SAFETY RECALL BULLETIN

NHTSA RECALL 12V-046

AUTOCAR, LLC SAFETY RECALL A-1201

March, 2012

Attention:

Service Managers / Parts Managers

Subject:

Temporary Fix to Bendix ATR-6 Valve

Safety Recall Information:

Bendix Commercial Vehicle Systems LLC has determined that a design modification in the ATR-6 Valve, which eliminated four small internal ribs in the cover assembly, and a material change made to a rubber ball seal in the solenoid, have resulted in a safety defect. In extremely cold conditions (at or below 0 degrees Fahrenheit / -18 degrees Celsius), internal leakage can potentially develop, resulting in pressure being delivered to the affected service brake circuit. If the solenoid armature lifts off, air pressure is delivered to the primary or secondary brake circuits, causing intermittent or, in isolated cases, continuous brake application. During such brake application, ABS will still be operational, and service brakes are still available.

Bendix has made available the attached temporary/interim solution that will address the risk which results from the unintended brake application. However, the temporary/interim solution disables certain features as described in the attached Bendix documentation. For example, traction control will be disabled, resulting in loss of the feature and triggering dash malfunction lamps.

Bendix strongly recommends that the temporary/interim solution be installed on vehicles being operated in regions where temperatures fall below 0 degrees Fahrenheit / -18 degrees Celsius.

Autocar will discontinue the temporary/interim solution once Bendix has provided the permanent solution in sufficient quantities to begin administering repairs to customer vehicles. Autocar will notify vehicle owners, distributors and service centers when this occurs.

Questions regarding this Safety Recall should be directed to Autocar Technical Support at 1-888-218-3611, or for additional information, go to the Bendix Product Action Center for the Bendix ATR-6 Valve Action, at: **www.bendix.com/en/servicessupport/recallcenter/recallcenter_1.jsp**

Vehicles Affected:

There are 269 affected vehicles with serial numbers in the range 212340 through 213812. Refer to the VIN list on Page 7.

Service Responsibility:

Service sites must perform this recall on affected vehicles at no charge to the owner regardless of vehicle mileage, age or ownership. If a vehicle affected by this recall is taken into or is currently in your vehicle inventory at your center for service, you must perform this recall before the vehicle is sold or released to the owner.

To Obtain Parts:

Please send an e-mail to:

warranty@autocartruck.com and include:

1. VIN(s) (or) (last 6 digits of the VIN(s)
2. 'Attention To' name
3. 'Ship To' address

Required Parts:

Autocar Part Number: S7440001-001

Claims for Reimbursement:

Submit a claim for reimbursement in accordance with Autocar's Warranty Administration Manual, with the following claim coding information:

Claim Coding Information:

Labor Operation Code Number	Time Allowance SRT	Description
56325-1-04	1.5 HR	Temporary Fix to Bendix ATR-6 Valve

Tools Required:

(2) 1/2" Combination Wrenches
3/8" Drive torque wrench capable of 18 Ft. Lb (24 Nm)
Adjustable Wrench
Locking Pliers
Needle-nose pliers

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Safety Notices

⚠ WARNING

Allow the vehicle's engine and cooling system to cool to ambient temperature before performing the repair procedure. A hot engine or cooling assembly may cause burns or other personal injury.

⚠ DANGER

To prevent eye injury, always wear eye protection when performing vehicle maintenance, service or inspection.

⚠ DANGER

Before working on a vehicle, set the parking brake, place the transmission in neutral and block the wheels. Failure to do so can result in unexpected vehicle movement and can cause serious personal injury or death.

⚠ CAUTION

LOCKOUT/TAGOUT PROCEDURES

Before entering the vehicle or vehicle body, read and follow OSHA regulations concerning entry and working in "CONFINED SPACE" OSHA 1910.146 and "LOCKOUT/TAGOUT" OSHA 1910.147. Follow OSHA regulations while performing any work on the vehicle. The vehicle must be disabled by the following steps before performing any work on the vehicle:

1. Place the transmission in NEUTRAL.
2. Set the parking brake.
3. Shut the engine OFF.
4. Lock cab doors, keep the key in your pocket. Block the wheels before entering the body or performing any work on the vehicle.
5. Turn the battery disconnect switch OFF, if equipped.
6. Completely drain the air from the primary/A system and secondary/B system by opening the drain valves on the air tanks themselves or by using the drain manifold if supplied. When draining the air tanks, do not look into the area where air is draining. Dirt or sludge particles may be expelled in the air stream and can cause eye injury.
7. Place magnetic "DANGER" signs on both cab doors before entering the body or performing any work on the vehicle.
8. Take proper precautions before working under the vehicle. Use ramps approved for the weight of your vehicle, or use floor jacks and stands. Never work under a vehicle supported by jacks alone. Always use jack stands to support the vehicle.

Repair Procedure:

1. Remove the valve from the vehicle by unbolting the valve's mounting **bracket** from the vehicle (**do not remove the valve from bracket**).(See Figure 2) Retain the fasteners for reinstallation.
2. Disconnect 5 air lines from the valve, one at a time. Label the connections for reinstallation (use a paint marker or label the end of the air hoses). *(See Figure 1)*
3. Complete all procedures on Bendix's attached "How to Temporarily Disable the Solenoid of Bendix ATR-6 Traction Relay Valves (Kit K070706)" document.
4. Reinstall the valve in the vehicle by following the instructions on page 6.

