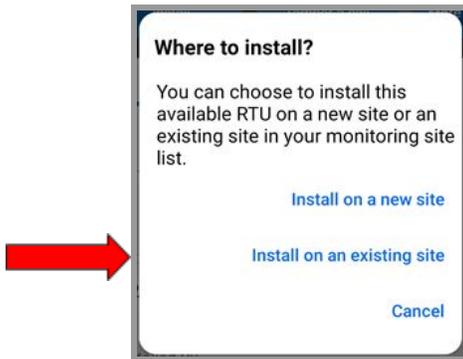
- **Site Type\***: tap on the down arrow and select Hydrant Pressure.
  - **Site Group**: tap on the down arrow and select the Group to associate the HPR; this is used if you want to associate your site to a specific site group.
  - **Location**:
    - Tap on **Capture** to enable the **GPS** location, or tap on **Map** to select a location on the map.
    - Tap the **check mark** in the header to **save** the selections.
  - **Timezone\***: tap on the down arrow and select the timezone where the HPR is being installed.
  - **Custom fields and notes**: optional and can be added later.
4. Tap on **Install**. The system displays the **HPR details** screen with the site listed.

5. Once the device is installed, **Tamper** the device again using the methods described in the **Add a Device** procedures or in [Appendix B - Tamper a Call](#).

## Install a Device on an Existing Site Without an RTU

To install the HPR on an existing site that was previously used to monitor pressure:

1. On the **RTU details** screen for the newly added **HPR**, tap on **Install**. The **Where to Install?** message is displayed.
2. Tap on **Install on an existing site**.

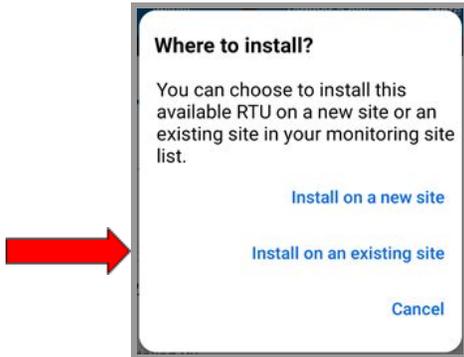


3. Under **Select site\*/Please select**, tap on the down arrow to display the list of sites (displayed alphabetically). The **Select Site** screen is displayed.
4. Tap on the **site** where you want to install the HPR.
5. Under the **Assign Channels** section, **Channel 1** should be displayed; if it isn't:
  - a. Tap **Auto match** to have the system fill in the **Channel** information related to that **HPR**. This will match the new HPR channel with the existing pressure measurement on the site. You can also manually match the channel to the measurement:
    - i. Under the **Channel**, tap on the **<New>** down arrow.
    - ii. Select the pressure measurement to match the **Channel** on the **HPR** to the measurement that exists for that site.
6. Tap on **Install**.
7. Once the device is installed, **Tamper** the device again using the methods described in the **Add a Device** procedures or in [Appendix B - Tamper a Call](#). This action will prompt the device to deliver the data and measurements collected since the initial tamper.

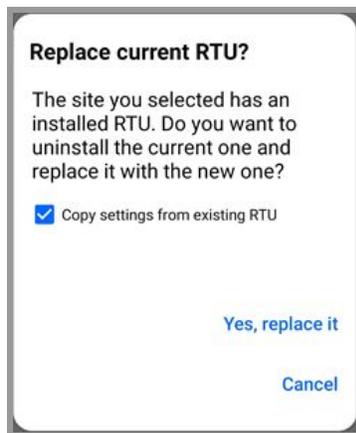
## Replace a Device on an Existing Site

To install the HPR on an existing Unity site where it will replace an RTU:

1. On the **RTU details** screen for the newly added **HPR**, tap on **Install**. The system displays the **Where to Install?** message.
2. Tap on **Install on an existing site**.



3. Under **Select site\*/Please select**, tap on the down arrow to display the list of sites (displayed alphabetically). The **Select Site** screen is displayed.
4. Tap on the **site** where you want to install the HPR. The **Replace current RTU?** message is displayed with an option to select **Copy settings from existing RTU**.



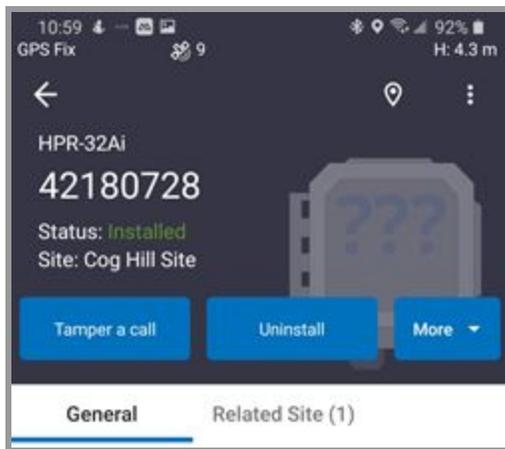
5. Select **Copy settings from existing RTU** to assign the settings for the current RTU to the new HPR.
6. Tap on **Yes, replace it**. The **Install on an existing site** screen is displayed with the values populated from the previous RTU.
7. Tap on **Install**. The **HPR details** screen is displayed with the site listed.

8. Once the device is installed, **Tamper** the device again using the methods described in the **Add a Device** procedures or in [Appendix B - Tamper a Call](#). This action will prompt the device to deliver the data and measurements collected since the initial wake-up Tamper.

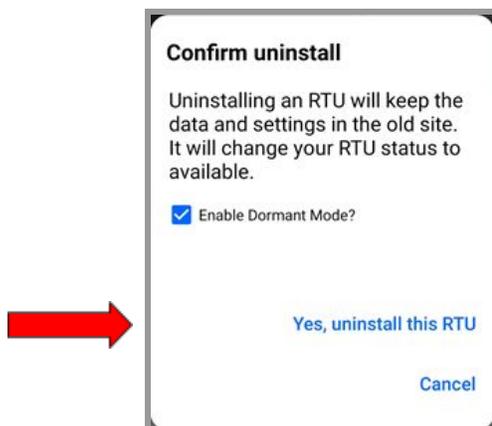
### Uninstall a Device from a Site

Use this procedure to uninstall an HPR from a remote monitoring site; the HPR will still be registered with the application but no longer associated with a particular site. This functionality could be used to uninstall and then reinstall the HPR at a different site to coincide with physically moving the HPR to a new location.

1. On the app **Details** screen for that HPR, tap on **Uninstall**.



2. The **Confirm uninstall** message is displayed. Determine whether to **Enable Dormant Mode** (saves the battery if the HPR not being put into use immediately) on the HPR.
3. Tap on **Yes, uninstall this RTU**. The app displays the **Install** menu option and the site list will be displayed without that device listed. The **HPR** is still registered in the app, just no longer assigned to a site.



## Configure a Device

➤	<a href="#">Call Schedule</a>
➤	<a href="#">Sampling Rate and Recording Interval</a>
➤	<a href="#">Pressure Impulse Settings</a>
➤	<a href="#">Alarm Management</a>

Configure the HPR to call the Unity application on a user-configured schedule to deliver data and receive configuration updates, such as sampling rate and pressure impulse settings. Alarms are delivered on a separate, configured schedule. After the HPR calls the app, the app downloads configuration changes to the HPR.

For additional configuration information, refer to [About the Device](#) for information about access to Unity training.

### Prerequisites for this section

**NOTE:** the RTU Management role must be assigned to the user to edit any of the settings in this section.

**NOTE:** the screen captures are provided as examples of the interface, your data will be different.

### Call Schedule

Schedule the HPR to call the application and deliver data by scheduling the number of hours between calls or the time of day.

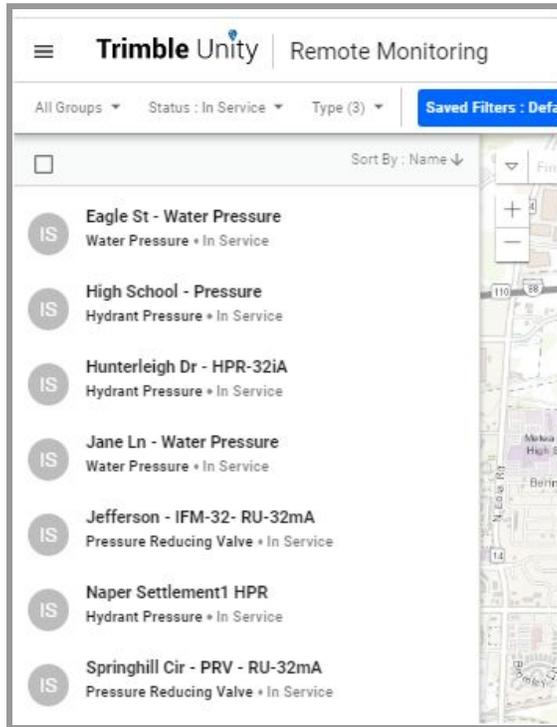
- By hours - calls can be scheduled from 1 - 96 hours between calls
- By time of day (HPR local time) - calls can be scheduled to a specific time of day during any 24 hour period
- Daily calls are recommended.
- Sampling Rate and call schedule may significantly impact battery life, see battery life estimates in Specifications in [Appendix A - Telog HPR-32A/iA Specifications](#). High call frequency may be mitigated by using the alarm call feature to call when the pressure exceeds the alarm thresholds.

