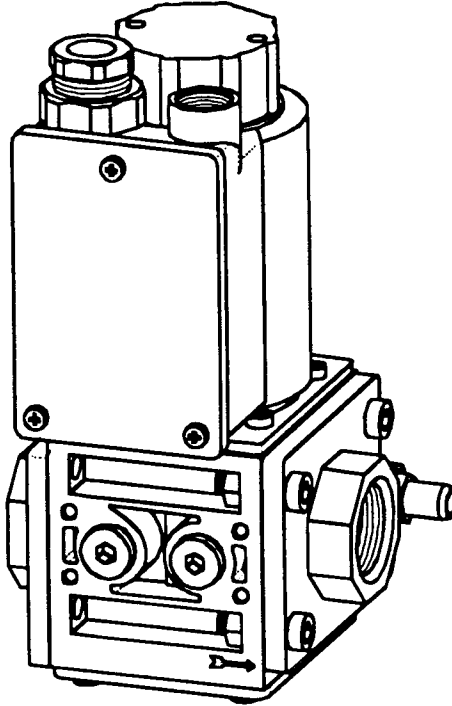


Installation Instructions for High-Flame Solenoid Valve

- P/N 37850 (Kit P/N 37851), used on Middleby Marshall CE-Approved Gas-Fired Ovens (120V coil)
- P/N 30876 (Kit P/N 37770), used on Middleby Marshall CE-Approved Gas-Fired Ovens (220V coil)



Kit P/N 37851 Contents:

- 1 ea. 37850 Solenoid Valve (w/120V coil)
- 1 ea. 27152-0049 Blue Wire
- 1 ea. 27152-0050 Brown Wire
- 1 ea.. 27152-0055 Green/Yellow Wire
- 2 ea. 27311-0002 Cable Ties
- 3 ea. 3003966 Wire Connectors, 22-18 AWG
- 1 ea. 37769 Instructions

Kit P/N 37770 Contents:

- 1 ea. 30876 Solenoid Valve (w/220V coil)
- 1 ea. 27152-0049 Blue Wire
- 1 ea. 27152-0050 Brown Wire
- 1 ea.. 27152-0055 Green/Yellow Wire
- 2 ea. 27311-0002 Cable Ties
- 3 ea. 3003966 Wire Connectors, 22-18 AWG
- 1 ea. 37769 Instructions



WARNING: THE INSTALLATION OF THIS VALVE MUST MEET ALL APPLICABLE CODES. IMPROPER INSTALLATION MAY CAUSE EXPLOSIONS, PROPERTY DAMAGE, AND INJURIES.



WARNING: FIRE OR EXPLOSION HAZARD. SHUT OFF THE GAS SUPPLY AT THE MAIN MANUAL SHUTOFF VALVE BEFORE INSTALLING OR SERVICING ANY PORTION OF THE GAS TRAIN.

1. Before proceeding with this kit installation:
 - Verify that the power supply voltage to the valve matches the rating of the solenoid valve coils (either 120V or 220V).
 - Disconnect the oven from the electrical power supply.
 - Shut off the gas at the main shutoff valve.

See Figures 1 & 2 (on the facing page) for steps 2 - 11.

2. Disconnect the electrical connector from the top of the old valve by loosening its screw and pulling it off. Remove the three wires (one blue, one brown or red, and one green with yellow stripes) from the connector by prying out the plug at the base of the connector housing using a screwdriver in the slot labeled "LIFT". Pull out the plug from the connector housing and disconnect the wires from their terminals. Prepare the three disconnected wire ends by stripping off 1/4" (6.35mm) of the insulation.
3. *Ensure that the gas flow to the oven has been shut off at the main shutoff valve.*
4. Using a pipe wrench, disconnect the oven's gas train assembly at the inlet union preceding the multifunction gas control safety regulator. Note: PS200 Series ovens do not have an internal union. It will be necessary to disconnect the gas line externally behind the oven.
5. Record the wiring connections to the safety regulator. Then, access the safety regulator cover and disconnect the wires that lead out of the regulator and into the oven's machinery compartment. These steps are necessary to allow the gas train to be removed from the oven.
6. With a 5/16" wrench, loosen and remove the four burner flange mounting screws at the burner housing and remove the complete burner/gas train out from the burner housing.
7. Remove and retain the aluminum tubing (low-flame bypass line) from the previous solenoid valve.
8. Retain the low-flame bypass orifice with the tubing assembly.
9. Remove and retain the two 1/4" brass elbows from both sides of the existing valve.
10. Remove the pilot tubing from the burner flange plate and the gas safety regulator for easier access for removing and replacing the valve. Retain the pilot tube assembly.
11. Use the appropriate pipe wrenches to loosen and remove the former-style valve from the gas train. Retain the piping, but discard the valve.

