#### **OPERATION**

#### 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 O one time from run mode to get to 50 Setpoint 1.

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

Step 4. Change the Setpoint 1 Value Press O or O 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 O to store, display flashes SERD 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 I to store, display flashes SERE message and advances to CNEC Configuration Menu.

Step 7. Enter the Reading Config Menu Press I to enter Red Reading Config Menu.

Step 8. Enter the submenu items of Rdg Config Menu Press O to display Stars Sensor submenu: Sensor selection for Autotune, Loop, or Ramp and Soak **F.C** is for temperature and **BRE** is for Humidity

Step 9. Enter the submenu items of Rdg Config Menu Press 🕑 to display Temp Unit submenu:

Step 10 Scroll thru selection for Temp Unit submenu Press O to Scroll though the available selections of the Temperature Unit of your choice: G or G.

Step 11. Store the Temperature Unit Press O, display momentarily shows Strad the Unit has been stored and the instrument will go automatically to the next menu item.

#### Step 12. Enter the Filter Constant Submenu Display shows FLER Filter Constant Submenu.

Step 13. Display the Filter Constant Value Submenu Press O to display the flashing, previously selected Filter

Constant. Step 14. Scroll through available Filter Constants Press O to sequence thru Filter Constants 0001, 0002,

## 0004, 0008, 00 16, 0032, 0064 and 0 128.

#### Step 15. Store the Filter Constant

Press O momentarily to store 0004 Filter Constant and the instrument will automatically go to the next menu item.

Step 16. Enter Alarm 1 Menu The display will show BLR 1 the top menu for Alarm 1. 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.



- If Analog Output Option is installed and enabled, the controller will skip Alarm 1 Menu item to Analog Output.
- Alarm must be DISABLED if Ramp is ENABLED. Alarm1 will only work for Humidity, not Temperature.

Alarm 1 is designed to monitor the humidity value around Setpoint 1 and Alarm 2 is designed to monitor the temperature value around Setpoint 2.

#### Step 17. Enter Alarm 1 Enable/Disable Submenu Press O to display flashing OSEL ENEL

Step 18. Enable Alarm 1 Submenu If flashing ENEL is displayed, press (), if d56L is displayed, press O until ENGL is displayed, then press O to store and go to the next menu item.

Step 19. Select the Deviation Control Type Submenu Press O. If flashing deviation is displayed press O, otherwise press O until flashing deviation is shown. Now press I to store and go to next menu item.

Step 20. Select the Latched Type Submenu Press ②. If flashing UNLE Unlatched is displayed press ④, otherwise press ④ until UNLE is displayed. Press O to store and advance to next menu item.

Step 21. Select the Normally Open Type of Contact Closure Submenu

Press O. If flashing ⊌.o. Normally Open is displayed, press O, otherwise press O until ⊌.o. is displayed. Press O to store and advance to next menu item.

Step 22. Select the Above Type of Active Submenu Press ②. If flashing Above is displayed, press ③, otherwise press O until Aboved is displayed. Press O to store and advance to next menu item.

Step 23. Enable Alarm 1 at Power On (B.P.o.M) Press O. If flashing ENGL is displayed, press O, otherwise press O until ENDL is displayed. Press O to store and advance to next menu item.

Step 24. Enter Alarm 1 High Submenu Press O twice to skip BLR.L Alarm 1 Low value. BLR.L is for below & BLR.H for above.

Step 25. Set the Alarm 1 High value (BL R.H) Press O. Press O or O until value to set the display to 002.0. Press 🕗 to save.

#### Step 26. Enter the Alarm 2 Menu

The display will show **BLR2** the top menu for Alarm 2. Repeat steps from 17 to 25 to set for Alarm 2 the same conditions as for Alarm 1.

Step 29. Configuration of Display Color Selection Press I until the COLR Display Color Selection Menu appears on the Display. Configure COLR as N.CLR / GRN (green), N.CLR / REB (red), P.CLR / BABR (amber). Please refer to the operator's manual if needed.

