DATA SHEET

TruBlu Mesh DALI Passive Infrared Outdoor Sensor-Controller

Overview

- Complies with DALI D4i Specifications
- Single Channel DALI Wireless Sensor-Controller
- Mounts to Light Fixture/ Luminaire via Zhaga Book 18 Quick Connect Receptacle
- Compatible with Bluetooth® SIG Mesh Systems
- Features High and Low-End Trim Adjustment, Zoning & Continuous Dimming
- Digital Passive Infrared (PIR) Sensor
- Optional Photocell available for Ambient Light Detection
- IP65 Rated for Outdoor or Indoor Applications
- 24VDC Powered
- Conforms with DLC NLC5 Cybersecurity Standards

For Indoor or Outdoor Use
Receptacle Sold Separately

E341446

Applications

The PSC-ZAD-I products are a series of Single Channel DALI D4i Wireless Fixture Sensor-Controllers. These controllers are designed to work with a Bluetooth® SIG mesh system by converting standard Bluetooth® SIG mesh protocol to DALI protocol.

The sensor-controllers use PIR motion detection architecture and passive infrared (PIR) technology for improved detection coverage.

The products are IP65 rated and suitable for exterior use. The –11N and –11H models also have integral photosensors.

These devices communicate directly with DALI drivers and are controlled wirelessly via Bluetooth® Mesh technology allowing for wireless dimming of luminaires. The compact size allows for seamless integration to the fixture.

Accessories

The PSC-ZAD-I sensor-controllers require 24 VDC power via the Auxiliary Input to operate. See the Wiring Table for designation of wiring tabs/slots.

Operation

TruBlu™ Mesh: The PSC-ZAD-I sensor-controller is qualified by Bluetooth SIG for its Bluetooth Mesh 1.0.1 specification and is compatible with a Bluetooth mesh network and configured via the TruBlu web portal or iOS mobile app. The app is used for initial setup and subsequent parameter adjustment.

Advanced functionality such as energy monitoring, and demand response is available with the TruBlu Gateway (ordered separately).

Single Channel Control: The sensor-controller provides a single channel of D4i compatible DALI output for driver control.

Photosensor: An integral photosensor (–11N and –11H models only) provides ambient light level sensing for automatic control of daytime or nighttime designated scenarios.

Quick Connector: The controller mounts to a Zhaga Book 18 compliant receptacle (sold separately - part #PSC-ZAD-R1L). One receptacle is required for mounting each controller.

See TruBlu™ Commissioning User Manual for more information.

Summary

Product Type: Single Channel Wireless Sensor-Controller
Input Voltage | Current Consumption: 24 VDC | 100 mA max
DALI: Complies with DALI D4i Specifications
Suggested Mounting Height: Low Bay Lens - 8-30ft (2.4-9.1m) High Bay Lens - 20-40ft (6.1-12.2m)
Maximum Sensor Range: Low Bay Lens - 60ft (18.3m) radius High Bay lens - 80ft (24.4m) radius
Mounting: Mounts to Zhaga Book 18 receptacle (PSC-ZAD-R1L), sold separately
Max Bluetooth Range[1]: 100ft (30.4m)
Operating Temperature: -40°F to 158°F (-40°C to 70°C)
Storage Temperature: -40°F to 185°F (-40°C to 85°C)
Relative Humidity: 90-95% non-condensing at 30°C
Color: Dark Brown, Black or White

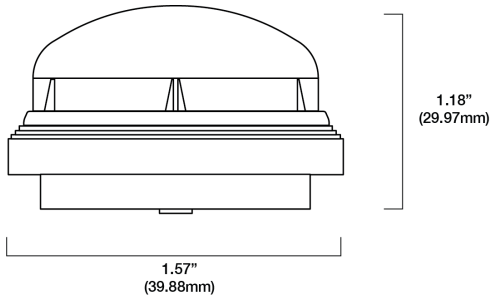
Warranty: 5 years

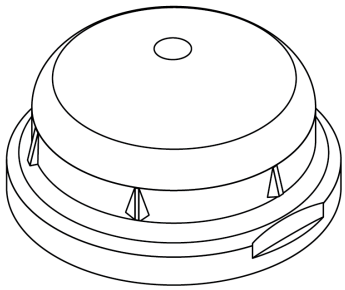
Note:

