

# Directional Valve Kit

311341 rev.A

*Directional Valve replacement kit for the H-20/25/35 Pro Proportioners.*

## Part No. 297825 Directional Valve Kit



### **Important Safety Instructions**

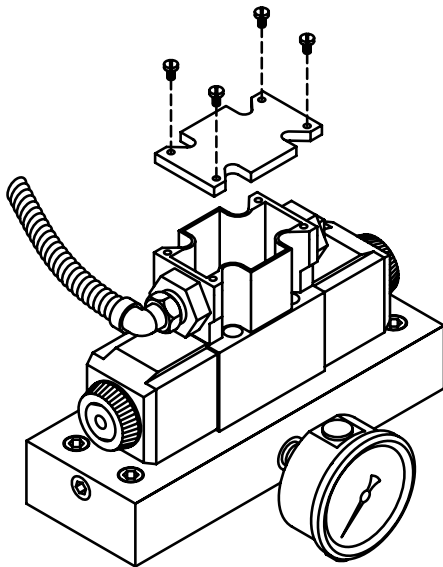
Read all warnings and instructions in your  
Proportioner manual. Save these instructions.

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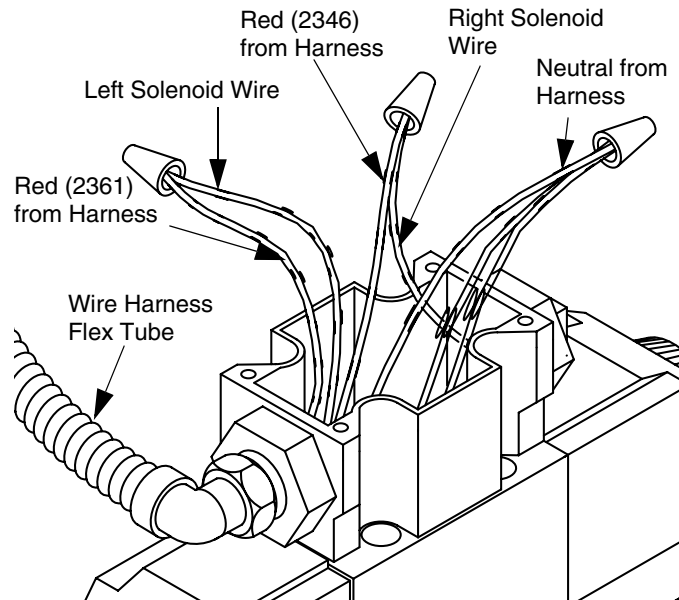
# Old Valve Removal

1. Shut down proportioner and bleed all pressure in hydraulic system to zero.
2. Shut OFF and lock out incoming electrical power at source.
3. Remove top cover from old directional valve by removing four screws with a small flat screwdriver; see FIG. 1.



**FIG. 1: Cover Removal**

4. Inside electrical receptacle, locate the three wires coming from wire harness. See FIG. 2.



**FIG. 2: Old Wire Harness Connections**

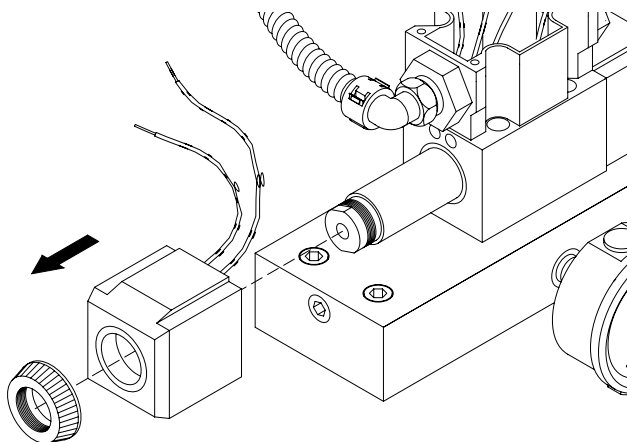
- a. Red wire (2361) connected to left solenoid wire.