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

### SPECIFICATION

#### SENSOR SPECIFICATIONS

### **Relative Humidity Accuracy/Range:**

±2% for 10 to 90% RH ±3% for 0 to 10%RH and 90 to 100%RH Non-linearity: ±3% Hysteresis: ±1% RH Response Time: 4 sec (63% slowly moving air) Repeatability: ±0.1% Resolution: 0.03%. 12bit

**Temperature Accuracy/Range\*:** ±1°C (±2°F) for -40 to 0°C and 80 to 123.8°C (-40 to 32°F and 176 to 254°F) ±0.5°C (±1°F) for 0 to 80°C (32 to 176°F) \*NOTE: extended temp range is for Probe only, the

Controller's operating temp is 0-50°C Response Time: 5 sec (63% slowly moving air) Repeatability: ±0.1°C Resolution: 0.01°C, 14 bit

#### METER SPECIFICATIONS

Display: 4-digit, 9-segment LED, • 10.2 mm (0.40")

Red, green, and amber programmable colors for setpoint and temperature units.

WARNING: These products are not designed for use in, and should not be used for, patient-connected applications.

This device is marked with the international caution symbol. It is important to read the Setup Guide before installing or commissioning this device, as the guide contains important information relating to safety and EMC.

It is the policy of OMEGA to comply with all worldwide safety and EMC/EMI regulations that apply. OEMGA is constantly pursuing certification of its products to the European New Approach Directives. OMEGA will add the CE mark to every appropriate device upon certification.

The information contained in this document is believed to be correct, but OMEGA Engineering, Inc. accepts no liability for any errors it contains, and reserves the right to alter specifications without notice. TRADEMARK NOTICE:

#### , omega.com<sup>®</sup>, COMEGA<sup>®</sup>, and <sup>®</sup> are Trademarks of OMEGA ENGINEERING, INC.

### MAPE USA WARRANTY/DISCLAIMER

OMEGA ENGINEERING, INC. warrants this unit to be free of defects in materials and workmanship for a period of one (1) year from the date of purchase. In addition to OMEGA's standard warranty period, OMEGA Engineering will extend the warranty period for four (4) additional years if the warranty card enclosed with each instrument is returned to OMEGA.

If the unit malfunctions, it must be returned to the factory for evaluation. OMEGA's Customer Service Department will issue an Authorized Return (AR) number immediately upon phone or written request. Upon examination by OMEGA, if the unit is found to be defective, it will be repaired or replaced at no charge. OMEGA's WARRANTY does not apply to defects resulting from any action of the purchaser, including but not limited to mishandling, improper interfacing, operation outside of design limits, improper repair, or unauthorized modification. This WARRANTY is VOID if the unit shows evidence of having been tampered with or shows evidence of having been damaged as a result of excessive anows envence on having user immerced with on shows envenced on having over inclinations as a result or excessive corresion; or current, heat, moisture or vibration; improper specification; misapplication; misuse or other operating conditions outside of OMEGA's control. Components which wear are not warranted, including but not limited to contact points, fuses, and thriacs.

contact points, tuses, and tracs. OMEGA is pleased to offer suggestions on the use of its various products. However, OMEGA neither assumes responsibility for any omissions or errors nor assumes liability for any damages that result from the use of its products in accordance with information provided by OMEGA, either verbal or written. OMEGA warrants only that the parts manufactured by it will be as specified and free of defects. OMEGA MAKES NO OTHER WARRANTIES OR REPRESENTATIONS OF ANY KIND WHATSOEVER, EXPRESS OR IMPLIED, EXCEPT THAT OF TITLE, AND ALL IMPLIED WARRANTES INCLUDING ANY WARRANTY OF MERCHANTABILITY AND FITLESS FOR A PARTICULAR PURPOSE ARE HEREBY DISCLAIMED. LIMITATION OF LIABILITY: The remedies of purchase rate on the rein are exclusive, and the total liability of OMEGA with respect to this order, whether based on contract, warranty, negligence, indemnification, strict liability or otherwise, shall not exceed the purchase price of the component upon which liability is based. In no event shall OMEGA be liable for consequential, incidental or special damages. CONDITIONS: Environment cod bay OMEGA is no tipetod to be used nos chell it be used. (1) as a "Basic

