

The Toro Promise – One-Year Limited Warranty

Limited Warranty

The Toro Company and its affiliate, Toro Warranty Company, pursuant to an agreement between them, jointly warrants, to the owner, against defects in material and workmanship for a period of one year from the date of purchase.

Neither The Toro Company nor Toro Warranty Company is liable for failure of products not manufactured by it even though such products may be sold or used in conjunction with Toro products. During such warranty period, we will repair or replace, at our option, any part found to be defective.

Return the defective parts to the place of purchase.

Our liability is limited solely to the replacement or repair of defective parts. There are no other express warranties.

This warranty does not apply where equipment is used, or installation is performed, in any manner contrary to Toro's specifications and instructions, nor where equipment is altered or modified.

NEITHER THE TORO COMPANY NOR TORO WARRANTY COMPANY IS LIABLE FOR INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES IN CONNECTION WITH THE USE OF EQUIPMENT, INCLUDING BUT NOT LIMITED TO: VEGETATION LOSS, THE COST OF SUBSTITUTE EQUIPMENT OR SERVICES REQUIRED DURING PERIODS OF MALFUNCTION OR RESULTING NON-USE, PROPERTY DAMAGE OR PERSONAL INJURY RESULTING FROM INSTALLER'S NEGLIGENCE.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

ALL IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR USE, ARE LIMITED TO THE DURATION OF THIS EXPRESS WARRANTY.

Some states do not allow limitations of how long an implied warranty lasts, so the above limitation may not apply to you.

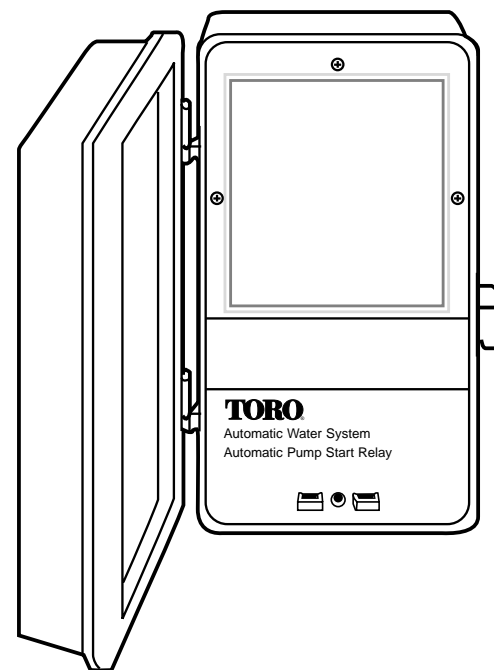
This warranty gives you specific legal rights and you may have other rights which vary from state to state.



Automatic Pump Starter Installation and Operation Guide

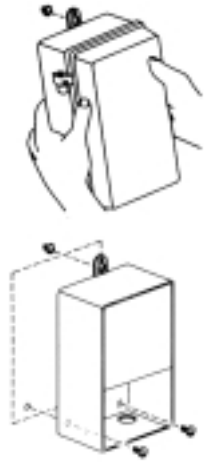
► *Model 53604*

► *Please read instructions completely before attempting to install or operate Pump Starter.*



Installing the Pump Starter

Mount the Pump Starter



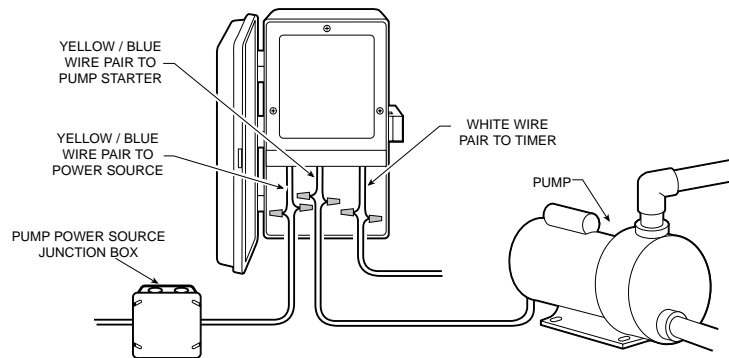
- Assemble the hanger to the back of the case using the screw provided.
- Remove the wiring cover and remove the screw from the voltage plate marked "Caution: High Voltage".
- Mount the Pump Starter on a wall or solid surface using the hanger. Secure by installing screws through the two holes located in the lower wiring compartment.

⚠ CAUTION: When installing with an electronic timer: (1) The Automatic Pump Starter should be mounted at least 5 feet away from the timer. (2) The timer should be at least 12 feet away from the pump. (3) The pump should be on a separate power source than that of the timer (the pump is a high power user). If these steps are not taken, timer malfunctions may occur.

Connect Pump Starter to power source and pump motor:



WARNING: To prevent danger of electrical shock, turn off main circuit breaker switch before making any electrical connections.



Connecting the Pump Starter

- Assemble conduit piping and connect wiring from the electrical junction box (power source) to one set of the Pump Starter's yellow / blue power wire pairs. Attach wires by using insulated wire connectors as shown in the illustration.
- Assemble conduit piping, and connect wiring from the pump to the remaining Pump Starter's yellow / blue power wire pairs.
- Carefully arrange all wiring connections in the wiring cavity making sure that there are no exposed or loose connections. Replace the "Caution: High Voltage" plate.

⚠ CAUTION: The Pump Starter is designed to control up to a 2 HP (at 250 V a.c.) motor only. (**Note:** 2 HP at 120 V a.c. will exceed the maximum AMP rating.) Do not attach to larger commercial units, or exceed the contact ratings as listed below.

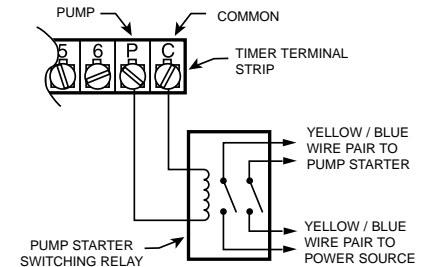
Connect Pump Starter to the sprinkler timer:

The remaining two white wires are connected to your sprinkler timer. Make sure the timer does not exceed 30 V a.c. output. It is not necessary to run conduit piping from the white relay wires to your timer, since the same low voltage that controls the sprinkler valves will also control the relay.

Note: Use 18-gauge wire for runs up to 800'. For longer distances (2000' maximum), use 14-gauge wire.

- Run a single wire from your timer's "common" terminal to either either one of the white wires in the wiring compartment.
- Run a single wire from your timer "Pump" or "Master Valve" terminal to the other white wire.
- Connect the wires using insulated wire connectors.
- Install the wiring cover.

When the sprinkler timer activates a control valve, it will simultaneously send voltage to the Pump Starter's coil/switch, and turn on the pump motor.



RELAY RATINGS:

Contacts rated:
 1HP at 120 V a.c. 1 Phase
 2HP at 250 V a.c. 1 Phase
 20A at 250 V a.c.

Coil rating:
 24 V a.c., 3 VA

Operating Req:
 Min. 19 V a.c.
 Max. 30 V a.c.