

# Emergency Lighting Control For Switching Loads Universal Mount



Cat. No. ECS00-110

**Ratings:** 120VAC/277VAC, 60Hz, Ballast/Driver Load: 16A Electronic Ballast/LED/Driver/General Use/5A Magnetic Ballast, Incandescent Load: 1800W @ 120V/3000W @ 277V

## WARNINGS:

- **TO AVOID FIRE, SHOCK OR DEATH: TURN OFF POWER AT CIRCUIT BREAKER OR FUSE AND TEST THAT THE POWER IS OFF BEFORE WIRING!**
- **TO AVOID PERSONAL INJURY OR PROPERTY DAMAGE, DO NOT** install to control a receptacle, or a load in excess of the specified rating.
- To be installed and/or used in accordance with electrical codes and regulations.
- If you are not sure about any part of these instructions, consult an electrician.

## CAUTIONS:

- No user serviceable components. **DO NOT** attempt to service or repair.
- Use this device **WITH COPPER OR COPPER CLAD WIRE ONLY.**

DI-030-ECS00-05A

## INSTALLATION INSTRUCTIONS

**ENGLISH**

### Electrical Specifications

- Model ECS00-110
- Universal Mount
- Sensing Voltage: 120-240/277V
- Load Voltage: 120-277V
- 16 Amp Load Rating
- N.C. Contact
- Test to UL2043 (Plenum Rated)

### Mechanical Specifications

- Mounts inside or out of 4-11/16 in. Junction Box with blank cover
- UL94V-0 Flame Rating
- Shipping Weight: 4 oz
- Temperature: 32°F - 140°F (0°C - 60°C)
- Color: Black
- Size (with mounting ears): 3.63 in.(L) x 1.63 in. (W) x 1.38 in.(H)
- Body Size: (without mounting ears): 2.5 in.(L) x 1.63 in. (W) x 1.38 in.(H)

### Product Description/Application

In the past, all emergency lights were left on 24 hours a day to meet safety codes. Now you can specify and install a UL924 Listed Emergency Power Control ECS00-110, which converts normal light fixtures to approved emergency lights.

During normal operation, the ECS00-110 switches emergency lights with the same control as your normal lights. During a utility power interruption, the ECS00-110 turns designated emergency lights on, at full brightness, regardless of dimmer position.

Intended for use with switching controls only.

### Automatic Diagnostic Feature

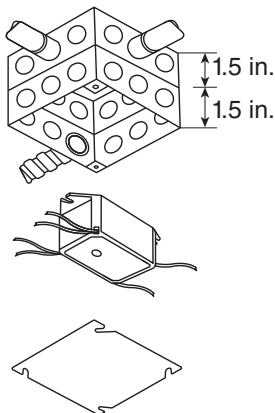
When the room switch is turned off, the ECS00-110 will run a 2.5-second self-test routine, verifying that the emergency power source was available and that the ECS00-110, ballast, and lamp(s) are all functioning correctly.

This feature eliminates the need for time-consuming and costly manual monthly testing and is approved for this purpose. This also allows the unit to be installed in remote or inaccessible locations, because the unit does not rely on access to its manual test switch.

Fire Alarm/Remote Test Switch: Some applications demand that emergency lighting be activated upon fire alarm, security alarm, or remote test switch activation. For this, the ECS00-110 is equipped with a low voltage override input (red jumper).

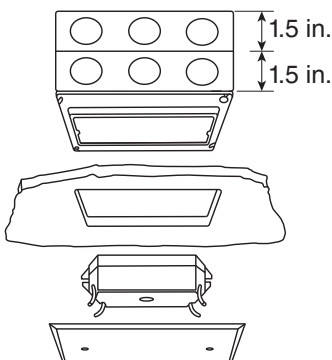
### ECS00-110 Universal Mount Wall or Ceiling Installation

ECS00-110's enclosure permits nipple, fixture, panel, or box mounting.

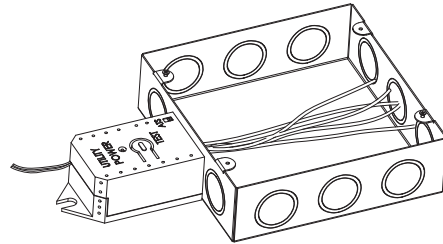


Recommended Box Size  
4-11/16 in. with blank cover.

