INSTALLATION OPERATION & SERVICE MANUAL

Model: PE25300

# CONTROL PANEL WITH DIGITAL TIME CLOCK FOR INDOOR/OUTDOOR USE

Suitable for Pool Equipment Control and for Direct Connection of Underwater Lights

**ELECTRICAL RATINGS:** 

PANEL: 60 AMP/75°C MAX. 120/240V OR 120/208V SINGLE PHASE (THREE WIRE) A.C.

Digital Time Clock: See Rating Inside Enclosure Door

The short circuit current rating of this panel board is 10,000 symmetrical amperes.

### DANGER! TO AVOID RISK OF INJURY:

- ...do not permit children to operate the Control Unit or use the Pool/Spa unless they are closely supervised at all times.
- ...test GROUND FAULT protection regularly. If it fails to reset, DO NOT USE THE POOL or SPA! Contact a qualified service technician.
- ...always disconnect electricity before servicing this control or the equipment connected to it.

READ, FOLLOW AND SAVE THIS INSTRUCTION MANUAL

# **GENERAL INFORMATION**

Many of today's energy efficient pools and spas utilize the advantages of a single electrical panel, containing all the necessary controls for the safe, efficient and automatic operation of the pool/spa equipment. In addition, this panel can also be used to control any outdoor equipment, sign or pump within its rated capacity.

The all-weather enclosure contains a heavy-duty, industrial grade Digital Time Clock and a breaker base for up to four full size circuit breakers. Also, it has provisions to install switches or a GFCI receptacle on the side as well as the inside.

The Digital Time Clock is designed to operate any pump, within its rated capacity. However, if protection to prevent dry start is required by the pump manufacturer, it must be provided in addition to this Control. Contact pump manufacturer if not sure and/or for more details.



### IMPORTANT SAFETY INSTRUCTIONS

When installing and operating this Product and other associated equipment, basic safety precautions should always be followed, including the following:

- 1. Read and follow all instructions.
- 2. This Control must be installed by a qualified electrician, according to National and Local Electrical Codes.
- 3. Install this control not less than 5 feet (3 meters in Canada) from inside edge of pool. USE COPPER CONDUCTORS ONLY.
- 4. Do not exceed the maximum ratings of individual components, wiring devices, and current carrying capacity of conductors.
- 5. For Control grounding, bonding, installing and the wiring of underwater lights, refer to Article 680 of the National Electrical Code or Article 68 of the Canadian Electrical Code.
- 6. The Control should not operate any equipment which would cause bodily injury or property damage should it be activated unexpectedly.

