VEHICLE RECALL
STOP SALE ORDER

G-05513-R1
May 2005

SUBJECT: **VEHICLE RECALL/STOP SALE ORDER (U.S., EXP.) BRAKE PUSH ROD in Driver Control Module (DCM) on certain 3200, 4000, 7000, and 8000 Series Models built 4/5/2005 thru 5/19/2005**

ATTENTION SALES AND SERVICE MANAGERS:

Please do not drive, sell, ship or deliver these vehicles from your dealership WITHOUT COMPLETING THIS REPAIR.

REVISION DESCRIPTION

MODELS INVOLVED

- Table updated with new build date ranges.

DEFECT DESCRIPTION

INTERNATIONAL has just been made aware that a brittle, air brake push rod (see Figure 1) was installed in air brake vehicles with driver control modules (DCM). This push rod may break prematurely and result in a loss of braking ability. This may cause a **vehicle crash without warning,** which may result in **property damage, personal injury, or death.**

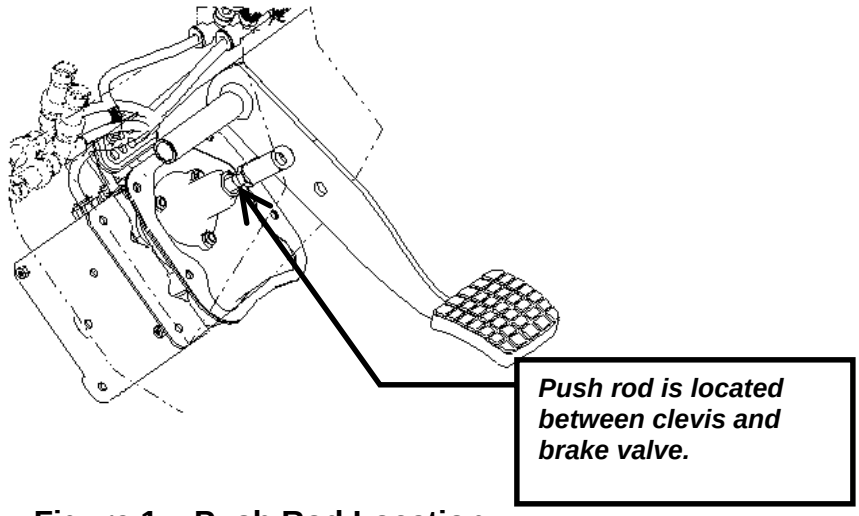


Figure 1 – Push Rod Location

MODELS INVOLVED

This Stop Ship/Sale/Deliver request involves the following vehicles:

MODELS	*BUILT AT*	*BETWEEN THESE DATES*
3200, 4200, 4300, 4400	Springfield Assembly Plant (SAP)	4/5/2005 thru 5/12/2005
7300, 7400, 7500, 7600, 7700, 8500, 8600	Garland Assembly Plant (SST)	4/7/2005 thru 5/17/2005
4200, 4300, 4400	Escobedo Assembly Plant (EAP)	4/13/2005 thru 5/19/2005

PARTS INFORMATION

The part required for this repair is:

Part Number	Part Description	Quantity
8900180R91	Recall Service Kit, Bendix Push Rod	1

Parts are expected to be available by 5/31/2005. Place back order kits for inventory units as necessary.

SERVICE PROCEDURE

Please click on the link below to view the service instruction sheet.

Bendix Instruction Sheet

This sheet is also included in the Recall Service Kit.

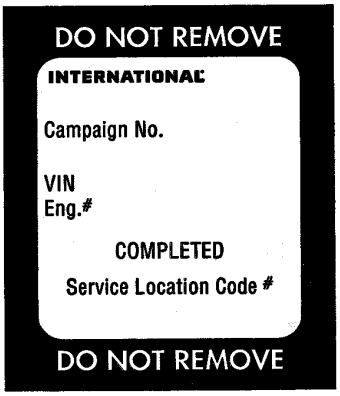
Note: Removal of the air cleaner is required on 8600 models to gain access to the foot valve. Be sure to reinstall the air cleaner once the service procedure is completed.

