

OPERATION

Automatic Tests

The unit will automatically initiate a self-test/self-diagnostic cycle based on the following table:

Testing Period	Duration of Test
Once a month	1 minute
Once every 6 months	Alternating: 30 minutes or 90 minutes

Manual Tests

By using the unit's test switch or laser pointer, one can initiate different duration test cycles based on the following table:

Initiating Action	Test Cycle
Press test switch/flash sensor once	1 minute
Press test switch/flash sensor twice	90 minutes

Pressing test switch or flashing laser sensor at any time after a 90 minute test cycle has begun cancels the remainder of the 90 minute test and returns the unit to normal operation. See page 3 for laser pointer test details.

LED Status Indicator:

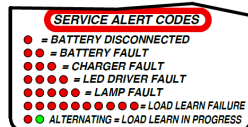
A green/red LED is provided on the control pane of all models equipped with the Spectron option.

Green Operating Status LED:

The green Operating Status LED serves as both an AC power and self-test indicator. During normal operation, the green Operating Status LED will be illuminated, indicating the presence of AC power. During all automatic or manual self-test cycles, the green Operating Status LED will blink "twice" per second for the 30 / 90 minute test.

Red Service Alert LED:

Under normal operating conditions, the red Service Alert LED indicator will remain off. If the Spectron controller detects a malfunction, the red Service Alert LED will blink in the pattern listed on the label around the test button.



Service/Maintenance

Maintenance

This emergency lighting unit should be tested and maintained in accordance with National Electrical Code and NFPA 101 Life Safety Code requirements. It is recommended that emergency light fixtures be tested for 30 seconds once a month and for 90 minutes once a year.

Taking A Unit Out Of Service

If a unit is to be deliberately taken out of service for an extended period, the battery lead connector should be disconnected from the charger circuit board and insulated so that the battery will go into storage in a fully charged condition.

Replacing The Battery

1. De-energize the AC power.
2. Remove the cover.
3. Disengage the battery harness from the charger PCB harness.
4. Disconnect the battery strap and remove battery pack.
5. Replace with new battery (see unit model label or battery label for correct p/n) and repeat steps above in reverse.

Replacing LED Lamps

The LED lamps inside the unit are not replaceable or field serviceable. Please see dual-lite.com for further assistance.

Troubleshooting

Emergency circuit does not work

- Batteries are shipped uncharged and disconnected. Connect battery leads and charge 24 hours before testing.
- Make sure the charger board and test button/light pipe are properly seated and aligned.
- Check wiring connections



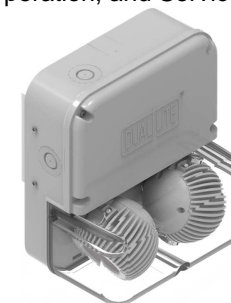
RECYCLING INFORMATION

All steel, aluminum and thermoplastic parts are recyclable.
 NOTICE: Emergency units contain rechargeable batteries which must be recycled or disposed of properly.



DYNHL Series

High-Lumen LED Industrial Emergency Lighting Unit
 Wet Location, NEMA 4X & Food Processing
 Standard and Remote Capacity
 Installation, Operation, and Service Instructions



IMPORTANT SAFEGUARDS

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

READ AND FOLLOW ALL SAFETY INSTRUCTIONS

1. Do not let power supply cords touch hot surfaces.
2. Do not mount near gas or electric heaters.
3. Equipment should be mounted in locations and at heights where it will not readily be subject to tampering by unauthorized personnel.
4. The use of accessory equipment not authorized by the manufacturer may cause an unsafe condition.
5. Do not use this equipment for other than its intended purpose.
6. Servicing of this equipment should be performed by qualified service personnel.
7. Test cycling: the Life Safety Code (NFPA 101) requires testing of emergency lighting units once a month for a minimum of 30 seconds, and once a year for a minimum of 90 minutes.

