

## Application Note: SSR20xx LED Module Family (2-wire, Original)

### Application note for SSR20xx LED Modules (2-wire, Original)

(Please refer to the product datasheet on [www.solidstateracing.com](http://www.solidstateracing.com) for full specification)



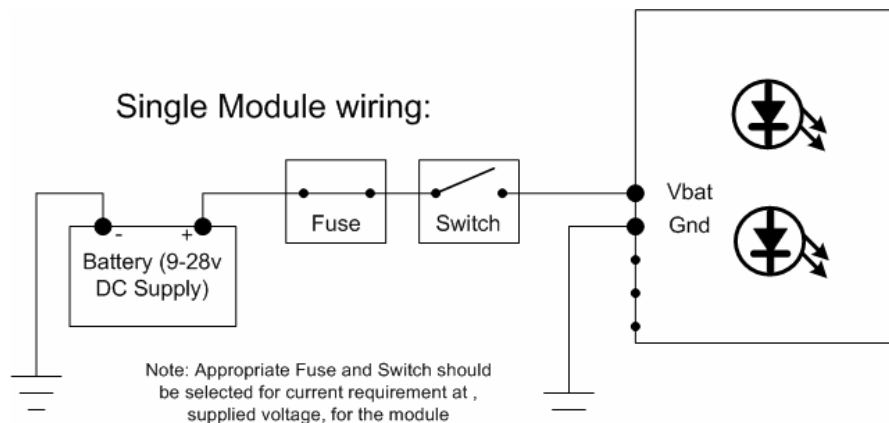
### **Wiring information:**

The wiring diagrams in this application note typical show wiring schema for SolidStateRacing's '2-wire' modules. The '2-wire' SSR20xx LED Module family are suited to a traditional light source supply configuration of a switched power supply.

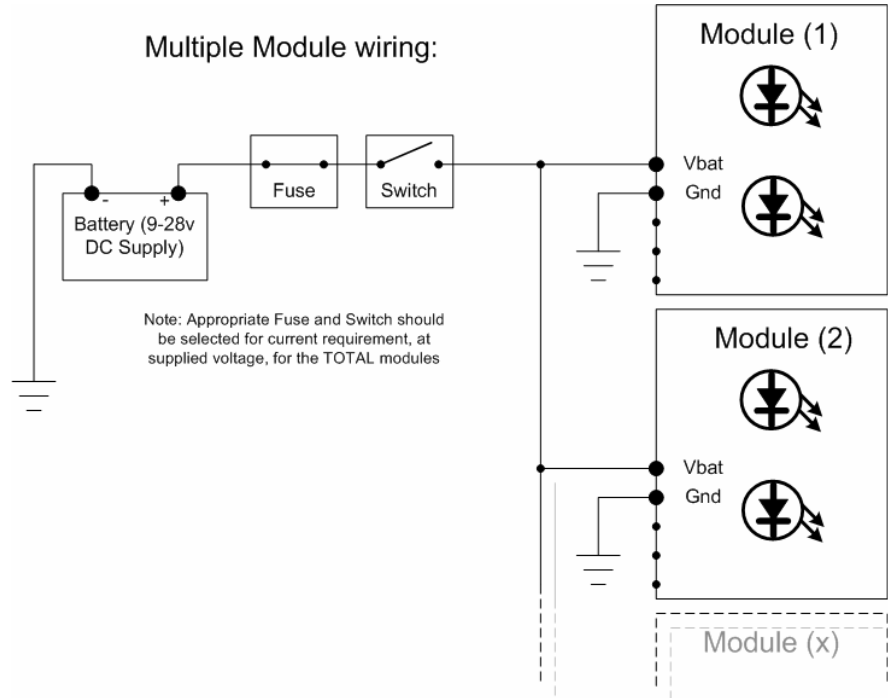
In 2-wire configuration, the module (or multiple modules) is connected using a switch supply direct to the battery. The internal protection circuitry of the SSR20xx LED module family makes the SSR20xx LED Module family suitable for connection to a fluctuating (9v to 28v) DC supply and also robust to switching spikes which can be experienced in a harsh environment.

The modules are therefore very suitable for applications in an automotive environment where large supply fluctuations are present during cranking and due to alternator switching as well as contact spikes in switches are present.

The following notes and diagrams are to be used as a guide only. All installations should be checked by a qualified electrical technician before use.

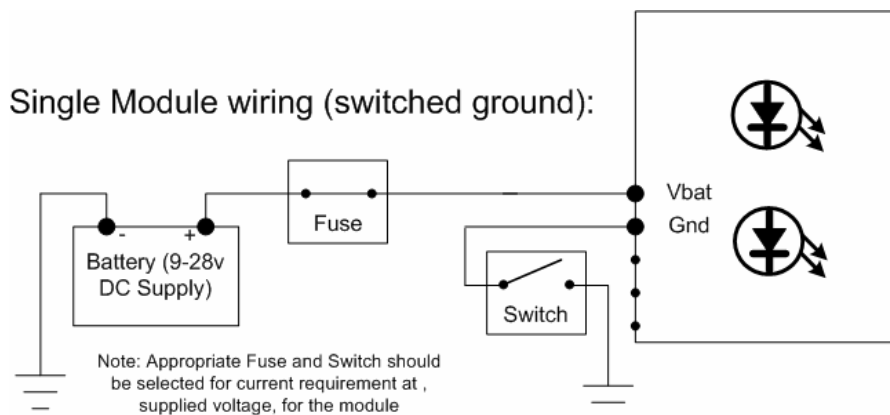


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Other possible configurations include a switched ground. This configuration allows a single fused circuit to supply multiple individually switched modules.

