



≡ Telog Ru-32mA/imA

RECORDING TELEMETRY UNIT (RTU)
WITH TRIMBLE UNITY REMOTE MONITORING



OUT-OF-THE-BOX steps to make a wake-up call to Telog® Ru-32mA/imA. Install and configure Telog Ru-32mA/imA with Trimble® Unity Remote Monitoring GIS-based Cloud and mobile software.

OVERVIEW

The Telog Recording Telemetry Unit (RTU) model Telog Ru-32mA/imA is a cell-enabled, battery-powered remote multi-channel recording telemetry unit used for pressure, flow, and impulse monitoring in harsh environments.

Trimble Unity Remote Monitoring software provides the capability to view and analyze data, configure and manage the RTU, as well as manage monitoring sites.

Make sure you have an account setup with Trimble Unity Remote Monitoring before installing Telog Ru-32mA/imA.

Telog Ru-32mA/imA is shipped in a dormant state, which is why you need to use this Quick Start Guide to make a wake-up call!

WHAT YOU NEED

- Telog Ru-32mA/imA – Self-contained remote telemetry unit with integrated wireless modem.
- Communication/Tamper Switch Cable – Cu-CTS (yellow cable) is used to force a call between Telog Ru-32mA/imA and Trimble Unity Remote Monitoring Cloud database. Required equipment – order separately.
- Antenna – Used to transmit cellular signal. Required equipment – order separately.
- Sensors – Used to deliver data to the RTU. Required equipment - order separately.
- Trimble Unity Remote Monitoring software – install Trimble Unity Remote Monitoring software on a mobile device, computer, and/or laptop to provide remote access to Telog Ru-32mA/imA data and configuration from the Cloud.

BEFORE YOU START

- Have Telog Ru-32mA/imA and the Tamper Switch cable on hand.
- Ensure you can log into the Trimble Unity Remote Monitoring web and mobile applications.

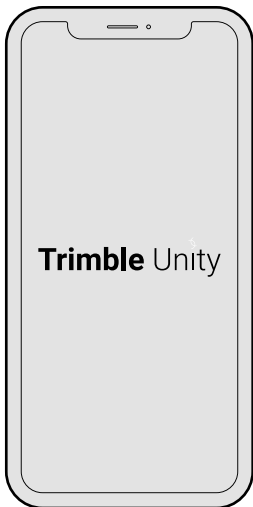
SETUP TELOG RU-32mA/imA WITH TRIMBLE UNITY REMOTE MONITORING SOFTWARE

How to Setup a Work Order

1. Using a Chrome web browser, go to:
<https://app.trimbleunity.com/>
2. Login to your Trimble Unity Remote Monitoring account.
3. On the **App Selector** screen, click on **RTU Installer**.
4. Click the + sign in the bottom right of the screen to create a new Work Order (WO).
5. Fill in the required information. Assign the WO to the crew that will do the installation.
6. Click on **Create**. (Note: you can use a single WO to perform multiple installations.)

Create a Monitoring Site

1. Run the Trimble Unity Remote Monitoring app and log in. On the **App Selector** screen, click on **RTU Installer**.
2. Click on the **WO** icon (upper left of the screen) to display the WO list.
3. Click on the new **WO** to display the **Work Order** detail screen. Synchronize your device if you don't see the WO.
4. Click on **In Progress**.
5. Click on **Install RTU** on the **In Progress** screen of the RTU installation form.
6. Click on **Yes** to confirm it is a new site.
7. Enter the type of site, name of the site, RTU Serial No. of the RTU being installed, and the time zone. Optionally fill in other fields.
8. Click on **CAPTURE** to identify the location of the new site by **GPS** or **MAP** (using a pin on the map).
9. Click on **Install** to create the new monitoring site and associate the RTU with the site. You should receive a confirmation message.



