Wattstopper® PLUS

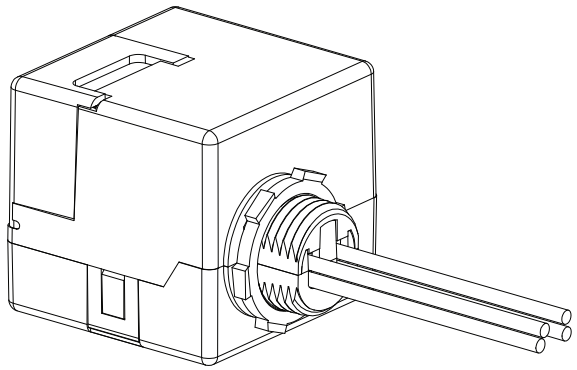
Wired Area Lighting Controller

Installation Instructions • Instructions d'Installation • Instrucciones de Instalación

No: 080420 – 01/26 rev. 5

Catalog Numbers • Les Numéros de Catalogue • Los Números de Catálogo:
EN-ALC-1R10V-GB2-BK; EN-ALC-1R10V-GB2-BKDR

Countries of Origin: China, Canada • Pays d'origine: Chine, Canada • Países de origen:China, Canadá



SPECIFICATIONS

Voltage ..... 22.5V, supplied by GreenBus
Maximum Output Load Ratings
@120/277/347V ..... 20A, Ballast/LED Driver, Tungsten ..... Resistive, General Purpose
@120/277V ..... 1.5 HP VAC Motor
Class 1 or Class 2 0-10V Dimming Output
Operating Temperature ..... 32° to 131°F (0° to 55°C)
Certifications
UL 2043 Plenum Rated, ROHS Compliant
UL/CUL listed under UL916. These models are all Complementary Listed to "Emergency Lighting Equipment", (UL924)
FCC Part 15/ICES-003
Complies with Electromagnetic Compatibility (EMC) Standards: EN 61000-4-2 EN 61000-4-4, EN 61000-4-5

DESCRIPTION

The Area Lighting Controller (ALC) module interfaces between the Wattstopper PLUS System and most electrical loads. The ALC obtains operating power together with communication signals via the GreenBus control wire architecture. The module features an integrated 347V-rated relay for interrupting power to lighting or receptacles. Additionally, the module features an isolated 0-10V dimming interface for installation as either NEC Class 1 or 2 circuit. The module will obtain its address during the commissioning process and no actions are required during installation.

