4000PC Series Time Switch Installation and Operation Instructions

Specifications - 4000PC Series Time Switches

	Switch angem		Switch Rating per pole	AC Line
4014-71PC	DPST	40 amp 690 VA,	resistive, 40 amp tungsten 2 HP	, 208-277 volts, 60 Hz
4011-00PC	SPST	40 amp 690 VA,	resistive, 40 amp tungsten 1 HP	, 120 volts, 60 Hz
4013-00PC	DPST	40 amp 690 VA,	resistive, 40 amp tungsten 1 HP	, 120 volts, 60 Hz

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

- Enclosure: NEMA type 3R plastic indoor/outdoor with hasp for padlock or seal.
- Dimensions: 9 5/8" H x 6 3/4" W x 3 3/4" D

Full one year warranty on all 4000PC 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 4000PC 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 a safety inspector once the installation is complete.

IMPORTANT: WIRING ADDED TO INSTALL A PARAGON 4000PC 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 for 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

- A. Find a safe location to install the Paragon Clear-view Time Switch Enclosure.
- B. Remove the time switch by pressing the two tabs on each side of the enclosure outward and lift switch out of enclosure.
- C. Punch out the knockout openings used to feed wire through the enclosure.
- D. Mount the enclosure with screws (not provided).
- E. Place the switch back into the enclosure by locating the four sets of hangers on the top inside of the enclosure. Slide the top of the switch between the two lowest sets of hangers. Press the switch back into place.

3. Install Wire from Power Source to Enclosure

- A. 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).
- B. 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.
- C. 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.
- D. 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 Enclosure to Load(s)

- A. 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.
- B. Strip the insulation from the new length of power cable leaving enough wire in the enclosure to work with.
- C. 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.
- D. 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 #	<u>Voltage</u>	<u>Step #</u>
4014-71PC	208-277V	Go to step #5.1
4011-00PC	120V	Go to step #5.2
4013-00PC	120V	Go to step #5.3

5.1 MODEL #4014-71PC (208-277V)



REFER TO FIGURE 1 ABOVE FOR FOLLOWING INSTRUCTIONS

- A. Place the line 1 voltage wire from the source (typically black) under terminal 1 and tighten screw.
- B. Place the line 2 voltage wire from the source (typically red for 208 or 240V and typically white for 277V) under terminal 4 and tighten screw.
- C. Place the line 1 voltage wire from the load (typically black) under terminal 2 and tighten screw.
- D. Place the line 2 voltage wire from the load (typically red for 208 or 240V and typically white for 277V) under terminal 3 and tighten screw.
- E. Attach an additional piece of ground wire to the ground terminal of the time switch. Tie the other end of the additional piece of ground wire to the ground wires from the source and load using a wire nut.
- F. If using metal conduit, a separate grounding wire or wires must be used to bond the conduits together by attaching the grounding wire to the grounding bushings on the conduit ends.
- G. Double check all connections to be sure they are secure and tight. LOOSE SCREWS OR TERMINALS CAN CAUSE HAZARDOUS OVERHEATING.
- H. Replace the cover plate on the control and loads.
- I. Proceed to section #6 (TEST TIME SWITCH).

5.2 MODEL #4011-00PC (120V) One Load



REFER TO FIGURE 2 ABOVE FOR FOLLOWING INSTRUCTIONS

- A. Place the line voltage wire from the source (typically black) under terminal 1 and tighten screw.
- B. Place the line neutral wire from the source (typically white) under terminal 3 (do not tighten at this time).
- C. Place the line neutral wire from the load (typically white) under terminal 3 and tighten the screw, making sure both wires are secure.
- D. Place the line voltage wire from the load (typically black) under terminal 2 and tighten the screw.
- E. Attach an additional piece of ground wire to the ground terminal of the time switch. Tie the other end of the additional piece of ground wire to the ground wires from the source and load using a wire nut.
- F. If using metal conduit, a separate grounding wire or wires must be used to bond the conduits together by attaching the grounding wire to the grounding bushings on the conduit ends.
- G. Double check all connections to be sure they are secure and tight. LOOSE SCREWS OR TERMINALS CAN CAUSE HAZARDOUS OVERHEATING.
- H. Replace the cover plate on the control and loads.
- I. Proceed to section #6 (TEST TIME SWITCH).

5.3 MODEL #4013-00PC (120V) Two Loads





REFER TO FIGURE 3 ABOVE FOR FOLLOWING INSTRUCTIONS

- A. Place the line voltage wire from the source (typically black) under terminal 1 but do not tighten screw at this time.
- B. 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.
- C. Place the line voltage wire from load 1 (typically black) under terminal 2 and tighten screw.
- D. Place the line voltage wire from load 2 (typically black) under terminal 4 and tighten screw.
- E. Attach an additional piece of neutral wire (typically white) under terminal 6 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.
- F. Attach an additional piece of ground wire to the ground terminal of the time switch. Tie the other end of the additional piece of ground wire to the ground wires of the source, load 1 and load 2, using a wire nut.
- G. If using metal conduit, a separate grounding wire or wires must be used to bond the conduits together by attaching the grounding wire to the grounding bushings on the conduit ends.
- H. Double check all connections to be sure they are secure and tight. LOOSE SCREWS OR TERMINALS CAN CAUSE HAZARDOUS OVERHEATING.
- I. Replace the cover plate on the control and loads.
- J. 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 terminal insulator on the time switch. Move manual operation switch lever to the OFF position. Turn on power supply to the time switch at fuse or circuit breaker box. Move the manual operation switch lever to the ON position and close the enclosure door. This should turn the load(s) 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 to the time switch at the fuse or circuit breaker box and consult a licensed electrician.

7. Set ON and OFF Trippers

Once the 4000PC 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 (one set in bag) enabling you to turn the load ON and OFF twice in a 24-hour period.

First, determine the daily times when you want the load(s) to be ON. Attach an ON tripper to the clock-face dial at the time the load(s) are to be ON. Attach an OFF tripper to the clock-face dial at the time when the load(s) are to be OFF. Attach the second set of trippers to the dial in the same manner if required. Make certain tripper screws are tightened on top dial ridge.

8. Set Dial to Time of Day

After setting the On and OFF time(s) of your Paragon 4000PC Series Time Switch, you must set the clock:

Turn the dial of the time switch clockwise until the current time is in line with the black indicator (see figure 4). After a power outage, be sure to remember to include your time switch when resetting clocks to the correct time when power resumes.



Figure 4

9. To Turn the Load ON/OFF Manually

Simply move the manual operation switch lever, located to the bottom left of the time dial, to the desired ON or OFF position.

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



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