



INSTALLATION SHEET: FH7-UNV-500L-CEC
IMPORTANT SAFEGUARDS



READ AND FOLLOW ALL SAFETY INSTRUCTIONS SAVE THESE INSTRUCTIONS

PLEASE READ CAREFULLY AND FOLLOW ALL INSTRUCTIONS FOR YOUR OWN SAFETY
When using electrical equipment and this lighting device basic safety precaution should be followed at all times including but not limited to the following:

IMPORTANT: An un-switched AC power source of 120VAC or 277VAC is required.

WARNING: This emergency ballast has more than one power supply connection point, to reduce the risk of electric shock, disconnect both the normal and emergency power feed supplies and inverter connector of the emergency ballast before servicing.

WARNING: To prevent high voltage from being present on output leads (red & yellow) prior to installation, inverter connector must be open. Do not join inverter connector until installation is complete and AC power is supplied to the emergency ballast.

CAUTION: The emergency ballast and AC ballast must be fed from the same branch circuit, reference wiring diagram for applicable lamp and ballast configuration.

CAUTION: This emergency ballast is designed for factory or field installation in either the ballast channel, or on top of the indoor luminaire, NOT suitable for use in air handling heated air outlets, outdoor, wet or hazardous locations. Do not install emergency ballast near gas or electric heaters.

Make sure all electrical connections conform to the National Electrical Code and all applicable local regulations

CAUTION: The battery is sealed, do not attempt to service the battery, it is not replaceable. Battery is rechargeable Ni-Cad type and must be recycled or disposed of properly.

INTENDED USE

This device is designed for use in luminaires listed for indoor damp, or dry locations.

Do not use this emergency ballast with accessory equipment other than recommended by manufacturer; failure to follow this may cause an unsafe condition. Servicing should only be performed by qualified service personnel.

Do not use this emergency ballast for other than intended use.

This device is designed for use with:

Lamps Suitable for use in 0°C - 50°C ambient:

ONE F14/21T5, F24T5HO, CFQ13W, CFQ18W, CFQ26W, F17T8, F25T8, F20T12, F32T8, CFTR13/18/26/32W, 2D21/28W, FT18W, FT24/27W, FT36/39W, F32T8(25/28/30W), 22WCRT5, 32WCRT9

Lamps Suitable for use in 20°C - 50°C ambient:

ONE 40CRT5, 2D38W, 40CRT9, FT40W, F28T5, 40WT8, F39/49/54WT5HO, CFTR42W

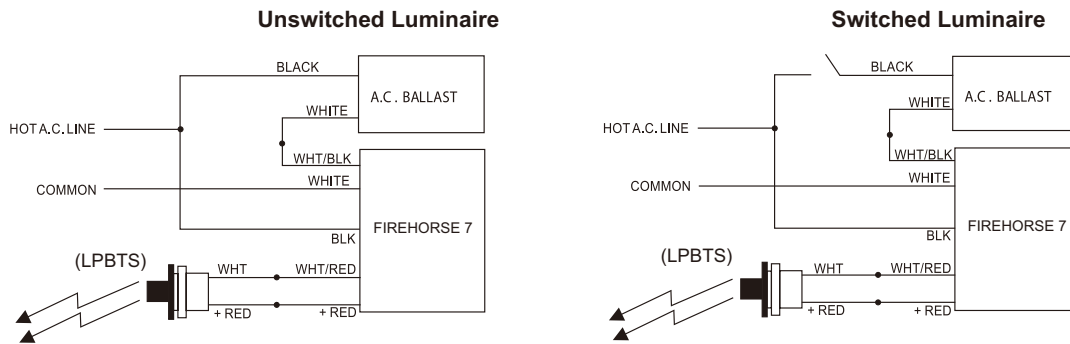
WARRANTY: Fulham Co., Inc. extends limited warranty only to the original purchaser or to the first user for the period of 5 years from the date of manufacture as indicated by the date code stamped on each product and when properly installed and under normal conditions of use. For additional warranty guide line, please refer to our Complete Product Catalog (www.fulham.com) OR call Customer Service at 1-323-779-2980. Due to a program of continuous improvement, Fulham Co., Inc. reserves the right to make any variation in design or construction to the equipment described.