The ALC is available in two models: Indoor and Damp Rated

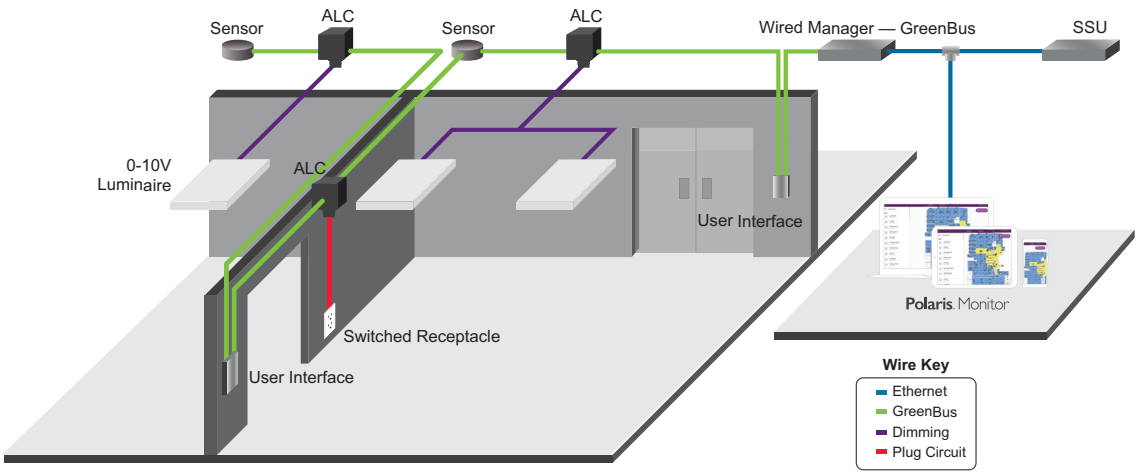
PRODUCT SAFETY

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

- Do not mount near gas or electric heaters or let power supply cords touch hot surfaces.
- Equipment should be mounted in locations and at heights where it will not readily be subjected to tampering by unauthorized personnel.
- The use of accessory equipment is not recommended by Legrand as it may cause an unsafe condition.
- Do not use this equipment for other than the intended use.

WIRED SYSTEM OVERVIEW

GreenBus technology makes wiring fast and error-free, since it's intuitive to install.



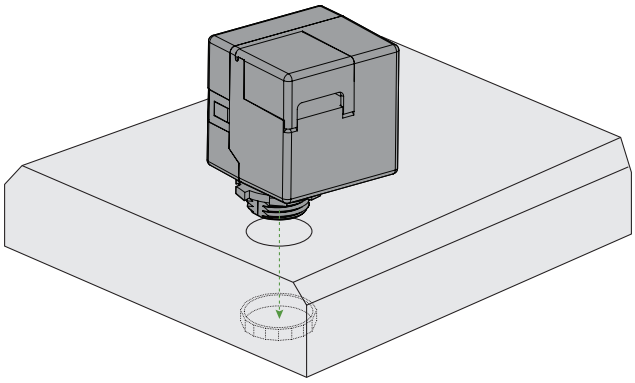
INSTALLATION AND MOUNTING

Before installing your ALC model, check to ensure you are using the appropriate rated version. The ALC (EN-ALC-1R10V-GB2-BK) is to be installed in dry, indoor locations ONLY. For damp installations, use the Damp Rated ALC (EN-ALC-1R10V-GB2-BKDR). Damp locations are defined as: interior locations subject to moderate degrees of moisture, such as some basements, some barns, some cold-storage warehouses, and partially protected locations under canopies, marquees, roofed open porches, and the like.

When mounting, secure the retainer nut before wiring the module.

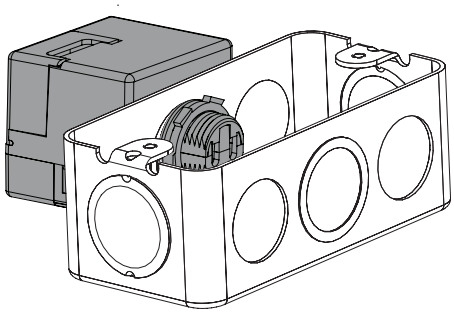
Option 1 – Luminaire Mount

The ALC can be installed in a PG-7 (0.5 inch) trade-size knockout on top or side of a luminaire.

