

Hydraulic/Air RELAY VALVE

Service Instructions

John Deere Part Number	John Deere Repair Kit Number
AN306290	AN306109

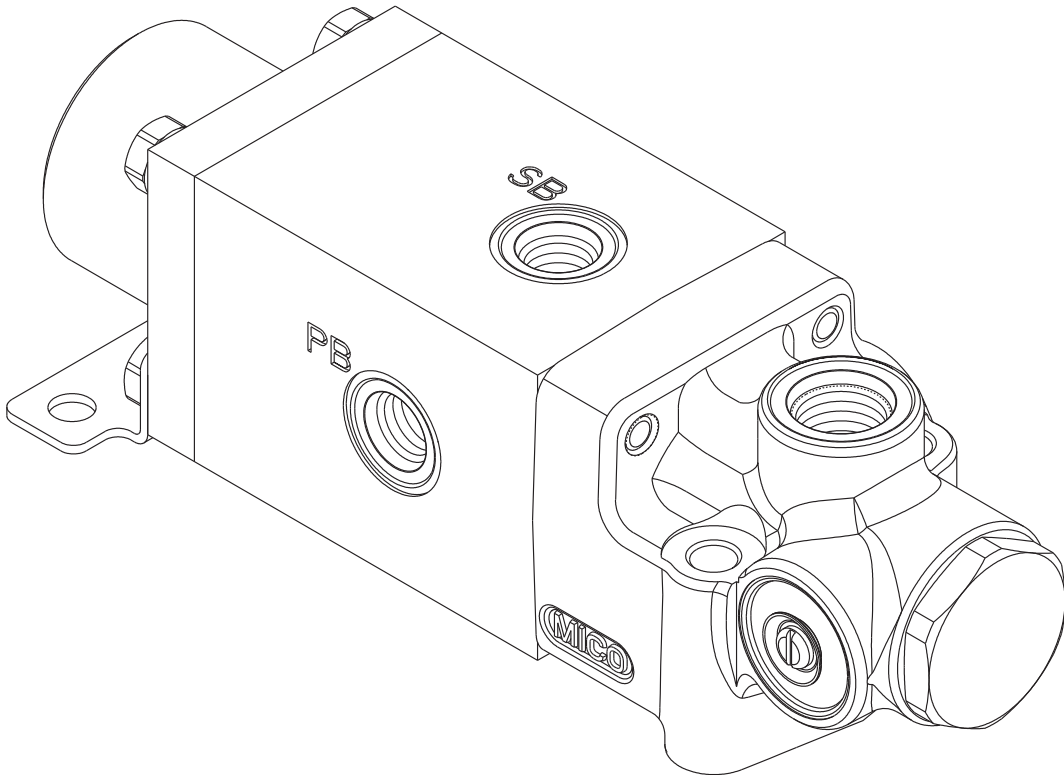


FIGURE 1

DISASSEMBLY

(Refer to Figure 2)

1. Remove plug (1), spring (4), and piston (6) from housing (7).
2. Remove o-rings (2 & 3) from plug (1).
3. Separate housing (7) from housings (18 & 24) by removing four cap screws (27), two washers (26), and bracket (25).
4. Remove o-ring (8), spring (9), piston (11), o-ring (8), piston (21), spring (22), and shim(s) (23) from housings. **NOTE: Be aware of the number of shim(s) removed from housing.**
5. Remove o-ring (10), back-up ring (13), and o-ring (12) from piston (11).
6. Remove retaining ring (14) from housing (18). Carefully remove sleeve (15) from housing (18) through retaining ring (14) side of housing.
7. Remove o-ring (16 & 17) from sleeve (15). For reassembly purposes, note that o-ring (16) is larger than o-ring (17).
8. Remove o-rings (19 & 20), o-ring (13), and back-up ring (12) from piston (21).
9. Remove screw (28), washer (29), and baffle (30) from housing (7).
10. Remove two plugs (31) from housing (18). Remove o-rings (32) from plugs (31).

ASSEMBLY

(Refer to Figure 2)

WASH ALL PARTS WITH CLEAN SOLVENT AND DRY. LUBRICATE ALL ITEMS IN REPAIR KIT WITH A LIGHT COAT OF 30 WEIGHT MOTOR OIL. BE SURE ENTIRE ASSEMBLY PROCEDURE IS DONE USING CONTAMINATION FREE METHODS.

1. Install new o-rings (16 & 17) on sleeve (15). Note that o-ring (16) is larger than o-ring (17). Install sleeve (15) in housing (18) through retaining ring (14) side of housing. Install retaining ring (14) in housing (18).
2. Install new o-rings (20 & 19), new back-up ring (12), and new o-ring (13) on piston (21). Note order of back-up ring (12) and o-ring (13). See Figure 2b.
3. Install new o-ring (10), new back-up ring (12), and new o-ring (13) on piston (11). Note order of back-up ring (12) and o-ring (13). See Figure 2b.
4. Install new o-ring (8) on housing (18).
5. Install new o-ring (8) on housing (7).
6. Install shim(s) (23) and spring (22) in housing (24). Be sure to install same number of shim(s) as were removed.
7. Install piston (21) in housing (18).
8. Install spring (9) on piston (11) and install in housing (7).
9. Assemble housings (24, 18, & 7) using four cap screws (27), two washers (26), and bracket (25). Evenly torque cap screws (27) 21.7-28.5 N·m (16-21 lb·ft).
10. Install new o-ring (5) on new piston (6).
11. Install new o-rings (2 & 3) on plug (1).
12. Install piston (6), spring (4), and plug (1) in housing (7). Torque plug (1) 74-6-101.7 N·m (55-75 lb·ft).
13. Install new baffle (30), washer (29), and screw (28). Torque screw (28) 2.5-3.2 N·m (22-28 lb·in). See Figure 2a for direction of washer (29).
14. Install new o-rings (32) on two plugs (31). Install two plugs (31) in housing (18) and torque 13.6-19.0 N·m (10-14 lb·ft).

• Items included in Repair Kit