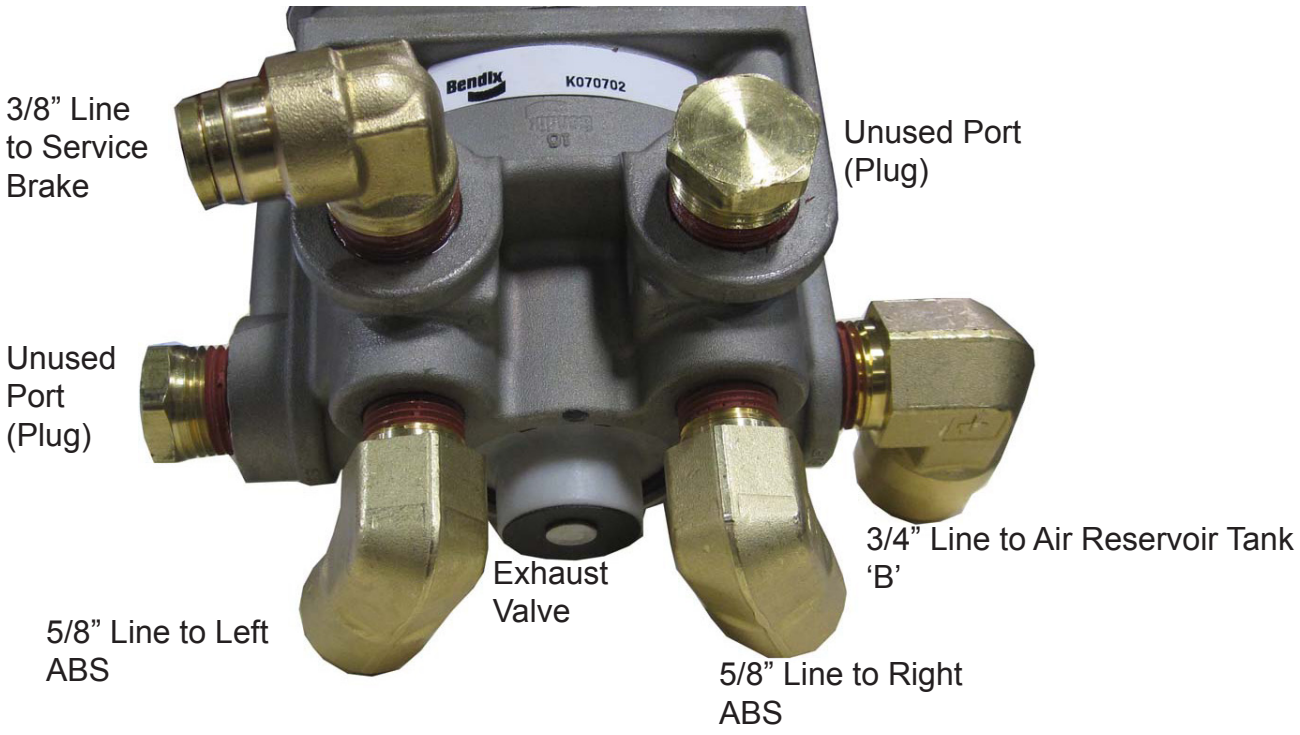

Figure 1: Bendix ATR-6 Valve - Front/Bottom

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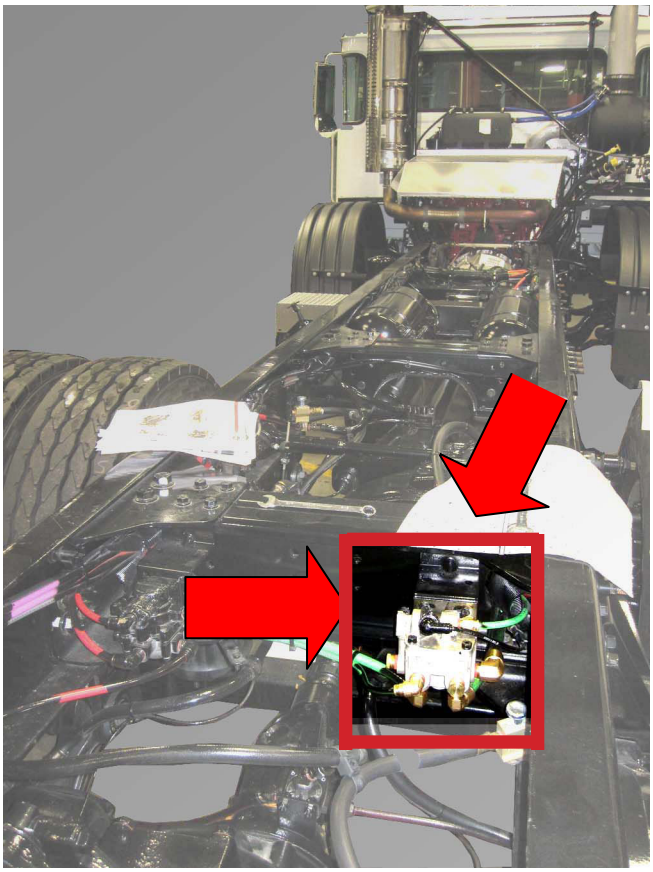

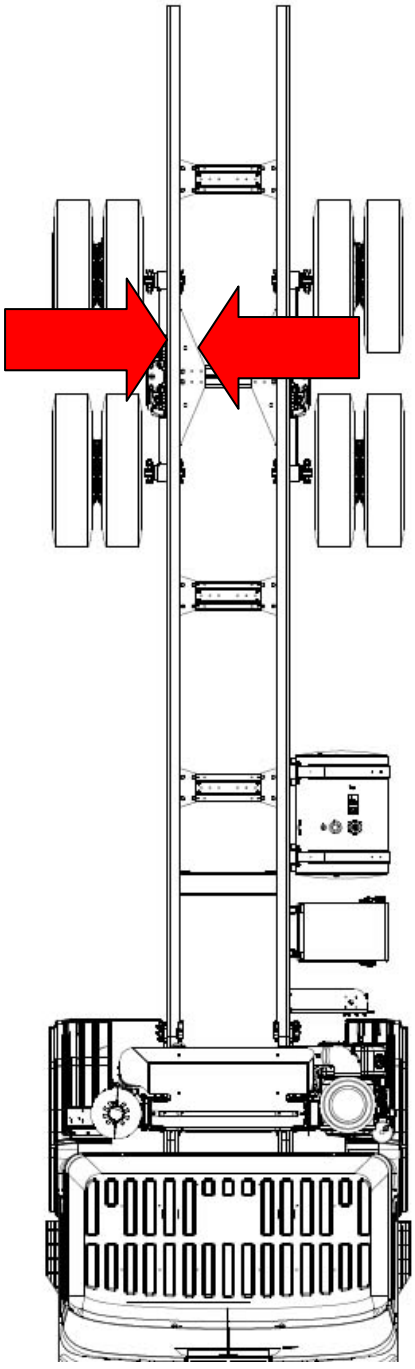

Figure 2: Bendix ATR-6 Valve - Location on Xpeditor vehicle

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To Reinstall Bendix ATR-6 Valve:

1. Position the valve in mounting position. (See Figure 2)
2. Reconnect 5 air lines, one at a time, to the valve. (See Figure 1)
3. Position the mounting fasteners (retained from removal) through the mounting bracket; torque to 18 Ft.-Lb (24 Nm).
4. Position the ATC electrical connector and secure it with the collar lock. (See Figure 3)
5. Close the drain valve on the primary air reservoir 'A' and secondary air reservoir 'B'.
6. Start truck to refill primary air reservoir 'A' and secondary air reservoir 'B'.
7. Listen for air leaks at the valve connections. Use soapy water as necessary to identify the source of air leaks. Correct leaks as necessary.
8. Verify the functionality of the valve:
   a. Locate the ABS Diagnostic Switch (under dashboard on side kick-panel); (See Figure 4)
   b. Push the ABS Diagnostic Switch 3 times, quickly.
   c. Listen for the ABS system to discharge air; if it does not, contact Autocar Technical Support at 1-888-218-3611.
9. The installation is now complete.