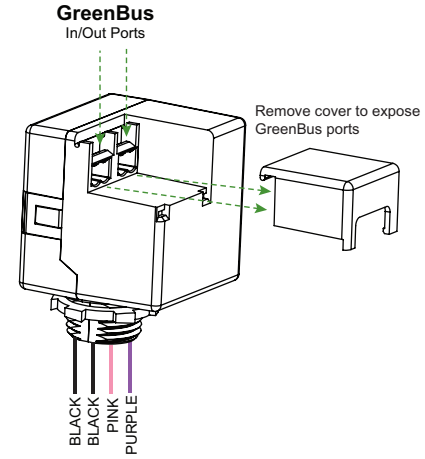


Option 2 – Junction Box Mount

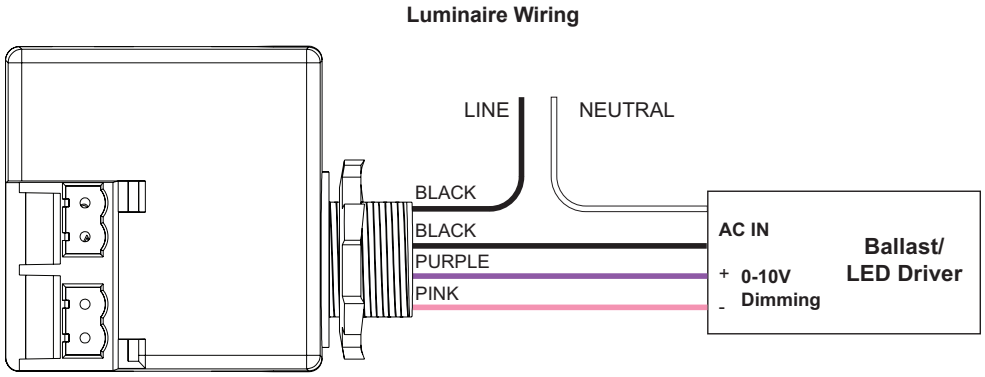
For some installations, a junction box may be required. Legrand recommends securely mounting the ALC to the junction box using a PG-7 (0.5 inch) trade-size knockout and retainer nut.



WIRING



Control & Power Wires



Dimming wires (Purple and Pink) from the ALC can be run either as Class 1 or Class 2 (consult applicable local electrical and building codes).

NOTE: For non-dimming ballasts, cap the purple and pink wires.

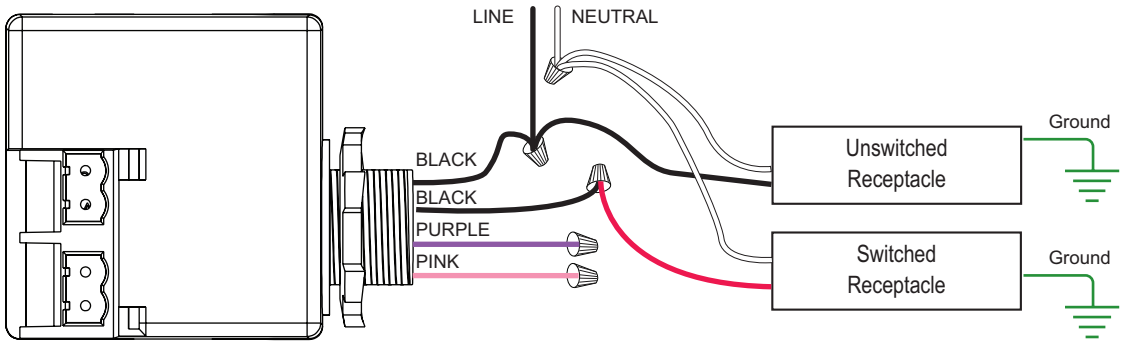
WARNING: TURN THE POWER OFF AT THE CIRCUIT BREAKER BEFORE WIRING.

GreenBus communication wiring is accessible from the outside of the luminaire while all necessary wiring to the electronic dimming ballast is available on the inside.

The ALC is made from tested material to be used in plenum or “plenum rated” areas. All wiring is rated 600V, 105ºC (221ºF) for use in light luminaires.

To control multiple ballasts, parallel all ballast input wires (line, neutral, and control wires purple and pink). Do not exceed the maximum ratings of the ALC. Relay switching capacity, 120/277/347V @20A; 0-10V Dimming signal capacity, 30mA maximum (sinking)

Receptacle Wiring



GreenBus Wiring

GreenBus is a low-cost, high reliability communication means to report information back to the Wattstopper PLUS System.

