**Model: PF1102T TIME CONTROL WITH FREEZE PROTECTION IN RAINPROOF (TYPE 3R) ENCLOSURE**

**Model: PF1102MT TIME CONTROL MECHANISM ONLY WITH FREEZE PROTECTION**

**SUITABLE FOR POOL/SPA EQUIPMENT CONTROL**

**INPUT VOLTAGE:** 240 Volt - 60 Hz.

**ELECTRICAL RATING:** 1.5 HP - 120 Volt AC, 3 HP - 240 Volt AC.

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**DANGER**

Risk of drowning!
Do not permit unsupervised children to use pool or spa.
Close supervision of children required at all times.

**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.

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This Time Control with Freeze Protection is designed to automatically control as well as protect the Pool/Spa equipment and plumbing against freeze damage. The Control, if wired according to instructions, turns ON/OFF the Filter Pump on a daily schedule and also turns ON the Filter Pump when the air temperature (where this Control is located) drops below the temperature set by the thermostat dial (between 33˚F and 42˚F). Nevertheless, the Control is not intended to be a substitute for insulation, coverings or maintenance.

It is self-contained in an indoor-outdoor, beige rainproof enclosure and designed to operate on 240 Volt, 60 cycle only.

**Model PF1102MT** is a mechanism only, functions just like Model PF1102T and fits (snaps into) any Intermatic Pool Panel, Models T10000R, T30000R or T40000R Series.

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**LIMITED ONE YEAR WARRANTY**

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

This warranty is extended to the original household purchaser only and is not transferable.

This warranty does not apply to: (a) damage to units caused by accidents, dropping, or abuse in handling, acts of God or any negligent use; (b) units which have been subject to unauthorized repair, opened, taken apart or otherwise modified; (c) units not used in accordance with instructions; (d) damages exceeding the cost of the product; (e) sealed lamps and/or lamp bulbs; LED’s; and batteries; (f) the finish on any portion of the product; such as surface and/or weathering, as this is considered normal wear and tear; (g) transit damage, install installation costs, removed costs, or misinstallation costs.

**INSTALLATION & SERVICE MANUAL**

**INTERMATIC INCORPORATED**

**158-00858**

**INTERMATIC INCORPORATED, SPRING GROVE, IL 60081-9698**

**INTERNAL WIRING**

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**WIRING DIAGRAMS**

**INTERNAL WIRING**

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**WIRING DIAGRAMS**

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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.
**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 75°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.

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**INSTALLATION**

1. Select the proper outdoor location for the Control and prepare the necessary conduit run(s) required by the installation layout.
2. Hang enclosure on a flat vertical surface or other support, using hardware suitable for the purpose.
3. Properly terminate conduits at both ends and pull-in the conductors (Min.75°C Rated) as specified by the installation layout.
4. Select the appropriate wiring diagram (120V or 240V, installation) on page 4 of this manual and make LINE and LOAD (Pump) connections as shown. First identify each lead by color. The LINE connections for 240 Volt supply are Black and Red. To operate the clock motor and relay coil, you also have to connect the NEUTRAL to the White lead. NOTE: If the 240 Volt supply are Black and Red. To operate the clock motor and relay coil, you also have to connect the NEUTRAL to the White lead.
5. USE COPPER CONDUCTORS ONLY rated 75°C minimum.
6. The control should not operate any equipment which would cause bodily injury or property damage should it be activated unexpectedly.

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**SET UP FILTER TIMER**

Follow instructions on page 3. The length of the daily filtration/heating cycle depends on many variables such as size, shape, and 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.

**SET THERMOSTAT**

**OPERATION**

**SYMPTOM**

1. Timer will not keep time
2. Timer dial is not turning
3. Pump operates off schedule
4. Filter pump is ON at all time
5. Filter Pump will not start when temp.is below 32 deg.

**CAUSE(S)**

1. No trippers on dial
2. Trippers are not installed properly
3. Breaker OFF
4. Timer motor dead due to lightning
5. Power failure earlier
6. Breaker was OFF for some time
7. Timer contacts welded
8. Defective thermostat (see Test procedure)
9. Defective relay
10. Defective wiring

**CORRECTIVE ACTION**

1. Install trippers
2. Re-install trippers on dial
3. Turn ON Power
4. Replace tripper
5. Reset timer
6. Replace timer
7. Replace t.stat
8. Replace relay
9. Check wiring
10. Check wiring