

RAP R30: Valve Replacement Procedure
Install Peter Paul Valves GA 116700 and 116702
05-05-11

Installation of Peter Paul Valves

RAP R30: Installation Procedure

Install Peter Paul Valves GA 116700, 16702

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The purpose of this procedure is to guide the removal of Bifold solenoid valves and the installation of Peter Paul solenoid valves in their place.

This procedure is to be used in conjunction with the following drawings and documentation.

Hydraulic Power Unit General Assembly Drawing	116700, 116702
Hydraulic Schematic	10612-S

In the following procedure all numbers enclosed in () are balloon numbers from the Schematic Diagram #10612-S.

1. Close the Customer Power Oil Isolation Valve (58) and the Customer Oil Return Isolation Valve (21) and Lock-Out per you Local Safety Standards.
2. Use proper container to catch any hydraulic fluid that is lost during this procedure and dispose of any contaminated fluid properly, according to the code in your local area. Drain off any residual pressure or hydraulic fluid contained in the Poppet Control Block (63) and ensure Power Pressure Gauge (71) is reading 0 [zero].
3. Remove any electrical power, from a remote source, going to the solenoid valves.

Removal of the Bifold Solenoid Valves

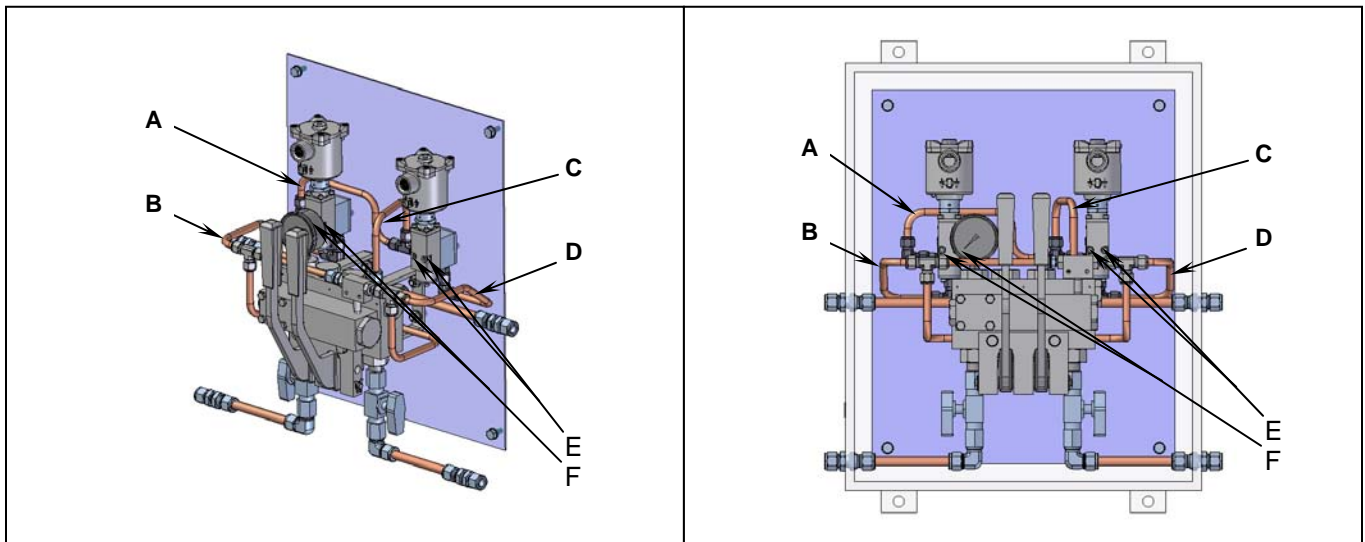


Figure 1: Control with Original Valves - ISO View

Figure 2: Control with Original Valves – Front View

1. Remove the 3/8 tube lines “A”, “B”, “C”, and “D” as called out in Figure 1 and Figure 2.
2. Disconnect the wiring from the existing solenoid valves. Mark the wires for identification to ensure correct connections on the new valves.
3. Remove the mounting screws “E” and “F” as called out in Figure 1 and Figure 2 and remove both solenoid valves.

RAP R30: Installation Procedure

Install Peter Paul Valves GA 116700, 16702

05-05-11

Note: The tubing may be discarded but, remove and save the tubing nuts for use on the new tube runs.

Installation of Peter Paul Solenoid Valves

1. Install Tube Fittings in New Valves as shown in Figure 3 below.
2. Mount the new solenoid valves utilizing the brackets, as shown in Figure 3 below.