CONDITIONS: Equipment sold by OMEGA is not intended to bused, nor shall it be used: (1) as a "Basic Component" under 10 CFR 21 (NRC), used in or with any nuclear installation or activity; or (2) in medical applications or used on humans. Should any Productio(s) be used in or with any nuclear installation or activity, medical applications, used on humans, or misused in any way. OMEGA assumes no responsibility as set forth in our basic WARRANTVDISCLAIMER language, and, additionally, purchaser will indemnify OMEGA and hold OMEGA harmless from any liability or damage whatsoever arising out of the use of the Product(s) in such a manner.

#### RETURN REQUESTS/INQUIRIES

Direct all warranty and repair requests/inquiries to the OMEGA Customer Service Department. BEFORE RETURNING ANY PRODUCT(S) TO OMEGA, PURCHASER MUST OBTAIN AN AUTHORIZED RETURN (AR) NUMBER FROM OMEGA'S CUSTOMER SERVICE DEPARTMENT (IN ORDER TO AVOID PROCESSING DELAYS). The assigned AR number should then be marked on the outside of the return package and on any correspondences.

The purchaser is responsible for shipping charges, freight, insurance and proper packaging to prevent breakage in FOR WARRANTY RETURNS, please have the following information available BEFORE FOR NON-WARRANTY REPAIRS, consult OMEGA for

following information available BEFORE			current repair charges. Have the following information		
contacting OMEGA:			available BEFORE contacting OMEGA:		
1.	Purchase Order number under which the product was PURCHASED,	1.	Purchase Order number to cover the COST of the repair,		
2.	Model and serial number of the product under	2.	Model and serial number of product, and		
	warranty, and	3.	Repair instructions and/or specific problems		

3. Repair instructions and/or specific problems relative to the product. relative to the product.

OMEGA's policy is to make running changes, not model changes, whenever an improvement is possible. This affords our customers the latest in technology and engineering. OMEGA is a registered trademark of OMEGA ENGINEERING, INC.

© Copyright 2005 OMEGA ENGINEERING, INC. All rights reserved. This document may not be copied, photocopied, reproduced, translated, or reduced to any electronic medium or machine-readable form, in whole or in part, without the prior written consent of OMEGA ENGINEERING, INC.

PATENT AND TRADEMARK NOTICE: This product is covered by one or more of the following patents: U.S. Pat. No. Des. 336,895; 5,274,577; 6,243,021 / CAMADA 2052589; 2052600 / ITALY 1249456; 1250938 / GERMANY DE 41 34398 (2) SPAIN 2039150; 2048066 / UK Patent No. GB2 249 837; GB2 248 954 / FRANCE BREVET NO. 91 12756. The "Meter Bezel Design" is a trademark of Newport Electronics, Inc. USED UNDER LICENSE. Other U.S. and International Patents pending or applied for.

Output 2<sup>†</sup>: Relay 250 Vac @ 3 A Resistive Load, SSR, Pulse <sup>†</sup> Only with -AL Limit Alarm option **Options: Communication** RS-232 / RS-485 or 10BaseT or Excitation: 24 Vdc @ 25 mA Exc. not available for Low Power Opti Line Voltage/Power: 90 - 240 Vac ±10%, 50 - 400 Hz\*, or 110 - 375 Vdc, **5 W** \* *No CE compliance above 60 Hz* Low Voltage Power Option: 12 - 36 Vdc, 3 W\*\* \* Units can be powered safely with 24 Vac but No Certification for CE/UL are claimed. Dimensions: 48H x 48W x 127D mm

