AC ACTIVATE

TECH BRIEF

The purpose of this Tech Brief is to help...

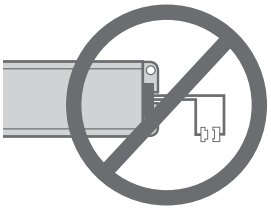
- *Understand the nature and purpose of AC Activate technology in IOTA emergency drivers.*
- *Recognize the delivered benefits of AC Activate as compared to traditional drivers equipped with unit connectors.*
- *How to properly service emergency drivers with AC Activate after initial installation.*
- *Identify IOTA emergency driver solutions that currently offer AC Activate technology.*

A Smarter Way to Install Emergency Battery Equipment

What is **AC Activate**? AC Activate is an intelligent circuit design that detects the presence of AC power needed to charge the internal batteries of an emergency driver. Since the intent of an emergency battery system is to operate a fixture during a loss of normal power, some method of control must be provided so that the emergency unit can distinguish between an actual loss of power or an unpowered luminaire sitting inside a box waiting to be installed.

Typically, this is achieved through a physical connector between the battery and charging circuit (often referred to as "go" connectors.) After the fixture that is equipped with an emergency battery is installed, a contractor has to go up into the ceiling to plug in the go connectors *after* the building's electricity is turned on to allow the emergency battery to begin charging. This task adds an additional step, and cost, to the install process.

AC Activate technology allows the contractor to make all electrical connections at the time the luminaire is first installed regardless of whether the branch circuit will be energized or not. This feature prevents the contractor from having to visit the luminaire a second time to mate the battery circuit to the charger.



Above: AC Activate eliminates the presence of a physical battery connect, as well as the need to manually connect the battery at installation.

The Advantages of "Plug and Play" Performance

Once the Switched and Unswitched Input connections are completed to both the fixture and emergency driver, no further connections are necessary. The installed fixture can remain in a powered-down state until AC power is supplied to the circuit or facility. This "Plug and Play" capability of the AC Activate design delivers several unique advantages over traditional battery packs with physical unit connectors:

Faster / 1X Installation

AC Activate eliminates one final step needed at installation. Often, the unit connectors remain disconnected until AC power is permanently supplied to the facility. AC Activate avoids the need for the installer to make a second visit to the fixture to complete installation.

Charge Protection

If physical battery connectors are mated prematurely (before AC power is present) the emergency unit will enter emergency mode and discharge the battery. The depleted unit will not be available for testing by the AHJ until it has received a full charge (24 hours after power is finally supplied.)

Fixture Integrity

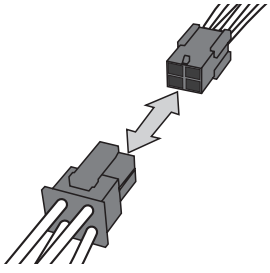
In some instances, connecting physical battery connectors requires the installing electrician to access the wiring compartment of the fixture, compromising integrity of the fixture and adding the possibility of inadvertent damage to fixture components or housing.

Reduced Wiring

Eliminating the physical unit connectors means less wiring within fixture compartments or junction boxes. Fewer wires make it easier during installation when connecting the normal driver, LED array and emergency unit in the fixture.

Servicing Your Emergency Equipment

As always, when servicing a fixture equipped with an emergency driver, both normal and emergency sources should be disconnected to avoid the risk of electrical shock. With standard emergency products, this is achieved by disconnecting the battery's unit connector. Units equipped with AC Activate, the test switch/charge indicator provides this function: either by simply disconnecting the test accessory or by pressing and holding the test button for a pre-determined time to activate the battery's 'sleep mode.' Refer to individual product instruction manuals for specific details. Once servicing is complete, reconnecting the test switch/charge indicator and restoring AC power will cause the emergency unit to resume standby mode and continue charge maintenance of the battery.



Above: Connecting and disconnecting the test switch component of an emergency driver with AC Activate serves as the unit connector after initialization.

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Units Featuring AC Activate

Currently, AC Activate is a standard feature on IOTA emergency drivers utilizing low profile lithium battery designs. Refer to the table below for additional details on products equipped with AC Activate:

IOTA Emergency Driver with AC Activate Feature	Description
ILBLP CP10 HE SD A and B	10W Low Profile Emergency Drivers, 10-60VDC
ILBLP CP10 HE SD N and NP	10W Narrow Profile Emergency Drivers, 10-60VDC
ILBLP CP15 HE SD A and B	15W Low Profile Emergency Drivers, 10-60VDC
ILBLP CP15 HE SD N	15W Narrow Profile Emergency Drivers, 10-60VDC
ILBLP CP20 HE SD HV A and S	20W High Voltage Output Emergency Drivers, 55-200VDC
ILBLP CP30 HE SD HV A and S	30W High Voltage Output Emergency Drivers, 55-250VDC
ILBHI CP10 HE SD A, B, and S	10W Emergency Drivers for 347-480VAC, 15-55VDC
ILBHI CP15 HE SD A, B, and S	15W Emergency Drivers for 347-480VAC, 20-55VDC
ILBHI CP20 HE SD HV A, B, and S	20W High Voltage Output Emergency Drivers for 347-480VAC, 55-200VDC
ILBHI CP30 HE SD HV A, B, and S	30W High Voltage Output Emergency Drivers for 347-480VAC, 55-250VDC
ILBDW CP10 HE SD S and SLTEST	IP66-rate/NSF-certified 10W Emergency Drivers for 15-55VDC
ILBDW CP15 HE SD S and SLTEST	IP66-rate/NSF-certified 15W Emergency Drivers for 20-55VDC
ILBDW CP20 HE SD HV S and SLTEST	IP66-rate/NSF-certified 20W High Voltage Output Emergency Driver 55-200VDC

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