INSTALLER:

- SEE UNIT LABEL FOR ADDITIONAL MODEL SPECIFICATIONS
- SAVE THESE INSTRUCTIONS FOR USE BY OWNER/OCCUPANT

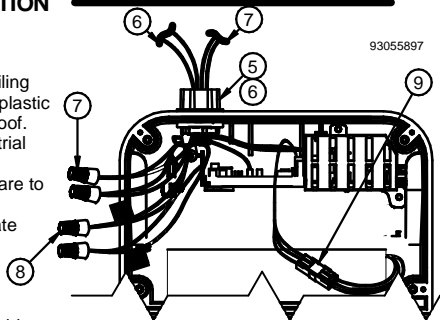
WARNING- This product contains chemicals known to the State of California to cause cancer, birth defects, and/or other reproductive harm. Thoroughly wash hands after installing, cleaning, or otherwise touching this product.

This equipment 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 equipment is operated in a commercial environment. This equipment 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 equipment 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.

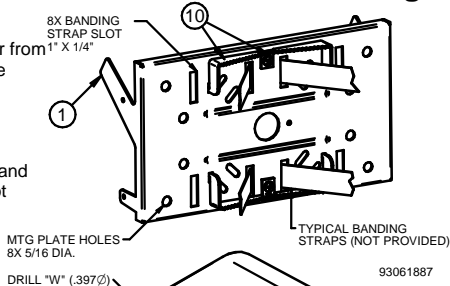
FIXTURE INSTALLATION

Wall, Ceiling or Pole Mounting

1. The DYNHL mounting plate can be mounted directly to a wall, ceiling or pole (using appropriate hardware). If "J-box" mounted and the plastic housing back K.O. is removed the unit is not considered water proof.
2. Once mounting plate is secured, you can hang the DYNHL Industrial Unit and add security screws (qty 4).
3. If the DYNHL unit is mounted to the ceiling the 4 security screws are to be added to keep the unit secure to the mounting plate.
4. If "J-box" mounted & wired thru box, ground DYNHL mounting plate with green ground wire & green hex head screw (provided).
5. For all units wired using conduit, use 1 of the 3 conduit (K.O.) mounting locations.
6. Only use UL Listed water tight conduit fittings that meet the requirements of the UL 514B Standard for Conduit Tubing and Cable Fittings when using (K.O.'s see note 5).
7. Connect wire from the unit to the building leads and secure with wire nuts.
8. For remote capable DYNHL models, cut ORANGE wire connector from orange remote leads and strip 1/2 inch for both lead ends. Observe proper polarity when connecting remote leads to remote fixtures. Pos. (+) to red remote fixture lead and Neg. (-) to black remote fixture lead.
9. Connect battery pack harness to PCB charger harness.
10. For pole mounting used additional #8-32 x 1/4 long screws (qty 2) and both toothed mounting brackets as shown. Banding straps are not provided due to varying pole and column dimensions.

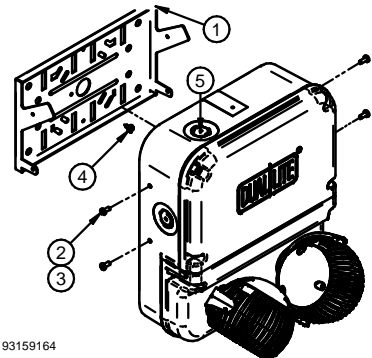


Pole Mounting



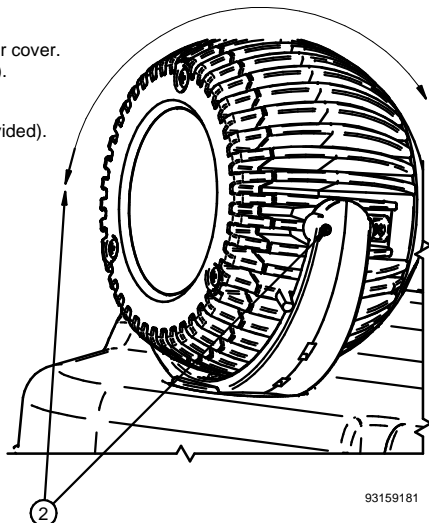
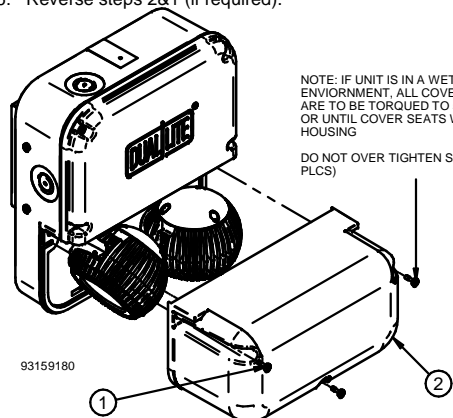
Unit can be hung by threaded rod (3/8" rod is recommended).

