



ATSD20 Application Guide

ALLOWS "EMERGENCY DESIGNATED" LIGHTING FIXTURES SUPPLIED BY INVERTERS OR GENERATORS TO BE CONTROLLED BY A SWITCH OR DIMMER

Using ATSD20 allows "emergency designated" lighting fixtures that receive emergency power from a central lighting inverter or generator to be controlled by a switch (wall switch, switching contactor, timer, photocell or motion sensor) or dimmer and still maintain full illumination in emergency conditions, regardless of the switch or dimmer position. In emergency mode, the ATSD20 by-passes the controlling switch or dimmer and provides full emergency-derived AC power to the lighting fixture.

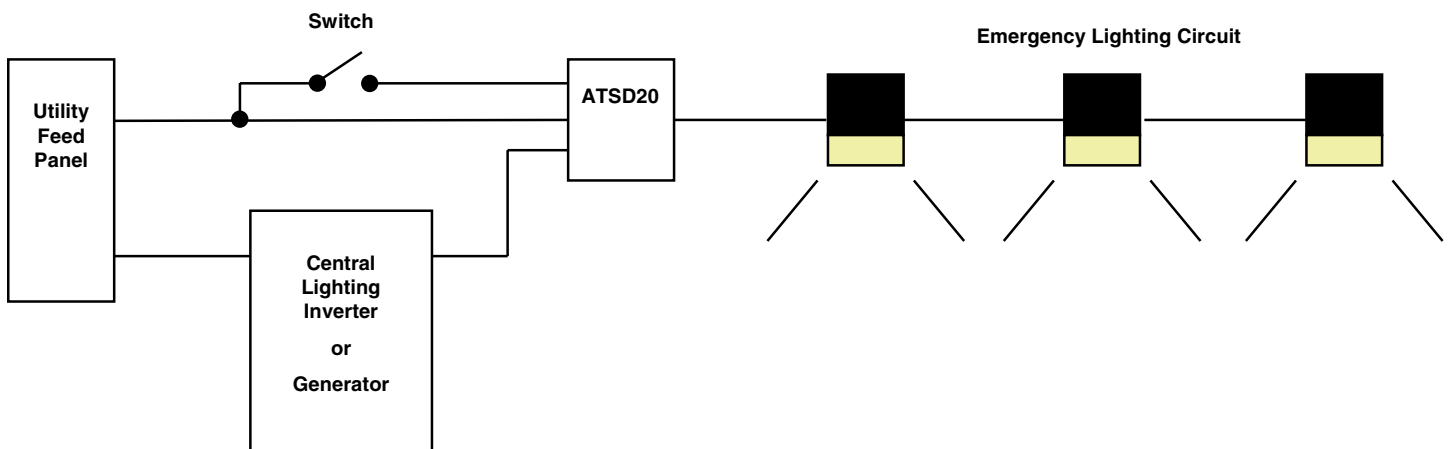
"Switch control" can provide energy savings since the fixture does not have to be continuously illuminated to provide an emergency lighting function. The ATSD20 will function with Dimming Racks, 0-10VDC Control Dimming Systems, and 3 Wire Dimming Systems.

The ATSD20 is compatible with all lamp types. However it is not recommended for use with HID lamps. The time to achieve full HID illumination when transferring to emergency power from an "off" switch position under emergency conditions may not meet NFPA 101 requirements.

