



**Enerdrive**  
DRIVING YOUR ENERGY NEEDS

# **POWER SYSTEM SERIES**

**THE**

# **WANDERER**

## **Installation Guide**

*K-WANDERER*



Congratulations on the purchase of The Wanderer power system from Enerdrive. This all-in-one system was designed for those who want the best charging, power supply and monitoring package in one compact easy to install package. Your system includes the following individual products:

- Enerdrive DC2DC40+ DC Battery Charger
- Enerdrive ePRO 1600W/60A Combi Inverter Charger
- Simarine Pico Monitor with SC301 Shunt and additional SCQ50 shunt

The following guide is for the installation of the pre-assembled power system, for specifics on each product please refer to the individual product manuals supplied or online at [www.enerdrive.com.au](http://www.enerdrive.com.au).

## Mounting

- Choose the location of The Wanderer with focus on keeping the battery as close as possible (less than 1.5m is ideal) to the system. If the distance from the battery to The Wanderer is greater than 1.5m, larger diameter cable than the supplied 50mm<sup>2</sup> will be required.
- Consideration must be given to avoid moisture and excessive dust.
- Firmly fasten The Wanderer by fastening through the black plastic backing panel of The Adventurer to your vehicle using suitable fasteners (not supplied). Ensure the structure you are securing The Wanderer to is rigid and can support the weight of the power system.

**Caution:** Ensure any debris from the mounting process is thoroughly removed to prevent damage to equipment or wiring.

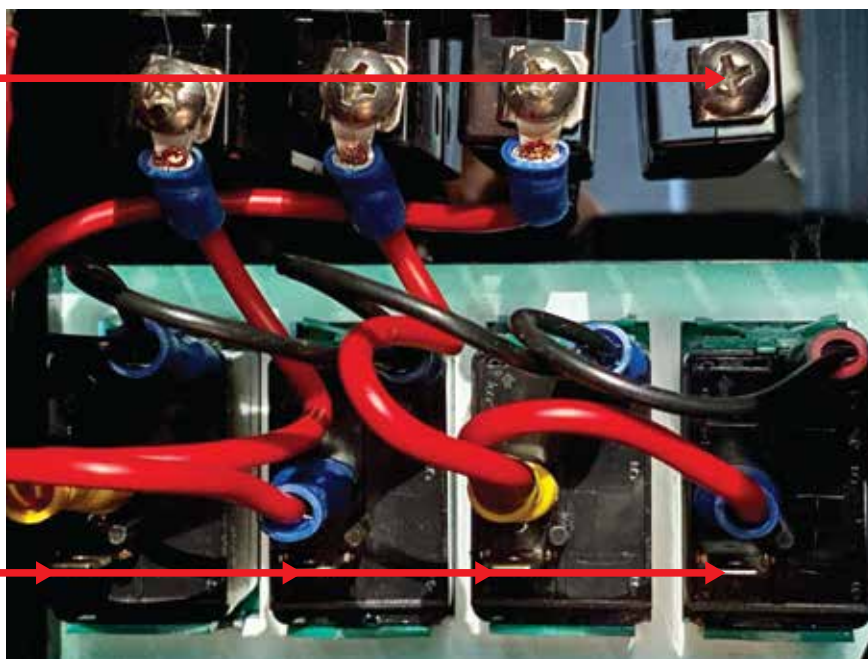
**Caution:** Ensure that there is adequate spacing for wiring and be sure to check no wiring is in the path of fasteners when mounting the power system.

## Connecting Loads (Appliances)

- Connect the positive wire from your lights, pumps, and other accessories to the system by connecting to either one of the four switches using insulated female spade crimps or directly to the appropriately labelled circuit breaker using 4mm ring terminals. If wiring through a switch you will need to connect a positive wire (same size as the wiring to your lights, pump or accessory and rated to the circuit breaker value) from the appropriately labelled circuit breaker to your desired switch. Note the supply is connected to the top terminal whilst the load is connected to the bottom terminal.

Fridge positive wire to be connected here

Connect positive wire from accessories required to be switched here. (Bottom Terminal)



**Note:** Ensure current ratings of the accessories do not exceed the circuit breaker ratings or the switches, which are rated at 20A each switch. If larger loads are to be switched use a relay.

**Note:** Cables must be sized to handle the current rating of the circuit breaker that the load is connected to.

- Connect the negative wire from your lights, pumps, and other accessories to the system by connecting directly to the negative bus bar using 4mm ring terminals. If you have a larger load circuit (over 30 amps) we recommend to connect the negative directly to the Main negative Bar.

Connect negative wire from accessories to this busbar.