### READ, FOLLOW AND SAVE THIS INSTRUCTION MANUAL

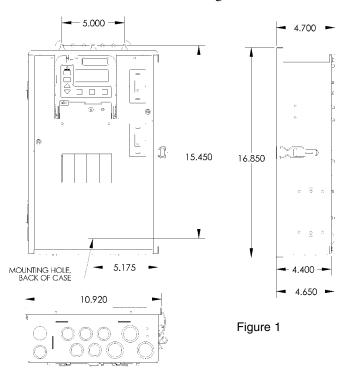
#### INSTALLATION

- 1. Remove the two #10 hex head screws from the *back* of the enclosure and attach mounting bracket to enclosure.
- 2. Select the proper location for the Control Panel and hang enclosure on a flat vertical surface or other support, using hardware suitable for the purpose. NOTE: The Panel will accept the main feed, either through the 3/4-1 inch knockout at the bottom, back or at the top, through a listed outdoor conduit hub, mounted at the time of installation, utilizing the dimple provided for drilling the pilot hole.
- **3.** Prepare the necessary conduit runs, terminate them at both ends and pull in the conductors as specified by the installation layout.
- 4. Refer to Figure 1 below; note that this enclosure contains one Digital Time Clock and breaker base for up to four full size circuit breakers. To wire the panel, follow the wiring diagram located inside the
  - up to four full size circuit breakers. To wire the pan follow the wiring diagram located inside the enclosure door. Make sure that connections to Digital Time Clock terminals are tight (25 lb.-in. minimum) and **insulation clears the pressure plate**-see illustration.
- 5. If required by the heater manufacturer, your new Digital Time Clock includes a connection for a fireman switch. This switch only works in conjunction with circuit #1(Load #1) on your Digital Time Clock. Refer to pages 6 & 7 of your instruction manual for connection information, and refer to page 28 for fireman switch programming information. Use at least #18 AWG wiring with insulation rated 300 volt or higher. Some heaters may require a special connecting harness, contact heater manufacturer for details. Place heater ON/OFF switch on heater to ON position.
- **6.** If this enclosure is used for direct connection of underwater lights, refer to 1999 NEC 680-21(b), 2002 NEC 680-24(b) or CEC 68-060, 062 and 066 for further details.
- 7. To install additional wiring devices inside the enclosure, first remove rectangular knockout(s) in dead front. Next, remove hex head screws in back of enclosure and install standoffs\* in place of screws. Attach wiring device to stand-offs.

- \*Stand-offs are not furnished. Order 21T156A for a set of four (4) stand-offs and mounting hardware.
- **8.** If external bonding is required, install a bonding lug at bottom of enclosure and bond installation according to code requirements (Order 156T11047A for Bonding Lug Kit).
- **9.** Testing of the installation is optional and recommended only if the desired loads are securely in place and will not be damaged by this test:
  - a. Turn ON power at breaker panel.
  - **b.** Digital Time Clock display should fully illuminate and then start to blink 12:00 a.m. Time clock will not blink only if time has been maintained by internal battery.
  - **c.** Push each of the ON/OFF buttons to verify devices cycle on and off.

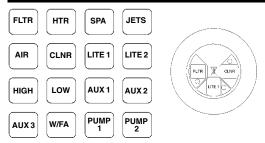
In case of unsatisfactory results, turn OFF power, check your wiring, refer to Troubleshooting on Page 3.

**10.** Install front panel over wiring compartment. The control is now ready for programming, see OPERATION section on Page 4.



#### **ACCESSORIES**

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# External Wired Remote Accessory Part Number 133PE1484A

The New Intermatic Wired Remote Control allows you to control your Digital Time Clock from a remote location. Included with your Wired Remote Control is a label arrangement allowing you to identify each button specific to your Pool or spa equipment pad. Your new wired remote control comes standard with 100 foot of cable and is designed to slip fit into any standard 1 1/2" conduit adapter. This remote works in conjunction with the

Digital Time Clock and displays feedback information on the present state of the pool or spa equipment pad. For more information refer to instructions provided with the accessory.

#### Freeze Probe Accessory Part Number 178PA28A

The New Intermatic Freeze Probe allows



you to protect your pool or spa equipment during an unexpected freeze condition. The freeze probe comes with a 10 foot cable and plugs into the back of the new Digital Time Clock. The Time Clock can be programmed to turn on each or all-individual loads at

any desired outside temperature.

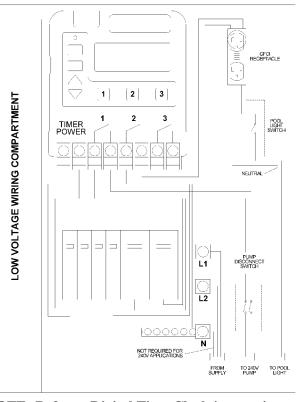
Heater Protection (Fireman) Switch is standard with each Digital Time Clock. It comes standard with a Fireman Switch connection for your pool or spa heater. Simply connect the two wires from your heater thermostat to the back of the digital clock. The fireman switch is only associated with circuit one on the digital clock, therefore the filter pump should be connected to circuit one. Program the time desired for the cool down period and your new digital clock will take over. For more details, refer to instruction manual.

