

#### GVW-HRN-LD-REDUX

## Horn Load Reduction kit [80-91 Vanagon]

Note: This kit will add a relay to your horn circuit, relieving the horn button of the high current loads from the horn(s) and improving horn response. This circuit is fused at 15A, and we do not recommend using this kit for horns that pull more than 12A. This kit will not repair a faulty horn circuit.

#### Tools Needed

- Power drill
- Philips head bit
- Philips head screwdriver
- Wire crimpers and strippers
- Scissors or knife

DISCLAIMER: This kit has been designed for easy installation. However, it does involve cutting and splicing into factory wiring. The installation of this kit is not within everyone's ability. Read through these instructions carefully and decide if installing it is for you. If not, please take your vehicle to an automotive electrician. Wiring errors can be troublesome and hazardous.

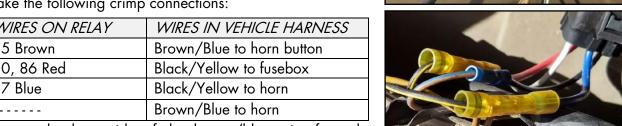
### Removing the Upper Grill and Passenger Headlight Assembly

- 1. Remove the upper grill by turning the clips that surround it.
- 2. Remove the passenger headlight assembly, and unplug the headlights from their harness.

#### Wiring the Relay

- 1. Trace the wiring harness to the horn, located under the bumper. Disconnect the wires from the horn and pull them up through the passenger headlight cavity.
- 2. Near where you will be mounting the relay (see the following section), make a slit in the harness sheath to access the brown/blue and black/yellow horn wires.
- 3. Cut the horn wires and use the butt splice connectors to make the following crimp connections:

WIRES ON RELAY	WIRES IN VEHICLE HARNESS
85 Brown	Brown/Blue to horn button
30, 86 Red	Black/Yellow to fusebox
87 Blue	Black/Yellow to horn
	Brown/Blue to horn



- 4. Remove the horn side of the brown/blue wire from the harness, either by pulling it through the bottom or by splitting the shielding. Cut this wire 6" from the connector, and crimp on the included ring terminal. Attach this terminal to the bolt where your horn attaches to the car. You may need to clean the surface where this connection occurs.
- 5. Test your improved, quick-as-lightning horn circuit.

# Mounting the Relay

- 1. Drill the included screw through the front cowl near the location pictured. Attach the relay using the screw and lock washer.
- 2. This screw will emerge in the car, behind or slightly above the carpet in the passenger footwell. You may wish to use the included rubber shield to cover the screw's edge.
- 3. Reassemble headlight and grill.

