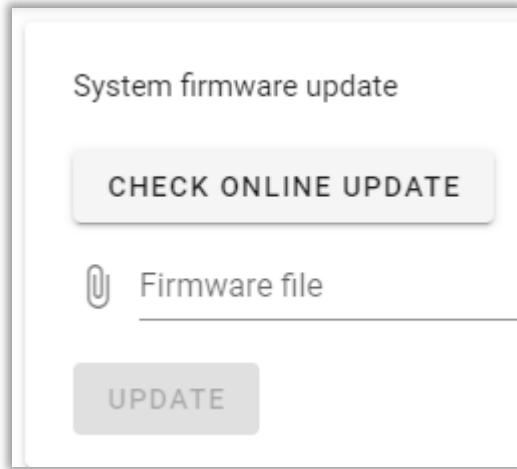


Phantom Gateway 2.0 Firmware version 56

To load FW version 56 via the Internet, use the **Check Online Update** button in the System Tools tab of the Gateway Admin Console.



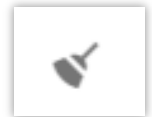
For manual firmware updates, the Firmware file may be downloaded from this URL:

<https://pfw.erbessd-instruments.com/test/phantom/files/gw2/gwupdate-56.bin>

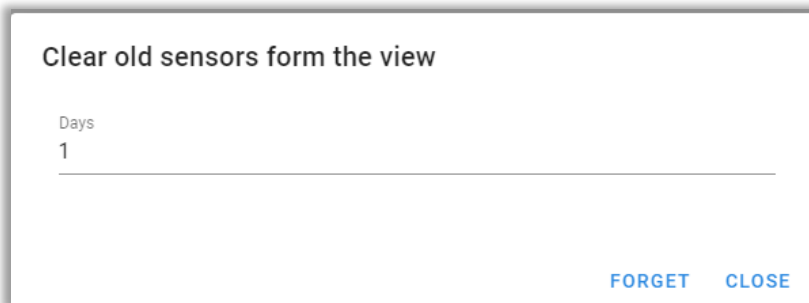
New features/functionality included in Phantom Gateway 2.0 Firmware Version 56 are:

Clear Old Sensors

A new **Clear Old Sensors** icon is located at the top right of the Live State screen in the Gateway Admin Console.



Phantom Gateways keep a record of any sensor they have detected via Bluetooth advertising. To clear that list, and remove them from the Live State screen, click this button, then select **Forget**. Only sensors that are actively advertising within range of the gateway will be now shown.