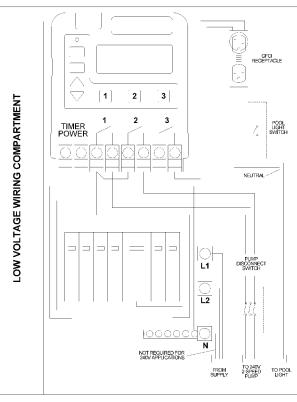
with the accessory.	mandan	
TROUBLESHOOTING		
SYMPTOM	CAUSE(S)	CORRECTIVE ACTION
Display will not come "ON" when unit is powered up?	Jumper on back of clock is missing or set incorrectly.	Set Jumper to proper location. See Pg.7 of instruction manual.
	1b. Fuse on back of clock blown open.	Replace fuse with 1/8 amps fuse. See Pg. 7 of instruction manual.
	1c. Power to clock not present.	Check connections to clock. Check circuit breakers.
Freeze protection circuit not working?	2a. Freeze Probe (P/N 178PA28A) not installed or bad.	Install Intermatic freeze probe. See Pg. 7 of instruction manual.
	2b. Clock programming not setup.	Setup freeze programming. See Pg. 7 of instruction manual.
Unit does not turn "ON" or "OFF" at desired times?	3a. Internal ON/OFF Times have not been defined.	Setup ON/OFF programming. See Pg.'s 24-27 of instruction manual.
	3b. ON or OFF time is in override mode.	Cycle through programming menu. See Pg.'s 24-27 of instruction manual.
	3c. Clock is in Freeze protection Countdown Mode.	Review programming menu. See Pg.'s 29 & 33 of instruction manual.
Display continues to blink ON and OFF?	4a. Power to clock was interrupted long enough to loose time of day.	Set time of day on clock.See Pg. 23 of instruction manual.
	4b. Clock still in programming mode.	Press "ENTER KEY" or wait 1 minute for clock to time out.
5. Fireman switch not working?	5a. Fireman switch wires not hooked up correctly from heater.	Connect fireman switch wires to clock. See Pg. 7 of instruction manual.
	5b. Fireman switch programming not defined.	Program fireman switch settings. See Pg. 28 of instruction manual.

#### WIRING DIAGRAM

Wiring Guidelines for Modes 1 & 3 (Circuit 3 can be wired similar to Circuit 1)

#### Wiring Guidelines for Modes 2 & 4





NOTE: Refer to Digital Time Clock instruction manual booklet for description of modes.

### OPERATION

Interest of the product (a) called maps to the product fails due to a defect in material or workmanship, Internatic Incorporated will repair or replace it, at its sole option, free of charge. This warranty is extended to the original house hold purchaser only and is not transferable, this warranty is extended to the original house hold purchaser only and is not transferable. This warranty is extended to the original house hold purchaser only and is not transferable, this warranty is extended to the original house hold purchaser only and is not transferable. This warranty is extended to the original house hold purchaser only and is not transferable, this warranty is subject to unauthorized repair, opened, taken apart or otherwise modified; (c) units not used in accordance with instructional in the cost of the product; (e) sealed lamps and/or lamp bulbs, LEDs and batteries; (f) the finish on any portional and/or weathering, as this is considered normal wear and tear; (g) transit damage, initial installation cost in INTERMATIC INCORPORATED WILL NOT BE LIABLE FOR INCIDENTAL OR CONSCOUNTIAL DAMAGES, SO THE ABOVE THE BURATION OF INCIDENTAL OR ONSCOUNTIAL DAMAGES, SO THE ABOVE THE ABOVE THE SAME DURATIONS ON THE DURATION OF AN IMPLED WARRANTIFE CHANTABILITY AND THE WARRANTY OF FITNESS FOR A PARTICIL AS INTERMATIONS ON THE DURATION OF AN IMPLED WARRANTIFE THIS SON OF AN IMPLED

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