- On settings menus this pushbutton backs out of an operation without changing anything.
- Energizes heater for system testing or troubleshooting. Pressing this pushbutton for five seconds while on the Edit Settings screen will energize the heater for five minutes. Pressing the pushbutton again will de-energize the heater and resume normal operation. The user can change screens while the test is in progress.

MAIN SCREENS

There are five main screens that can be accessed using the UP and DOWN pushbuttons. These screens cycle in the sequence shown in Figure 9; pressing UP or DOWN five times returns you to your starting position.

Note: After initial use the default display screen when left alone will be the last main screen that was displayed for more than five seconds.

Triple Display screen – Displays the three data fields (Temperature, Load Current, Ground Fault Current) are all shown on this same screen. If there is an alarm, the field description will alternate with an alarm notification. In most cases, the alarm on this screen will identify what the alarm is, except for a Load Current alarm. To determine whether the Load Current alarm is a high or low Load Current alarm you must view the Load Current Display screen.

Note: If the heater relay is off, the ground fault number is NOT shown.

Temperature Display screen – Indicates the current temperature in Fahrenheit or Celsius. This screen will also show any associated alarm conditions.

Load Current Display screen – Indicates the load current to the heaters in amps. This screen will also show any associated alarm conditions.

Ground-Fault Current Display screen – Indicates the ground fault current in milliamps. This screen will also show any associated alarm conditions.

Note: If the heater relay is off, NO NUMBER IS SHOWN.

Note: In any of the main sequence screens, pressing the TEST/RESET BACK pushbutton will clear all latched alarms and perform a self-test, including a ground fault current test. The "Passed" or "Failed" result of the self-test is then displayed, then returns to the default screen.

Settings screen – Allows access to all the parameter settings. The top line will say "Edit Settings" or "View Settings", depending on whether the Panel Lockout function is set with the internal DIP switch (see page 7). With Panel Lockout enabled, most configuration settings can only be viewed, not edited. The only exception is the choice of Celsius or Fahrenheit temperature units.

Note: The GPT reads the Lock DIP switch position when the Settings screen is entered. If the switch is changed, you need to re-enter the Settings screen.

Triple Display screen | Temperature Display screen | Load Current Display screen | Ground–Fault Current Display screen | Settings screen

FIGURE 9. Main screen sequence

SETTINGS SCREEN VIEWING/EDITING SETTINGS

SETTINGS SCREENS

To enter the settings sequence press the ENTER pushbutton while in the Settings screen. This will take you to the settings sequence, where you can view or edit system parameter settings. These screens follow the sequence shown in Figure 10; pressing the UP or DOWN pushbuttons 10 times returns you to your starting position. Each screen has a line at the top which describes the parameter or group of parameters. Press the ENTER pushbutton to edit the parameter or group of parameters. If the Panel Lockout feature is turned on you will see a screen that says "Edit Function Locked Out". The BACK pushbutton will take you back to the default screen.

All settings are stored in the unit's non-volatile memory, this means that the PT-SINGLE will retain the settings entered even if the unit loses or is disconnected from the power source. Holding the UP and DOWN pushbuttons together for five seconds in the settings screen will restore all settings to their factory default value, if desired.

Basic Editing of Settings

When on the desired screen press the ENTER pushbutton to edit the values. Use the UP and DOWN pushbuttonsto change the parameter values, press the buttons quickly to change the number values decimally, or hold thebuttons to scroll through the number values more quickly. The ENTER pushbutton saves the value setting. The BACK pushbutton cancels the edit operation if not saved and returns to the original value at the start of the edit.

Multi-field Screen Editing

In screens that display multiple fields, there are two columns. The left column displays the name of the parameter, and the right column displays the current value. Initially, one of the fields in the left column will be selected (have a selection box around it). Use the UP and DOWN pushbuttons to change the row which is selected. Press the ENTER pushbutton to edit the parameter in that row, the selection box will move to the right column, indicating that an edit operation is in process. After you are done editing, press the ENTER pushbutton to save the new value, or the BACK pushbutton to make no change. The selection box will move back to the left column.

Alarm Options Screen Editing

The "Alarm Options" screen has three binary (on/off) configuration settings:

Latching: this controls whether non-critical alarms latch. When ON, alarms need to be cleared manually by using the red key. When OFF, the alarm will go away when the alarm condition resolved. The default for the Latching setting is OFF.