GENERAL INSTRUCTIONS

CAUTION: FireHorse emergency ballast and AC ballast must be fed from the same branch circuit, **120VAC OR 277VAC UNSWITCHED POWER SOURCE IS REQUIRED WITHOUT EXCEPTION.**

CAUTION: FireHorse emergency ballast can be used to add emergency lighting with or without an AC ballast and with most fluorescent luminaire without affecting normal luminaire operation. FireHorse emergency ballasts will operate with either a switched or un-switched luminaire. **IMPORTANT:** If a switched luminaire is used, an **un-switched hot lead** must be connected to the emergency ballast to ensure the ballast remains in an uninterrupted charge condition while primary power source is active. Reference Illustration 1 wiring diagram for appropriate option

Illustration 1



REMOTE EMERGENCY BALLAST: FireHorse emergency ballast can be mounted in the ballast compartment, on top of the luminaire or remote.

IMPORTANT: When mounting the emergency ballast at a remote location the emergency ballast must be installed within one half (1/2) distance of the recommended AC ballast remote specification; reference appropriate AC remote location specification before installing emergency ballast. The maximum remote distance for the emergency ballast is fifty feet (50'); the shorter of the two distances is recommended for optimum emergency ballast operation when used with AC ballast.

REMOTE (OPTIONAL) TEST SWITCH PLATE: It is recommended the remote test switch plate (Optional) be mounted within fifty feet (50') of the luminaire and is subject to NEC and applicable local electrical code.

IMPORTANT: Indicator (LED light) illuminated indicates battery in charge mode when AC power is applied. It is recommended and required by applicable code to test emergency ballast to ensure proper function of the system; push the test switch for thirty (30) seconds every 30 days to ensure the emergency ballast is functioning as evidenced by reduced illumination of one lamp. Conduct a ninety minute (90) discharge test one time (1) per year; one lamp should operate at reduced illumination for a minimum of ninety minutes (90).

ASSEMBLY and FIELD INSTALLATION WIRING:

WARNING: AC power must be off before proceeding with assembly or installation of emergency ballast. Select the correct wiring diagram for one or two lamp operation and AC ballast before assembly and wiring of the emergency ballast

WARNING: Inverter connector has to be opened (not connected) for preventing high voltage on output leads (Red and Yellow). Wait until all the wiring or installation process is completed and AC is supplying power to the emergency ballast then join the inverter connector.

TESTING SYSTEM: The emergency battery requires a charge minimum of one (1) hour before testing the circuit. A full charge requires twenty four (24) hours.

GENERAL INSTRUCTIONS

1. MOUNTING THE FIREHORSE 7

Remove the ballast channel cover. Mount the FIREHORSE-7 in the ballast channel at least 1/2" away from A.C. Ballast(s).

2. INSTALLING THE LIGHTED PUSH BUTTON TEST SWITCH (LPBTS)

Recessed Troffer Luminaire - Select a convenient location with proper clearance and drill or punch a 7/8" hole (1/2" knock out). Insert the 7/8" bushing into the hole. Push the plastic tube through the bushing. Route the leads of the LPBTS through the plastic tube. Connect the LED wires from the unit to the LPBTS (Red to Red, White to White/Red). Push the entire assembly back into the tube until the lens collar rests against the plastic tube. The plastic tube should be adjusted so that the LPBTS is within 1/4" of the luminaire lens. The LPBTS must be visible after installation. Refer to illustration 2.

Strip Luminaire - select a convenient location on the Luminaire so the LPBTS can be seen after installation. Allow for proper clearance inside the luminaire and drill or punch a 1/2" hole. Remove the nut from the LPBTS. Push the LPBTS housing into the 1/2" hole and secure with the nut. Connect the LED wires from the LPBTS (Red to Red, White to White/Red). Refer to Illustration 3.

