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

Step 12. Scroll through available selection of TC types
Press to sequence thru flashing Thermocouple types, (J,K,T,R,S,B,N,L)
Step 30. Select the Deviation Control Type Submenu
Press to display flashing press, otherwise press until flashing is shown. Now press to store and go to next menu item.

Step 31. Select the Loaded Type Submenu
Press to display flashing press, otherwise press until is displayed. Press to store and advance to next menu item.

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

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

Step 34. Enable Alarm 1 at Power On ( )
Press if flashing is displayed, press otherwise press until is displayed. Press to store and advance to next menu item.

Step 35. Enter Alarm 1 High Submenu
Press to store and advance to next menu item.

Step 36. Set the Alarm 1 High Value ( )
Press to store and advance to next menu item.

Step 37. Enter the Alarm 2 Menu
Press to store and advance to next menu item.

Step 38. Skip the Loop Break Time Menu ( )
Press to display the MAIN Output 1 Menu item.

Step 39. Configuration the Output 1 Menu
Press to store and advance to next menu item.

Step 40. Run a Test
Press to reset the controller and return to RUN Mode to display (Ambient Temperature). Now you are ready to use your controller to monitor and control the temperature of the process under test.

Step 41. Return to Previous Menu
Press to display the MAIN Menu.

Step 42. Enter Alarm 1 Enable/Disable Submenu
Press to display flashing press, otherwise press until flashing is shown. Now press to store and go to next menu item.

Step 43. Enable Alarm 1 Submenu
If flashing is displayed, press if flashing is displayed, press until flashing is displayed. Then press to store and go to the next menu item.

Step 44. Enter Alarm 1 Disable Submenu
Press to display flashing press, otherwise press until flashing is shown. Now press to store and go to next menu item.

Step 45. Enter Alarm 1 Low Submenu
Press to display flashing press, otherwise press until flashing is shown. Now press to store and go to next menu item.

Step 46. Enter Alarm 1 Medium Submenu
Press to display flashing press, otherwise press until flashing is shown. Now press to store and go to next menu item.

Step 47. Enter Alarm 1 High Submenu
Press to display flashing press, otherwise press until flashing is shown. Now press to store and go to next menu item.

Step 48. Enter Alarm 1 Low Value ( )
Press to store and advance to next menu item.

Step 49. Enter Alarm 1 Medium Value ( )
Press to store and advance to next menu item.

Step 50. Enter Alarm 1 High Value ( )
Press to store and advance to next menu item.

Step 51. Enter Alarm 2 Enable/Disable Submenu
Press to display flashing press, otherwise press until flashing is shown. Now press to store and go to next menu item.

Step 52. Enter Alarm 2 Disable Submenu
Press to display flashing press, otherwise press until flashing is shown. Now press to store and go to next menu item.

Step 53. Enter Alarm 2 Medium Submenu
Press to display flashing press, otherwise press until flashing is shown. Now press to store and go to next menu item.

Step 54. Enter Alarm 2 Low Submenu
Press to display flashing press, otherwise press until flashing is shown. Now press to store and go to next menu item.

Step 55. Enter Alarm 2 Low Value ( )
Press to store and advance to next menu item.

Step 56. Enter Alarm 2 Medium Value ( )
Press to store and advance to next menu item.

Step 57. Enter Alarm 2 High Value ( )
Press to store and advance to next menu item.

Step 58. Enter Alarm 2 Low Value ( )
Press to store and advance to next menu item.

Step 59. Enter Alarm 2 Medium Value ( )
Press to store and advance to next menu item.

Step 60. Enter Alarm 2 High Value ( )
Press to store and advance to next menu item.

Step 61. Exit from Alarm Menu ( )
Press to exit from Alarm Menu and return to the MAIN Menu.

Step 62. Enter Filter Constant Submenu
Press to display the MAIN Menu.

Step 63. Set Alarm 1 Disabled (Step 29) to be able to Enable Output 1.

Step 64. Configuration the Output 1 Menu
Press to display the MAIN Menu.

Step 65. Configuration the Output 2 Menu
Press to display the MAIN Menu.

Step 66. Configuration the Output 3 Menu
Press to display the MAIN Menu.

Step 67. Configuration the Output 4 Menu
Press to display the MAIN Menu.

Step 68. Enable Alarm 1 End Submenu
Press to display the MAIN Menu.

Step 69. Enable Alarm 2 End Submenu
Press to display the MAIN Menu.

Step 70. Enable Alarm 3 End Submenu
Press to display the MAIN Menu.

Step 71. Enable Alarm 4 End Submenu
Press to display the MAIN Menu.

Step 72. Enable Alarm 5 End Submenu
Press to display the MAIN Menu.

