


ATC 2000 COMPONENTS TROUBLESHOOTING

Most ATC 2000 system problems are the result of improper or poorly made wiring connections. If some or all system components do not operate properly, **first** check that wiring connections are securely made. Check that ground connections have been made to locations that are indeed grounded to the vehicle electrical system, and make certain no fuses have blown as a result of accidental shorts. If a short persists, check to see if a mounting screw has inadvertently been driven through a wire. Pull on both ends of all solderless connections to insure solid locking between connector halves. Examine wires in connectors to insure they are properly seated in the connector cavities. Use an ohmmeter or a test lamp at both sides to confirm electrical continuity. Most electrical and wiring faults are easily identified and corrected with these techniques. If a specific system component is suspected, isolate its function in the diagnostic mode and determine whether or not it operates. All system components are interchangeable and easily replaced. If a failed component has been identified, contact your distributor for a replacement.

Listed below are some common problems and possible solutions. These are not all the problems that can be experienced with the heater/air conditioning systems, nor are all the possible causes/solutions to the problems listed noted here.

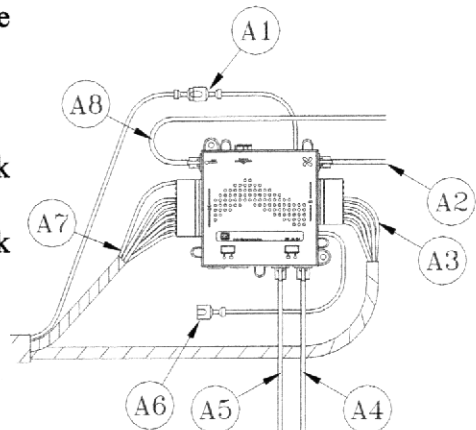
Note: On some control panels, the "FCON" (**ECON**) symbol next to the A/C button has been replaced by the A/C OFF symbol. 

NO POWER TO ATC CONTROL PANEL BUTTON

- Check 8 and 10 pin connectors to Power Module to insure they are properly locked into place and that the circuits are in correct order (see Schematics).
- Verify that Control Module cables are plugged into Power Module. The cavities for the control module cables and the cables themselves are color-coded gray and black. There are two sets of cavities for the control module cables. Be sure the cables are correctly plugged into the same colored cavities as shown below.
- Verify that electrical connection to the ignition switched B+ 5 amp fused circuit is good and fuse is not blown.
- Verify that Power Module ground connection has been properly made.

Power Module Connections: Power Module connections are made as follows:

- A1 - ATC Harness black wire to Power Module black wire (Power Module Ground).
- A2 - Blower Motor Controller gray telephone cable.
- A3 - 8 Pin ATC Harness connector.
- A4 - Control Panel black telephone cable with wide jack connector.
- A5 - Control Panel gray telephone cable with narrow jack connector.
- A6 - Power Module blue wire - Not used.
- A7 - 10 Pin ATC Harness connector
- A8 - Exterior Temperature Sensor red telephone cable.



Fan does not operate

- Check to see that Mode Switch is set in any position other than OFF
- Check to see that the Coolant Temperature Threshold Thermostat is working, as this will prevent the fan from running under certain conditions. The thermostat is located on the water valve and is identified by the two black wires exiting the valve. Check for continuity across the wires to insure the thermostat is operating properly (Warm = open, no continuity-fan will run; Cold = closed, continuity-fan will not run).
- Check electrical connections to the Mode Switch, Blower Fan and the Fan Speed Controller for continuity and correct polarity.
- Verify that main system fuse has not blown due to accidental short circuit.
- Verify that signal cable from the Fan Speed Controller is securely plugged into the correct cavity on the Power Module (see Power Module Connections Illustration).
- Check for faulty Blower Motor.

A/C compressor does not operate

- Check Control Panel to insure system is not in ECON or FULL HEAT modes, which lock out the compressor.
- Check to see that Mode Switch is set in any position other than OFF.
- Check ATC harness on Standard systems to insure Jumper Plug is securely locked into place.
- Check Passenger Module and Harness on Dual systems for proper connections, circuit continuity, and function.
- Check that main system fuse has not blown due to accidental short circuit.
- Check electrical connections to Mode Switch, Cold Control Thermostat, Low Pressure Switch, and Compressor Clutch Relay.
- Check for correct refrigerant charge.
- Check for faulty Compressor, Thermostat, Pressure Switch, or wiring.

System cools when heating is required, or heats when cooling is required.

- Verify that the Heater Valve(s) have been installed correctly with the flow direction arrow on the valve body properly oriented.
- Verify that valve(s) are operating correctly and not binding
- Verify that the cooling system has been refilled and bled after the heater valve was installed.
- Verify that Power Module has been properly programmed for normally closed (reverse logic) operation (see Power Module Programming; Function #10 should be set on 1).

Cabin temperature and /or fan speed fluctuate erratically.

- Evaluate the Interior Temperature Sensor location for susceptibility to unwanted sources of hot or cold air, such as proximity to air vents, air leaks, or heat sources such as stereos, lights, etc.
- Verify that electrical connector to the Interior Temperature Sensor has been properly made and that circuits match.

- Check Aspirator Fan operation to make certain it is running. (Place a piece of tissue paper over the aspirator opening in the grill. (The suction of air being drawn through the sensor housing should hold the tissue in place.)
- Make certain no foreign matter (liquids, dust, etc.) has contaminated or obstructed the Sensor.

Control Module Displays Incorrect Exterior Temperature Readings.

- Check that the signal cable from the Exterior Temperature Sensor is securely plugged into the correct cavity on the Power Module. Variations in temperature readings may occur dependent on vehicle conditions (moving, stationary) and mounting location of the sensor itself in respect to other heat sources (engine heat, generator exhaust, road surfaces, etc.)

Passenger Module Controls Driver's Side Temperatures (Dual Zone Systems Only)

- Check valve connections to insure they are properly wired (see Dual Zone Schematic)
- Check valves to insure they are correctly plumbed to heater cores

Passenger Module Controls Inoperative (Dual Zone Systems Only)

- Check wire harness connections to insure continuity and correct blocking at connectors.
- Check that electrical connection to ignition switched B+ 5 amp fused circuit is good and fuse is not blown.
- Check that Power Module ground connection has been properly made.

Passenger Module Controls Work in Reverse (Dual Zone Systems Only)

- Check wire harness connections to insure continuity and correct blocking at connectors.