

# Installation Instructions

**MODEL**  
**234**

**ZONE CONTROL VALVES**

**bryant**

39234 D1  
Revised 9/8/65

## INTRODUCTION

Bryant zone control valve kits are available for either two or three zone installations. Each kit consists of:

1. Manifold Assembly (2 zone - 57963 C01) (3 Zone 57963 C02)
2. (2) or (3) Zone Valve Heads (57961 D1)
3. 2x2-1/2 inch nipple (TBD 3528A)
4. 2x6 inch nipple (TBD 3552)
5. 2x1 inch elbow (TAB 3532M)
6. 1x2 inch nipple (TBD 3224A)
7. 1 inch elbow (TAA 3200M)
8. (2) or (3) Room Thermostats (34427 D7)
9. Installation Instructions (39234 D1 Revised 9/8/65)

Each kit contains the necessary parts to install zone control valves on both early and late production model water boilers. Installation instructions (39234 D1, Dated 9/30/63), for early production models, are available on request.

## INSTALLATION

Figure 1 shows the Model 234 Boiler with three, zone control valves installed. To assemble zone control valves on the Model 234 Boiler, sizes 3 and 4:

1. Assemble the 1 inch shoulder nipple and elbow to the pump inlet. Apply pipe dope to all threads.
2. Connect the zone valve manifold to the 1 inch elbow, see Figure 2.
3. Sweat zone lines into manifold using 50/50 solder on all joints.

### CAUTION!

**TO PREVENT DAMAGE TO "O" RING SEALS, DO NOT INSERT ZONE VALVES INTO MANIFOLD UNTIL SOLDERING IS COMPLETED.**

4. Apply pipe dope and install drain valve in manifold.
5. Insert zone valves - use twist and lock motion.

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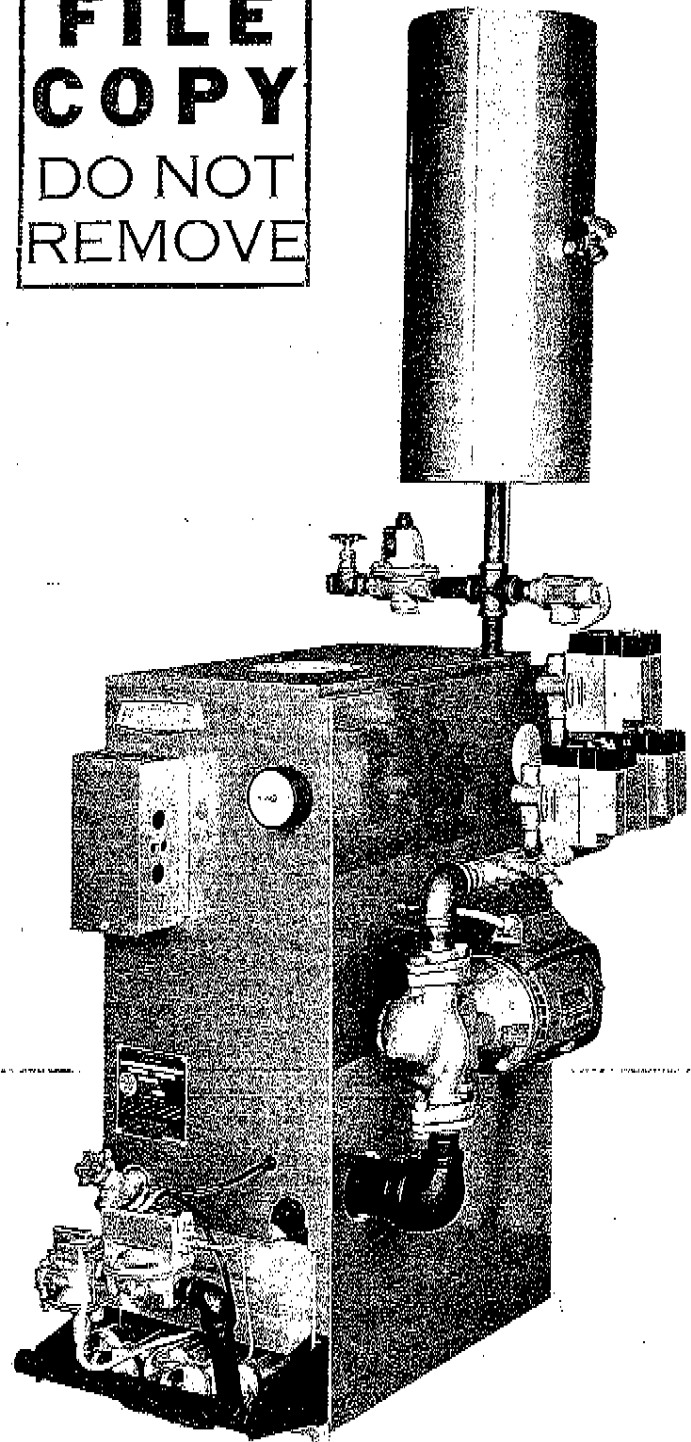