**Note:** No negative connections are to be direct to the battery or on the battery side of the shunt as this will result in incorrect reading on the Simarine system.

### Solar Connection

- If you are fitting either fixed solar panels or portable solar panels via an Anderson plug, connect the solar wiring directly to the DC2DC+ as the MPPT regulator is inbuilt. Cabling should be sized to the rating of solar installed but as a minimum 4mm<sup>2</sup> cable is to be used with 6mm ring terminals connecting to the solar terminals on the DC2DC. Ensure the panels are disconnected or covered from the sun during connection to the DC2DC.



Solar Positive

Solar Negative

## Connecting to Main (Start) Battery

- Connect the Battery Input terminals of your DC2DC+ to your vehicles main/start battery. A 70A midi fuse located as close as possible to the main/start battery is required. Refer below cable sizing chart.

DC2DC Connection Inputs	Require Length & Battery Cable Size		
DC2DC set to 50A Output	2 Meters to 5 Meters (2)	Up to 10 Meters (2)	Greater than 10 Meters
From Start Battery	6-16mm <sup>2</sup> @ 12vdc / 4-8mm <sup>2</sup> @ 24vdc	16-35mm <sup>2</sup> @ 12vdc / 8-16mm <sup>2</sup> @ 24vdc	Not Recommended



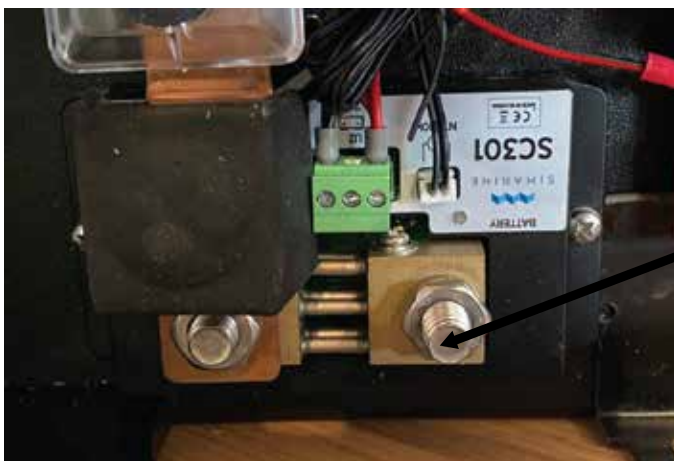
Vehicle Positive

Vehicle Negative

**Note:** Refer to DC2DC manual for information on wiring for vehicles with smart alternators.

## Connection to Auxiliary Battery

- Connect your auxiliary (main house battery) battery negative cable, which is to be a minimum of 50mm<sup>2</sup> (0AWG), to the Simarine shunt stud using a 10mm ring terminal, the one with no cable connected.



Connect main negative cable from auxiliary battery here.

- Connect your auxiliary battery positive cable, which is to be 50mm<sup>2</sup> (0AWG), to the back of the Inverter circuit breaker on the same side as the copper bus bar using an 8mm ring terminal.



Connect main positive cable from auxiliary battery here.

- Finally connect the positive cable to the battery followed by the negative cable to the battery using correctly sized ring terminals, in the case of an Enerdrive Lithium battery use 8mm ring terminals.

**Note:** No other connections are to be direct to the battery as this will result in incorrect reading on the Simarine system.

**Note:** Due to the Inverter requiring grounding it is important to ensure that there is an electrical connection from the inverter ground terminal to the vehicle's chassis, this can be made through the main DC cable connections.

### **Temperature Sensor**

- The supplied temperature sensor, plugged into the Simarine SC301 shunt, can be located in your desired location such as canopy space, fridge or freezer.

