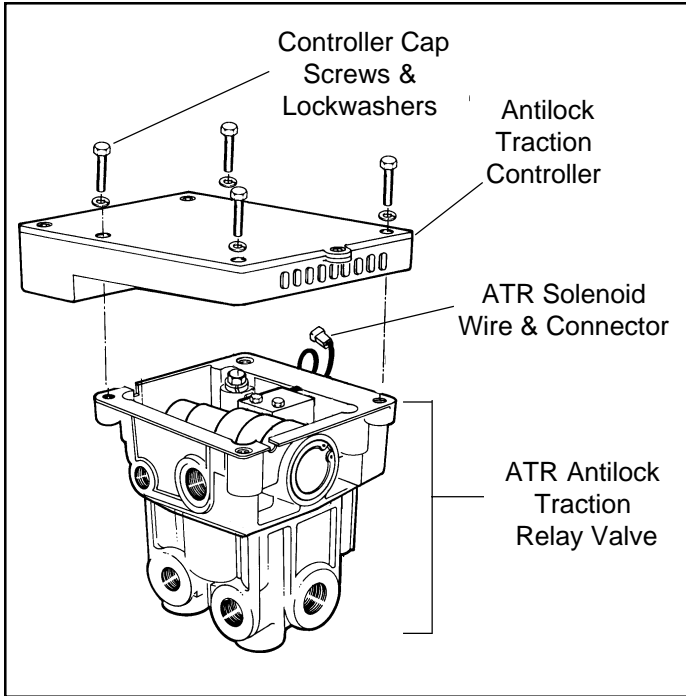




# Installation Instructions

## ANTILOCK TRACTION RELAY VALVE



Antilock Traction Assembly

This kit contains the following components;

Qty.	Description
1	Antilock Traction Relay Valve
1	Installation Instruction Sheet
1	Antilock Troubleshooting Pamphlet

### **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.

### **ANTILOCK TRACTION RELAY VALVE REMOVAL**

1. Identify, mark or label all air lines and wiring cables and their respective connections on the valve or AntiLock controller to facilitate ease of installation.
2. Disconnect all air lines and wiring.
3. Remove the valve and controller assembly from the vehicle.
4. Clean the exterior of the ATR valve and controller assembly.
5. Remove all air fittings and plugs from the ATR valve.
6. Note the relationship of the Antilock Electronic Controller to the ATR valve. Remove and retain the four cap screws and lock washers that secure the controller to the ATR valve, then remove the electronic controller.

## INSPECTION

Look for any visible damage to the connectors, wiring harnesses, air line fittings and mounting hardware. Repair or replace any damaged components. Clean all thread sealer from the pipe threads of fittings that will be used again.

## ANTILOCK TRACTION RELAY VALVE INSTALLATION

1. Install all air line fittings and plugs making certain thread sealing material does not enter the valve.
2. Install the Antilock Traction Controller. Using the four cap screws and lock washers, secure the Antilock Traction Controller to the ATR valve, in the same relationship as noted in Step 6 of VALVE REMOVAL. Torque the cap screws to 50 - 80 pound inches.
3. Install the assembled ATR valve and Antilock Traction Controller on the vehicle.
4. Reconnect all air lines and wiring harnesses to the valve and controller assembly using the identification made during Step 1 of VALVE REMOVAL.
5. Perform the OPERATION and LEAKAGE TESTS presented in this instruction sheet. Before returning the vehicle to service, perform the "Initial Start-Up Procedure" in the Troubleshooting Pamphlet included with the replacement ATR valve.

## OPERATION & LEAKAGE TESTS

The following tests are intended to check for correct installation of the ATR valve. Complete Operation and Leakage tests are presented in Bendix Service Data Sheets SD 13-4811 & SD 13-4812, available through any authorized Bendix parts outlet.

## OPERATING TESTS

**Note:** If the vehicle being tested is a tractor, begin at step 1 otherwise begin at step 3.

1. After re-installing the assembly (ATR valve and AntiLock Controller) on the vehicle, connect the tractor service and emergency "glad hands" (hose couplings) to dummy connectors, or alternatively, to a trailer. Build the tractor system air pressure to governor cut-out.
2. Activate the trailer supply valve (dash control w/red octagonal button) and system park control (dash control w/yellow diamond button) for tractor/trailer operation.
3. Apply and release the brakes several times and check for prompt application and release at each wheel. If prompt reaction is noted at some, but not all rear wheels, test the AntiLock modulator between the ATR valve and the brake actuator for proper operation. If a "sluggish" response is noted at all wheels, inspect for a kinked or obstructed air line leading to or from the ATR valve.
4. If a complete release of the brakes is noted at some, but not all rear wheels, test the AntiLock modulator between the ATR valve and the brake actuator for proper operation. If an incomplete release is noted at all rear wheels, inspect for a kinked or obstructed air line leading to or from the ATR valve.

## LEAKAGE TESTS

**Note:** If the vehicle being tested is a tractor, begin at step 1 otherwise begin at step 2.

1. Build the air system pressure to governor cut-out. Activate the dash mounted trailer supply valve for tractor/trailer operation.
2. Make and hold a full brake application and apply a soap solution to all air fittings and check for leakage. Tighten as needed.
3. Before placing the vehicle back in service, test the AntiLock system according to Troubleshooting Instructions S-1103.