OPERATING INSTRUCTIONS

Automatic Temperature Control Operation

The control panel enables the driver to preset the controls to a desired temperature and allow the system to automatically maintain that temperature. The system will automatically modulate the fan speed and temperature of the discharged air to maintain the preset control temperature.

AUTOMATIC TEMPERATURE CONTROL PANEL

Keypad type buttons provide access to the various functions of the ATC system. The Mode Switch is used to provide power to the AC and blower circuits, as well as select the vents through which the air enters the passenger compartment: Defrost, Bi-Levels, Floor, Vent (Dash), Recirculation. All these functions are explained in greater detail later.

TO USE THE AUTOMATIC TEMPERATURE (ATC) CONTROL SYSTEM, FOLLOW THESE SIMPLE STEPS:

- **Turn the ATC System On.** --With the vehicle running, place the Mode Switch in any position other than OFF. Press the On/Off button to turn the system on.

- **Set the ATC System on AUTO or AUTO LO.** --Press the keypad with either the large or small word "AUTO" printed on it to set the system in AUTO or AUTO LO (small print). AUTO positions automatically control every function of the ATC heating and cooling system to maintain the preset temperature selected by the operator.

**Note:** When in AUTO LO, the maximum fan speed is slower than that in AUTO mode, and the slowest speed is slower than the minimum attainable in AUTO mode. AUTO LO is generally used to reduce the fan speed if the operator feels that the elevated air flow causes discomfort or too much noise.
**Set the desired temperature.** --Use the UP/DOWN ARROW keypads to select the temperature from 60 to 86 degrees (F) that you would like to maintain inside the vehicle. Holding the appropriate keypad down will cause the temperature to increase or decrease automatically.

As set above, the system will automatically reach and maintain the desired temperature year round. You need only make changes if you want to modify the temperature (use Up/Down Arrow buttons to do this) or to change the air discharge mode (mode switch).

**IN ADDITION TO FULLY AUTOMATIC OPERATION, THE SYSTEM MAY BE SET AS FOLLOWS:**

**Full Heat Mode:** --Pressing the UP arrow one more time after the display screen reads 86°F will override the automatic feature of the ATC system and provide constant heat to the passenger compartment. The display screen will read "HOT" when the system is set in the full heat mode. In this mode, the blower fan will automatically switch to high (4) speed, but may be changed to suit the operator's comfort by pressing the FAN keypad. To exit from full heat mode, press either AUTO keypad or the DOWN arrow keypad.

**Full Cool Mode:** --Pressing the DOWN arrow one more time after the display screen reads 60°F will override the automatic feature of the ATC system and provide constant cooling to the passenger compartment. The display screen will read "AC" when the system is set in the full cool mode. In this mode, the blower fan will automatically switch to high (4) speed, but may be changed to suit the operator's comfort by pressing the FAN keypad. To exit from full cool mode, press either AUTO keypad or the UP arrow keypad.

**NOTE:** Pressing the UP or Down arrow keypads will exit the system from full heat or cool modes, but will not restore all automatic functions to the ATC system. To return to the fully automatic system the operator must press one of AUTO keypads.

**Fan Speed Control.** --When the system is in the "AUTO" mode, it automatically varies the fan speed from low to high. Should you choose to limit the speed of the blower fan, depress the FAN keypad to place the blower in one of four desired speeds. Use of the manual fan speed selection keypad will override the automatic fan speed selection of the ATC system, but the rest of the ATC system will still operate automatically to maintain the preset temperature. Press either AUTO keypad to return to automatic operation.

**NOTE:** Leaving the Fan Speed Control on a set blower speed will result in the air temperature cycling back and forth from hot to cold, especially when the system reaches the set temperature point. 70% of the automatic temperature modulation is done with airflow, which means that when the blower is "locked" into a certain speed, the automated functions of the system will attempt to compensate for the loss of air speed control by modulating the air temperature to maintain the set point temperature.

**Manual AC Operation** --Depress the AC keypad until the light next to the snowflake symbol is lit. This locks the air conditioner in the "ON" position regardless of temperature conditions. (However, the AC pressure safety switch will not allow the AC compressor to engage until outside air temperatures are approximately 32°F or higher.) The rest of the system will continue to operate automatically to maintain the preset temperature. Because the AC removes moisture from the air, the AC "ON" mode is used to dehumidify cabin air which will help prevent windows from fogging on rainy or humid days.