Before starting:

- Ensure you have access to the Trimble Unity Remote Monitoring Web application.

To configure the HPR call schedule:

1. Access your **Trimble Unity Remote Monitoring** web application and login.
2. Click on the **Remote Monitoring** menu option. The **Monitoring Sites list** is displayed on the left side of the screen with the site map to the right.



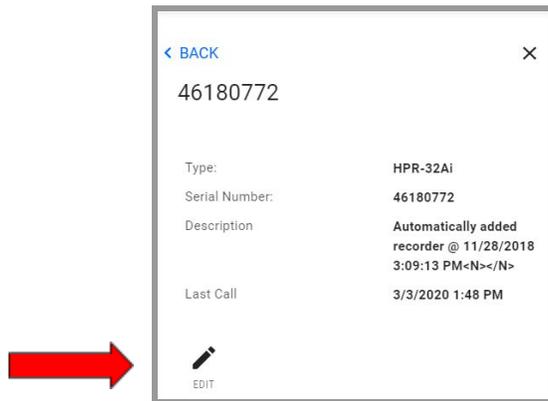
3. Search for the desired Monitoring Site then click on the HPR. The system displays the **HPR site-specific details** screen on the right.



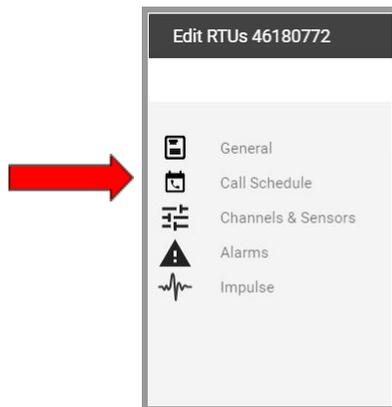
4. Scroll down the **HPR site-specific details** screen to the **RTUs** section.  
**NOTE** - the HPR serial number is displayed even though the heading is RTUs.
5. Click on the **HPR serial number** under RTUs. The **serial number** details screen is displayed.



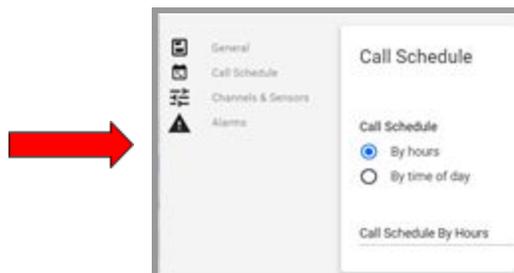
6. Click on **Edit** on the **HPR serial number** details screen. The **Edit RTUs <serial number>** screen is displayed.



7. Click on **Call Schedule** on the menu to update the hours or time of day.

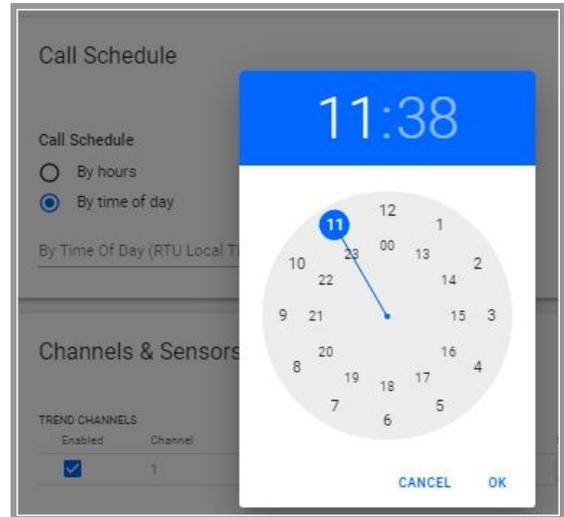


8. Use the substeps to make the desired changes to the **Call Schedule** to update the **By hours** or **By time of day** schedule:



- By hours:
  1. Click on **By hours**. The system displays **Call Schedule By Hours** at the bottom of the Call Schedule screen.
  2. Click on **Call Schedule By Hours**.
  3. Click on the **number of hours** (1 to 96 hours) to be scheduled between calls (scroll down if necessary).

- By time of day:
  1. Click on **By time of day**. The system displays **By Time Of Day (HPR Local Time)** at the bottom of the Call Schedule screen.
  2. Click on **By Time Of Day (HPR Local Time)**. The system displays a clock.
  3. Click on the **hours** on the clock dial to select the time of day. The system displays the minutes in an hour.
  4. Click on the **minutes** on the clock dial to set the minutes of the hour.
  5. Click on **OK**.



9. Click on **Update** to save the configuration changes. (Scroll down if **Update** is not visible.)

## Sampling Rate and Recording Interval

The Telog HPR-32A/iA recorder measures water pressure at user-configured rates up to 256 samples per second with an internal pressure transducer. The storage capacity is 80,000 data values or 128 kbytes.

The impulse recording option feature of the Telog HPR-32iA unit stores the waveform of captured transients. The HPR-32iA can store up to 125 events of variable duration that may occur over many months of on-site monitoring, up to a maximum rate of 256 samples per second and a total of 42,000 data values. The storage method of the data is wrap around, meaning first in - first out. The storage capacity is 80,000 data values or 128 kbytes.

**NOTE:** Sampling Rate and call schedule may significantly impact battery life, see battery life estimates in Specifications in [Appendix A - Telog HPR-32A/iA Specifications](#). High call frequency may be mitigated by using the alarm call feature to call when the pressure exceeds the alarm threshold.

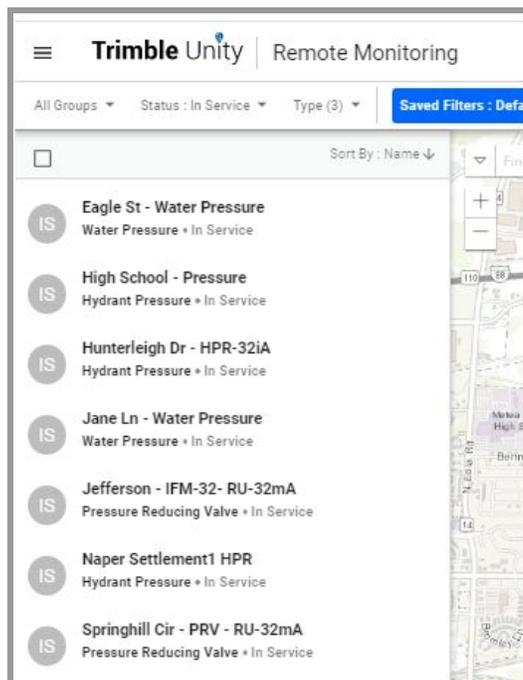
- Sampling Rate - how often the pressure sensor input is being read by the HPR
- Recording Interval - how often the statistical sample data is recorded, any combination of minimum, maximum or average value of each interval may be stored.

Before starting:

- Access your Trimble Unity app account and log in
- Have the connecting device on hand: PC/computer/tablet/mobile device

To configure the sampling rate and recording interval:

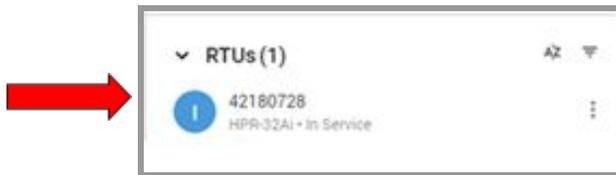
1. Access your **Trimble Unity Remote Monitoring** web application and login.
2. Click on the **Remote Monitoring** menu option. The Monitoring Sites list is displayed on the left side of the screen with the site map to the right.



