240W Industrial UVC Fluorescent Fixture (6) 4' UV T8 Lamps - High Bay UV Sanitation - Motion Sensor - 10' 16/3 SOOW Cord w/ 120V Cord Cap Instruction Manual

Thank you for your purchase of the Larson Electronics IND-HB-48-6L-UVC-T8-V1-MS-10C-120V.

EPA Reg. No 98409-1
EPA Est. No. 98409-TX-1

WARNING:

READ CAREFULLY BEFORE INSTALLING FIXTURE. RETAIN THESE INSTRUCTIONS FOR FUTURE REFERENCE. CRITICAL SAFETY INSTRUCTIONS:

- INSTALLATION SHOULD ONLY BE CONDUCTED BY A QUALIFIED ELECTRICIAN IN ACCORDANCE WITH NEC AND ANY RELEVANT LOCAL BUILDING CODES.
- RISK OF FIRE OR ELECTRIC SHOCK. FIXTURE INSTALLATION REQUIRES KNOWLEDGE OF FIXTURE'S ELECTRICAL SYSTEMS. IF NOT QUALIFIED, CONTACT A QUALIFIED ELECTRICIAN.
- BE CERTAIN ELECTRICAL POWER IS OFF BEFORE AND DURING INSTALLATION AND MAINTENANCE.
- MAKE SURE THE SUPPLY VOLTAGE IS THE SAME AS THE FIXTURE'S RATED VOLTAGE.
- TO PREVENT WIRING DAMAGE OR ABRASION, DO NOT EXPOSE WIRING TO EDGES OF SHEET METAL OR SHARP OBJECTS. SUITABLE FOR DAMP LOCATIONS.

IMPORTANT

READ CAREFULLY BEFORE INSTALLING THIS FIXTURE. SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE. THE IND-HB-48-6L-UVC-T8-V1-MS-10C-120V MUST BE WIRED IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE AND ALL APPLICABLE LOCAL CODES. PROPER GROUNDING IS REQUIRED FOR SAFETY.

WE STRONGLY ENCOURAGE ONLY A LICENSED ELECTRICIAN INSTALL, OPERATE AND MAINTAIN THIS PRODUCT. IF YOU ARE NOT QUALIFIED OR UNFAMILIAR WITH ANY ASPECT OF THIS INSTRUCTION SHEET, CONSULT AN ELECTRICIAN. THERE ARE NO SERVICEABLE PARTS INSIDE.

WARNING: MAKE SURE POWER IS TURNED **OFF** BEFORE STARTING THE INSTALLATION OR PERFORMING ANY MAINTENANCE.

RISK OF FIRE/ELECTRIC SHOCK – DISCONNECT POWER AT BREAKER BEFORE INSTALLING OR SERVICING.
RISK OF PERSONAL INJURY – FIXTURE MAY BECOME UNSTABLE OR DAMAGED IF NOT INSTALLED PROPERLY.
RISK OF BURN – ALLOW FIXTURE TO COOL BEFORE SERVICING.

The IND-HB-48-6L-UVC-T8-V1-MS-10C-120V from Larson Electronics is a High Bay UV Sanitation Light that provides UVC illumination in industrial facilities in order to sanitize large areas. This 216-watt unit features six, 4-foot T8 UV fluorescent lamps, housed in a 22 gauge painted steel housing. The luminary caters to flat surface mounting mounting and operates on 120 V AC, 50/60 Hz. This unit is equipped with a motion sensor that automatically shuts the unit down when motion is detected and 10 feet of 16/3 SOOW cord terminated in a choice of 120 V cord caps.

Operation

The IND-HB-48-6L-UVC-T8-V1-MS-10C-120V should only be used in non-occupied areas. The UVC radiation produced by this fixture is not safe for skin or eyes. These fixtures should also be set up on a separate circuit from other lighting. It is also advised to use a control circuit that incorporates a motion sensor with groupings of fixtures. This adds a level of safety because the lights will turn off if someone enters the area while the lights are on.



Mounting

The back of the IND-HB-48-6L-UVC-T8-V1-MS-10C-120V features a pair of mounting holes that can accommodate several different types of mounts. Mounting kits
are sold separately. Mounting specifics depend on what mounting kit option you choose, refer to mount instructions.

Wiring

This unit is equipped with 10 feet of 16/3 chemical and abrasion resistant SOOW cord that is fitted with an industrial grade cord cap for easy connection to common wall outlets. Plug options include standard 5-15 15 amp straight blade plug for 110V wall outlets with ground, NEMA L5-15 15 amp twist lock plug for 125V twist lock outlets, standard 5-20 20 amp straight blade plug for 110V wall outlets with ground or or NEMA L5-20 20 amp twist lock plug for 125V twist lock outlets. Alternatively, we can provide flying leads with no plug for hard wire applications or for operators who prefer to wire in user provided cord caps.

We strongly encourage a licensed electrician install this product, in all locations especially in outdoor areas where weatherproofing may be required.

