Step 16. Display the Decimal Point position
Press a to again display the flashing Decimal Point position.

Step 17. Select the Decimal Point position
Press to select the Decimal Point position.

Step 18. Store selected Decimal Point Position
By pressing momentarily the Decimal Point position will be stored and the instrument will go to the next menu item.

Step 19. Enter to Temperature Unit Submenu
Display shows aTemperature Unit.

Step 20. Display available Temperature Units
Press to display the flashing Degree a or b.

Step 21. Scroll through Temperature Units selection
Press to select the Degree c.

Step 22. Store the Temperature Unit
Press to display momentarily that the Degree Unit has been stored and the instrument will go automatically to the next menu item.

Step 23. Enter The Filter Constant Submenu
Display shows aFilter Constant Submenu.

Step 24. Display the Filter Constant Value Submenu
Press to display the flashing, previously selected Filter Constant.

Step 25. Scroll through available Filter Constants
Press a to sequence thru Filter Constants 100, 1000, 10000, 100000, 10, 100 and 1000.

Step 26. Store the Filter Constant
Press momentarily to store the Filter Constant and the instrument will automatically go to the next menu item.

Step 27. Enter Alarm 1 Menu
The display will show aAlarm 1 Top menu for Alarm 2. In the following steps we are going to enable Alarm 1, Deviation, Unlatch, Normally Open, Active Above. Enable at power on and +2°F High alarm i.e. Process Value > Setpoint 1 Value +2°F will activate Alarm 1.

Step 28. Enter Alarm 1 Enable/Disable Submenu
Press to display flashing aAlarm 1 On.

Step 29. Enable Alarm 1 Submenu
If flashing aAlarm 1 is displayed, press c. If is displayed, press until is displayed, then press to store and go to the next menu item.

Step 30. Select the Deviation Control Type Submenu
Press a if flashing. If Deviation is displayed press d, otherwise press until display is shown. Now press to store and go to next menu item.

Step 31. Select the Latched Type Submenu
Press c if flashing. If Unlatched is displayed press d, otherwise press until display is shown. Press to save and to advance to next menu item.

Step 32. Select the Normally Open Type of Contact Submenu
Press c if flashing. Normally Open is displayed, press e otherwise press until display is shown. Press to store and advance to next menu item.

Step 33. Select the Above Type of Active Submenu
Press c if flashing. If Active is displayed, press a, otherwise press until display is shown. Press to store and advance to next menu item.

Step 34. Enable Alarm 1 at Power On (PPO)
Press c. If flashing Power On is displayed, press d, otherwise press until display is shown. Press to store and advance to next menu item.

Step 35. Enter Alarm 1 High Submenu
Press to skip to Alarm 1 Low value. Press b for value below and d for above.

Step 36. Set the Alarm 1 High value (Alr-H)
Press c, Press or d until value to set the display to d or e.

Step 37. Enter the Alarm 2 Menu
The display will show aAlarm 2 Top menu for Alarm 2. Repeat steps 28 to 36 to set for Alarm 2 the same conditions as for Alarm 1.

Step 38. Configuration of Display Color Selection
Press c until the Display Color Display Color Menu appears on the Display. Change DEG as DEG, 25°C, 50°C, 100°C (green), 5°C, 10°C, 20°C (red), -1°C, 0°C, 1°C (amber). Please refer to the operator’s manual if needed.

For color change on Setpoints refer to Owners Manual Section 2.

Step 39. Run a Test
Press c until the reset the controller and return to RUN Mode to display aAlarm (Ambient Temperature). Now you are ready to observe temperature as it rises 10°F higher than displayed. Touch the tip of the Thermocouple to raise the temperature above the Alarm 2 High value. and AL2 will turn on, and Display Color will change from Green to Amber. Continue touching the tip to raise the temperature above the Alarm 1 High value and Display Color will change from Amber to Red.

Step 40. Temperature Display Setting
Press c until the display shows aAlarm 1 Hightemperature. Now you are ready to observe temperature as it rises 10°F higher than displayed. Touch the tip of the Thermocouple to raise the temperature above the Alarm 2 High value. and AL2 will turn on, and Display Color will change from Green to Amber. Continue touching the tip to raise the temperature above the Alarm 1 High value and Display Color will change from Amber to Red.

Step 41. Temperature Display Setting
Press c until the display shows aAlarm 1 Hightemperature. Now you are ready to observe temperature as it rises 10°F higher than displayed. Touch the tip of the Thermocouple to raise the temperature above the Alarm 2 High value. and AL2 will turn on, and Display Color will change from Green to Amber. Continue touching the tip to raise the temperature above the Alarm 1 High value and Display Color will change from Amber to Red.