UL, C-UL, CE per EN61010-1:2001

Relay 250 Vac @ 3 A Resistive Load,

Output 1<sup>†</sup>:

SSR. Pulse

(1.89 x 1.89 x 5")

159 g (0.35 lb)

Weight:

Approvals:





Series **DPiTH-i16D Monitor CNiTH-16D-AL Limit Alarm** Humidity + Temperature

## omega.com

**OMEGAnet® On-Line Service** www.omega.com

Internet e-mail info@omega.com

#### **Servicing North America:**

One Omega Drive, P.O. Box 4047 Stamford CT 06907-0047 TEL: (203) 359-1660 e-mail: info@omega.com	FAX: (203) 359-7700						
976 Bergar Laval (Quebec) H7L 5A1 TEL: (514) 856-6928 e-mail: info@omega.ca	FAX: (514) 856-6886						
For immediate technical or application assistance:							
Sales Service: 1-800-826-6342 / 1 Customer Service: 1-800-622-237 Engineering Service: 1-800-872-94	8 / 1-800-622-BEST®						
TEL: (001)800-TC-OMEGA <sup>®</sup> En Español: (001) 203-359-7803 e-mail: espanol@omega.com	FAX: (001) 203-359-7807						
Servicing Europe:							
Postbus 8034, 1180 LA Amstelvee TEL: +31 20 3472121 Toll Free in Benelux: 0800 099334 e-mail: sales@omegaeng.nl	FAX: +31 20 6434643						
Frystatska 184, 733 01 Karviná TEL: +420 59 6311899 e-mail: info@omegashop.cz	FAX: +420 59 6311114						
11, rue Jacques Cartier, 78280 Gu TEL: +33 1 61 37 29 00 FAX: +33 Toll Free in France: 0800 466 342 e-mail: sales@omega.fr							
Daimlerstrasse 26, D-75392 Decke TEL: +49 7056 9398-0 Toll Free in Germany: 0800 639 76 e-mail: info@omega.de	FAX: +49 7056 9398-29						
One Omega Drive River Bend Technology Centre Northbank, Irlam Manchester M44 TEL: +44 161 777 6611 FAX: +44 Toll Free in England: 0800 488 484 e-mail: sales@omega.co.uk	161 777 6622						
	Stamford ČT 06907-0047 TEL: (203) 359-1660 e-mail: info@omega.com 976 Bergar Laval (Quebec) H7L 5A1 TEL: (514) 856-6928 e-mail: info@omega.ca <b>Ate technical or applica</b> Sales Service: 1-800-826-6342 / 1 Customer Service: 1-800-622-237 Engineering Service: 1-800-872-94 TEL: (001)800-TC-OMEGA <sup>®</sup> En Español: (001) 203-359-7803 e-mail: espanol@omega.com <b>Servicing Europe:</b> Postbus 8034, 1180 LAAmstelvee TEL: +31 20 3472121 Toll Free in Benelux: 0800 099334 e-mail: sales@omegaeng.nl Frystatska 184, 733 01 Karviná TEL: +420 59 6311899 e-mail: info@omegashop.cz 11, rue Jacques Cartier, 78280 Gu TEL: +33 1 61 37 29 00 FAX: +33 Toll Free in France: 0800 466 342 e-mail: sales@omega.fr Daimlerstrasse 26, D-75392 Decka TEL: +49 7056 9398-0 Toll Free in Germany: 0800 639 76 e-mail: info@omega.de One Omega Drive River Bend Technology Centre Northbank, Irlam Manchester M44 TEL: +44 161 777 6611 FAX: +44 Toll Free in England: 0800 488 488						



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.omega.com/specs/iseries* 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 top 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.

