DRIVERS

OPERATING

Adjusting the Temperature Set Point on the G4500 coaches with the Thermo King HVAC System

Introduction:

The first series of G4500 coaches are equipped with an electronically controlled Heating & Air Conditioning system, called *Intellig-AIRE II*[®]. The system is able to fully control the heating and air conditioning needs of the passengers as well as the driver, independently from each other.

The system uses an integrated electronic controller and sensors to measure interior temperatures, outside air temperature, and also monitors system temperatures and pressures. The controller uses all this information to maintain the current temperature set point a driver selects $(+/-2^\circ)$. The range of the system is from 62°F up to 80°F in both heat and air conditioning modes. The controller maintains the set point for two independent zones on the bus. Zone 1 is the passenger area and the other zone is the driver's area. The controller does have the option for a Zone 2, but it is not used on our coaches. The display module does not control the overhead parcel rack air conditioning.

Operation:

The drivers display module may appear very complex and confusing, but in reality it is very simple to use. Before the system can be turned ON, the coach must have adequate air pressure and the electrical system charging. This is no different from other coaches in the Grevhound Fleet.

The figure below shows the many different keys and functions of the display module however, for this bulletin, we will only discuss adjusting the temperature set points as all other functions should be left in the "AUTO Mode'.



Turning the System ON:

To turn the system ON, press the 'Main ON/OFF' (23) key. The display module will begin a self-diagnostic check

and illuminate all the indicators and keys and display 888 in the window as shown here.

Selecting A Zone:

When the system is first turned ON, it will default to

Zone I (#1 - passenger area). To select a different Zone, press the Main ON/OFF key to turn the HVAC system ON. 'Display Mode' key (#2). It may also be referred to as the Recirculate Air key. The

current ambient air temperature will be display for the zone selected (#3).

Adjusting the Zone 1 Set-Point:

With Zone 1 selected (#1), press the UP or DOWN arrow key to adjust the passenger's area set point (#2).

When either arrow is pressed, the Set Point indicator will illuminate (#3). The current set point will be displayed, then will adjust up or



The system will then preform a self-diagnostic check.



2) Display Select key, used to switch between Zone Driver's Zone, and ambient air temperature. 3) Interior ambient air temperature (Zone 1) display

down when either key is pressed (#4). Continue pressing either key until the

desired set point is obtained Selecting the Driver's Zone:

In order to adjust the driver's area temperature (heat or air conditioning) the operator MUST select the Driver's Zone. To select the Driver's Zone, press the Display Mode' key (#1), until the Driver's Zone indicator is illuminated (#2). Note that Zone 2 is skipped when pressing the 'Display Mode' key. The driver's area temperature will be displayed (#3). Adjusting the Driver's Set-

Point:

Once the Driver's Zone has been selected (#1), press either the UP or DOWN arrow keys (#2) to adjust the set-point. The set-point indicator will illuminate (#3) while adjusting the set-point. As the up or down arrow keys are pressed, the set-point will be displayed (#4). Continue to adjust the set-point until the desired temperature (set-point) is obtained.

Outside Temperature Display:

To display the ambient outside temperature, press the 'Display Select' key (#1) until the 'Ambient Air Temperature' indicator (#2) is illuminated. The ambient air temperature will automatically be displayed (#3) in the display window.

This information can be useful when the air temperature is near the freezing point (32EF). **AUTO Mode:**

The system will always default into Auto Mode when turned ON. The three(3) AUTO indicators will illuminate as shown below when in AUTO Mode. The left column (top to bottom) are the modes of A/C, Heat, and Recirculation mode.

The center column is the fan speed selections (3 speeds) of high, medium and low. The right column are driver area controls (modes) recirculation,

٢ fresh air. and defroster. Unless directed by MRD or

Maintenance personnel, leave the system in AUTO Mode. It will automatically open or close

electric water valves or electric refrigerant valves or a combination of both, to maintain the set point (Zone 1 and

Driver's Zone). Remember, you can always turn the unit OFF, then ON again to 'reset' the system back to AUTO Mode.



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