Note: NO ADJUSTMENT OF THE CLEVIS IS NEEDED. ALL CLEVIS LOCATIONS ARE PRESET. DO NOT CHANGE THE CLEVIS LOCATION ON THE PUSH ROD.

LABOR INFORMATION

Operation No.	Description	Time
A40-05513-1	***Replace Brake Push Rod on 8600***	0.8 hr.
A40-05513-2	***Replace Brake Push Rod on all other models***	0.7 hr.

CAMPAIGN IDENTIFICATION LABEL



*Each vehicle corrected in accordance with this campaign **must be** marked with a CTS-1075 Campaign Identification Label.*

Complete the label and attach on a clean surface next to the vehicle identification number (VIN) plate.

ADMINISTRATIVE/DEALER RESPONSIBILITIES (U.S. & POSSESSIONS)

Proceed immediately to make necessary correction to units in inventory. **All inventory vehicles subject to this recall campaign must be corrected prior to sale, transfer or delivery.** If vehicles have been sold or transferred and you are in receipt of Customer Notification Letters and Authorization for Recall Service cards for those vehicles, the transfer location or customer must be notified **IMMEDIATELY** from your dealer location.

Dealers must correct all vehicles subject to this campaign at no charge to the owner, regardless of mileage, age of vehicle, or ownership, from this time forward.

The National Traffic and Motor Vehicle Safety Act, as amended, provides that each vehicle that is subject to a vehicle recall campaign must be adequately **repaired** within a reasonable time after the owner has tendered it for repair. A failure to adequately repair within **60 days** after a tender of a vehicle is prima facie evidence of failure to repair within a reasonable time. If the condition is not adequately repaired within 60 days, the owner may be entitled to **replacement** with an identical or reasonable equivalent vehicle at no charge, or to a **refund** of the purchase price less a reasonable allowance for depreciation.

However, consistent with the customer notification, dealers are expected to complete the repairs on the mutually agreed upon service date.

To avoid having to replace an owner vehicle or refund the purchase price, every effort must be made to promptly schedule an appointment with each owner to repair his or her vehicle as soon as possible.

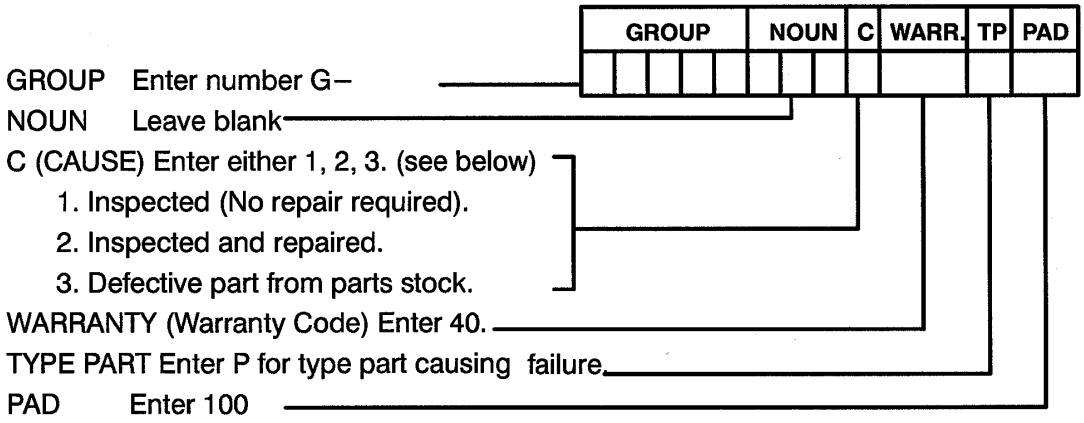
During the recall process, a listing of owner names and addresses will be furnished to the involved dealers to enable dealers to follow up with owners and have the vehicles corrected. You must limit the use of this listing to this campaign because

the list may contain information obtained from state motor vehicle registration records and the use of such motor vehicle registration data for purposes other than this campaign is a violation of law in several states.

