

Technical Bulletin

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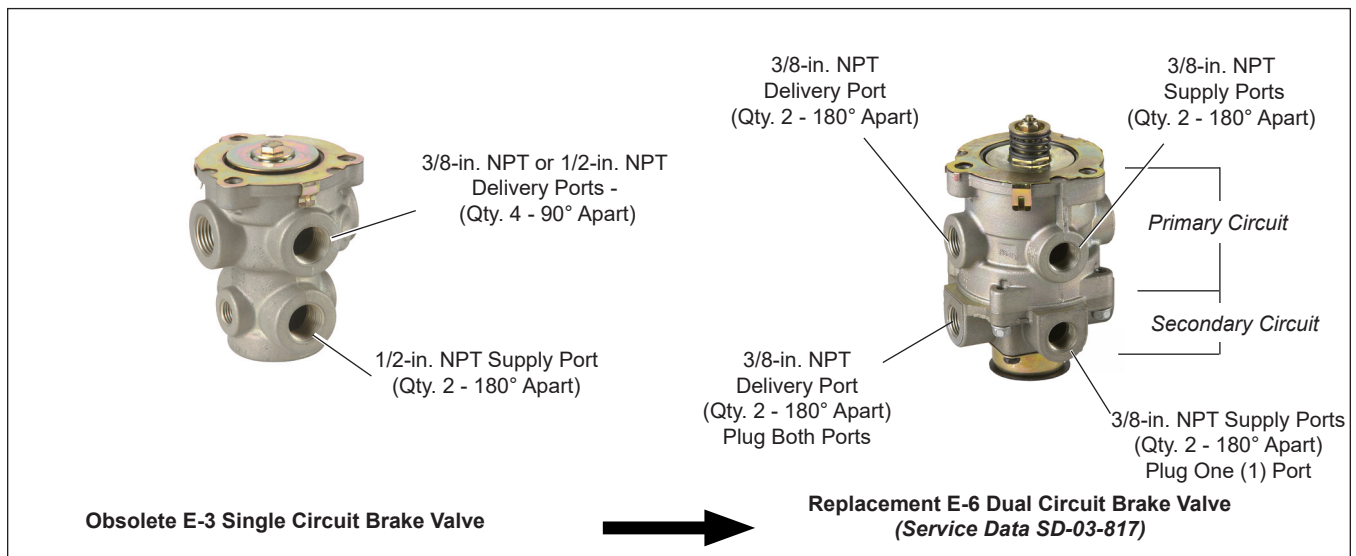
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Subject: Bendix® Brake Valve Changeover Instructions

As a part of a recent continuous improvement program implemented by Bendix, many valves have been obsoleted and superseded. Some valves – such as the brake valves covered by this bulletin – have replacements, but require additional support for changing over. This bulletin will assist in changing over these obsolete brake valves to current production valves. For additional information regarding the part consolidation, *refer to PNU-265, Bendix® Valve Obsolescence and Part Consolidation, on b2bendix.com*. Before performing any service, *read and follow all Bendix General Safety Guidelines found in their respective Service Data Sheets as well as your company's safety practices*.

Bendix® E-3™ Brake Valve to Bendix® E-6® Brake Valve Changeover



General Information

The following is a guide for replacing a Bendix® E-3™ brake valve with a Bendix® E-6® brake valve. The E-6 brake valve is plumbed to its primary circuit ports (*see diagram above*). The secondary circuit is plumbed as follows: both deliveries and one supply are plugged, the other supply is plumbed to the brake valve supply air.

