#### **Technically Speaking**

# HOLDEN VE / WM EVAPORATOR "ICE UP" Evaporator Sensor Relocation



**COMPLAINT:** The customer complaint is that the A/C was nice and cold, then after approximately 20-30 minutes of driving the A/C appears to turn off and go hot.

**CAUSE:** It could be that the evaporator coil is icing up. This, in turn, will then reduce the blower fan air flow through the dash vents giving the impression that the A/C is no longer cold.

The evaporator temperature sensor signals directly to the HCM (HVAC Control Module behind the glove box). The HCM then applies current to the variable stroke compressor electronic control valve which adjusts the compressor output (stroke). The evaporator temperature sensor plays a pivotal role in the A/C performance as it impacts on what the compressor outputs. If the evaporator temperature sensor is providing incorrect information to the HCM the compressor output will be effected.

Part of the cause could be that the evaporator sensor is located in an incorrect area of the evaporator "air off" side and not fully sensing the cold air being produced. To ensure that the sensor is located in an area that is the coldest part of the evaporator coil a modification may be required - follow the instructions below.

 $\Diamond$ 



- Remove the glove box assembly.
- Locate the evaporator temperature sensor.
- Disconnect the electrical connectors at the HCM.
- Turn the sensor body clockwise 45° and then remove.



Pull the evaporator sensor out as far as possible without damaging the wiring. This will aid in carrying out the measurement.

### **Technically Speaking**

#### **AUTOMOTIVE ELECTRICAL & AIR CONDITIONING NEWS**



50

07

30

NWWZ/L

NW

01

- Unclip the evaporator sensor plastic retainer housing using a small flat blade screw driver in the seam.
- Note how the sensor wire is located in the housing.

- Measure 15 mm from the bottom of the resin cover of the sensor.
- Refit the plastic retainer cover to the sensor wire and re-clip housing.

- Modified Location
- Carefully reinsert the sensor and retainer housing into the bayonet locking hole section in the case.

## Note: Ensure the sensor / wire is installed straight through the bayonet hole.

- Turn the sensor retainer 45° in an anticlockwise direction to lock it into position.
- A Refit the electrical connectors to the HCM.
- A Refit the glove box and all other removed parts.
- Test to see if the compressor, glove box lamp and all HCM functions operate correctly.

Reproduced for our readers courtesy of ADAIR

