



INTERMATIC®

P40000 SERIES

POOL/SPA EQUIPMENT CONTROLS

INSTALLATION OPERATION & SERVICE MANUAL

CONTROL PANEL FOR INDOOR/OUTDOOR USE

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

ELECTRICAL RATINGS: See inside Enclosure Door



WARNING

Risk of electric shock!

Test ground fault protection regularly. If it fails, do not use Pool or Spa. Contact qualified service professional for help.

Do not use this control as a power disconnect, it could turn ON unexpectedly.

Disconnect electricity at the main Panel before servicing this control or the equipment(s) connected to it.

GENERAL INFORMATION

Intermatic Pool and Spa load centers are complete in construction and shall be installed in accordance with NEC requirements as applicable. These enclosures are provided with provisions for single-gang certified switching devices and an extra low voltage transformer certified for use with underwater pool lights with a breaker base. Enclosures with breaker bases are certified as industrial controls for specific use.

The Transformers supplied in these panels are specifically designed to supply 12 volts to underwater pool/spa lights. A grounded shield between the primary and secondary winding assures safe operation and the built-in circuit protection will disconnect power to the transformer in case of overload. These transformers are suitable for direct connection to underwater Pool and Spa lights.

The all-weather enclosure contains provisions to install a switch inside as well as a switch or GFCI receptacle on the outside.

Transformer Rating	Input 60 Hz.	Secondary Output	
		Lamp Watts*	Volts
100W	120V. 1 Amp Max.	100 Max.	12, 13 or 14
300W	120V. 3 Amp Max.	300 Max.	12, 13 or 14

* Any combination of bulbs, any tap.

! CAUTION

Risk of injury or property damage!

Do not install or operate this equipment and other associated equipment without basic safety precautions.

Read and follow the safety instructions listed below and other basic safety precautions before installation or operation of this control and other associated equipment.

1. *This control must be installed by a qualified person, according to the national and local electrical codes.*
2. *Install this control not less than 5 feet (3 meters in Canada) from inside edge of pool and 1 foot (30cm) above ground.*
3. **USE COPPER CONDUCTORS ONLY** rated 90°C minimum.
4. *Do not exceed 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.*

INSTALLATION

1. Remove the four #10 hex head screws from the back of the enclosure and attach mounting brackets 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.
3. Prepare the necessary conduit runs, terminate them at both ends and pull in the conductors as specified by the installation layout.
4. If external bonding is required, install a bonding lug at bottom of enclosure and bond installation according to code requirements.
5. The enclosure must be grounded as required by NEC, Article 680 and any applicable local codes. For Canadian installations, the transformer supply circuit must be protected by a ground fault circuit interrupter.
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. Make sure that all unused transformer taps (leads) are separately insulated.
8. Use the tables at the top of page 3 as a guide to determine the correct wire size.
9. Check voltage at lamp terminals after installation. It should be 12 ± 0.3 volts.
10. Install front panel over wiring compartment. The control is now ready for programming, see OPERATION section on Page 3.

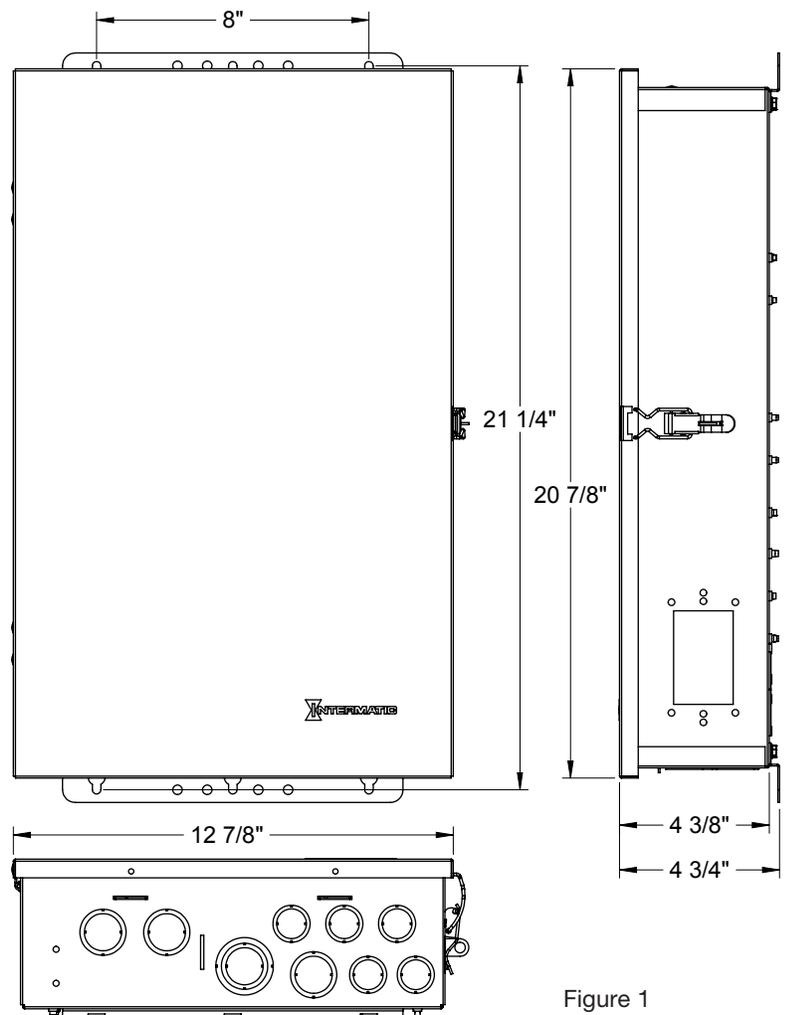


Figure 1

Transformer Cable - Voltage Selection Chart						
Length of Cable	100 W Transformer					
10 ft	13 V	12 V	12 V	12 V	12 V	12 V
25 ft	13 V	13 V	12 V	12 V	12 V	12 V
50 ft	14 V	13 V	13 V	12 V	12 V	12 V
75 ft		14 V	13 V	13 V	12 V	12 V
100 ft			13 V	13 V	13 V	12 V
125 ft			14 V	13 V	13 V	12 V
150 ft			14 V	13 V	13 V	13 V
175 ft			14 V	14 V	13 V	13 V
200 ft				14 V	13 V	13 V
250 ft				14 V	13 V	13 V
Wire Gauge (AWG)	#16*	#14	#12	#10	#8	#6

* Minimum Gauge Cable

**Blank fields indicate conditions not suited for wiring

Transformer Cable - Voltage Selection Chart				
Length of Cable	300 W Transformer			
10 ft	12 V	12 V	12 V	12 V
25 ft	13 V	13 V	12 V	12 V
50 ft	13 V	13 V	13 V	13 V
75 ft		14 V	13 V	13 V
100 ft		14 V	14 V	13 V
125 ft			14 V	13 V
150 ft			14 V	14 V
175 ft				14 V
200 ft				14 V
250 ft				14 V
Wire Gauge (AWG)	#12*	#10	#8	#6

* Minimum Gauge Cable

**Blank fields indicate conditions not suited for wiring

LIMITED WARRANTY

Warranty service is available by either (a) returning the product to the dealer from whom the unit was purchased or (b) completing a warranty claim online at www.intermatic.com. This warranty is made by: Intermatic Incorporated, 1950 Innovation Way, Suite 300, Libertyville, IL 60048.

For additional product or warranty information go to: <http://www.intermatic.com> or call 815-675-7000.

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