Figure 1 - Model 234 with Zone Control Valves Installed

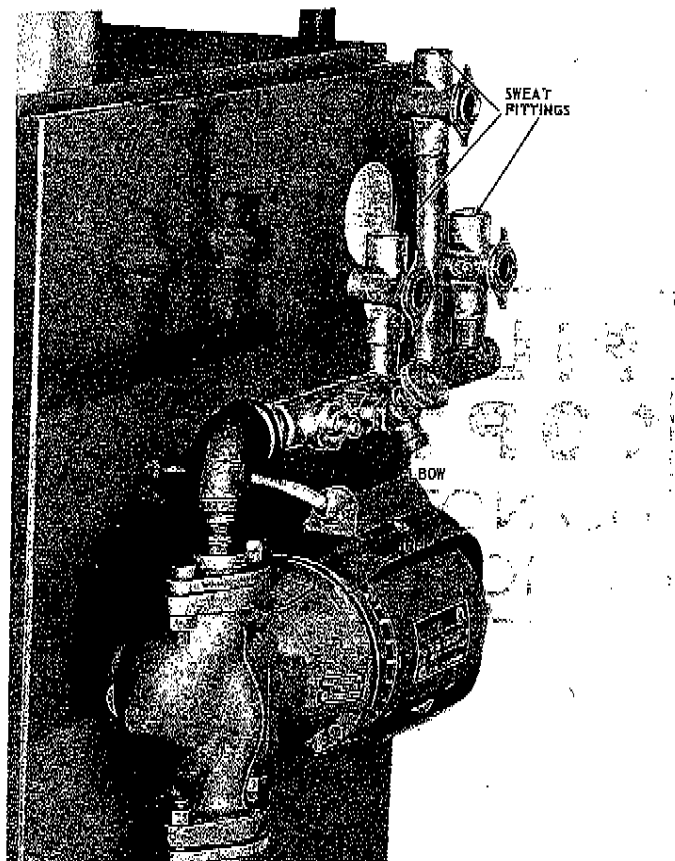


Figure 2 – Installing Manifold

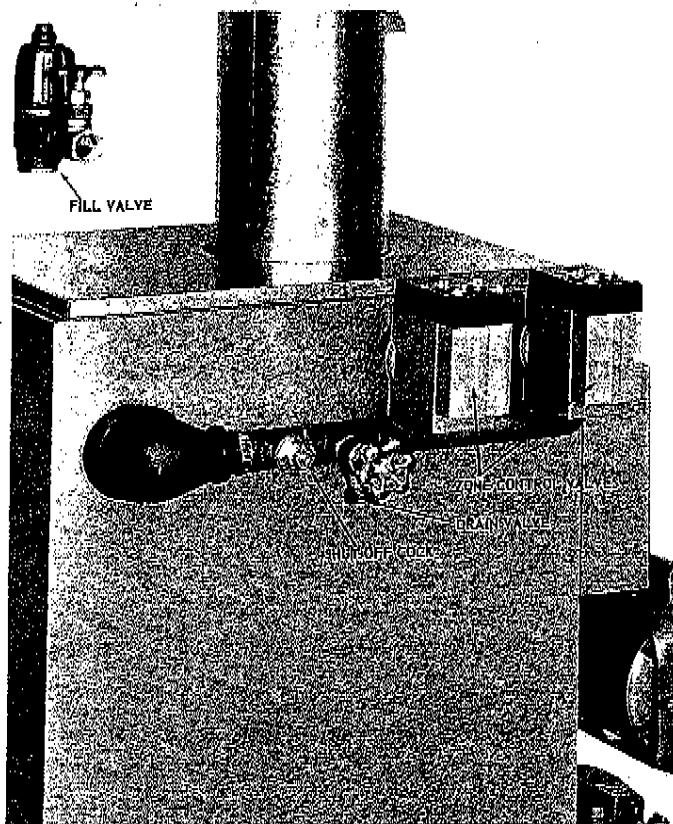


Figure 3 – Zone Valve Installation on the Model 234 Boiler, Sizes 5, 6 and 7

6. Connect wiring according to diagram on page 4.

#### Model 234, Boiler Sizes 5, 6 and 7.

To assemble zone control valves on the Model 234 Boiler, sizes 5, 6 and 7:

1. Assemble the 2 x 2-1/2 inch nipple and 2 x 1 inch elbow in the left rear top supply tapping, see Figure 3.
2. Connect the zone valve manifold to the 1 inch connection on reducing elbow.
3. Sweat zone lines into manifold using 50-50 solder on all joints.

#### CAUTION!

**TO PREVENT DAMAGE TO "O" RING SEALS, DO NOT INSERT ZONE VALVES INTO MANIFOLD UNTIL SOLDERING IS COMPLETED.**

4. Apply pipe dope and install drain valve in manifold.

5. Insert zone valves - use twist and lock motion.
6. Connect wiring according to diagram on page 4.

#### SYSTEM START-UP

Provisions have been made in the Bryant zone valve package to simplify the initial filling of the system. A shut-off cock and drain valve are provided in the package so that the system can be purged of air. The simplified sketch, see Figure 4, points out the use of this purging arrangement. This purging system will work regardless of the manifold location on the boiler. To purge the system:

1. Open system fill valve and allow system pressure to build up to approximately 12 psi.
2. Close shut-off cock.
3. Connect hose to drain valve and open drain valve.
4. With electrical supply off, manually open one of the zone valves by turning knurled control on the side of zone valves, in the direction of the arrow, see Figure 5. The valve is open when the red indicator is visible.

