OPERATING THE THERMOGUARD µP-IV+ MICROPROCESSOR

used on

SB-IIIS SR+ UNITS

CHANGING THE SETPOINT

1. Turn the unit "on".

2. Press the Up and Down Arrow keys to chose the new setpoint.

3. Press the Enter key. The display will briefly show [LOAD], and then the new setpoint will reappear.

SELECTING CYCLE SENTRY OR CONTINUOUS MODE

1. Place the Cycle Sentry/Continuous switch in the desired position.
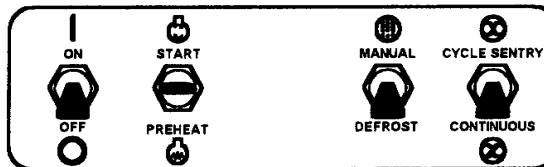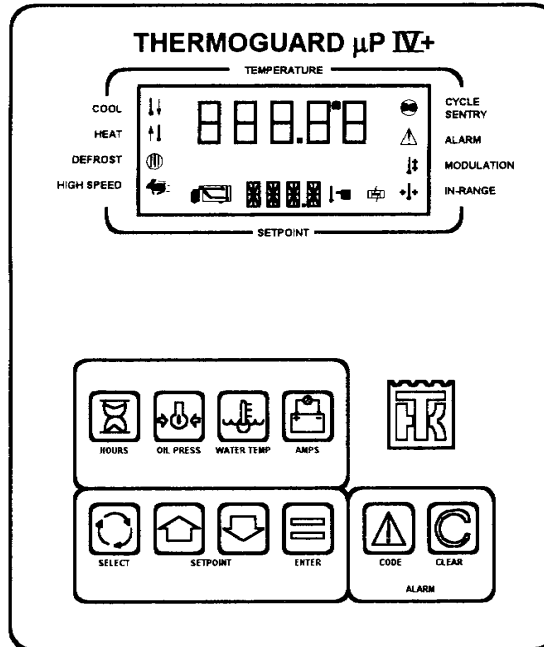
STARTING THE ENGINE

Continuous Mode - Turn the unit "on". Hold the Preheat/Start switch in the "Preheat" position for 10 to 90 seconds depending on ambient temperature. Then press the Preheat/Start switch to the "Start" position to start the engine.

Cycle Sentry Mode - Turn the unit "on". If no other key is pressed, the engine will automatically preheat and start in about 10 seconds.

MANUAL DEFROST CYCLE

1. The unit must be On and running in either Continuous or Cycle Sentry Mode or stopped in Cycle Sentry Null Mode
and
the coil temperature must be less than 45°F (7°C).

2. Lift and release the Manual Defrost switch to start a manual defrost cycle. The unit will not perform a Defrost Cycle if the coil temperature is above 45°F (7°C).

3. The defrost cycle will terminate automatically.

VIEWING PROMPT & DISPLAY SCREENS

1. Turn the unit "on".

2. Press the Select key to view the prompt and display screens as follows:

[DIS.A]	Discharge Air Temperature
[TPDF]	Temperature Differential
[COIL]	Evap Coil Temperature
[AMB.T]	Ambient Air Temperature
[SPR.1]	Spare Sensor 1
[CTMP]	Compressor Temperature
[BATV]	Battery Voltage
[RPM]	Engine RPM
[DEFI]	Def Interval In Range
[DEFN]	Def Interval Not In Range
[DDUR]	Defrost Duration

VIEWING & CLEARING ALARM CODES

1. If the Alarm Icon is "on", alarm conditions have been detected.

2. Press the Code key to display the alarm code. Press the Code key again to display any additional alarm codes. Always record any alarm codes shown.

4. 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. Place the unit in Cycle Sentry Mode and turn the unit "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 [PRE TRIP] 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 it is complete, [PASS], [CHEC] or [FAIL] will appear on the display.

ALARM CODES

Code	Description
00	No Fault
02	Evaporator Coil Sensor
03	Return air Sensor
04	Discharge Air Sensor
05	Ambient Air Sensor
06	Engine Water Temp Sensor
07	Engine RPM Sensor
09	High Evaporator Temp
10	High Discharge Pressure
11	Unit Controlling on Discharge Air Sensor
12	Sensor Shutdown
13	Check Sensor calibration
15	Glow Plug Check
16	Manual Start Not Completed
17	Engine Failed to Crank
18	High Engine Water Temp
19	Low Engine Oil Pressure
20	Engine Failed to Start
21	Cooling Cycle Check
22	Heating Cycle Check
23	Cooling Cycle Fault
24	Heating Cycle Fault
25	Alternator Check
26	Check Refrigeration Capacity
28	Pretrip Abort
29	Defrost Damper Circuit
30	Damper Stuck Closed
31	Oil Pressure Switch
32	Refrigeration capacity low
33	Check Engine RPM
35	Run Relay Circuit
37	Check Engine Water Level
39	Water Valve Circuit
40	High Speed Circuit
41	Engine Water Temperature Check
42	Unit Forced to Low Speed
44	Fuel System Check
46	Air Flow Check
50	Reset Clock
52	Heat Circuit
53	Economizer Valve Circuit

ALARM CODES

Code	Description
54	Test Mode Timeout
55	Check Engine Speeds
61	Battery Check
62	Ammeter Out of Calibration Range
63	Engine Stopped - Reason Unknown
64	Pretrip Reminder
66	Low Engine Oil Level
67	Liquid Line Solenoid
68	Internal Fault Code
70	Hourmeters Exceed 99999
71	Hourmeter 4 Exceeds set limit
72	Hourmeter 5 Exceeds set limit
73	Hourmeter 6 Exceeds set limit
74	Microprocessor Reverted to Default Settings
75	Internal Fault Code, Dealer Resettable
76	Internal Fault Code, Dealer Resettable
77	Internal Fault Code, Dealer Resettable
78	Internal Fault Code, Dealer Resettable
79	Data Log Overflow
80	Compressor Temperature Sensor
81	High Compressor Temperature
82	High Compressor Temperature Shutdown
83	Low Coolant Temperature
85*	Forced Unit Operation

* Will clear automatically

ADDITIONAL INFORMATION

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

Operating Manual

Maintenance Manual

Parts Manual

Diagnosis Manual - TK 40977