AcculLite®
Commercial and Industrial Lighting

High/Low Controller Option
Installation Instructions

Important Safeguards:

WARNING – When using electrical equipment, basic safety precautions should always be used including the following:

This product must be installed in accordance with the applicable installation code by a person familiar with the construction and operation of the product and the hazards involved.

READ AND FOLLOW ALL SAFETY INSTRUCTIONS

Fixture

High/Low Controllers
(Factory installed to the fixture)

Waterproof
Termination J-box

Liquid-tight Cord
Grip Fittings (x4)

Motion Sensor
10' - 15' Mounting Height

Fig. 1

Waterproof
Termination J-box

High/Low Controller

Fixture

Motion Sensor

Fig. 2

❶ HOW THE SYSTEM WORKS

The control module attaches directly to the fixture, in a weather proof enclosure. The control module is used to switch HID (High Intensity Discharge) lamps from high to low and from low to high. The control module includes a rugged weatherproof housing for outdoor mounting applications and it ships from the factory already wired and attached to the fixture. The control module bases its bi-level switching on signals received from a controlling device (see below):

One possible controlling device is a motion sensor. With the control module and a motion sensor, the HID fixture will switch to a lower light level (high to low) after a space becomes unoccupied. When the space is again occupied, lighting returns to full brightness (low to high). The motion sensor must be ordered separately.

Upon initial power up of the HID lamp, or after a power failure or phase drop, the Hi/Lo controller supplies full power for a 15 minute lamp warm-up. Then, lighting either remains at full level if the space is occupied, or goes to the low level if unoccupied.

Figures 1 & 2 show a typical installation of a fixture with the High/Low Controller and a motion sensor. Additional items typically required for a proper installation and not supplied with the fixture are:

- Waterproof termination box (supplied by others)
- Motion sensor and 4" round waterproof j-box (can be ordered from AcculLite as an accessory)
- UV stable outdoor rated wire for external sensor connections (supplied by others)
- Cable ties to attach external wiring to pole (supplied by others)
- Liquid-tight cord grip fittings (for each cable entry into waterproof termination or j-box - supplied by others)

❷ CONTROLLING DEVICES

One or more controlling devices must be used to signal the Hi/Lo controller. A single motion sensor can provide control for up to two fixtures with Hi/Lo control modules. AcculLite offers the HILOOCSENSW accessory which is an infrared motion sensor in a weather tight enclosure. The HILOOCSENSW is designed to be mounted on the pole at about 10' to 15' from the ground.

Any other controlling device used must:

1. Have its own power supply, or be able to be powered by the +24VDC output from the Hi/Lo Controller in the fixture.
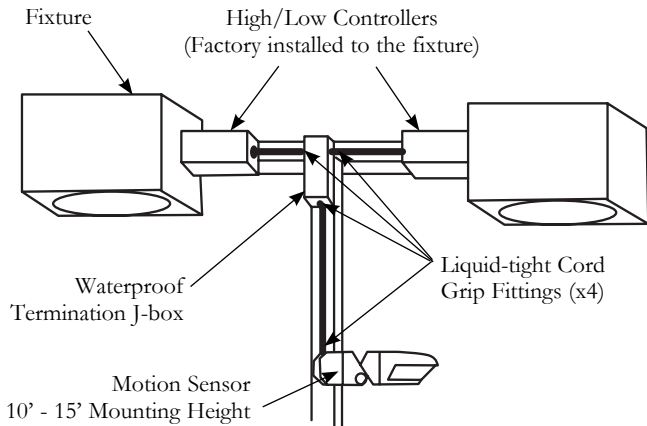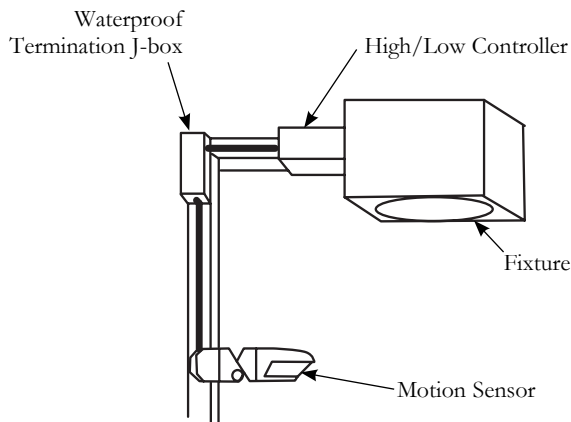2. Provide a +24VDC control output to the Hi/Lo Controller.

