

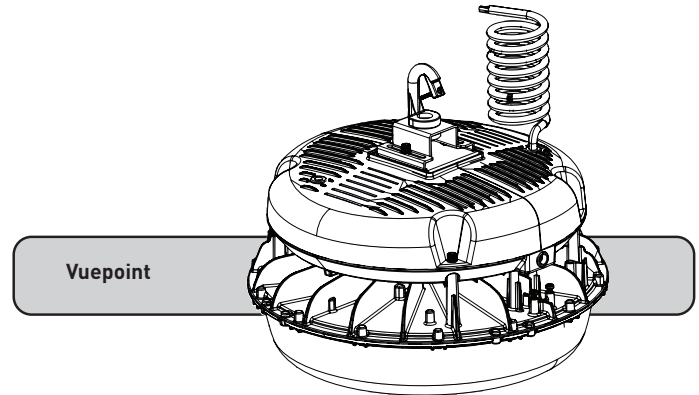
IMPORTANT SAFEGUARDS

When using electrical equipment, basic safety precautions should always be followed including the following:

READ AND FOLLOW ALL SAFETY INSTRUCTIONS

- DANGER**- Risk of shock- Disconnect power before installation.
DANGER – *Risque de choc – Couper l'alimentation avant l'installation.*
- This luminaire must be installed in accordance with the NEC or your local electrical code. If you are not familiar with these codes and requirements, consult a qualified electrician.
Ce produit doit être installé conformément à NEC ou votre code électrique local. Si vous n'êtes pas familier avec ces codes et ces exigences, veuillez contacter un électricien qualifié.
- Suitable for damp location.
Convient aux emplacements humides.
- MIN 90°C SUPPLY CONDUCTORS
LES FILS D'ALIMENTATION 90°C MIN.
- Check to make sure that all input power connections have been properly made and the luminaire is grounded to avoid potential electrical shock.
- DO NOT lift luminaire by the power cord or any of the cables connected to the LED heatsink and LED driver.

INSTALLATION INSTRUCTIONS INSTRUCTIONS D'INSTALLATION

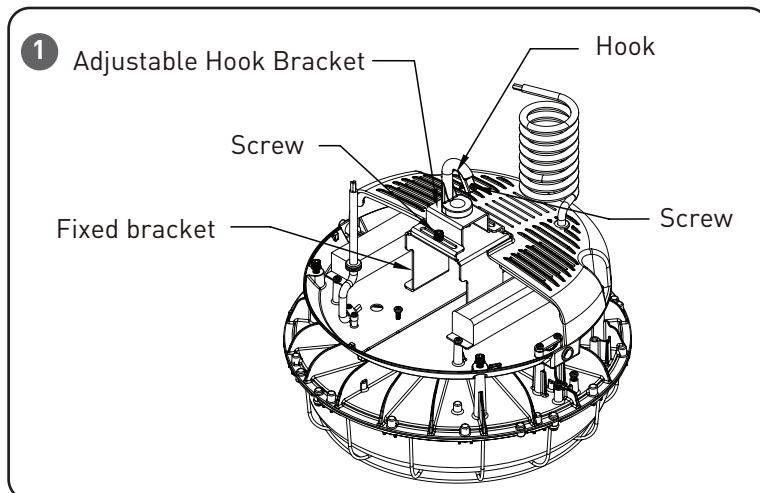


SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE

NOTES:

- Images used in this installation sheet are for illustration purpose, there are different configurations of the luminaire.
- For each mounting application below, when mounting to surface ensure that the mounting surface and customer supplied hardware is capable of supporting the weight of the luminaire.
- The center of mounting is NOT the same as the center of luminaire.

TO INSTALL:



HOOK AND CORD MOUNT

STEP 1:

Loosen the long screw from the hook. See **Figure 1**.

