

Tech Tip

1986-1987 Cadillac: Compressor Runs All the Time

We have received several calls on 1986-1987 Cadillac with a problem of the compressor staying engaged with the A/C switch turned to the off position. The diagnosis procedure should start with a physical examination of the compressor still on the vehicle. The compressor should be inspected to see if the air gap between the clutch hub and the pulley is set correctly. The air gap should be set to the recommended OEM specification. The air gap should be spaced evenly around the pulley/clutch hub area. If the gap is closer on one side of the clutch than the other, the compressor may be damaged and should not be used. This condition could keep the compressor engaged constantly.

The compressor could stay on if circuit 204, a black wire, gains a ground some place other than the Power Module. This circuit should be checked for proper grounds prior to further diagnosis. (Refer to Figure A)

This system also has the possibility of a malfunction in the Power module, which can cause the compressor to stay engaged with the switch in the OFF position. When the wiring diagram is examined, circuit 50, a brown wire, is the power lead coming from a 25A fuse. This wire should have battery voltage when the key is in the RUN position. The Black wire circuit 204 is grounded through the Power Module. (Refer to Figure A)

SERVICE TIP: Check the Blower amperage to see if it is excessive (20 amps maximum). The blower motor can cause a power spike that can destroy the Power Module. Check for a defective compressor diode by using a DVOM to test the diode. Use the DVOM to check the coil for a short to ground.