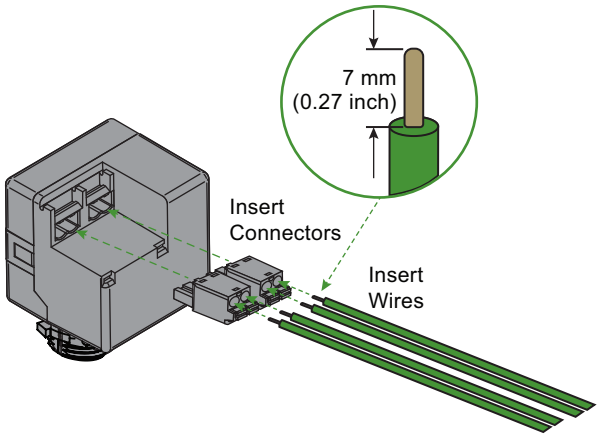
The GreenBus wiring originates at the Wired Manager and propagates in a daisy-chain from module to module (or other compatible equipment).

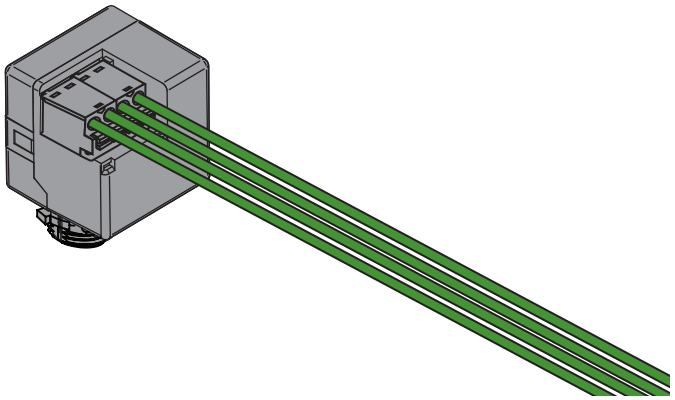
If changes are required, determine an optimum wiring path utilizing the supplied prefabricated cables, based on the position of luminaires and sensors. Because the modules obtain power via the GreenBus, the number of modules on each chain is limited. Legrand suggests leaving room for future system upgrades and to limit the number of modules per chain to 80 units during initial installation (validated using a voltage drop calculator).

Remove the cover to expose the Greenbus ports. The cover is not reattached and can be thrown away.

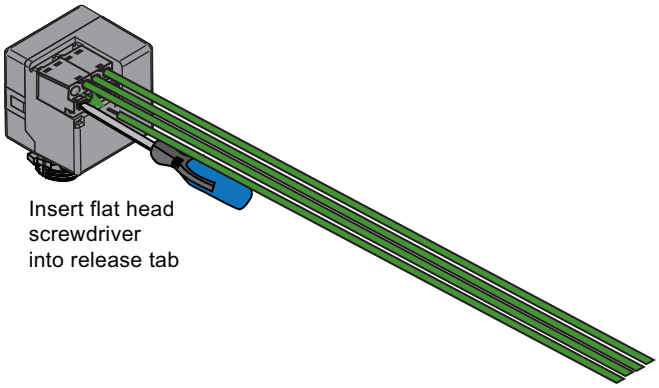
The GreenBus wires must be used with proprietary connectors supplied. Insert the connectors into the ALC GB ports.

NOTE: GreenBus must be laid out as per supplied system layout drawing. If changes are required, determine an optimum wiring path utilizing the supplied cables, based on the position of the devices.