STEP 2:

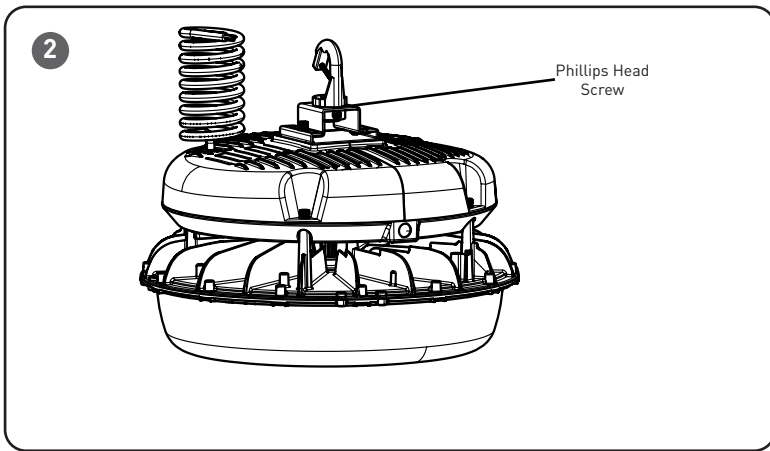
Slide hook into securely mounted customer supplied eye hanger and tighten the long screw from **Step 1**.

NOTE: The luminaire should already be factory set for correct balance. If necessary, the fixture may be balanced by loosening the hook adjustment screws on the top of housing and sliding the hook as necessary for correct balance. Tighten hook adjustment screws when finished.. See **Figure 1**.

STEP 3:

Attach luminaire cord to customer supplied junction box and strain relief. Make wiring connections per the **Electrical Connections** section.





PENDANT MOUNTING

STEP 1:

Remove the hook from the adjustable hook bracket by loosening the Phillips head screw on the adjustable hook bracket locknut. See **Figure 2**.

STEP 2:

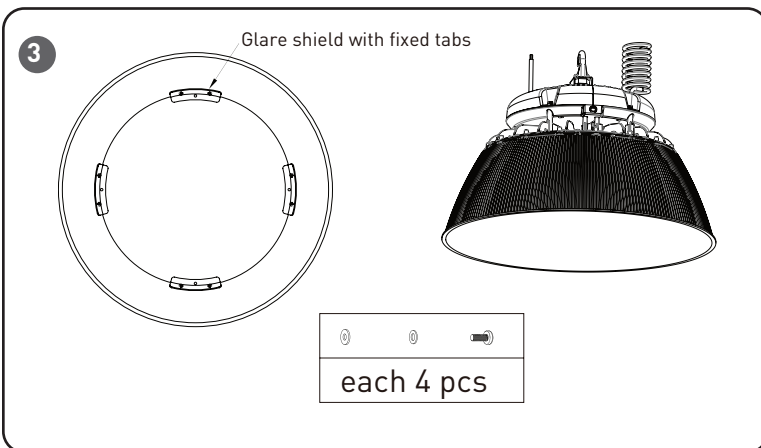
Insert customer supplied 1/2" IPS stem into adjustable hook bracket locknut and tighten Phillips head screw to lock.

STEP 3:

Secure Pendant to structure or junction box using customer supplied locknuts.

STEP 4:

Attach luminaire cord to customer supplied junction box and strain relief. Make wiring connections per the Electrical Connections section.



REFLECTOR ACCESSORY

STEP 1:

Secure the reflector to the bottom of the heatsink by tightening the (4) self-retained Phillips head screws. See **Figure 3**.

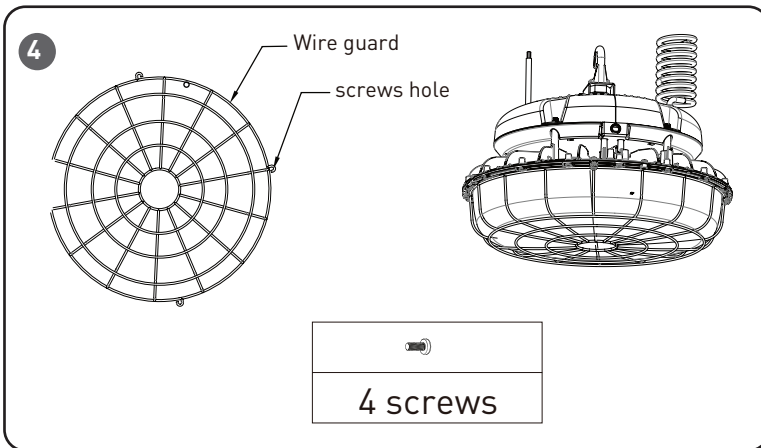
NOTE: Reflector and Wire Guard cannot be used together.

