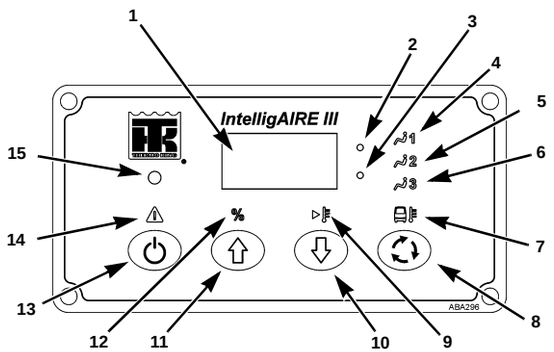
DRIVER'S DISPLAY MODULE

The DDM features touch sensitive operator keys, LED indicators and a 3-digit LED display. The DDM provides interface for controlling the HVAC on/off, setpoint adjustment, readout of passenger zone temperatures, outside ambient temperature and for monitoring warning and shutdown alarm indicators.



Item	Description
1.	3-Digit Display
2.	Red LED Indicator - HEAT Mode
3.	Blue LED Indicator - COOL Mode
4.	Zone 1 Indicator
5.	Zone 2 Indicator
6.	Zone 3 Indicator
7.	Ambient Air Temperature Indicator
8.	Zone Select Key
9.	Setpoint Indicator
10.	Down Arrow Key
11.	Up Arrow Key
12.	Percent Indicator
13.	On/Off Key
14.	Alarm Indicator - Red or Yellow
15.	Ambient Light Sensor

KEY FUNCTIONS

On/Off Key

Pressing the On/Off key turns the system On and Off.

When the system is turned On:

- The 3-digit LED temperature display will be illuminated.
- The Red LED indicator will illuminate when the unit is heating.
- The Blue LED indicator will illuminate when the unit is cooling.

When the system is turned Off:

- The 3-digit LED temperature display will be off.
- LED indicators will be off.
- Backlighting for keys stay on.
- Continues to communicate with ECM.

Up and Down Arrow Keys

The Up and Down Arrow keys are used to increase or decrease the setpoint temperature for each zone.

1. Select zone (using Zone Select Key).
2. Press Up or Down key once:
   - Set point icon will illuminate and 3-digit display will show current temperature set point.
3. Press Up or Down key again:
   - Will increase or decrease the set point by 1 degree
4. If no key is pressed within 3 second time out period, the display will return to the inside temperature for the zone selected.

Zone Select Key

The Zone Select Key displays temperature set point for three inside zones and outside ambient temperature.

- Information displayed on the 3-digit display will coincide with the zone that is selected.
- Pressing the Zone Select Key will cycle through each enabled zone as well as the outside ambient temperature.

KEY FUNCTIONS (continued)

Passenger Zone 1 Indicator

The Passenger Zone 1 Indicator will illuminate when selected.

Passenger Zone 2 Indicator

The Passenger Zone 2 Indicator will illuminate when selected.

Passenger Zone 3 Indicator

The Passenger Zone 3 Indicator will illuminate when selected.

Ambient Temperature Indicator

The Ambient Temperature Indicator will illuminate when selected.

NOTE: The ambient temperature sensor can provide data which may be used to help alert the driver of possible icing conditioning on some road surfaces.

Setpoint Indicator

The Setpoint Indicator will illuminate when setpoint is being displayed.

Percentage Indicator

When the system is in the Service Test Mode, the percent (%) indicator will illuminate to show the percent the coolant valve or damper is open or closed.

Alarm Indicator

The alarm indicator display icon will illuminate when an alarm has been detected.

Two types of alarms may appear:

- Check Alarms
- Shutdown Alarms

ALARMS

Check Alarms

A YELLOW alarm icon illuminated indicates a "check alarm" is currently active. Check alarms indicate a need to take corrective action before an abnormal condition becomes severe. The unit will continue to operate at reduced efficiency, and some features may be disabled.

Shutdown Alarms

If a RED shutdown indicator comes on during operation, the system will shut itself Off. Shutdown alarms will disengage the compressor by de-energizing the compressor clutch. The condition that caused the shutdown alarm must be corrected and cleared before the compressor can be re-engaged.

HEATING and COOLING INDICATORS

The Red (Heating) and Blue (Cooling) LED indicators are located to the right of the 3-digit display. These LED's indicate the current operating mode of the HVAC unit:

- Blue LED indicator will illuminate whenever the compressor is running.
- Red LED indicator will illuminate whenever the boost pump and coolant valve are operating.
- Both LED's will be illuminated when operating in Reheat Mode. Compressor clutch and coolant valve are energized as needed after setpoint is reached to maintain set point.

CHECKING and CHANGING SETPOINTS

Press the Display Select key to select the appropriate zone. Press the Up or Down Arrow key to switch the temperature display to the setpoint display for the zone selected.

The setpoint indicator will flash to indicate the setpoint is displayed. Press the Up key to raise the setpoint, or press the Down key to lower the setpoint. When the desired setpoint is shown in the display, wait approximately 5 seconds. The display will switch back to the temperature display for the selected zone and the setpoint indicator will go off. The system will now control to the new setpoint for the selected zone.

