

P100 Series Time Switch Installation and Operation Instructions

Specifications - P100 Series Time Switches

Model	Switch Arrangement	Switch Rating per Pole:	AC Line
P104-RT*	DPST	40 amp resistive, 40 amp tungsten 1000 VA, 3 hp	208-277 volts 60 Hz
P101-RT*	SPST	40 amp resistive, 40 amp tungsten 1000 VA, 2 hp	120 volts 60 Hz
P103-RT*	DPST	40 amp resistive, 40 amp tungsten 1000 VA, 2 hp	120 volts 60 Hz

* Model numbers with suffix -RT signifies display packaging.

Minimum time settings: One half hour minimum on or off time.

Enclosure: NEMA 1, hinged, metal, indoor with hasp for padlock or seal.

Dimensions: 7 7/8"H x 4 3/16"W x 3"D.

Full one year warranty on all P100 Series Time Switches.

Before You Begin Installation

If you are familiar with electrical circuits and the installation site's existing wiring meets the National Electrical Code and your local codes, you should be able to install the Paragon Series Time Switch correctly and safely. Carefully follow the step-by-step instructions listed below.

Make sure the installation site's electrical system has been correctly wired without changes or modifications. A load which is incorrectly wired or is not properly grounded is a hazard.

If you have any doubts about the installation's existing wiring, it is recommended you have a licensed electrician check the existing wiring before you install the Paragon Time Switch. If you have any doubts about your ability to install the time switch, hire a licensed electrician to do it for you.

Before you add or install wiring, contact your local building inspector for the latest local and national electrical code information. You may need a permit for electrical work, as well as safety inspection once the installation is complete.

IMPORTANT: WIRING ADDED TO INSTALL A PARAGON P100 SERIES TIME SWITCH MUST BE COMPATIBLE WITH YOUR EXISTING WIRING (BX, Romex or wires in conduit).

Electrical Requirements

See the inner door of the time switch enclosure for information regarding voltage, amperage and horsepower requirements. PLEASE READ THROUGH ALL INSTRUCTIONS BEFORE STARTING!

This will help you determine what tools and material you will need to complete the installation.

1. Disconnect Power

Turn off power supply to the load at the fuse or circuit breaker box.

Remove fuses for the load circuit (water heater, pool pump, lights, etc.) or turn the circuit breaker switch for the load circuit to the OFF position.

2. Install the Enclosure

- Find a safe location to install the Paragon Time Switch Enclosure.
- Remove the time switch by pressing the spring clip at the right center of case and lift out time switch.
- Punch out the knockout openings used to feed wire through the enclosure.
- Mount the enclosure with screws (not provided).
- Place the switch back into the enclosure by inserting tabs on the left side of time switch into holes on left side of the case. Push right side of time switch down until it locks into the spring clip on case

3. Install Wire from Power Source to Enclosure

- If this is a new installation: Run a length of appropriate cable from the power source to the enclosure leaving enough at each end to make the electrical connections (Skip to D).

- If this is an existing installation: BE SURE THE POWER SUPPLY TO THE LOAD IS TURNED OFF AT THE FUSE OR CIRCUIT BREAKER BOX. Before touching any electrical parts, use an appropriate volt tester to be sure the power is off at the load.

- Carefully disconnect all wires from the load. Make note of how the connections are made so you will know how to reconnect them once the wire is installed from the enclosure to the load.

- Place this wire in the enclosure (using conduit clamp or connector) leaving enough wire to work with. Strip approximately 1/2 inch of insulation from each of the wires.

4. Install Wire from Power Source to Enclosure

- Install a new length of power cable (compatible with the existing home wiring) with conduit clamp or connector (not provided) from the enclosure through another knockout hole to each load.

- Strip the insulation from the new length of power cable leaving enough wire in the enclosure to work with.

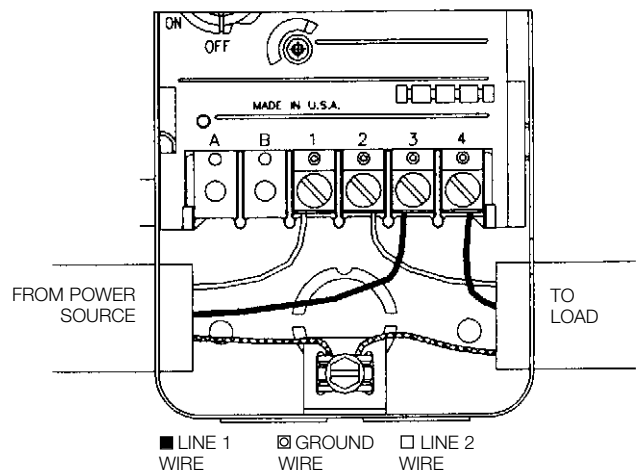
- At the load end, connect the load in the same manner in which it was removed. If this is a new installation, follow the instructions that came with the load.