(Only single module diagram is shown).



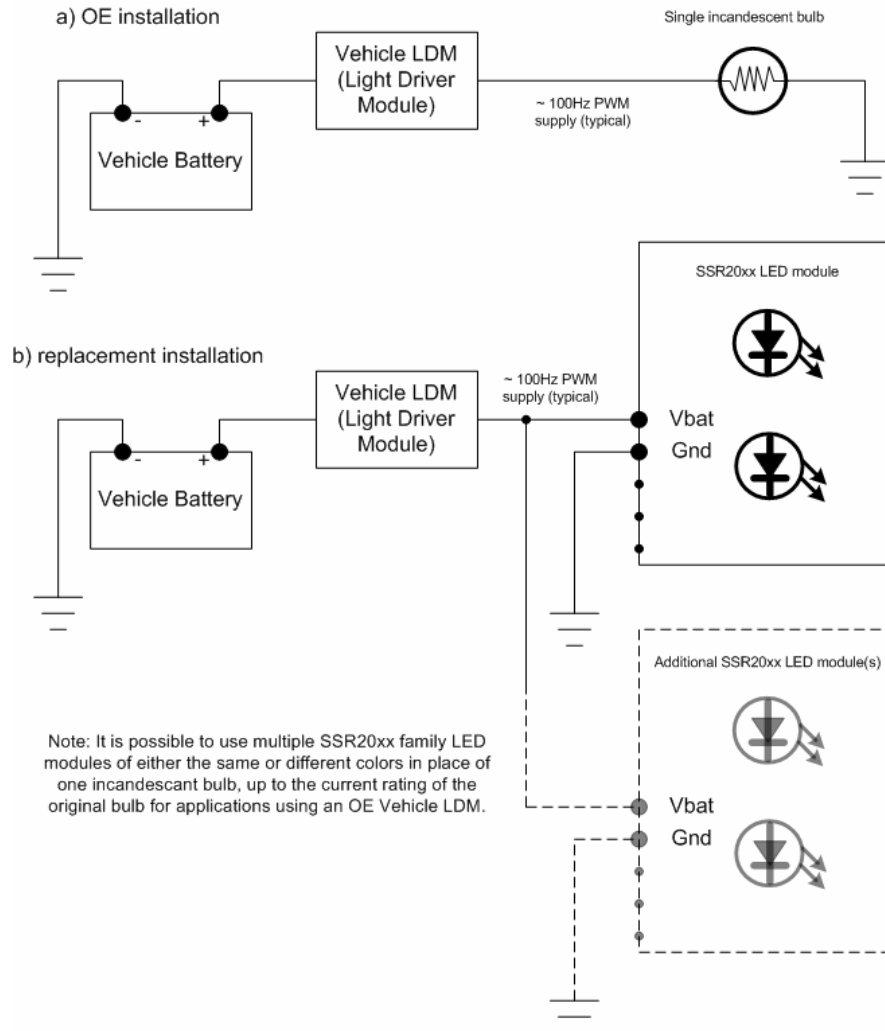
A SSR20xx LED family module can be used as a substitute in circuit for a bulb, where the power supply gives a 'fade' effect on the original light output using a PWM (pulse width modulated) lighting circuit supply (e.g. fading automotive interior lights, dashboards lights, puddle lights or approach lights in mirrors).

The module can be retro-fitted by removing the incandescent bulb from the circuit and connecting the SSR20xx LED family module in place. The internal reverse polarity protection of the SSR20xx LED family

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modules means that even if the polarity of the DC source is not immediately apparent, the module will not be harmed if connected 'back-to-front'. It will simply not function until the correct polarity is supplied.

An example application is outlined below:



### General Information

The modules are LED lighting modules which integrate sophisticated electronics to maximize light output, minimize current draw and provide robust circuit protection. Any change in voltage (e.g. cranking) is instantly rectified - faster than the naked eye can see!

The ultra high light output (typically 2-3 times higher than an equivalent neon light!) makes for stunning accenting on any reflective or highly polished surface and a 'pure' illumination.

The pure white or colored nature of each light make the modules perfect for when a 'surreal' color element is required. 8 color options are available for indication purposes, to differentiate between modules. Colors can be used to identify individual points from a great distance! E.g. as used on '24-hour' racers to determine the vehicle as entering pit lane at night. The sophisticated electronics, patented

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technology and robust construction make the SolidStateRacing a breakthrough in both accent-light quality and ease of installation and use. Many applications, until now the preserve of film and light technicians, are now achievable for daily use!

The vivid colors are aptly described by their given names: Nightfire Blue; Electric Blue; Alien Combustion; Acid white; Toxic Green; Brilliant Amber; Afterburn Red; Crimson Fire.

Each hue its own purpose and living character!

Whether for an illumination, accent, industrial, styling or even architectural application, nothing can match the combination of features of the SolidStateRacing 'Ultra high power LED Module'.



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