WARRANTY CLAIMS

Refer to Dealer Warranty Manual for procedures to conduct Recall Campaigns.

It is important that the Recall Coding be completed properly to assist in processing the warranty claim. Complete instructions will be found in the Warranty Manual, Section 7-1. Special attention should be given to Items 39 through 44:



ADMINISTRATIVE/DISTRIBUTOR RESPONSIBILITY (EXPORT)

Proceed immediately to make necessary correction to units in inventory. All inventory vehicles subject to this recall campaign must be corrected prior to sale, transfer or delivery. If vehicles have been sold or transferred and you are in receipt of Customer Notification Letters and Authorization for Recall Service cards for those vehicles, the transfer location or customer must be notified from your distributor location.

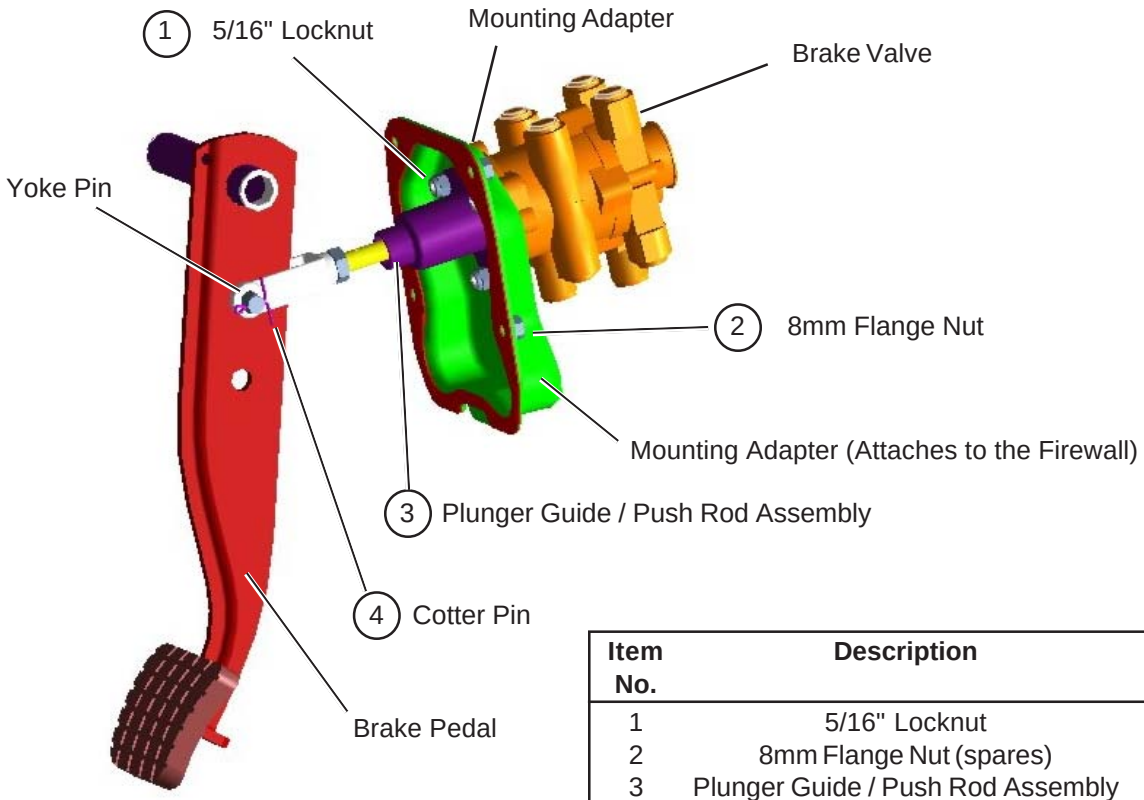
Export locations are to submit warranty claims in the usual manner making reference to this recall number.