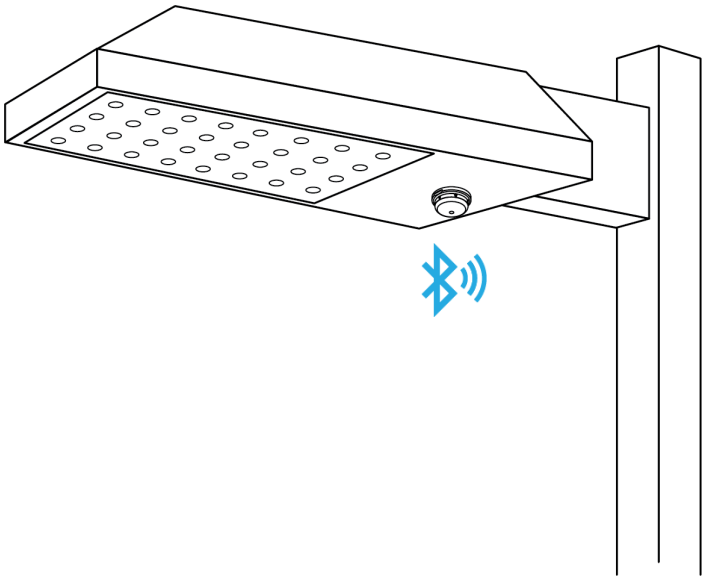
1. Bluetooth Range is highly dependent on the integration of fixtures, surrounding environment and conditions. It is recommended to conduct testing for Bluetooth range accuracy.

Project	
Location/Type	

Physical Dimensions







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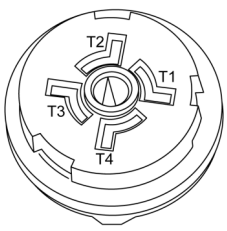
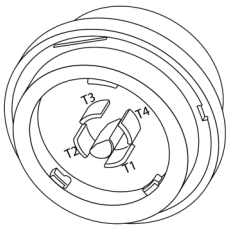
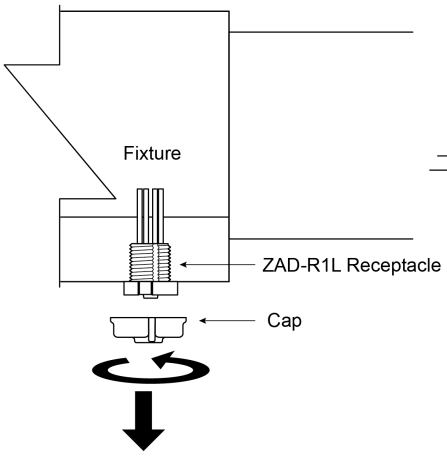
Installation Of Controller



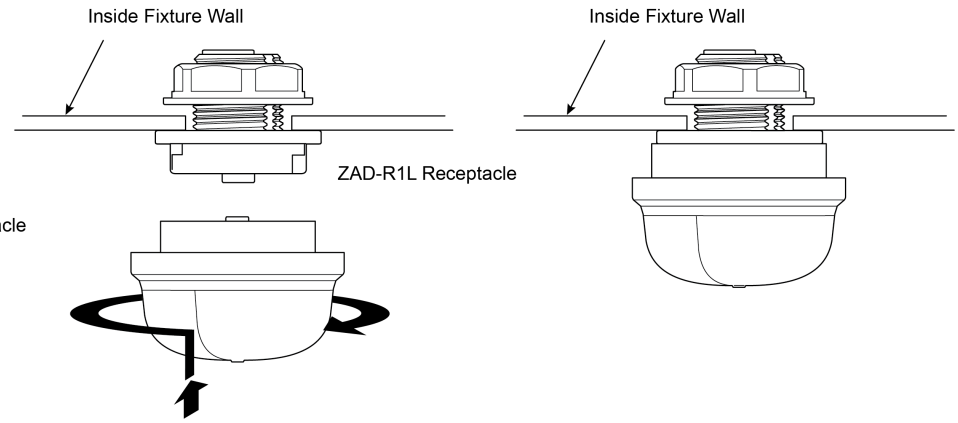


The receptacle for ZAD controller is installed at fixture manufacturer and is shipped to job site with a protective cap.

