



**A. O. Smith Water Heater Parts Fulfillment**  
 125 Southeast Parkway • Franklin, TN 37068  
 Phone: 1-800-527-1953 • www.hotwater.com

## INSTALLATION INSTRUCTIONS

### FENWAL® CONTROL REPLACEMENT KIT 9004487

This kit contains parts for replacing the FENWAL® Ignition Control on Models BTP-540A or BTP-700A series 960 and earlier, 962 series and 964 series.

#### CONTENTS OF KIT:

ITEM	DESCRIPTION	PART NO.	QTY.
1.	Ignition Control	191675-002	1
2.	Bracket	194981-000	1
3.	Wire Harness	500752-000	1
4.	Wire Harness	500753-000	1

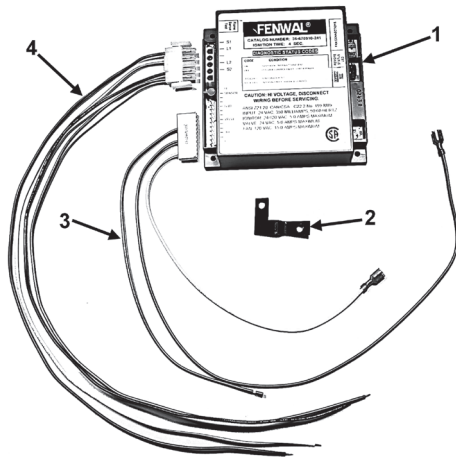


FIGURE 1.

**Inspect all parts for damage! Do not use any damaged parts! Call the A. O. Smith Product Service Division: 1-800-2545 for Customer Assistance.**

#### TOOLS REQUIRED:

- #2 Phillips head screwdriver
- Blade screwdriver

#### IMPORTANT

Thoroughly read these instructions, as well as the manual that came with the water heater and understood the instructions before attempting to install this kit.

Observe a WARNINGS and CAUTIONS in both these instructions and the manual that came with the water heater at all times.



#### WARNING

A qualified service agency must install this kit, in accordance with the manufacturer's instructions and all applicable codes and requirements of the authority having jurisdiction.

#### STEP 1: DISASSEMBLY

Turn off the power supply to the unit. Turn off the gas supply to the appliance.

Remove the screws holding the cover on the control box and remove cover. The Fenwall ignition control should now be visible, see Figure 2.

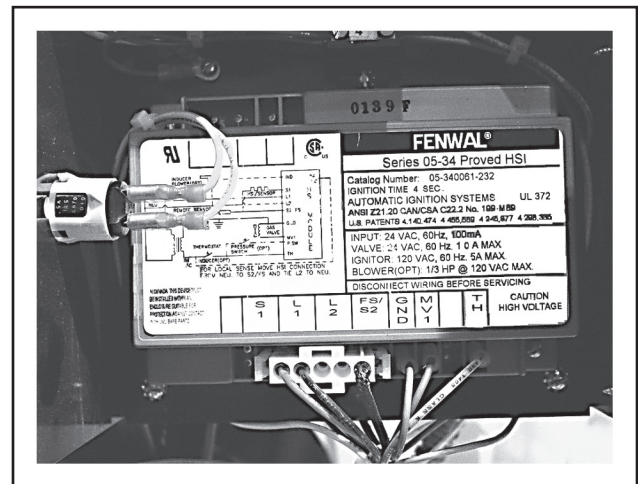


FIGURE 2.

#### STEP 2: IGNITION CONTROL REMOVAL

Disconnect the wiring from the old ignition control. Then, remove the screws holding the control in place and remove from control box.

#### STEP 3: INSTALLATION OF BRACKET

If your water heater is from an early series 964 or earlier notice that the new Fenwal ignition control is slightly larger than the old ignition control. To accommodate this change in size, install the bracket under the screw in the lower right control of the control box, see Figure 3.

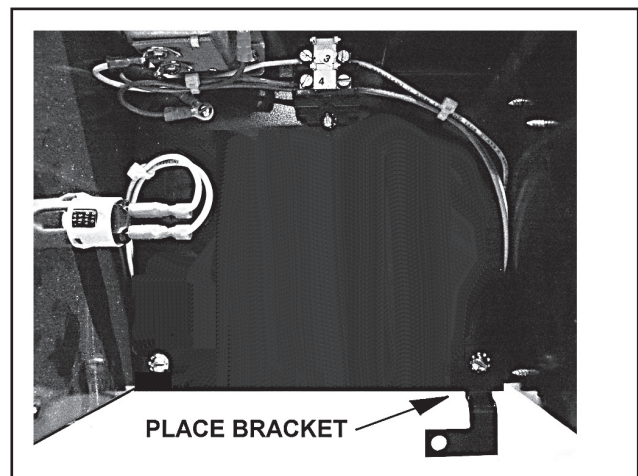


FIGURE 3.

### STEP 4: INSTALL NEW CONTROL

Install the new control and secure in place with screws. A new screw, washer and nut will be required to fasten the lower right corner of ignition control to the bracket previously installed in step 4, see Figure 4.

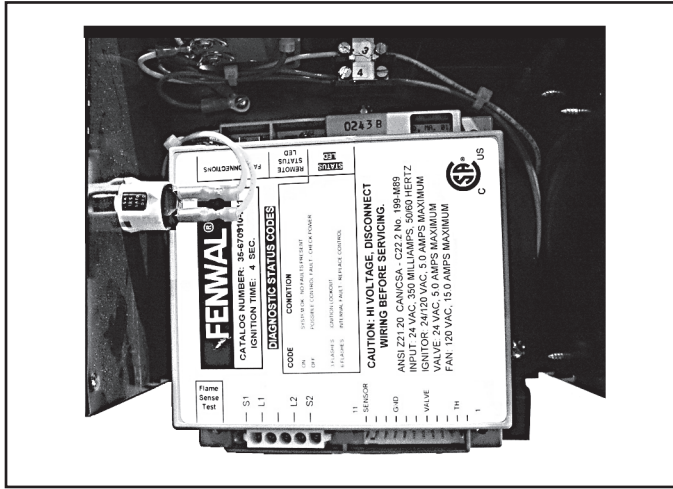


FIGURE 4.