SAVE THESE INSTRUCTIONS

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❸ CONTROL WIRING

After the fixture is mounted, low voltage control wire connections can be made to the High/Low Controller. All low voltage control wires are in the 10' black cable connected to the High/Low Controller. Make all connections before the fixture's power is restored. When all connections are made, continue to Testing.
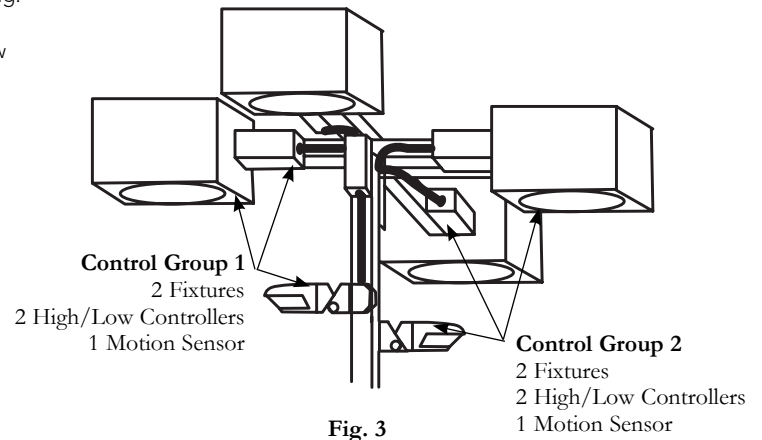
NOTE: If you are not installing the motion sensor at this time and you want the lights to operate at full output (high), connect the High/Low Controller low voltage Red and Blue wires to each other.

Motion sensors: (typical connections)

1. Connect the sensor's +24VDC Input to the Red wire from the High/Low Controller cable.
2. Connect the Common from the sensor to the Black wire from the High/Low Controller cable.
3. Connect the Control Output from the sensor to the Blue wire from the High/Low Controller cable.

Control Configurations

One sensor can control two fixtures. Figure 3 shows typical configurations for lighting fixtures and sensors.

Control Group 1
2 Fixtures
2 High/Low Controllers
1 Motion Sensor

Control Group 2
2 Fixtures
2 High/Low Controllers
1 Motion Sensor

Fig. 3

❹ TESTING

A. After the installation is complete and checked, turn on the main power to the fixture circuits and turn on any controlling switches. The High/Low Controller will supply full power to the HID lamps for 15 minutes for the lamp warm up. After the warm up time has elapsed, the lamps can go to low.

B. To test motion sensor control: Lamps that are controlled by a motion sensor will go to low if no motion has been detected and the sensor's time delay has elapsed. Turn off all other controlling devices to the sensor controlled lamps. Set the time delay on the sensor to minimum, then move into the coverage area for the sensor. Remain still until the time delay elapses. The lights should go to low. At this time, start moving and the fixtures should go back to full brightness.

C. Verify that other controlling devices turn the lamps to low as desired.

❺ TROUBLESHOOTING

General checks:

- All wires make proper contact.
- All wires are connected to correct terminals or connector leads.
- Wiring of switch, motion sensor or other control devices to the fixtures is correct.
- Motion sensor adjustments: sensitivity and light level (if applicable), sensor alignment.

Lights do not turn on

- Check breakers, fuses.
- Check light level setting on motion sensor for proper adjustment.
- Check motion sensor detection.
- Check that HID fixtures are plugged in.
- Follow proper high voltage safety procedures and check wiring and connections in the ballast housings.

Some lights in a group turn on but others do not

- Check the High/Low Controller connections to a fixture that does not turn on in a connected group.
- Verify that proper wire contact is being made in the terminal block.
- Verify that connections are correct.
- Verify that the bulb has not burned out.
- Make sure you follow the recommendations found in the control wiring section.

All lights in a group remain on high

- Check to see if something is giving an "on" input to the High/Low Controller.
- Check controlling devices and connections to the High/Low Controller.
- Check light level setting on motion sensor for proper adjustment.
- Check motion sensor detection.

Lights remain on low

- The "on" input from the controlling device is not reaching the High/Low Controller.
- Check controlling devices and connections to the High/Low Controller.
- Check light level setting on motion sensor for proper adjustment.
- Check motion sensor detection.

All lights turn off

The main power is being turned off to the lights. The main power should be turned off only when intending to completely turn off the lights. Remember, there is a restrike/warm up period before the lights will return to full brightness.

- Check main power supply.
- Check breakers, fuses and that HID fixtures are plugged in.
- Check for energy management systems or building controls that affect power to the lights.

SAVE THESE INSTRUCTIONS