HATZ ENGINE EGR CONNECTOR PROTECTION

The purpose of this document is to provide a photo reference and instructions for adding protective heat shrink tubing. Field reports have shown that the Hatz electrical connector to the EGR valve can allow water intrusion, potentially leading to related EGR fault codes. The addition of the heat shrink will provide protection from water.

Avoid heavy water cleaning, pressure washing of engine and trowel electrical components.

NOTE: Kit part #34998 is available that includes the following Heat Shrink and Dielectric Grease

SUPPLIES & TOOLS NEEDED

- **Heat Shrink**
  Specifications:
  - Dual Wall (Adhesive Lined)
  - 3” long piece, initial diameter: 24 mm (.945 in), 4 to 1 shrink ratio
  - Recommend Newark product part #01AH9210 from Newark.com
  - Alternatively 25 mm or 1 inch diameter heat shrink would work as well

  Note: Avoid heat shrink described as heavy duty or abrasive resistant. It is typically too thick to fit between the valve and connector.

- **Dielectric Grease**
  Specifications:
  - Any silicone based electrical sealing grease will work
  - Recommend Digikey product part #473-1232-ND from Digikey.com

TOOLS:

- Scissors or knife to cut heat shrink
- Heat gun to shrink the heat shrink
- Small flat blade screwdriver
- Gloves

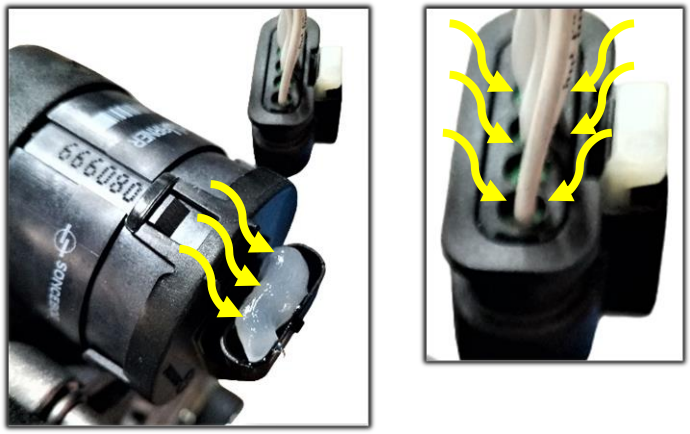
INSTALLATION INSTRUCTIONS

1) Disconnect the connector by lifting the white locking tab and then pressing it in towards the valve body as you lift the connector off.

Continued on next page.

HATZ ENGINE EGR CONNECTOR PROTECTION

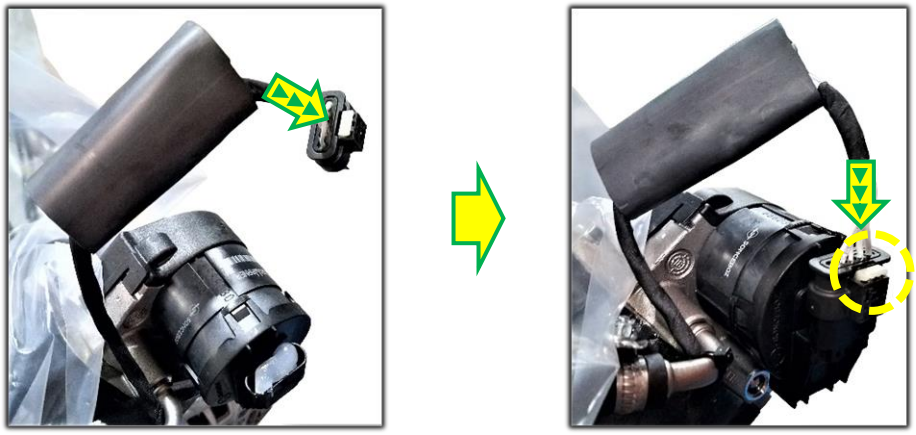
2) Add Dielectric Grease to the connector body and all wire entries on top of the connector.



3) Install the 3” long piece of heat shrink onto the harness.

Please Note the Following:

a) 24 mm diameter heat shrink just barely fits over the connector.
b) Push the connector through the heat shrink while carefully maneuvering with a screwdriver.
c) Fully seat the connector and lock down the white locking tab.



Continued on next page.

HATZ ENGINE EGR CONNECTOR PROTECTION

4) Slide the heat shrink down fully over the connector. It should completely cover the connector and go about 1/4" onto the EGR valve's connector.

Please Note the Following:

a) Carefully start heating the heat shrink from the bottom end and work your way upward.
b) Heat slowly and evenly to avoid tears where the heat shrink covers sharp corners.
c) Wear gloves because the heat shrink will need to be worked by hand while it's still hot to get a good tight seal around the small harness diameter.
d) While hot, bend the heat shrink to allow the harness to run horizontal across the top of the engine.
e) If you do not think the heat shrink fully sealed on the wires, then add electrical tape to help prevent water intrusion.
f) Check for any sealing concerns in the heat shrink, open gaps, tears etc.