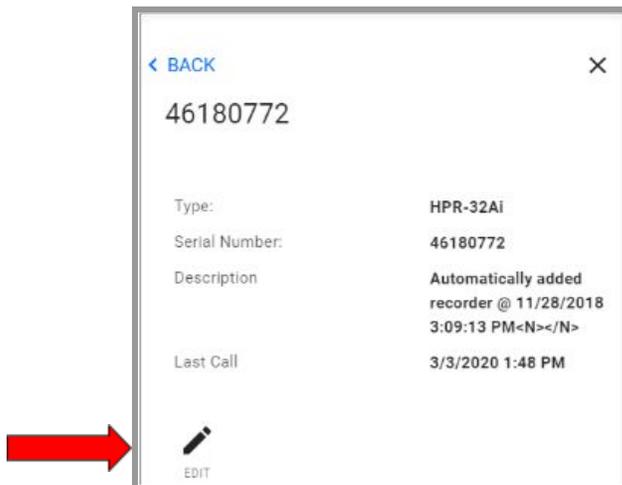
3. Search for the desired Monitoring Site then click on the HPR site. The system displays the HPR site-specific details screen on the right.



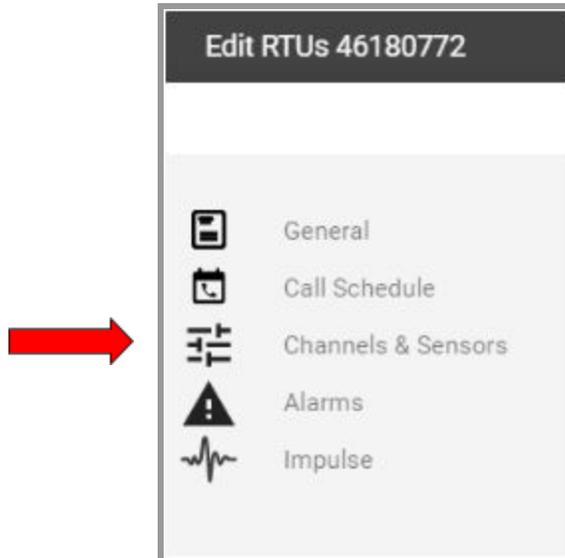
4. Scroll down the **HPR site details** screen to the **RTUs** section.  
**NOTE** - the HPR serial number is displayed even though the heading is RTUs.
5. Click on the **HPR serial number** under RTUs. The **serial number details** screen is displayed.



6. Click on **Edit** on the **HPR serial number details** screen. The system displays the **Edit RTUs <serial number>** screen.

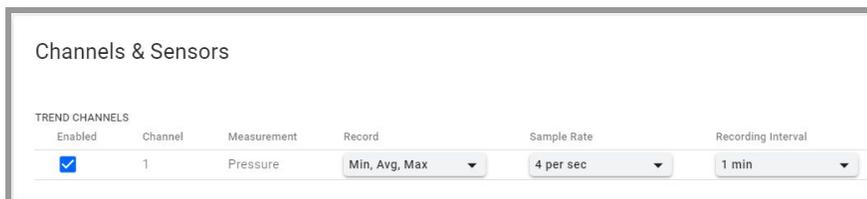


7. Click on **Channels & Sensors** on the menu to configure how often the HPR samples and records, and what data is being recorded.



8. Update the **Trend Channels** that measure pressure and control:

- Record
- Sample Rate
- Recording Interval



9. Click on **Update** to save the configuration changes. Scroll down if **Update** is not visible.

## Pressure Impulse Settings

This section only applies to the Telog HPR-32iA.

Pressure impulses (water hammers) can be enabled and configured on impulse-enabled HPRs. An impulse capture is triggered when the difference between the maximum pressure reading, minus the minimum reading, during the trigger window, is greater than or equal to the configured pressure change. The impulse capture completes after the trigger is no longer active, meaning the maximum reading minus the minimum reading is less than the pressure change configured for the trigger window.

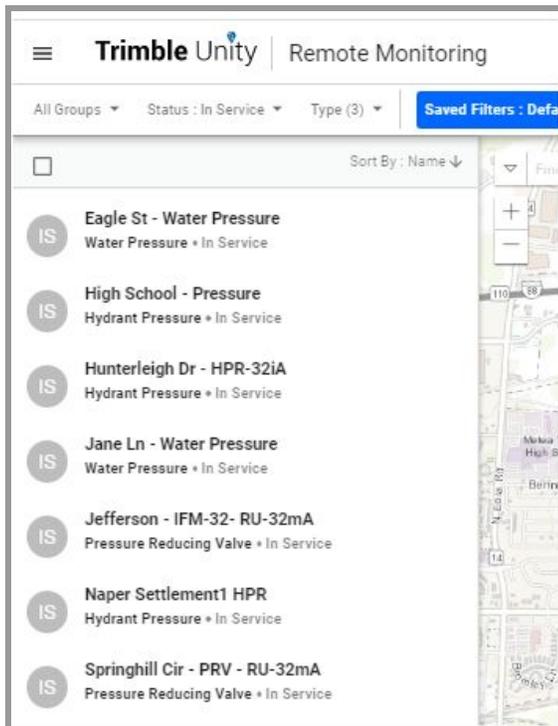
**NOTE:** Frequent calls to report pressure impulse settings will shorten battery life.

Before starting:

- Have the connecting device on hand: PC/computer/tablet/mobile device
- Access your Trimble Unity application account and log in

To configure the HPR-32iA Pressure Impulse settings:

1. Access your **Trimble Unity Remote Monitoring** web application and login.
2. Click on the **Remote Monitoring** menu option. The Monitoring Sites list is displayed on the left side of the screen with the site map to the right.



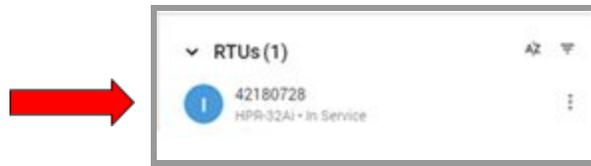
3. Search for the desired Monitoring Site then click on the HPR site. The **HPR site details** screen is displayed on the right.



4. Scroll down (right side of the screen) to the **RTUs** section below the HPR details.

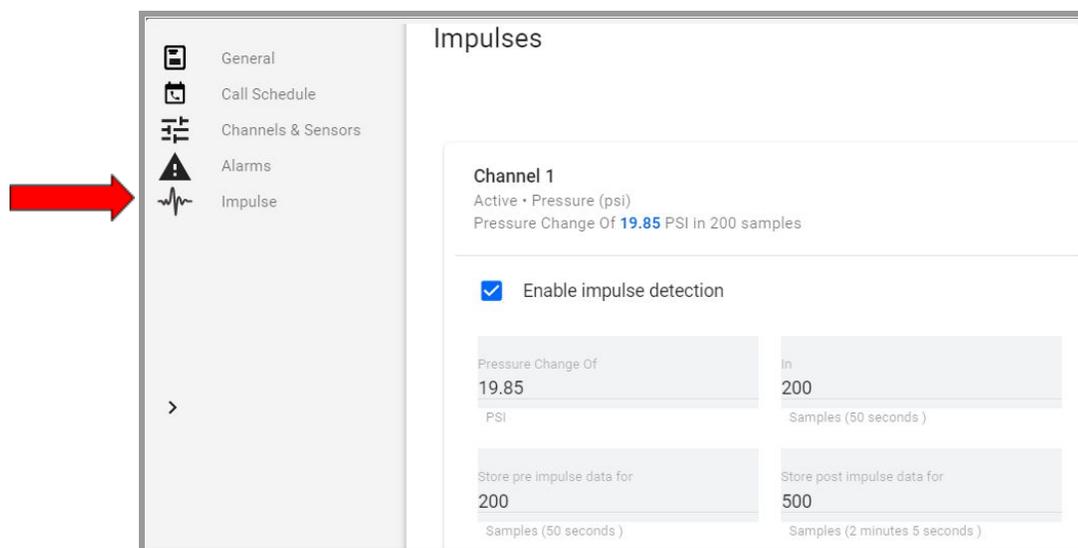
**NOTE** - the HPR serial number is displayed even though the heading is RTUs.

5. Click on the **HPR serial number**.



6. Click on **Edit** on the **HPR serial number details** screen. The system displays the **Edit RTUs <serial number>** screen.

7. Click on **Impulse** on the menu. The screen scrolls to the Impulses section.



8. **Enable impulse detection** by checking the checkbox or **Disable** by unchecking the checkbox. If Enabled, configure the 4 required Impulse detection parameters.

- Pressure Change of: is the minimum pressure change required to trigger an impulse capture.
- In: is the trigger window or the maximum number of samples considered when detecting an impulse.
- Store Pre Impulse Data For: is the number of samples saved before the impulse trigger.
- Store Post Impulse Data For: is the number of samples saved after the impulse trigger is no longer active.