WIRE GUARD ACCESSORY

STEP 1:

Secure the wire guard to the bottom of the heatsink by tightening the (4) self-retained Phillips head screws. See **Figure 4**.

NOTE: Reflector and Wire Guard cannot be used together.



0-10V DIMMING

NOTE: All Luminaires are provided with a 0-10V dimming driver. Follow the steps below to access the 0-10V dimming control leads.

STEP 1:

Remove molded driver compartment cover by removing 2 driver cover screws using 5/32" hex head bit or allen wrench. See **Figure 5**.

STEP 2:

Locate Violet and Grey 0-10V dimming leads from driver and strip leadwire.

STEP 3:

Remove rubber grommet from driver cover, route dimming cord through cover and connect dimming cord leads to driver dimming leads. See **Electrical Connections** section. See **Figure 5**.

STEP 4:

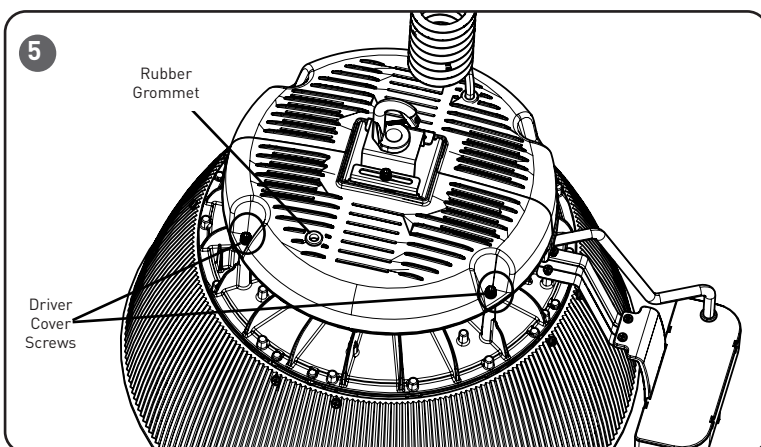
Install strain relief on dimming cord

STEP 5:

Reinstall molded driver compartment cover by securing 2 driver cover screws removed in step 1.

STEP 6:

Attach dimming cord to customer supplied junction box and strain relief. Make wiring connections per the Electrical Connections section.



ELECTRICAL CONNECTIONS

STEP 1:

Make the following Electrical Connections:

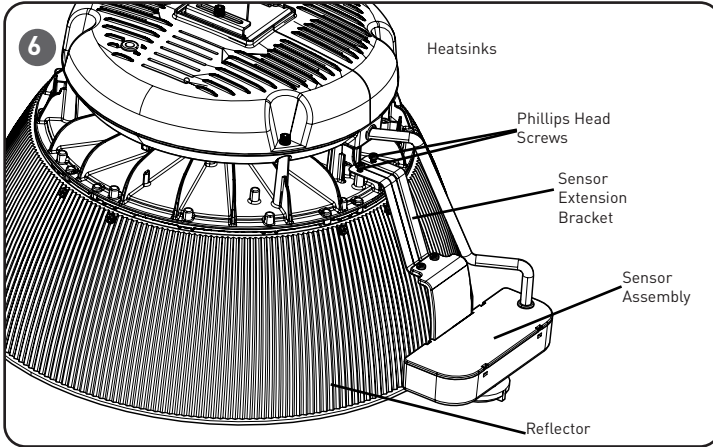
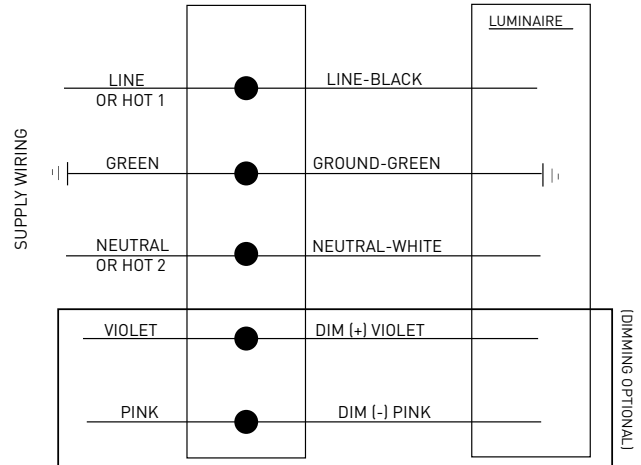
- For 120/277V connect the black fixture lead to the voltage supply or Hot 1 (for 208/240V wiring).
- For 120/277V connect the white fixture lead to the neutral supply or Hot 2 (for 208/240V wiring).
- Connect the green or green/yellow ground lead to the green wire position of the terminal block.