Red wire (2346) connected to right solenoid wire. (Label red wires to correctly reconnect them later.)

White (neutral) wire connected to remaining two wires.

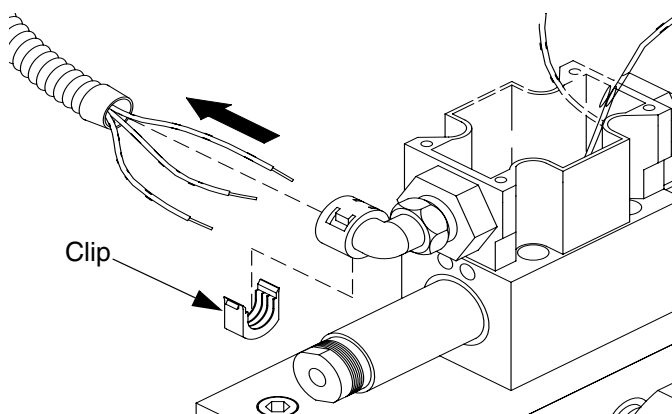
- b. Remove wire nuts and separate all wires.

5. Unscrew knob on left solenoid and remove solenoid from shaft, pulling out the two wires with it. See FIG. 3.



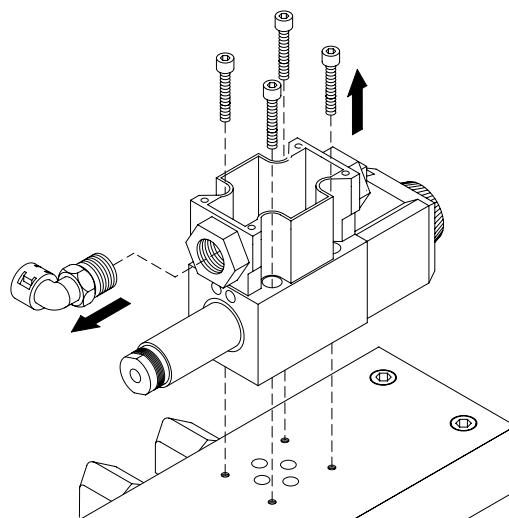
**FIG. 3: Solenoid Removal**

6. Remove clip on elbow connector using small flat screwdriver and pull flex tube with three harness wires out of directional valve (see FIG. 4). Save clip for reinstallation.



**FIG. 4: Harness Removal**

7. Loosen brass fitting on elbow connection using an open-end wrench. Also remove elbow connector. See FIG. 5. Save connector for reinstallation.

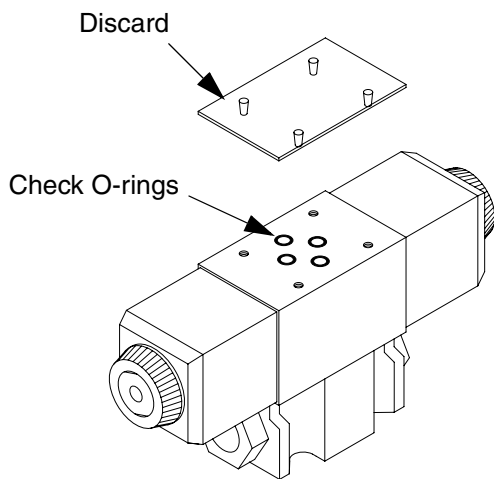


**FIG. 5: Connector & Valve Removal**

8. Remove old directional valve by removing four socket head cap screws with hex key (have an appropriate waste container and rags handy to catch any dripping hydraulic fluid). See FIG. 5.
9. Clean manifold mating surface of all dirt and debris. Do not allow any dirt into ports.