Use appropriate hardware to support this unit when threaded rod mounted. Lock tight glue is recommended for all mounting hardware.



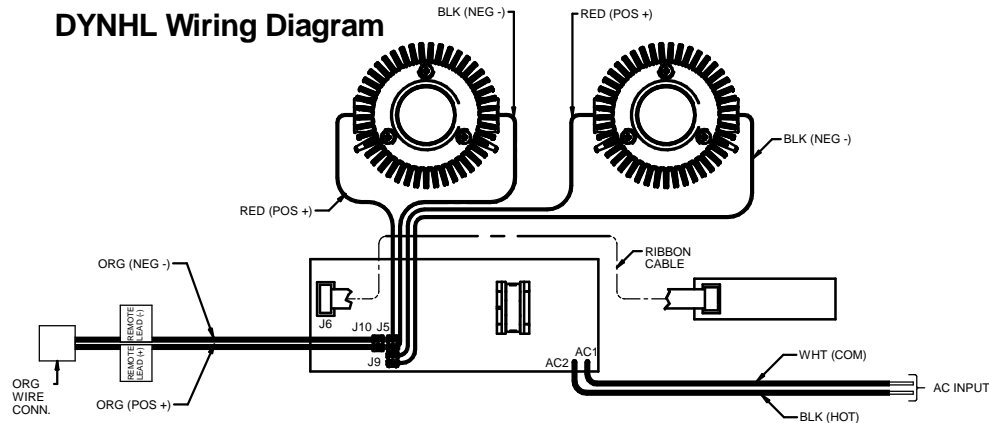
Lamp Head Adjustment

1. Loosen the three captive screws on the Food Processing clear cover.
2. Remove cover (all models without clear cover skip step 1 & 2).
3. Loosen set screws 2 per head and adjust axially on stem.
4. Rotate lamp heads to desired position.
5. Lock set screws once desired position is set (hex wrench provided).
6. Reverse steps 2&1 (if required).



FIXTURE INSTALLATION

DYNHL Wiring Diagram



OPERATION

Once remote capacity base models DYNHL121-4X or DYNHL121-4X-FP have been installed press and hold the test button for more than 5 seconds to initiate the "LOAD LEARN" process.

"AC ON" LED is illuminated green when AC power is present.

NOTE: All models are supplied with an AC Lockout circuit, which prevents the emergency lights from illuminating when the battery is connected and no AC power is present.

NOTE: All models are supplied with Low Voltage Disconnect circuit, which prevents damage to the battery from deep discharge during prolonged emergency operation.

NOTE: Batteries are often shipped in a discharged state – this is normal. The battery will require charging. Allow 24 hours of charging before testing the unit.

Models are equipped with SPECTRON® Self-Testing/Self-Diagnostic Circuitry and provide:

- Visual indication of AC power status
 - Visual indication on self-diagnostic status and results
- Visual indication of any unit malfunctions include –
- Battery Disconnected
 - Battery Fault
 - Charger Fault
 - LED Driver Fault
 - Lamp Fault
 - Load Learn Failure

SPECTRON® also includes:
Browout protection: Unit will automatically transfer to emergency operation upon detection of low AC power (approximately 80% of nominal line.)

Time Delay Retransfer: upon return of normal AC power, unit will remain in emergency mode for an additional 15 minutes to allow AC power to stabilize.

Laser Activated Testing

Units are equipped with a laser activated testing feature which allows test initiation with a laser pointer (sold separately).

- For a 1 minute test, aim laser beam onto area shown until the unit's lamp heads turn on and the green LED Status Indicator starts blinking twice every second. The unit will stay in this mode for the complete duration of the test.
- To change from a 1 minute test to a 90 minute test, aim laser onto area shown again until the green LED Status Indicator starts blinking at a slower pace, once every second. The unit will stay in this mode for the complete duration of the test.
- To cancel test cycle, aim laser onto area shown while the 90 minute test is in progress until the unit's lamp heads turn off and LED Status Indicator stops blinking and comes back to a solid green.

NOTE: Maintain a steady beam onto area shown.