We ask for your full cooperation and follow-up to this important subject matter. If you have any questions or need further assistance, please contact the Regional Service Manager at your regional office.

INTERNATIONAL TRUCK AND ENGINE CORPORATION

Installation Instructions

PLUNGER GUIDE / PUSH ROD RETROFIT KIT
Piece No. 5017062



Item No.	Description	Qty.
1	5/16" Locknut	3
2	8mm Flange Nut (spares)	3
3	Plunger Guide / Push Rod Assembly	1
4	Cotter Pin	1

Figure 1 Plunger Guide / Push Rod Kit

DESCRIPTION

This kit contains all of the components necessary to retrofit a replacement plunger guide/ push rod assembly on International tractor and truck models 3200, 4000, 7000 and 8000 series, equipped with air brakes.

FOLLOW INTERNATIONAL TRUCK GUIDELINES FOR VERIFYING THAT THE VEHICLE IS INCLUDED IN CAMPAIGN NUMBER G-05513 BEFORE PERFORMING THIS PROCEDURE.

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 Antilock 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.**

STRAIGHT TRUCKS

(For tractors, see page 3.)

REPLACEMENT PROCEDURE (Straight Trucks)

1. For automatic transmission vehicles, make sure the gear selector is in “Park” or “Neutral”.
2. For standard transmission vehicles, depress the clutch and make sure the shifter is out of gear.
3. Start the vehicle and turn the wheels all the way to the left to allow easier access to brake valve and plumbing under the hood.
4. **Turn the vehicle ignition off.**
5. Make sure yellow dash button on the PP-DC™ valve is PULLED OUT to engage the parking brake.
6. Drain all the air reservoirs to 0 psi (open drain cocks).

DISASSEMBLY (Straight Trucks)

Note and mark the orientation of push-to-connect (PTC) tubing prior to removal. There are three different configuration types.

See Figures 3 and 4 for truck types.

Inside the cab

1. Remove and discard the cotter pin(4) securing the yoke pin to brake pedal.

Under the hood

2. Remove the 1/4 inch (black) auxiliary air lines (if equipped) from E-8P™ brake valve.
3. Remove the 3/8 inch yellow air line from top port of the PTC Manifold. See Figure 2.
4. If truck is equipped with a hand brake control, remove the PTC air lines from the DC-4™ valve mounted to the ECU/TP-5™ valve bracket. Refer to Figure 4.
5. Remove and retain the two 8mm flange nuts(2) that secure the ECU/TP-5™ bracket. Note: Three nuts are included in the kit as spare parts.
6. Pull ECU/TP-5™ bracket out and swing it down to allow access to the lower mounting adapter flange nut. **NOTICE: DO NOT DISCONNECT THE ECU WIRING DURING THIS PROCESS OR ECU REPROGRAMMING WILL BE REQUIRED.**
7. Remove the orange and green 3/8 inch PTC air lines from top of E-8P™ brake valve that come through the pass-through gland of the firewall. **NOTE**: The green air lines may be removed easier after the nuts securing the E-8P™ brake valve and mounting adapter assembly are removed and it is pulled back slightly.
8. It is not necessary to remove the PTC air lines from the bottom of the E-8P™ brake valve during this procedure.
9. Remove and retain the four 8mm nuts(2) that secure the mounting adapter.

Inside the cab (See Figure 6)

10. Remove and retain the yoke pin that secures the yoke to the brake pedal. NOTE: E-8P™ brake valve will need to be pushed towards the front of the vehicle for yoke pin to clear steering column.