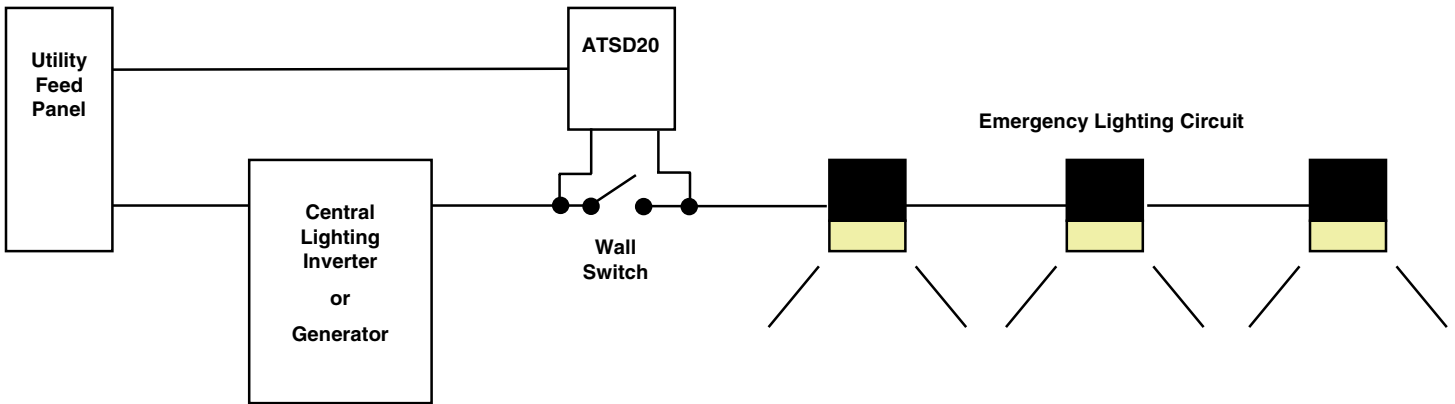


ATSD20 WIRING DIAGRAMS

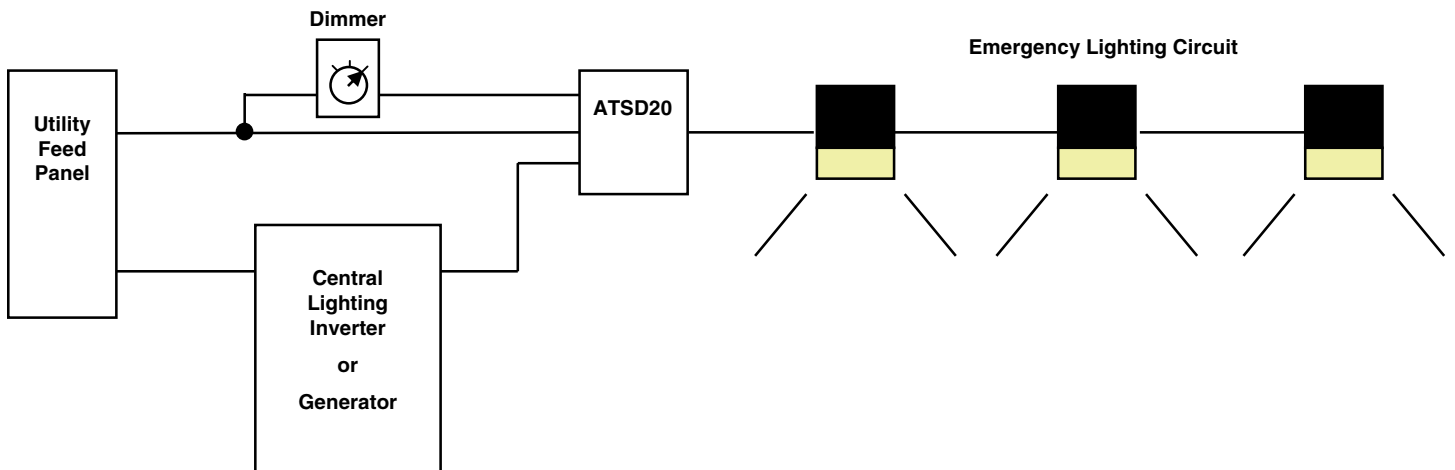
The following diagram illustrates a common way to wire the ATSD20 in conjunction with a central lighting inverter or generator. The ATSD20 will ensure that emergency power is directed to the lighting circuit, even if the circuit switch is open (as shown).



The following diagram illustrates an alternate way of wiring the ATSD20 as a bypass switch. This method of wiring is useful if the ATSD20 is required to be placed in close proximity to the normal switching device, which typically would be a wall switch. This method of wiring would not be desirable if the normal switch should not be back fed with line voltage when it is in an open position.



The following diagram illustrates a common wiring scheme for use with a dimming rack for the emergency lighting circuit. This will allow the emergency circuit to be dimmable under normal utility power, and when the normal power fails, the circuit will be forced to full brightness under emergency power.



The following diagram illustrates the method to wire the ATSD20 for the emergency circuit to be “normally-off” as a function external to the central lighting inverter. Normally-off means that the circuit will only be energized when there is a power failure. No normal switch is required, because the circuit is forced off when normal utility power is present.