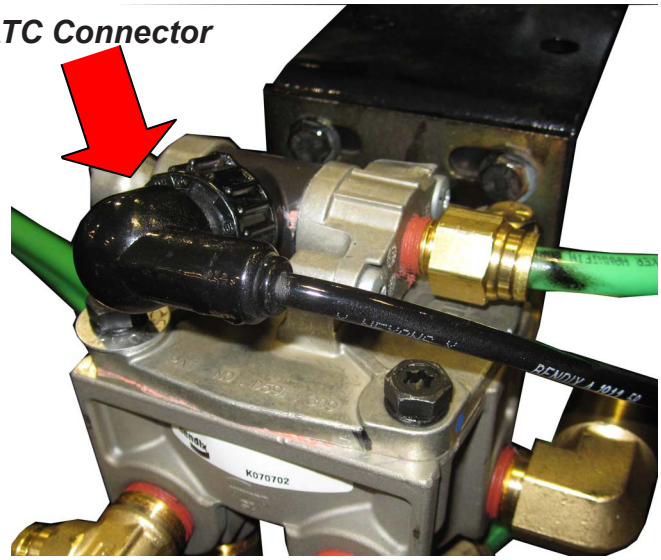

Figure 3: ATC Connector

Figure 4: ABS Diagnostic Switch

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5VCA3RLEXBH212340	5VCACRLE0BH212654	5VCACRLE4BH212690	5VCACDLE0BH212754
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5VCACSLEXBH212622	5VCACRLE8BH212658	5VCACRLE1BH212694	5VCACLLE9BH212780
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5VCACRLE3BH212941	5VCACR8F8CH213411	5VCACRLE5CH213638	5VCACLLEXCH213681
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5VCACR8F6CH213410	5VCACLLE8CH213632	5VCACLLE8CH213680	

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How to Temporarily Disable the Solenoid of Bendix® ATR-6™ Traction Relay Valves (Kit K070706)

(Valve Retains Service Braking and ABS Relay Valve Functions)

• This Kit Temporarily Disables up to Two (2) ATR-6 Valves

FOLLOW ALL STANDARD INDUSTRY SAFETY PRECAUTIONS, INCLUDING THOSE LISTED ON PAGE FOUR OF THIS DOCUMENT. Park the vehicle on level ground, chock the wheels, **FULLY DRAIN ALL** the reservoirs, and turn off the ignition. Locate the Bendix® ATR-6™ Traction Relay Valve(s) on the vehicle.

CAUTION: You must FULLY complete ALL FIVE PROCEDURES, IN ORDER.

OVERVIEW:

PROCEDURE ONE:

Replace the small O-ring with the ball or plug supplied. *(If necessary, remove the valve from the vehicle to service.)*

Repeat this procedure for ALL ATR-6 valves present on the vehicle before continuing.

PROCEDURE TWO:

Use the Chuff Test (or Bendix® ACom® diagnostics software) to confirm that the blocking insert is effective for the valve(s) serviced.

This MUST be confirmed for ALL ATR-6 valves before continuing.

PROCEDURE THREE:

Remove at least one of the pins inside EACH ATR-6 valve connector.

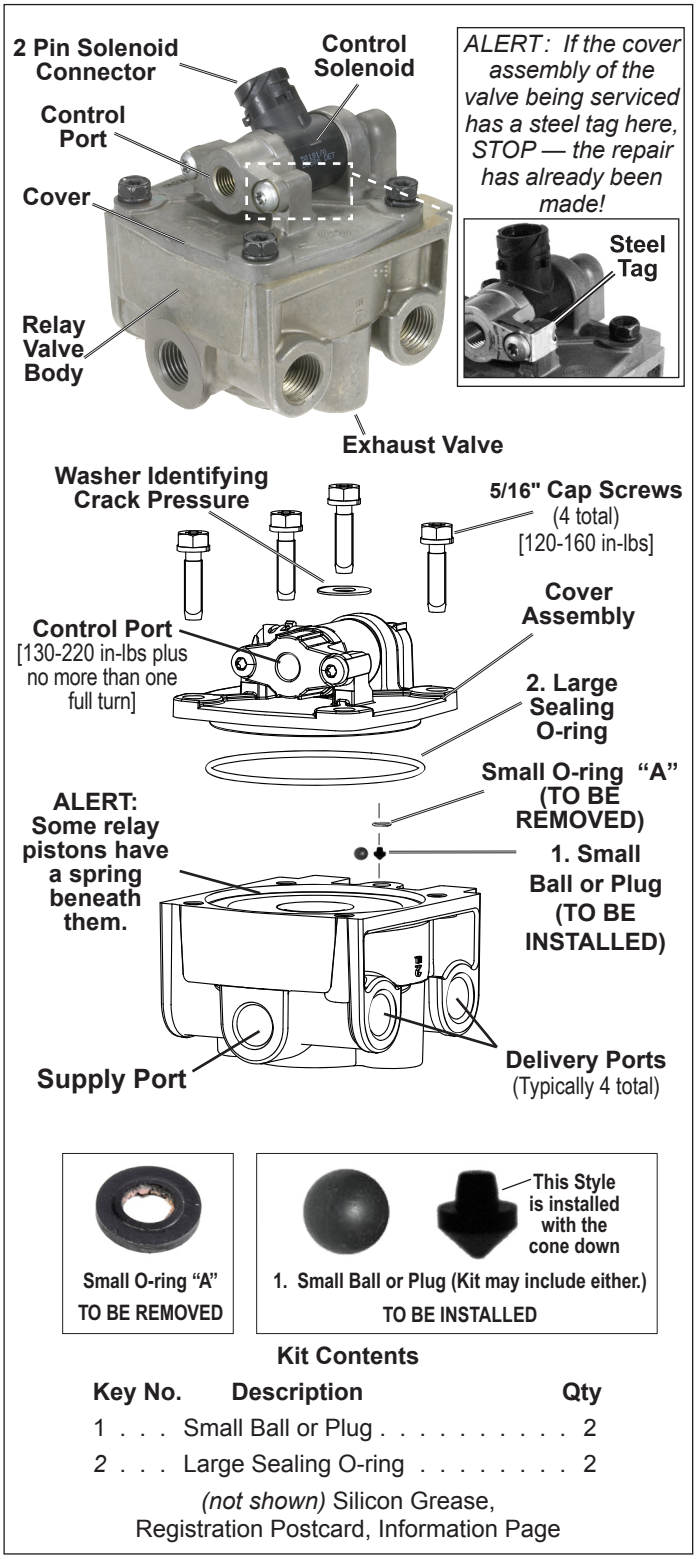
PROCEDURE FOUR:

Verify that the dash ATC/ESP lamp is illuminated to confirm that the temporary disable procedure is completed.