ALARM READOUT MODE

1. Press and hold for 3 seconds.

The LED display will show the first active alarm code. See Alarm Codes for more specific alarm information.

NOTE: If there are no alarms currently active, the display will show "---".

2. Press or to read additional alarms.

3. Press to return to normal operation.

ALARM CODES

Y= yellow check alarm **R**= red shutdown alarm **0**= no alarm

Code	Type	Description of Alarm
000		No Alarm
001	R	Clutch 1 output open circuit
002	R	Clutch 1 output short circuit
003	Y	Low pressure cut-out compressor 1
004	R	High pressure cut-out compressor 1
005	R	Low pressure cut-out compressor 1 cycled 5 times in 10 min.
006	R	Low pressure cut-out compressor 1 longer than 1 min.
007	Y	Return air temperature sensor failure - low value
008	Y	Return air temperature sensor failure - high value
009	Y	Evaporator coil temperature sensor failure - low value
010	Y	Evaporator coil temperature sensor failure - high value
011	Y	Ambient temperature Sensor failure - low value
012	Y	Ambient temperature Sensor failure - high value
013	Y	Battery cooler coil temperature sensor failure - low value
014	Y	Battery cooler coil temperature sensor failure - high value
015	Y	Discharge air temperature sensor failure - low value
016	Y	Discharge air temperature sensor failure - high value
017	Y	Water temperature sensor failure - low value
018	Y	Water temperature sensor failure - high value
019	Y	Compressor discharge temp. sensor failure - low value

ALARM CODES (continued)

020	Y	Compressor discharge temp. sensor failure - high value
021	R	Clutch 2 output open circuit
022	R	Clutch 2 output short circuit
023	Y	Low pressure cut-out compressor 2
024	R	High pressure cut-out compressor 2
025	R	Low pressure cut-out compressor 2 cycled 5 times in 10 min.
026	R	Low pressure cut-out compressor 2 longer than 1 min.
027	R	Clutch 1 cycling
028	R	Clutch 2 cycling
029	O	Evaporator coil 1 frozen
030	O	Evaporator coil 2 frozen
031	Y	Compressor discharge temperature warning
032	R	Compressor discharge temperature shutdown
033	Y	Fresh air servo 1 failed during initialization
034	Y	Fresh air servo 1 failure
035	Y	Fresh air servo 2 failed during initialization
036	Y	Fresh air servo 2 failure
037	Y	Coolant valve servo 1 failed during initialization
038	Y	Coolant valve servo 1 failure
039	Y	Coolant valve servo 2 failed during initialization
040	Y	Coolant valve servo 2 failure
047	Y	EEPROM error
048	Y	Configuration check sum error
050	Y	Evaporator fan low speed output open circuit or underload
051	Y	Evaporator fan low speed output short circuit or overload
052	Y	Evaporator fan medium speed output open circuit or underload
053	Y	Evaporator fan medium speed output short circuit or overload
054	Y	Evaporator fan high speed output open circuit or underload
055	Y	Evaporator fan high speed output short circuit or overload
056	Y	Condenser fan low speed output open circuit or underload
057	Y	Condenser fan low speed output short circuit or overload
058	Y	Condenser fan high speed output open circuit or underload
059	Y	Condenser fan high speed output short circuit or overload

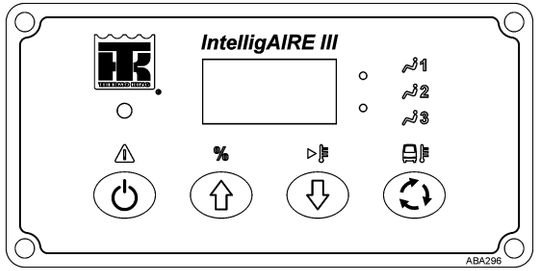
ALARM CODES (continued)

060	Y	Loading valve 1 output open circuit or underload
061	Y	Loading valve 1 output short circuit or overload
062	Y	Loading valve 2 output open circuit or underload
063	Y	Loading valve 2 output short circuit or overload
064	Y	Boost pump relay output open circuit or underload
065	Y	Boost pump relay output short circuit or overload
066	Y	Liquid line valve output open or underload
067	Y	Liquid line valve output short circuit or overload
068	Y	Coolant valve output open circuit or underload
069	Y	Coolant valve output short circuit or overload
071	Y	Evaporator blower fault
072	Y	Condenser fan fault
073	Y	Discharge pressure transducer 1 out of range - low
074	Y	Discharge pressure transducer 1 out of range - high
075	Y	Discharge pressure transducer 2 out of range - low
076	Y	Discharge pressure transducer 2 out of range - high
077	Y	Suction pressure transducer 1 out of range - low
078	Y	Suction pressure transducer 1 out of range - high
079	Y	Suction pressure transducer 2 out of range - low
080	Y	Suction pressure transducer 2 out of range - high
093	Y	Low voltage on 2D circuit
095	Y	Low cooling capacity
096	Y	Low heating capacity
097	Y	Low coolant level
098	Y	Low voltage on 2A circuit
099	Y	Low voltage on 2B circuit

THERMO KING

IntelligAIRE III

Operating Procedures



Using Driver's Display Module

TK 56006-3-PC (Rev. 0, 07/14)

Ingersoll Rand