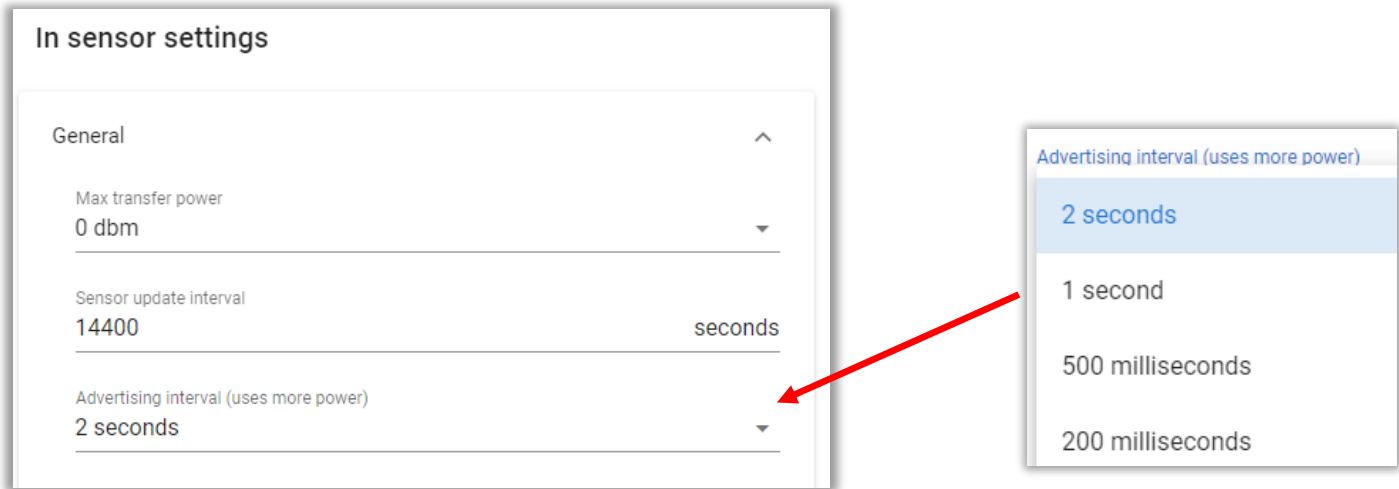


EPH-V10/V11 Firmware version 188

Gateway FW56 contains this new FW for Phantom Vibration sensors. Just press the Update button!

Configurable Bluetooth Advertising Interval

Previously, the interval was fixed at 2 seconds. A parameter has been added to the **In-Sensor Settings** screen allowing the interval to be set manually. This parameter is particularly useful in triggering applications to ensure that a Phantom sensor's channel states are updated to the Gateway in less than 2 seconds. **Note** – lowering the default uses more battery life!



Send RMS Data to Database Interval

A new parameter that determines how often the Gateway will send RMS information to the database, based on the **Sensor Update Interval**.

When the Sensor Update Interval elapses, a Phantom sensor will transmit a small packet of information to the Gateway, based on the sensor model. This includes:

1. Velocity RMS for each axis
2. Internal Temperature
3. Signal Strength
4. Battery voltage
5. Firmware version

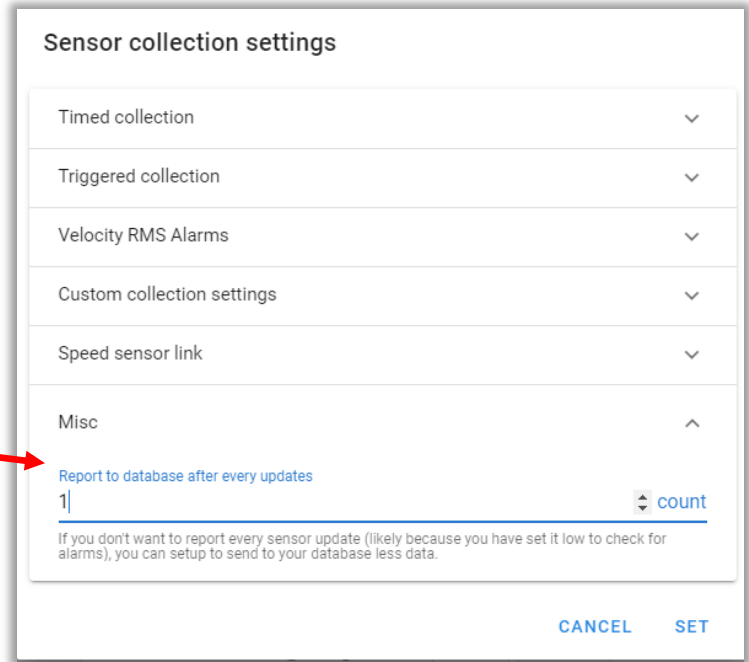
This information is automatically sent by the Gateway to the database (EI-Analytic or local).

Since the Sensor Update Interval also serves as the Alarm Check interval for RMS Velocity alarms, it is sometimes desirable to set the Sensor Update Interval to a low value, for example one minute. This results in an RMS entry in the database every minute. Even though RMS data is extremely small in size, it requires action to periodically delete the unwanted entries. Setting the Sensor Update Interval to one minute results in 1440 DB entries per sensor, per day.

This new parameter is located in a new Tab in the **Sensor collection settings** called **Misc** and defines how many **counts** (Sensor Update intervals) should occur before the Gateway sends RMS information to the database.