Post a visual reminder to the driver.

PROCEDURE FIVE:

Complete the *Operational and Leakage Tests*.



Kit Contents

Key No.	Description	Qty
1	Small Ball or Plug	2
2	Large Sealing O-ring	2

(not shown) Silicon Grease, Registration Postcard, Information Page

***FIGURE 1* - BENDIX® ATR-6™ TRACTION RELAY VALVE**

PROCEDURE ONE: Replace the small O-ring with the ball or plug supplied. *(If necessary, remove the valve from the vehicle to service.)*

1. Verify that the valve has not already been serviced. Check:
   (a) For the steel tag showing that the repair has already been made (*See Figure 1*);
   (b) Service records;
   (c) For a tie-wrap, or similar, marker, or missing connector pin (*See Procedure Three*).
2. **Clean the valve and take care to avoid any contamination inside the valve during these procedures**.
3. Disconnect the electrical connector from the traction solenoid.
4. With ALL reservoirs drained, remove the air hose from the control port of the relay valve cover.
5. Be sure to mark the orientation of the cover. Using hand wrenches, remove and retain the four cap screws (and I.D. washer) and bracket(s). (ALERT: Some relay pistons have a spring beneath them).
   NOTE: If cap screw(s) break off, or are stripped, install a replacement ATR-6 valve (or relay valve lower body).
6. **Remove and discard** the small O-ring ("A" in Figure 1) and the large sealing O-ring (2) from the cover.
7. Grease and install the new large sealing O-ring (2) onto the cover assembly.
8. Grease and install the supplied ball or plug (1) into the valve body where the small O-ring was removed, so that it blocks the air passage. Plugs are installed with the cone down**.**

9. Verify that no contamination has entered the valve. You MUST remove any debris inside. Use a clean shop cloth/shop air and use the supplied grease to replace any removed. With the cover (and mounting bracket) in the same orientation as before, place the cover assembly into position over the valve body, while keeping the ball or plug in place. USE HAND-WRENCHES (ideally torque-wrenches) to re-install the four cap screws and I.D. washer in the cover and torque (in a cross-pattern) to 120-160 in-lbs.

NOTE: All torques specified are assembly torques and can be expected to fall off slightly after assembly. **Do not over-tighten** or re-torque after the initial assembly torque falls off.

10. Reconnect the control air hose to the cover. Torque to 130-220 in-lbs, plus no more than one full turn. [If it was necessary to remove the valve from the vehicle, reinstall the Supply and Delivery hoses, using a torque of 180-340 in-lbs, plus no more than one full turn.]
    Follow OEMs recommendations for re-installing the valve/any brackets to the vehicle.
11. Reconnect the wire harness to the traction solenoid.
12. Repeat steps 1-11 where a second Bendix® ATR-6™ valve is present.

PROCEDURE TWO: Use the Chuff Test (or Bendix® ACom® diagnostics software - *see step 4*) to confirm that the blocking insert is effective for the valve(s) serviced.

1. Power-up and FULLY charge the vehicle's air brake system (listen for the air dryer exhaust). Turn the vehicle off.

The **Bendix Chuff Test** occurs after ignition power is applied and during it, in sequence, the ABS modulator valves are energized and the ATR-6 valve(s) emit a short burst of air (the rear ATR-6 valve has a much quieter exhaust during the Chuff Test than the front valve). Since the solenoid(s) are temporarily disabled there should be no exhaust from the ATR-6 valves during this test.

NOTE: This Procedure requires the brakes NOT be applied.

2. **Check the rear ATR-6 valve: Have the ignition switch activated (brakes not applied) while a technician closely monitors the rear ATR-6 valve.** Listen closely, or use your hand to feel for a short release of air. **Bendix® ATR-6™ valve(s) — with a correctly installed ball or plug — WILL NOT exhaust any air during the Chuff Test.**
3. **Check the front ATR-6 valve (if present): Repeat the chuff test [again, brakes NOT applied].**
   Listen for the front ATR-6 valve during the Chuff Test. The front ATR-6 valve with an enabled solenoid emits a short audible burst of air. **Bendix® ATR-6™ valve(s) — with a correctly installed ball or plug — WILL NOT exhaust any air during the Chuff Test.**

CAUTION: If you observe an exhaust from either ATR-6 valve during the Chuff Test, go back to Procedure One and re-install the ball or plug.

4. The ALTERNATE TEST using PC-based Bendix ACom diagnostics uses the Component Test Feature to permit the ATR-6 valves to be selected and cycled. Follow the directions on the Component Test screen.
5. Only move on to Procedure Three if the Chuff Test affirmed the repair.
6. Shut off the engine.

PROCEDURE THREE:

Do this Procedure only after the chuff test has been completed on ALL ATR-6 valves on the vehicle!

Remove at least one of the pins inside the connector.

1. Remove the harness connector(s).

   Grasp one of the connector pins using needle-nose pliers, or a similar tool.*

   Rock back and forth, or twist, the pin to break it off flush at the base. *See the Photo.*

   Discard the pin.

   *An alternate method for breaking off the pin(s) is to carefully insert a 1/2 inch drill bit and turn it by hand (using vice-grips or similar); the pins will snap off. **CAUTION: Do not drill into the solenoid - only break off the pins.**

Repeat this for ALL ATR-6 valves on the vehicle.

2. **Verify that the pin(s) have broken off flush at the bottom and have been removed. Check that any remaining pin(s) are not bent.**
3. Re-install the harness connector(s) to prevent corrosion and/or damage. Verify that you can fully close the connector(s).
4. Use a tie-wrap (or similar) on the valve(s) to visually indicate that the solenoid has been temporarily disabled.

PROCEDURE FOUR:

Observe the dash ATC lamp is illuminated to verify that the temporary disable procedure is completed.