### STEP 5: WIRE NEW CONTROL INTO CIRCUIT

If the unit you have is a series 960 or earlier you will need to use both wire harnesses supplied with the kit. Plug both harnesses

into the new control, and wire as shown, see Figure 5. Be sure to follow the wires from point to point. Do not follow color codes on any other wiring diagram you may have, as colors on new wiring harnesses may not be in agreement with older wiring diagrams or harnesses.

If you have an early 963 or 964 series unit, you will only need to use wire harness 500752-000. Again, be sure to follow the wires from point to point. Do not follow color codes on any other wiring diagram, the new wiring harnesses may not be in agreement with older wiring diagrams or harnesses.

If you have a later 964 series unit, simply plug in the harnesses you removed from the previous control.

Check wiring against wiring diagram before proceeding.

### STEP 6: CLOSE CONTROL BOX AND TEST OPERATION

After checking wiring, replace the control box cover and secure with screws removed in step 1.

Turn on the gas supply to the appliance. Turn on the power supply to the appliance. Allow unit to come on and verify proper operation of the water heater, see installation and operation manual that came with the water heater.

If unit is operating per these instructions and according to the operation manual, the installation of this kit is complete.

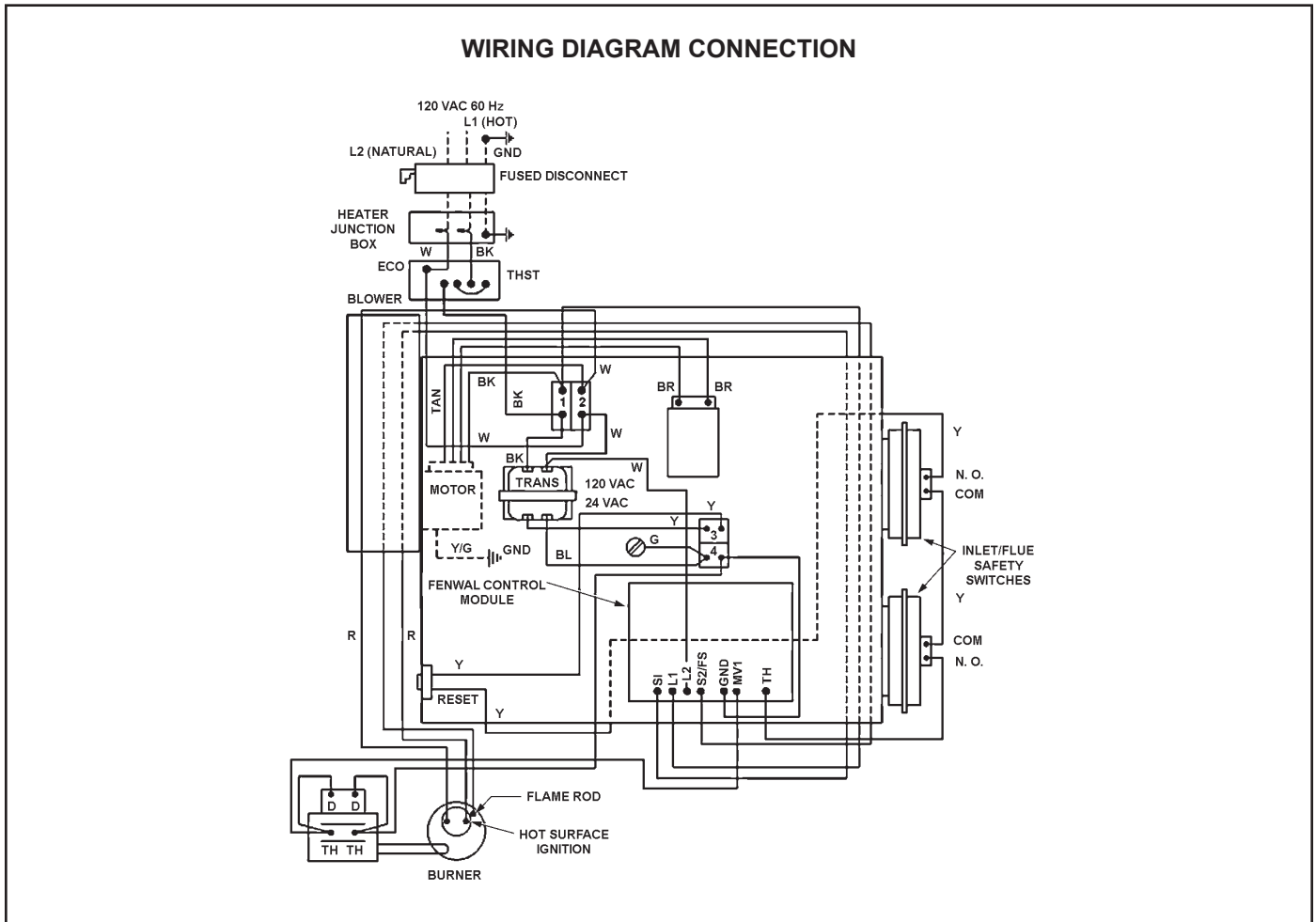


FIGURE 5.