**Note:** Do not cut or extend the temperature sense cable as this may result in inaccurate readings.

### **Inverter Input and Output AC Wiring**

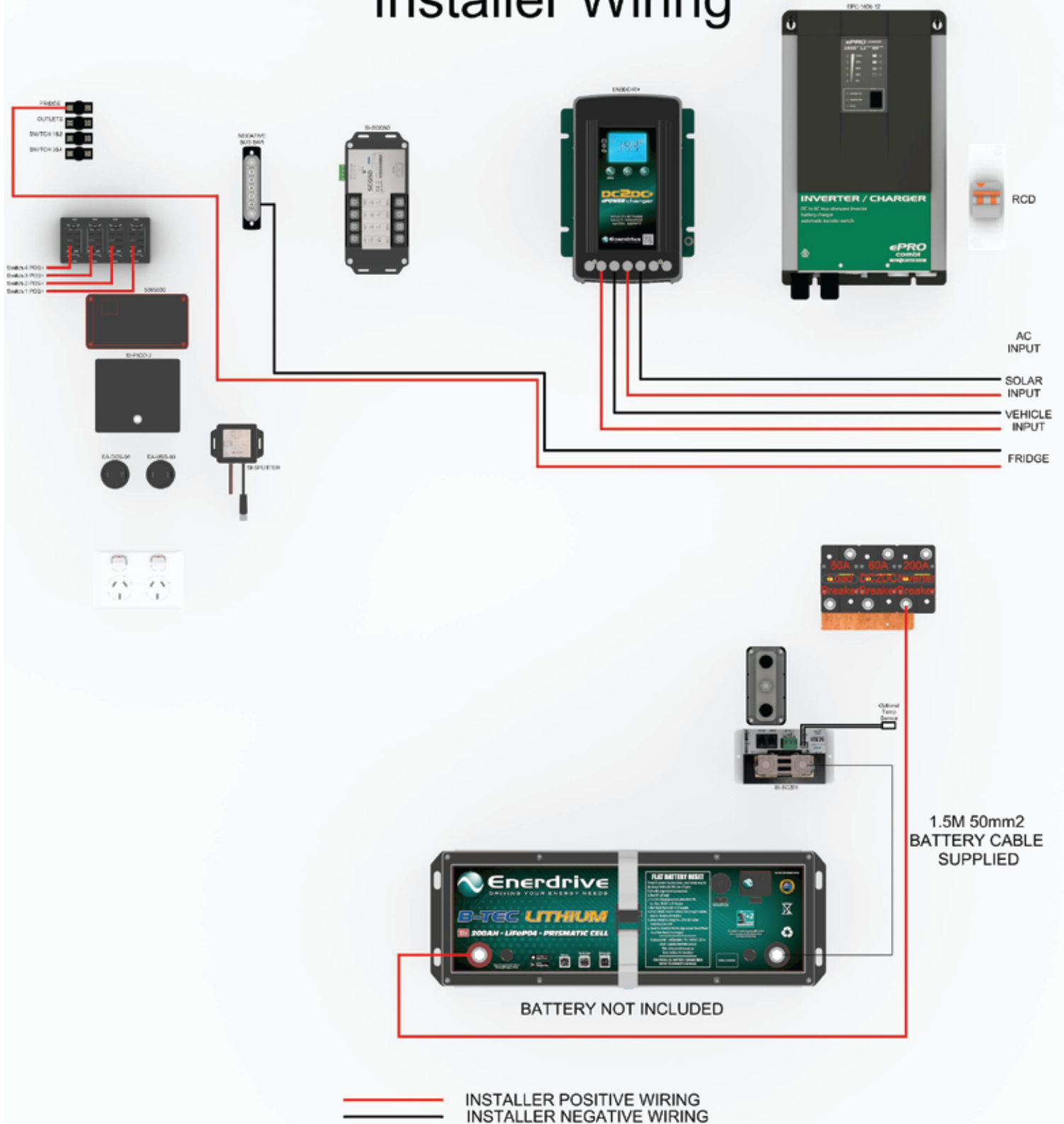
**Caution:** AC wiring is only to be performed by a licensed electrician, please check your local state or territories requirements.

### **Simarine Settings**

Your Simarine will come with basic set up completed, however if you wish to add or customise any settings please refer to the supplied Simarine manual.