1. Power-up the vehicle. After the start-up sequence, the ATC/ESP lamp **MUST REMAIN ILLUMINATED**.

   If the lamp does not remain illuminated, go back to Procedure Three.

2. Verify that the ABS lamp does not remain illuminated after the bulb check. See the Bendix Service Data sheet for the ABS system or call the Tech Team.
3. Complete and mail the postcard included in this kit, or use the on-line form at www.bendix.com.

PROCEDURE FIVE:

Complete the *Operational and Leakage Tests*.

1. Always check the vehicle brake system for proper operation after performing brake work and before returning the vehicle to service. Chock the wheels, and fully charge the air brake system.
2. Operational Test: Apply and release the brakes several times and check for prompt application and release at each wheel.

   If an incomplete or sluggish release of the brakes is noted at some, but not all wheels, test the Antilock Modulator Valve(s) operating those wheels for proper operation, and inspect for a kinked or obstructed air hose leading to, or from, the Modulator(s).

   If an incomplete or sluggish release is noted at all wheels, inspect for a kinked or obstructed air hose leading to, or from, the ATR-6™ valve(s).

Three Part Leakage Test:

3a. With the air system pressure charged to governor cut-out, apply a soap solution to the exhaust port(s). The leakage noted should not exceed a one-inch bubble in 3 seconds.

3b. Make and hold a full brake application and apply a soap solution to the exhaust port and around the cover where it joins the body. The leakage noted should not exceed a one-inch bubble in 3 seconds at the exhaust port(s).

3c. Check for inlet valve and O-ring leakage. Make this check with the service brakes released. Coat the exhaust port(s) and the area around the relay valve exhaust retaining ring(s) with a soap solution; leakage of a one-inch bubble in 3 seconds is permitted.

Complete and mail the postcard included in this kit, or use the on-line form at www.bendix.com.

ALL PROCEDURES, ONE THROUGH FIVE MUST BE COMPLETED FOR THIS KIT TO BE EFFECTIVE AND THE VEHICLE RETURNED TO SERVICE.

Double-check the dash ATC lamp is illuminated before operating the vehicle.

Be sure that the driver is aware that the traction control / Bendix® ESP® and/or the Bendix® Wingman® ACB system are temporarily disabled, by using a label, or similar, on the dash or windshield without blocking the driver's view.

GENERAL SAFETY GUIDELINES

WARNING! 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. Always wear safety glasses.**
2. **Stop the engine and remove ignition key when working under or around the vehicle. When working in the engine compartment, the engine should be shut off and the ignition key should be removed. 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.**
3. **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.**
4. **If the work is being performed on the vehicle's air brake system, or any auxiliary pressurized air systems, make certain to drain the air pressure from all reservoirs before beginning ANY work on the vehicle. If the vehicle is equipped with an AD-IS® air dryer system or a dryer reservoir module, be sure to drain the purge reservoir.**
5. **Following the vehicle manufacturer's recommended procedures, deactivate the electrical system in a manner that safely removes all electrical power from the vehicle.**
6. **Never exceed manufacturer's recommended pressures.**
7. **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.**
8. **Use only genuine Bendix® replacement parts, components and kits. Replacement hardware, tubing, hose, fittings, etc. must be of equivalent size, type and strength as original equipment and be designed specifically for such applications and systems.**
9. **Components with stripped threads or damaged parts should be replaced rather than repaired. Do not attempt repairs requiring machining or welding unless specifically stated and approved by the vehicle and component manufacturer.**
10. **Prior to returning the vehicle to service, make certain all components and systems are restored to their proper operating condition.**
11. **For vehicles with Automatic Traction Control (ATC), the ATC function must be disabled (ATC indicator lamp should be ON) prior to performing any vehicle maintenance where one or more wheels on a drive axle are lifted off the ground and moving.**

CAUTION: It is very important to be sure that the air pressure has been completely drained from all vehicle reservoirs. Any remaining air pressure would be present underneath the Relay Piston, presenting a hazard to the technician during valve disassembly.

Bendix Technical Assistance Team

For direct telephone technical support, call the Bendix Tech Team at:

1-800-AIR-BRAKE (1-800-247-2725), option 2, then option 1. Follow the instructions in the recorded message.

(For a limited period, phone lines are being staffed for extended hours.)

Our normal hours are Monday through Thursday, 8:00 A.M. to 6:00 P.M., Friday, 8:00 A.M. to 5:00 P.M., EST.

Or, you may e-mail: techteam@bendix.com

Please have the following information ready when you call: Bendix product model number, part number and configuration, vehicle make and model, vehicle configuration (number of axles, tire size, etc.).

Reference: The full Service Data sheet for the Bendix® ATR-6™ Traction Relay Valve is SD-13-4861 (BW2598) and is available for download on www.bendix.com, or you can order copies from the Literature Center at the website.

The Bendix® ATR-6™ Valve Action – Understanding the Issue

What is the issue?

Bendix Commercial Vehicle Systems LLC has determined that a defect related to motor vehicle safety exists in Bendix® ATR-6™ valves manufactured between December 2, 2010 and January 18, 2012. Valves manufactured after January 18, 2012 have been identified with the OEMs to ensure that the potentially affected vehicles will not be delivered for sale until the vehicles are remedied as outlined below.

What types of vehicles are affected?

This issue potentially affects all vehicles utilizing the affected valves, including some, but not all, vehicles equipped with traction control or stability control systems. ***This issue does not include*** vehicles with a Bendix ATR-6 valve manufactured outside the indicated manufacture dates, that utilize the Bendix® AT-3™ remote traction valve or that utilize the Bendix® ATR-1™ or ATR-3™ traction relay valve.

What is the problem that caused the issue?

In extremely cold conditions (at or below 0 degrees Fahrenheit / -18 degrees Celsius), internal leakage can potentially develop, resulting in pressure being delivered to the affected service brake circuit.

What can happen because of this problem?

Pressure being delivered to the affected service brake circuit can cause intermittent or – in isolated cases – continuous brake application. During the brake application, ABS will still be operational and additional service braking is still available.

Please Note: *This issue could appear as a loss of engine power. The brake lights may or may not be illuminated and the brake application pressure gauge will not show any pressure.*

How did Bendix learn about this problem?

The issue was discovered during investigation of reports of intermittent brake applications occurring in mid-December 2011. Following inspection of the complaint vehicles, Bendix replicated the event under laboratory conditions and verify the situation in the field. The Bendix investigation concluded the issue is the result of product change originating in December, 2010.

When did Bendix notify NHTSA?

