

# Design Flexibility of Centralized Emergency Lighting Inverters

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Engineering Design – Applications for today’s customer

The EON, eLITE & UltraLITE \_\_\_\_\_

- **Utilize Existing Fixtures for Emergency Lighting**

The EON, eLITE and UltraLITE centralized inverters allow existing light fixtures to be used as emergency lighting for safe egress. Regardless of fixture type – LED, fluorescent, HID or quartz, the no break uninterrupted output of the inverter allows full flexibility in design.

- **Combine “Always ON” circuits with “Normally OFF” circuits**

The EON, eLITE and UltraLITE centralized inverters provide both an Always ON output bus for lighting fixtures serving the dual purpose of non-emergency controlled lighting & emergency lighting, as well as an optional Normally OFF output bus for emergency lighting fixtures that remain off until a power outage occurs or a remote input “Command On” signal is given.

- **Remote Input “Command On” control of “Normally OFF” Output Bus**

The EON, eLITE and UltraLITE centralized inverters accommodate remote normally closed contacts which open in the case of any unacceptable condition or emergency event where the Normally OFF emergency lighting fixtures need to be illuminated (fire alarm, phase loss, circuit breaker trip).

- **Control Device Override**

Control device is defined as any light switch, dimmer, occupancy sensor or other lighting control mechanism. Override is defined as the bypassing of these devices (in the case of a power outage), to ensure emergency lighting fixtures are energized and provide full illumination for safe egress.

An external load control relay unit (our ZoneSaver-2) can be used to override a single, 1 pole, control device (120V or 277V). The override control is initiated when power is lost to the unit’s sensing circuit, which can monitor any 120V or 277V source. The ZoneSaver-2 is rated for 20 amps (ballast loads), 18 amps (LED lighting loads), or 10A amps (incandescent lighting loads), UL924 listed, and includes status indicator lights and a test switch.

As with any de-centralized approach, monthly and annual testing of each unit is NFPA 101 mandated. The UL 924 listed ZoneSaver-2 can be remotely activated by the EON or UltraLITE during automatic periodic and annual system testing.

- **Zone Control**

Zone control is a unique way of monitoring individual zones of a building or space, and controlling the use of normally off emergency lighting fixtures as required. ZoneSaver-2 is a remotely installed load control relay unit that can be configured for this application.

In the event that there is a loss of power, inadequate voltage, or a main circuit breaker trip to a lighting panel in a specific zone ... the ZoneSaver-2 ensures that the emergency egress fixtures in that zone will illuminate, without illuminating emergency egress fixtures in other zones. This approach saves money by eliminating emergency power use in unaffected areas.

The UL 924 listed ZoneSaver-2 can be remotely activated by the EON or UltraLITE during NFPA 101 mandated periodic and annual system testing.

- **UL 1008 Transfer Switch**

A UL 1008 listed emergency power transfer switch can be used to switch multiple circuits between two separate power sources (normal power and emergency power). Such a transfer switch (our SwitchLITE Model EZT) allows dimmable lighting fixtures to function as essential emergency lighting.

The SwitchLITE is designed to automatically transfer up to eight (8) branch circuits to emergency power when normal power fails, and then back to normal power once it has been restored. Upon transfer to emergency power, lighting fixtures that are dimmed (or off) are brought to full illumination to provide safe egress.

The UL 1008 listed SwitchLITE can be remotely activated by the EON or UltraLITE during NFPA 101 mandated periodic and annual system testing.

- **Centralized Inverters used with Emergency Generator Back Up**

The EON, eLITE and UltraLITE centralized inverters are UL 924 listed for Emergency Lighting requiring 90 minutes back up; and also UL 924 listed for "Auxiliary Lighting and Power Equipment, allowing shorter battery backup times (i.e. 10 minutes). These shorter run times are ideal for use with generator back up to comply with emergency lighting requirements.

The no-break output of the inverter allows for the use of HID fixtures for emergency egress and prevents the unwanted or unacceptable delay\* of emergency power to certain areas of the building or public space.

\* **NEC allows up to 10 seconds of darkness before emergency generators are required to supply power.**