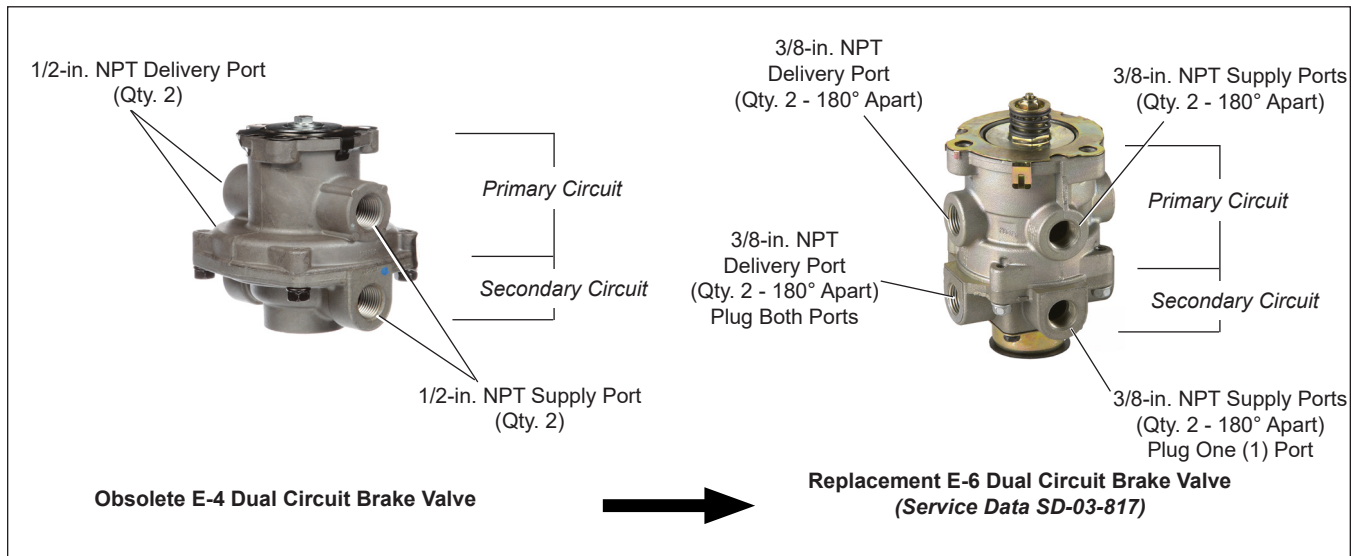
Removal and Installation

1. Block and hold the vehicle by means other than the air brakes.
2. Ensure that all reservoirs are drained.
3. Disconnect all air lines and fittings from the E-3 brake valve noting their location. Mark the lines accordingly.
4. Remove the brake treadle assembly from the valve and remove the mounting bolts and the E-3 brake valve from the vehicle.
5. Install the E-6 replacement brake valve in the vehicle and tighten the mounting bolts. Replace the treadle assembly.
6. Connect the air lines as follows:
 - plug the two (2) delivery ports in the secondary circuit;
 - plumb all air lines disconnected from the E-3 brake valve to the corresponding ports on the E-6 brake valve primary circuit;
 - plumb the supply line into one of the secondary circuit supply ports; and
 - plug the remaining supply port in the secondary circuit of the E-6 brake valve.

Operating Test

1. Install a test gauge in a delivery port or line of the E-6 brake valve. ⚠ (Test gauge must be accurate.)
2. Pressurize the supply ports of the brake valve.
3. Depress the treadle of the foot brake valve to several positions between the fully released and fully applied positions. Check the delivered pressure on the test gauge to see that it varies equally and proportionately with the movement of the brake pedal. Note that the brake chamber pushrod must extend to apply the service brakes. After a full application is released, the reading on the test gauge should fall off to zero (0) promptly.

Bendix® E-4™ Brake Valve to Bendix® E-6® Brake Valve Changeover



General Information

The following is a guide for replacing a Bendix® E-4™ brake valve with a Bendix® E-6® brake valve. The brake valves are similar, with their primary difference being in the number of supply and delivery ports. The E-6 has two (2) supply and delivery ports per circuit while the E-4 has only one (1) per circuit.

