



# 03 Sensor Hub 2.0

Firmware Upgrade Guide  
Edition 1.2

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# Introduction

This document describes three methods for upgrading firmware on the O3 Sensor Hub 2.0 (from 1.1.0-alpha.88 and later):

- Using the O3 Setup app
- Using BACnet (enteliWEB)
- Using an MQTT client

*Note: It is also possible to host the upgrade path on your internal network, but this method is not covered in this document.*

The sensor hub receives firmware updates over the internet instead of using a firmware upgrade utility. It downloads the file from the internet and programs itself. Ports 80 and 443 must be open on the network to allow an external internet connection.

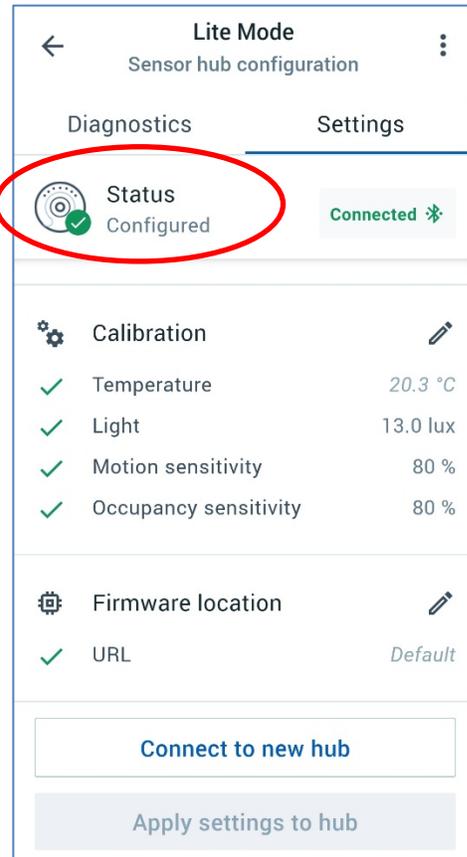
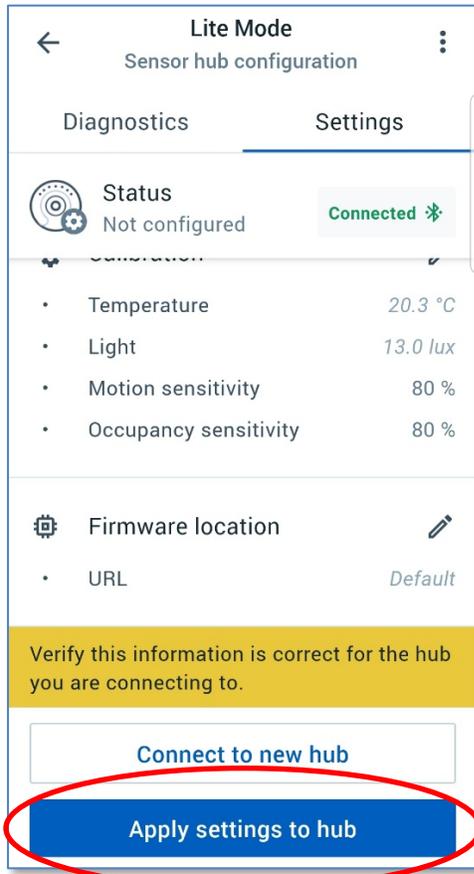
## Related documents

- *O3 Sensor Hub 2.0 Quick Start Guide*
- *O3 Sensor Hub 2.0 BACnet Application Guide*
- *O3 Sensor Hub 2.0 MQTT API Reference Guide*

