REDARC Manager30 V3 Battery Management System User Manual

Contents

REDARC

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Product Information

The product is called REDARC TECH TIPS, which is a device that provides information and advice on product usage. It has various components, including a DC Output Generator, a Manager Vehicle Input, an AC mains input, a Solar input, a Battery input, a CanBUS Interface, a Display, a Battery Sensor, and an Auxiliary Battery. The device is equipped with 60A and 40A fuses to protect the system from overloading. The recommended generator setup is shown in Figure 1.

Product Usage Instructions

To use the REDARC TECH TIPS device, follow these steps:

1. Connect the DC Output Generator to the Manager Vehicle Input.
2. Connect the Mains AC input from mains power to the rear side of the device.
3. Connect the Solar input to the device.
4. Connect the 12V or 24V Start Battery to the device.
5. Connect the Battery input to the device.
6. Connect the Ground to the device.
7. Connect the CanBUS Interface to the device.
8. Connect the Display to the device.
9. Connect the Battery Sensor to the device.
10. Connect the Auxiliary Battery to the device.
11. Make sure that the 60A and 40A fuses are installed correctly to protect the system from overloading.

Once all connections are made and fuses are installed, turn on the DC Output Generator and start using the device. For any technical support or assistance, contact REDARC TECH TIPS head office or tech support.

OVERVIEW

From time to time, we get asked about fixed installations involving the Manager product range. Managers provide a simple way of combining different power sources in off-grid setups, such as solar and generator power, and provide a wealth of information such as state-of-charge, making the overall solution relatively simple. Generators come in both DC and 240VAC output variations and the Manager product is capable of handling both as it has both a DC (vehicle) and a mains power input. When using a DC output generator however, the installation requires the use of a battery to “buffer” the incoming generator power, see Figure 1. The relatively slow response of a generator to load changes, combined with the rapid response of the Manager to voltage changes can result in oscillations that significantly degrade the performance of the system. By connecting a battery across the Manager input, the input voltage is largely stabilised by the battery, eliminating the oscillations and allowing the system to perform at its best. A battery of at least 40Ah is recommended. The same would occur in a vehicle setup if attempting to take power directly from the alternator without a battery connected. Fortunately, in a vehicle setup you will always have your start battery connected. As outlined in the Manager30 manuals, the Manager DC input must always be connected to a battery as the DC input.

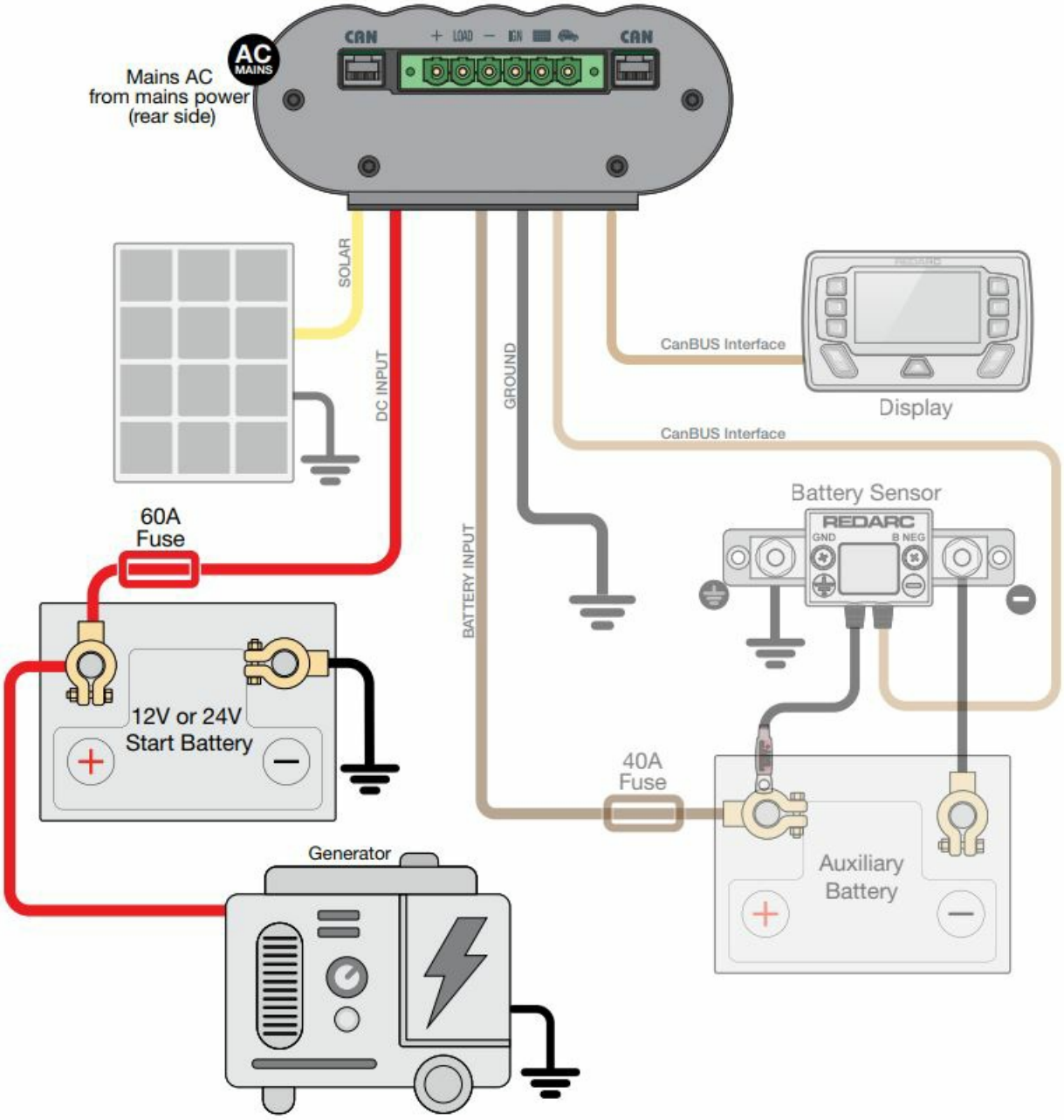

Figure 1 - Recommended Generator Setup

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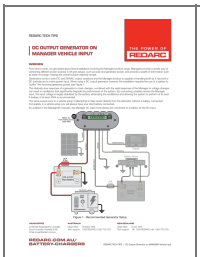
Documents / Resources

	REDARC Manager30 V3 Battery Management System [pdf] User Manual Manager30 V3 Battery Management System, Manager30, V3 Battery Management System, Battery Management System, Management System

References

- REDARC Electronics: Automotive Electronics, Accessories & Equipment | REDARC Electronics