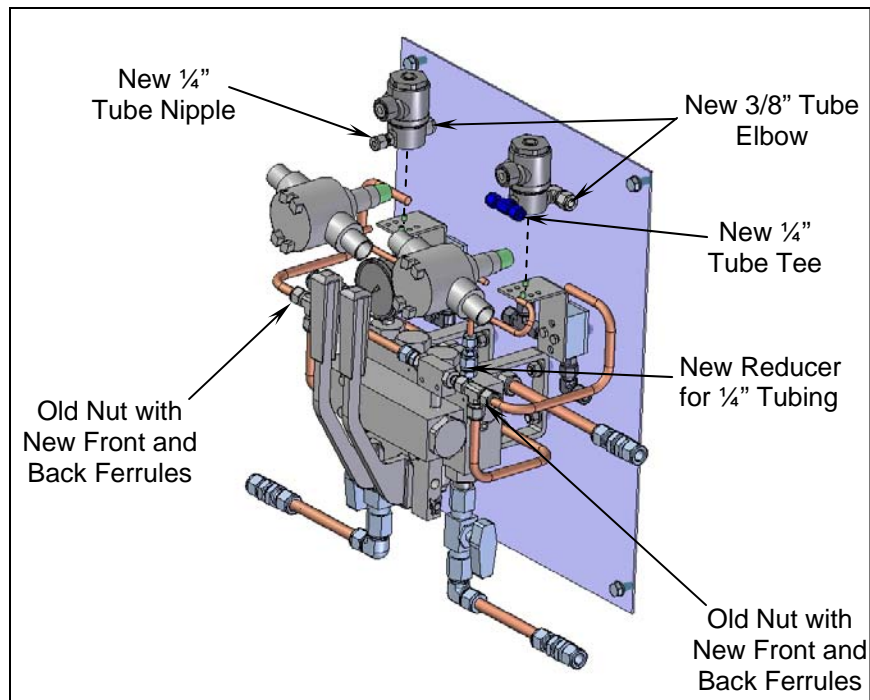


Figure 3: Install new Tube Fittings

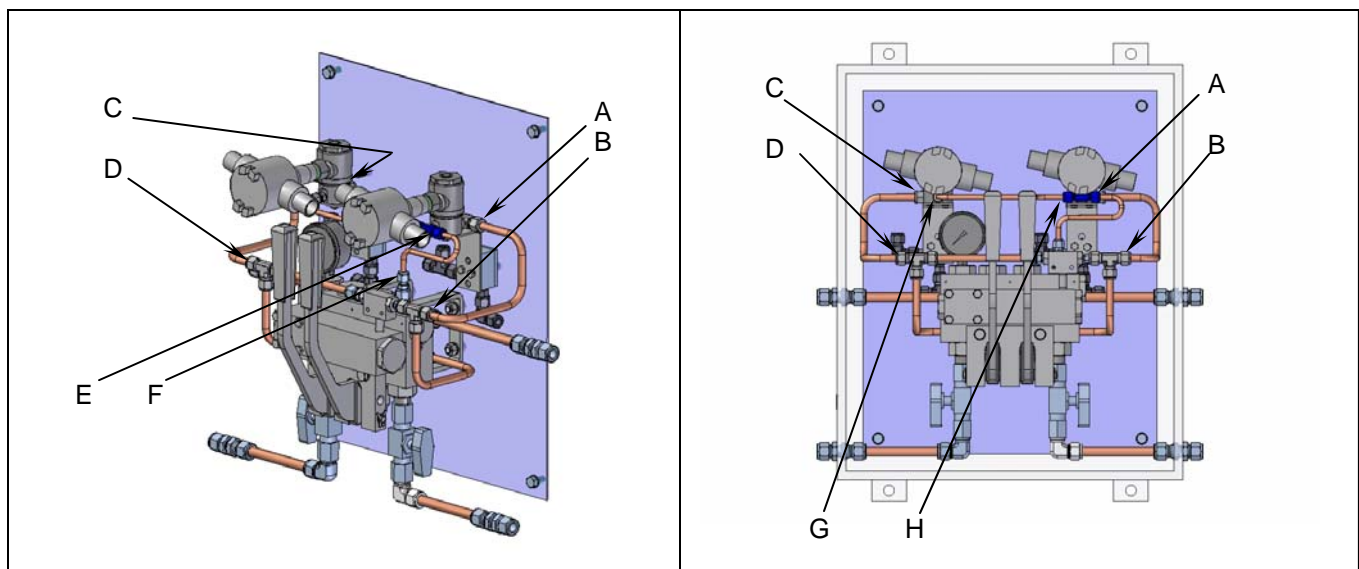


Figure 4: ISO View of the Control with New Valves

Figure 5: Front View of the Control with New Valves

RAP 6: Installation Procedure

Install Peter Paul Valves GA 116700, 16702
05-05-11

4. Run a 3/8" tube line from "A" to "B" in Figure 4 and 5. Bend tubing somewhat as shown. Tube fitting "A" may have to be angularly aligned because of interference with the bracket.
5. Run a 3/8" tube line from "C" to "D" in Figure 4 and 5. Bend tubing somewhat as shown. Tube fitting "C" may have to be angularly aligned because of interference with the bracket.
6. Run 1/4" tube line from "E" to "F", in Figure 4.
7. Run 1/4" tube line from "G" to "H", in Figure 5.
8. Install Conduit Hubs and Solenoid Bushings as shown in Figure 4 and Figure 5.
9. Install new 1/2" Cable Glands and reconnect the wiring to the new valves paying special attention to wire markings to insure wires go to appropriate solenoids.
10. This completes the installation. The system must be checked for leakage. If at all possible, run the following tests and observe the new connections. If it is not possible to run any tests on the system, inspect regularly during the initial operation. Repair any leakage found.
11. Open the Power Oil Isolation Valve (58) and the Customer Oil Return Isolation Valve (21).
12. With the customer installed valves in the actuator header lines closed, use the Manual Handles of the Poppet Control Valve allowing pressure to hold in the system for a few minutes in each direction. Repair any leakage found.
13. Once found to be leak free, return the system back on line.

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