Warning: ***Check product label for correct input voltage!***

Attach supply line wires to the appropriate light fixture wires as shown in the diagram ➔

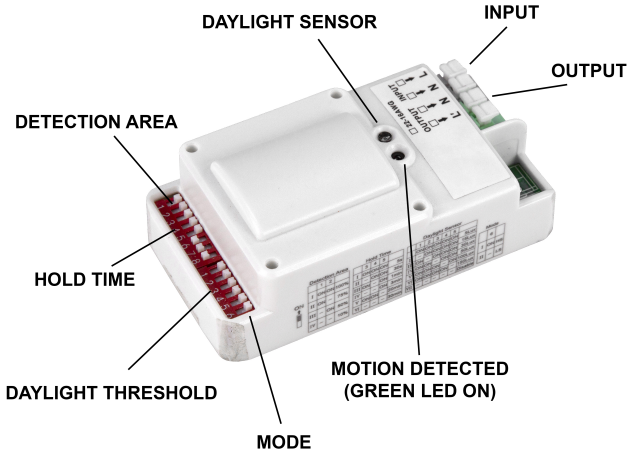


Secure each pair of wires according to the diagram. Utilize a junction box or similar device and take precautionary steps for weatherproofing all connections if installed in a location where water may come in contact with the unit. Ensure the unit is properly grounded and that wiring is done according to all local and national electrical/building codes.

Motion Sensor

This fixture is equipped with a motion sensor for an additional layer of safety while the unit is in use. Due to the potential harm UVC light can cause to a person's skin and vision, it is unsafe to be near the light while it is powered on. To avoid accidental exposure to the UV light produced by this sanitation cart, it is equipped with a 360° motion sensor. When the motion sensor detects movement, it will power off the light. When no motion has been detected for at least 5 minutes, the unit will power back on.

The following pages refer to adjusting the motion sensor settings.



MOTION SENSOR

Operating voltage	120/277V AC 50/60Hz
Rated load	120V@400W;220-240V@800W;277V@1000W
HF system	5.8GHz±75MHz, ISM wave band
Transmitting power	<0.5mW
Power consumption	≤0.5W(standby)
Detection zone	Max.(D x H): 16m x 15m
Detection sensitivity	10% / 50%
Hold time	5s / 30s / 1min / 3min / 20min / 30min
Daylight sensor	5Lux/15Lux/30Lux/50Lux/100Lux/150LuxDisable
Mounting height	15m Max.
Motion detection	0.5~3m/s
Detection angle	150°(wall installation) 360°(ceiling installation)
Operating temperature	-25℃~60℃
IP rating	IP20

Setting

By selecting the combination on the DIP switch, sensor data can be precisely set for each specific application.

ON	1	2	
I	ON	ON	100%
II	ON	–	75%
III	–	ON	50%
IV	–	–	10%

Detection area

Detection area can be reduced by selecting the combination on the DIP switches to fit precisely each application.

ON	3	4	5	
I	ON	ON	ON	5s
II	–	ON	ON	30s
III	ON	–	ON	1min
IV	–	–	ON	3min
V	ON	ON	–	20min
VI	–	–	–	30min

Hold time

Refers to the time period the lamp remains at 100% illumination after no motion detected.

ON	6	7	8
I	–	–	–
II	–	–	–
III	–	–	–

Non-essential Switches

The 6, 7, and 8 line of switches should be left in the OFF position. These are not used and should not be switched into the ON position.

ON	1	2	3	4	5	
I	ON	ON	ON	ON	ON	5Lux
II	–	ON	ON	ON	ON	15Lux
III	ON	–	ON	ON	ON	30Lux
IV	ON	ON	–	ON	ON	50Lux
V	ON	ON	ON	–	ON	100Lux
VI	ON	ON	ON	ON	–	150Lux
VII	–	–	–	–	–	Disable

Daylight sensor

The sensor can be set to only allow the lamp to illuminate below a defined ambient brightness threshold.
When set to Disable mode, the daylight sensor will switch on the lamp when motion is detected regardless of ambient light level.
30lux:twilight operation, 2lux, 10lux: darkness operation only.

	6	
I	ON	HS
II	–	LS

Mode

When set to HS, the microwave sensor function is inactive, lights turns on or off by switch. When set to LS, the microwave sensor function is active.



INSTALLATION

- Disconnect the fixture from all power sources and esnure it is cool to the touch.
- Remove the fixture from the mount.
- Open up the fixture and locate the housing unit containing the motion sensor board.
- Carefully remove the housing unit from the enclosure.



- To remove the board from the wiring connections, press down on the white tabs to release the wiring.
- After all connections in the original board are removed, set it to the side.
- Grab new replacement board and make the wire connections as before.
    - Just push down the white tab and insert the wire into the correct slot.



- Once the motion sensor is fully secured secure back to the unit, connect fixture back to power and continue use.