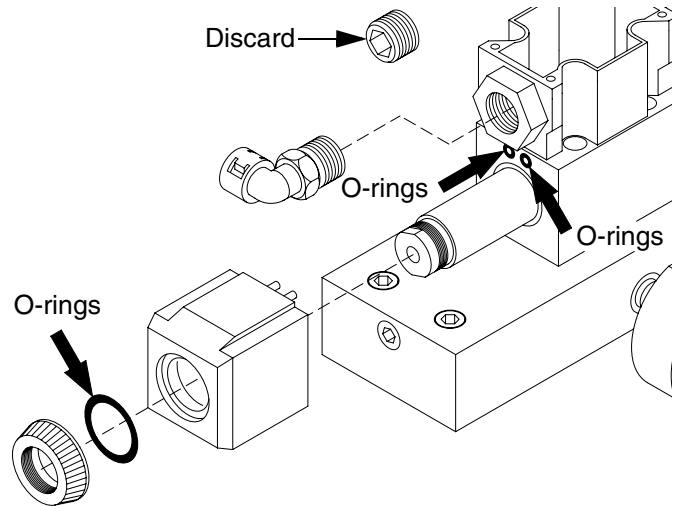
# New Valve Installation

1. Install new directional valve as follows (see FIG. 6):
  - a. Turn valve upside down. Pull out and discard clear plastic plug.
  - b. Ensure the four o-rings are in place.
  - c. Mount valve using the four new 2 in. socket head cap screws provided in kit. Tighten screws firmly using hex key.



**FIG. 6: New Valve Bottom**

2. Unscrew knob on left solenoid and remove solenoid from shaft. Do not loose the three o-rings (see FIG. 7).

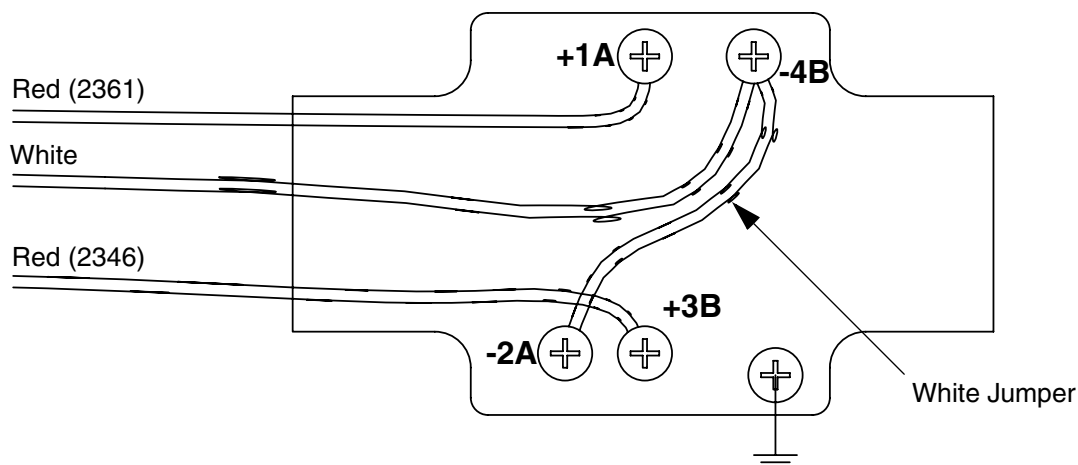


**FIG. 7: Connector Installation**

3. Remove and discard threaded plug from hole in new valve.
4. Install elbow connector and tighten brass fitting on connector using open-end wrench.
5. Reinstall solenoid and knob removed in Step 2.

## New Wire Connections

1. Remove top cover from directional valve using small flat screwdriver to remove the four screws.
2. Tape ends of harness wires together and feed them through elbow into electrical receptacle. Push flex tube into connector and install clip saved from Step 6 of **Old Valve Removal**.
3. Wire new directional valve as follows (see FIG. 8):
  - a. Red wire (2361): Trim back excess length and strip insulation approximately 0.25 in. Loosen screw at position +1A using a Phillips screwdriver. Slip wire under clamp at position +1A.
  - b. Red wire (2346): Connect to position +3B in same manner as Step a.
  - c. White (neutral): Connect to position -4B in same manner as Step a.
  - d. Connect White jumper wire (provided with kit) between positions -4B and -2A.



**FIG. 8: New Directional Valve Wiring**

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