9. Click on **Update**.

## Alarm Management

- [Notification Groups](#)
- [Configure Alarms](#)

The Trimble Unity application generates and sends Alarms to report on data that has breached user-configured parameters. Trimble recommends that the user collect data for a period of time before activating the alarm feature to determine what parameters will be effective and to avoid being overwhelmed with unnecessary alarms.

**NOTE** - a site with an alarm condition appears on the map as a red dot.

The alarm function allows the user to configure the following parameters that prompt the system to generate a message:

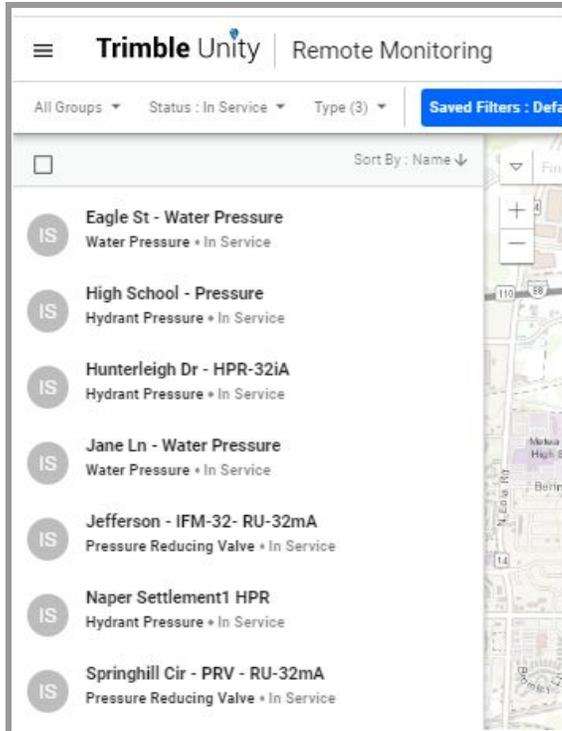
Alarm Types	Definition
Lo	The sampled input value is below the low alarm threshold.
LoLo	The sampled input value is less than the LoLo alarm threshold. The LoLo alarm must be set lower than the Lo alarm threshold
Hi	The sampled input value has exceeded the high alarm threshold.
HiHi	The sampled input value is greater than the HiHi alarm threshold. The HiHi alarm must be set higher than the Hi alarm threshold.
Dwell Time	The alarm dwell time determines how many seconds the alarm condition must persist in order to trigger an alarm.

## Notification Groups

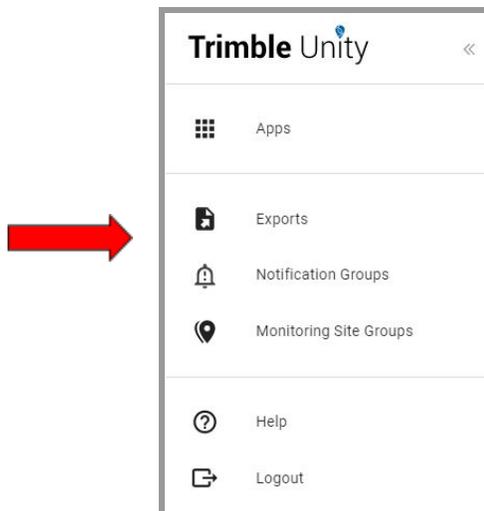
Before configuring alarms, the Notification Groups or recipients must be configured so the app knows where to send the alarm.

To configure the alarm Notification Groups:

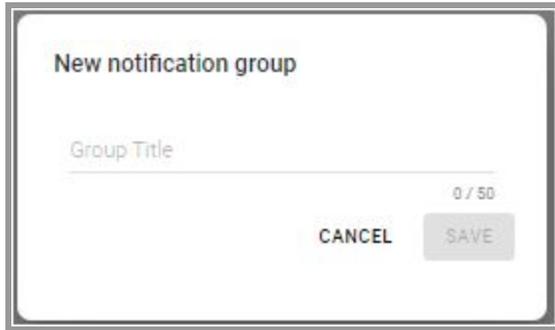
1. Access your **Trimble Unity Remote Monitoring** web application and login.
2. Click on the **Remote Monitoring** menu option. The Monitoring Sites list is displayed on the left side of the screen with the site map to the right.



3. Click on the menu icon (☰) in the upper left corner of the main screen to display a sub-menu.

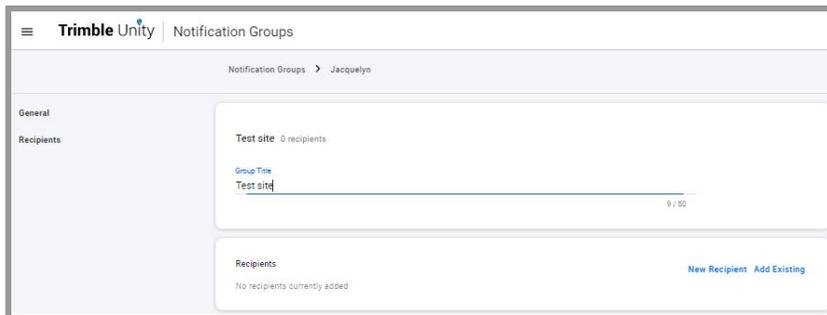


4. Click on **Notification Groups** to access the **Manage Notification Groups** screen.
5. Click on **New notification group** in the upper right corner. The **New notification group** screen is displayed.



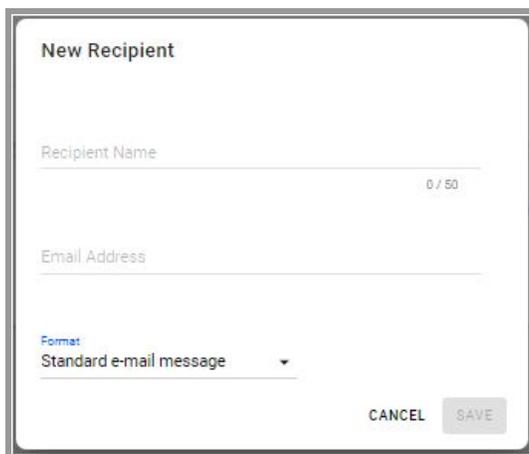
The screenshot shows a form titled "New notification group". It features a text input field labeled "Group Title" with a character count of "0 / 50". Below the input field are two buttons: "CANCEL" and "SAVE".

6. Enter a **group name** on the **Group Title** line.
7. Click on **Save**. Now that the **Notification Group** has been created, populate it with individuals.
8. On the **Manage Notification Groups** screen, click on the **overflow symbol (⋮)** next to the Group title to populate the Notification Group.
9. Click on **Edit**. The **Notification Groups** screen is displayed.



The screenshot shows the "Notification Groups" management screen. The header includes the "Trimble Unity" logo and the text "Notification Groups". Below the header, there is a section for "General" and "Recipients". The "Recipients" section shows "Test site: 0 recipients" and a "Group Title" input field with "Test site" entered and a character count of "9 / 50". At the bottom of the "Recipients" section, there are two buttons: "New Recipient" and "Add Existing".

10. Click on **New Recipient** in the **Recipients** section of the screen.



The screenshot shows a form titled "New Recipient". It features two text input fields: "Recipient Name" with a character count of "0 / 50" and "Email Address". Below the input fields is a "Format" dropdown menu with "Standard e-mail message" selected. At the bottom of the form are two buttons: "CANCEL" and "SAVE".

11. Enter a **recipient's name**, **email address**, and **email format** (such as standard email message).

**NOTE** - To send a text message to a phone instead of an email, choose the Short email Message format type, and use the following format for the email address:

[phonenumber@mobilecarrierSMSGateway]

12. Click on **Save**.
13. Add all of the **intended recipients** to the Notification Group.
14. Once all the **recipients** are added to the group, click on **Save**.

## Configure Alarms

To enable, disable or configure alarms on a monitoring site, use the following procedure to configure alarms. The system default is to send email messages, however, the system can be configured to send text messages instead of an email.

