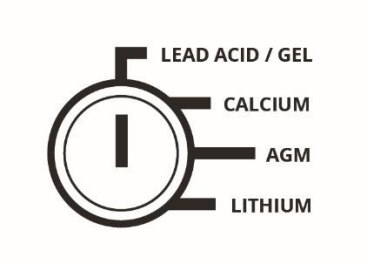
ToughPower *Quick Start* Installation Instructions

Dual Battery BMS Controller Models: TPH-1000, TPV-1000

Refer to User Manual for full detailed instructions

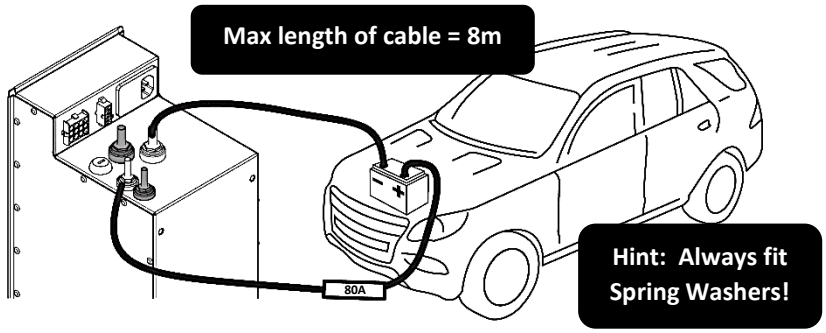
Selecting Battery Type



Using the Key inserted in the Key-Switch, select the 12V Dual (Auxiliary) Battery Type. After selection, remove the Key and store in a secure location.

Warning – For 2 or more Dual (Auxiliary) Batteries set up as a "Battery Bank" installation, they MUST be the same chemical type and age.

Connecting to Vehicle Battery

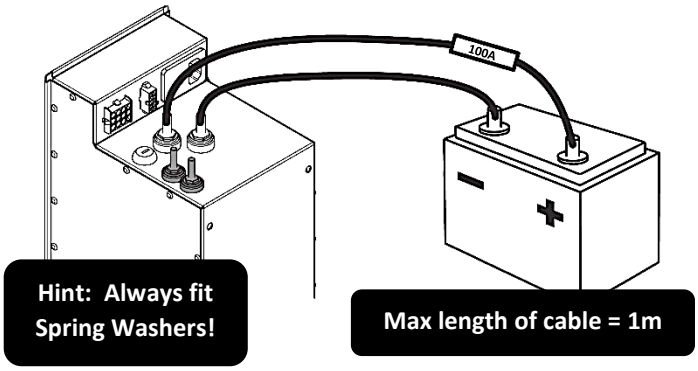


B&S 4 Cable is recommended to connect the Vehicle Battery to the ToughPower.

Fit M6 & M8 Ring Terminal Connectors to attach to the ToughPower Terminal Posts.

Fit an 80A Midi fuse close to the Vehicle Battery.

Connecting to Dual (Auxiliary) Battery



B&S 2 Cable, at no greater length than **1m**, MUST be used to connect the Dual (Auxiliary) Battery to the ToughPower. Performance at High Current outputs will be compromised if these cables are longer or are a thinner gauge.

Fit M8 Ring Terminal Connectors to attach to the ToughPower Terminal Posts.

Fit a 100A Midi fuse close to the Dual (Auxiliary) Battery.

Connecting To 12V (Nominal) Solar Panel

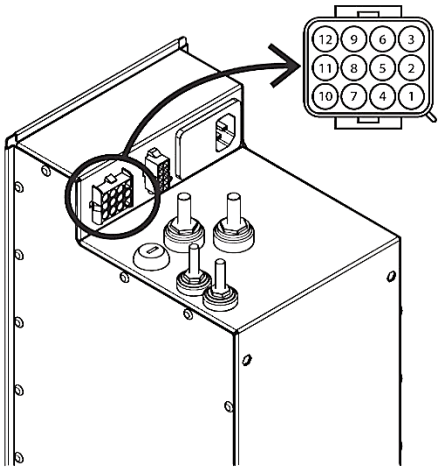
Fit M6 & M8 Ring Terminal Connectors to your Solar Panel cables to attach to the ToughPower Terminal Posts.

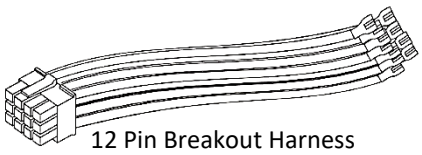
Only 12V Nominal Solar Panels can be fitted. Max Voc = 25V.