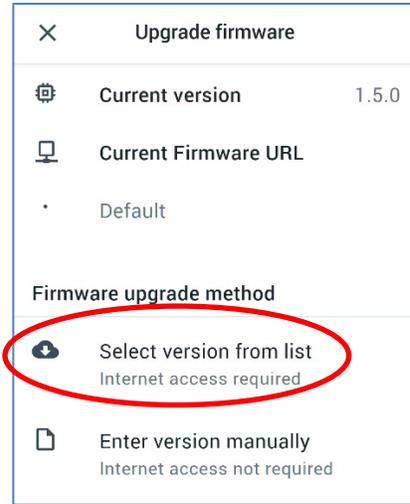
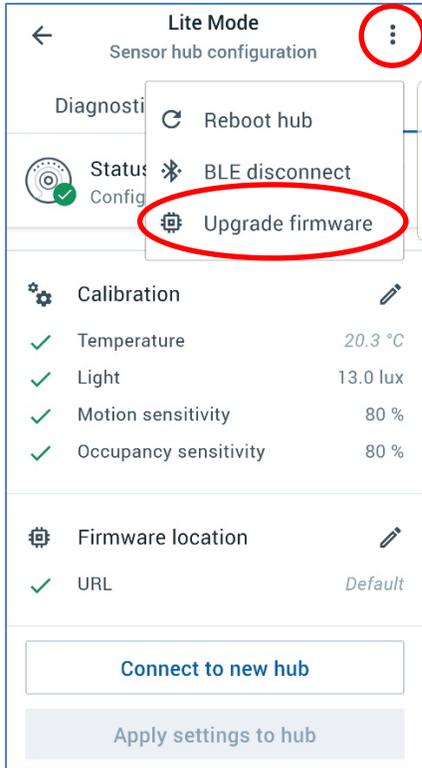
These documents are available on [support.deltacontrols.com](https://support.deltacontrols.com).

# Upgrade Using the O3 Setup App

1. Connect to your sensor hub over BLE using the O3 Setup app.

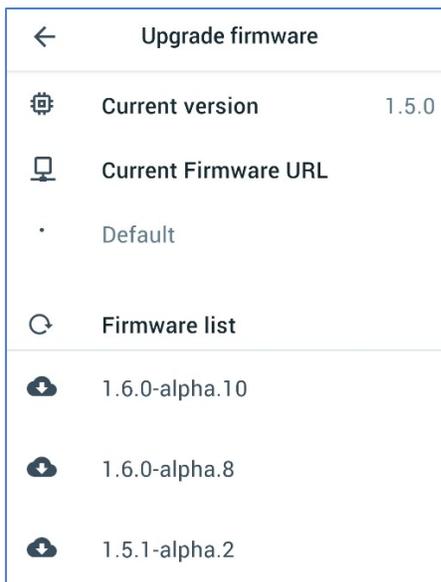


2. Verify that your settings information is correct and select **Apply settings to hub**.
3. The **Firmware location** URL should indicate *Default* unless your firmware file is hosted elsewhere.
4. If you make changes to the **Firmware location**, ensure that the URL and path are correct and that the settings are applied to the hub.
5. Prior to upgrading, your screen should not display any warnings and the **Status** should say **Configured**.

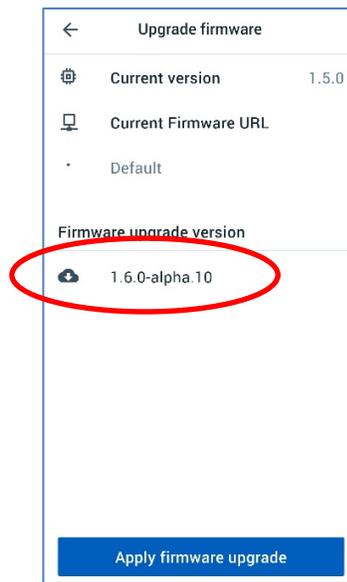


7. Choose **Select version from list**.

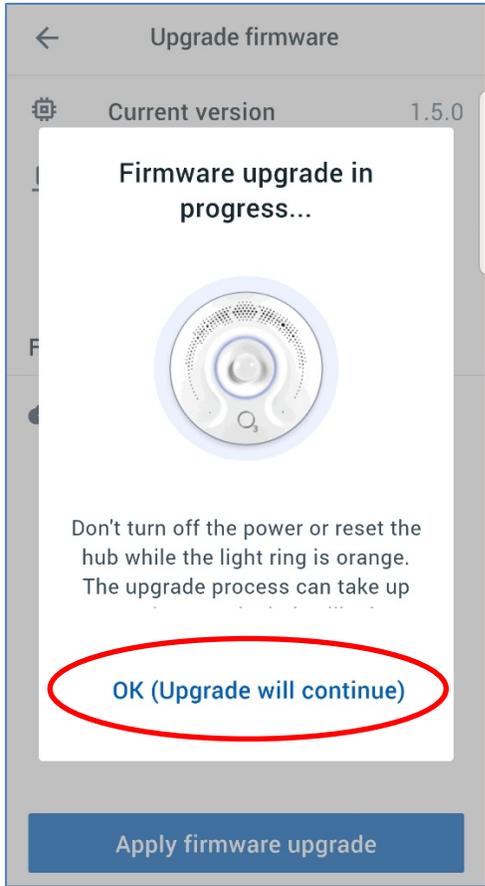
6. In the kebab menu on the top right, select **Upgrade firmware**.



