# Emergency Lighting/UL924 with SimplySNAP

SimplySNAP is a reliable, proven intelligent lighting control system for industrial spaces, and is often used in site and area lighting projects- including those specific to emergency lighting applications.

## Two Options for using SimplySNAP for Emergency Lighting

There are two primary approaches to using SimplySNAP with emergency lighting:

1. Installing battery backup on the fixture
2. Installing emergency power backup power feed.

Budget is often the main consideration when evaluating which method to use, although other factors may influence the decision as well.

### Emergency Battery Pack

The lowest cost approach is in the use of an emergency battery pack. The battery packs can be installed in the field and sense when AC voltage is lost. If AC power is lost, the circuits on the battery pack power the LED strips with DC power for 1 to 3 hours.

When AC power is restored, the LEDs are then powered by the LED driver and the battery will be in charging mode. Only UL924 approved devices should be used. These devices will have test buttons and indicator lights for safety and maintenance.

### Shunt Relay

Applications with larger emergency power requirements will use a third- party, UL924 shunt relay with an emergency AC power circuit. The emergency AC power source can be a local generator or a battery stack with an AC inverter (see pictures below and the next page for examples). When using an alternative source, the UL924 shunt relay converts up to 20A of normal light fixtures to approved emergency lights. During normal operation, the shunt relay dims designated emergency lights using the same control as your normal lights.

When utility power is interrupted, the shunt relay turns designated emergency lights on at full brightness, regardless of dimmer position. These devices are designed to completely bypass the installed SimplySNAP load relay and the SimplySNAP dimming wires, enabling an emergency lighting response. The higher end devices will have a test switch and LEDs indicating when the emergency power is being channeled to the designated lights. Before selecting an UL924 shunt relay, consult with a local contractor and electrical inspector who are familiar with emergency power systems and UL924 devices so that the

6723 Odyssey Drive // Huntsville, AL 35806
(877) 982-7888 // synapsewireless.com



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electrical inspection may go smoothly.

There is a suitable UL924 solution for all of the SimplySNAP controllers. It should be noted, however, that the circuits for a DIM10-250 and the DIM10-087-06 will be slightly different, since the AC power will be handled differently for each controller.

## Recommended Shunt Relay

LVS is Synapse's preferred supplier of UL924 solutions. They offer complete documentation for building an emergency solution. They offer data sheets, application guides, FAQs, and troubleshooting guides. http://www.lvscontrols.com/index.