Illustration 2

Recessed Troffer Luminaire

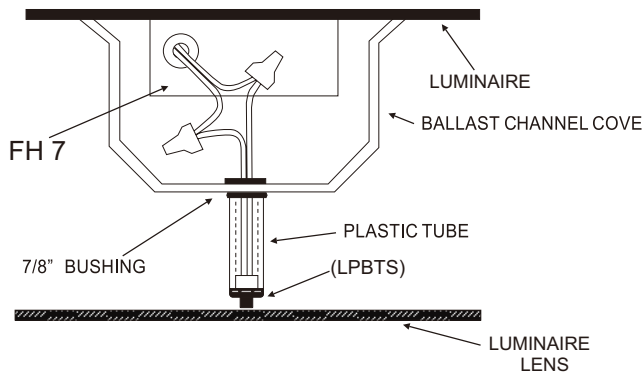
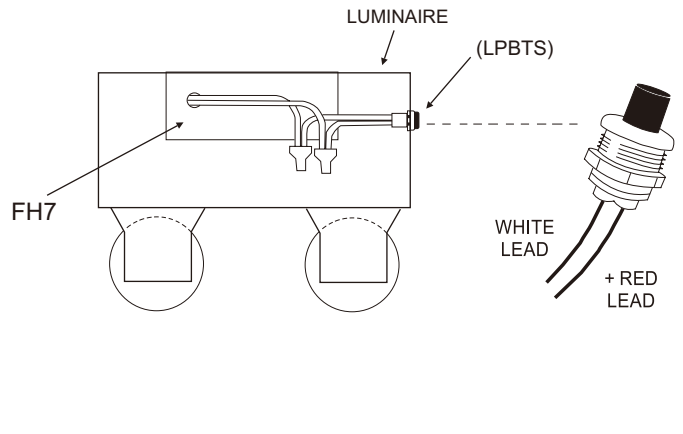


Illustration 3

Strip Luminaire



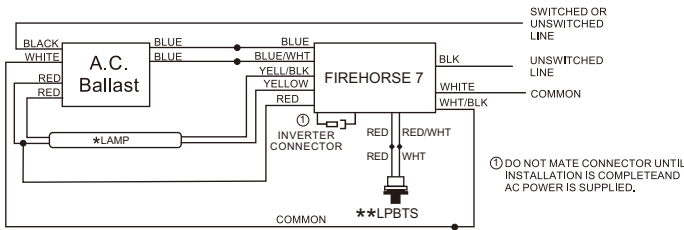
OBSERVE PROPER POLARITY

WIRING DIAGRAMS

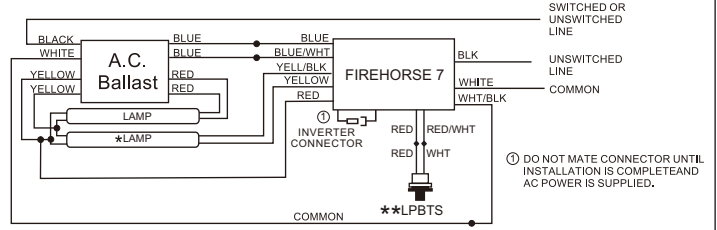
EMERGENCY BALLAST AND AC BALLAST MUST BE FED FROM THE SAME BRANCH CIRCUIT
TYPICAL SCHEMATICS ONLY. MAY BE USED WITH OTHER BALLASTS. CONSULT THE FACTORY FOR OTHER WIRING DIAGRAMS.

