

Non-Metallic Explosion Proof E-Stop Push Button with Lockout Device Mushroom Head - C1D2 - C2D2 - C3D1&2 Instruction Manual

Thank you for your purchase of the Larson Electronics HLSW-PB20-ES-LCK.

WARNING

TO AVOID THE RISK OF FIRE, EXPLOSION OR ELECTRIC SHOCK, THIS PRODUCT SHOULD BE INSTALLED, INSPECTED AND MAINTAINED BY A QUALIFIED ELECTRICIAN ONLY, IN ACCORDANCE WITH ALL APPLICABLE ELECTRICAL CODES.

TO AVOID ELECTRIC SHOCK:

- BE CERTAIN ELECTRICAL POWER IS OFF BEFORE AND DURING INSTALLATION AND MAINTENANCE.
- PRODUCT MUST BE CONNECTED TO A WIRING SYSTEM WITH AN EQUIPMENT-GROUNDING CONDUCTOR.

TO AVOID EXPLOSION:

- MAKE SURE THE SUPPLY VOLTAGE IS WITHIN THE VOLTAGE RATING.
- ENSURE THE MARKED T RATING IS LESS THAN THE IGNITION TEMPERATURE OF THE HAZARDOUS ATMOSPHERE.
- DO NOT OPERATE IN AMBIENT TEMPERATURES ABOVE THOSE INDICATED ON THE PRODUCT NAMEPLATE.
- DO NOT OPERATE IF THE LENS, CORD, SEALS, HOUSING, RECEPTACLES, ETC. IS CRACKED OR DAMAGED. IF SO, DISCONTINUE USE AND CONTACT MANUFACTURER FOR REPLACEMENT PARTS.
- ALL FASTENERS SHOULD BE PROPERLY SEATED.

The HLSW-PB20-ES-LCK-M2 from Larson Electronics is a non-metallic mushroom head emergency stop push button with lockout device that is rated for Class I, Division 2 Groups A, B, C & D, Class II, Division 2 Groups E, F & G and Class III, Divisions 1 & 2 environments. This ATEX certified single mushroom head emergency stop push button switch has a din rail mount design and is constructed of an impact resistant glass reinforced non-metallic material with silicone gaskets. The device is constructed from aluminum and contains two NO and two NC contacts. The emergency stop shroud is also equipped with a through-hole that allows a lockout pin to be used and a label with the message "E-STOP".

WIRING

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.



1. General Safety Information:

CAUTION:

Before installing, make sure you are compliant with area classifications, failure to do so may result in bodily injury, death and property damage. Do not attempt installation until you are familiar with the following procedures. All installation must comply with the applicable Electrical Code.

Make sure that the circuit is De-energized before starting installation or maintenance.

Verify that the installation is grounded. Failure to ground will create electrical shock hazards, which can cause serious injury and or death.

IMPORTANT:

Please read these instructions carefully before installing or maintaining this equipment. Good electrical practices should be followed at all times and this data should be used as a guide only.

Technical information, advice and recommendations contained in these documents is based upon information that Larson Electronics believes to be reliable. All the information and advice contained in these documents is intended for use only by persons having been trained and possessing the requisite skill and know-how and to be used by such persons only at their own discretion and risk. The nature of these instructions is informative only and does not cover all of the details, variations or combinations in which this equipment may be used, its storage, delivery, installation, check out, safe operation and maintenance.

Since conditions of use of the product are outside of the care, custody and control of Larson Electronics, the purchaser should determine the suitability of the product for his intended use, and assumes all risk and liability whatsoever in connection therewith.

2. Installation Instructions:

A: Using a screwdriver with a #2 Phillips Head, a Standard Slotted or Robertson style head, unscrew the retained cover screws. Install the back box of the control station securely on a flat surface using mounting screws that shall fit the hole or slot (see dimensional drawing) and shall not damage supplied hole or slot. The use of a washer is allowed. Mounting dimensions are shown on this document. Also for convenience the non-metallic enclosures have this information molded into the back surface.