Figure 1- Gas Train

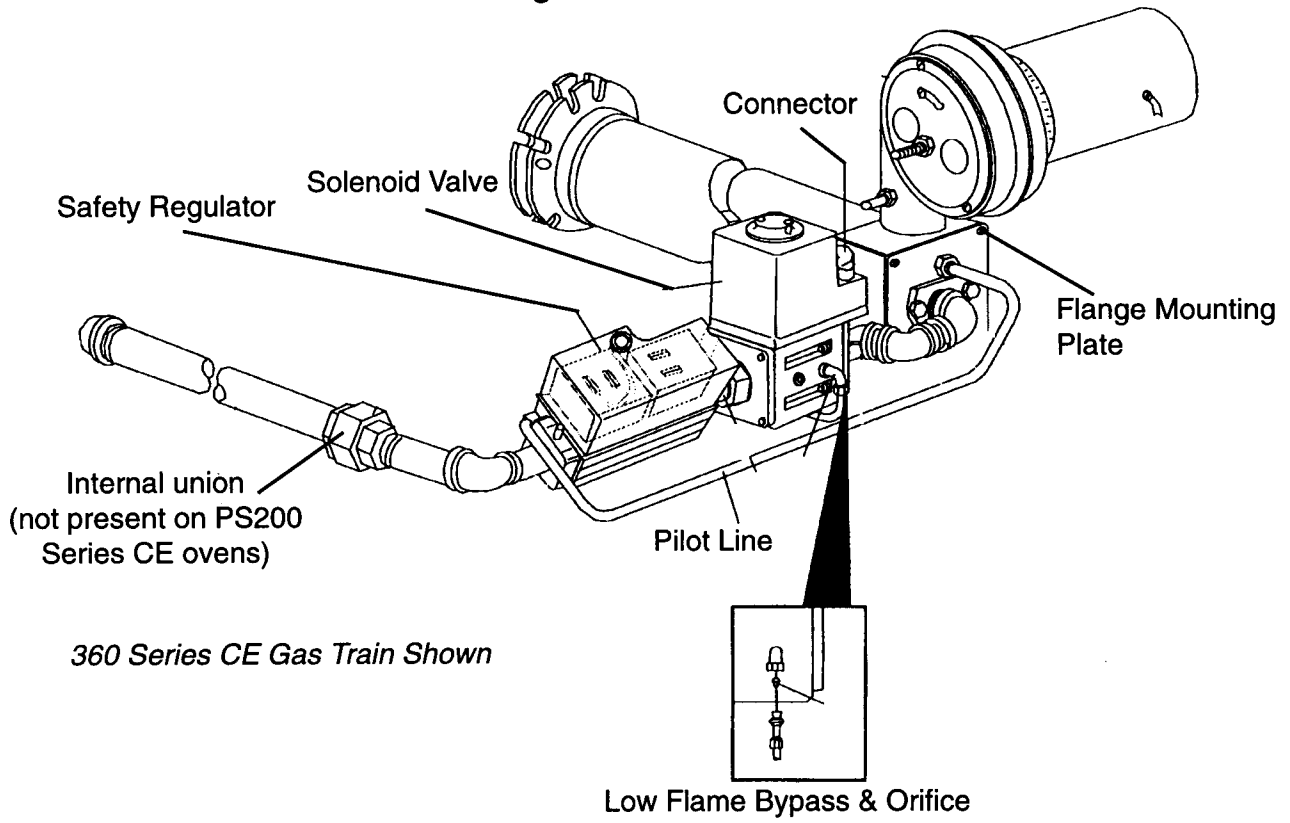
