



Installation Instructions

MIDLAND FF2/FFV TO SR-5/R-12 CHANGEOVER

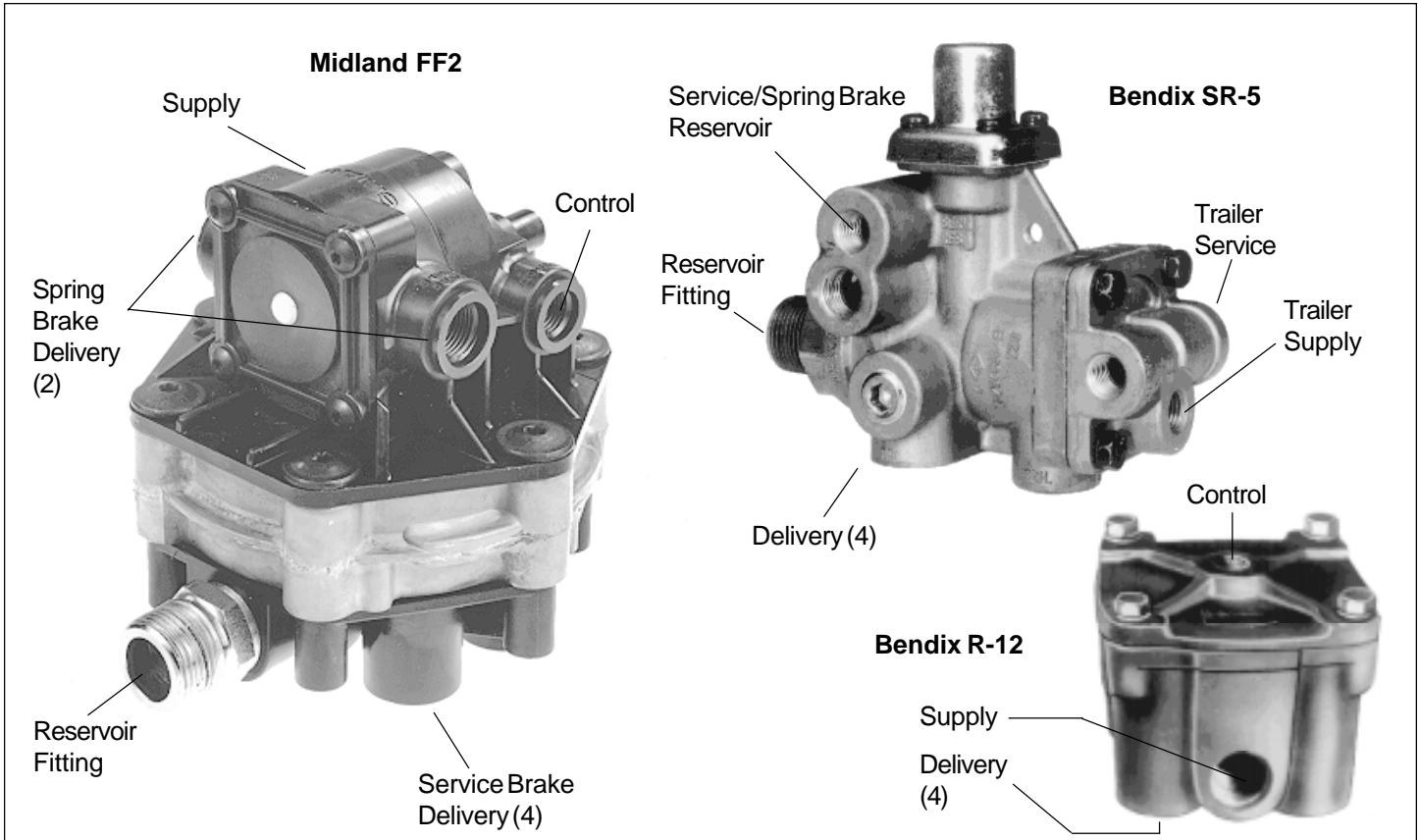


Figure 1 - Midland FF2 to Bendix SR-5/R-12

IMPORTANT! PLEASE READ AND FOLLOW THESE INSTRUCTIONS TO AVOID PERSONAL INJURY OR DEATH:

When working on or around a vehicle, the following general precautions should be observed at all times.

1. Park the vehicle on a level surface, apply the parking brakes, and always block the wheels.
2. Stop the engine when working around the vehicle.
3. If the vehicle is equipped with air brakes, make certain to drain the air pressure from all reservoirs before beginning ANY work on the vehicle.
4. Following the vehicle manufacturer's recommended procedures, deactivate the electrical system in manner that removes all electrical power from the vehicle.
5. When working in the engine compartment the engine should be shut off. Where circumstances require that the engine be in operation, **EXTREME CAUTION** should be used to prevent personal injury resulting from contact with moving, rotating, leaking, heated, or electrically charged components.
6. Never connect or disconnect a hose or line containing pressure; it may whip. Never remove a component or plug unless you are certain all system pressure has been depleted.
7. Never exceed recommended pressures and always wear safety glasses.
8. Do not attempt to install, remove, disassemble or assemble a component until you have read and thoroughly understand the recommended procedures. Use only the proper tools and observe all precautions pertaining to use of those tools.
9. Use only genuine Bendix replacement parts, components, and kits. Replacement hardware, tubing, hose, fittings, etc. should be of equivalent size, type, and strength as original equipment and be designed specifically for such applications and systems.
10. Components with stripped threads or damaged parts should be replaced rather than repaired. Repairs requiring machining or welding should not be attempted unless specifically approved and stated by the vehicle or component manufacturer.
11. Prior to returning the vehicle to service, make certain all components and systems are restored to their proper operating condition.

