

ESRN-1 Installation & Safety Instructions

IMPORTANT SAFEGUARDS

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

READ AND FOLLOW ALL SAFETY INSTRUCTIONS

ALL SERVICING SHOULD BE PERFORMED BY QUALIFIED PERSONNEL

- This product is intended for use with lighting fixtures controlled by an Emergency panel. Any switching between Backup Power and Utility Power must be done upstream of this device.
- All wiring connections and mounting styles must be in accordance with the National Electrical Code (NEC), National Fire Protection Association (NFPA), National Electrical Safety Code, state and local codes, and any other regulations set forth by the local Authority Having Jurisdiction (AHJ).
- Per NFPA 70E, the use of Personal Protective Equipment (PPE) may be required. Check state and local codes.
- The load's operating voltage must be the same as the Emergency Power Input voltage.
- To reduce the risk of electrical shock, fire, and injury to persons:
 1. Disconnect all sources of power before servicing,
 2. Mount this device in locations and at heights where it will not be readily accessible to tampering by unauthorized personnel,
 3. Do not mount near gas or electric heaters,
 4. Do not let any wires touch hot surfaces, and
 5. Do not use outdoors (NEMA 1 rating only)
- The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition.
- Do not use this device for other than intended use.

SAVE THESE INSTRUCTIONS

Specifications

Electrical Specifications (ESRN-1)

| | |
|--|---|
| Normal Power Supply Voltage Normal Power Current Draw | 120-277Vac (50/60 Hz) 24mA max |
| Emergency Power Supply Voltage Emergency Power Current Draw | 120-277Vac (50/60 Hz) 118mA max |
| Remote Test Input (Class 2, Dry Contact) | ESRTB or other switching method ^{1,2} |
| Relay Contact SPST | 20A Magnetic Ballast @ 277V 16A Electronic Ballast @ 277V 10A Tungsten @ 120V |

1: If not using the ESRTB Remote Test Button (sold separately), switching methods should be rated for at least 24Vdc. External voltage should not be supplied to this input. No specific current rating is required.

2: To maintain Class 2, a maximum of 45 total test inputs ESRN can be wired in parallel per ESRTB.

Mechanical Specifications

Housing: UL accepted for use in Plenum, NEMA 1

Wire: 16" 600V Rated

Weight: 0.675 lbs.

Operating Temperature: -30° to 140° F (-35° to 60° C)

Humidity Range: 5 to 95% (noncondensing)

Rated for dry and damp locations only

Approvals: UL listed, UL924, C-UL,

Installation

ALL INSTALLATIONS AND WIRING SHOULD BE DONE BY QUALIFIED PERSONNEL

ESRN-1

Steps

1. Remove all sources of power.
2. Remove wiring compartment cover.
3. Mount ESRN.
4. Wire the ESRN per "Typical Applications" section.
5. Install the wiring compartment cover.
6. Apply all sources of power to the fixture.
7. Test the ESRN using the "Test Procedure" section.

Maintenance

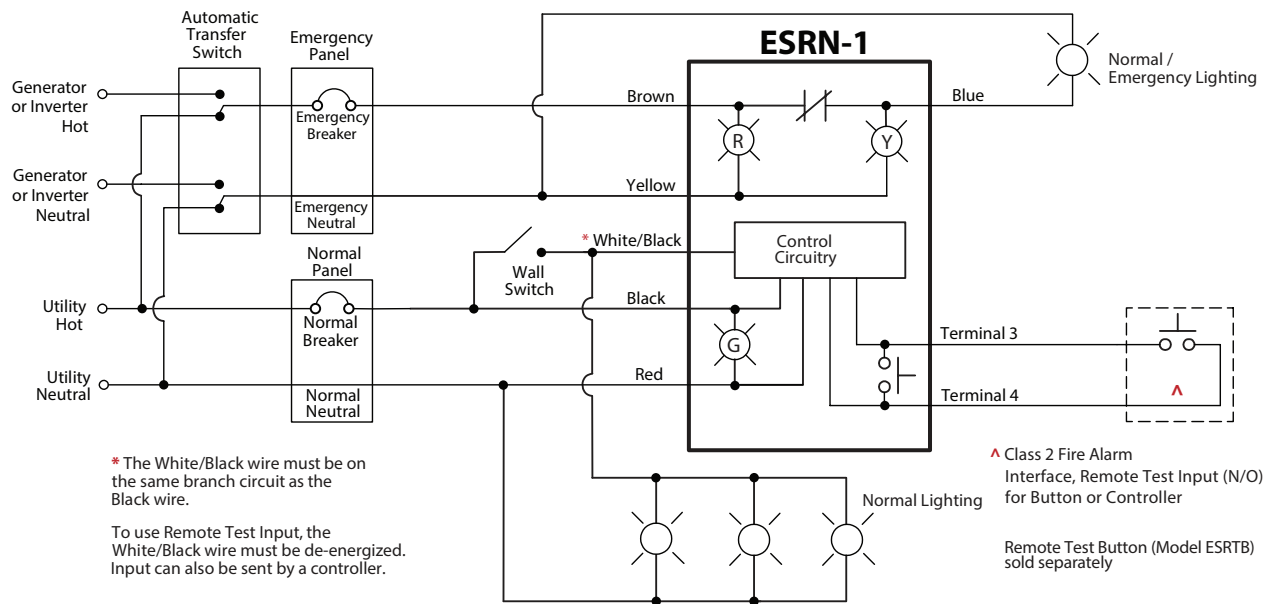
No routine maintenance is required for the ESRN. Occasionally, this device should be tested to ensure that it works correctly in accordance with national and local codes.

