# MANUAL DEFROST CYCLE

1. Turn the Zone 1/ Host Switch "on".

NOTE: The switch for the zone you intend to defrost must also be turned "on".

- 2. Press the Select key to display [dEF] for the desired zone.
- 3. Press the Enter key. The display will briefly show [LOAD], and then the unit will enter a defrost cycle. The defrost cycle will terminate automatically.

# VIEWING PROMPT & DISPLAY SCREENS

- 1. Turn the Zone 1/ Host switch "on".
- 2. Press the Select key to view the prompt and display screens as follows:

[DEF1]	Defrost Prompt Zone 1
[CYCLS]	Cycle-Sentry Prompt
[Zone 2]	Standard Display Zone 2
[DEF2]	Defrost Prompt Zone 2
[Zone 3]	Standard Display Zone 3
[DEF3]	Defrost Prompt Zone 3
[AMB.T]	Ambient Air Temperature
[BATV]	Battery Voltage
[RPM]	Engine RPM
[HED.P]	Discharge Pressure
[RET.A]	Return Air Temp Zone 1
[DIS.A]	Discharge Air Temp Zone 1
[TPDF]	Temp Differential Zone 1
[COIL]	Coil Temp Zone 1
[RET.A]	Return Air Temp Zone 2
[DIS.A]	Discharge Air Temp Zone 2
[TPDF]	Temp Differential Zone 2
[COIL]	Coil Temp Zone 2
[RET.A]	Return Air Temp Zone 3
[COIL]	Coil Temp Zone 3

# CHANGING THE SETPOINT

- 1. Turn all Zone Switches "on".
- 2. Press the Select Key to chose the zone to be changed.
- 3. Press the Up and Down Arrow keys to chose the new setpoint for the zone shown.
- 4. Press the Enter key. The display will briefly show [LOAD], and then the new setpoint will reappear.

# SELECTING CYCLE-SENTRY OR CONTINUOUS MODE

- 1. Turn the Zone 1/ Host switch "on".
- 2. Press the Select key to display [CYCLS] and [YES] or [nO].
- Press the Up or Down Arrow key to select the desired mode. [YES] = Cycle-Sentry, [nO] = Continuous.
- 4. Press the Enter key. The display will briefly show [LOAD], and then the new mode will reappear.

# STARTING THE ENGINE

1. Turn the Zone 1/ Host switch "on". If no other key is pressed, the engine will automatically preheat and start in about 10 seconds.

**CAUTION:** The engine starts automatically in either Cycle-Sentry or Continuous mode.

# OPERATING THE THERMOGUARD MULTI- TEMP µP-IV MICROPROCESSOR





Used on: SB-III DE, SB-III TC/TCI, Super-II TC/TCI, Spectrum DE, Spectrum SB, & Spectrum Super-II

TK 41165-2-PC (Rev. 2)

November 2005

# VIEWING & CLEARING ALARM CODES

- 1. If the Alarm Icon is "on", alarm conditions have been detected.
- 2. Press the Code key. The Alarm Screen and Alarm Code will appear. Press the Code key again to display any additional alarm codes. Always record any alarm codes shown. They are invaluable to the service technician.
- After the alarm condition has been corrected, press the Code key to display the alarm code again. When the alarm code is shown in the display, press the Clear key to clear the alarm.

#### **RUNNING A PRETRIP TEST**

- 1. Turn all Zone Switches "on".
- 2. Clear any alarm codes that may exist.
- 3. Before the engine starts, press and hold the Thermo King Logo key for at least 3 seconds. The Pretrip prompt screen will appear.
- 4. Press the Enter key to start a Pretrip test. The display will briefly show [LOAD] and then the test will begin.
- 5. The test is fully automatic. When complete, [PASS], [CHEC] or [FAIL] will appear on the display.

# ALARM CODES

- 00 No Alarms Exist
- 02 Check Evaporator Coil Sensor
- 03 Check (Control) Return Air Sensor
- 04 Check (Control) Discharge Air Sensor
- 05 Check Ambient Air Sensor
- 06 Check Coolant Temp Sensor 07 Check Engine RPM Sensor
- 08 Unit Running on Coil Sensor
- 09 High Evaporator Temperature
- 10 High Discharge Pressure
- 11 Unit Controlling on Alternate Sensor
- 12 Sensor or Digital Input Shutdown
- 13 Sensor Check
- 15 Check Glow Plugs or Intake Air Heater
- 17 Engine Failed to Crank
- 18 High Engine Coolant Temperature
- 19 Low Engine Oil Pressure
- 20 Engine Failed To Start
- 21 Cooling Cycle Check
- 22 Heating Cycle Check
- 25 Alternator Check
- 26 Check Refrigeration Capacity
- 28 Pretrip Abort
- 29 Defrost Damper Circuit Check
- 30 Defrost Damper Stuck Closed
- 31 Check Oil Pressure Switch
- 32 Refrigeration Capacity Low
- 33 Check Engine RPM
- 35 Check Run Relay Circuit
- 36 Electric Motor Failed To Run
- 37 Check Engine Coolant Level
- 40 Check High Speed Circuit
- 41 Check Engine Coolant Temperature
- 42 Unit Forced to Low Speed
- 44 Check Fuel System
- 45 Check Hot Gas or Hot Gas Bypass Circuit
- 47 Remote Sensor Shutdown
- 48 Check Belts or Clutch
- 50 Reset Clock
- 52 Check Heat Circuit
- 54 Test Mode Timeout
- 55 Check Engine Speeds

### **ALARM CODES**

- 61 Low Battery Voltage 62 Ammeter Out of Calibration 63 Engine Stopped Pretrip Reminder 64 Low Engine Oil Level 66 67 Check Liquid Line Solenoid 68 Internal Controller Fault Code Hourmeters Failure 70 73 Hourmeter 6 Exceeds Set Time Limit 74 Controller Reset to Defaults 75 Controller RAM Failure 76 **Controller EPROM Failure** 77 Controller EPROM Checksum Failure 78 Data Log EPROM Failure 79 Internal Data Log Overflow Check Receiver Tank Pressure Sol Circuit 105 106 Check Purge Valve Circuit 107 Check Condenser Inlet Sol Circuit 108 Door Open Timeout Check High Discharge Pressure Sensor 109 110 Check Suction Line Sol Circuit 111 Unit Not Configured Correctly 112 Check Remote Fans 113 **Check Electric Heat Circuit**
- 114 Multiple Alarms Can Not Run

# **ADDITIONAL INFORMATION**

For additional information consult the following Thermo King manuals for your unit.

#### **Operating Manual**

#### **Maintenance Manual**

#### **Parts Manual**

**Operation and Diagnosis Manual**