

Application note for wiring: SavvyLevel Plus (SLP)

Introduction

The SavvyLevel Plus (SLP) device may use an existing wiring supply or its own dedicated supply with a DC voltage range of 7 to 30 Volts. With a 12V supply the current drawn by the SLP is 12mA (0.012A) which can be considered negligible regarding current capability of the supply wires.

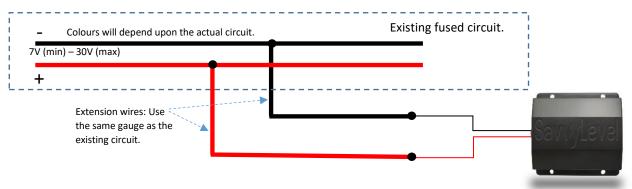
The SLP is equipped with an internal 80mA slow-blow non-replaceable fuse; therefore, provided the SLP is connected to an existing fused circuit with wire of the same gauge, then a separate inline fuse is not required.

For more information, please choose one of the following recommended wiring options. Note, use of the word's *extension wires* refers to the wire you choose to connect to the SLP.

Recommended wiring options

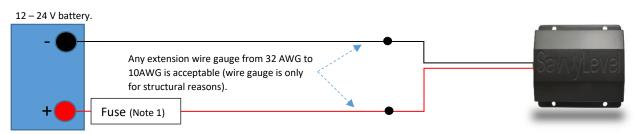
Option 1 (internal wiring an existing fused circuit – refer notes 2, 3)

If the SavvyLevel shares an existing circuit, the following is recommended:

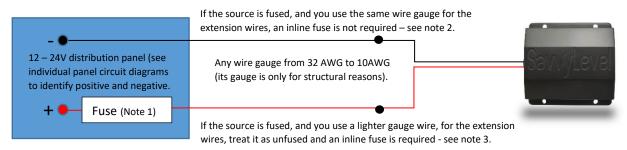


- 1. Locate positive and negative wires of existing circuit.
- 2. Match the wire gauge (for extension wires) of existing circuit.
- 3. Connect to SLP (as shown).

Option 2 (internal/external wiring direct to main battery - refer note 1)

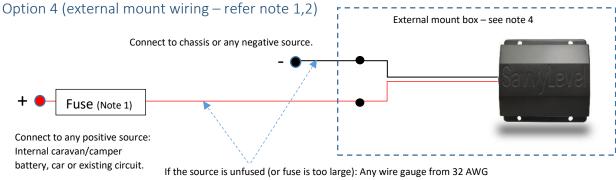


Option 3 (internal/external wiring direct to distribution panel – refer note 2,3)





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to 10AWG correctly fused is suitable - see Note 1 (its gauge is only for structural reasons).

If the supply source is fused, use the same gauge wire as the existing circuit connection point then an inline fuse <u>is not</u> required – see note 2

Note 1: If wiring directly to a battery or unfused source, a **fuse must be used**. This fuse will

protect the extension wires. The fuse should be mounted as close to the battery (or unfused source) as practicable. The value of the fuse is based on the extension wire current capacity. For example: if 18 A.W.G extension wire (current capacity 7 Amp)

is used, use any fuse between 50 mA to 7 Amp.

Note 2: If wiring to a fused source with extension wire of the same gauge as the source, then

a separate inline fuse is not required.

Note 3: If wiring to a fused source with extension wire of a lighter gauge than the source,

then a separate inline fuse is required.

Note 4: 1. For clarity the external mount box is shown with a dotted line.

2. If connected to the car supply SavvyLevel will only operate when connected to the tow vehicle.

Wire gauge A.W.G	Current	Electrically acceptable
#32 to	0.3A (32 A.W.G)	Yes
#18 to	7.0A (18 A.W.G)	Yes
#10 and beyond	50A (10 A.W.G)	Yes

Any gauge wire between these values are also acceptable, the concern is for structural reliability and protection against the environment. For external mounting, electrical connections must be sealed against water ingress. Any accidental reversal of polarity will not harm the SavvyLevel – it will work again once correct polarity is reestablished.

Patrick Howe, Head of Engineering