Emergency Lighting Control
For Switching Loads Universal Mount

LEVITON

Cat. No. ECS00-110

Ratings: 120VAC/277VAC, 60Hz, Ballast/Driver Load: 16A Electronic Ballast/LED/Driver/General Use/5A Magnetic Ballast, Incandecent 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 moutning 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.
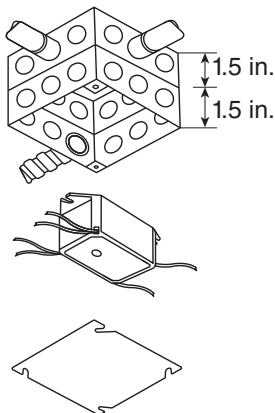
Automatic Diagnostic Feature

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).
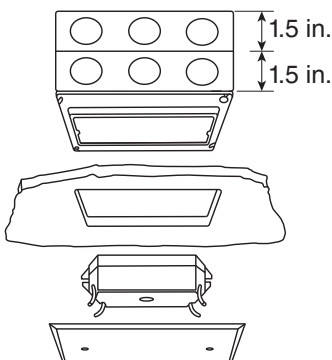
ECS00-110 Universal Mount Wall or Ceiling Installation

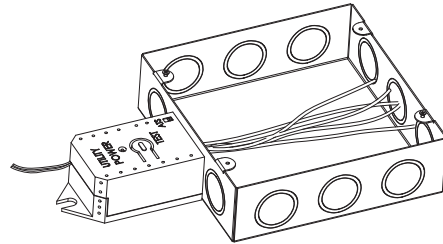ECS00-110's enclosure permits nipple, fixture, panel, or box mounting.

1.5 in.
1.5 in.

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

ECS00-110 Universal Mount Fire Ceiling Installation

1.5 in.
1.5 in.

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.
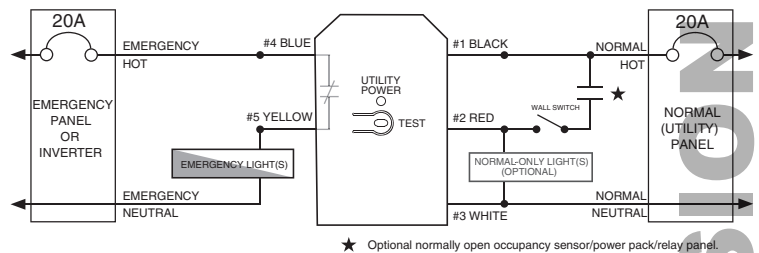
NOTES:
- It is recommended to number field wiring.
- Regular room lighting load does not effect ECS00-110 current rating. Room switch is only used to control ECS00-110 10 mA relay current coil, and regular lighting load. Regular line HOT connected to breaker and ECS-110 is only drawing milli-amps to 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 appproximately 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.

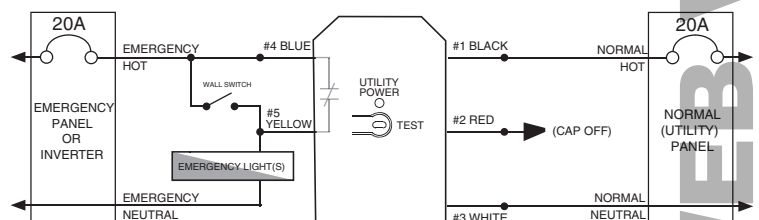## Common Wiring Scenarios

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.
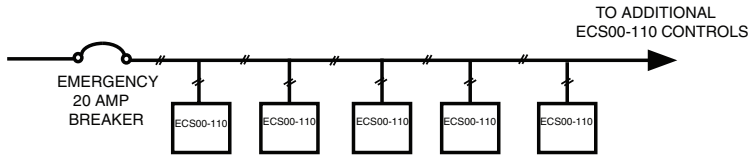
Wiring Diagram #2 (Shunt)

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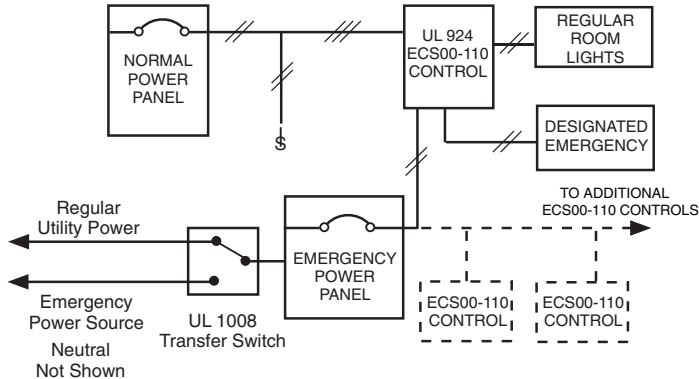
Single Line Drawings

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.
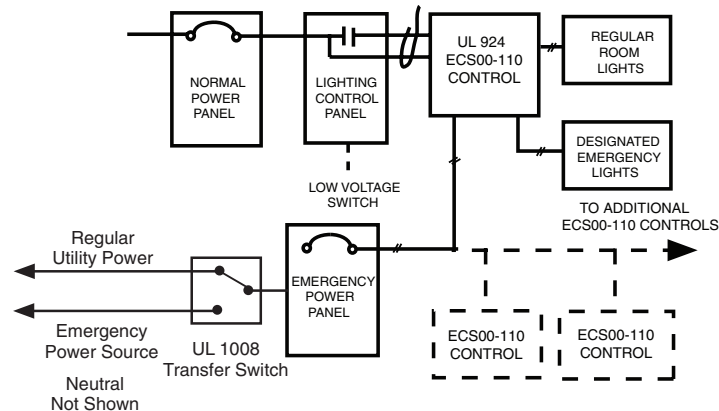

Standard Line Voltage Switching Line Drawing

Relay Panel Low Voltage Switching Line Drawing

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.