Under the hood

11. Pull E-8P™ brake valve assembly towards the front of vehicle until the push rod yoke clears the DCM opening.
12. Rotate the E-8P™ brake valve assembly until the plunger rod is pointing upwards.
13. Remove and discard the three 5/16" locknuts(1) securing the plunger guide.
14. Slowly remove the plunger guide/push rod assembly(3) from the E-8P™ brake valve NOTE: If removed slowly and vertically, the plunger should remain in position.

ASSEMBLY (For Truck Versions)

Under the hood

1. Install new plunger guide/push rod assembly(3) onto the plunger and the E-8P™ brake valve.
2. Install three new 5/16" locknuts(1) and torque to 100-140 inch pounds.
3. Confirm that the mounting adapter gasket is in place on the DCM.
4. Rotate the brake valve and mounting adapter assembly towards the dash panel and through DCM opening. NOTE: Make sure the yoke straddles the brake pedal on the inside of the cab. Refer to Figure 1.

Inside the cab

5. Reinstall the yoke pin through yoke and brake pedal. NOTE: The yoke pin must be installed with the cotter pin hole towards passenger side of vehicle and prior to securing the brake valve and mounting adapter assembly to dash panel.
6. Install new cotter pin(4) and bend both legs a minimum of 45 degrees.

Under the hood

7. Reinstall the four 8mm flange nuts(2) to secure the brake valve and mounting adapter assembly and torque to 200-280 inch pounds.
8. Reinstall the orange and green PTC air lines into the top portion of E-8P™ brake valve. Ensure that the air lines are fully seated in the PTC fittings.
9. Reinstall ECU/TP-5™ valve bracket using the 8mm flange nuts(2) and torque to 200-280 inch pounds.
10. If the truck is equipped with a hand brake control, reinstall PTC air lines to the DC-4™ valve mounted to the ECU/TP-5™ valve bracket.
11. Reinstall 1/4 inch auxiliary port air lines, if equipped. Ensure the air lines are fully seated in the PTC fittings.
12. Reinstall 3/8 inch yellow air line to the top port of the PTC manifold. Ensure the air lines are fully seated in the PTC fittings. Note: the yellow air line should be routed between the green and orange air lines on the top of the brake valve.
13. Close the drain cocks on the air reservoirs.
14. For automatic transmission vehicles, make sure the gear selector is in “Park” or “Neutral”. For standard

