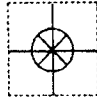
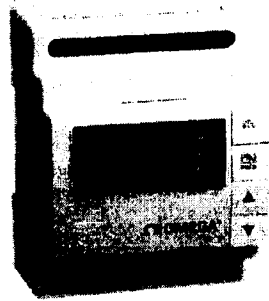


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CE



User's Guide



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

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

PTC-16 Programmable Timing Controller

FRONT PANEL FUNCTIONS



Accesses set points (**SEt1** & **SEt2**) when pressed momentarily. Accesses Password (**PASS**) when pressed for >4 secs. Steps through program functions after password entry. Cancels output buzzer (**bEEP**) when activated but does not reset the timer.



Restarts the timer when pressed momentarily if **u on** or **t on** reset options have been selected. Enables adjustment of each digit using the **Λ** and **V** buttons when pressed after password entry.

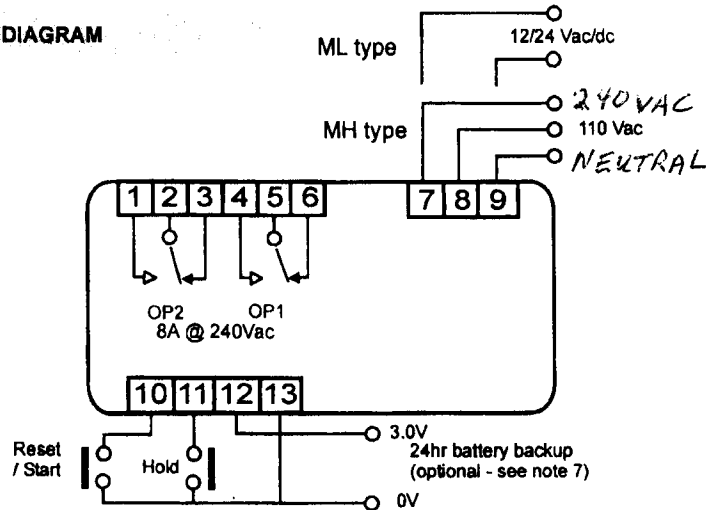


Enables set point 1 (**SEt1**) to be viewed when pressed momentarily. Increments a parameter value or program option if used after PRG and SEL buttons.



Enables set point 2 (**SEt2**) to be viewed when pressed momentarily. Decrements a parameter value or program option if used after PRG and SEL buttons.

WIRING DIAGRAM



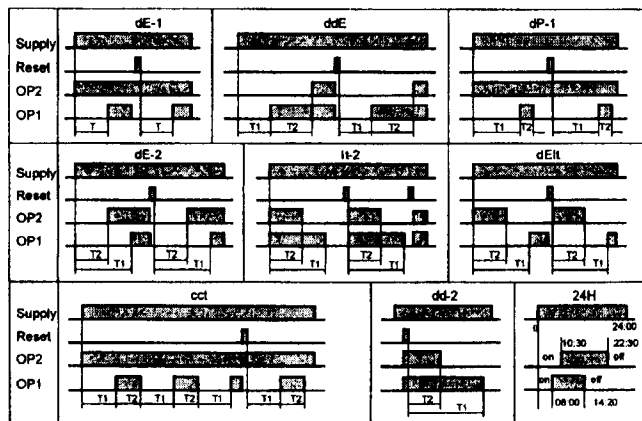
REAR PANEL FUNCTIONS

Hold : Halts timing for as long as the hold input is connected to 0V. Timing re starts from previous value when hold is released.

Reset/start : Resets or starts the timer according to the **rSEt** parameter setting.

3V Battery : Provides battery back up to maintain the 24 hour clock during power failure.