Press the AC keypad until the light beside the word "ECON" is lit. (On some models, the "ECON" symbol has been replaced by 🌬️ .) The air conditioner is now disengaged and will not turn on even if cooling is required. This permits the flow of outside air only (no AC) when cooling is required. The rest of the
system will continue to operate automatically to maintain the preset temperature. Press either AUTO keypad to return to automatic operation.

**Outside Air Temperature** -- Depressing the outside Air Temperature keypad will cause the Control Module to momentarily display the outside air temperature. This does not affect the system operation in any other way. The letter "E" will appear before the number on the display screen to indicate that the outside temperature is being displayed.

**AIR DIRECTION CONTROL**

The key to optimal comfort and performance from your Automatic Temperature Control System is the selection of the appropriate air direction. Air direction is selected by turning the Mode Switch to one of the following positions:

- **DEFROST** -- Outside air is drawn into the system and discharged through the defrost outlets.

- **MIX** -- Outside air is drawn into the system and discharged through the floor and defrost outlets.

- **FLOOR** -- Outside air is drawn into the system and discharged through the floor outlets. In some models a small amount of air is directed to the windshield for defrost.

- **BI-LEVEL** -- Outside air is drawn into the system and discharged through the dash louvers, floor, and defrost outlets.

- **VENT** -- Outside air is drawn into the system and discharged through the dash louvers. For enhanced passenger comfort, upper-level ventilation air is also discharged through the defrost outlets.

- **PANEL** -- Outside air is drawn into the system and discharged through the dash louvers. These louvers can be adjusted for maximum comfort.

**RECIRCULATION** -- Air is drawn from the passenger compartment (Recirculated Air) and discharged through the dash louvers. This position is used to provide maximum heating or cooling, and is generally used during extremely hot or cold weather conditions. Because the RECIRCULATION mode does not allow fresh "outside" air into the passenger compartment, it may cause fogging of the windshield and stale air, when used for prolonged periods of time. Switch to PANEL mode periodically if these conditions occur. RECIRCULATION mode is recommended for initial cool-down or warm-up periods.
OTHER FEATURES

Sunload Sensor: -- The ATC 2000 automatic temperature control systems is also equipped with a sun load sensor which is generally located on the upper dash shelf where it is continuously exposed to the rays of the sun (or lack thereof). The sunload sensor will cause the operating temperature of the system to vary ±1 to 2°F depending on the intensity of light being detected by the sensor.

Ice Warning: -- The display screen will blink once every ten seconds when the outside air temperature is within ±6°F/±4°C of freezing (32°F/0°C). This feature indicates the possibility of icy road conditions, and that care should be exercised while driving. It is only a warning and not an absolute indication of road condition.

IMPORTANT OPERATING TIPS

Research has shown that most people are comfortable in a vehicle which is between 73°F/23°C and 80°F/27°C. You will probably also find that your ideal temperature varies with conditions, such as time of day (day or night) and sunload (heating effects of the sun). In general, it is best to select a slightly warmer temperature at night than the temperature you find comfortable during the daytime. Experiment with different temperatures until you find your ideal comfort zone.

OPTIONAL DUAL ZONE SYSTEMS

Units equipped with an optional passenger temperature controller allow the passenger to adjust the temperature in the passenger seating area to their own personal comfort level. The passenger side temperature control panel is located generally in the passenger arm rest, or within easy reach of the passenger, and has two UP/DOWN arrow keypads similar to those found in the operator control panel. The passenger can adjust their seating area temperature by pressing either keypad to increase or decrease the temperature that is preset on the operator control panel. LED lamps in the passenger controller indicate the amount of offset selected by the passenger.

The center amber lamp indicates a neutral position (the same as the driver's side), red lamps indicate a warmer temperature and green lamps indicate a cooler temperature. The more lamps lit, the greater the temperature offset.

NOTE: The passenger controller only provides an offset in temperature relative to the temperature setting of the operator control panel. Regardless of the setting selected by the passenger, air temperatures in the passenger area will change accordingly if the operator changes the temperature setting on the ATC control panel.

CARE AND SERVICE

- Keep the condenser and radiator free of bugs and debris.
- During periods of little use, operate the A/C system monthly to keep the compressor and seals lubed.
- Periodically inspect the belts and hoses for wear and proper tension.
- Periodically check for proper coolant levels.