**NOTE** - frequent alarm calls will shorten battery life.

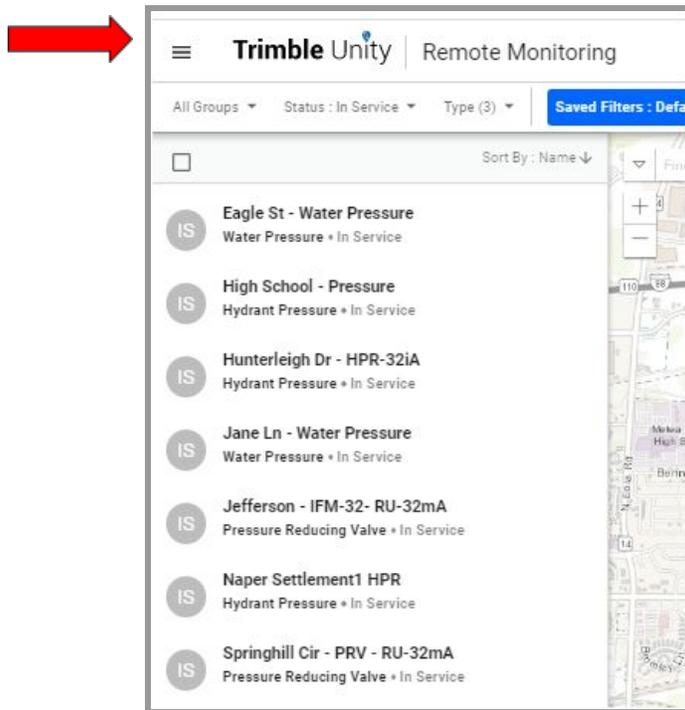
**NOTE** - a site with an alarm condition appears on the map as a red dot.

For each alarm:

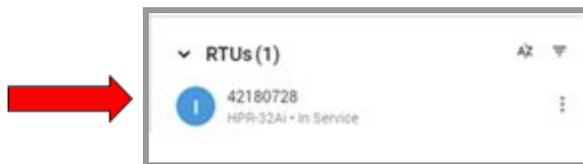
- Enable the alarm
- Set the alarm threshold
- Specify how long the alarming condition will have to persist before the alarm is triggered
- Assign the group of users who will receive alarm notifications via email

To configure the alarms:

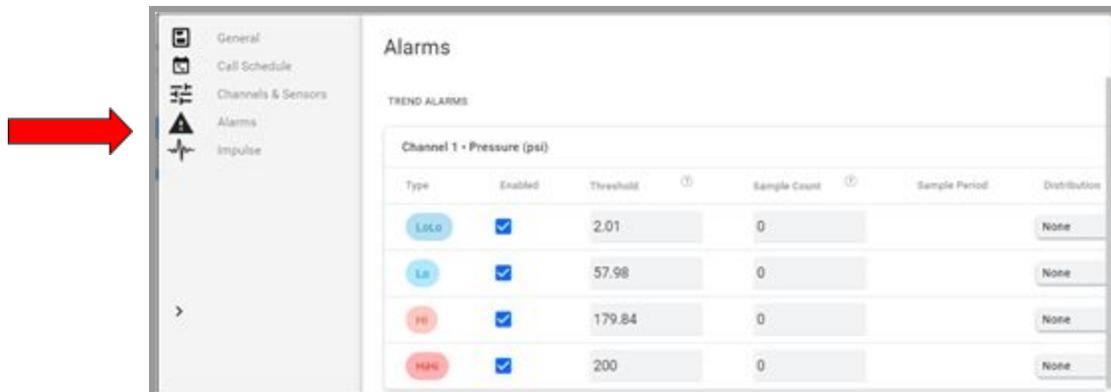
1. Access your **Trimble Unity Remote Monitoring** web application and login.
2. Click on the **Remote Monitoring** menu option. The Monitoring Sites list is displayed on the left side of the screen with the site map to the right.



3. Click on the **menu icon** ( ≡ ) in the upper left corner of the main screen to display a submenu.
  4. Under **Remote Monitoring**, click on **RTUs**. The system displays the list of **RTUs**.
  5. Click on the desired **HPR**. The system displays the **HPR** details screen.
  6. Scroll down (right side of the screen) to the **RTUs** section below the HPR details.
- NOTE** - the HPR serial number is displayed even though the heading is RTUs.



7. Click on the **new HPR serial number**.
8. Click on **Edit** on the HPR serial number details screen. The system displays the **Edit RTUs <serial number>** screen.
9. Click on **Alarms** on the menu. The screen scrolls to the Alarms section.



10. To configure alarms, enter the values:
  - a. **Enable** or **Disable** the alarm for each alarm **Type**.
  - b. Set the **Threshold** values.
  - c. Enter the **number of consecutive samples** under the **Sample Count** (Dwell Time) required before the alarm is triggered.
  - d. Select the **group** under **Distribution** that will receive the alarm Notifications using the drop down menu.
11. Click **Update** to save the changes.

## Mount a Device and Physical Connections

➤	<a href="#">Mount the HPR-32A/iA Onsite</a>
➤	<a href="#">Install the Security Cover - Optional</a>

### Mount the HPR-32A/iA Onsite

HPR-32A/iA is a low-profile, rugged unit that is easily installed by one person on a standard 2.5 inch hose nozzle outlet. Once installed, data is immediately available using the Trimble Unity application. An optional security cover can be installed to prevent vandalism.

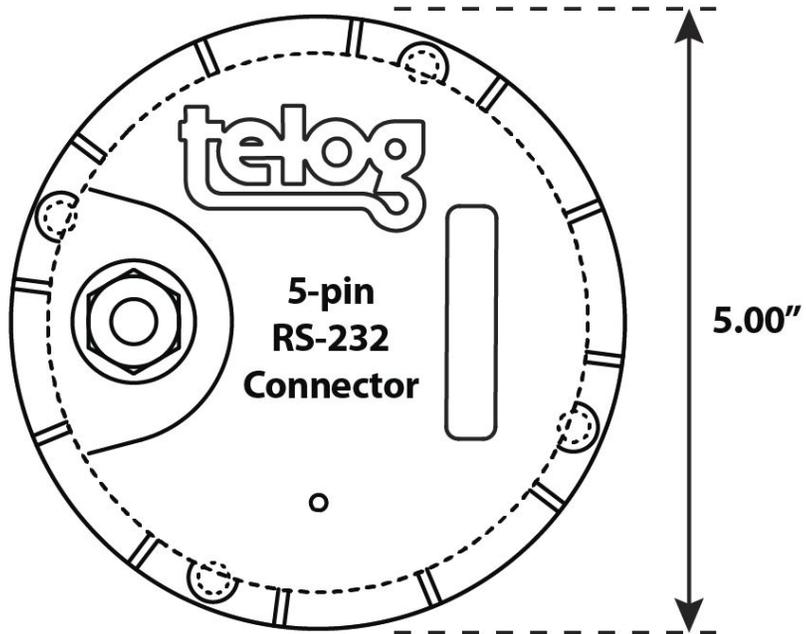
HPR onsite mounting preparation:

1. Ensure the **Communication Port waterproof cap** on top of the HPR is tight.
2. Verify that **data** is being logged by the HPR-32A/iA.
3. Verify that **calls** are being completed.
4. Mount the **HPR-32A/iA** on the hydrant using your company's standard operating procedures.

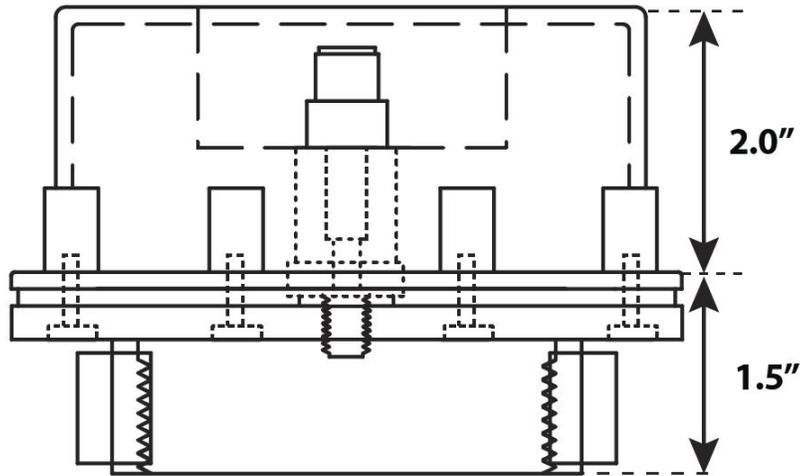
**NOTE:** Be sure to flush the hydrant to remove any debris or residual that could block the sensor.

Refer to the following diagrams for dimensions.