Step 42. Temperature Display Setting
Press c until the display shows aAlarm 1 Hightemperature. Now you are ready to observe temperature as it rises 10°F higher than displayed. Touch the tip of the Thermocouple to raise the temperature above the Alarm 2 High value. and AL2 will turn on, and Display Color will change from Green to Amber. Continue touching the tip to raise the temperature above the Alarm 1 High value and Display Color will change from Amber to Red.

Step 43. Temperature Display Setting
Press c until the display shows aAlarm 1 Hightemperature. Now you are ready to observe temperature as it rises 10°F higher than displayed. Touch the tip of the Thermocouple to raise the temperature above the Alarm 2 High value. and AL2 will turn on, and Display Color will change from Green to Amber. Continue touching the tip to raise the temperature above the Alarm 1 High value and Display Color will change from Amber to Red.

Step 44. Temperature Display Setting
Press c until the display shows aAlarm 1 Hightemperature. Now you are ready to observe temperature as it rises 10°F higher than displayed. Touch the tip of the Thermocouple to raise the temperature above the Alarm 2 High value. and AL2 will turn on, and Display Color will change from Green to Amber. Continue touching the tip to raise the temperature above the Alarm 1 High value and Display Color will change from Amber to Red.

Step 45. Temperature Display Setting
Press c until the display shows aAlarm 1 Hightemperature. Now you are ready to observe temperature as it rises 10°F higher than displayed. Touch the tip of the Thermocouple to raise the temperature above the Alarm 2 High value. and AL2 will turn on, and Display Color will change from Green to Amber. Continue touching the tip to raise the temperature above the Alarm 1 High value and Display Color will change from Amber to Red.

Step 46. Temperature Display Setting
Press c until the display shows aAlarm 1 Hightemperature. Now you are ready to observe temperature as it rises 10°F higher than displayed. Touch the tip of the Thermocouple to raise the temperature above the Alarm 2 High value. and AL2 will turn on, and Display Color will change from Green to Amber. Continue touching the tip to raise the temperature above the Alarm 1 High value and Display Color will change from Amber to Red.

Step 47. Temperature Display Setting
Press c until the display shows aAlarm 1 Hightemperature. Now you are ready to observe temperature as it rises 10°F higher than displayed. Touch the tip of the Thermocouple to raise the temperature above the Alarm 2 High value. and AL2 will turn on, and Display Color will change from Green to Amber. Continue touching the tip to raise the temperature above the Alarm 1 High value and Display Color will change from Amber to Red.

Step 48. Temperature Display Setting
Press c until the display shows aAlarm 1 Hightemperature. Now you are ready to observe temperature as it rises 10°F higher than displayed. Touch the tip of the Thermocouple to raise the temperature above the Alarm 2 High value. and AL2 will turn on, and Display Color will change from Green to Amber. Continue touching the tip to raise the temperature above the Alarm 1 High value and Display Color will change from Amber to Red.

Step 49. Temperature Display Setting
Press c until the display shows aAlarm 1 Hightemperature. Now you are ready to observe temperature as it rises 10°F higher than displayed. Touch the tip of the Thermocouple to raise the temperature above the Alarm 2 High value. and AL2 will turn on, and Display Color will change from Green to Amber. Continue touching the tip to raise the temperature above the Alarm 1 High value and Display Color will change from Amber to Red.

Step 50. Temperature Display Setting
Press c until the display shows aAlarm 1 Hightemperature. Now you are ready to observe temperature as it rises 10°F higher than displayed. Touch the tip of the Thermocouple to raise the temperature above the Alarm 2 High value. and AL2 will turn on, and Display Color will change from Green to Amber. Continue touching the tip to raise the temperature above the Alarm 1 High value and Display Color will change from Amber to Red.
This Quick Start Reference provides information on setting up your instrument for basic operation. The latest complete Communication and Operational Manual as well as free Software and ActiveX Controls are available at www.newportUS.com or on the CD-ROM enclosed with your shipment.

SAFETY CONSIDERATION

This device is marked with the international Caution symbol.

The instrument is a panel mount device protected in accordance with EN61010-1:2001. Remember that the unit has no power-on switch. Building installation should include a switch or circuit-breaker that must be compliant to IEC 947-1 and 947-3.

SAFETY:
• Do not exceed voltage rating on the label located on the back of the instrument housing.
• Do not use this instrument on a work bench without its back cover.
• Do not operate this instrument in flammable or explosive atmospheres.

EMC:
• Whenever EMC is an issue, always use shielded cables.
• Never run signal and power wires in the same conduit.
• Use signal wire connections with twisted-pair cables.
• Install Ferrite Bead(s) on signal wire close to the device until you have completed all input and output connections. This device must only be installed by a specially trained electrician with corresponding qualifications. Failure to follow all instructions and warnings may result in injury!