This allows the Update interval to be set to a lower value, but not impact the database. For example, setting it to 4 counts for a 3600 second Sensor Update interval (default) would cause the Velocity RMS alarms to be checked by the Gateway every hour, but an RMS data packet would only be sent to the database every four hours. The first 3 RMS data packets are discarded by the Gateway. The 4th is sent to the database, and the Gateway's counter resets to 0 for that sensor.

Note – The Sensor Update Interval has a direct impact on sensor battery life!



V10/V11 Sensor Disconnected Collection

To improve battery life and to minimize induced noise on a recorded signal, Phantom vibration sensors will now disconnect Bluetooth to the Gateway while a vibration signal is being recorded.

Previously, a sensor's Bluetooth connection to the Gateway would remain up throughout the duration of the vibration signal recording. This is not impactful when the recording duration is low – less than 1 second for the default setting. However, when longer recording times are used, e.g., 60 seconds, it is not necessary to keep the Bluetooth session connected. After a brief session to initiate the recording has occurred, it will be dropped. When the sensor has completed the recording, it will initiate a new session to send the signal file to the Gateway.

Since the use of the Bluetooth radio has direct impact on battery life, this change will help extend battery life for those sensors set to perform long recordings.

Battery Conversion checkbox

For Generation 1 EPH-V10 and V11 vibration sensors only - that have a battery conversion kit installed. Select the checkbox in the **Misc** tab of the **Sensor Collection Settings**. This ensures the correct battery voltage levels are used in determining the color of the battery indicator shown in EI-Analytic (Devices), WiSER Vibe and DigivibeMX software (Phantom>Status). This parameter will not appear in the **Misc** tab for a Gen 3 V10E or V11E sensor.

Sensor collection settings

Timed collection ▾

Triggered collection ▾

Velocity RMS Alarms ▾

Custom collection settings ▾

Speed sensor link ▾

Misc ▲

This sensor is using the Phantom Battery Conversion Kit

Report to database after every updates
1 count

CANCEL SET



EPH-G62 Dry Contact -new Firmware

FW Version 108 for this Phantom sensor is now included in the Gateway. Changes include:

- A **Debounce** parameter that sets the minimum amount of time a dry contact sensor channel must remain in the same state before switching states, in order for the change to be detected. Previously, a relay may have switched from on to off or vice versa too quickly for the sensor to detect. The value defaults to the lowest setting – 20 ms.

In sensor settings

General ▾

Dry Contacts ▲

Debounce
20 milliseconds

CANCEL SET

- The advertising interval for the EPH-G62 is now hard-coded to a lower value to update the Gateway quicker for triggering applications.

Modbus/MQTT/OPC UA sensor triggering

Firmware version 56 now offers the ability to trigger a V10/V11 vibration sensor waveform collection based on communication from a Modbus, MQTT or OPC/UA server.

This is functionally the same as clicking the **Collect Waveform Now** button for a sensor in the Live State screen.

Modbus example:

Create registers for the sensor in the Modbus tab of the Gateway Admin Console:

Enable Modbus server

Connect to the Gateway's modbus server on port 502

Select a sensor
189301939

Sensor value

- Sensor internal temperature
- Vibration velocity RMS (0)
- Vibration velocity RMS (1)
- Vibration velocity RMS (2)
- Trigger waveform collection (write only)
- Trigger state update collection (write only)

Select a sensor value and press add.

Enable Modbus server

Connect to the Gateway's modbus server on port 502

Select a sensor
189301939

Sensor value

ADD

Register	Sensor	Data type	Field	Current Value	Actions
0	189301939	float	Trigger waveform collection (write only)		🗑️ ↓ ↑
2	189301939	float	Trigger state update collection (write only)		🗑️ ↓ ↑

SAVE

In this example, when the Modbus server writes a “1” in register 0, it will trigger a waveform collection. If a “1” is written into register 2, an RMS update will be sent.