Tab/Slot	Designation
T1	24VDC+ Power to Sensor-Controller
T2	DALI- (Negative DALI Bus) & 24VDC- Ground Power to Sensor-Controller
T3	DALI+ (Positive DALI Bus)
T4	Reserved

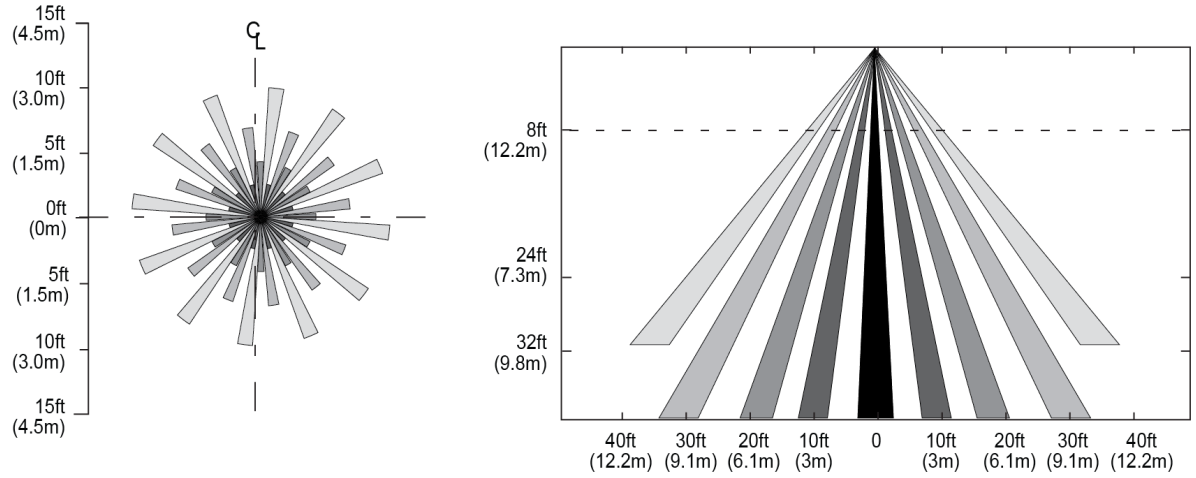


To install ZAD controller, first remove the protective cap on the Zhaga receptacle by pushing up and rotating counterclockwise.

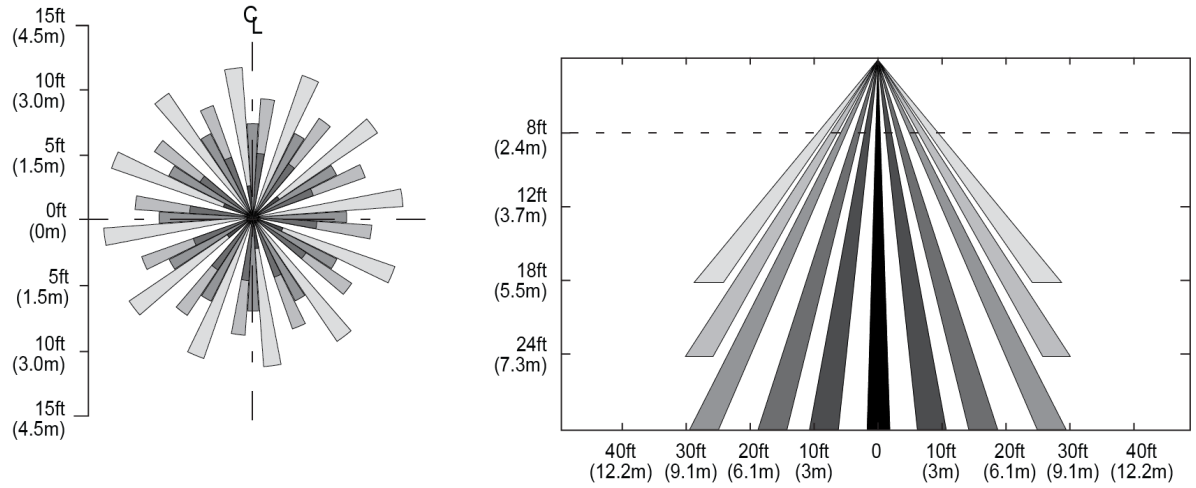


To install ZAD controller insert, push up and rotate to lock. No tools required. Luminaires can be easily and quickly upgraded.