### Mounting Big Display Through Panel:
1. Using the panel cutout diagram shown, cut an opening in the panel.
2. Remove six screws at the back of Big Display to remove back cover.
3. Insert the unit into the opening from the front of the panel, so the gasket seals between the bezel and the front of the panel.
4. Align back cover to Big Display and reinstall screws.

**Warning:** Disconnect all ac power from the unit before proceeding.

1. Remove all wiring connections from the rear of the instrument, by unscrewing the input and power connections.
2. Remove six screws at the back of the display and back cover.
3. Remove the Big Display from the panel.
4. To remove the Big Display from the bail, unscrew the two knobs at each end of the mounting brackets.

**Warning:** Do not connect ac power to your device until you have completed all input and output connections. This device must only be installed by a specially trained electrician with corresponding qualifications. Failure to follow all instructions and warnings may result in injury!

### Wiring
Wire the instrument according to the Input Wiring Connections described in your Operator’s Manual.

**Warning:** Do not connect ac power to your device until you have completed all input and output connections. This device must only be installed by a specially trained electrician with corresponding qualifications. Failure to follow all instructions and warnings may result in injury!

### Configuration Menu
- **Mode:**
  - The panel.
  - The panel.

**Mode:**
- The panel.

- **Flashing display in Menu Mode:**
  - Causes the display to flash the PEAK with the corresponding value. Press again to go back to Run Mode.
  - Causes the display to flash VALLEY with the corresponding value. Press again to go back to Run Mode.
  - Causes flashing PEAK or VALLEY to reset corresponding setpoint and the alarms, that will go to the Run Mode without resetting the instrument.

**Button:**
- The button has two functions:
  - To direct the instrument to the next submenu level.
  - To direct the instrument to the next menu items.

**Button:**
- Press one time from run mode to get to SETPOINT 1.
- Press twice will cause the display to flash the PEAK with the corresponding value. Press again to go back to Run Mode.
- Press three times will cause the display to flash VALLEY with the corresponding value. Press again to go back to Run Mode.
- Press four times will cause flashing PEAK or VALLEY to reset corresponding setpoint and the alarms, that will go to the Run Mode without resetting the instrument.

**Button:**
- Press one time to display flashing, previously selected Thermocouple type.
- Press three times to sequence thru flashing Thermocouple types, that display the display to flash the PEAK with the corresponding value.
- Press one more time to go back to Run Mode.

### Operation - (For Thermocouple Input)

#### Step 1. Apply Power to the Instrument
When your device is first powered up it will display the ambient temperature (assume 75°F).

#### Step 2. Enter Setpoint 1 Menu
Press one time from run mode to get to SETPOINT 1.

#### Step 3. Enter the Setpoint 1 Value Submenu
Press SET to display the previous selection of Setpoint 1.

#### Step 4. Change the Setpoint 1 Value
Press SET or until desired value is displayed.

#### Step 5. Store the Setpoint 1 Value
Set the Setpoint 1 to 10 degree higher than Process value (SP1 = 85) and press SET to store, display flashes 1234 and put the instrument into standby, which disables all outputs and alarms.

#### Step 6. Enter the Input Type Menu
Press SET to display flashing, previously selected Thermocouple type.

#### Step 7. Store the Setpoint 2 Value
Repeat steps 3 and 4. Set the Setpoint 2 to 5 degree higher than Process value (SP2 = 80) and press SET to store, display flashes 1234 message and advances to SETPOINT 1.

#### Step 8. Enter the Input Type Menu
Press SET to display flashing, previously selected Thermocouple type.

#### Step 9. Scroll through available selection of TC types
Press SET to sequence thru flashing Thermocouple types, (select k - for type “K” CHROMOGRAF/A2M/ALMega”

#### Step 10. Enter to the Thermocouple Value Submenu
Press SET to store Thermocouple Input. The display will stop flashing and show the top menu for Thermocouple types. If you press SET controller will step to next menu item (Skip to Step 14).

#### Step 11. Enter to the Thermocouple Type Submenu
Press SET to display flashing, previously selected Thermocouple type.

#### Step 12. Scroll through available selection of TC types
Press SET to sequence thru flashing Thermocouple types, (select k - for type “K” CHROMOGRAF/A2M/ALMega”

#### Step 13. Store TC type
After you have selected the Thermocouple type press SET to store your selection, the instrument automatically advances to the next menu item.

#### Step 14. Enter to Reading Configuration Menu
The display shows RDG Reading Configuration, which is the top menu for 4 submenus: Decimal Point, Degree Units, Filter Constant and Input/Reading Submenus.

#### Step 15. Enter to Decimal Point Submenu
Press SET to show 0.00 Decimal Point.