- At this point, both the source and the load should be connected leaving only the control to be connected.

5. Connect Source and Load Wires to Control

Each control is wired differently depending on the model #. choose the correct model # from the table below and go to the appropriate step.

MODEL #	Voltage	Step #
P104-RT	208 V - 277 V	Go to Step # 5.1
P101-RT	120 V	Go to Step # 5.2
P103-RT	120 V	Go to Step # 5.3



5.1 MODEL # P104-RT (208 - 277V)

Figure 1

REFER TO FIGURE 1 ABOVE FOR FOLLOWING INSTRUCTIONS

- Place the line 1 voltage wire from the source (typically black) under terminal 3 and tighten screw.
- Place the line 2 voltage wire from the source (typically red for 208V or 240V and typically white for 277V) under terminal 1 and tighten screw.
- Place the line 1 voltage wire from load (typically black) under terminal 4 and tighten screw.
- Place the line 3 voltage wire from load (typically red for 208V or 240V and typically white for 277V) under terminal 2 and tighten screw.
- Place the ground wires from the source and load under the ground terminal on case and tighten screw.
- Double check all connections to ensure they are secure and tight. LOOSE SCREWS OR TERMINALS CAN CAUSE HAZARDOUS OVERHEATING.
- Replace the cover plate on the control and loads.
- Proceed to section #6 (TEST TIME SWITCH).

5.2 MODEL #P101-RT (120 V) One Load

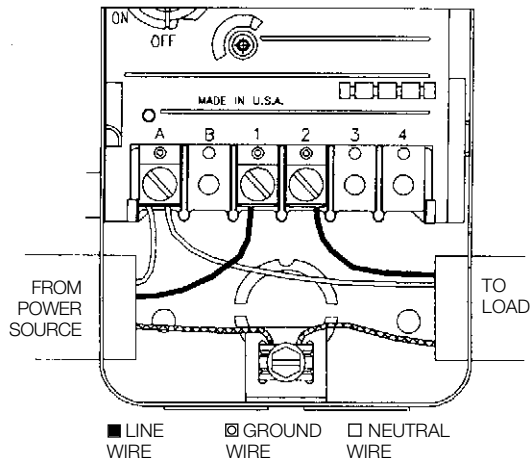


Figure 2

REFER TO FIGURE 2 ABOVE FOR FOLLOWING INSTRUCTIONS

- Place the line voltage wire from the source (typically black) under terminal 1 and tighten the screw
- Place the neutral wire from the source (typically white) under terminal A (do not tighten at this time).
- Place the neutral wire from the load (typically white) under terminal A and tighten the screw making sure both wires are secure.
- Place the line voltage wire from the load (typically black) under terminal 2 and tighten screw.
- Place the ground wires from the source and load under the ground terminal on case and tighten screw.
- Double check all connections to be sure they are secure and tight. **LOOSE SCREWS OR TERMINALS CAN CAUSE HAZARDOUS OVERHEATING.**
- Replace the cover plate on the control and load.
- Proceed to section #6 (TEST TIME SWITCH).