Bendix notified the National Highway Traffic Safety Administration (NHTSA) of the start of a voluntary safety recall campaign involving the Bendix® ATR-6™ traction relay valve on January 26, 2012. The recall has been assigned number 12E-001.

Does the recall notification mean there is any danger to public safety?

Federal law requires us to report any potential defect that presents an unreasonable risk to safe motor vehicle operation.

Have there been injuries as a result of this problem?

Bendix is unaware of any reports of injuries related to this product issue. The reports that prompted the investigation involved driver complaints and thermal damage.

My vehicle has experienced this type of issue. Is there a repair now available? Are there any special steps I should take until I can get my Bendix® ATR-6™-equipped vehicle repaired?

Your vehicle(s) should be serviced immediately if it is within the affected population and likely to be operated in extremely cold conditions as detailed earlier in this document.

A temporary remedy kit is now available. The kit part number is K070706. The Installation Instructions for the kit is S-1583. Volvo, Mack and PACCAR vehicle owners should secure their kit(s) by contacting their nearest OE dealer/parts & service center. For all other vehicles makes, contact the Bendix ATR-6 Product Action Line at 1-800-478-1793. Representatives are available to assist you Monday – Friday, 7:00 a.m. – 8:00 p.m. ET / Saturday, 7:00 a.m. – 5:00 p.m. ET.

PLEASE NOTE: When the temporary remedy kit is installed, traction control and/or the vehicle's Bendix® ESP® and/or the Bendix® Wingman® ACB system (if installed on the vehicle) will be disabled until the permanent remedy is completed. The systems will be disabled, a diagnostic trouble code will be active, and the ATC/ESP vehicle dash lamp will continuously illuminate. The Wingman ACB system will continue to provide following alerts and warnings; however, cruise control will be disabled. Regular service braking and ABS will continue to function normally.

A secondary, permanent remedy has been identified and the remedy kit is forthcoming. This kit will fully address the subject issue and restore the vehicle's traction control and stability control system function. We will communicate more about this permanent solution shortly. The permanent remedy kit will need to be installed even on vehicles that have the temporary kit installed.

My vehicle has not experienced this type of issue. Are there any special steps I should take until I can get my ATR-6-equipped vehicle repaired?

Bring your vehicle(s) in for service as soon as possible – installing the temporary remedy kit as soon as possible is recommended if your vehicle is within the affected population and likely to be operated in extremely cold conditions as detailed earlier in this document. The vehicle will then require service a second time to install the permanent remedy kit when it is available, even though the temporary remedy kit has already been installed.

My vehicle was built prior to the affected date range, could I have an issue?

Vehicles that had a Bendix® ATR-1™, ATR-3™ or ATR-6™ valve replaced with a Bendix® ATR-6™ valve that was manufactured any time between December 2, 2010 and January 18, 2012 may be affected.

Inspect your vehicle(s) as soon as possible to 1) verify whether an ATR-6 valve was used to service the vehicle; and 2) to verify the date code on the valve. If an ATR-6 valve was used, examine the date code stamped into the valve to confirm whether it is a part of the impacted population. ***The photo and instructions at the close of this document will help you complete the inspection.***

Affected ATR-6 valves, manufactured between December 2, 2010 and January 18, 2012 are identified by the date code stamped on the unit. The date code – featuring a "Month/Year" format

– will appear in red or black type. An ATR-6 valve within the affected population displays a date code with:

a. the first letter of "M" with the last two numerical digits of "10";
b. the last two numerical digits of "11"; and
c. the first letter of "A" with the last two numerical digits of "12".

If you confirm that the ATR-6 valve installed on your vehicle is a part of the affected group, bring your vehicle(s) in for service as soon as possible to install the temporary remedy. The valve will then require service a second time to install the permanent repair kit when it is available, even on vehicles that have the temporary kit installed.

My vehicle has had a Bendix® ATR-1™, ATR-3™ or ATR-6™ valve repair and replacement. Could I have an issue?

Vehicles that had a Bendix® ATR-1™, ATR-3™ or ATR-6™ valve replaced with a Bendix® ATR-6™ valve that was manufactured any time between December 2, 2010 and January 18, 2012 may be impacted.

Inspect your vehicle(s) as soon as possible to 1) verify whether an ATR-6 valve was used to service the vehicle; and 2) to verify the date code on the valve. If an ATR-6 valve was used, examine the date code stamped into the valve to confirm whether it is a part of the affected population. ***The photo and instructions at the close of this document will help you complete the inspection.***

Impacted ATR-6 valves, manufactured between December 2, 2010 and January 18, 2012 are identified by the date code stamped on the unit. The date code – featuring a "Month/Year" format – will appear in red or black type. An ATR-6 valve within the affected population displays a date code with:

a. the first letter of "M" with the last two numerical digits of "10";
b. the last two numerical digits of "11"; and
c. the first letter of "A" with the last two numerical digits of "12".

If you confirm that the ATR-6 valve installed on your vehicle is a part of the impacted group, bring your vehicle(s) in for service as soon as possible to install the temporary remedy. The valve will then require service a second time to install the permanent repair kit when it is available, even on vehicles that have the temporary kit installed.

The Remedy Kits

What is in the temporary remedy kit? Who do I contact and when can I get the kit to fix my trucks?

The temporary remedy kit contents include:

1. Two (2) small plugs
2. Two (2) large sealing O-rings
3. Silicon grease
4. Instruction Sheet (S-1583)
5. Window cling sticker
6. Registration postcard for non-dealer claims only
7. Information sheet

The temporary kit is readily available now. For Volvo, Mack and PACCAR vehicles, contact your nearest OE dealer/parts & service center. For all other vehicles makes, contact the Bendix ATR-6

Product Action Line at 1-800-478-1793. Representatives are available to assist you Monday – Friday, 7:00 a.m. – 8:00 p.m. ET / Saturday, 7:00 a.m. – 5:00 p.m. ET.

What is in the permanent remedy kit? When will that kit be available?

The permanent remedy kit includes:

1. One (1) cover assembly
2. One (1) small sealing O-ring
3. One (1) small sealing O-ring
4. Silicon grease
5. Instruction Sheet (S-1583)
6. Information sheet
7. Spare cap screw

The goal of both Bendix and your vehicle OEM is to get the permanent remedy solution into your hands as soon as possible. Until that time, the temporary remedy kit should be installed on all vehicles with Bendix® ATR-6™ valves within the affected population and likely to be operated in extremely cold conditions as detailed earlier in this document.