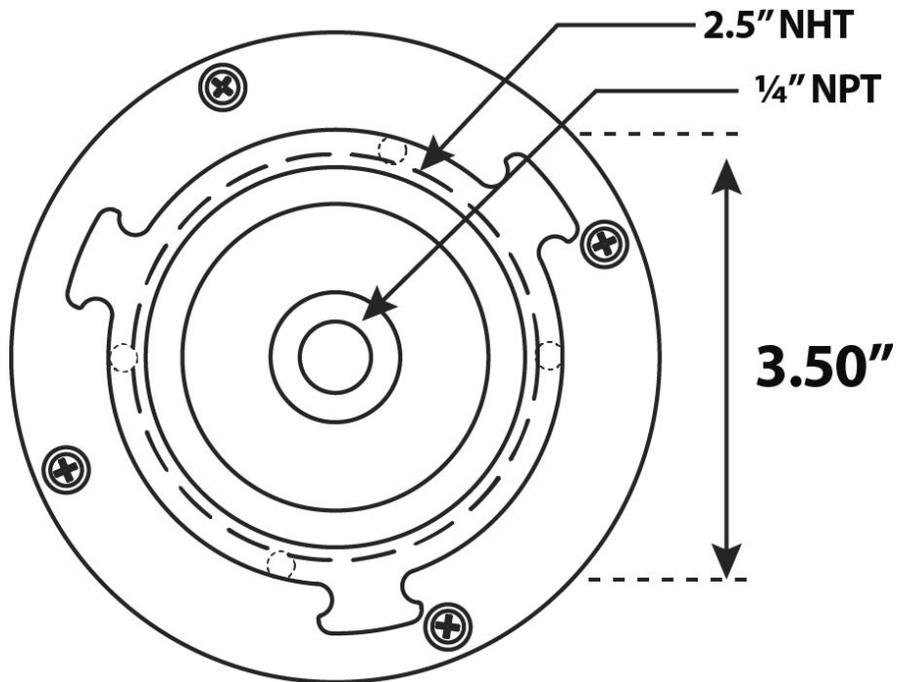
**Cover: Top view**



**side view**



**Base: bottom view**

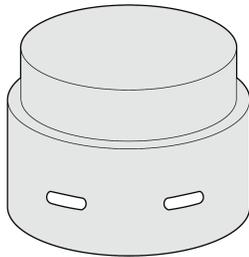


## Install the Security Cover - Optional

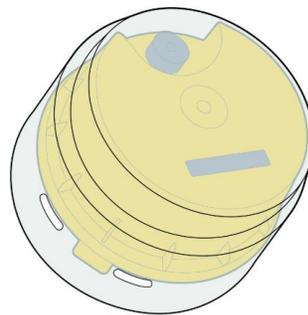
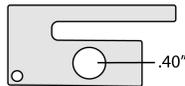
Trimble provides an optional high-impact nylon security cover that prevents vandalism.

To install the Security Cover:

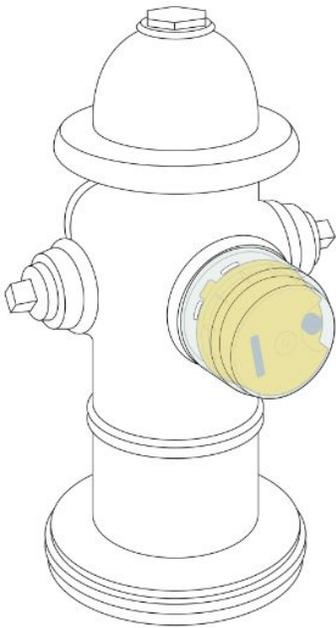
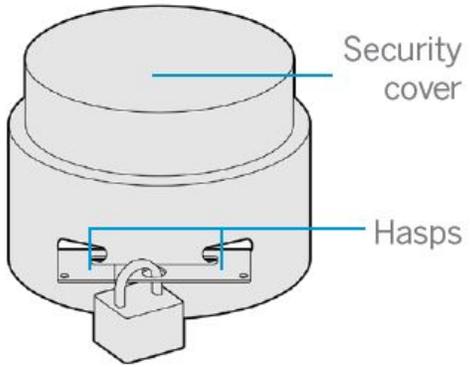
1. Place the **security cover** over the HPR and align the slots with a gap under the recorder.



2. Press the **security cover** down firmly while inserting the narrow arm of a **security hasp** through a slot in the security cover from one direction and the narrow arm of the other security hasp from the other direction, so they overlap.



3. Ensure the **narrow arms** of the security hasps are under the rim of the recorder, locking the security cover over the recorder.
4. Align the **locking holes** (size .40").
5. Insert a **padlock** (customer supplied) or other locking device through the hole in both hasps and lock.



## Maintenance

➤	<a href="#">Shipping and Handling</a>
➤	<a href="#">Use and Care</a>
➤	<a href="#">Replacing the BP-4 Lithium Battery Pack</a>

This section describes the maintenance required to support the Telog HPR-32A/iA.

### Shipping and Handling

The Telog HPR-32A/iA is shipped in a dormant state and requires the user to Tamper a Call to activate the data capture and recording functionality of the HPR. Unpack the Telog HPR-32A/iA from the protective material used during shipping.

### Use and Care

This product is designed to withstand the rough treatment and tough environment that typically occurs in hydrant applications exposed to the elements. However, the recorder is an electronic instrument and should be treated with reasonable care.

### Cleaning

Typically the HPR does not require cleaning but in the rare case it does, refrain from inserting any instrument or direct high pressure into the sensor port in the center of the HPR. Subjecting the sensor diaphragm to high pressure or a cleaning tool may cause irreparable damage.

### Replacing the BP-4 Lithium Battery Pack

The Telog HPR-32A/iA utilizes a field replaceable BP-4 lithium battery pack that is installed in the HPR before shipping. Hydrant pressure recorders can store data internally for many months.

### Battery safety

Lithium batteries are classified by the U. S. Federal Government as non-hazardous waste and are safe for disposal in the normal municipal waste stream except where prohibited by local or regional regulations. These batteries contain recyclable materials and are accepted for recycling.

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**WARNING** - Use only the battery intended for the product. Using any other battery can damage the device and may void your warranty. If the battery becomes damaged or stops working, replace it with a new battery.

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**WARNING** - Avoid contact with the Lithium battery if it appears to be leaking. Battery fluid is corrosive, and contact with it can result in personal injury and or property damage. To prevent injury or damage:

- If the battery leaks, avoid contact with the battery fluid.
- If battery fluid gets into your eyes, immediately rinse your eyes with clean water and seek medical attention. Do not rub your eyes! I
- If battery fluid gets onto your skin or clothing, immediately use clean water to wash off the battery fluid.

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The Telog HPR-32A/iA provides an operating life of up to five years depending on the user-configured call schedule, as follows:

- 5 years with Daily Data Transfers, 4 Samples per second (HPR-32A and HPR-32iA)
- 2 years with Daily Data Transfers, 128 Samples per second (HPR-32iA)
- 1 year with Daily Data Transfers, 256 Samples per second (HPR-32iA) (@ very good to excellent signal strength)

To order a replacement battery, contact Trimble Sales.

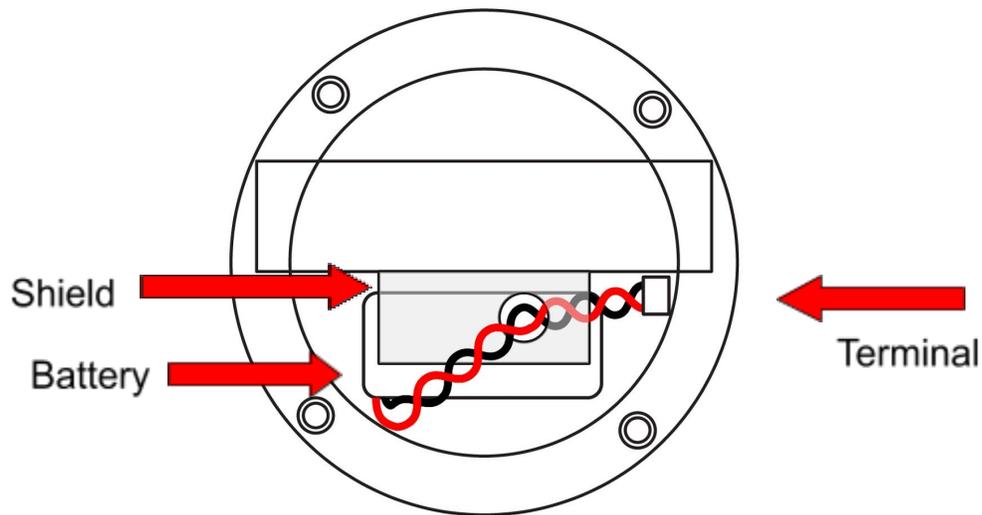
Have on hand:

- Phillips head screwdriver
- Replacement battery
- HPR
- Tamper Switch Cable or BLE Dongle and a connection device to retrieve data if it cannot call the server

To replace the battery:

1. Before removing the battery, **collect data** from the HPR via wireless network or locally using a Tamper Switch cable or BLE Dongle with Telogers for Windows.
2. Slide the **battery** out of the protective cage surrounding it.
3. Remove the **battery connector** from the terminal by pressing the release tab and pulling upward to detach the connector from the Power Circuit Board (PCB) terminal.