STEP 2:

For Dimming make the following Electrical Connections using:

NOTE: To access dimming leads follow 0-10V dimming section on page 3. Class 1 wiring only when dimming leads are used.

- If 0/1-10V dimming is used connect the violet lead to the supply positive dimming lead.
- If 0/1-10V dimming is used, connect the grey or pink lead to the supply negative dimming lead



PROGRAMMABLE MULTI LEVEL (PML) SENSOR OPTION

NOTE: The sensor is shipped unattached so it is compatible with luminaires without or with the reflector accessory. The sensor assembly should be attached to the heatsink directly when no reflector accessory is used. The sensor assembly should be attached to the sensor extension bracket when an accessory reflector is used.

INSTALL SENSOR WITH NO REFLECTOR

STEP 1:

Secure the molded sensor assembly to the heatsink using 2 Philips head screws provided.

INSTALL SENSOR WITH REFLECTOR

STEP 1:

Secure reflector to luminaire by following reflector accessory installation steps.

STEP 2:

Secure molded sensor assembly to the sensor extension bracket using 2 Philips head screws provided. See **Figure 6**.

STEP 3:

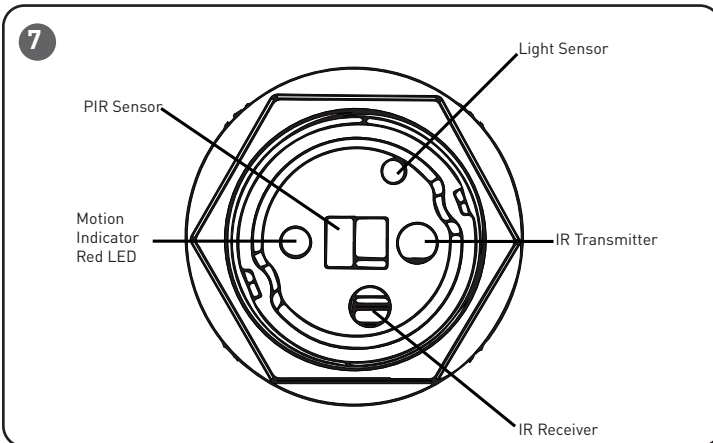
Secure sensor extension bracket and sensor assembly to heatsink using 2 Philips head screws provided. See **Figure 6**.

