

# HAYWARD MICROPROCESSOR CONTROL/TIMER OWNER'S MANUAL & INSTRUCTION SHEET

This high performance timer is adaptable to all 115 volt Flex-48 style aboveground pool pump motors. Please follow all instructions closely.



# **WARNING:** Electric Hazard. Failure to follow instructions can result in serious injury or death.

- Disconnect power supply before servicing.
- All electrical connections must be performed by qualified personnel in compliance with applicable electrical codes.
- A ground fault circuit interrupter (GFCI) must be installed as required by electrical codes.
- Keep fingers and foreign objects away from openings and moving parts.

Motor must be suitably grounded. Connect ground wire to green

grounding screw and for cord connected units use properly grounded GFCI protected outlet.

- Use motor bonding lug to connect the motor with other bonded parts using a #8 AWG conductor (#6 AWG in CANADA) as required by electrical codes.
- Replace all covers before operation.
- Power source must agree with nameplate.

## IMPORTANT SAFETY INSTRUCTIONS

When installing and using this electrical equipment, basic safety precautions should always be followed, including the following: Failure to follow instructions may result in injury

1.

# **READ AND FOLLOW ALL INSTRUCTIONS**

 WARNING—To reduce risk of injury, do not permit children to use this product unless they are closely supervised at all times.
 CAUTION—This pump is for use with permanently installed pools and

**CAUTION**—This pump is for use with permanently installed pools and may also be used with hot tubs and spas if so marked. Do not use with storable pools. A permanently installed pool is constructed in or on the ground or in building such that it cannot be readily disassembled for storage. A storable pool is constructed so that it is capable of

- 3. being readily disassembled for storage and reassembled to its original integrity.
- If installed within an outer enclosure or beneath the skirt of a hot tub 4. or spa, adequate ventilation and free circulation of air must be

provided to prevent overheating of the motor. Use motor bonding lug to connect the motor with other bonding parts using a #8 AWG conductor as required by electrical codes. **NOTE:** The national Electrical Code (NEC) permits use of a cord with a

- maximum 3 ft. (1m) length. If your pump is equipped with a cord complying with the NEC, items 5 through 8 apply.
  WARNING—Risk of Electric Shock. Connect only to a grounding type receptacle protected by a Ground Fault Circuit Interrupter (GFCI).
- Contact a qualified electrician if you cannot verify that the receptacle is protected by GFCI. Do not bury cord. Locate cord to minimize abuse from lawn mowers, hedge trimmers, and other equipment.



- 7. WARNING—To reduce risk of electric shock, replace damaged cord immediately.
- 8. WARNING—To reduce risk of electric shock, do not use extension cord to connect unit to electric supply; provide a properly located outlet. Qualified personnel must do all electrical wiring. All electrical wiring must be in conformance with applicable local codes and regulations.
- **9. CAUTION**—The NSPI-4 Standard (Above-Ground and On-Ground Pools) advises that components such as the filtration system, pumps and heater be positioned so as to prevent their beingused as a means of access to the pool by young children.
- **10. CAUTION**—All suction and discharge valves must be open when starting the system. Failure to do so could result in severe personal injury and/or property damage.
- 11. DANGER—SUCTION ENTRAPMENT HAZARD. Can cause serious injury or death. Do not use this pump for pools or spas containing suction drains unless pump is connected to at least two (2) functioning suction outlets at least three (3) feet apart. Installation of pump and suction outlets must be in compliance with all applicable local building codes.



## SAVE THESE INSTRUCTIONS

CAUTION: We highly recommend having a qualified professional install the product. All suction and discharge valves must be open when starting the system. Failure to do so could result in severe personal injury.

#### **OPERATIONAL INSTRUCTIONS:**

Your integrated timer module has been designed with four (4) possible timer settings plus a manual override control.

#### \*\*\*Run duration is set at the time of programming.

#### TO SET TIMER:

- 1. Move switch from "OFF" to "PROGRAM" to "OFF" to achieve each setting. Note: while switch is in "program position" a tone will be heard.
- 2. Move switch from "OFF" to "RUN".
- 3. Repeat step 1 to achieve desired setting.

#### SINGLE SPEED MOTOR SETTINGS:

Setting 1—Pump runs 24 hours continuously–(tone heard once) Setting 2—Pump runs 18 hours and is off for 6 hours–(tone heard twice) Setting 3—Pump runs 12 hours and is off for 12 hours–(tone heard three times) Setting 4—Pump runs 6 hours and is off for 18–(tone heard four times)

**NOTE:** When the timer is switched from "OFF" to "PROGRAM" an audible tone sound is heard. This allows the pump to differentiate between settings.

#### **DUAL SPEED MOTOR SETTINGS:**

Setting 1—Pump runs 24 hours on Hi Speed–(tone heard once)

Setting 2—Pump runs 18 hours on Hi Speed and 6 hours on Low Speed–(tone heard twice)

Setting 3—Pump runs 12 hours on Hi Speed and 12 hours on Low Speed (tone heard three times)

Setting 4—Pump runs 6 hours on Hi Speed and 18 hours on Low Speed-(tone heard four times)

#### TO OVERRIDE TIMER SETTING:

Move switch from "RUN" to "OFF" back to "RUN" within 3 seconds. The pump will run for 1 hour and then return to the programmed mode you've selected.

**If a power failure occurs:** Once power is restored, the timer will automatically default to the programmed mode, adding the length of time of the power failure.

### FOR REPLACEMENT TIMER ORDER PART NUMBER — SP1500FT

## INSTALLATION INSTRUCTIONS FOR EXISTING PUMPS: HAYWARD MICROPROCESSOR CONTROL/TIMER

**1.** Only qualified personnel should field wire motor. All wiring must be done in accordance with applicable electrical codes. Make certain that electrical power to pump has been disconnected before attempting to install pump timer SP1500FT.

2. Remove existing plastic motor canopy from motor by loosening canopy retaining screw in center of canopy. If motor is equipped with a rocker or toggle switch remove the switch jumper wires from the motor terminal board. For single speed **motors:** If one of the rocker or toggle switch jumper lead terminals is not accessible, disconnect the accessible terminal and connect it to the motor terminal board position (5) formerly used by the other (discarded) jumper wire.

3. Use the red, (not provided with all SP1500FT units) black and white jumper wires provided to make the required connections between the timer printed circuit board located in the new motor canopy and the motor terminal board. If your pump is a single speed model you will not need the red jumper wire. The connection points for the jumper wires are shown on the schematic wiring diagrams below. Make certain you refer to the correct diagram for your pump as both the single speed and two speed diagrams are shown.

**4.** The black and white supply voltage wires (either cordset or conduit) must be connected to printed circuit board terminals (P1) and (P2) respectively. In order to accomplish these field connections the black and white supply voltage leads must have .250 inch push-on electrical terminals.

**5.** Make certain that the field supply green grounding lead is secured to the green #10 grounding screw positioned in the motor end frame. Install the new timer canopy by locating and tightening the canopy retaining screw. Exercise care not to pinch the jumper or cordset leads while installing the timer canopy onto the motor.

6. Reconnect electrical power to pump and follow operating instructions to program timer.



#### SINGLE-SPEED MOTOR

CORDSET OR CONDUIT



#### **TWO-SPEED MOTOR**

CORDSET OR CONDUIT 115 VOLT 60HZ





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