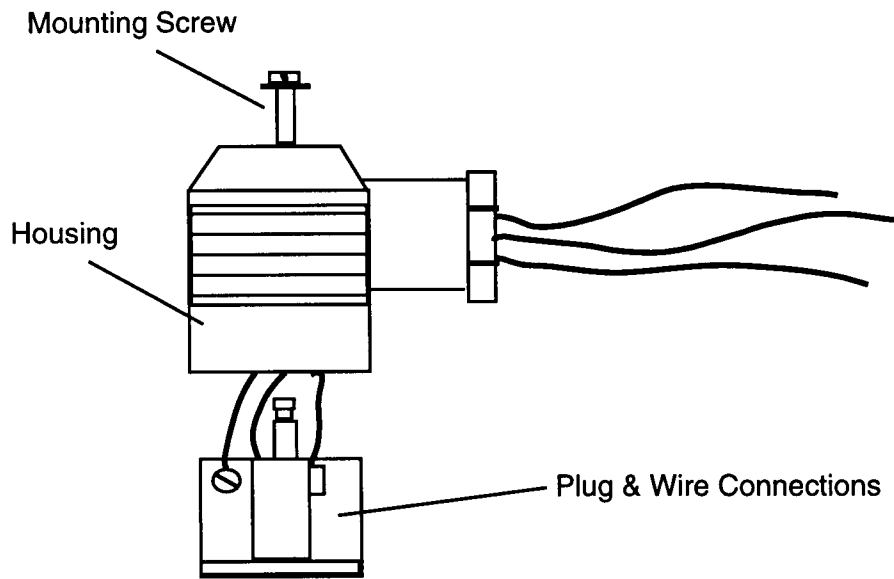
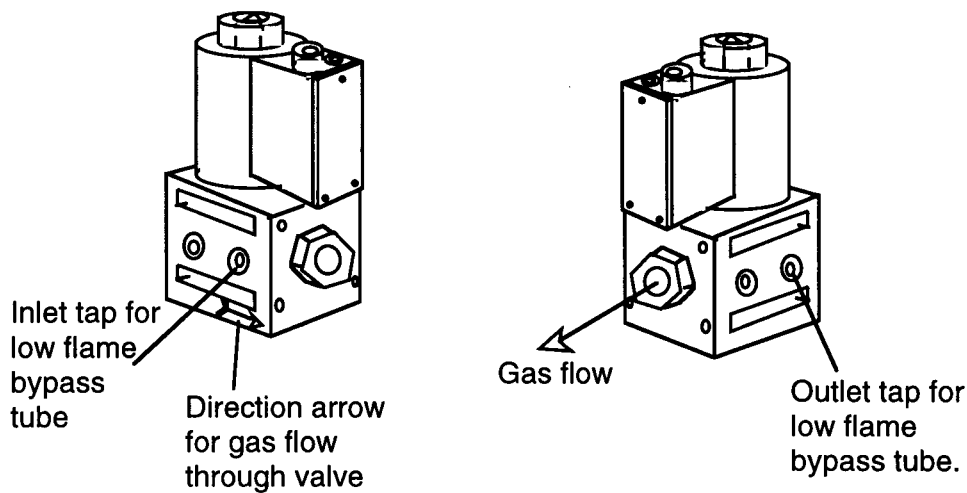