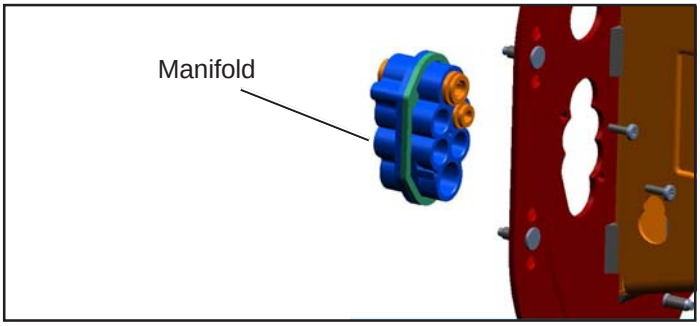


Figure 2 Manifold

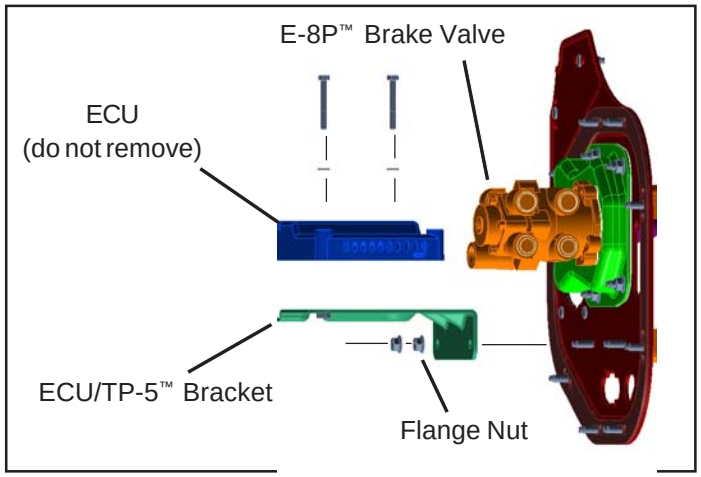


Figure 3 (Type A) Bracket with ECU

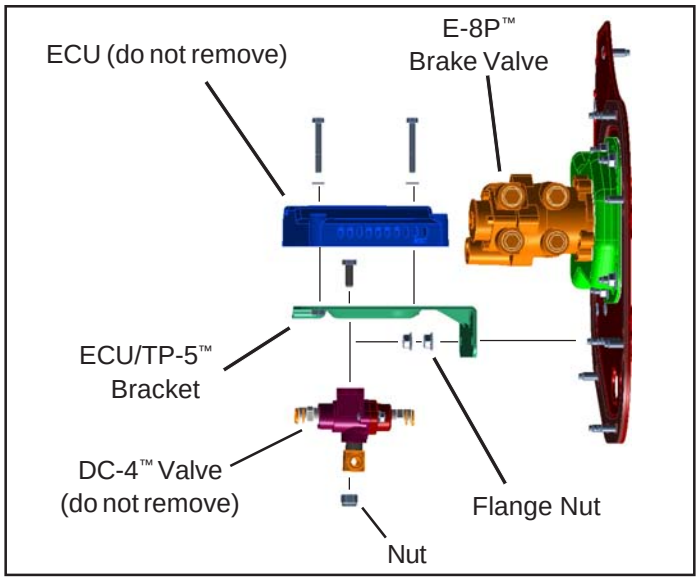


Figure 4 (Type B) Bracket with ECU and a DC-4™ Double Check Valve

transmission vehicles, depress the clutch and make sure the shifter is out of gear.

15. Start the vehicle, straighten the wheels, and recharge the air reservoirs to 120 psi or until the air dryer purges.
16. Turn the vehicle ignition off.
17. Have an assistant apply the brakes and push in the yellow dash button on the PP-DC™ valve to release the parking brakes. With the service brakes applied and the yellow dash button pushed in, check the PTC air lines and fittings for leakage on the brake valve and the manifold.
18. Pull the yellow dash button on the PP-DC™ valve to apply the parking brake.
19. **Properly dispose of the plunger guide/push rod assembly.**

