

# USE OF THE TI SMARTLAMP NEAR WET LOCATIONS

The TI Smartlamp is suitable for use in dry and damp locations, not for wet locations. If this product is to be used near wet locations, Theorem Innovation recommends the use of a Ground Fault Circuit Interrupter (GFCI) device.

## What is a GFCI?

Electric shocks can be fatal. Any electrical tool or appliance is a potential shock hazard especially when used near wet locations. That's where a GFCI is needed the most and can save your life. This is why most electrical codes require GFCI protection in kitchens, bathrooms, garages, outdoor outlets, laundry rooms, workshops, and where using portable power in wet locations or confined spaces.

## How does a GFCI operate?

A GFCI constantly monitors the current balance of the conductors supplying power to the load. When a ground fault occurs, by a leakage or by shock, the imbalance of current is sensed and the GFCI trips when the ground fault exceeds a certain level of current (depending of the device used). The tripping action must be within a fraction of a second to prevent serious injuries.

## Where can I buy a GFCI?

GFCI devices exist in different forms : wall outlet, plug, inline, circuit breaker, etc. The most common package is the wall outlet. This is usually the cheapest type of GFCI.

You can buy GFCI devices in almost any hardware store, electric equipment store, or you can ask your electrician. It is also possible to buy those devices on specialized websites, such as [www.digikey.com](http://www.digikey.com).



Wall Outlet



Inline



Plug



Circuit Breaker

## Characteristics needed

The TI Smartlamp has a universal input of 110V-220V but GFCIs don't. As a result, you have to select a GFCI corresponding to your voltage source (110V or 220V). Use a GFCI with manual reset and a trip current of 5mA.

Note: Do not use more than 2 TI Smartlamps on one GFCI device. If you do so, the GFCI may trip under normal conditions.

## IMPORTANT

GFCI DEVICES MUST BE INSTALLED BY A QUALIFIED PERSON WHO UNDERSTANDS ELECTRICAL CIRCUITS, EXCEPT SOME MODELS THAT COME WITH CORDS AND CONNECTORS.