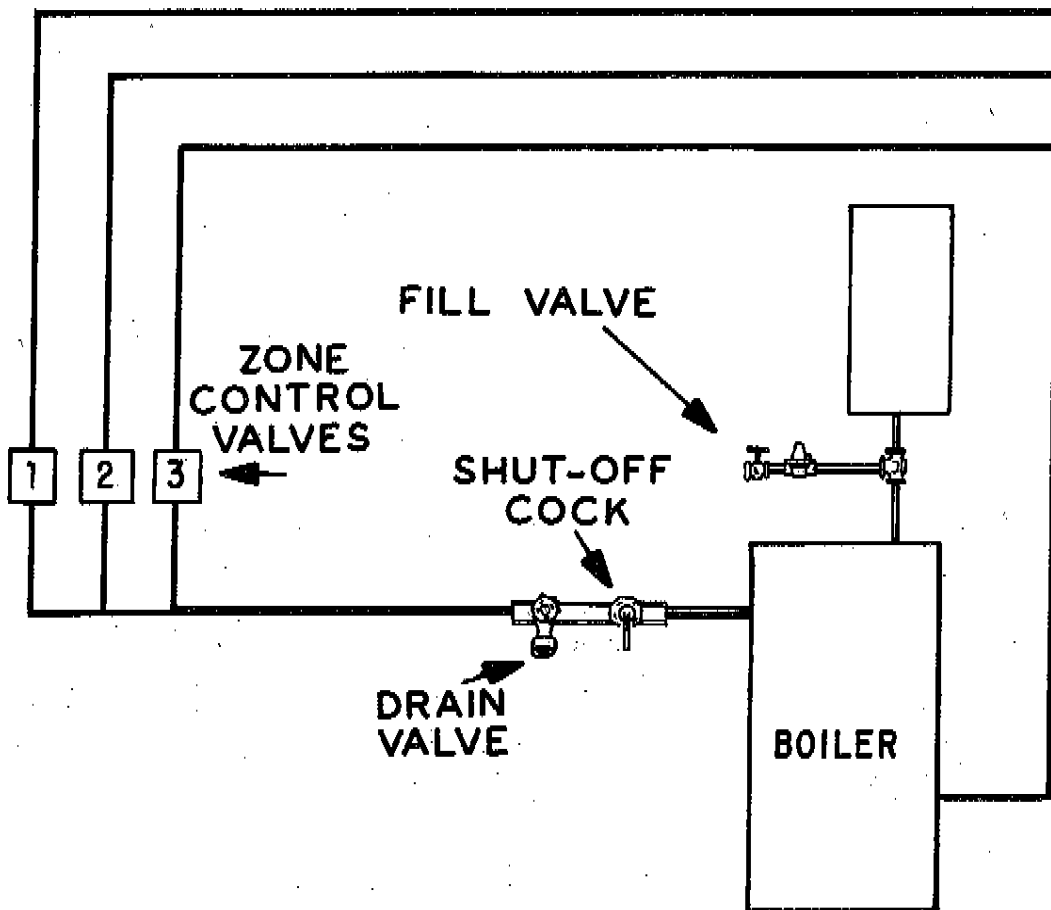


Figure 4 - System Start-Up Schematic

5. Allow water to circulate through the zone, which has been manually opened, until all signs of air are gone.
6. Purge each zone in the system in the same manner until all zones are free of air.
7. Open shut-off cock, close drain valve, and adjust system pressure to about 12 psi on the pressure gauge.

**NOTE!**

IF A BRYANT AIR-EX SYSTEM IS USED, BE SURE THAT WATER LEVEL IN EXPANSION TANK IS CORRECT AS PER INSTRUCTIONS WITH AIR-EX KIT.

