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

ELECTRICAL RATINGS: See inside Enclosure Door

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 none one or two heavy-duty, industrial grade Time Switches. Also, it has provisions to install switches or a GFCI receptacle on the side as well as the inside. The Time Switch can also accommodate an optional heater control (fireman) switch.

The Control 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.

NOTES:
1. Grounding connections are not shown but must be provided. Refer to the National Electrical Code for details.
2. Diagrams above are only two of the many variations this Panel can accommodate.

WIRING DIAGRAM

Typical 120 Volt Installation

Typical 240 Volt Installation

Filter and Cleaner Timer Inter-Connections

WARRANTY

If within one (1) year from the date of installation, this product fails due to a defect in material or workmanship, Intermatic Incorporated will repair or replace it free of charge.

The warranty does not cover labor for removal or reinstallation and does not apply to: (a) damage caused by accident, abuse, mishandling, or dropping; (b) a unit which has been subject to unauthorized repair; (c) units not used in accordance with directions; (d) damages exceeding the cost of the product. Some states do not allow a limitation of damages so the foregoing warranty may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

This warranty service is available, if the defective product or its defective component is returned with proof of purchase and date of installation, either (a) to the dealer from whom the unit was purchased or (b) by shipping prepaid to the Intermatic Incorporated/After Sales Service, 7777 Winn Rd., Spring Grove, IL 60081-9698/815-675-7000 http://www.intermatic.com

Because of our commitment to continuing research and improvements, Intermatic Incorporated reserves the right to make changes, without notice, in the specifications and material contained herein and shall not be responsible for any damages, direct or consequential, caused by reliance on the material presented.

INTERMATIC INCORPORATED, SPRING GROVE, IL 60081-9698
http://www.intermatic.com

158TP10425

1
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. Install this control not less than 5 feet (3 meters in Canada) from inside edge of pool. USE COPPER CONDUCTORS ONLY.
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

IMPORTANT SAFETY INSTRUCTIONS

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 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. Refer to Figure 1 below; note that this enclosure contains one or two Time Switch(es). To wire the panel, follow the wiring diagram located inside the enclosure door. Make sure that connections to time switch terminals are tight (25 lb.-in. minimum) and not be damaged by this test:
   a. Turn the manual lever of the Time Switch to OFF.
   b. Turn ON power at breaker panel.
   c. Move the manual lever of Time Switch to the right (ON). Pump should start and run on full speed.

5. If external bonding is required, install a bonding lug at bottom of enclosure and bond installation according to code requirements.
6. Testing of the installation is optional and recommended only if pump is securely in place and will insulation clears the pressure plate - see illustration.
7. If external bonding is required, install a bonding lug at bottom of enclosure and bond installation according to code requirements.
8. If external bonding is required, install a bonding lug at bottom of enclosure and bond installation according to code requirements.
9. Testing of the installation is optional and recommended only if pump is securely in place and will not be damaged by this test:
   a. Turn the manual lever of the Time Switch to OFF.
   b. Turn ON power at breaker panel.
   c. Move the manual lever of Time Switch to the right (ON). Pump should start and run on full speed.

10. Install front panel over wiring compartment.
The control is now ready for programming, see OPERATION section on Page 3.

TO SET FILTER PUMP TIME SWITCH, follow instructions on the right. The length of the daily filtration/heating cycle depends on many variables such as size, shape, geographic location of the pool, water chemistry, type of pool equipment, usage and season of year. If not sure, contact your local pool service professional for advice.

THE FIREMAN SWITCH (Heater Protection Mechanism), if required, is factory set and shuts OFF the heater 20 minutes before the Time Switch turns OFF the filter pump. The Fireman Switch requires no setting or service.

OPERATION

1. Time Switch will not keep time but dial is turning.
   a. Frequent power outages
   b. Wrong voltage/cycle
   c. Loose clock motor connections
   CORRECTIVE ACTION
   Reset dial
   Change clock motor
   Check connections

2. Time Switch Dial stops
   a. Loose tripper
   b. Bent dial
   c. Defective motor
   CORRECTIVE ACTION
   Check/change tripper
   Check/change mechanism
   Change clock motor

3. Dial stops after switch
   a. LINE leads are connected
to LOAD terminals
   b. Defective mechanism
   c. No OFF tripper on dial
   d. Welded contacts
   e. Two ON trippers and
   f. OFF tripper on dial
   g. Defective mechanism
   h. Loose clock motor connections
   i. Wrong voltage
   CORRECTIVE ACTION
   Reverse LINE and LOAD connections
   Change mechanism
   Change tripper
   Change mechanism
   Change clock motor
   Check connections
   Change clock motor

TIME SWITCH OPERATING INSTRUCTIONS

1. TO SET "ON" AND "OFF" TIMES: Hold TRIPPERS against edge of CLOCK-DIAL, pointing to time (AM or PM) when ON and OFF operations are desired. Tighten tripper screws firmly.

2. TO SET TIME-OF-DAY: Pull CLOCK-DIAL outward. Turn in either direction and align the exact time-of-day on the CLOCK-DIAL. To wire the panel, follow the wiring diagram located inside the enclosure door. Make sure that connections to time switch terminals are tight (25 lb.-in. minimum) and not be damaged by this test:
   a. Turn the manual lever of the Time Switch to OFF.
   b. Turn ON power at breaker panel.
   c. Move the manual lever of Time Switch to the right (ON). Pump should start and run on full speed.

3. TO SET TIME-OF-DAY:
   a. Frequent power outages
   b. Wrong voltage/cycle
   c. Loose clock motor connections
   CORRECTIVE ACTION
   Reset dial
   Change clock motor
   Check connections

4. Load is ON at all times -
dial is turning.
   a. Welded contacts
   b. Two ON trippers and
   c. OFF tripper on dial
   d. Defective mechanism
   e. Loose clock motor connections
   f. Wrong voltage
   CORRECTIVE ACTION
   Reverse LINE and LOAD connections
   Change mechanism
   Change tripper
   Change mechanism
   Change clock motor
   Check connections
   Change clock motor

5. Dead clock motor. (Clock motor gears do not rotate).
   a. Defective clock motor
   b. Open coil due to lightning or surge
   c. Loose clock motor connections
   d. Wrong voltage
   CORRECTIVE ACTION
   Change clock motor

TROUBLESHOOTING

Figure 1

Figure 2

WARNING: Do not disconnect high limit or pressure switches.

Figure 2