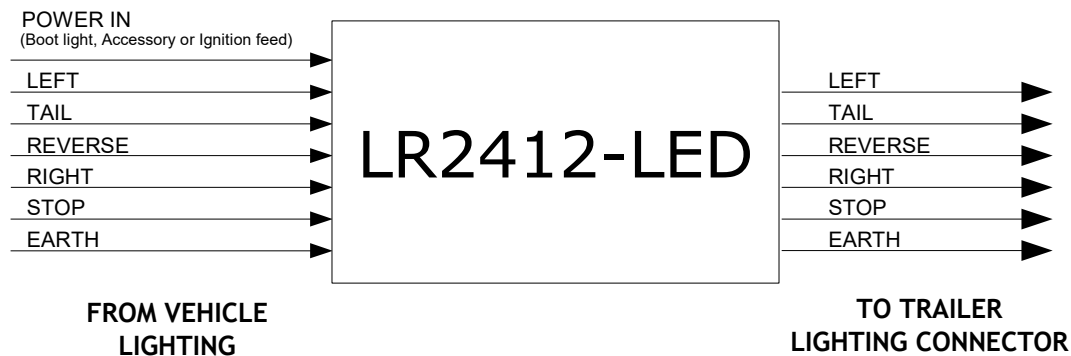


## LED Lighting Reducer

### Part No: **LR2412-LED**



The LR24-12-LED is an advanced 24V to 12V lighting reducer designed specifically for LED lights. This is used to interface a 24V vehicle to a trailer that has 12V LED lighting.

*The LR24-12-LED requires a separate power feed from the boot light feed or an ignition / auxiliary feed, and draws <2 mA to operate. For Maximum 65W output, a nominal 24V, 3A power feed is required to the unit.*

### LR24-12-LED Features

#### **Protection:**

- Prevents blown vehicle fuses and damage to the vehicle Body Control Module from a short circuit in the trailer wiring.
- Enables the vehicle lighting to continue operating if there is a short or open circuit in the trailer wiring.
- Automatically recovers from a short circuit in the trailer wiring.
- All 5 output channels to the trailer are protected. Left, Right, Stop, Tail and *Reverse*.

#### **High Efficiency Power Supply:**

- The unit features a high performance, high efficiency switch mode power supply capable of a maximum of 5A continuous output current.
- This 5A is shared across all 5 channels, giving a nominal 1A output per channel.
- The 5A output must not be exceeded, if however the Reverse circuit is not required then 1.25A is available for each of the remaining 4 channels.

#### **Intelligent Monitoring:**

- Many modern vehicles, especially those from Europe, monitor the state of the lighting circuits by using brief voltage pulses or a low current to check the bulb filaments. These lamp detection signals can cause LED trailer lights to turn on briefly. The LR24-12-LED blocks these signals to the trailer lamps, as well as eliminating fault codes by prohibiting the trailer lamps from being detected by the vehicle electronics.
- The five LR24-12-LED channels are compatible with trailers fitted with LED lights only.

#### **Installation Notes**

The LR24-12-LED is connected into the vehicle wiring harness as per the diagram above.

The voltage fed into the power terminal on the LR24-12-LED, is the source of voltage that is supplied to the voltage reducer power supply. This 13V power supply output is then used to power the trailer lighting. There is no loading on the vehicles stop, tail, left, right or reverse circuits. These are used as logic inputs to the LR24-12-LED only.

This unit is supplied in a metal box with a flanged lid and heat sink. The unit is not sealed so must be mounted *inside* the vehicle and kept dry.

The heat sink is designed to get HOT – Beware of Heat

The unit should ideally be mounted to a metal chassis to help dissipate heat.

Mount the unit in such a way that it does not come into contact with any flammable surfaces or materials.