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

Step 12. Scroll through available selection of TC types
Press to sequence thru flashing Thermocouple types, (select k- for type “K” CHROMEL/ALUMELGA)

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

Step 14. Enter to Reading Configuration Menu
The display shows flashing 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 to show DEC Decimal Point.

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

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

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

Step 19. Enter to Temperature Unit Submenu
Display shows °C Temperature Unit.

Step 20. Display available Temperature Units
Press to display the flashing Degree °C.

Step 21. Scroll through Temperature Units selection
Press to select °F Degree.

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

Step 23. Enter to Filter Constant Submenu
Display shows FILTER 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 to sequence thru Filter Constants.

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

Step 27. Enter Alarm 1 Menu
Press until the Alarm 1 Menu appears on the Display. In the following steps we are going to Disable Latch, Active Above, Deadband 0.020.0, and above Setpoint 1 Value will activate Alarm 1.

Step 28. Select Latch Type Submenu
Press to display flashing DSBL / ENBL. If flashing DSBL is displayed, press , if flashing ENBL is displayed, then press to store and go to the next menu item.

Step 29. Select the Above Type of Active Submenu
Press if flashing Latch Above is displayed, press otherwise press until flashing is displayed. Press to store and advance to next menu item.

Step 30. Select the Deadband Value Submenu
Press to display to flashing, otherwise press or . Press to store and advance to next menu item.

Step 31. Enter the Alarm 2 Menu
The display will show ALR2 the top menu for Alarm 2. Repeat steps from 29 and 30 to set for Alarm 2 the same conditions as for Alarm 1.

Step 32. Configuration of Display Color Selection
Press until the LOCL Display Color Submenu appears on the Display. Configure (OFF), (red), (green), (blue). (amber). Please refer to the operator’s manual if needed.

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

Step 33. Run a Test
Press until the counter returns to RUN Mode to display TST1 (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 120°C, and Alarm 2 will turn on, and Display Color will change from Green to Amber. Continue touching the tip of the Thermocouple to raise the temperature above the Alarm 1 High value 180°C and Display Color will change from Amber to Red. Annunciator “1” is turning on and off displaying output 1.

WARNING: These products are not designed to be used and should not be used for patient connected applications.

This device is marked with the international caution symbol. It is important to read the enclosed safety cautions and instructions before monitoring the device, as this guide is intended to supplement the information provided. The device should be used in accordance with the safety cautions and instructions provided. NEWPORT reserves the right to alter specifications without notice.

TRADEMARK NOTICE: NEWPORT® is a registered trademark of Newport Electronics, Inc.

MQS3716-SEM-WN3150
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 EN 61010-2-010, 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 back 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.

**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.

**WARNING:**

- Do not exceed voltage rating on the label located on the back 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.

**WIRING**

WIRE the instrument according to the Input and Output Wiring Connections described in your Operator’s Manual.

**FLOW CHART**

Connect the Main ac Power Connections as shown in the figure below.

**AC POWER**

100 - 240 Vac

**POWER**

TB1

**L**

**N**

**G**

**MOUNTING**

Mounting Big Display Through Panel:

1. Using the panel cutout diagram shown above, 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.

Mounting Big Display on Ball:

1. Use the Big Display template to mark the location of mounting screws on the flat surface.
2. Be sure to leave enough room around the ball (as noted on the template drawing) to allow for removal and rotation of the display.
3. The display can be rotated for the best viewing angle.

Disassembly Instruction:

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

1. Remove all wiring connections from the rear of the instrument, by unscrewing the power and input connectors.
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.

Connect the Main ac Power Connections as shown in the figure below.

**CONFIGURATION**

**MENU Mode:** Flashing display in MENU Mode means you can make your selection by pressing button. If the flashing display is not a four digit value, pressing button will always direct the instrument one step backward of the top menu item. The second push on the button will reset the instrument except after the setpoint and the alarms, that will go to the RUN Mode without resetting the instrument. The button will always sequence the instrument thru the menu items.

The button has two functions:

1. To save a selected flashing display
2. To direct the instrument to the next submenu level

**RUN 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 values. Pressing twice will cause the display to flash 

**STBY Mode:**
- causes the display to go back to RUN Mode.
- causes the display to go to the submenu Level.
- causes the display to go to the Configuration Menu.
- causes the display to go to the next menu item. Press again to go back to RUN Mode.
- causes the display to go to the Configuration Menu.

**WIRING**

Connect the Main ac Power Connections as shown in the figure below.

Connect the Main ac Power Connections as shown in the figure below.

**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 SP1 Setpoint 1.

**Step 3.** Enter the Setpoint 1 Value Submenu
Press . Display shows the previous selection of Setpoint 1.

**Step 4.** Change the Setpoint 1 Value
Press 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 to store, display flashes message and advances to SP2 Setpoint 2 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 to store, display flashes message and advances to Configuration Menu.

**Step 7.** Enter the Input Type Menu
Press to enter Input Type Menu.

**Step 8.** Enter to the submenu items of Input Menu
Press to display Input: Process, RTD or Thermocouple. If flashing is displayed press and proceed to Step 11.

**Step 9.** Scroll through available selection of Input Menu
Press until a flashing and show the top menu for Thermocouple types. If you press and proceed to Step 14.

**Step 10.** Enter to the Thermocouple Input Submenu
Press to store Thermocouple Input. The display will stop flashing and show the top menu for Thermocouple types. If you press until a flashing for Thermocouple is displayed.

*Underline denotes factory default setup*