Warning: Permanent damage to the internal electronics will occur if 24V or 36 V (House) Solar Panels are connected.

intelliQuip recommends this unit to be installed by a licenced Auto Electrician
Warranty may be voided & reduced performance if installation is not followed as per instructions

Wiring The 12 Pin Plug

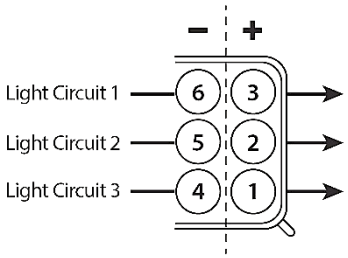


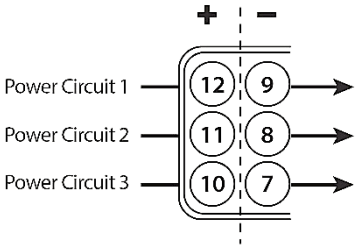

12 Pin Breakout Harness

Step 1: Attach Standard 6.3mm MALE Spade Connectors to the power leads of your selected appliances/devices.

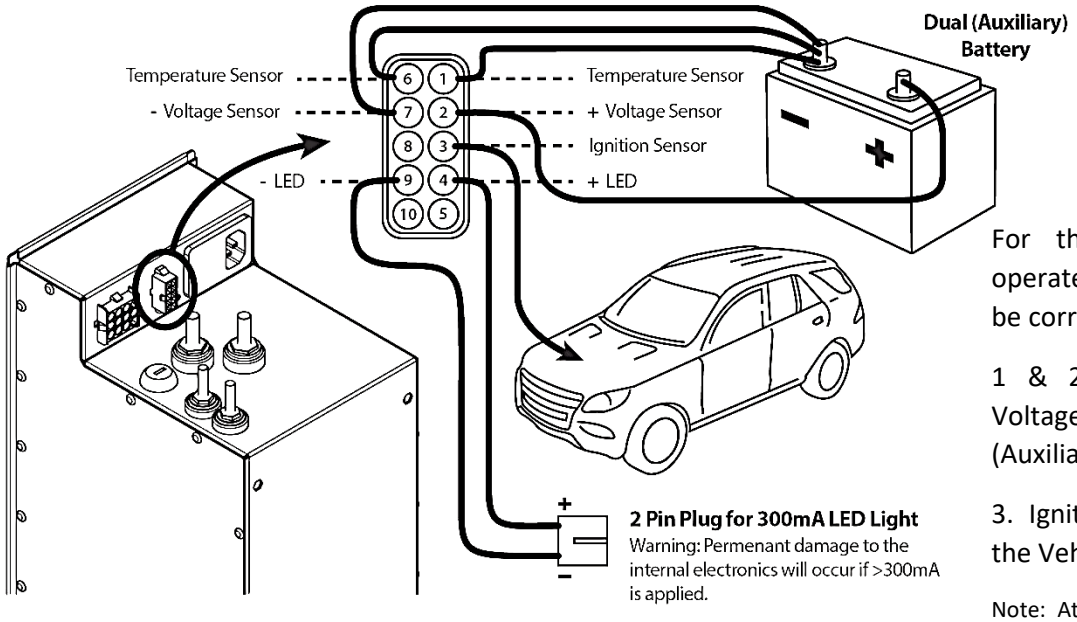
Step 2: Pair up the desired Circuit wires on the 12 Pin Breakout Harness.

Step 3: Connect the MALE & FEMALE Spade Connectors & slide over the plastic Insulator Sleeve.





Wiring The 10 Pin Plug



For the ToughPower to operate the 3 sensors MUST be correctly attached:

1 & 2. Temp Sensor & Voltage Sensor to the Dual (Auxiliary) Battery

3. Ignition Sensor wire to the Vehicle

Note: Attaching a 300mA (max) LED light is optional

Important Information

1. Make sure the ToughPower has been *securely fixed* to the vehicle. M4 Nutserts are located on all faces of the ToughPower unit providing mounting points. intelliQuip recommend using a minimum of *4 Nutsert fixing points.*
2. Before turning the ToughPower ON, check the *polarity* of all the connections.
3. Now turn the ToughPower Master Switch to the ON position.
    1. Check that the Battery Chemistry type is correct
    2. Enter the correct Capacity of the Dual (Auxiliary) Battery in Ahr