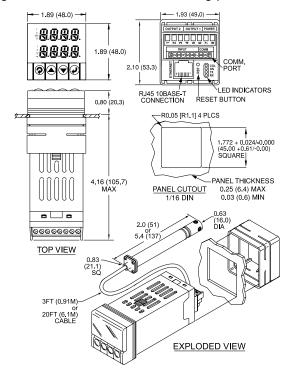
#### EMC:

- 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.

#### MOUNTING

#### Panel Mounting Instruction:

- Using the dimensions from the panel cutout shown in exploded views, cut an opening in the panel. 45mm +.61/-.00 square with R 1.5, 4 places (1.772"+.024/-.000 square with R 0.06", 4 places) Panel thickness: 6.4mm (0.25") max / 0.8mm (0.03") min.
- 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.
- **3.** Slide the retainer over the rear of the case and tighten against the backside of the mounting panel.



**Disassembly Instruction:** If necessary, the unit may be removed from the panel and opened.

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

- **1.** Make sure the AC power is disconnected.
- 2. Remove all wiring connections from the rear of the meter. To remove power and input connectors squeeze top and bottom of the case near the connector site for release, then pull connectors from the case.
- **3.** To remove meter from the case, squeeze top and bottom of the bezel to release, then pull from case.

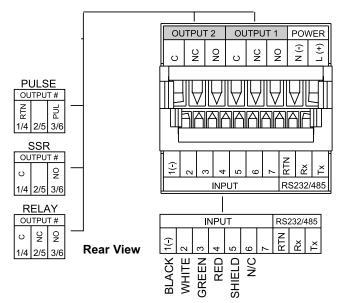
#### WIRING

Wire the instrument according to the figure shown below.

/

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

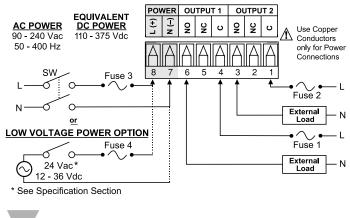
all instructions and warnings may result in injury!

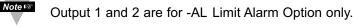




Refer to Operator's Manual for important Input Probe Shield wiring notes

Connect the main power connections as shown in the figure below

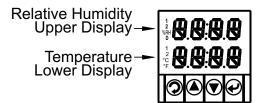




FUSE	Connector	Output Type	For 115Vac	For 230Vac	DC
FUSE 1	Output 1	Relay	3 A(T)	3 A(T)	-
FUSE 2	Output 2	Relay	3 A(T)	3 A(T)	-
FUSE 3	Power	N/A	100 mA(T)	100 mA(T)	100 mA(T)
FUSE 4	Power	N/A	N/A	N/A	400 mA(T)

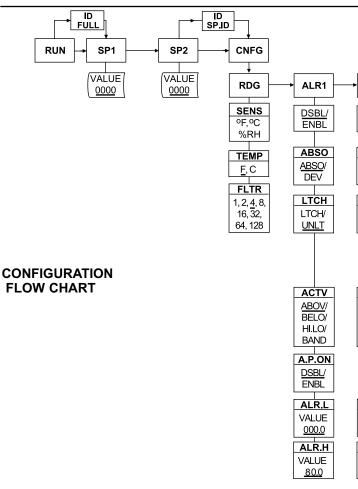
### DESCRIPTION OF FRONT PANEL

The upper display may be RH, Temperature or Dewpoint readings depending on your Reading Configuration selections. Factory defaults are shown. The Dual Display allows the user to observe the Relative Humidity or Dewpoint (upper display) and Temperature Value (lower display), at the same time.