Certifications - Compliance

- Class I, Divisions 1 & 2, Groups B, C, D
- Class I, Zones 1 & 2, Groups IIB+H2, IIA
- Class II, Divisions 1&2, Groups E,F,G
- Class III, Divisions 1&2
- Ex db IIC Gb
- Ex tb IIC Gb Db IP66
- NEMA 3,4,4X,7 (B,C,D), 9 (E,F,G)

Malfunction	Cause	Remedy
The load will not work	- wrong light control setting selected - load faulty - mains switch OFF	- adjust setting - change load - switch ON
The load is always working	- continuous movement in the detection zone	- check zone setting
Load works without and identifiable movement	- sensor is not mounted for detecting movement reliably - movement occurred, but not identified by the sensor (movement behind a wall, movement of small object in immediate vicinity etc.)	- securely mount enclosure - check zone setting
The load will not work despite movement	-rapid movements are being suppressed to minimize malfunctioning or the detection zone you have set is too small	-check zone setting

Lamp Replacement

NOTE: ***Do not touch bulb with bare hands.*** The oil in your skin will damage the lamp. Fingerprints will result in reduced performance and significantly reduce the lifespan of the lamp unless they are removed with alcohol.

To replace a burned out or broken bulb, first make sure the bulb you are replacing it with is of the same type and rating. Also, be sure power is off at the breaker. This fixture uses 2-pin T8 style fluorescent bulbs. Remove the old bulb by rotating 1/4 turn to free the bulb from it's receptacles. Install the new bulb by sliding the pins at the ends of the lamp into the open slots in the bulb receptacles and rotate 1/4 turn to secure it in place. Restore power.

USE AND CARE

Unauthorized modification may impair the function and/or safety of this device and could affect the life of the equipment. Always check for damaged or worn out parts before using the device. Store it in a secure place out of the reach of children when not in use. Inspect for good working condition prior to storage and before re-use.

REPLACEMENT PARTS

The IND-HB-48-6L-UVC-T8-V1-MS-10C-120V is designed to provide years of reliable performance. Should the need for replacement parts arise, please contact Larson Electronics.

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PLEASE VISIT LARSONELECTRONICS.COM FOR **WARRANTY** AND **RETURN** INFORMATION.

Ultraviolet Radiation Safety

WARNING: Do not attempt operation until you are familiar with all warnings, precautions, and procedures outlined within this instruction sheet.

OPERATION PRECAUTIONS

- **UV LIGHT WARNING:** UV-C light can cause temporary or permanent loss of vision, and temporary acute redness or ulceration (mild to severe sunburn) to exposed skin. To prevent exposure, do not operate the device in any application that allows UV-C light to be visible during operation.
- **UV LIGHT CAUTION:** UV light may degrade plastic and rubber components after longterm exposure.
- Currently, there are no work place related rules and regulations that are set by OSHA (Occupational Safety and Health Association) in regard to UVC environmental health and safety.
- **NEVER LOOK DIRECTLY AT THE BULB OR DISINFECTING TARGET ZONE**

OPERATION SAFETY

- People and animals are forbidden from being exposed to the light output of this light for extended periods of time. Long term exposure will case damage to the eyes and skin.
- This product produces UV radiation. Anything in front of the unit will be exposed to UV radiation. Operators positioning the light while not illuminated will not be exposed. Radiation is only emitted while the light is turned on. Radiation will not linger in the environment when the lamps have been powered off. Safety equipment is only required when the device is in-use.
- Wear eye protective gear when operating the equipment. Polycarbonate safety glasses at minimum are required during all operations. Full frontal polycarbonate or UV-preventative face masks are recommended.
- Wear long sleeves and gloves when operating the equipment. Personal protective gear is required for long term exposure.

OPERATION SAFETY STRATEGIES

- Instruct service personnel to never look directly at UV-C light without adequate eye protection.
- Make it a policy to never enter areas being disinfected with UV lighting systems without powering the system down first. Methods of powering down depends on the options of the device purchased and may include unplugging the light source, operating the power switch to power the lamps off, or turning the system off via a wireless remote control or wireless application.
- Place warning labels near all openings/entrances to areas being disinfected with UV lighting systems. When possible, lock access doors to prevent unexpected guests from entering the area.
- Close blinds/curtains of areas being disinfected with UV lighting systems if available. If not available, block off direct access to windows/doorways to prevent access to the area. If you cannot fully block off all access (hallways with visible windows, etc) place exterior warnings in areas prior to the exposed windows (hall pedestals, banners, posters) explaining what areas are being disinfected and to not look into the room.
- Educate non service personnel about the intended operations for UV disinfecting and what signage will be posted. Instruct non service personnel to never look directly at UV-C light.
- Instruct service personnel to always wear personal protective gear (as outlined above) when they must operate in an area that has UV-C exposure, for short or long term work.

These safety precautions will help ensure service personnel are protected from accidental exposure while maintaining the effectiveness of UV-C to eradicate biological contaminants.

In the event of UV exposure, the following actions are recommended.

- See an ophthalmologist if eye damage is suspected.
- Treat skin lesions immediately.
- For severe skin lesions, seek local medical treatment and follow their recommendations for treatment.
- Follow your organization's incident reporting procedure. These often require documentation of the date and time of the incident, persons involved, equipment involved and type of injury.

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