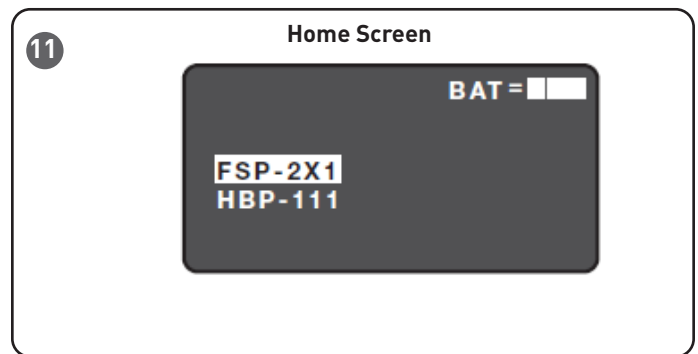
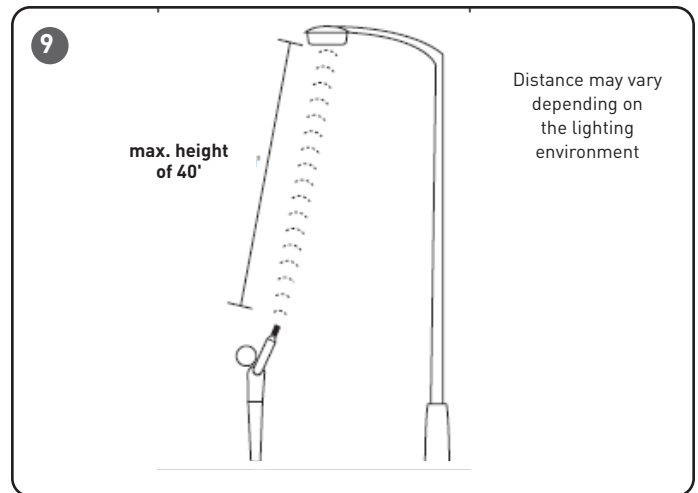
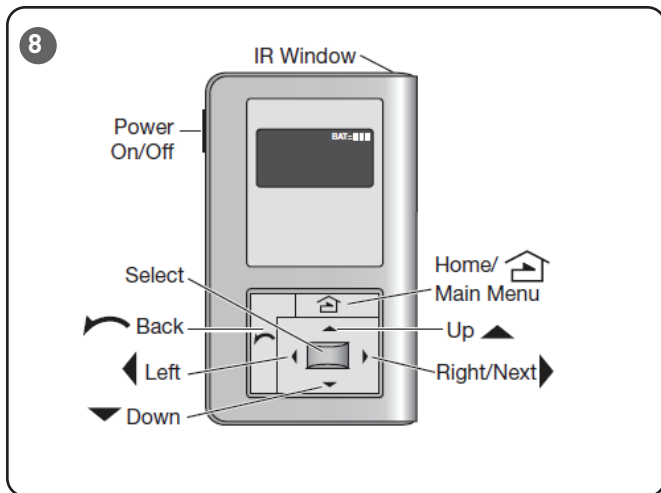
SENSOR DESCRIPTION

The FSP-2X1 is a motion sensor that controls lighting levels based on occupancy and ambient light.

The sensors use passive infrared (PIR) sensing technology that reacts to changes in infrared energy (moving body heat) within the coverage area. Once the sensor stops detecting movement and the time delay elapses, lights will go from high to low mode and eventually turn off if it is desired. Sensors must directly "see" motion of a person or moving object to detect them, so careful consideration must be given to sensor luminaire placement and lens selection. Avoid placing the sensor where obstructions may block the sensor's line of sight. See **Figure 7**.

The FSP-2X1 operates on low voltage output of driver, no power pack is required. It is designed to be installed in indoor and outdoor environments. Once the device is initially powered up, the FSP-2X1 will use factory default parameters to operate. If adjustments are needed, the programming tool must be used.





FSP-2X1 COMMISSIONING

The commissioning process establishes the appropriate operating parameters of the FSP-2X1. This is done using the programming tool.

USING THE PROGRAMMING TOOL

The Wireless IR Programming Tool is a handheld remote control for setup and testing of the FSP-2X1. It provides wireless access to change the parameters of the sensor. The programming tool displays menus and prompts to lead you through each process. The navigation pad provides an intuitive way to navigate through the customization fields. See **Figure 8**.

Within a certain mounting height of the sensor, 40' (12.2m) or less, the programming tool allows modification of the system simply with the touch of a few buttons, without requiring ladders or tools.

OPERATION

The programming tool's IR transceiver allows bidirectional communication between the FSP-2X1 and the remote control. Simple menu screens display the current status of the system and allow editing of the sensor parameters, such as high/low mode, sensitivity, time delay, cut off and more. You can also establish and store FSP-2X1 parameter profiles.

BATTERIES

The programming tool operates on three standard 1.5V AAA Alkaline batteries or three rechargeable AAA NiMH batteries (See **Figure 10**). The battery status is shown in the upper right corner of the home screen (See **Figure 11**). Three bars next to BAT= indicates a full battery charge. A warning appears on the display when the battery charge falls below a minimum acceptable level. To conserve battery power, the programming tool automatically shuts off 10 minutes after the last key press.

NAVIGATION

Use the (up) or (down) arrow keys to navigate from one field to another. The active field is indicated by a blinking cursor. Once active, use the Select button to move to a menu or function within the active field. Value fields are used to adjust parameter settings. They are shown in angle brackets: <value>. Once active, change them using the (left) and (right) arrow keys. In general, the (right) key increments and the (left) key decrements a value. Selections wrap-around if you continue to press the key beyond maximum or minimum values. Moving away from the value field overwrites the original value. The Home button takes you to the main menu. The Back button can be thought of as an undo function. It takes you back one screen. Changes that were in process prior to pressing the key are lost. See **Figure 9**

For further details on the Sensor, Settings, Tips and refer to <https://www.legrand.us/-/media/brands/wattstopper/.../ws-datasheet-fsp-2x1b.ashx>.