WIRING DIAGRAMS FOR ONE LAMP EMERGENCY OPERATION

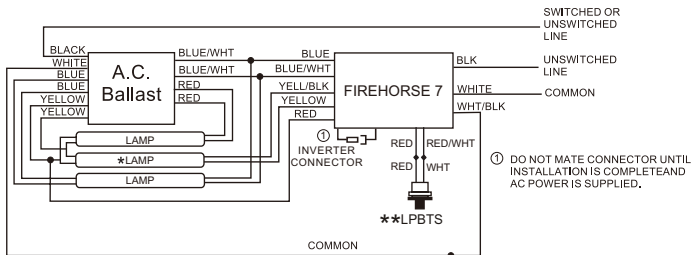
1. ONE LAMP RAPID START BALLAST



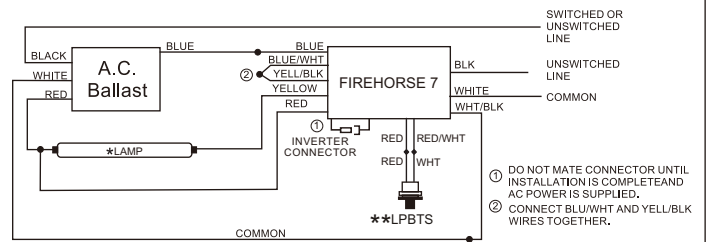
2. TWO LAMP RAPID START BALLAST



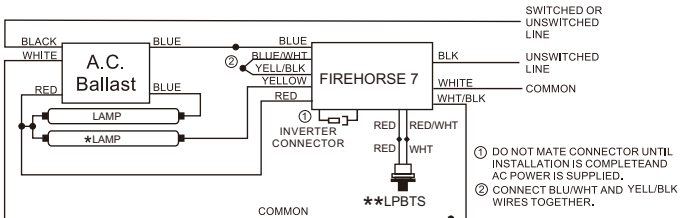
3. THREE LAMP RAPID START BALLAST



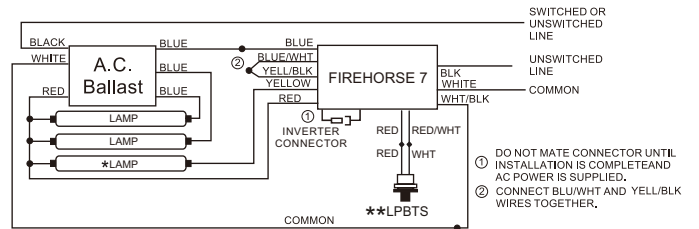
4. ONE LAMP INSTANT START BALLAST



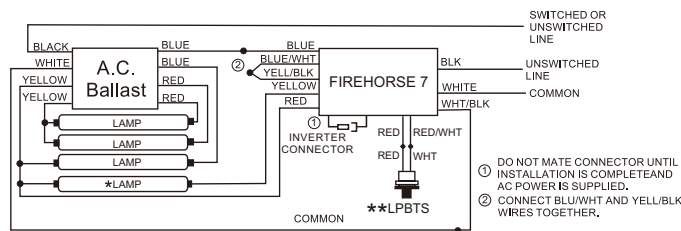
5. TWO LAMP INSTANT START BALLAST



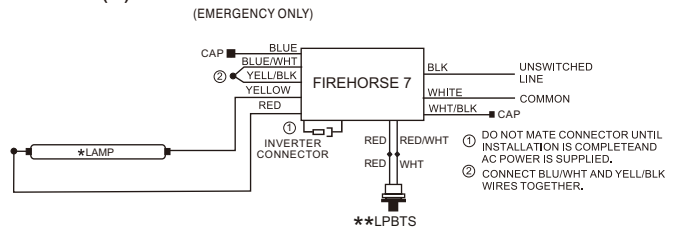
6. THREE LAMP INSTANT START BALLAST



7. FOUR LAMP INSTANT START BALLAST



8. ONE (1) LAMP WITHOUT AC BALLAST



*AC / EMERGENCY

**LIGHTED PUSH BUTTON TEST SWITCH (LPBTS)

USE PROPER WIRENUTS TO CAP UNUSED LEADS