Sensor Patterns

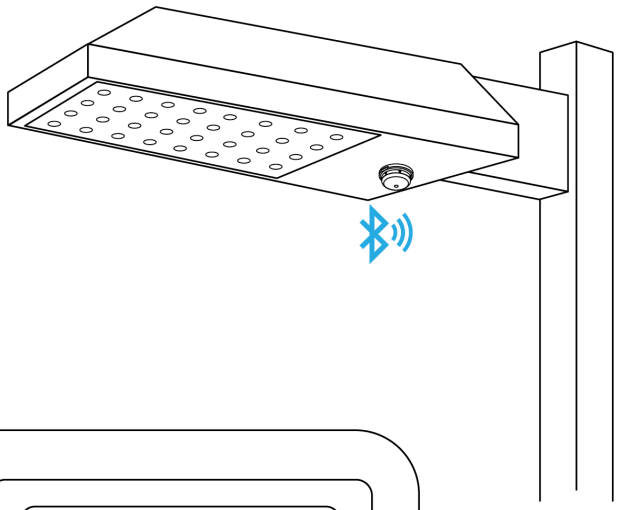


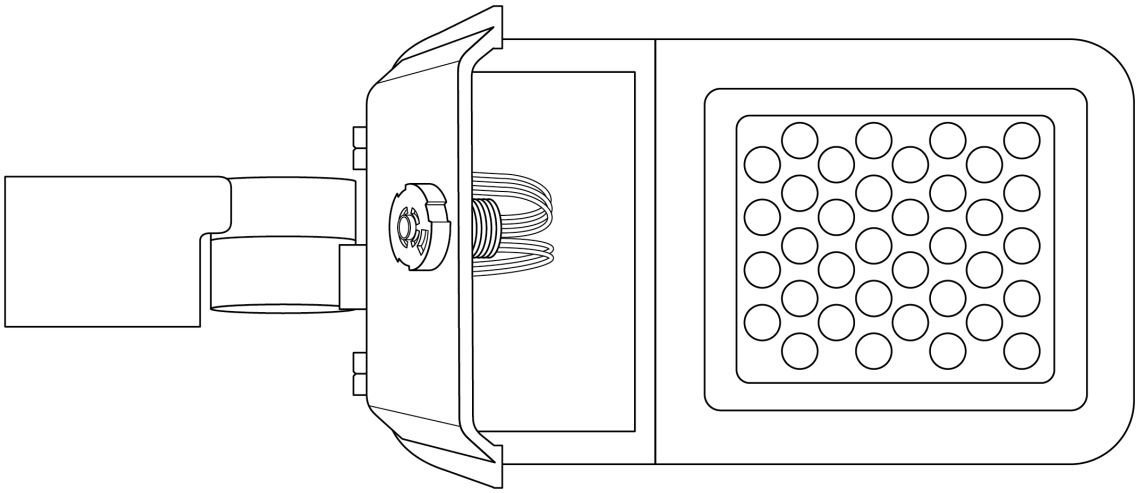
High Bay Lens (H) Pattern



Low Bay Lens (N) Pattern

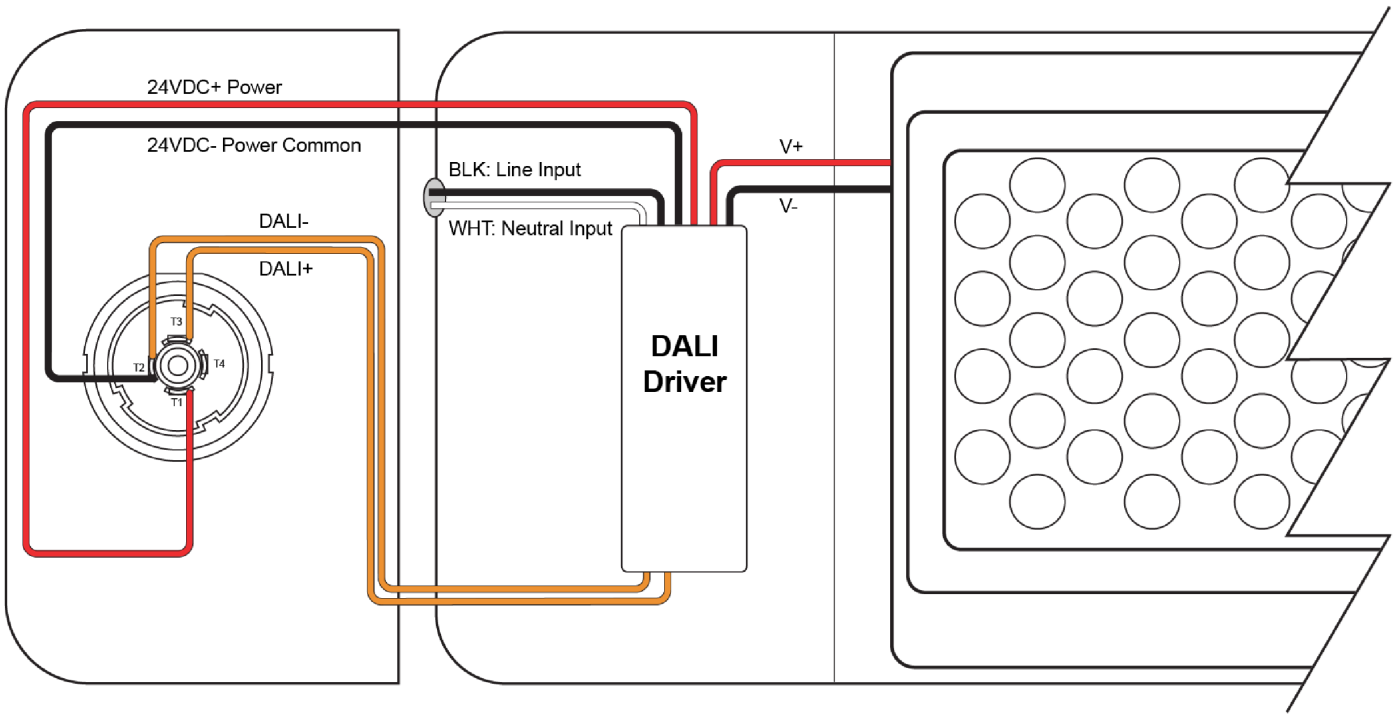