IR COMMUNICATION

IR communication can be affected by the mounting height of the sensor and high ambient lighting such as direct daylight or other electric light sources in close proximity. When trying to communicate with the FSP-2X1, be sure to be positioned directly under the sensor without any obstructions. Every time the programming tool establishes communication with the FSP-2X1, the controlled load will cycle. See **Figure 9**.

- If communication is not successful, (if possible) move closer to the sensor. In some cases, a ladder or lift may be required
- If still not successful, there may be too much IR interference from other sources. Programming the unit at night when there is no daylight available may be the only way to communicate with the sensor.
- If multiple FSP-2X1 sensors are within the transceiver's range, all of the loads may cycle and the "no response from device" message may appear on the display.

TROUBLESHOOTING

NO RESPONSE SCREEN APPEARS:

- Make sure that the sensor is not obstructed.
- Move closer to the sensor. A ladder or lift may be required.
- The angle may be too high, move closer so that you are directly underneath the sensor.
- Make sure that multiple sensors are not in the range of the transceiver. If this happens, then all of the luminaires will cycle.
- If still not successful, there may be too much IR interference from other sources. Programming the unit at night may be the only way to communicate with the sensor.

LIGHTS WILL NOT go to high mode:

- Make sure that the sensor is not obstructed. The sensor must detect motion to switch to HIGH mode. The red LED indicator will blink when motion is detected.
- Check the light level parameter, to find out the amount of light that the sensor is detecting. Cover the sensor lens to simulate darkness in the room. If the luminaire goes to high mode, then the setpoint needs to be adjusted to a value greater than the detected light level. See the new settings and current settings sections for instructions.
- If the light level is higher than the setpoint value but less than the photocell value, then the luminaire will remain in low mode. Adjust the setpoint and photocell values as needed.
- Make sure that the high and low settings are correct by checking the current settings.

Lights will not go into Low Mode:

The time delay can be set from a minimum of 30 seconds to a maximum of 30 minutes. Ensure that the time delay is set to the desired value and that there is no movement within the sensor's view for that time period.

- To quickly test the unit operation, enable Test Mode and move out of the sensor's view. The luminaire should go to LOW mode after 5 seconds.

Lights will not turn OFF:

- Cut Off time may be set to "None."
- Ensure that the Cut Off is set to the desired time and that there is no movement within the sensor's view for that time period when the lights are in Low Mode.
- To quickly test the unit operation, enable test mode and move out of the sensor's view. The luminaire should switch to LOW mode after 5 seconds and then turn OFF (if cut off is enabled) after 10 sec.
- If the luminaire does not turn off in daylight, check the ambient light level. Adjust the photocell setting to a value lower than the ambient light level. The setpoint may also need to be adjusted if the difference is less than 10 fc.
- Make sure that the Sensitivity field is not set to On-Fix.

Lights will not turn ON:

- Check all wire connections and verify that the load and the ground wires are tightly secured.
- Check the current settings. If the setpoint value is lower than the ambient light level, the luminaire will be held OFF. Increase the setpoint value.
- Disable the cut off function, if not desired.
- Make sure that the Sensitivity field is not set to Off-Fix.

OPERATION DURING POWER-UP

During the sensor warm-up period, which can last up to a minute after initial power-up (or after a lengthy power outage), the load will remain ON until the selected time delay expires.

TECHNICAL SUPPORT

If unable to successfully resolve problems with the sensor, contact Cree Lighting at 800.236.6800 for technical support.

FEDERAL COMMUNICATION COMMISSION INTERFERENCE STATEMENT

CAUTION: Changes or modifications not expressly approved could void your authority to use this equipment.

This device complies with Part 15 of the FCC Rules. Operation to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This device has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the device is operated in a commercial environment. This device generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this device in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

INDUSTRY CANADA STATEMENT

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device. In addition, this device complies with ICES-005 of the Industry Canada (IC) Regulations.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.