1	Output 1/Setpoint 1/ Alarm 1 indicator		
2	Output 2/Setpoint 2/ Alarm 2 indicator		
°C	°C unit indicator for Temperature or Dewpoint		
°F	°F unit indicator for Temperature or Dewpoint		
%RH	Display shows the Percent Relative Humidity		
D	Display shows the Dewpoint		
$\odot$	Changes display to Configuration Mode and advances		
	through menu items*		
0	Used in Program Mode:		
0	Used in Program Mode:		
0	Accesses submenus in Configuration Mode and stores		
	selected values*		
CONFIGURATION			

The instrument has two different modes of operation. <u>Run</u> <u>Mode</u>: used to display Temperature and Relative Humidity. <u>Menu Configuration Mode</u>: used to navigate through the menu options and configure the controller.



Buttor	Function in Configuration Mode
	<ul> <li>To enter the Menu, the user must first press I</li> </ul>
	button.
$\mathbf{O}$	<ul> <li>Use this button to advance/navigate to the next</li> </ul>
MENU	menu item. The user can navigate through all the
	top level menus by pressing <b>O</b> .
	<ul> <li>While a parameter is being modified, press          to     </li> </ul>
	escape without saving the parameter.
	<ul> <li>Press the up O button to scroll through "flashing"</li> </ul>
-	selections. When a numerical value is displayed
0	press this key to increase value of a parameter
(UP)	that is currently being modified.
	<ul> <li>Pressing the O button for approximately 3 seconds</li> </ul>
	will speed up the rate at which the set point value
	increments.
	• In the Run Mode, pressing the • button changes
	display from RH readings to Temperature
	readings.
	<ul> <li>Press the down O button to go back to a previous</li> </ul>
	Top Level Menu item.
	Press this button twice to reset the controller to the
	Run Mode.
•	• When a numerical value is flashing (except set point
	value) press <b>O</b> to scroll digits from left to right
(DOWN)	allowing the user to select the desired digit to modify.
	• When a setpoint value is displayed press • to
	decrease value of a setpoint that is currently being
	modified. Pressing the <b>O</b> button for approximately
	3 seconds will speed up the rate at which the
	setpoint value is decremented.
	• In the Run Mode, pressing the • button changes
	from RH readings to Dewpoint readings.
	Press the enter      button to access the submenus
	from a Top Level Menu item.
<b>O</b>	• Press I to store a submenu selection or after
ENTER	entering a value - the display will flash a SERU
	message to confirm your selection.
	<ul> <li>In the Run Mode, press I twice to enable Standby</li> </ul>
	Mode with flashing <b>SEB9</b> .

ALR2	→ R.ADJ	→ SP.DV		→ сомм	
ABSO ABSO DEV LTCH LTCH/ UNLT	VALUE 000.0	DSBL/ ENBL	DEFLT CH.ID 0000 DEFLT CH.ID ERRO FULL DSBL/ ENBL	C.PAR BAUD 300,600 1200 2400 4800 9600 19200 PRTY NO ODD EVEN D.BIT 7.BIT	N.CLR GREEN RED AMBER I.CLR GREEN RED AMBER AMBER C.CLR GREEN
ACTV ABOV/ BELO/ HILO/ BAND			ID.SP DSBL/ ENBL	BUS.F STOP 1.BIT 2.BIT BUS.F M.bUS YES/NO VES/NO YES/NO ECHO	RED AMBER DAT.F STAT YES/NO HUMd YES/NO YES/NO
ALR.L VALUE 000.0 ALR.H VALUE 80.0				YES/NO STND 232C 485 MODE CMD CONT SEPR CR SPACE	ADDR VALUE 0016

Free Manuals Download Website <u>http://myh66.com</u> <u>http://usermanuals.us</u> <u>http://www.somanuals.com</u> <u>http://www.4manuals.cc</u> <u>http://www.4manuals.cc</u> <u>http://www.4manuals.cc</u> <u>http://www.4manuals.com</u> <u>http://www.404manual.com</u> <u>http://www.luxmanual.com</u> <u>http://aubethermostatmanual.com</u> Golf course search by state

http://golfingnear.com Email search by domain

http://emailbydomain.com Auto manuals search

http://auto.somanuals.com TV manuals search

http://tv.somanuals.com