Example Application: Sensor-Controller Installed with DALI driver



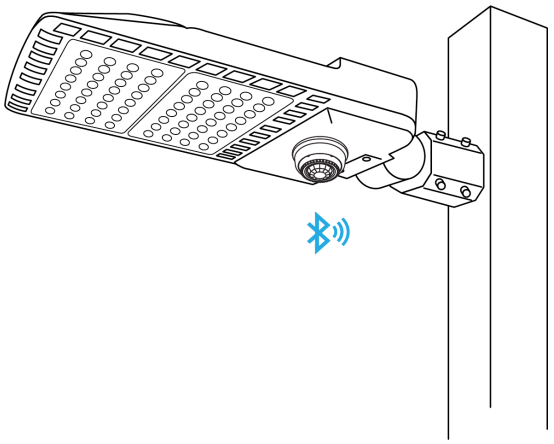


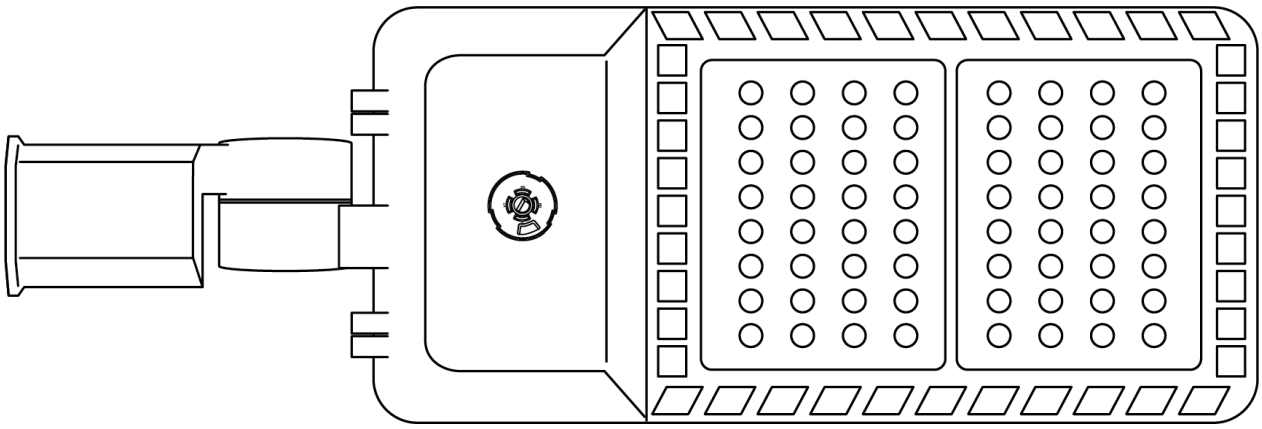
ZAD-R1L Zhaga Book18 receptacle on outside of fixture

