The SmartBox + Panel Sensor is a Bluetooth® Signal Mesh based lighting control device. Once connected to a luminaire, the SmartBox + Panel Sensor provides Motion and Bi-Level Controls and can be paired with other TCP SmartStuff devices. The Panel Sensor incorporates both a microwave or a PIR sensor to detect motion and a daylight sensor to measure the ambient light in the area. The SmartBox + Panel Sensor is compatible with any luminaire with 0-10V dim to off drivers/ballast and can be configured through the TCP SmartStuff App on any Android™ or Apple® Smart devices.

### Reasons to choose the SmartStuff SmartBox + Panel Sensor from TCP:

- TCP Bluetooth Signal Mesh allows for over 100 TCP SmartStuff devices on one network.
- Used to control lighting luminaires with 0-10V dim to off drivers/ballasts.
- Able to create scenes, schedules, and group TCP SmartStuff devices together.
- Control luminaires with Motion and Bi-Level Controls.
- Pair with the TCP SmartStuff Remote for greater control and flexibility.
- Easy to install, setup, and configuration is through the TCP SmartStuff App.
- All TCP SmartStuff products’ firmware can be updated through the SmartStuff App to enhance their capabilities and fix potential issues.

### Ideal Applications:

- Flat Panels
- Troffers
- General Purpose Strips

### Specifications:

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input Voltage</td>
<td>120 - 277VAC @ 15mA</td>
</tr>
<tr>
<td>Input Line Frequency</td>
<td>50/60Hz</td>
</tr>
<tr>
<td>Maximum Power</td>
<td>1W</td>
</tr>
<tr>
<td>Radio Protocol</td>
<td>Bluetooth Signal Mesh</td>
</tr>
<tr>
<td>Output Voltage</td>
<td>0-10VDC</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-23°F(-30°C) to 113°F(45°C)</td>
</tr>
<tr>
<td>Humidity</td>
<td>80% RH</td>
</tr>
</tbody>
</table>

Suitable for both dry and damp locations.
Motion and Sensor Specifications:

- Microwave Maximum Height: 10ft/3m
- Microwave Maximum Diameter: 33ft/10m
- Sensor Detection Angle: 360°
- Hold Time: 1 min. – 1092 min.

- Daylight Sensor Setpoint: 0 – 300 lux
- PIR Maximum Height: 10ft/3m
- PIR Maximum Diameter: 16ft/5m

Regulatory Approvals:

- ETL Listed
- Contains FCC ID: NIR-MESH8269
- Contains IC: 9486A-MESH8269
- Conforms to UL 8750
- Certified to CSA C22.2 No. 250.13

Dimensions:

TCP SmartStuff App:

The TCP SmartStuff App is used to configure the Bluetooth Signal Mesh and TCP SmartStuff devices.

Download the TCP SmartStuff App using the following options:

- Download the SmartStuff App from the Apple App Store® or Google Play™
- Use the QR Codes here:

Instructions for configuring TCP SmartStuff App and SmartStuff devices are at https://www.tcpi.com/tcp-smartstuff/
TCP MOTION CONTROL
When the TCP SmartBox + Panel Sensor is connected to a luminaire and set up for Motion Control through the App, the luminaire will turn on/off when the Panel Sensor detects motion in the area. Use the switch on the back to select between the Microwave or PIR Sensor to detect motion. The TCP SmartBox + Panel Sensor can be paired with other TCP SmartStuff products such as the SmartBox. This means when the Panel Sensor has been engaged, it can turn a group of luminaires on and off.

TCP BI-LEVEL CONTROL
When TCP SmartBox + Panel Sensor is connected to a luminaire and set up for Bi-Level Control through the App, the luminaire will turn off when daylight is present and on/off when the Panel Sensor detects motion in the area. Use the switch on the back to select between the Microwave or PIR Sensor to detect motion. The TCP SmartBox + Panel Sensor can be paired with other TCP SmartStuff products such as the SmartBox. This means when the Panel Sensor has been engaged, it can turn a group of luminaires on and off.

If the SmartBox + Panel Sensor detects motion, it will go into Hold Mode. The luminaire will turn on and the light level for the luminaire will be at 100%.

The luminaire will stay on as motion is detected. Once motion is no longer detected, the Hold Time will begin to countdown.

Once the Hold Time has elapsed, the SmartBox + Panel Sensor will go into Stand-By Mode and turn off the luminaire.

If the natural light lux level is above the Daylight Sensor Setpoint, the luminaire will not turn on, even if motion is detected.

Once the natural light lux level falls below the Daylight Sensor Setpoint, the luminaire will turn on and the Hold Time will begin to countdown. Once the Hold Time has elapsed and the SmartBox + Panel Sensor will go into Stand-By mode and turn off the luminaire.

If the SmartBox + Panel Sensor detects motion, and the natural light lux level is below the Daylight Sensor Setpoint, the luminaire will turn on. The light level for the luminaire will be at 100%.

The luminaire will stay on as motion is detected. Once no motion is detected, the Hold Time will begin to countdown. Once the Hold Time has elapsed and the SmartBox + Panel Sensor will go into Stand-By mode and turn off the luminaire.
**Installation Notes**

### Installation of the SmartBox + Panel Sensor

Check the label on the SmartBox for correct orientation and Install as shown. The junction box needs a 1/2" knock-out for the SmartBox + Panel Sensor to fit securely. Use double-sided tape if needed.

### Manual Reset the SmartBox + Panel Sensor

To manually reset the SmartBox + Panel Sensor that is connected to a luminaire, perform the following steps below:

1. Turn on luminaire and pause for less than 3 seconds.
2. Turn off luminaire and pause for less than 3 seconds.
3. Repeat steps 1 and 2 five times.
4. Turn on luminaire. After 6 seconds, the luminaire will flicker 5 times and stay on.

### PIR Beam Pattern:

![PIR Beam Pattern Diagram]

 Maintain a minimum distance of 4.92 ft / 1.5m between:
- A window and the SmartBox + Panel Sensor.
- The SmartBox + Panel Sensor and other TCP SmartStuff products with a Microwave Sensor.

Make sure no light is reflected in the direction of the SmartBox + Panel Sensor.