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Rest assured Bendix remains in close daily contact with the OEMs about the status of our efforts. We have already taken many actions to increase our capacity to ramp up parts production as quickly as possible to have in place that sufficient quantity of permanent solution remedy kits that will trigger Bendix and the OEMs to begin our permanent solution communications as required by NHTSA.

Where can I get the permanent remedy kit when it is available?

Your vehicle OEM will contact you directly, telling you how, where and when to obtain the permanent remedy kit.

Why the delays in getting the permanent remedy kits?

Production to support the growing demand for ATR-6 valves has steadily kept pace as demand for systems such as traction control, Bendix® ESP®, Bendix® Wingman® ACB and Wingman Advanced™ systems have grown. The recall, however, has increased production demand by a factor of three to four in an extremely compressed timeframe. We have already begun to ramp up production and continue to increase that capacity weekly in order to meet this extraordinary need.

Can my supply of remedy kits be expedited so I can complete the repairs immediately?

Each OEM is following their own prudent business processes to administer the recall under the guidelines set forth by NHTSA. The goal of both Bendix and your vehicle OEM is to get the permanent remedy solution into your hands as soon as possible. Until that time, the temporary remedy kit should be installed on all vehicles with ATR-6 valves within the affected population and likely to be operated in extremely cold conditions as detailed earlier in this document.

I have not yet been contacted by me OE about the recall. When will I be notified?

Each OEM is following their own prudent business processes to administer the recall under the guidelines set forth by NHTSA. The goal of both Bendix and your vehicle OEM is to get the permanent remedy solution into your hands as soon as possible. To date both Volvo and PACCAR have filed the necessary documentation with NHTSA and issued recall notices notifying their vehicle owners about the need to install the temporary remedy kit. If you have any questions or concerns about the Bendix® ATR-6™ valve recall not addressed in this Q&A, contact your vehicle OEM.

Operating Your Vehicle With The Temporary Kit Installed

What can I provide my drivers and place on my trucks to explain the activated warning lamps if the vehicle is stopped by a DOT inspector?

The temporary remedy kit temporarily disables the vehicle's optional, non-regulated features (traction control, Bendix® ESP® full stability, Bendix® Wingman® ACB and Wingman Advanced™ systems, if installed on the vehicle) until the permanent remedy kit is installed. The systems will be disabled, a diagnostic trouble code will be active, and the ATC/ESP vehicle dash lamp will continuously illuminate. Regular service braking and ABS will continue to function normally and the vehicle does meet all FMVSS 121 requirements. In addition, the Wingman ACB system will continue to provide following alerts and warnings; however, cruise control will be disabled.

The kit contains this windshield cling caution sign that should be placed inside the cab when the temporary remedy is installed. The label should be removed when the permanent remedy kit is installed.

I'm uncomfortable with the idea that – due to the temporary remedy kit – my vehicle's traction control, Bendix® ESP® and/or the Bendix® Wingman® ACB or Wingman Advanced™ System is temporarily disabled.

Bendix develops heavy-truck safety technologies that can dramatically enhance highway safety. The importance of skilled, alert drivers is still essential to a fleet's entire safety equation and should not be underestimated with the advent of active safety technologies like traction control, Bendix ESP, and Bendix Wingman ACB or Wingman Advanced. Active safety technologies do not replace the need for skilled, alert, professional drivers practicing the safe driving habits in place for their fleet, and vehicle safety remains the primary responsibility of the driver.

The temporary remedy kit temporarily disables the vehicle's optional, non-regulated features (traction control, Bendix ESP full stability, Bendix Wingman ACB and Wingman Advanced systems, if installed on the vehicle) until the permanent remedy kit is installed. The systems will be disabled, a diagnostic trouble code will be active, and the ATC/ESP vehicle dash lamp will continuously illuminate. The Wingman® ACB system will continue to provide following alerts and warnings; however, cruise control will be disabled. *Regular service braking and ABS will continue to function normally just as vehicles without the optional systems and the vehicle does meet all FMVSS 121 requirements*.

Will Bendix provide a waiver for liability since the ATC/ESP/ACB are temporarily disabled on my vehicle?

No. The temporary remedy kit temporarily disables the vehicle's optional, non-regulated features (traction control, Bendix® ESP® full stability, Bendix® Wingman® ACB and Wingman Advanced™ systems, if installed on the vehicle) until the permanent remedy kit is installed. The systems will be disabled, a diagnostic trouble code will be active, and the ATC/ESP vehicle dash lamp will continuously illuminate. The Wingman ACB system will continue to provide following alerts and warnings; however, cruise control will be disabled. *Regular service braking and ABS will continue to function normally and the vehicle does meet all FMVSS 121 requirements*.

Bendix develops heavy-truck safety technologies that can dramatically enhance highway safety. The importance of skilled, alert drivers is still essential to a fleet's entire safety equation and should not be underestimated with the advent of active safety technologies like traction control, Bendix ESP, and Bendix Wingman ACB or Wingman Advanced. Active safety technologies do not replace the need for skilled, alert, professional drivers practicing the safe driving habits in place for their fleet, and vehicle safety remains the primary responsibility of the driver.

Labor Reimbursement

Who will cover the labor hours and/or other costs I now have as a result of this recall?

If you have claims you believe are directly attributable to the Bendix® ATR-6™ valve recall, compile a complete set of documentation and submit your claim to your vehicle OEM according to their established process. Your OEM will process the claim with Bendix and we will evaluate and respond regarding the action we will take.

How and when will I be paid?

Bendix is currently finalizing the processes around claims processing. We will provide specific instructions when this effort is complete. To start the reimbursement process for costs you believe are directly attributable to the Bendix® ATR-6™ valve recall, compile a complete set of documentation and submit your claim to your vehicle OEM according to their established process. Your OEM will process the claim with Bendix and we will evaluate and respond regarding the action we will take.

Technical Assistance Is Available

Who can I call if I have technical questions or need ordering information?

Bendix wants to keep you up to date with the latest developments and information surrounding our ATR-6 valve action. For updates about this action – including technical questions and ordering information – please direct your comments or questions to the Bendix® ATR-6™ Action Line toll-free, at 1-800-478-1793. Representatives are available to assist you Monday – Friday, 7:00 a.m. – 8:00 p.m. / Saturday, 7:00 a.m. – 8:00 p.m. ET.

You may also reach us at atr6campaign@bendix.com or call 1-800-AIR-BRAKE (1-800-247-2725) option 2.

Verifying the Bendix® ATR-6™ Valve's Date Code.