8. Available firmware versions are listed. Select the version you want to upgrade to.



9. Verify that the correct version you want to upgrade to is listed, then select **Apply firmware upgrade**.



10. The sensor hub downloads and installs the firmware file. Select **OK** to disconnect from the hub.

The LED ring turns orange when the upgrade procedure begins.



If there is an error, the light ring will flash red 3 times. Check your file location, name, and connection. The sensor hub will attempt the upgrade a maximum of 3 times.



# Upgrade Using BACnet

The following procedures describe how to upgrade the firmware over BACnet using Delta Controls' enteliWEB® facility management software.

## To upgrade a single sensor hub

1. In enteliWEB, in the left pane, select the sensor hub that you want to update.
2. Create object **CSV43** with the name "Firmware Upgrade".
3. Open the object, set it to Manual, then enter the firmware version as a JSON string to initiate the firmware upgrade. For example: `{"version":"1.6.13"}`

## To batch upgrade multiple sensor hubs

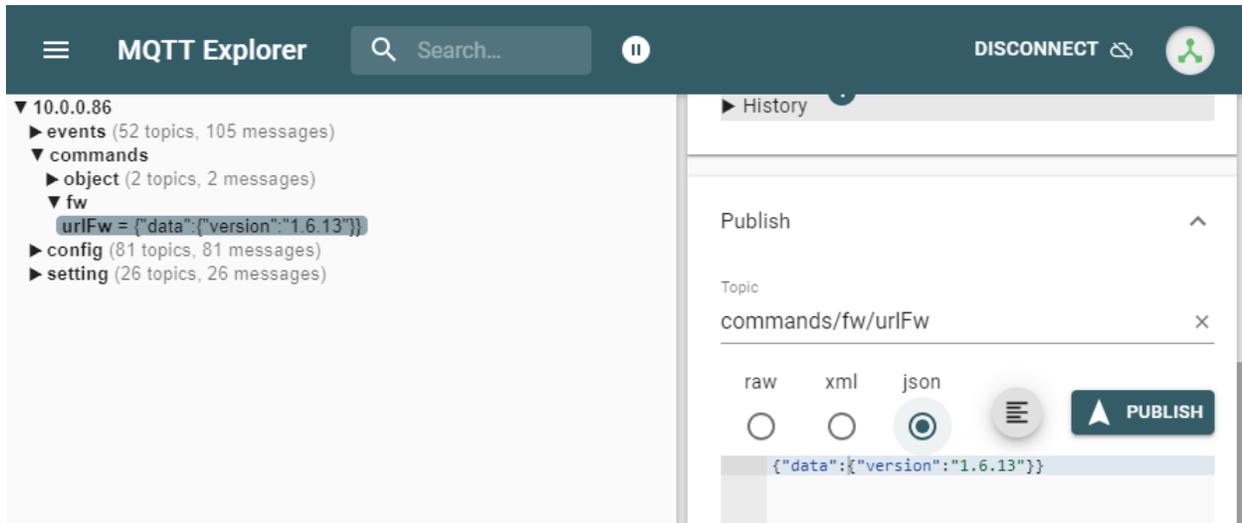
1. In enteliWEB, in the left pane, hold down the Shift key and select up to 8 sensor hubs to update.
2. Filter on **CSV43**.
3. Select the checkbox at the top left to select all the objects.
4. Select **Command > Manual Value**, then enter the firmware version as a JSON string to initiate the firmware upgrade. For example: `{"version":"1.6.13"}`
5. Select **Save**.
6. Verify that all the selected hubs were updated.

# Upgrade Using MQTT

Publish the desired firmware version to the topic **commands/fw/updateFw**.

In the example below, [MQTT Explorer](#) is used to upgrade to version 1.6.13 from the default location.

*Note: You must have MQTT broker login credentials to publish to the sensor hub.*



## Document Revision History

Edition	Date	Author	Change Description
1.0	November 4, 2020	G. Mustapha	New document.
1.1	December 22, 2020	S. Clarke	Revised batch upgrade instructions.
1.2	January 8, 2021	S. Clarke	Removed references to self-hosted server. Revised MQTT upgrade instructions.