### ECS00-110 Universal Mount Fire Ceiling Installation



### ECS00-110 Junction Box Installation



### Wiring Installation

**WARNING: TO AVOID FIRE, SHOCK OR DEATH,** turn off power at circuit breaker on both normal power circuit, 24 hour night light/emergency generator circuit and test that power is off before wiring.

#### NOTES:

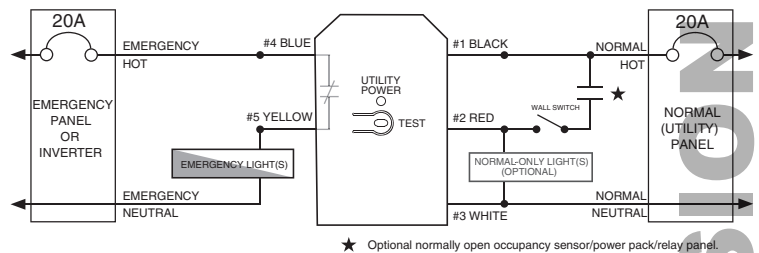
- It is recommended to number field wiring.
- Regular room lighting load does not effect ECS00-110 current rating. Room switch is only used to control ECS00-110 10 mA relay current coil, and regular lighting load. Regular line HOT connected to breaker and ECS-110 is only drawing milli-amps to sense if normal power is available.
- In order to provide a safe light level, when regular power is interrupted, it is recommended that a minimum of two 4 ft fluorescent tubes providing approximately 5000 lumen are controlled by a 24 hour emergency circuit and are spaced no farther than 24 ft in any direction from each other in a normal 9 ft white ceiling environment. The ECS00-110 is a universal type unit, convenient and fast to install virtually anywhere.

1. Install a self-adhesive 2 in. x 3 in. caution label in each fixture or load controlled by an ECS00-110 unit, cautioning that this load is supplied from two different power sources, regular and emergency.
2. Review wiring diagram and connect wires, one group at a time, in accordance with the numeric identification.

### Common Wiring Scenarios

#### Wiring Diagram #1 (Suggested)

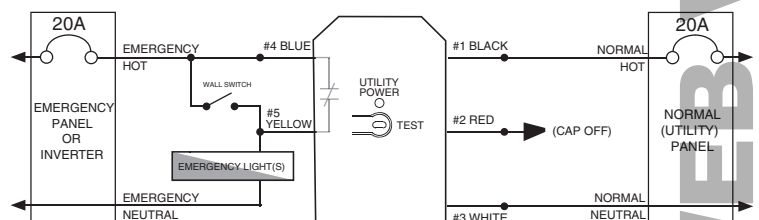
A common switch controls both normal and emergency lighting in a space. Upon loss of normal power, the emergency lighting comes on regardless of switch position.



★ Optional normally open occupancy sensor/power pack/relay panel.

#### Wiring Diagram #2 (Shunt)

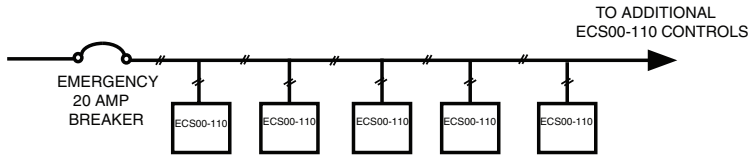
A dedicated switch controls emergency lighting in a space. Upon loss of normal power, the emergency lighting comes on regardless of switch position.



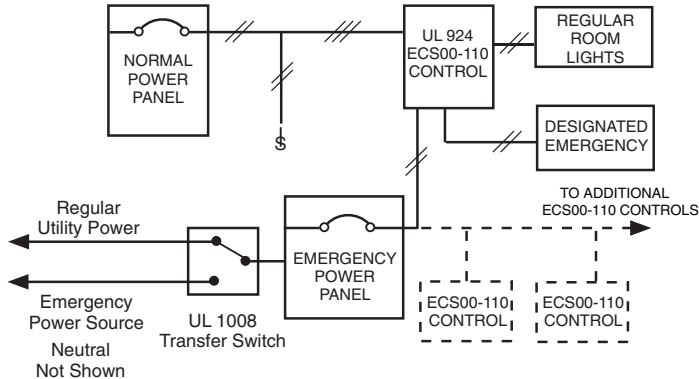
WEB VERSION

## Single Line Drawings

On a 20 Amp circuit, one or more emergency power controls (Model ECS00-110) can be used to control emergency lighting loads. One ECS00-110 is required per switch leg. A single ECS00-110 can carry a maximum of 16 Amps of emergency lighting load.