4. Connect the new **battery** by feeding the battery cable through the hole in the protective shield from above and inserting the connector into the PCB terminal until it is seated.

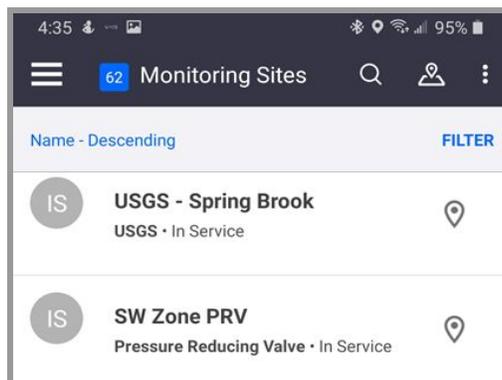


5. Slide the new **battery** under the protective shield and secure.
6. Perform [Updating the Battery Replacement Date in the App](#) for recordkeeping purposes.

### Updating the Battery Replacement Date in the App

Changing the battery in the HPR needs to be documented in the app for recordkeeping purposes.

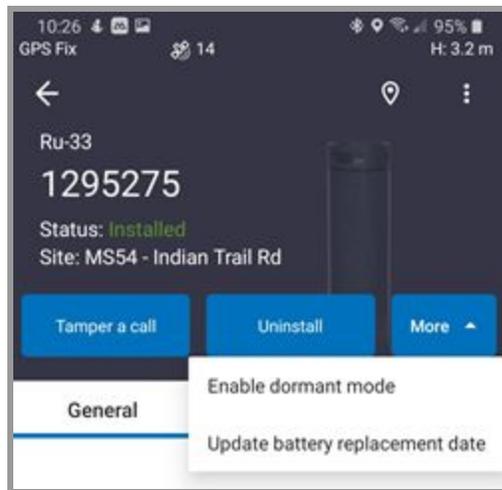
1. Launch the **Unity Android or iOS mobile app** from your phone or tablet.
2. Enter your **organization** and click on **Next**.
3. Enter your **username** and **password** and click on **Sign In**. The **Monitoring Sites** screen is displayed.



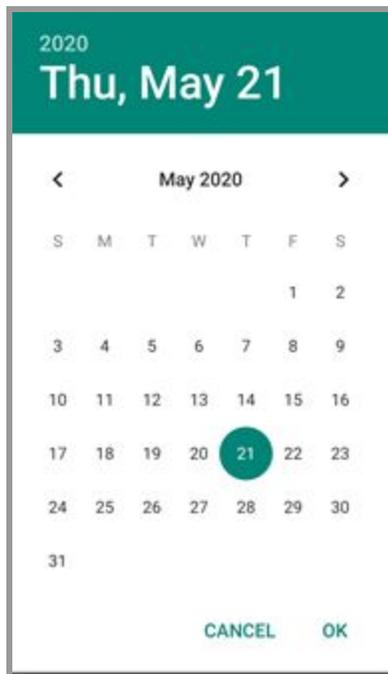
4. Tap on the **menu icon** (☰) in the upper left corner of the main screen to display a submenu.
5. Under **Remote Monitoring**, tap on **RTUs** to display the **RTUs** list.
6. Search for the **HPR** or tap on the **HPR** that needs the battery replacement date updated.

7. On the app **Details** screen, tap on **More**. The **More** menu is displayed and offers the options to:

- **Enable dormant mode**
- **Update battery replacement date**



8. Tap on **Update battery replacement date**. A calendar is displayed.



9. Select the **date the battery was replaced**.

10. Tap on **OK** to save the change.

## Troubleshooting

This section describes the troubleshooting steps used to assess and potentially resolve performance issues with the Telog HPR-32A/iA. The Telog HPR-32A/iA automatically generates system status data, event logs and error messages. This information can be used to identify and troubleshoot potential issues with the recorder.

Problem	Potential Cause	Solution
No data recorded	Recorder still in Dormant mode	Use the <a href="#">Tamper a Call</a> procedure to force a wake-up call.
No HPR response	Battery Flat	Replace the battery. Refer to the <a href="#">Replacing the BP-4 Lithium Battery Pack</a> procedure for information.
No local Communication	Software version	Check for an application update. Upgrade if a newer version is available.
No available Tamper cable or BLE Dongle to Tamper a Call	Tamper the HPR by removing the battery	Remove the battery to interrupt the power cycle. Wait 5 minutes, then reconnect the battery to Tamper a Call to the HPR. Refer to the <a href="#">Replacing the BP-4 Lithium Battery Pack</a> for details.
No Local Communication	Cabling	Verify the Cu-CTS and C-USB-RS232 cables are connected between the PCB USB port and the RTU 5 pin communication port. Status LED on the cable should be flashing on once every five seconds.
No Local Communication	RTU making a remote call	Verify the Status LED on Cu-CTS cable is flashing once every five seconds. If the LED is on solid, the RTU may be on a call.
No BLE Communications	BLE disabled in RTU	Enable RTU BLE option in the Unity or Telog software.
No BLE Communications	No BLE dongle on PC	If using a PC, verify C-BLE-D USB dongle is installed on the USB port and selected in the software.
No Wireless Communications	Modem activation taking place	If this is the first time initiating a call, the RTU may be activating the modem, which may take a few minutes. If the call is unsuccessful, initiate another call.

No Wireless Communications	Modem account not active	Verify the RTU modem account has been activated.
No Wireless Communications	Low or no wireless signal strength	Verify wireless signal coverage in the area, move to a better location if the signal is poor.

# Appendix A - Telog HPR-32A/iA Specifications

This information can also be found on the datasheet for HPR-321A on the Trimble website:

[http://download.trimblewater.com/Telog\\_HPR-32iA.pdf](http://download.trimblewater.com/Telog_HPR-32iA.pdf)

HPR-32A		
	Type	Strain gauge, isolated pressure sensor with wireless functionality.
	Range (PSI)	0 to 100, 200, 300 (contact Telog for other ranges)
	Over Pressure (PSI)	300, 600
	Burst Pressure (PSI)	850, 1000
	Resolution	0.025% of full scale, 12-bit
	Accuracy	±0.25% of full scale at constant temperature
	Temperature Effect	±0.015% of full scale per °F
HPR-32iA		
	Type	Strain gauge, isolated pressure sensor with wireless functionality
	Range (PSI)	-15 to 200, 300 (contact Telog for other ranges)
	Over Pressure (PSI)	600
	Burst Pressure (PSI)	1000
	Resolution	0.025% of full scale, 12-bit
	Accuracy	±0.25% of full scale at constant temperature
	Temperature Effect	±0.015% of full scale per °F
Recording		
	<b>HPR-32A</b>	

	Sample rate	Programmable from 4/sec up to 8 hours
	Data interval	Programmable from 1/sec to 8 hours
	Values saved	Selectable min, ave & max per interval
	Memory	~82,000 data values
<b>HPR-32iA</b>		
	Sample Rate	Programmable from 256/sec up to 8 hours
	Data Recorded	Selectable min, max and average pressure per interval
	Interval Period	Programmable from 1 second to 8 hours
	Memory Total	~82,000 data values (Shared between Impulse and normal data)
	Impulse On	Normal mode operates as specified above when impulse mode is on or off
	Data Recorded	Normal mode interval data plus transient event waveforms including pre and post transient event data, user configurable
	Transient Trigger	Pressure rate-of-change; either positive or negative; user configurable
	Impulse Memory	Up to 125 transient events to a maximum of 41,000 samples after which new data will overwrite the oldest data.
<b>Communication - HPR-32A and HPR-32iA</b>		
	Local RS-232	5 pin circular connector rated IP67 Auto-selected baud rate to 19.2 kbaud
	Cellular	Internal Telog WM2/L1 cellular modem LTE Category 1 certified Verizon Wireless
	Local Bluetooth	BLE 4.1, Bluetooth low energy max range is 20 feet in an open field line-of-site setting
<b>Battery - HPR-32A and HPR-32iA</b>		
	Battery	Factory installed, field replaceable Telog BP-4 lithium battery pack
	Battery Life	Up to 2800 data calls to host computer Examples at very good to excellent signal strength: Call Frequency - Sampling Frequency - Battery Life