Fail Mode: this is a safe state setting which can be set to energize or de-energize the heaters if the sensor fails. The default setting for the Fail Mode is ON.

Fire Prot: this controls whether the Fire Protection mode is active. When ON, a ground fault or over-current alarm will not inhibit operation of the heater. When OFF, a ground fault or over-current alarm will de-energize the heater. The default setting for the Fire Protection mode is OFF. When in the edit mode the description and meaning of the currently selected parameter is displayed at the bottom. As you edit the value, the description will change accordingly.

Note: To restore all settings to factory default press both the UP and DOWN pushbuttons together for five seconds while in the settings screen. The unit will prompt the user for acknowledgement before changing the settings.

Temperature Control screen

Control Temps
High Temp 40.0 °F
Setpoint 38.0 °F

From this screen manage the heater's switching temperatures.

High Temp: The temperature at which the heater is de-energized.

Setpoint: The temperature at which the heater is energized.

Low Temperature Alarm screen

Low Temp Alarm
Threshold 35.0 °F
Delay 300 S
Enabled No

From this screen manage the heater's Low Temperature Alarm conditions.

Threshold: Any temperature below this will trigger an alarm.

Delay: How long after a Low Temp is detected before system alarms.

Enabled: Turns the Low Temp Alarm function on/off.

High Temperature Alarm screen

High Temp Alarm
Threshold 140.0 °F
Delay 300 S
Enabled No

From this screen manage the heater's High Temperature Alarm conditions.

Threshold: Any temperature above this will trigger an alarm.

Delay: How long after a High Temp is detected before system alarms.

Enabled: Turns the High Temp Alarm function on/off.

Low Current Alarm screen

Low Curr Alarm
Threshold 0.1 A
Delay 5 S
Enabled Yes

From this screen manage the heater's Low Current Alarm conditions.

Threshold: At or below what current should an alarm be triggered.

Delay: How long after current falls below the Threshold before system alarms.

Enabled: Turns the Low Current Alarm function on/off

High Current Alarm screen

High Curr Alarm
Threshold 30.0 A
Delay 300 S
Enabled No

From this screen manage the heater's High Current Alarm conditions.

Threshold: At or above what current should an alarm be triggered.

Delay: How long after current rises above the Threshold before system alarms.

Enabled: Turns the High Current Alarm function on/off.

Ground Fault Limit Current screen

GF Threshold
30.0 mA
Max Ground Fault Curr
Press Enter to Change

rom this screen set the amount in milliamps of ground fault current leak is detected before system alarms.

Automatic Self Test screen

Auto Self Test
Interval 24 Hr
Enabled Yes

From this screen manage how often the system checks the GFEP circuit and tests load.

Interval: How often while the load is not energized the system preforms a Self Test.

Enabled: Turns the Auto Self Test function on/off.

Sensor Type screen

Sensor Type
Thermistor
Press Enter to Change

From this screen set the type of temperature sensor type being used, Thermistor 3–wire RTD

Alarm Options screen

Alarm Options
Latching Off
Fail Mode On
Fire Prot Off

From this screen manage how the system reacts to an alarm condition.

Latching: Determines if an alarm would need to be manually cleared, or if the alarm would clear once the alarm condition was corrected.

Fail Mode: Determines wether a sensor failure shouldenergize or de-energize the heaters.

Fire Prot: Maintains heater operation for use in critical fire protection systems when aground fault or high current is detected.

Temperature Units screen

Temperature Unit
°F
Press Enter to Change

From this screen choose the temperature units will be displayed in Fahrenheit (°F) or Celsius (°C).

Back to first screen

FIGURE 10. Setting screen sequence

SPECIFICATIONS

General	
Certifications	UL 60730-1, UL 1053, CSA E60730-1:13

Environmental	
Area of use	Nonhazardous locations
Operating temperature range	–40 °F to 131 °F (–40 °C to 55 °C)

Enclosure	
Dimensions	8 1/8" (W) x 5 1/2" (H) x 4 3/8" (D) 207 mm (W) x 140 mm (H) x 112 mm (D)
Ingress protection	NEMA 4X, IP66
Cover attachment	Polycarbonate cover, plastic screws
Cable entries	Two liquid-tight cable glands installed for sensor and alarm leads, cable diameter 0.08" to 0.24" (2 mm to 6 mm) One 1.046" hole to accommodate a ¾" conduit fitting for power wiring connection
Material	Polycarbonate
Weight	2.7 lb. (1.22 kg)
Mounting	Wall mount with flanges

