

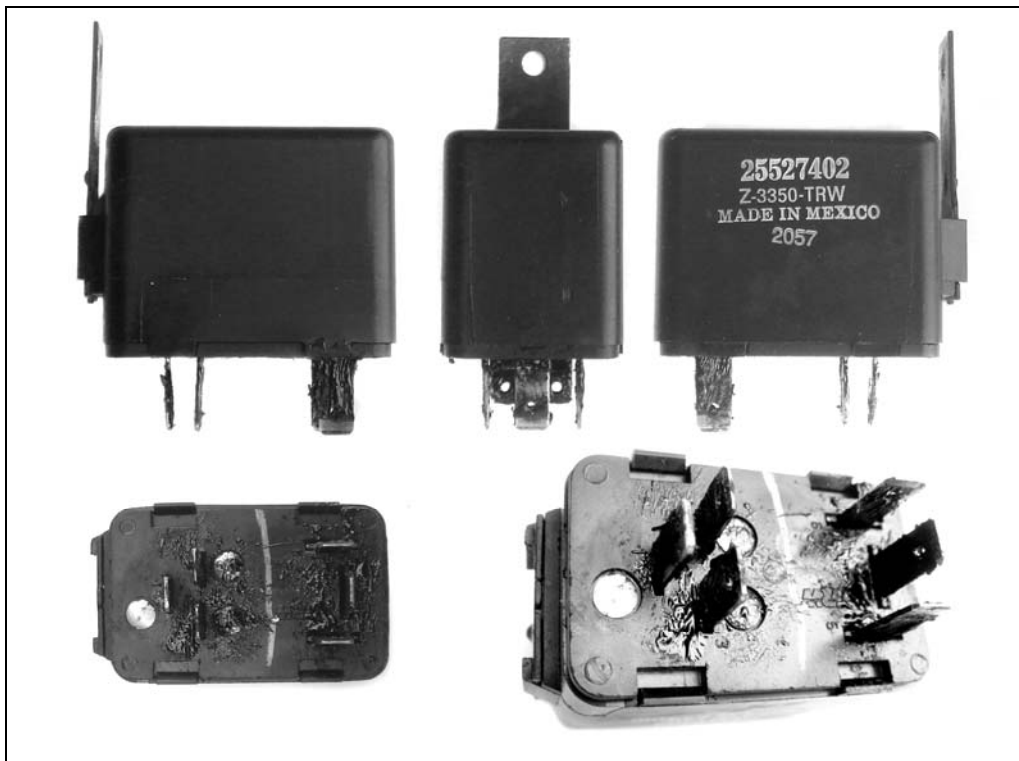
TECHNICAL INFORMATION

Fan Delay Relay for turbo Buick – 1986-1987 and 1989 TTA

The Coolant Fan Delay Relay was used on the turbo Buicks in 1986 and 1987 along with the GNX and the 1989 turbo Trans Am. The purpose of this relay module is to permit the coolant fan to run for an extended period of time, usually 5 to 10 minutes, when the vehicle was shut off, ONLY when the coolant temperature was elevated beyond 228 degrees F. By running the coolant fan after the vehicle is shut off, an effort is made to cool down the cooling system to reduce engine compartment heat. This was a fairly common problem back when the turbo car used the OEM 190 degree thermostat and the OEM radiator...most of which have been upgraded by now, and thereby eliminating the need for the delay relay altogether.

Since the Delay Relay module is an unsealed design, it is prone to early failure. Moisture seeps into the unsealed chamber inside the unit, causing rust and deterioration of the internal components. The rust, being conductive, can short the internal circuitry. This type of failure can and does cause the coolant fan to run at any time, run for much longer than the delay period, or cause electrical “gremlins” relating to short circuits.

Look at the images below. The part shown is the 25527402 Delay Relay as shipped from the factory. Notice that the manufacturer had placed a tar-like sealant on the terminals. This sealant was put there to protect the electrical connections from moisture since the connectors themselves are unsealed, somewhat of a “band-aid” approach. This is frequently misinterpreted as a failure, as it appears the connections have burned and melted. After many years, the sealant hardens and appears to have been the by-product of a burned connection.



One of the major design flaws with this device is the fact that there are two connections to it; one connection contains a chassis ground and SWITCHED 12 volt source and the other connection contains a HOT AT ALL TIMES 12 volt source. If the relay should deteriorate internally where the rusted components happen to cause a short circuit between the connection sections, there is a potential for a short between the HOT and SWITCHED positive, which essentially causes the 12 volt power to “back-feed” and prevent the ignition switch from shutting the vehicle off. Additionally, if the internal short should connect the chassis ground to one of the 12 volt sources, the battery voltage can deplete, causing a dead battery in a short time. *Therefore it is recommended that you simply remove the Delay Relay from your vehicle as it has been well known to be a major contributor of electrical problems with the car.*