

THE POWER OF

REDARC[®]

Inverter Wiring Kit

Wiring Kit for REDARC RS3 Inverters

RS3WK-001

Suitable for R-12-1200RS3 and R-24-2000RS3

RS3WK-002

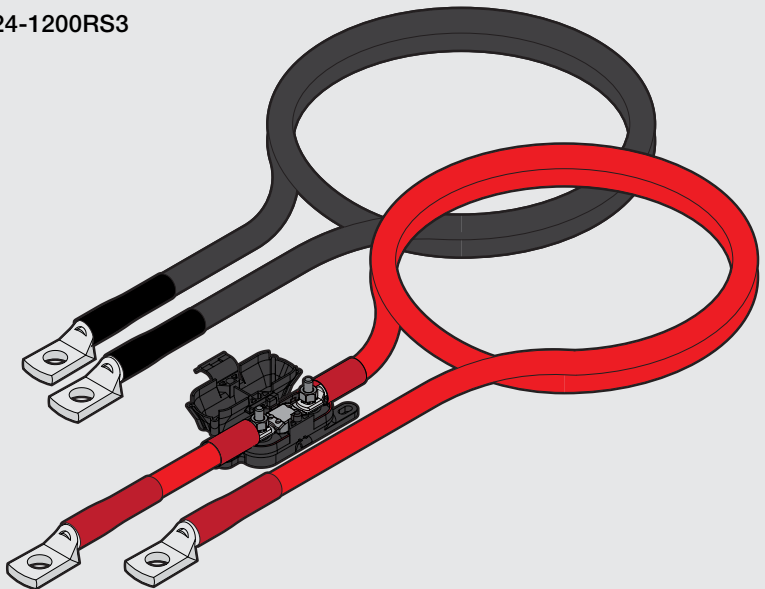
Suitable for R-12-2000RS3 and R-24-3000RS3

RS3WK-003

Suitable for R-12-3000RS3

RS3WK-004

Suitable for R-24-1200RS3



WARNINGS AND SAFETY INFORMATION

SAVE THESE INSTRUCTIONS — This manual contains important safety instructions. Do not operate the system unless you have read and understood this manual. REDARC recommends that the Inverter Wiring Kit referenced in this manual be installed by a suitably qualified person.

Disclaimer: REDARC accepts no liability for any injury, loss or property damage which may occur from the improper or unsafe installation or use of its products.

SAFETY MESSAGE CONVENTIONS

Safety messages in this manual contain a signal word that indicates the level of the hazard, as follows:

⚠ WARNING Indicates a potentially hazardous situation which **could result in death or serious injury to the operator or to bystanders.**

⚠ CAUTION Indicates a potentially hazardous situation which **may result in moderate or minor injury to the operator or to bystanders.**

NOTICE Indicates a situation that **may cause equipment damage.**

⚠ WARNING

- Risk of electrical shock. Do not disassemble the inverter - the internal circuitry contains hazardous voltages. Attempting to service the unit yourself may result in electric shock or fire and could void the unit warranty.
- Risk of electrical shock. Do not expose the inverter to rain, snow, spray, liquid or dust. Doing so may result in damage to the inverter or other appliances installed in the system or result in electric shock or fire.
- Risk of electrical shock. Operation of the inverter without a proper ground connection may result in an electrical safety hazard. Ensure proper ground connection is made during installation. For fixed and/or transportable (vehicle) installations, install according to appropriate AS/NZS standard.
- Risk of electrical shock. Before proceeding, carefully check that the inverter is not connected to any batteries and that all cables are disconnected from any electrical sources.
- Do not connect the output terminals of the inverter to an incoming AC source.

⚠ CAUTION

- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they are supervised or have been instructed on how to use the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.
- Do not operate the inverter with damaged or substandard cabling. Selecting the wrong cable or fuse size could result in harm to the installer or user and/or damage to the inverter or other appliances installed in the system. The installer is responsible for ensuring that the correct cable and fuse sizes are used when installing this inverter.

- Ensure recommended torque values are observed and the DC Input connections to the Inverter are tight (torque to 11.7–13 Nm (9–10 ft-lbs)). Any loose connections could result in overheating and can be a potential hazard.
- Some components in the inverter can cause arcs and sparks. Do not put batteries, flammable materials, liquids, or anything that should be ignition-protected around the inverter. Doing so may result in fire or explosion.
- Be extra cautious to reduce the risk of dropping a metal tool onto a vehicle battery. Doing so might cause the battery to spark or might short-circuit the battery or other electrical parts that may cause an explosion.
- Remove personal metal items such as rings, bracelets, necklaces, and watches when working with a battery. A battery can produce a short-circuit current high enough to weld a ring or the like to metal, causing a severe burn.
- If battery acid contacts your skin or clothing, remove the affected clothing and wash the affected area of your skin immediately with soap and water. If battery acid enters your eye, immediately flood the eye with running cold water for at least 10 minutes and seek medical assistance immediately.
- NEVER smoke or allow a spark or flame in vicinity of battery. This may cause the battery to explode.
- Batteries are capable of providing very large currents in the case of a short circuit. A fuse must be installed on the positive supply cable as close as practical to the battery. Failure to do so provides inadequate protection against fire in the case of a short circuit.

