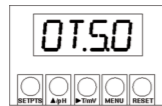
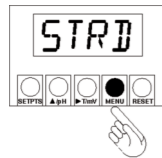
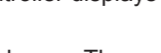
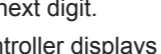
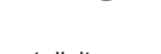
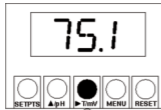
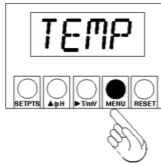


5

To Configure Temperature (If You Selected MANU for Temperature Compensation):

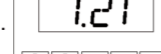
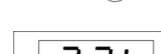
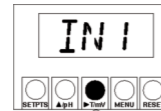
1. Press **MENU** until the controller displays.
2. Press **T/mV**. The controller displays the actual constant temperature.
3. Press **▲/pH** to change the value of the flashing digit.
4. Press **T/mV** to advance to the next digit.
5. Repeat steps 3 and 4 until the controller displays the desired value.
6. Press **MENU** to select the value shown. The unit displays.



7. Press **MENU** until the controller displays ca1.2 or ca1.3

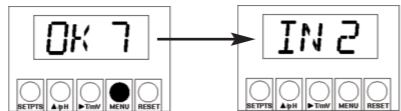
To Perform Calibration (2-Point Example):

1. Place your electrode into a pH 7 buffer solution.
2. Press **T/mV**. The controller displays:
3. Press **T/mV**. The controller displays the previous value of IN 1.
4. Press **T/mV** again. The controller displays the buffer solution's pH value. Allow enough time for the electrode to settle.

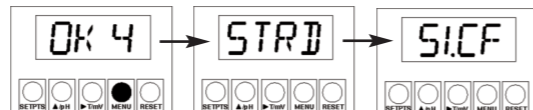


6

5. Press **MENU** until the controller displays.
6. Rinse the electrode with distilled water and place it into a pH4 or pH10 solution.
7. Press **T/mV**. The controller displays the previous value of IN 2.
8. Press **T/mV** again. The controller displays the buffer solution's pH value. Allow enough time for the electrode to settle.
9. Press **MENU**. The controller displays:



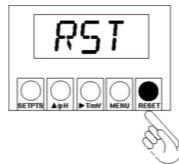
indicating that the value is stored.



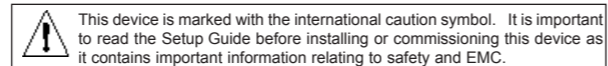
indicating that the value is stored.

For a 3-point calibration, you follow the same procedure used in 2-point calibration, except you place the electrode into three buffer solutions in this order: pH4, pH7, and then pH10.

10. Press **RESET** twice. The controller displays: and then the current pH value.
- Your controller is now up and running.



It is the policy of OMEGA to comply with all worldwide safety and EMC/EMI regulations that apply. OMEGA 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.



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

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WARRANTY/DISCLAIMER

OMEGA ENGINEERING, INC. warrants this unit to be free of defects in materials and workmanship for a period of **13 months** from date of purchase. OMEGA's WARRANTY adds an additional one (1) month grace period to the normal **one (1) year product warranty** to cover handling and shipping time. This ensures that OMEGA's customers receive maximum coverage on each product.

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 corrosion; or current, heat, moisture or vibration; improper specification; misapplication; misuse or other operating conditions outside of OMEGA's control. Components in which wear is not warranted, include but are not limited to contact points, fuses, and triacs.

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CONDITIONS: Equipment sold by OMEGA is not intended to be used, 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 Product(s) be used in or with any nuclear installation or activity, medical application, used on humans, or misused in any way, OMEGA assumes no responsibility as set forth in our basic WARRANTY/DISCLAIMER 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 correspondence.

FOR **WARRANTY** RETURNS, please have the following information available BEFORE contacting OMEGA:

1. Purchase Order number under which the product was PURCHASED,
2. Model and serial number of the product under warranty, and
3. Repair instructions and/or specific problems relative to the product.

FOR **NON-WARRANTY** REPAIRS, consult OMEGA for current repair charges. Have the following information available BEFORE contacting OMEGA:

1. Purchase Order number to cover the COST of the repair or calibration,
2. Model and serial number of the product, and
3. Repair instructions and/or specific problems 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.

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For complete product manual:
www.omega.com/manuals/manualpdf/M1570.pdf



**PHCN-37
MICROPROCESSOR-BASED
pH CONTROLLER**



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START HERE

Using This Quick Start Manual

Use this Quick Start manual to set up your pH Controller and begin operation. Information is provided on how to:

- Mount the controller
- Connect ac Power
- Connect a pH electrode
- Calibrate the controller prior to use

For complete information on this controller, refer to the Operator's Manual.

