

## 6/12 Headlight Relay Install

There are two major benefits to installing a headlight relay into your lighting system. One is brighter, headlights for safer driving at night. The second is the extended life (of up to 50%) of your original headlight switch, by protecting it from high current. Please read these directions carefully. There are a few things you will need to prepare before you begin.

### Terminal Identification -

Your first step is to identify the terminals on the relay, which are clearly marked. However...because the numbers are small... here is a little help for those of us who are visually challenged. If you hold the relay in your hand with the mounting tab on the bottom, and the terminals facing you, the terminals are numbered as follows...

X 87			The wiring connections to the relay should be as follows...
			30 Battery Power to Relay (can come from starter solenoid)
			85 Dimmer Switch wire on Headlight Switch to terminal 85 on the Relay, Connect to relay at dimmer switch end of wire.
X 86	X87a	X85	86 Relay Ground
			87 Empty headlight terminal of dimmer switch connects to terminal 87 on the Relay
			87a Is not used
X 30			

### How to Install The Relay...

Disconnect the positive cable of the battery.

**Mount the relay** in a location close to the headlights. The inner fender or engine side of the firewall close to dimmer switch works well.

**Next locate the headlight switch terminal** on the dimmer switch. This will be the terminal with the wire attached that comes down from the headlight switch. This wire turns the headlights off and on. Once you identify it (it is usually the middle terminal the dimmer switch) disconnect it at the dimmer switch end... and connect it to terminal (85) on the relay.

**Now connect a 12-gauge wire**, from terminal (87) on the relay to the empty terminal on the dimmer switch. (The headlight switch in the dash now controls the relay and turns it off and on) The headlight switch now has one amp passing thru it instead of the 15 amps it had before.

**Now connect a 12-gauge wire** to terminal (30) from a battery source that has power all of the time. The battery terminal on the starter solenoid is a good source. It is a good idea to install a fuse into the circuit for protection if one is not already in place. For a 6-volt system use a 25-amp inline fuse. For a 12-volt system use a 15-amp inline fuse.

**Connect a ground wire** to terminal (86) on the relay using 12-gauge wire. Check to be sure all of your connections are clean and tight. Reconnect the battery cable to the battery and you are done.

**Note - Terminal (87a) on the relay is not used.**

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**Caution - Do not connect the headlight relay to the battery terminal of the voltage regulator.**

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