Drawings Are Not To Scale



Example Application: Sensor-Controller Installed with DALI Driver and 24 VDC Power Supply





ZAD-R1L Zhaga Book18 receptacle on outside of fixture

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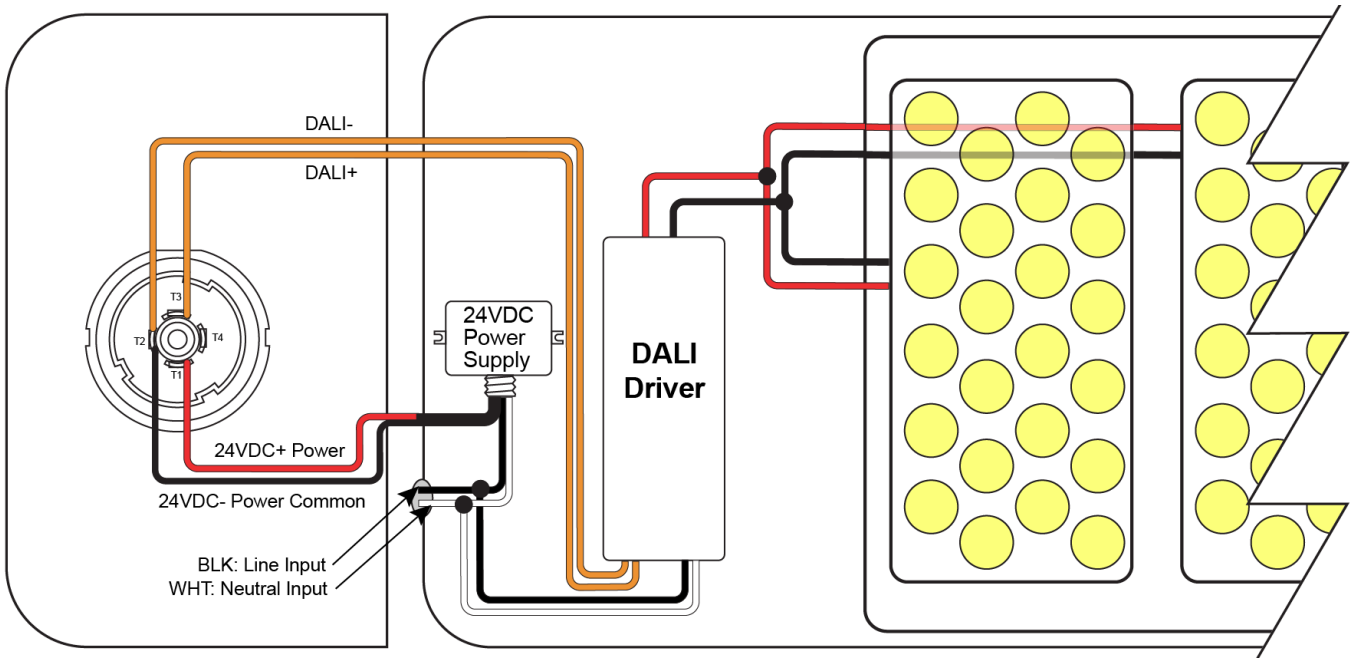
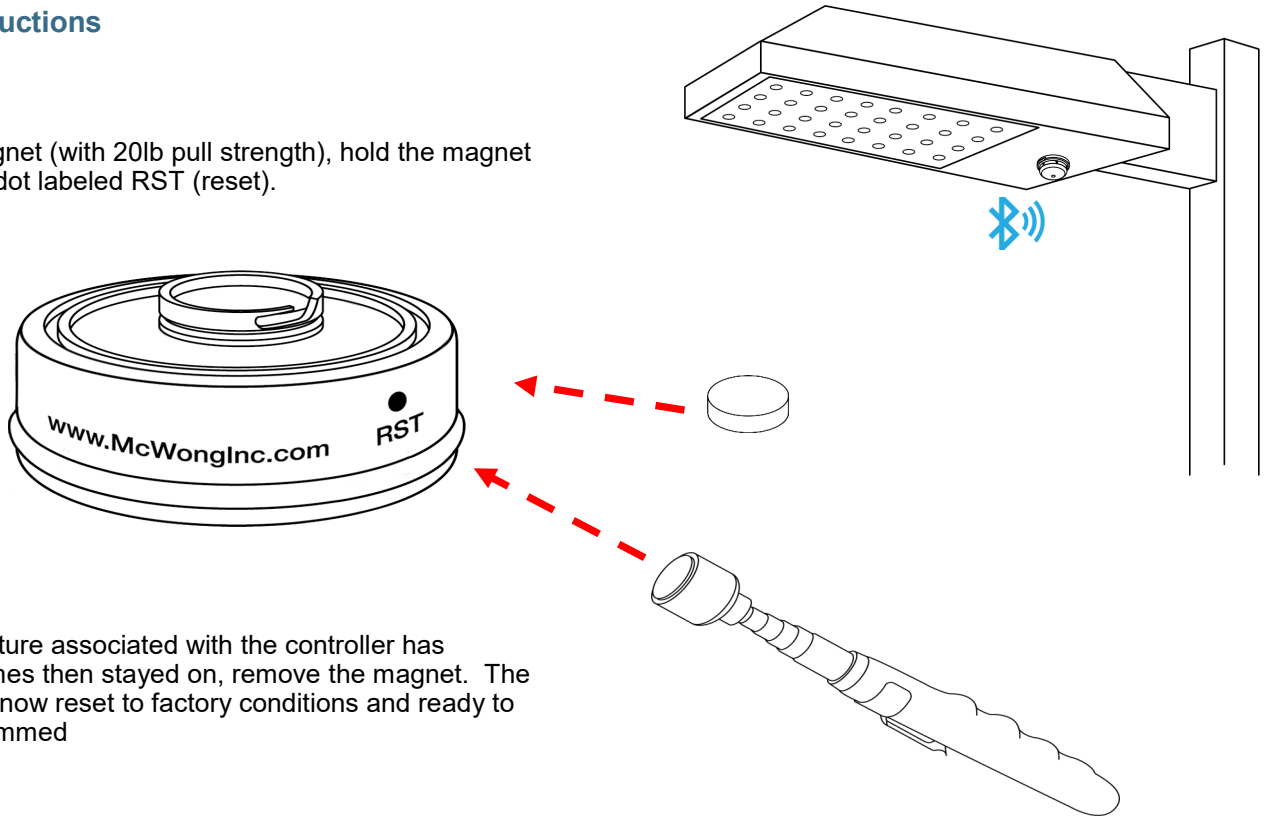


Reset Instructions

Using a magnet (with 20lb pull strength), hold the magnet against the dot labeled RST (reset).



Once the fixture associated with the controller has flashed 3 times then stayed on, remove the magnet. The controller is now reset to factory conditions and ready to be reprogrammed

Model Number Matrix

PSC	ZAD	I	__ __ __	BLE	SR	__ __
PSC	**ZAD**	**I**	**10N**	**BLE**	**SR**	**BN**
	DALI Outdoor Device	Passive Infrared (PIR) Sensor	Low Bay Lens (no Photo Sensor)	Wireless	TruBlu Mesh Compatible	Brown Finish
			10H			**WT**
			High Bay Lens (no Photo Sensor)			White Finish
			11N			**BK**
			Photo Sensor & Low Bay Lens			Black Finish
			11H			
			Photo Sensor & High Bay Lens			

Example:

PSC-ZAD-I-11N-BLE-SR-BN

Design and specifications are subject to change without notice.