MIDLAND FF2 REMOVAL

1. Identify and label all air lines connected to the FF2. Label the lines according to the designations in Figure 2. Then disconnect the air lines.
2. Remove the valve from the vehicle.

SR-5 AND R-12 INSTALLATION

NOTE: The SR-5 and R-12 may be mounted on the same reservoir.

1. Install the R-12 relay valve on the vehicle. Use a heavy wall short couple pipe nipple to secure the supply port ("SUP") to the reservoir.
2. Connect the following air lines to the valve:
Line C - To control port ("SER")
Lines D1 - To delivery ports ("DEL")
3. Install the SR-5 onto the vehicle using its reservoir fitting.
5. Connect the following air lines to the valve:
Line S - To trailer supply port ("TRL SUP")
Line C - To trailer service port ("TRL SER")
[NOTE: Tee into relay valve control port ("SER")]
Line R - To service reservoir port ("SERV RES")
[NOTE: Tee into existing line R]
Lines D2 - To delivery port ("DEL")
4. Perform OPERATIONAL AND LEAKAGE TESTS before placing the vehicle back into service.

OPERATIONAL AND LEAKAGE TESTS

1. Block the vehicle's wheels and fully charge the air system.
2. Inspect all air lines connected to the valves for signs of wear or physical damage. Repair/replace as necessary. Also, test air line fittings for excessive leakage and tighten or replace as necessary.

R-12 relay valve

1. Apply and release the service brakes several times and check for prompt response of the brakes at all appropriate wheels.
2. Build system pressure to governor cut-out and make and hold a full brake application. Apply a soap solution to the R-12 exhaust port. Leakage should not exceed a one inch bubble in less than three seconds.

SR-5 trailer spring brake valve

NOTE: You will need two accurate test gauges to perform the SR-5 operational test.

1. Drain the air system, and then install a gauge in either trailer reservoir and at the trailer supply line gladhand. Build the system to full pressure while observing the gauges. System pressure and the trailer supply line should reach approximately 75-95 psi before the reservoir(s) begin to charge.
2. When full system pressure is reached, and the spring brakes are fully released, apply a soap solution to the SR-5 exhaust port and the vent. A one inch bubble in five seconds is permissible.

3. Place the trailer air supply valve in the exhaust position. The spring brakes should apply. Disconnect the trailer supply line and soap the hose coupling to check for leaks. A one inch bubble in five seconds is permissible.
4. Reconnect the trailer supply hose coupling and recharge the trailer system. The spring brakes should release. Shut off the engine. Open a trailer reservoir drain cock. The tractor air system should bleed down to approximately 70 psi. The trailer spring brakes should remain released. After the system is stabilized, leakage at the open drain cock should not exceed a one inch bubble in five seconds.

If the valves do not function as described; or if leakage is excessive, repair or replace them at an authorized parts outlet.

