

INTRODUCTION

The NXSMF series Sensor Modules are designed to be used with NXFM series Fixture Modules and NXRC series Room Controllers only. Each sensor module incorporates a Daylight Sensor, PIR Occupancy Sensor, and a Bluetooth radio. Setup and calibration of these sensors requires the use of the NX Device Setup App on an IOS or Android smart device with Bluetooth capability. The App can be downloaded from the Apple or Google Play store.

Note that only one smart device may be connected to the Bluetooth radio in a Smart Sensor at a time. Be sure to “kill” the App on one device before attempting to connect with another smart device.

SETUP AND CALIBRATION

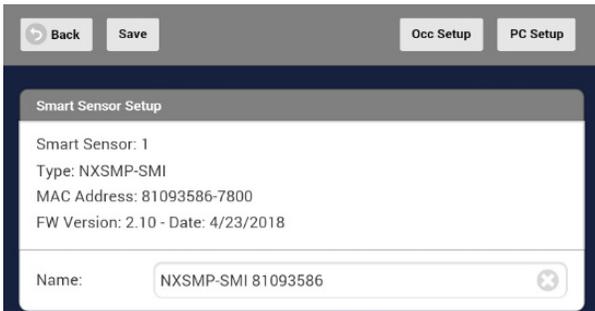
The following instructions are for the NXSMF-SMI. The procedure is the same for the LMI and OMNI models.

Discover the Sensor Module

When the App is opened, it will automatically do a discovery and find all NX Bluetooth radios that are in range. A signal strength meter is displayed for each discovered radio to help in identifying the desired sensor when more than one is close by. The sensor modules can also be identified by matching the last 4 digits of their MAC address from the product label and the App screen shown below. The MAC address is the number to the right of the sensor model.

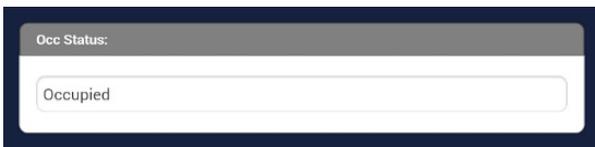


In the discovered list of radios, tap the one you wish to configure. The App will discover and display a list of NX controls that are served by this Bluetooth radio. Select Smart Sensors from the list.



Calibrate the Occupancy Sensor

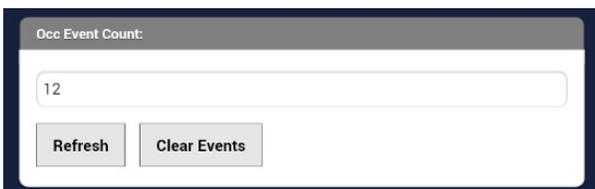
Select **Occ Setup** at the top of the screen. The App will display the setup screen for the PIR occupancy sensor. Note that the current settings saved in the sensor and the current state of the sensor are displayed on the screen. The **Occ Status**: box indicates whether the occupancy sensor is in occupied mode meaning the sensor has detected movement or is in unoccupied mode.



The **LED Status**: box allows the user to select whether the red LED under the lens of the sensor will flash each time an occupancy hit is detected. Some users may find the flashing a disturbance. In this case, switch the Enable LED setting to OFF and tap Save at the top of the screen.



The **Occ Event Count**: keeps a running count on the number of times the sensor has cycled between Unoccupied and occupied. This information can be used as a troubleshooting tool.



The **Occ Timeout**: setting is the time period during which the sensor must see no movement in the space for an Unoccupied event to occur. Most

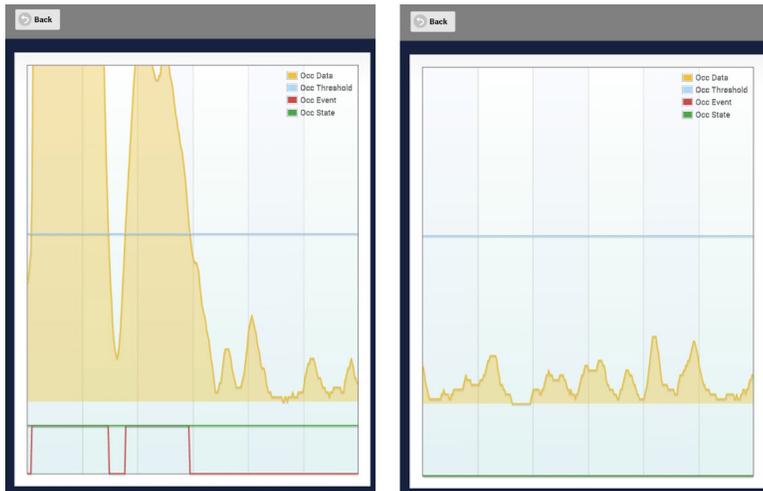
energy codes do not permit this setting to be higher than 20 minutes.