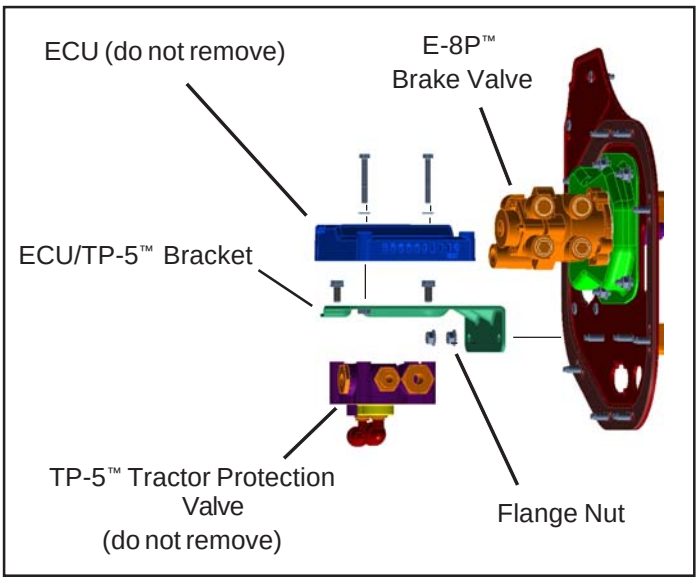


Figure 5 (Type C) Bracket with ECU and TP-5™ Tractor Protection Valve

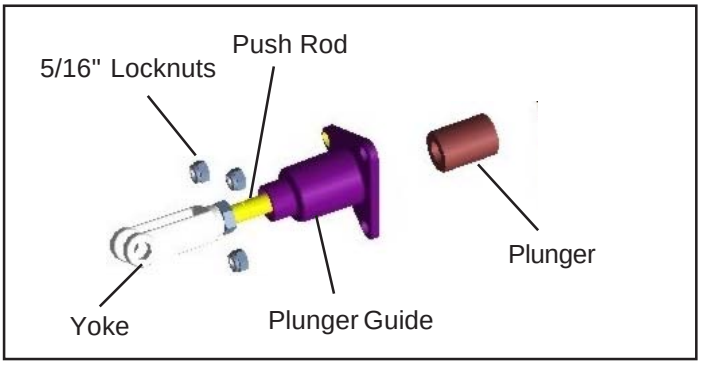


Figure 6 (Type B) Push Rod and Plunger Guide

TRACTORS

REPLACEMENT PROCEDURE (Tractors)

1. For automatic transmission vehicles, make sure the gear selector is in “Park” or “Neutral”.
2. For standard transmission vehicles, depress the clutch and make sure the shifter is out of gear.
3. Start the vehicle and turn the wheels all the way to the left to allow easier access to brake valve and plumbing under the hood.
4. **Turn the vehicle ignition off.**
5. Make sure yellow dash button on the MV-3™ valve is PULLED OUT to engage the parking brake.
6. Drain all the air reservoirs to 0 psi (open drain cocks).

DISASSEMBLY (For Tractor Versions)

Note and mark the orientation of push-to-connect (PTC) tubing prior to removal. See Figure 5 for the tractor configuration type.

Inside the cab

1. Remove and discard the cotter pin(4) securing the yoke pin to brake pedal.

Under the hood

2. Remove the 1/4 inch (black) auxiliary air lines (if equipped) from E-8P™ brake valve.
3. Remove the 3/8 inch yellow air line from top port of the PTC manifold. See Figure 2.
4. Remove the 1/2 inch orange air line from the trailer control (TC) port on the front of the TP-5™ tractor protection valve.

5. Remove 3/8 inch blue air line from the stop light switch (SLS) port on the top of the TP-5™ valve.
6. Remove the 1/2 inch green air line from the rear service port (PCD) located on the top of the TP-5™ valve.
7. Remove the 1/2 inch 90 degree elbow and blue air line from the trailer service supply (TSS) port on the side of the TP-5™ tractor protection valve.
8. Remove the 3/8 inch 90 degree elbow and red air line from the trailer emergency supply (TES) port on the side of the tractor protection valve.
9. The lower 3/8 inch red and green air lines do **not** need to be removed from the tractor protection valve.
10. Remove and retain the 8mm nuts(2) that secure the ECU/TP-5™ valve bracket.
11. Pull the bracket out and swing it down to allow access to the lower mounting adapter nut. **NOTICE: DO NOT DISCONNECT THE ECU WIRING DURING THIS PROCESS OR ECU REPROGRAMMING WILL BE REQUIRED.**
12. Remove and retain the 1/2 inch orange PTC air line from the top of the brake valve. The 1/2 inch green air line does not need to be removed.
13. Remove the orange and green 3/8 inch PTC air lines from the top of the brake valve that come through the pass-through gland of the firewall. NOTE: The green air lines may be removed easier after the nuts securing the mounting adapter are removed and the adapter is pulled back slightly.
14. It is not necessary to remove the PTC air lines from the bottom of the brake valve during this procedure.
15. Remove and retain the four 8mm nuts(2) that secure the mounting adapter.

Inside the cab

16. Remove and retain the yoke pin. NOTE: the brake valve will need to be pushed towards the front of the vehicle for the yoke pin to clear the steering column.