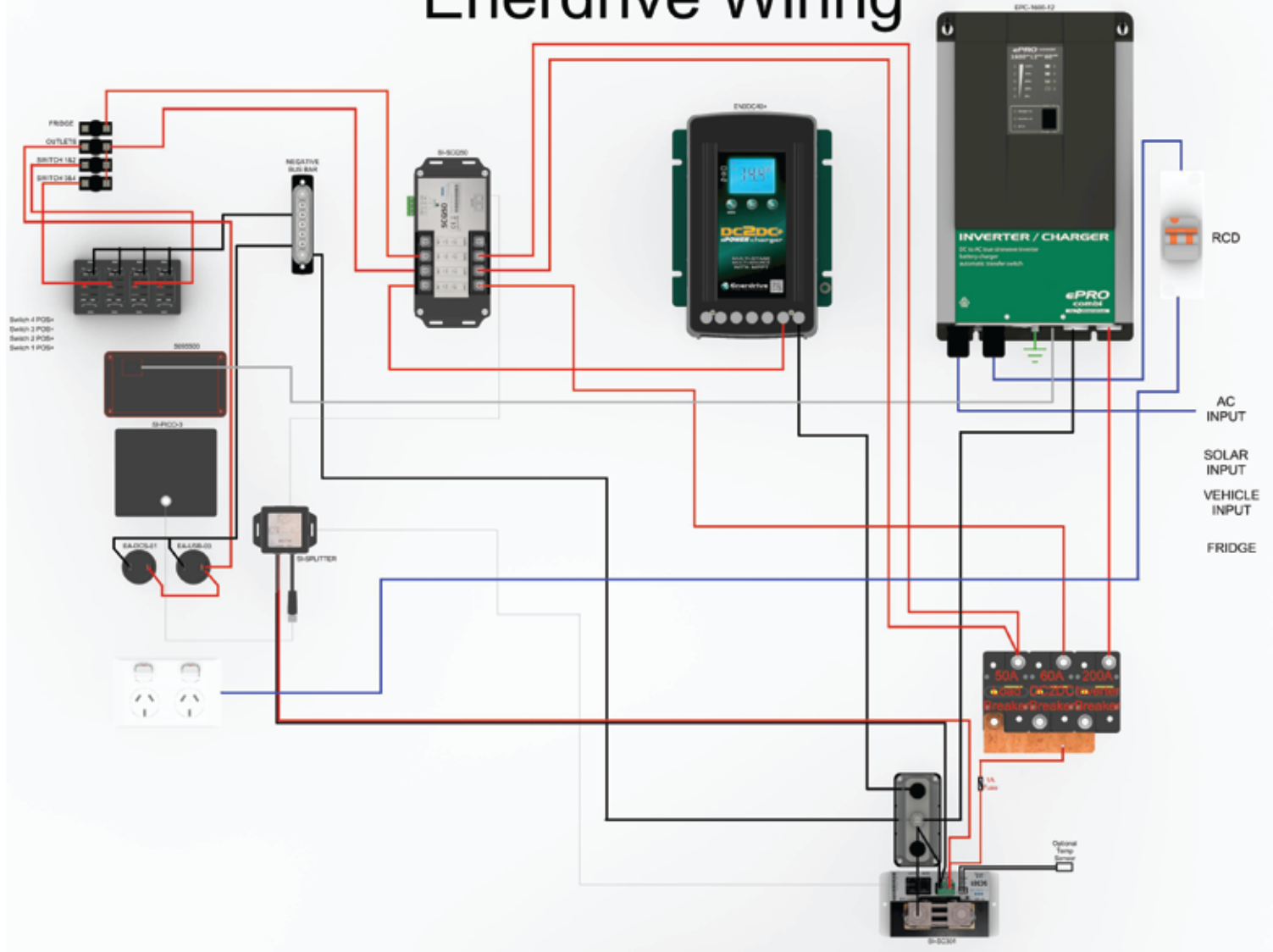
# The Wanderer - Simarine-SCQ50 Installer Wiring



This wiring diagram is only a representation on how the wiring is done and may not fully reflect exactly how your system is wired.  
 Circuit breakers are shown in rear view format.



# The Wanderer - Simarine-SCQ50 Enerdrive Wiring



BATTERY NOT INCLUDED

- ENERDRIVE 240V AC CMS WIRING
- ENERDRIVE POSITIVE WIRING
- ENERDRIVE NEGATIVE WIRING

This wiring diagram is only a representation on how the wiring is done and may not fully reflect exactly how your system is wired.  
Circuit breakers are shown in rear view format.

Specifications	
<b>DC Charger</b>	Output Current Maximum: 40~50A
	Solar Input Voltage: 14.5-45VOC
	Solar Wattage Maximum: ≤23V Input, 500W (600W allowable), ≥37.5V-45V Input, 750W (800W allowable)
<b>Inverter/Charger</b>	Output Current Maximum: 60A
	AC Output: 230V 50Hz
	AC Output Power: 1300W Cont (1600W 10 minutes)
<b>General</b>	Dimensions: 760L x 155W x 510H
	Weight: 21kg



### 5 Year Warranty

In the unlikely event that a technical issue arises with an Enerdrive product, customers are encouraged to initially contact the Enerdrive Support Team on 1300 851 535 or [support@enerdrive.com.au](mailto:support@enerdrive.com.au) for immediate and efficient expertise and first class product support.

#### Important Note: Consumer Protections

If you have purchased your product in Australia, you should be aware that:

This warranty is provided in addition to other rights and remedies held by a consumer at law. Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

Enerdrive warrants that its Products will be free from defects in materials and workmanship (subject to limits, and in normal conditions, as described in the complete Enerdrive Warranty Policy) for up to 5 years from the date of purchase.

For full terms, conditions and claim process, refer to the Enerdrive website.  
<https://enerdrive.com.au/warranty/>



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