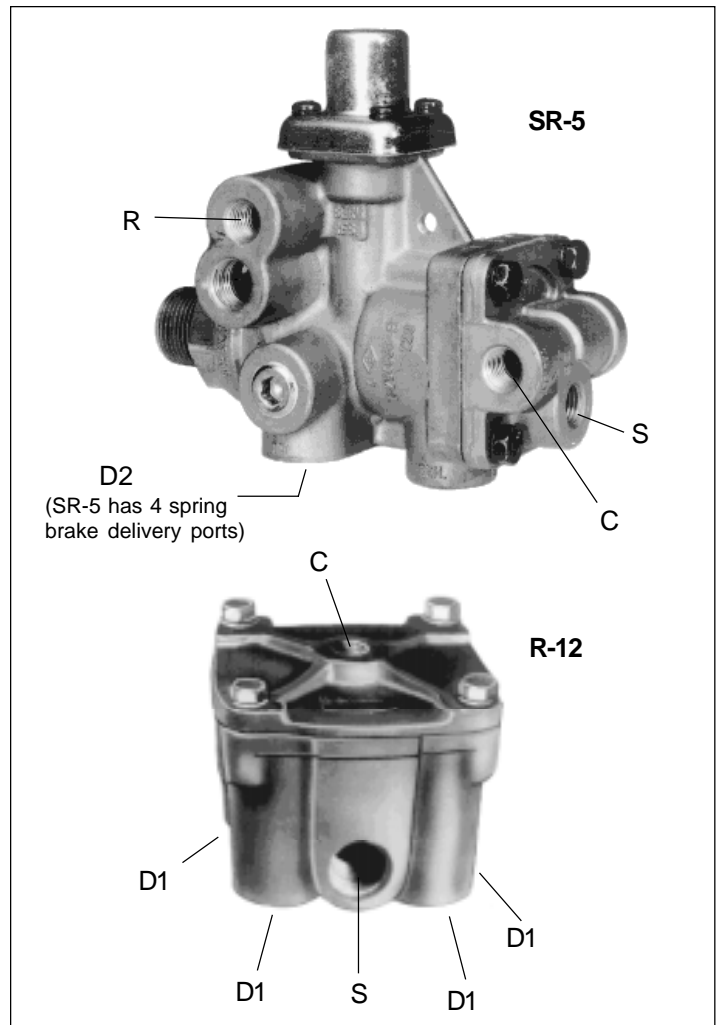


Figure 2 - SR-5 and R-12 Line Connections

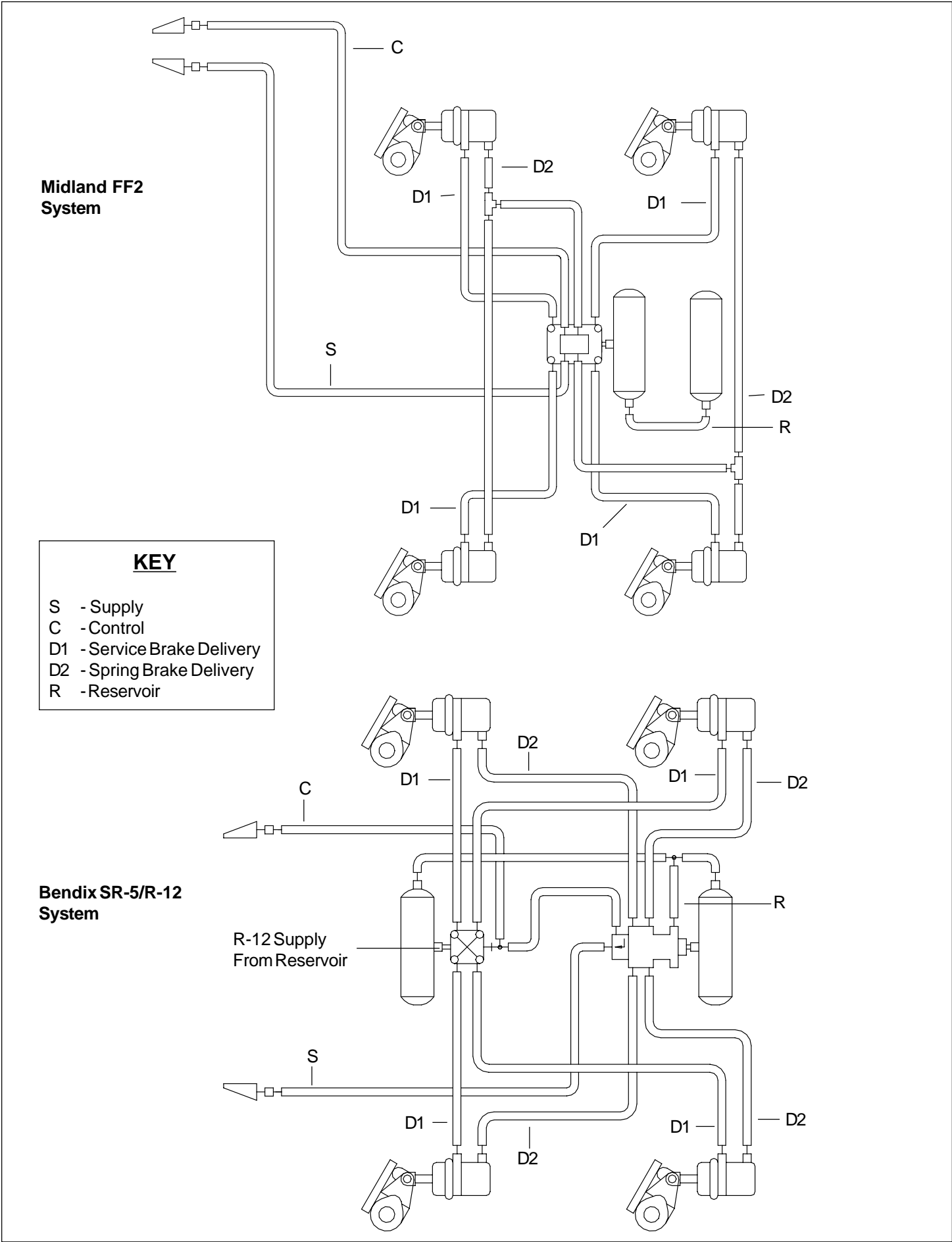


Figure 3 - Bendix SR-5/R-12 and Midland FF2 Schematics