Wiring Terminal Ratings	
Power	Barrier Strip Terminals for Line, Neutral, and Ground; use 10 AWG wires rated for at least 194 °F (90 °C)
Sensors	Terminal Block, rising cage clamp, 12-28 AWG leads
Alarm	relay Terminal Block, rising cage clamp, 12-28 AWG leads

Parameter Settings	
Temperature setpoint heat ON	Adjustable –99.9 °F to 999 °F (–73.3 °C to 537.7 °C) Default 38 °F (3.33 °C)
Temperature setpoint heat OFF	Adjustable –99.9 °F to 999 °F (–73.3 °C to 537.7 °C) Default 40 °F (4.44 °C)
Low-temperature alarm threshold	–99.9 °F to 999 °F (–73.3 °C to 537.7 °C) Default 35 °F (–1.7 °C) Disabled
Low-temperature alarm delay	0 s to 3000 s Default 300 s
High-temperature alarm threshold	–99.9 °F to 999 °F (–73.3 °C to 537.7 °C) Default 140 °F (60 °C) Disabled
High-temperature alarm delay	0 s to 3000 s Default 300 s
Low-current alarm threshold	0.0 A to 10.0 A Default 0.1 A Enabled
Low-current alarm delay	0 s to 300 s Default 5 s Enabled
High-current alarm threshold	0.0 A to 55.0 A Default 30.0 A Disabled
High-current alarm delay	0 s to 600 s Default 300 s
Ground fault limit current	1.0 mA to 300.0 mA Default 30 mA
Self-Test Interval	1 h to 250 h Default 24 h Enabled
Temperature Unit	°F or °C Default °F

User Interfaces	
Pushbuttons	UP, DOWN, ENTER, TEST / RESET BACK
DIP switches	RTD wiring configuration Panel lockout

Remote Interface	
Alarm relay	Isolated SPDT 1 AMP Class 2 contact

Indicators	
Status indicator	Power (Green) Heater (Yellow) Low Temperature (Blue) Summary alarm (Red)
Display	2.7" OLED graphic 128x64
Summary alarm relay reporting	Low temperature High temperature Low load current High load current High ground fault current Stuck relay Sensor fault Internal fault

Control Ratings	
Temperature accuracy	+/– 2 °F (1 °C)

Temperature Sensors	
Temperature inputs	(Included) Thermistor: 100k ohms at 25 °C, range –40 °F to 230 °F (–40 °C to 110 °C), 20ft Lead (25076) RTD Sensor: Platinum, Alpha = 0.00385, ITS-90,100 ohms

GFEP (Ground-Fault Equipment Protection)	
Operation	Continuously tests ground fault current whenever the load is on; also manually and periodically tests equipment ground fault current with each self-test.
Range	Adjustable 1 mA to 300 mA, Default 30 mA
Automatic self-test	Verifies GFEP functionality every 24 hr. and whenever the load is energized

Power	
Supply voltage	100 - 277 V ac 50/60 Hz
Controller power consumption	5 W maximum, 2 W idle
Load rating	30 A, 100 - 277 V ac resistive

CONTACTING CUSTOMER SERVICE

For assistance, contact Customer Service. Office hours are from 8:00 AM until 5:00 PM ET.

Email: techteam@warmlyyours.com

Web: warmlyyours.com

RETURNS AND REPLACEMENT PART PURCHASES

Equipment cannot be returned for credit once it has been installed. ETI will repair or replace faulty equipment under warranty. Prior to removal of equipment for warranty return, please contact ETI Technical Support for troubleshooting assistance.

Before returning a unit to ETI, obtain a Return Merchandise Authorization from our Customer Service Department, available between 8:00 a.m. and 5:00 p.m. Eastern Time. If possible, use the original container and packing materials when packing the unit for shipment. It is important to mark the Return Merchandise Authorization clearly on the outside of the shipping container so that it may be correctly processed upon receipt at Environmental Technology. For more information about replacement parts or for a replacement Data Sheet or Manual, please visit www.networketi.com.

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