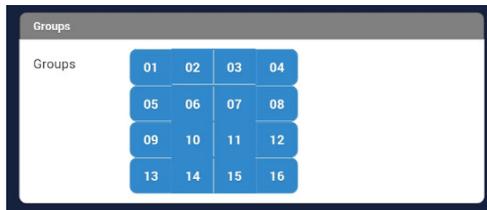
Helpful Hint: set the timeout to 5 seconds or less during calibration to facilitate walk testing the sensor operation. Be sure to tap the Save button at the top of the screen each time you change this setting.



For best performance, the **Sensitivity** setting should be set as high as possible without causing false On events to occur. The **View Occ Data** button at the top of the screen opens the NX exclusive Intelliscope feature. Intelliscope presents the user with a live view of the background motion in the space overlaid with the current sensitivity setting. This feature allows for easy and precise setting of the sensitivity custom tailored to the space conditions.

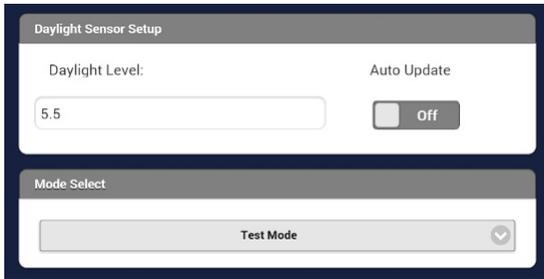


The **Groups** field at the bottom of the screen shows which groups are currently selected to be controlled by the occupancy sensor. Typically all groups are controlled. However, you may deselect groups and press **Save** at the top of the screen to change the selection.



Do not forget to tap **Save** at the top of the screen before tapping the **Back** button to return to the previous menu.

If you do not intend to use the Daylight Harvesting feature of the Smart Sensor, press the **Back** button to return to the previous menu. You may not exit the App.



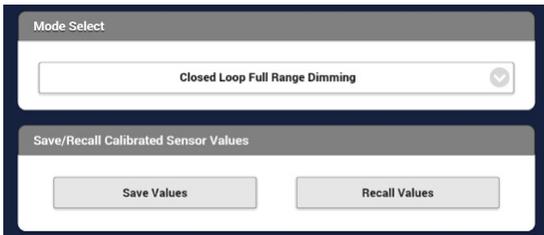
Calibrate the Daylight Sensor

From the **Smart Sensor** screen, tap the **PC Setup** button at the top of the screen.

The **Daylight Level**: indicates the light level that the sensor was seeing when you entered the current screen. This can be refreshed by toggling the **Auto Update** switch to On. Note that it is recommended to leave this setting Off during calibration to minimize radio traffic.

By default, the **Mode Select** for the daylight sensor is set to **Test Mode**. In this mode, the daylight sensor will react quickly to a flashlight beam indicating to the installer that the sensor is functional. To prepare the sensor for daylight harvesting, use the pull down to select **Closed Loop Full Range Dimming**.

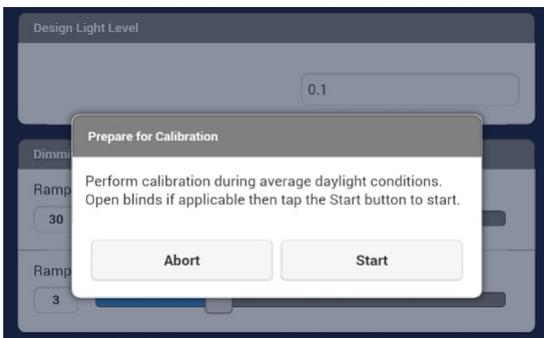
Helpful Hint: if you do not intend to use daylight harvesting, use the pull down to select Disabled. This will eliminate the Test Mode feature.



The **Save Values** and **Recall Values** buttons can be used to fine tune the calibration of the sensor after the automated calibration process has been performed.

Helpful Hint: when setting up daylight harvesting in several identical areas, know settings may be entered and saved repeatedly without the need to run through the calibration process. Use the Save Values button to do this.

To begin the calibration process, tap the **Calibrate Sensor** button at the top of the screen. This will cause a series of pop up progress boxes to appear. Follow the directions in the boxes to complete the calibration. It will be necessary to use a light meter to complete the calibration process.



When the steps have completed check to make sure the sensor is set to control the proper group(s). By default, the sensor is set to control Group 1. If the sensor is located in a fixture, and the sensor will be controlling this fixture, Group 1 is the appropriate setting. If the sensor will be controlling more than one fixture, it may be necessary to change the **Group** setting.

Tap the **Save** button at the top of the screen to save the calibration for this sensor.