The non-metallic enclosures are identified with "TOP" molded on the inside of the cover and the back of the box. The stainless steel enclosures have the slots located at the bottom.

B: Install the conduit or cable to the box using fittings that are Certified as suitable for the area classification and service environment.

C: Connect conductors to the component terminals. Follow all wire stripping and terminal torque instructions for each component as described below.

Grounding connections are available at the din rail, earth continuity plate and internal external ground stud, if supplied* and hub locknut.

Bonding connections are available on covers and boxes of all stainless steel enclosures. All exposed metal should be bonded per applicable local electrical codes.

* An Internal - External ground stud with securement hardware is supplied on all stainless steel enclosures, and is offered as an option for installing into non-metallic (polymeric) enclosures.

D: Perform a continuity check to ensure the circuit is wired properly for the intended use.

E: Replace the enclosure cover making note of "TOP" molded inside the non-metallic covers and the orientation of the actuators for the stainless steel enclosures. Thread each cover screw half way into the threaded insert without completely tightening in a diagonal pattern. Then complete installation of cover by tightening screws in the same diagonal pattern to a minimum torque of 2.9 Nm (26 lb-in) to a maximum of 3.4 Nm (30 lb-ins.).

Before replacing cover, ensure all wires are neatly installed within the control station base and are well away from the lid base joint and gasketing area.

DO NOT OVERTIGHTEN OR USE AN IMPACT TOOL.

A consistent fit over the entire length of the cover joint should be verified at the time of installation.

F: Turn ON the supply circuit and test the system.

WARNING: Electrical shock or personal injury can result from device misalignment. Be sure actuators align with each control module.

Requirements for proper installation

For US/CAN Applications:

Series HLSW Contact Blocks and E-Stops shall be mounted to provide a minimum clearance of 14 mm and min. creepage of 21.6 mm.

For ATEX/IECEx Applications:

Series HLSW Contact Blocks and E-Stops shall be mounted to provide a minimum clearance of 10 mm and minimum creepage of 16 mm.

For DIN-rail mounting and removal of Contact Blocks and Pilot Lights, care should be taken not to damage the integral flexible clip.

To maintain the IP66 rating or Dust Protection method "tb", all actuator / enclosure sealing gaskets must be installed in accordance with these installation instructions.

*Series HLSW Control Stations are provided without cable glands / conduit entries. When installing glands or entries, the cable glands / conduit entries must be certified as increased safety or flameproof, for protection type "tb", and have a minimum IP66 rating. **To assure the IP ratings are not compromised, Cable Gland and Conduit Entry holes must not exceed the maximum dimensions noted in the gland/ entry manufacturer's installation instructions.***

The end user shall provide bonding means as necessary. For IECEx and ATEX applications, the polymeric enclosures may be supplied with an optional internal/external IP66-rated Earthing Lug Kit.

All unused wiring terminals shall be tightened.

All conductors shall be suitable for the minimum ambient and maximum temperature achieved in service - use 90°C Conductors (minimum) for T6 applications, and 105°C conductors (minimum) for T5 and T4 applications. All conductors shall be sized per the National or Local Electrical Codes for the maximum continuous current or max. motor load of the installation.

All installations must comply with Electrical Installations design, selections, and erection standard IEC/EN 60079-14 and be maintained in accordance with Electrical installations inspection and maintenance standard IEC/EN 60079-17.

MAINTENANCE

It is good practice to routinely clean and check the fixture for proper function.

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 HLSW-PB20-ES-LCK is designed to provide years of reliable performance. Should the need for replacement parts arise, please contact Larson Electronics.

THESE INSTRUCTIONS MAY NOT COVER ALL DETAILS OR VARIATIONS OF THIS PRODUCT FOR YOUR EQUIPMENT OR INSTALLATION REQUIREMENTS. SHOULD FURTHER INFORMATION NOT COVERED BY THESE INSTRUCTIONS BE REQUIRED, PLEASE CONTACT LARSON ELECTRONICS BY EMAIL AT SALES@LARSONELECTRONICS.COM OR BY PHONE AT 1-877-348-9680 FOR FURTHER ASSISTANCE.

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