Look for the date code that is pin-stamped (not cast) on the valve, following the part number. *(Remove the paint coating, if necessary, to read the code.)*

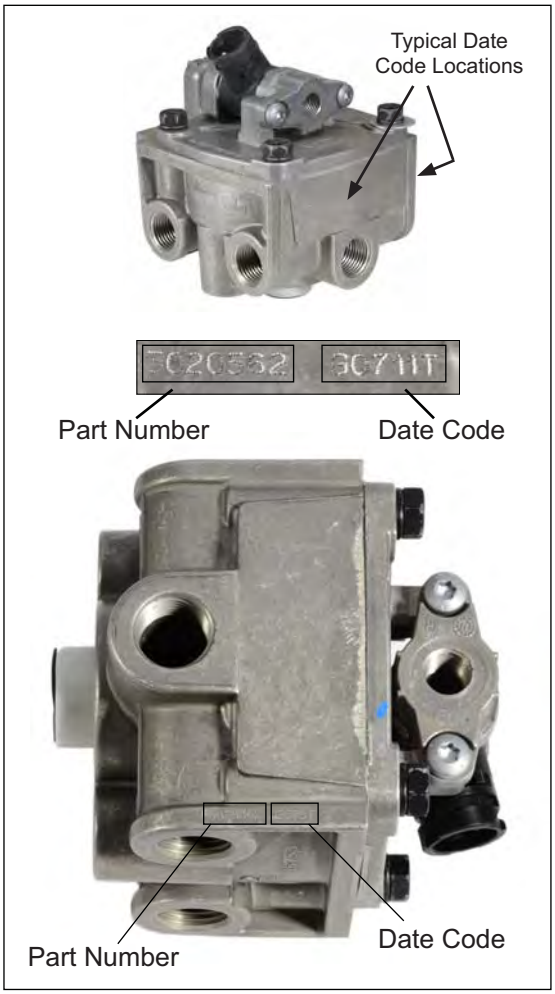
- The first field is the month (A = January, B = February, etc. — excluding the letter I — , so that J = September, and so on).
- The next two fields are the date (e.g. 04 = 4th day of the month)
- The next two fields are the year (e.g. 11 = 2011).
- The final code in the sequence is the Plant Code (T), in all cases.

Valves included in this field action were manufactured during the period:

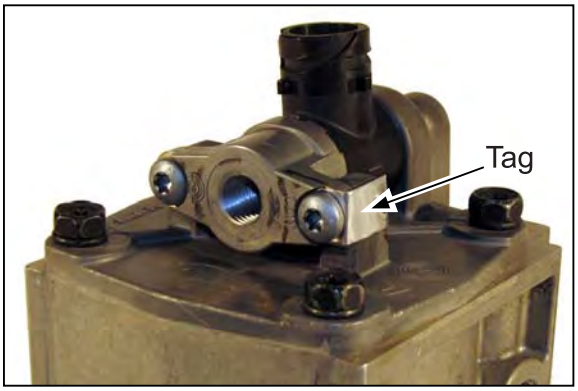
December 2, 2010 through January 18, 2012

That is, M 02 10 T through A 18 12 T.

Codes for December 2010	M _ _ 1 0 T *example:* M0310T 02 through 31
Codes for all of 2011	_ _ _ 1 1 T *examples:* A3011T F2511T Any alpha character; Any Digit
Codes for January 2012	A _ _ 1 2 T *example:* A0312T 01 through18



How do I know If the permanent remedy has been installed on my vehicle?

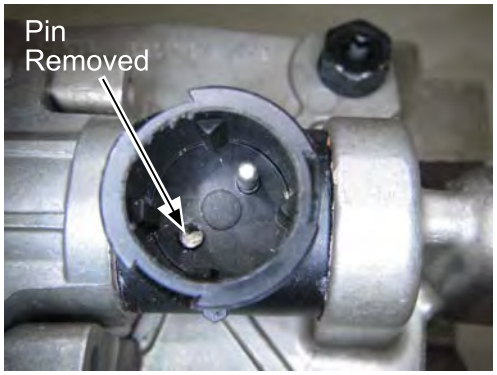


To verify that the cover assembly has been replaced, as part of the permanent remedy solution, look for **a steel tag** installed on a new or repaired Bendix® ATR-6™ valve. Replacement valve covers also have an orange dot of paint visible inside the connector housing.

Permanent remedy has been completed.
No further action is required.

How do I know if the temporary remedy kit is installed on my truck?

A Bendix ATR-6 valve that has already been disabled will cause the ATC/ESP vehicle dash lamp to continuously illuminate. In addition, disabled valves should have a pin removed from inside the solenoid connector, and a small plug installed inside the valve. In most cases, a marker (or tie-wrap) will also be found on the solenoid housing.

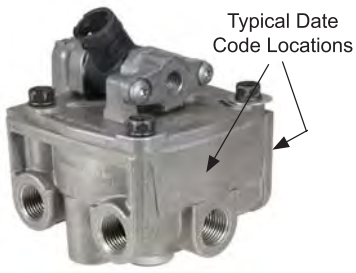


Temporary remedy has been installed. Your vehicle OEM will contact you to schedule the final remedy.

Identifying an ATR-6 valve covered in this field action

A date code is pin-stamped (not cast) on every Bendix valve (following the part number). *Locate the date code – removing the paint coating, if necessary – to read the code.*

- The first field is the month (A = January, B = February, etc. – excluding the letter I – so that J = September, and so on).
- The next two fields are the date (e.g. 04 = 4th day of the month)
- The next two fields are the year (e.g. 11 = 2011).
- The final code in the sequence is the Plant Code (T), in all cases.

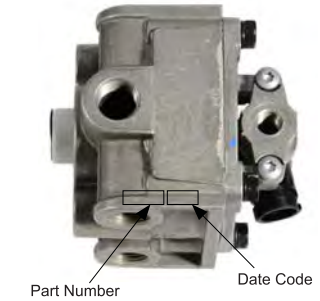


Valves included in this field action were manufactured during the period:

December 2, 2010 through January 18, 2012

That is, M02 10T through A18 12T.

Codes for December 2010	M _ 10T (02 through 31) *example:* M0310T
Codes for all of 2011	_ _ 11T (Any alpha character; Any Digit) *examples:* A3011T, F2511T
Codes for January 2012	A _ 12T (01 through18) *example:* A0312T



<u>Action required</u>. Contact your OEM dealer to schedule the appropriate remedy action.

ATR-6 Product Action Line: 1-800-478-1793 • 7 a.m.-8 p.m. Monday-Friday • 7 a.m.-5 p.m. Saturday