NOTICE

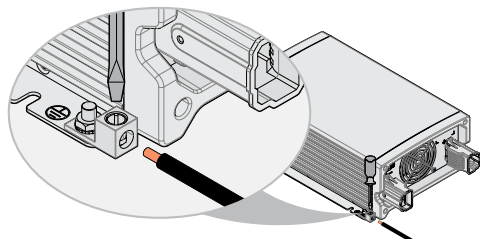
- Install the inverter in a well-ventilated area with reasonable clearance. Do not install the inverter in a zero clearance compartment or obstruct the ventilation openings. Doing so may result in the inverter overheating and ultimately damage the inverter.
- Reverse Polarity connection will blow the internal fuse and may damage the inverter permanently and could void the warranty.
- Do not operate appliances that may feed power back into the inverter. Damage to the inverter may occur as a result.
- The RS3 Inverters are fitted with RCBO, which incorporates both a residual current device as well as a circuit breaker. The RS3 Inverters comply with AS/NZS 4763 standard and can be used to power fixed wiring in accordance with AS/NZS 3001 when installed by a licensed electrician. A proper ground bond is required for the RCD to work as intended.
- Ensure that the frequency output of the inverter matches the frequency requirements of all loads attached to the inverter. Attempting to use appliances that requires an AC frequency different to the inverter output may result in damage to your appliances.

SAFETY BEFORE DC INPUT CABLE CONNECTIONS

CHASSIS GROUND CONNECTION

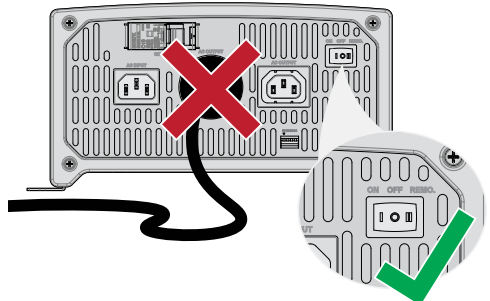
The chassis ground connection must be made to the ground of the vehicle before making any other connections to the inverter.

NOTE: The chassis ground cable is not supplied with the RS3 Inverter Wiring Kit. Refer to the RS3 Inverter Instruction Manual for further information.



MAIN SWITCH AND AC OUTPUT REQUIREMENTS

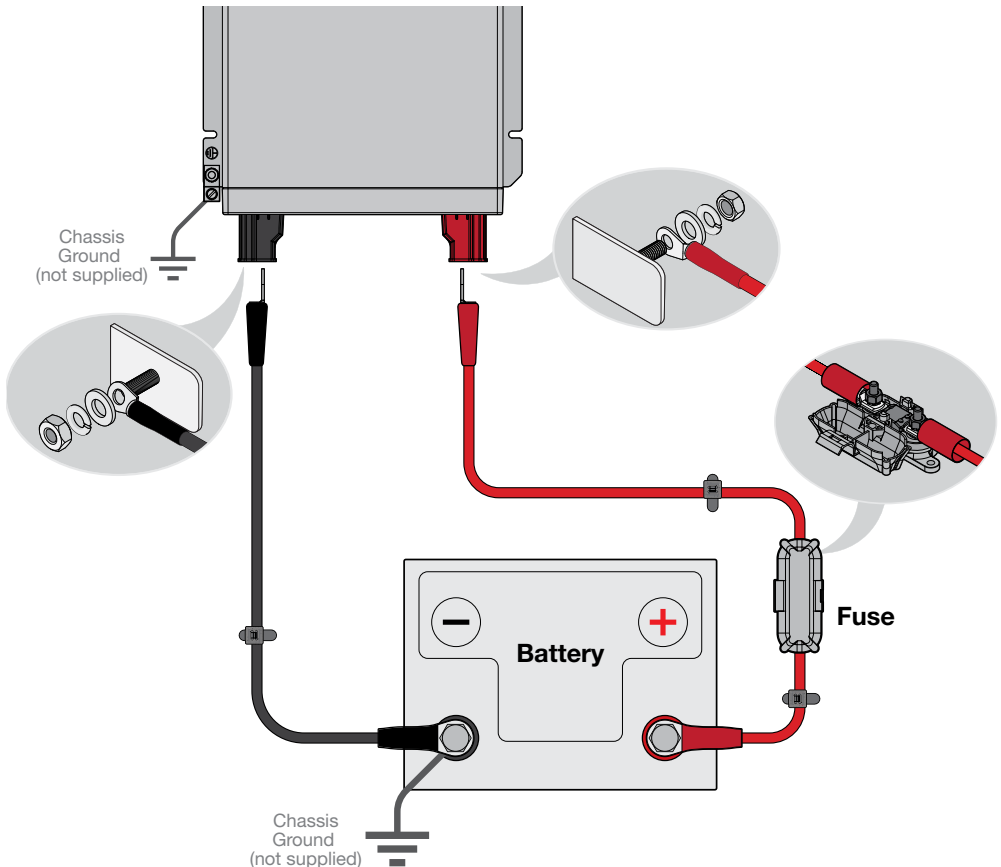
Before making the DC Input cable connections, the Main Switch must be set to the "OFF" position and all loads must be disconnected from the inverter's AC output.



DC INPUT CABLE CONNECTIONS

To make the DC Input cable connections, refer to diagram below and adhere to the following steps:

1. Before inserting DC Input cables make sure the Main Switch is "OFF" and the red and black shrouds are detached from the Inverter.
2. Remove the nuts and washers attached on the positive (+) and negative (-) terminals on the Inverter.
3. Slide the positive DC Input cable through the red shroud. Slide the negative DC Input cable through the black shroud.
4. Install the positive DC Input cable onto the positive (+) terminal and negative DC Input cable onto the negative (-) terminal. Ensure that the lug is flat against the face of the input terminal – DO NOT place washers between lug and terminal face.
5. Attach washers with spring washer adjacent the nut and torque to 11.7–13 Nm (9–10 ft-lbs).
6. Reattach the red and black shrouds to the Inverter.
7. Connect DC Input cables onto an appropriate battery supply or DC power source. Ensure to connect the DC Input cables to the correct positive (+) and negative (-) terminal. Ensure fuse and short red cable is at the battery side.
8. Secure the cables using cable ties or P-clips where possible every 200 mm (8").



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