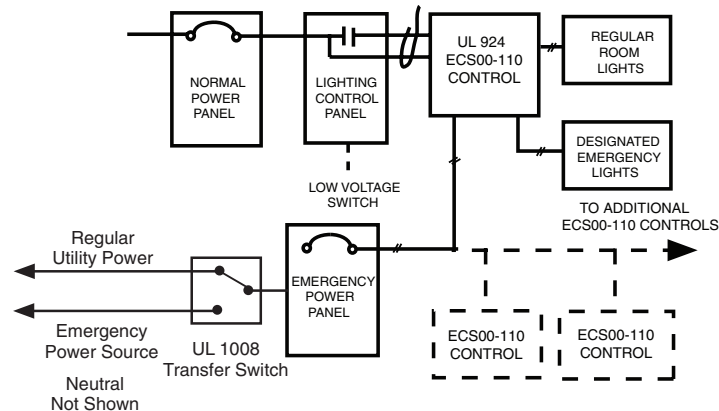


## Standard Line Voltage Switching Line Drawing



## Relay Panel Low Voltage Switching Line Drawing

From lighting control panel to emergency power control, three #12 wires are necessary: 1) Hot, 2) Switch Leg, 3) Neutral



## Initial Testing and Troubleshooting

In a new installation, where hundreds of devices may be used, each having as many as 14 wires to be correctly connected, it is important that a fast, convenient method is used to check connections. In order to test that the wires are connected correctly, without any inconvenience to occupants, do not turn off regular (utility) power off until you have checked each device as follows:

1. Check that regular branch circuit breaker is connected and utility power is available. Green LED should be lit. If green LED is not lit, check connections and continuity to branch circuit breaker.
2. Check that emergency branch circuit breaker is connected and emergency power is available.
3. Normal Operation Test: Turn dimmer or other control device to the "ON" position. Normal and emergency lights should turn on. Turn room switch or control to the "OFF" position. Normal lights should turn off immediately.
  - a. If ATS slide switch is ON, emergency lights should stay on for at least 2.5 seconds.
  - b. If ATS slide switch is OFF, emergency lights should turn off immediately.
4. Emergency Operation Test: Press and hold test button, emergency lights should illuminate until test button is released.

## Maintenance

No maintenance is required to keep the EPC functional. However, regular testing should be performed when the lamps or ballasts have been replaced or when remodeling has taken place.

## FCC STATEMENT

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. Any changes or modifications not expressly approved by Leviton could void the user's authority to operate this equipment.

## IC STATEMENT

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions:

- (1) this device may not cause interference,
- (2) this device must accept any interference, including interference that may cause undesired operation of the device.

IMPORTANT! Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. This Class A digital apparatus complies with Canadian ICES-003.

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## LIMITED 5 YEAR WARRANTY AND EXCLUSIONS

Leviton warrants to the original consumer purchaser and not for the benefit of anyone else that this product at the time of its sale by Leviton is free of defects in materials and workmanship under normal and proper use for five years from the purchase date. Leviton's only obligation is to correct such defects by repair or replacement, at its option. **For details visit [www.leviton.com](http://www.leviton.com) or call 1-800-824-3005.** This warranty excludes and there is disclaimed liability for labor for removal of this product or reinstallation. This warranty is void if this product is installed improperly or in an improper environment, overloaded, misused, opened, abused, or altered in any manner, or is not used under normal operating conditions or not in accordance with any labels or instructions. **There are no other or implied warranties of any kind, including merchantability and fitness for a particular purpose,** but if any implied warranty is required by the applicable jurisdiction, the duration of any such implied warranty, including merchantability and fitness for a particular purpose, is limited to five years. **Leviton is not liable for incidental, indirect, special, or consequential damages, including without limitation, damage to, or loss of use of, any equipment, lost sales or profits or delay or failure to perform this warranty obligation.** The remedies provided herein are the exclusive remedies under this warranty, whether based on contract, tort or otherwise.

For Technical Assistance Call: 1-800-824-3005 (USA Only) or 1-800-405-5320 (Canada Only) [www.leviton.com](http://www.leviton.com)