

SYSTEM DIAGNOSTICS - EVANS HVAC SYSTEM WITH ATC

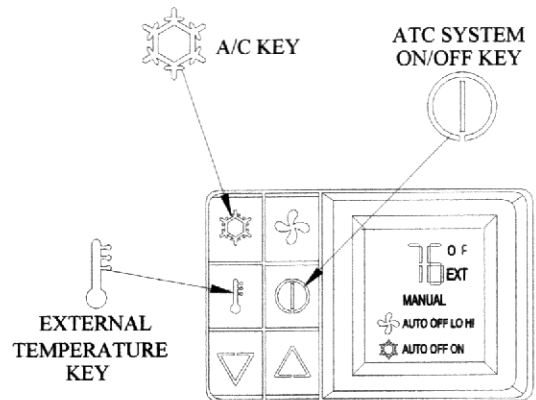
The microcomputer can be placed in a diagnostic mode to independently exercise each system component and operation to verify proper function or help troubleshoot problems.

NOTES:

- All tests should be performed with the vehicle running
- The fan will not operate until the Coolant Temperature Threshold Thermostat located in the Heater Valve has opened, signaling the system that the coolant is warm enough to provide heat.
- For clarification purposes, symbols shown in the control display area are only those relevant to each step.

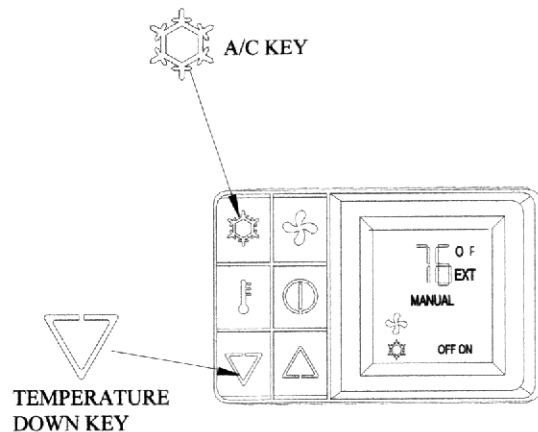
1. TO ENTER DIAGNOSTICS (MANUAL) MODE:

Turn on power to the unit and press the **EXTERNAL TEMPERATURE** key. While the external temperature is being displayed on the control module screen, press the **FAN** and **A/C** keys at the same time. All display segments will illuminate as a test pattern to verify proper operation and the word **MANUAL** will appear in the middle of the display. **MANUAL** will be displayed as long as you are in the diagnostics mode. Press the **EXTERNAL TEMPERATURE** key again to proceed with the Diagnostic program. Press the **ATC SYSTEM ON/OFF** key to exit the Diagnostics Mode at any time.



2. AIR CONDITIONER DIAGNOSTICS:

While in Diagnostics Mode, press the **A/C** key to toggle back and forth between A/C "ON" and A/C "OFF" (Auto is not used in Diagnostics). Press the **A/C** key to turn the A/C system on ("ON" will be displayed next to the **SNOWFLAKE** symbol in the control display). Press **TEMPERATURE DOWN** key to insure heater valve is closed ("FAN" and "SNOWFLAKE" symbols will turn off). Confirm the A/C system is operating by observing the temperature of the air from the discharge vents. Refer back to the "Functional Testing and Diagnostics Procedure - Evans HVAC System With ATC" for a more detailed operational check and testing of the A/C system.



3. HEATING SYSTEM DIAGNOSTICS:

The **TEMPERATURE UP** and **DOWN** arrow keys are used to control the Heater Valve in Diagnostics Mode. Press the **TEMPERATURE UP** key to open the Heater Valve (hot coolant is permitted to flow into the heater core). The "FAN" and "SNOWFLAKE" symbols will be displayed when the valve is open. Verify proper operation of the Heater Valve by observing the temperature of the air from the discharge vents. Press the **TEMPERATURE DOWN** key to close the Heater Valve (coolant bypasses the heater core). The "FAN" and "SNOWFLAKE" symbols are turned off. Remember, it takes a short period of time for the residual heat in the heater core to dissipate once the Heater Valve is closed.

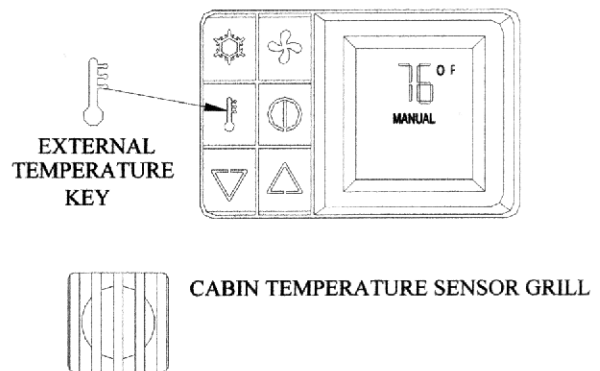


4. INTERNAL-EXTERNAL TEMPERATURE DISPLAY FUNCTIONS:

When the **EXTERNAL TEMPERATURE** key is pressed to initiate the diagnostics procedure, the display changes to show the cabin temperature *inside* the vehicle rather than the set point temperature. Observe the temperature for accuracy. Blow air into the Cabin Temperature Sensor and observe a change in the display to confirm the operation of the sensor. Place a small piece of thin paper over the Cabin Temperature Sensor Grill (which should be held in place by the suction of the Aspirator Fan) to confirm that the Aspirator Fan is drawing air into the Sensor housing. Press the **EXTERNAL TEMPERATURE** key again to display the outside ambient temperature. Verify the reading for accuracy.

IN DIAGNOSTICS MODE:
PRESS EXTERNAL TEMPERATURE KEY
TO DISPLAY CABIN TEMPERATURE.

PRESS EXTERNAL TEMPERATURE KEY AGAIN
TO DISPLAY OUTSIDE TEMPERATURE



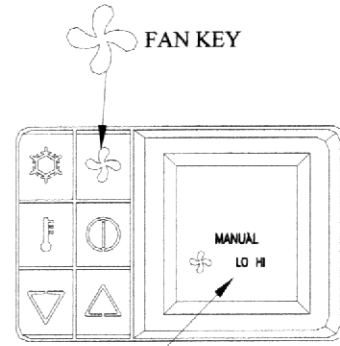
- In Diagnostics Mode, the External or Internal Temperature display will change as the temperature changes.

NOTE:

In a stationary idle test, it is not unusual for the temperature reading to be significantly higher than the expected outside ambient temperature when testing the Exterior sensor because hot air from the engine may flow over the sensor if the vehicle is not moving.

5. **FAN SPEEDS:**

Press the **FAN** key to switch between the LO and HI speed settings (Auto is not used in Diagnostics) and confirm that the vehicle's blower fan is operating properly. See note at beginning regarding Coolant Temperature Threshold Thermostat.



IN DIAGNOSTICS MODE:
"LO" OR "HI" DISPLAYED WHEN FAN
KEY IS TOGGLED BACK AND FORTH.