# V Star 1100 Headlight Delay

Parts and tools needed;

1 relay Napa part # MPEAR272 SB or equivalent
5 spade connectors
2 but connectors
1 ¼" ring connector
About 5' of 12 gage wire
Philips screwdriver
Wire cutters
Connector crimp tool
Some tie straps
Double back foam tape

The problem:
The V Star 1100 has a very small battery and a poor charging system, the headlight comes on as soon as the ignition key is turned on. Therefore the 55 watts or 4.2 Amps that the headlight draws are added to the draw of the starter motor. This is a great demand on already small battery causing a great demand on the charging system to replenish the battery, compounded by the fact that the charging system does not develop full power at low engine speeds.

The solution:
Install a headlight delay that will keep the headlight off while the starter motor is in use, then turn the headlight back on when the starter motor is turned off.

Instructions:
Disassemble headlight and find the wire that powers the low beam, cut wire and splice a peace of 12 gage wire about 6" long to both ends using the but connectors.

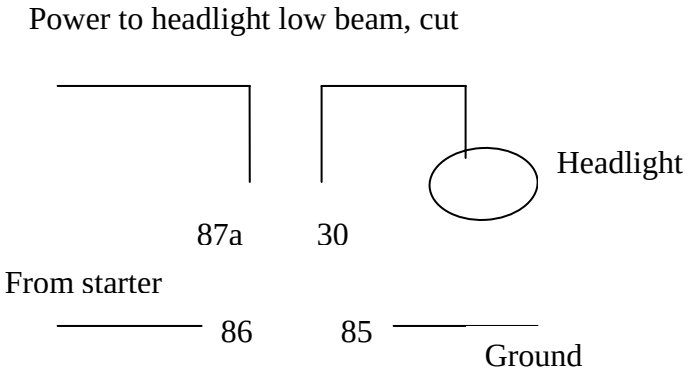
Cut a peace of 12 gage wire 6" long and attach a spade connector to it, find a ground wire inside the headlight (black wires) and splice this wire to it, this is your ground. Plug the spade connector to the # 85 lug on the relay.

Cut a piece of 12 gage wire long enough to reach from inside the headlight to the starter, routing it along the frame and securing it with the tie straps. Attach the ring connector at the starter end and a spade connector to the other end and plug to the # 86 lug on the relay.

Cut a piece of foam tape and secure the relay inside the headlight housing with it.

Re-assemble the headlight.

Napa Auto Relay for 1999 Dodge Caravan electric backlight relay  #MPEAR272SB




Lug 86 from starter
Lug 85 ground
Lug 87a from headlight power (this is the wire that powers the low beam, cut and fasten the part from the wire harness to 87a and part from the headlight to 30.
Lug 30 to headlight

This should be a 10 amp relay; if not make sure you get one that is at least 10 amps rated.

The idea is to interrupt power to the headlight while the starter is engaged. Contacts 87 and 87a are the contacts the relay will switch, this relay is normally closed to 87a, if the relay you get is normally closed to contact 87 then switch the power to the head light to 87. Mount the relay inside the headlight with double back foam tape or Velcro. Make sure you use the power wire to the low beam on the headlight.

Enjoy the Ride

Vstar4u