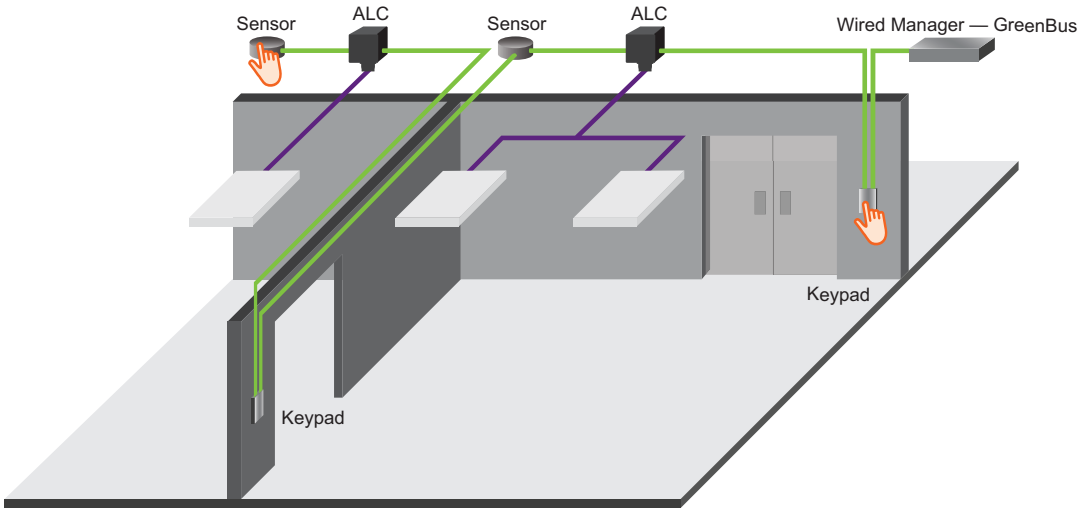


To remove the wires, use a flat head screwdriver to release the wires from the terminal blocks.



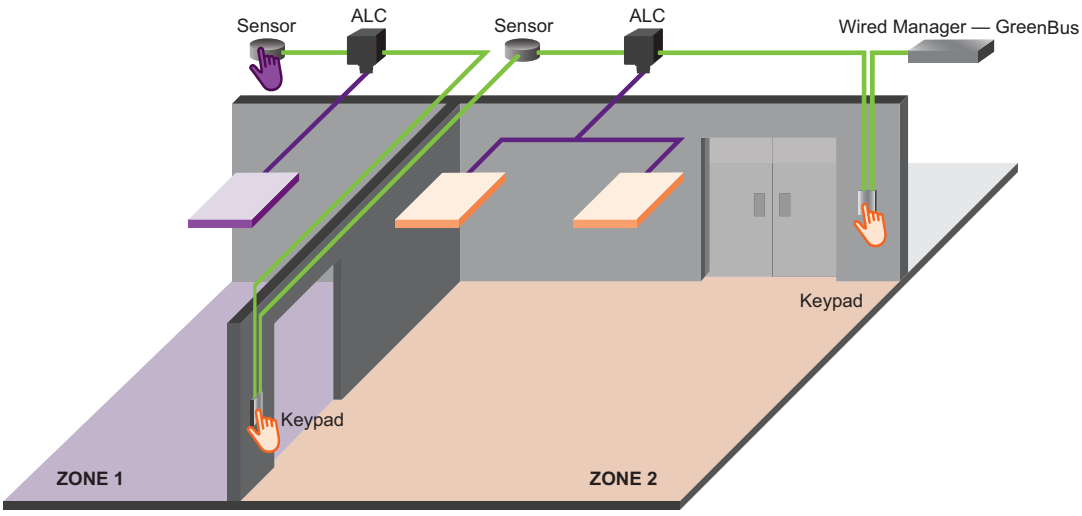
INSTALLATION TESTING

If a GreenBus Manager has not been previously commissioned, installers can quickly test if the devices have been wired correctly by pressing any button on the wallstation or the sensor which triggers all the load controllers on the channel to change the dimming level by 25%. Every press will trigger this function to enable testing of the AC line wiring, dimming wiring and communication integrity over the GreenBus lines.



MANUAL PAIRING

If a GreenBus Manager has not been previously commissioned, installers can easily pair devices in a room or a zone to gain manual control (on, off and dimming) and occupancy time outs. Holding any buttons on a wallstation or sensor for 10 seconds enters the system in the Manual Pairing mode. The system then guides the user by blinking the load controllers on the GreenBus wiring scheme as a means of identifying and pairing them to the wallstation or sensor.



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