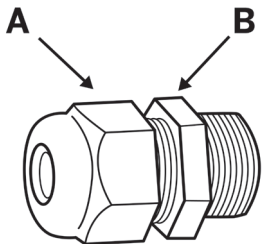
INSTALL THE RTU IN THE FIELD

1. Open the cover of the RTU housing to connect:
 - Sensor cables (step 2)
 - Antenna (step 3)
 - External power source (step 4)
2. Sensor cable connections:
 - a. Refer to the Connections chart on the inside of the RTU cover to determine which ports to use to connect the sensor(s):

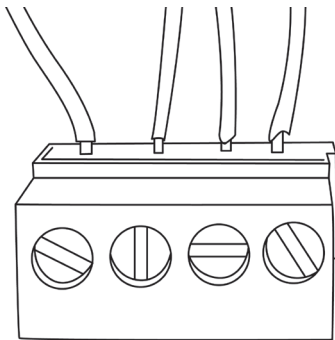
Ru-32mA / Ru-32imA Connections																				
I2C Sensor Input				4-20mA (100 Ohms)		Analog (0-5 VDC)			Digital Input			Meter Register			Meter Register 2					
Channel 1		Channel 2		Channel 3		Channel 4			Channel 5 Channel 6			Channel 7			Channel 8					
4	3	2	1	2	1	3	2	1	3	2	1	3	2	1	3	2	1	3	2	1
0 VDC	SCL	SDA	3.0 VDC	IN -	IN +	0 VDC	Input +	EXCITATION -	0 VDC	In+ CH.5	In+ CH.6	COM	-B	-G	-R	COM	-B	-G	-R	

- b. Unscrew the cord grip (A) from the sensor port.
- c. Remove the waterproof plug from the cord grip.
- d. Feed the sensor cable through the cord grip; only allow 1/4" or less of cable sheath to protrude inside the housing.

- e. Tighten the cord grip (A) using a 24mm wrench on the outside of the housing and another wrench to hold the nut (B). Use a max torque of 35 LBF-IN. Overtightening could damage the cord grip.

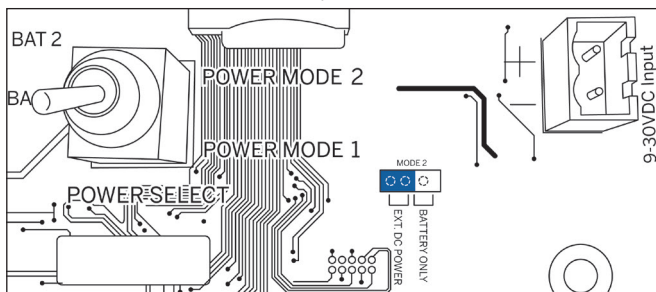


- f. Terminate wires per the Connections diagram inside the RTU cover and provided with the sensor. This is an example of a completed installation.



- g. Tighten terminals with a 1/8" flat head screwdriver.

3. Antenna connection:
 - a. Unscrew the gray waterproof cap on top of the RTU.
 - b. Insert the antenna connection into the port.
 - c. Hand-tighten the locking collar.
4. External Power Source connection:
 - If battery power source is being used, go to step 5.
 - If an external power source is being used:
 - a. Feed the power source cable through one of the sensor ports. Refer to step 2.
 - b. Attach the power source to the 9-30VDC Input terminal. Follow polarity markings on the PCB.
 - c. Flick the **Power Select** toggle switch located in the middle of the PCB to **Power Mode 2**.
 - Power Mode 1 = battery
 - Power Mode 2 = external power source



5. Connect the **Comm/Tamper Switch Cable**:
 - a. Unscrew the black waterproof cap from the comm port on top of the RTU.
 - b. Insert the 5-pin cable into the comm port (align the pin groove with the notch in the port).
 - c. Hand-tighten the locking collar.



6. Press and hold the **Tamper Switch** (on the black box on the cable) for 5 seconds until the **Tamper LED** turns solid red (call in progress). When the call is finished, the **LED** will blink. The **Telog Ru-32mA/imA** has now exited dormant mode and begun normal operations.
7. Once the call is finished, click **Verify** in the Trimble Unity Remote Monitoring app to determine whether the call was successful. If the call was unsuccessful, please attempt another call.
8. Once the call has successfully completed, remove the **Tamper Switch** cable and replace the waterproof cap on the RTU.
9. Click on the **check mark** (upper right corner of the Trimble Unity Remote Monitoring app) to save the installation form for your records.
You have completed the wake-up call.
10. Mount **Telog Ru-32mA/imA** securely using the slots in the mounting flanges on the top and bottom of the RTU.

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