

Vanagon Hard Start Relay

The installation of this simple relay kit will provide increased voltage to the starter. This is the classic cure for the condition that many VW owners have come to know as “hot start syndrome”. It will also redirect the electrical load from the ignition switch and provide a shorter wiring run from the battery to the starter. The result will be faster, more dependable starts and a longer lasting ignition switch.

If you have a Westfalia Camper with a refrigerator or an auxiliary battery that uses a relay or solenoid under the driver’s seat, there is an additional step involved for proper grounding. Follow the directions on the next page using the parts in the small ziplock bag to complete the install. Please be sure to check for a relay under the driver’s seat before turning the key for the first time after installing the hard start relay to avoid any issues.

BEFORE YOU BEGIN: Ensure that the van is in neutral (or park for auto trans) the emergency brake is engaged and at least one wheel is chocked to avoid the possibility of runaway van accidents.

The Relay Socket has been pre-assembled with dielectric grease to protect the terminals from oxidation. For best results, apply a thin layer of the enclosed dielectric compound to all remaining connector terminals to prevent oxidation and ensure good long lasting electrical connections.

REMOVE THE NEGATIVE BATTERY CABLE (OR CABLES) BEFORE YOU BEGIN THE INSTALLATION!!

- 1) Connect the 5/16” ID ring terminal to the positive post (terminal #30) on the starter. All of the other connections on the starter post will remain unchanged.
- 2) Remove the 1/4” female connector from the starter solenoid (terminal #50) and push it onto the male connector on the relay wiring harness. If there is a locking tab on the stock connector, snap it off with a pair of pliers or wire cutters.
- 3) Install the 1/4” female disconnect on the relay wiring harness to the open male spade (terminal #50) on the starter solenoid that you just removed the stock connector from.
- 4) Position the relay in a convenient area inside the engine compartment where it will be unlikely to receive physical damage and will be protected from the elements as much as possible. The upper section of the forward firewall is a commonly used location (see photo below).
- 5) Using one of the enclosed self-drilling screw, secure the relay and the brown ground wire to the mounting location of your choice (see photo). For best results, use the enclosed star washer between the relay bracket and the body of the van to ensure a good ground connection. Mount the inline fuse next to the relay as shown in the photo below.
- 6) Secure all wires using the enclosed zip ties. If the wires are routed near any sharp edges or hot surfaces, be sure to protect the wires with split loom or other protective wire covering.
- 7) If you have a Westfalia Camper or any type of auxiliary battery installed that uses a relay or solenoid under the driver’s seat, complete the ground wire installation steps shown on the back of this page.
- 8) Reconnect the negative battery terminal and verify proper operation of your starter.



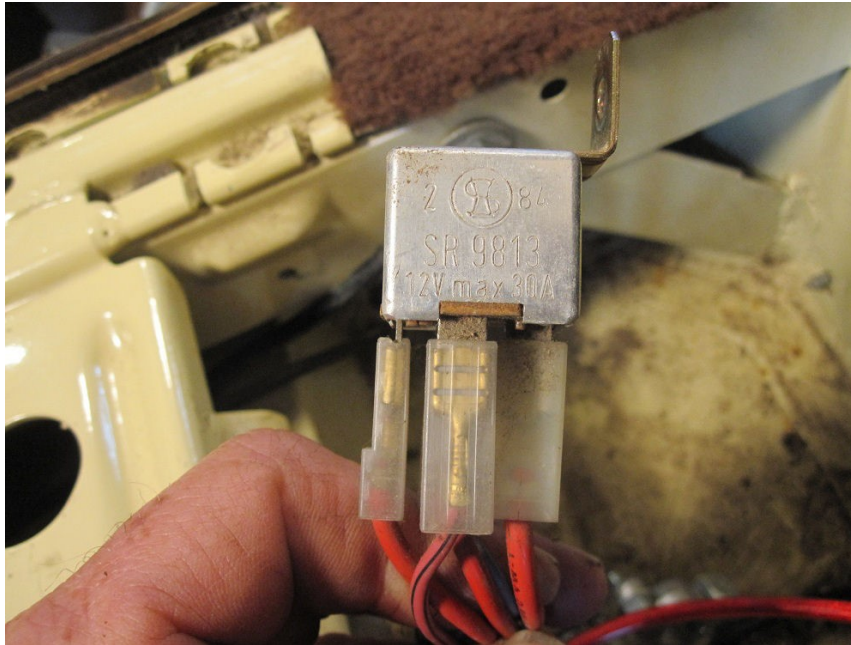
Suggested mounting location for hard start relay.



Mounting Detail

Westfalia Relay Modification

The Problem: When adding the Hard Start Relay to a Vanagon Westfalia with a Factory Refrigerator or Auxiliary Battery setup the starter may continue to spin even after releasing the key. This can also happen with some versions of the GoWesty Auxiliary Battery kit. If this is the case with your installation, don't panic. This conflict between the Hard Start Relay and the Westfalia Fridge / Aux Battery Relay is no big deal. Turn the key all the way off and remove it from the ignition and the starter will stop spinning.



The Solution: The fix for the runaway starter is quick and simple. All of the parts you will need are included in the small ziplock bag that came with your kit. Remove the Red w/ Black Stripe wire from the Westfalia Fridge / Aux Battery Relay under the drivers seat.

Install the short Brown wire included in the kit onto the empty terminal where you just removed the Red/Black wire. Remove the machine bolt that holds the Fridge / Aux Battery Relay to the van and insert it thru the ring terminal on the Brown wire. Reinstall the Fridge / Aux Battery Relay in the original location with the Brown wire attached to ground the relay.

Fold the Red/Black wire over and use the included zip tie to secure it to the other wires on the relay harness to keep it from bouncing around and rattling.

Liability Disclaimer: It is the sole responsibility of the buyer/ installer to ensure that the installation of this product is carried out in a safe manner. If you are not comfortable with the installation of this accessory kit on your own, please consult a qualified automotive electrician. By undertaking installation, the buyer agrees to hold the seller free from liability for any damage that may occur during the installation.

Warranty: All parts are warranted to be free from manufacturing defect for a period of one year from the date of purchase.