Under the hood

17. Pull the brake valve assembly towards front of vehicle until the push rod yoke clears the DCM opening.
18. Rotate the brake valve assembly until the push rod is pointing upwards.
19. Remove and discard the three 5/16" locknuts(1) securing the plunger guide/push rod assembly(3).
20. Slowly remove the plunger guide/push rod assembly(3) from the brake valve. NOTE: If removed slowly and vertically, the plunger should remain in position on the E-8P™ brake valve.

ASSEMBLY (For Tractor Versions)

Under the hood

1. Install new plunger guide/push rod assembly(3) onto the plunger and the brake valve.
2. Install three new 5/16" locknuts(1) and torque to 100-140 inch pounds.
3. Confirm that the mounting adapter gasket is in place on the DCM.
4. Rotate mounting adapter towards the dash-panel and align the yoke through the DCM opening. **Note:** Make sure the yoke straddles the brake pedal on the inside of the cab. Refer to Figure 1.

Inside the cab

5. Reinstall the yoke pin through yoke and brake pedal. NOTE: The yoke pin must be installed with the cotter pin hole towards passenger side of vehicle and prior to securing the brake valve and mounting adapter assembly to dash panel.
6. Install new cotter pin(4) and bend both legs a minimum of 45 degrees.

Under the hood

7. Reinstall the four 8mm flange nuts(2) to secure the brake valve and mounting adapter assembly and torque to 200-280 inch pounds.
8. Reinstall the 3/8 inch PTC green air line from the gland in the firewall into the top of the brake valve.
9. Reinstall the 1/2 inch green air line (if removed) into the top of the E-8P™ brake valve.
10. Reinstall the 3/8 inch orange PTC air line from the gland into the top of the brake valve. **Note:** Ensure all air lines are fully seated in the PTC fittings.
11. Reinstall ECU/TP-5™ valve bracket using the two 8mm flange nuts(2) and torque to 200-280 inch pounds.
12. Reinstall the 3/8 inch blue air line from the gland into the stop light switch (SLS) port on the top of the TP-5™ valve.
13. Reinstall the 1/2 inch orange air line into the top of the brake valve, route it around the tractor protection valve and install the other end into the trailer control (TC) port on the front of the TP-5™ valve.
14. Reinstall the 1/2 inch green air line from the E-8P™ valve rear service port (PCD) located on the top of the TP-5™ valve. **NOTE: Make sure the 1/2 inch green PTC tube is routed above the 1/2 inch orange tube holding it down and away from the windshield wiper linkage arm.**
15. Reinstall the 3/8 inch 90 degree elbow and red air line into the trailer emergency supply (TES) port on the side of the TP-5™ valve.
16. Reinstall the 1/2 inch 90 degree elbow and blue air line into the trailer service supply (TSS) port on the side of the TP-5™ tractor protection valve.
17. Reinstall the 1/4 inch auxiliary port (black) air lines if equipped.
18. Reinstall the 3/8 inch yellow air line in the top port of the PTC Manifold. **Note:** Ensure all air lines are fully seated in the PTC fittings. **Note:** The yellow air line should be routed between the green and orange air lines on the top of the brake valve.
19. Close the drain valves on the air reservoirs.
20. For automatic transmission vehicles, make sure the gear selector is in "Park" or "Neutral". For standard transmission vehicles, depress the clutch and make sure the shifter is out of gear. Start the vehicle and recharge air reservoirs to 120 psi or until the air dryer purges.
21. Straighten the wheels and turn the vehicle ignition to the off position.
22. Have an assistant apply the brakes and push in the yellow dash button on the MV-3™ valve to release the parking brakes. With the service brakes applied and the yellow dash button pushed in, check the PTC tubes/fittings for leakage on the E-8P™ and TP-5™ valves and the manifold.
23. Pull the yellow dash button on the MV-3™ valve to apply the parking brake.
24. **Properly dispose of the plunger guide/push rod assembly.**