TIMING MODES



PROGRAM PARAMETERS

Parameter	Function	Default	Range/Options
SET 1	Timing set-point 1	9000	0 to Timing Range
SET 2	Timing set-point 2	9000	0 to Timing Range
PASS	Password to access Program	3232	0 to 4999 for adjustable parameters 5000 to 9999 for parameter lock (view only)
MODE	Timing Mode selection	dE-1	dE-1: On-Delay + Instantaneous ddE: 2 dependant On-Delays dP-1: Delayed Pulse + Instantaneous cct: Cycle Timer with adjustable on & off dE-2: 2 independent On-Delays It-2: 2 independent Intervals dEIt: Independent On-Delay + Interval dd-2: 2 independent Off-Delays 24H: 24 hour clock with 2 on & 2 off times
RNG1	Timing Range selection	SECS	0.1-S: 0.1 to 999.9 seconds
RNG2	Timing Range selection	SECS	SECS: 0 to 9999 seconds MINS: 0 to 9999 minutes M-S: 0 to 99 mins 59 secs H-M: 0 to 99 hours 59 mins (23 h 59 m in 24H mode)
CNT	Direction of Timing Countdown	uP	uP, dn
RSET	Reset options with RST button	OFF	OFF: Reset button inactive u on: Unconditional Restart t on: Restart only after time-out Eu on: External Unconditional Restart Eton: External Restart only after time-out
AST	Auto-Start mode	ON	ON: Timer starts from switch on. OFF: Timer waits for Start/Reset signal.
BEEP	Action of Buzzer at Time-out	OFF	OFF, on
BUTT	Allows beep on key press to be switched on or off.	ON	OFF, on
CLOC	Sets the 24 hour clock	00:00	0 to 23 hours 59 minutes
ON1, OFF1, ON2, OFF2	On and Off time settings in 24 hour mode	00:00	0 to 23 hours 59 minutes

PROGRAMMING PROCEDURE

The operating parameters and range should be set before adjusting the set time.

1. Press and hold the PRG button for > 4 secs and the display will show **PASS** (if a password >0 has been set). Press SEL and use the \wedge and \vee buttons to enter each digit of the password. Use SEL to move between password digits. When complete press PRG to access the program functions. **NOTE** : if no password is set (**PASS=0**) the display will go directly to the first program parameter (**ModE**).
2. Press SEL followed by the \wedge or \vee buttons to change program parameters. Press PRG to store the changes and move to the next parameter. Refer to the parameter map for programming details.
- 3 **End** will be displayed when the program routine is complete. The power must now be removed and reconnected to re start the timer.

ADJUSTING SET TIME

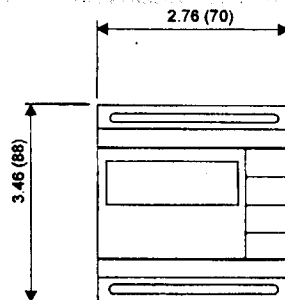
1. Momentarily press the PRG button and the display will show set time 1 (**SET1**).
2. Press SEL and use the \wedge and \vee buttons to enter the required set time, one digit at a time. Use SET to move between digits.
3. Press PRG to display set time 2 (**SET2**) if selected. If a single time mode is selected (**de_1** or **dP_1**) then the display will return to normal timer operation.
4. Repeat step 2 to set time 2.
5. Press PRG to return to normal timer operation.

The same procedure is used to set the 24 hour clock time (**CLOC**) and the on and off times (**on_1**, **OFF1**, **on_2**, **OFF2**).

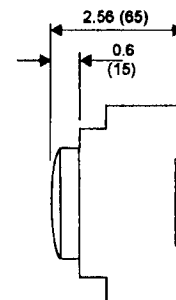
NOTES

1. The RST button can only be used to start the timer if the **rSEt** modes **u on** or **t on** are selected.
2. **RSEt** mode **u on** will allow the timer to re start at any point in the timing cycle but **t on** will allow re start only after the current timing routine is finished.
3. **RSEt** modes **Euon** and **Eton** have the same function as **u on** and **t on** but they are actioned by contact across terminals 7 and 8.
4. If the buzzer sounds during set point adjustment, the set point routine must be exited before the buzzer can be silenced using the PRG/mute button.
5. When the program routine has been accessed timing stops and resets and all outputs are deenergised. Timing continues during set time adjustment but the new times will only take effect when the timer is next started.
6. The buzzer sounds when Time 1 has elapsed if the **bEEP on** option has been selected (not **dd_2** mode).
7. For the 24 hour clock battery back up to function correctly, the battery must be connected after the main power supply is switched on.
8. All time settings and mode settings are stored in EEPROM memory and are retained when the unit is powered down.

DIMENSIONS



Panel cut-out 2755 x 1.770 (70 x 45)



All dimensions in inches (mm)

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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2. Model and serial number of the product under warranty, and
3. Repair instructions and/or specific problems relative to the product.

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2. Model and serial number of the product, and
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