Figure 2 - Connector From Previous Valve



12. Detach the protective thread caps from the new-style valve. Remove any thread lubricant that may be present.
13. Install the new-style valve, making sure the gas flows through the valve body in the direction indicated by the arrow on the body. See Figure 3. Mount the valve into the gas train so that it is in a horizontal position with the coil operator upright. Swivel the coil operator housing to the valve in a position that will not obstruct any adjacent components.
14. Apply an approved pipe-joint compound to the male gas pipe threads before assembly.
15. Install the pilot tube assembly back into its position between the safety regulator and the high-flame solenoid valve. Tighten the tube mounting nuts.
16. Remove the two low-flame bypass plugs, as shown in Figure 3, using an Allen wrench. Discard the plugs.

Figure 3

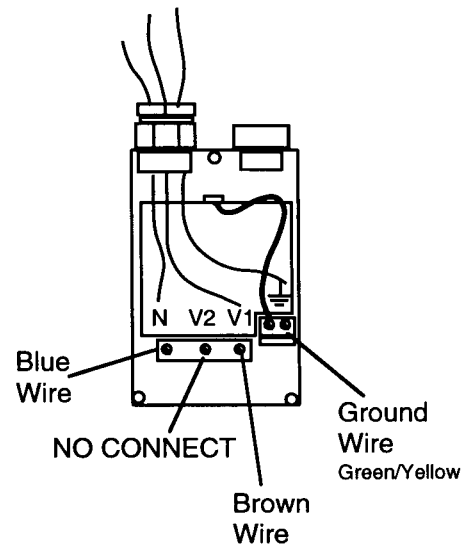


17. Install the bypass tube brass elbows in place of the plugs. Tighten the elbows to a snug fit, facing upwards, to receive the bypass tubing the same as it was installed on the old valve.
18. Install the bypass tube. Make sure that the bypass orifice is positioned into the inlet tap end of the tube, as it was installed on the old valve. Tighten the tube mounting nuts.
19. Install the burner and gas train assembly back into the burner housing, fastening it with the four 5/16" flange mounting screws.
20. Reconnect the gas train assembly to the union, and tighten the union.
21. Reconnect the safety regulator wiring that was removed in Step 5.
22. Connect the three wires included in the kit to the original valve wires using the supplied butt splices (wire connectors). Blue to Blue, Brown to Brown (or Red), & Green/Yellow to Green/Yellow.
23. Prepare the opposite end of each wire by stripping off 1/4" (6.35mm) of the insulation.

See Figure 4 for steps 24 - 28.

24. Remove the three Phillips-head screws from the access cover of the valve coil operator.
25. Insert the three wires through the opening on top of the coil operator.
26. Connect the Green/Yellow wire to the ground terminal. Connect the Blue wire to the "N" (or common) terminal. Connect the Brown wire to the "V1" terminal. See Figure 4.
27. Tighten the terminal screws using a small screwdriver, making sure the wires are properly captured inside each terminal jaw. Use one cable tie to gather the wires inside the terminal box. Use the second cable tie to gather the wires outside the terminal box.
28. Replace the access cover.

Figure 4



CAUTION: DO NOT LOOSEN OR MOVE THE V MAX ADJUSTMENT KNOB AT THE TOP OF THE VALVE OPERATOR. THE VALVE IS PRESET AT THE FACTORY FOR USE IN MIDDLEBY MARSHALL CE GAS-FIRED OVENS.

29. Turn on the gas at the gas shutoff valve behind the oven.
30. Paint the pipe joints, pilot tube, low-flame bypass tube, the gas train union, and any other pipe connection that was disturbed with a rich soap and water solution (or use acceptable gas leak detection equipment) to check for leakage.
31. Closely observe the soap and water solution to see if any bubbles occur. Bubbles indicate a leak. *Immediately shut off the gas supply to the oven if any leaks are detected.* To stop a leak, tighten the pipe joints and repeat the application of the soap and water solution. If the leak cannot be stopped, replace the affected part.



WARNING: FIRE OR EXPLOSION HAZARD. HIDDEN GAS LEAKS CAN CAUSE A FLASHBACK IN THE MACHINERY COMPARTMENT. THIS CAN CAUSE SEVERE INJURY OR DEATH. STAND WELL CLEAR WHEN SWITCHING ON THE HEATING CIRCUIT.

32. If no leaks are detected by the static test, restore electrical power to the oven and switch on the "BLOWER" and "HEAT" switches, igniting the burner.
33. With the burner in operation, paint all pipe joints with the solution of soap and water. If any further gas leaks are detected, *shut down the oven and shut off the gas supply immediately.* Tighten the affected connections. If the leak cannot be stopped, replace the affected part.
33. If no leaks are detected, allow the oven to reach its normal operating temperature. Observe at least three complete cycles of the new solenoid valve before returning the oven to service.