		<ul style="list-style-type: none"> <li>• 1 call per day - 4 Samples per second - 5 years (HPR-32A and HPR-32iA)</li> <li>• 1 call per day - 128 Samples per second - 2 years (HPR-32iA)</li> <li>• 1 call per day - 256 Samples per second - 1 year (HPR-32iA)</li> </ul>
<b>Environmental - HPR-32A and HPR-32iA</b>		
	Temperature	<p>Operating: 40° to 150°F [4° to 66°C]  Storage: -40 °F to 149 °F [-4 °C to +65 °C]  For applications below this operating range please contact your Trimble Telog support team</p>
	Humidity	0-100% relative humidity
	Enclosure	NEMA 4x/IEC IP65
	Size	5" diameter x 3.5" [127mm diameter x 89mm]
	Thread	<p>Hydrant mount: 2.50" NHT standard  Contact Telog for non standard thread Internal mount: 1/4" NPT</p>
	Security Cover	High impact nylon security cover. Choose from yellow, red or gray to best match hydrant color. Lockout hasps included.
	Certified	Certified to NSF/ANSI 61 and 372
<b>Support Applications - HPR-32A and HPR-32iA</b>		
	TW-UNITY	Trimble Unity
	S-3PC	Telogs for Windows®6.51 or later
	S-3EP	Telog® Enterprise 6.51 or later

## Appendix B - Tamper a Call

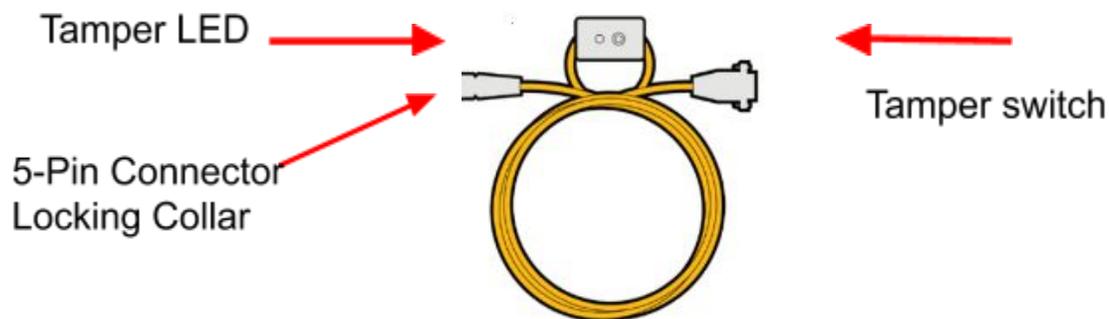
➤	<a href="#">Communication/Tamper Switch Cable - Tamper a Call</a>
➤	<a href="#">BLE Dongle - Tamper a Call</a>

Tamper a Call can be performed using a Tamper Switch Cable or using a BLE Dongle with the Telogers for Windows (Telog TCC) application.

### Communication/Tamper Switch Cable - Tamper a Call

To tamper a call using a Tamper Switch Cable;

1. Unscrew the **black waterproof cap** on the HPR and connect the **Communication/Tamper Switch Cable** using the **5-pin circular connector** end. Rotate to align the groove with the notch. Tighten the locking collar to ensure a secure connection.



2. Press and hold the **Tamper Switch** on the cable for 5 seconds until the **LED** turns solid red (a call has been initiated). During the call, the **LED** will flash off once per second. When the call is finished, the **LED** will blink once every five seconds. The **HPR** has exited dormant mode and begun normal operations.
3. Once the call has completed, remove the **Tamper Switch** cable, replace the waterproof cap on the HPR, and hand-tighten.

## BLE Dongle - Tamper a Call

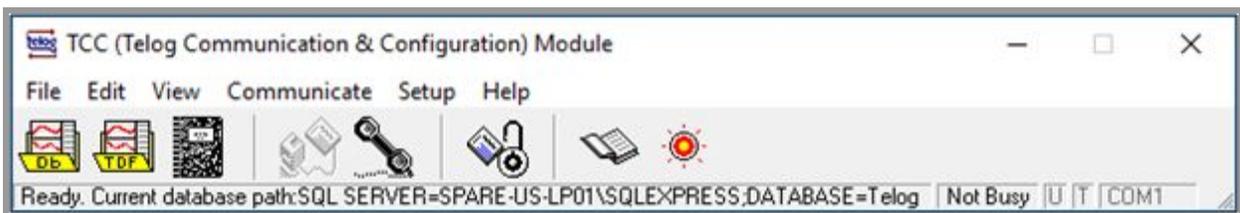
Tamper a Call using a BLE Dongle and the Telogers for Windows (Telog TCC) application.

Before starting, have on hand the:

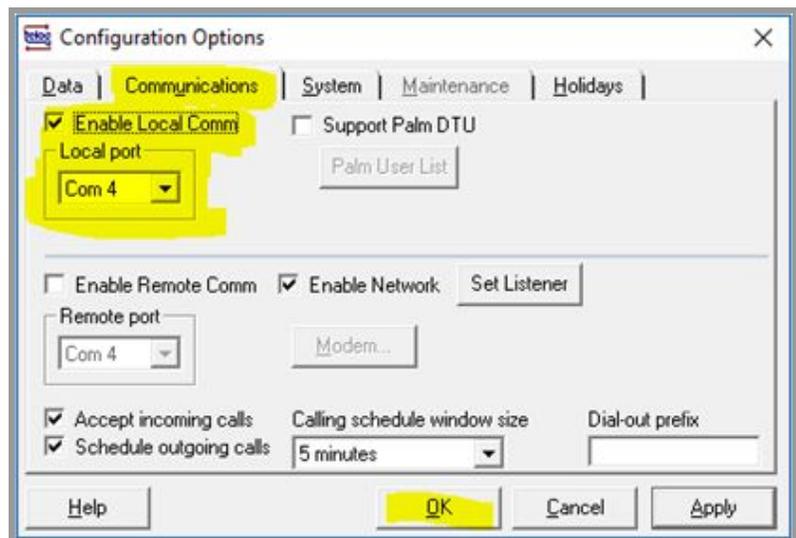
- HPR
- BLE Dongle
- PC with Telogers for Windows application installed. Refer to the [Software Applications](#) for information on how to acquire and use Telogers for Windows.
- Locate the PC within 10' of the HPR

To Tamper a Call using the BLE Dongle:

1. Insert the **BLE Dongle** into the PC being used to make the wake up call.
2. Open the **Telog TCC** application. The system displays the following main menu screen.



3. Click on **Setup-> Options**. The system displays the Configuration Options window.



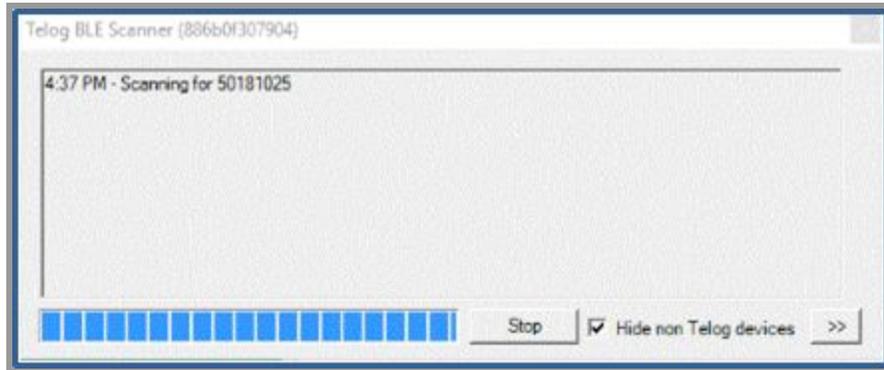
4. Click on the **Communications** tab.
5. Select **Enable Local Comm** (click on the check box to select it).
6. Click on the drop down menu for **Local port** and select the PC port the BLE Dongle is plugged into.
7. Click on **OK**. The system closes the Configuration Options window.
8. Click on **Communicate** in the main menu.
9. Select **with Local recorder**.
10. Select **Force a call-out** for the attached recorder.

11. Select **RTU for BLE Communication**.

12. Enter the **ID of the RTU**.

13. Click on **Start**. The system displays two windows:

- The Telog BLE Scanner window displays the status of the BLE Dongle scanning for the HPR and the connection status.



- The Local Communications window displays the communication status once the RTU and the PC are connected.



You are now connected to and communicating with the HPR.