Operation

The ESRN-1 will activate an Emergency lighting load automatically upon the loss of Normal Power. If Normal Power is absent, the status of the load cannot be overridden. However, if the Normal Power is present, the Emergency lighting load can be controlled by other means in order to use it as a Normal Lighting load, depending on the wiring setup. When used as Normal Lighting, a two second delay will keep the Load on, even after Wall Switch is turned off, to perform a Self-Test on the unit. A red LED indicates the Emergency Power is available. A Green LED indicates that Normal Power is present. A Yellow LED copies the status of the load; if the LED is on, the load is on.

Applications

Using Emergency Lighting as Normal Lighting



Wiring Descriptions

| Wire Color | Description | Notes |
|---------------------|--|---|
| BLACK | Normal Hot | N/A |
| WHITE/BLACK | Wall Switch Input (Self-Test Input) | Must be from same branch circuit as Black and Red. When switched off, a two second delay keeps the load on to test Emergency Power. Does not test Feedback/Dimmer Output. |
| RED | Normal Neutral or other Phase | N/A |
| BROWN | Emergency Hot | N/A |
| BLUE | Emergency Hot Switched to load | Switches out the voltage put in on Brown |
| YELLOW | Emergency Neutral or other Phase | N/A |
| Terminal Screw 3, 4 | Remote Test Input (Class 2, Dry Contact Input) | When wiring multiple units together, Terminal Screw 4 must be a shared common. Test is performed when Input is CLOSED. |

Testing and Troubleshooting

Test Procedure: Four options to test the ESRN after installation:

Initial Test for Correct Wiring

Apply Emergency Power to the Emergency Power Input and Normal Power to the Normal Power Input. (If using the Wall Switch Input, apply Normal Power to the switch also, but keep the switch OFF/OPEN.)

- a. The Red LED (Emergency Power available) should be ON.
- b. The Green LED (Normal Power available) should be ON.
- c. The Yellow LED (Load Status) should be OFF.
- d. The Load should be OFF.

Local Test Button

1. Turn switched circuit OFF. Emergency light should be OFF.
2. Press and hold "Local Test Button"
3. Emergency light should turn ON.
4. Release "Local Test Button" and emergency light should turn off.

Remote Test Button (Model ESRTB - sold separately)

1. Turn switched circuit OFF. Emergency light should be OFF.
2. Press and hold "Remote Test Button"
3. Emergency light should turn ON.
4. Release "Remote Test Button" and emergency light should turn off.

Wall Switch

1. Turn ON wall switch if not already on.
2. Emergency light should turn ON.
3. Turn wall switch OFF.
4. Emergency light will remain on for two seconds before turning off.

To test the ESRN periodically, repeat the appropriate Test Procedure above in accordance with national and local codes.

Troubleshooting

| Condition | Action |
|---|---|
| Red LED is OFF | <ul style="list-style-type: none"> • Check Emergency Power Input wiring (Brown and Yellow wires) and voltage. |
| Green LED is OFF | <ul style="list-style-type: none"> • Check Normal Power Input wiring (Black and Red wires) and voltage. |
| Yellow LED is ON but Load is OFF | <ul style="list-style-type: none"> • Check bulbs and ballast. • Check Load wiring (Blue wire and Load's neutral). • Verify Load's operating voltage is the same as the Emergency Power Input Voltage. • Replace unit. |
| Load is ON but Yellow LED is OFF | <ul style="list-style-type: none"> • Replace unit. |
| Yellow LED and Load do not turn on when being tested. | <ul style="list-style-type: none"> • Check bulbs and ballast. • Check wiring connections if using a remote test option. • Press local test button on the unit. • Replace unit. |
| Yellow LED and Load will not turn OFF | <ul style="list-style-type: none"> • Verify status of Normal Power Input. • Open Wall Switch Input. • Verify that no test inputs are stuck closed. (i.e. Remote Test Input is not closed). |