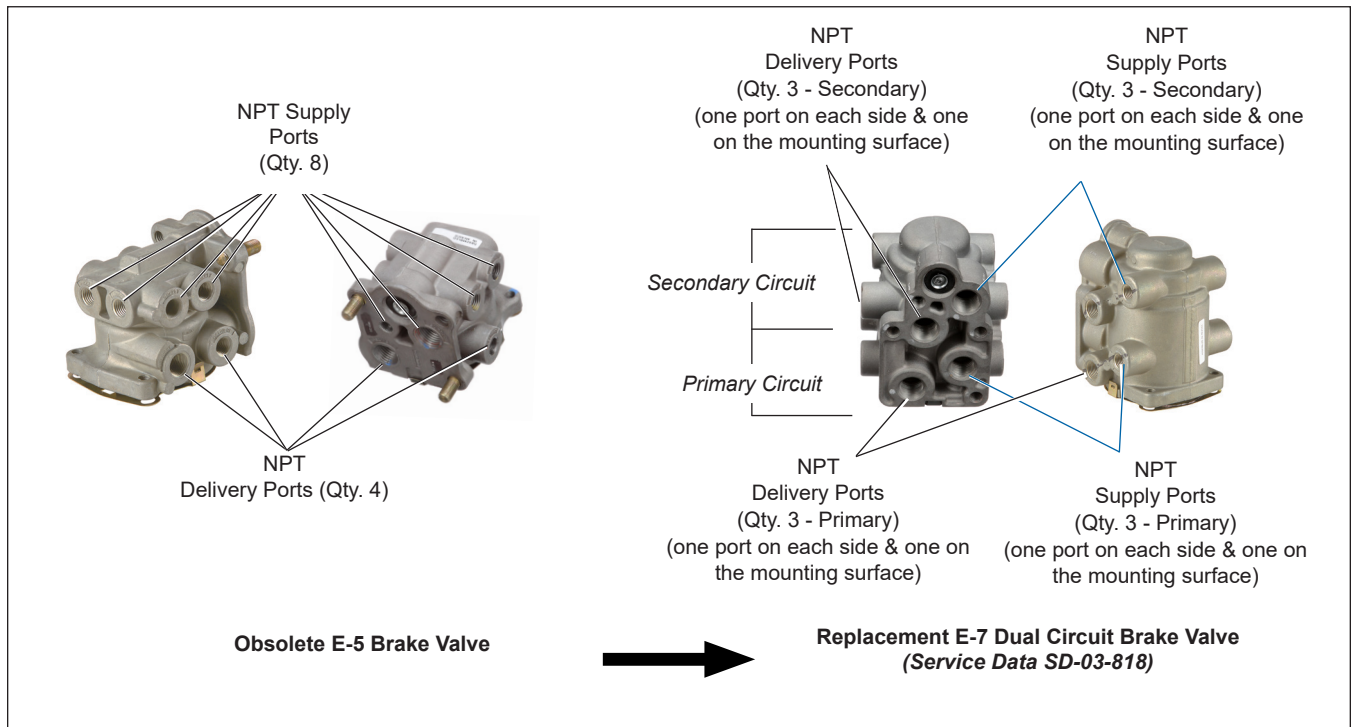
Removal and Installation

1. Block and hold the vehicle by means other than the air brakes.
2. Ensure all reservoirs are drained.
3. Disconnect all air lines and fittings from the E-4 brake valve noting their location. Mark the lines accordingly.
4. Remove the brake treadle assembly from the valve and remove the mounting bolts and the E-4 brake valve from the vehicle.
5. Install the E-6 replacement brake valve in the vehicle and tighten the mounting bolts. Replace the treadle assembly.
6. Connect the air lines as follows:
 - plumb the supply lines to the primary and secondary supply circuits;
 - plumb the delivery lines to the primary and secondary supply circuits; and
 - plug the remaining supply and delivery port.

Operating Test

1. Install a test gauge in a delivery port or line of the E-6 brake valve. **⚠** (Test gauge must be accurate.)
2. Pressurize the supply ports of the brake valve.
3. Depress the treadle of the foot brake valve to several positions between the fully released and fully applied positions. Check the delivered pressure on the test gauge to see that it varies equally and proportionately with the movement of the brake pedal. Note that the brake chamber pushrod must extend to apply the service brakes. After a full application is released, the reading on the test gauge should fall off to zero (0) promptly.

Bendix® E-5™ Brake Valve to Bendix® E-7™ Brake Valve Changeover



General Information

The following is a guide for replacing a Bendix® E-5™ brake valve with a Bendix® E-7™ brake valve. The E-5 brake valve is plumbed to its primary circuit ports (*see diagram above*). The secondary circuit is plumbed as follows: all deliveries and two supplies are plugged, the other supply is plumbed to the brake valve supply air.

Removal and Installation

1. Block and hold the vehicle by means other than the air brakes.
2. Ensure all reservoirs are drained.
3. Disconnect all air lines and fittings from the E-5 brake valve noting their location. Mark the lines accordingly.
4. Remove the brake pedal assembly from the valve and remove the mounting bolts and the E-5 brake valve from the vehicle.
5. Install the E-7 replacement valve on the vehicle and tighten the bolts. Install the brake pedal on the valve.
6. Connect the air lines as follows:
 - plumb all of the air lines to the primary circuits as removed from the E-5;
 - plumb one supply port in the secondary circuit; and
 - plug the remaining secondary ports.

Operating Test

1. Install a test gauge in a delivery port or line of the E-7 brake valve. **⚠** (Test gauge must be accurate.)
2. Pressurize the vehicle.
3. Depress the treadle of the foot brake valve to several positions between the fully released and fully applied positions. Check the delivered pressure on the test gauge to see that it varies equally and proportionately with the movement of the brake pedal. Note that the brake chamber pushrod must extend to apply the service brakes. After a full application is released, the reading on the test gauge should fall off to zero (0) promptly.

For technical support, contact the Bendix Tech Team by email at techteam@bendix.com or by phone at 1-800-AIR-BRAKE (1-800-247-2725), Monday through Thursday, 8:00 a.m. to 6:00 p.m., and Friday, 8:00 a.m. to 5:00 p.m. ET.