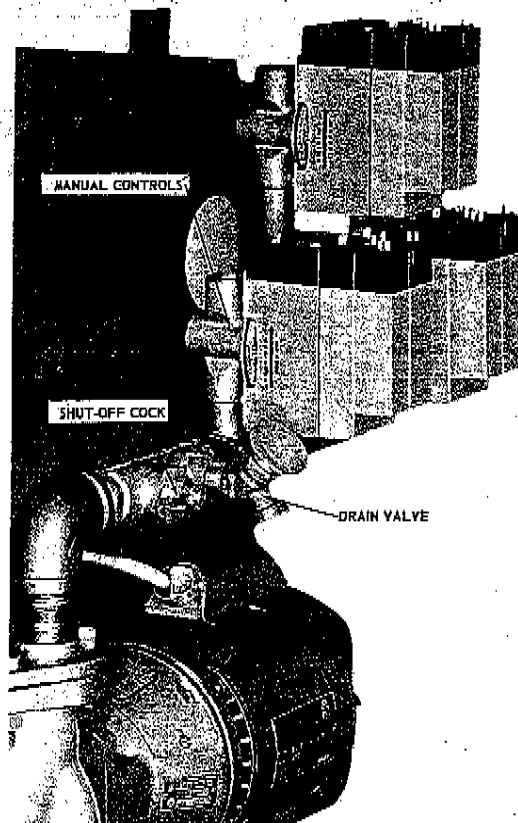


Figure 5 - Zone Valve Manual Control

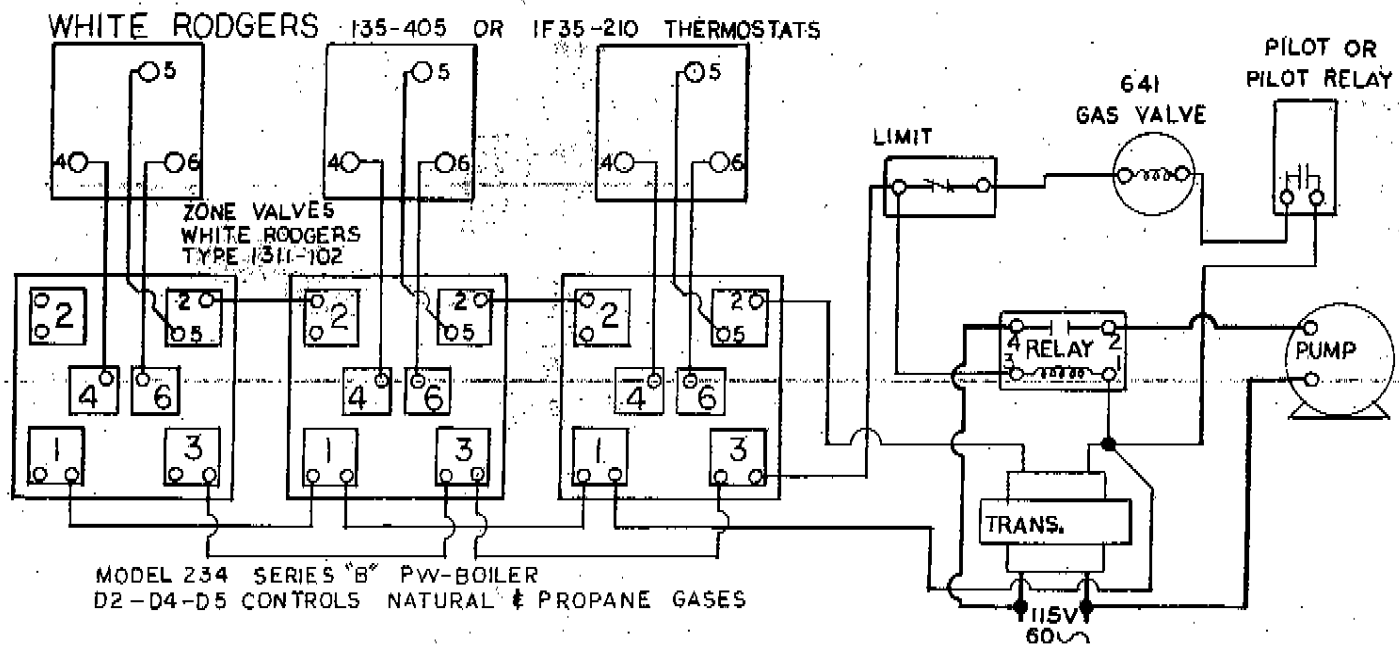
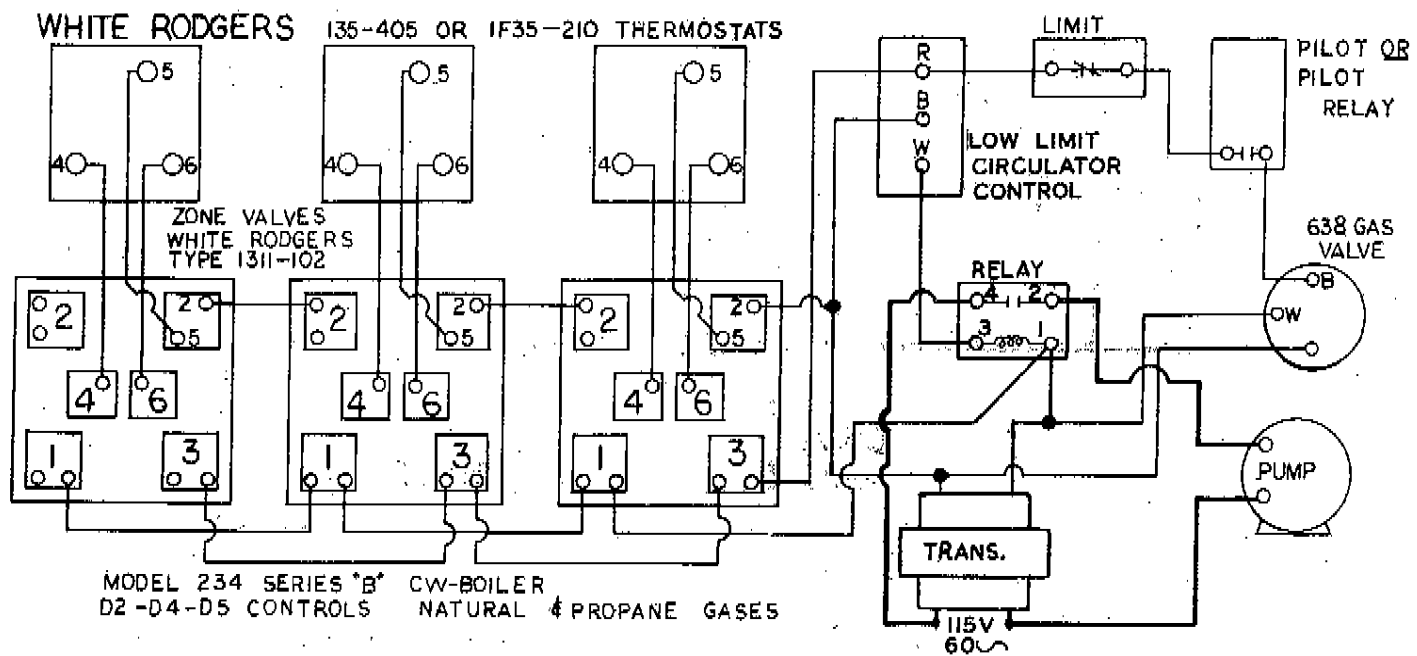


Figure 6 - Wiring Diagram