5.3 MODEL #P103-RT (120V) Two Loads

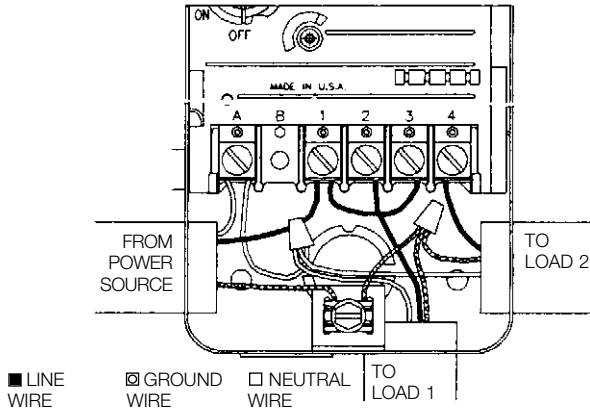


Figure 3

REFER TO FIGURE 3 ABOVE FOR FOLLOWING INSTRUCTIONS

- Place the line voltage wire from the source (typically black) under terminal 1 but do not tighten at this time.
- Install a jumper wire (use appropriate wire) from terminal 1 to terminal 3 (see figure 3). Once the jumper is in place, tighten terminals 1 and 3.
- Place the line voltage wire from Load 1 (typically black) under terminal 2 and tighten screw.
- Place the line voltage wire from Load 2 (typically black) under terminal 4 and tighten screw.
- Place the neutral wire from the source (typically white) under terminal A, but do not tighten at this time.
- Attach an additional piece of neutral wire (typically white) under terminal A and tighten. Tie the other end of the additional piece of neutral wire to the neutral wires of the source, load 1 and load 2 using a wire nut.
- Place the ground wire from the source under the ground screws on case but do not tighten screw. Attach an additional piece of ground wire under ground screw on case and tighten. Tie the other end of the additional piece of ground wire to the ground wires of load 1 and load 2 using a wire nut.
- Double check all connections to be sure they are secure and tight. **LOOSE SCREWS OR TERMINALS CAN CAUSE HAZARDOUS OVERHEATING.**
- Replace the cover plate on the control and loads.
- Proceed to section #6 (TEST TIME SWITCH).

6. Test Time Switch

Once all wires are connected, review the instructions to be sure you have properly wired the Paragon Time Switch to the load.

- Replace the plastic insulator card on switch
- Look at the LOAD ACTIVATOR DIAL. Four lines mark the Activator Dial. Turn the Load Activator Dial **COUNTERCLOCKWISE** so that one of the lines points to the off position (see figure 4).



Figure 4

- TURN ON THE POWER SUPPLY TO THE LOAD AT THE FUSE OR CIRCUIT BREAKER BOX.1
- Turn the Load Activator Dial to the ON position and close the enclosure door.

This should turn the load ON. (If using the timer to control a water heater, the water heater will turn ON provided the water temperature is below the thermostat temperature setting.) If the load does not operate, turn off the power supply at the fuse or circuit breaker box and recheck the wiring by reviewing all steps in the installation process. If the wiring is correct and the load still does not operate, turn off the power supply to the load at the fuse or circuit breaker box and consult a licensed electrician.

7. Set ON and OFF Trippers

Once the P100-RT Series Time Switch has been properly installed, you will be ready to set the ON and OFF trippers. Two sets of trippers are included with your time switch enabling you to turn the load ON and OFF in a 24-hour period.

- Determine the dial times when you expect major usage of the load. (Remember to avoid extensive use of hot water during peak electrical demand periods, when rates may be higher.)
- Insert the ON (green) tripper into the slot of the Time Dial corresponding to the time you want the load to be turned ON (see figure 5).
- Insert the OFF (red) tripper into the slot of the Time Dial corresponding to the time you want the load to be turned OFF (see figure 5).

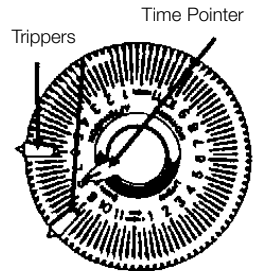


Figure 5

8. Set Dial to Time of Day

After setting the ON and OFF time(s) of your Paragon P100-RT Series Time Switch, you must set the clock:

- Turn the Time Dial in a **CLOCKWISE** direction until the current time is in line with the Time Pointer. **DON NOT TURN THE TIME POINTER.** (To set the Time Dial without turning the load ON, depress the grey portion of the Activator Dial while rotating the Time Dial.)
- To insure that the trippers are working, rotate the Time Dial in a **CLOCKWISE** direction.
- Close the cover and affix a lock to the P100-RT Series Time Switch enclosure if desired. Your P100-RT Series Time Switch is now installed, programmed and on its way to helping you lower your electric bill and adding convenience to your life!

9. To Turn the Load ON/OFF Manually

Rotate the Load Activator Dial **COUNTERCLOCKWISE** so that one of the lines is pointing to the desired position, either ON or OFF. The load will stay in the override position you designate until the next tripper triggers the Load Activator Dial to switch in the opposite position.

These instructions are applicable to most common installations. Consult your electrician for assistance with other than standard electrical hookups.



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