OPERATING THE THERMOGUARD µP-V MICROPROCESSOR

THERMOGUARD µP V

TEMPERATURE

COOL	CYCLE SENTRY
HEAT	ALARM
DEFROST	MODULATION
HIGH SPEED	IN-RANGE

SETPOINT

HOURS   OIL PRESS   WATER TEMP   AMPS

SELECT   SETPOINT   ENTER   CODE   CLEAR

ALARM

ON
OFF
CAUTION: WHEN SWITCH IS ON, UNIT MAY START ANYTIME
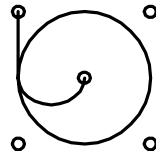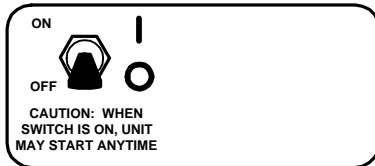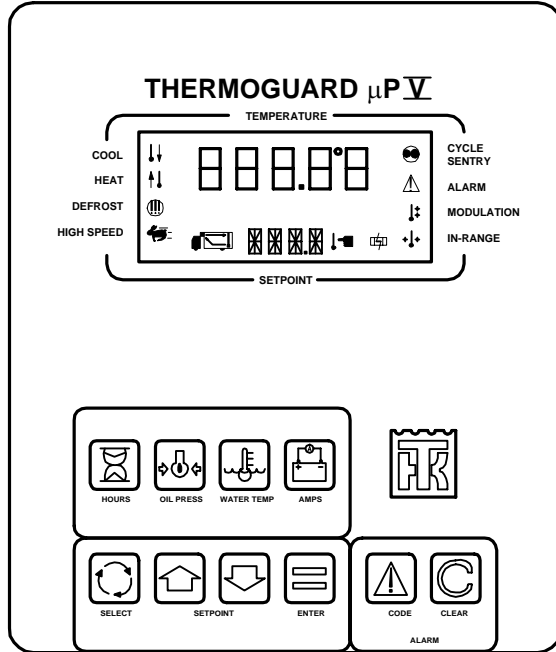
CHANGING THE SETPOINT

1. Turn unit On/Off Switch "on".

2. Press 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. Turn unit On/Off switch "on".

2. Press the Select key to display [CYCLS] and [YES] or [NO].

3. Press the Up or Down Arrow key to select the desired mode. [YES] = Cycle Sentry mode, [NO] = Continuous mode.

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

STARTING THE ENGINE

1. Turn the unit On/Off 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 both Cycle Sentry and Continuous mode any time the On/Off switch is "on".

MANUAL DEFROST CYCLE

1. Turn unit On/Off switch "on".

2. Press the Select key to display [dEF].

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 unit "on".

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

[dEF]	Defrost Prompt*
[CYCLS]	Cycle Sentry Prompt
[DIS.A]	Discharge Air Temperature
[TPDF]	Temperature Differential
[COIL]	Evaporator Coil Temperature
[AMB.T]	Ambient Air Temperature
[SPR.1]	Spare Sensor 1
[SPR.2]	Spare Sensor 2
[BATV]	Battery Voltage
[RPM]	Engine RPM
[DEFI]	Defrost Interval In Range
[DEFN]	Defrost Interval Not In Range
[DDUR]	Defrost Duration
[MVST]	Mod Valve Close on Start*

* = May not always appear

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. Turn the unit On/Off Switch "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.

6. If [CHEC] or [FAIL] appears, display and correct any alarm codes and repeat the test.

ALARM CODES

00	No Fault
01	Micro Power Up (Data Log Only)
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
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
34	Modulation Circuit
35	Run Relay Circuit
36	Electric Motor Failed to Run
37	Check Engine Water Level
38	Electric Phase Reversed
40	High Speed Circuit
41	Engine Water Temperature Check
42	Unit Forced to Low Speed
43	Unit Forced to Low Speed Modulation
44	Fuel System Check
45	Hot Gas Circuit
46	Air Flow Check

ALARM CODES

48	Check Belts/Clutch
50	Reset Clock
52	Heat Circuit
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
70	Hourmeters Exceed 99999
71	Hourmeter 4 Exceeds set limit
72	Hourmeter 5 Exceeds set limit
73	Hourmeter 6 Exceeds set limit
74	Micro 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
84	Restart Null

OPTIONAL SLEEP MODE

Place the optional On/Off/Sleep switch in the "Sleep" position. The display will show [SLEEP MODE]. The unit will start and stop to keep the engine warm and battery charged but will not control to setpoint.

ON OFF SLEEP ZZZ

CAUTION: WHEN SWITCH IS ON, UNIT MAY START ANYTIME
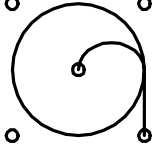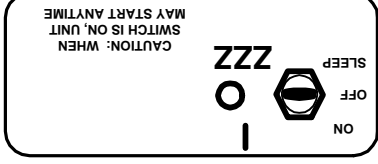
ADDITIONAL INFORMATION

For additional information consult the Thermo King Operating, Maintenance, Parts and Diagnostic Manuals for your unit.