FACTORY AIR™ by 4 SEASONS

TECH TIP

Acura Compressor - No Clutch Engagement

Subject: *No Compressor Clutch Engagement*
Make: *Acura*
Models: *All through 1990*

When tracking down an Acura A/C compressor no clutch operation, remember to start the engine. The ECU will not engage the compressor clutch unless it receives a signal from the crank angle sensor. This may seem basic, but in the heat of diagnosis it is very easy to forget.

Models: *1986 to 1989*

If the cooling fans run on an 1986-89 Integra when you turn on the A/C, but the compressor and idle boost do not come on, chances are you have an evaporator thermostat with excessive resistance. The next time you see this (and it may only occur intermittently) connect the two evaporator thermostat wires together with a jumper wire while the engine is running. If the compressor and idle boost come on, replace the evaporator thermostat.

But what if the car isn't acting up when you diagnose it, or the symptoms are not so clear? Suppose the customer complaint is poor A/C performance, but everything is working when you look at the car. The evaporator thermostat may be cutting out the compressor intermittently when the car is going down the road.

To diagnose for intermittent A/C Evaporator Thermostat Operation:

1. Connect a voltmeter across the thermostat terminals, (located inside the evaporator housing) leaving the thermostat connected to the harness.
2. Close all windows on the car, start engine and put A/C on max air, high fan.
3. Park the car out of the way where it is allowed to idle for a couple of hours if necessary.

When the compressor cycles off, the voltmeter should read battery voltage. When the compressor cycles on, the voltmeter should read about 0.2volts or less. If the voltage is over 0.2 volts, or fluctuates each time the compressor cycles on, replace the evaporator thermostat. If the voltage is ok in the beginning, allow the car to run and monitor the voltage every 10-15 minutes for a time period of up to 2 hours.

If the evaporator thermostat still checks good after about 2 hours, test the compressor relay. Move the voltmeter leads to the switching side of the relay (they should be copper), and check the voltage drop exactly as you checked the thermostat. If the voltmeter shows greater than 0.2 volts, a resistance is occurring either in the relay connector or in the relay itself.