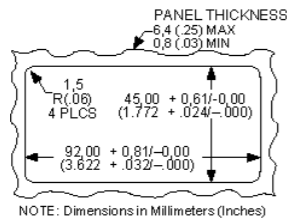
Before You Begin

In addition to the meter and the related parts, you will need the following items to set up your meter:

- ac power, as listed on meter's ID/Power Label
- pH electrode (with BNC input connector)
- 1/8" flat blade screwdriver

Mount the Unit

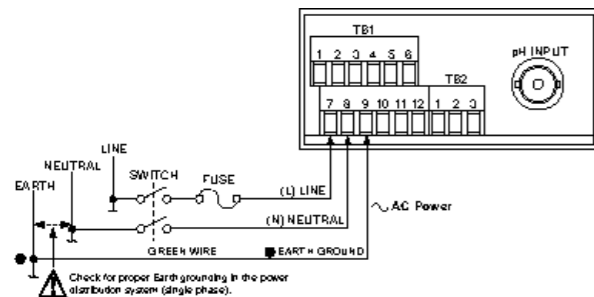
1. Cut a panel opening using the dimensions shown to the right.
2. Position the unit in the opening, making sure the front bezel gasket is flush to the panel.
3. Slide on mounting bracket to secure.



Connect ~ ac Power

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!

1. Remove the panel at the back of the unit.
2. Locate the TB1 connector.
3. Insert the correct wire in each terminal as shown in the following figure and tighten the lockdown screws.
4. Tug gently on the wires to verify the connections.

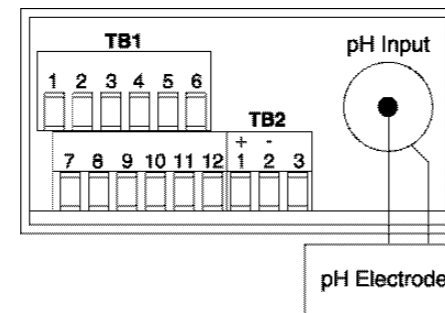


2

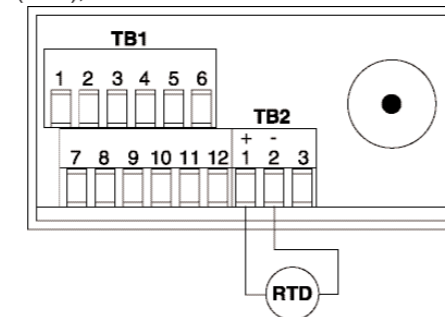
IEC 127-2/III	
Power	Fuse
115 V	125 mA @ 250 (T)
230 V	63 mA @ 250 (T)
UL 248-14 (Listed Fuse)	
Power	Fuse
115 V	175 mA @ 250 V Slow-Blow
230 V	80 mA @ 250 V Slow-Blow

Connect the pH Electrode

1. Secure the pH electrode to the pH input BNC



2. If you are using automatic temperature compensation (ATC), connect the RTD as shown below.



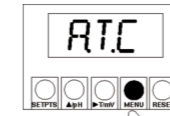
Apply Power

1. Apply ac power to the unit. The unit initializes, flashing the following messages: `rstph`, `init`. Then a pH value appears.
2. Verify that a value appears. If not:
 - Remove ac power.
 - Verify the TB1 power connections.
 - Check your power source.
 - Apply ac power again.

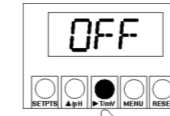
3

To Select Temperature Compensation Mode:

1. Press **MENU**. The controller displays:



2. Press **T/mV** to display the current setting.



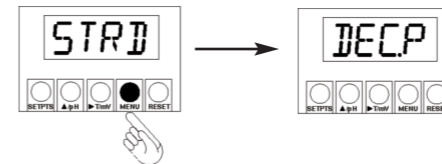
3. Press **pH** to change to the desired setting. Choices are:

OFF = the controller uses a constant 25°C for temperature compensation.

MANU = the controller uses a manually entered value for temperature compensation.

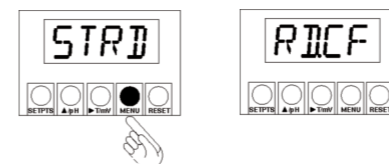
METR = the controller uses the RTD input for automatic temperature compensation.

4. Press **MENU** to select the temperature compensation setting shown. The controller displays:



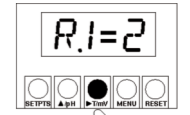
To Set The Decimal Point Position:

1. If it's not already shown, press **MENU** until the controller displays `dec.p`
2. Press **T/mV**. The controller displays:
3. Press **pH** to move the decimal point to the desired location. The choices are `ff`, `ffff`, or `ffff`



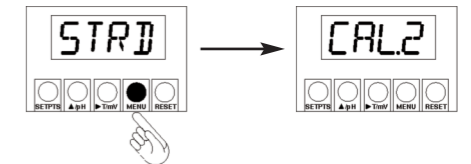
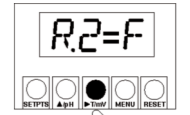
4

4. Press **MENU** to select the decimal point position shown. The controller displays:



Calibrate the Controller:

1. If it's not already shown, press **MENU** until the controller displays `rd.cf`
2. Press **T/mV**. The controller displays `r.1= 2` or `r.1= 3` (2 or 3 point calibration).
3. Press **pH** to select the desired calibration type.



4. Press **T/mV** to display `r.2= f` or `r.2= c` (temperature unit of F or C).
5. Press **pH** to select the desired temperature unit.
6. Press **MENU** to select the calibration. The unit displays.
7. Proceed with Calibration depending on Temperature Compensation Setting:

- If you choose OFF, go to "To Perform Calibration" section.
- If you choose METR, ensure the RTD is properly connected and go to "To Perform Calibration" section.
- If you choose MANU, configure temperature as described in the next section.