Step 73. Enable Alarm 6 End Submenu
Press to display the MAIN Menu.

Step 74. Enable Alarm 7 End Submenu
Press to display the MAIN Menu.

Step 75. Enable Alarm 8 End Submenu
Press to display the MAIN Menu.

Step 76. Enter Filter Constant Submenu
Press to display the MAIN Menu.

Step 77. Scroll through available selection of Filter Constants
Press to sequence thru flashing Filter Constants.

Step 78. Enter Filter Constant Submenu
Press to display the MAIN Menu.

Step 79. Enter Filter Constant Submenu
Press to display the MAIN Menu.

Step 80. Enter Filter Constant Submenu
Press to display the MAIN Menu.

Step 81. Enter Filter Constant Submenu
Press to display the MAIN Menu.

Step 82. Enter Filter Constant Submenu
Press to display the MAIN Menu.

Step 83. Enter Filter Constant Submenu
Press to display the MAIN Menu.

Step 84. Enter Filter Constant Submenu
Press to display the MAIN Menu.

Step 85. Enter Filter Constant Submenu
Press to display the MAIN Menu.

Step 86. Enter Filter Constant Submenu
Press to display the MAIN Menu.

Step 87. Enter Filter Constant Submenu
Press to display the MAIN Menu.

Step 88. Enter Filter Constant Submenu
Press to display the MAIN Menu.

Step 89. Enter Filter Constant Submenu
Press to display the MAIN Menu.

Step 90. Enter Filter Constant Submenu
Press to display the MAIN Menu.

Step 91. Enter Filter Constant Submenu
Press to display the MAIN Menu.

Step 92. Enter Filter Constant Submenu
Press to display the MAIN Menu.

Step 93. Enter Filter Constant Submenu
Press to display the MAIN Menu.

Step 94. Enter Filter Constant Submenu
Press to display the MAIN Menu.

Step 95. Enter Filter Constant Submenu
Press to display the MAIN Menu.

Step 96. Enter Filter Constant Submenu
Press to display the MAIN Menu.

Step 97. Enter Filter Constant Submenu
Press to display the MAIN Menu.

Step 98. Enter Filter Constant Submenu
Press to display the MAIN Menu.
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 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 protected in accordance with EN 61010-1:2001, electrical safety requirements for electrical equipment for measurement, control and laboratory. 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 side of the instrument housing.

Always disconnect power before changing signal and power connections.

Do not use this instrument on a work bench without its case for safety reasons.

Do not operate this instrument in flammable or explosive atmospheres.

Do not expose this instrument to rain or moisture.

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 instrument if EMC problems persist.

FLOW CHART

Connect the main power connections as shown in the figure below.

To install unit onto DIN Rail:
1) Tilt unit, position mounting slot onto DIN Rail, as shown.
2) Push unit towards DIN Rail and it will snap into place.

To remove unit from DIN Rail:
1) Insert flat screw-driver into tab and push downwards.
2) Unit will detach from DIN Rail.

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 \( \text{SP} \) one time from run mode to get to \( \text{SP1} \) Setpoint 1.

Step 3. Change the Setpoint 1 Value
Press \( \text{SP1} \) until desired value is displayed.

Step 4. Enter to the submenu items of Input Menu
Press \( \text{SP2} \) to enter \( \text{SP2} \) Input Menu.

Step 5. Store the Setpoint 1 Value
Set the Setpoint 1 to 10 degree higher than Process value (SP1 = 85) and press \( \text{STRD} \) to store, display flashes \( \text{SP1} \) message and advances to \( \text{SP2} \) Configuration Menu.

Step 6. 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 \( \text{STRD} \) to store, display flashes \( \text{SP2} \) message and advances to \( \text{SP2} \) Configuration Menu.

Step 7. Enter the Input Type Menu
Press \( \text{CNFG} \) to enter \( \text{CNFG} \) Input Type Menu.

Step 8. Enter to the submenu items of Input Menu
Press \( \text{CNFG} \) to display Input: Process, RTD or Thermocouple. If flashing \( \text{CNFG} \) is displayed press \( \text{CNFG} \) and proceed to Step 11.

Step 9. Scroll through available selection of Input Menu
Press \( \text{CNFG} \) until a flashing \( \text{CNFG} \) for Thermocouple is displayed.

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

It is required that you put the controller in Standby Mode for any configuration changes other than Setpoints and Alarms.

**SAFETY:**

Do not exceed voltage rating on the label located on the side of the instrument housing.

Always disconnect power before changing signal and power connections.

Do not use this instrument on a work bench without its case for safety reasons.

Do not operate this instrument in flammable or explosive atmospheres.

Do not expose this instrument to rain or moisture.

**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 instrument if EMC problems persist.

**WIRING**

Wire the instrument according to the figure shown below.