



VEHICLE RECALL

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SAFETY
RECALLS COLLECTION

G-00508

SECOND NOTICE

June, 2001

ATTENTION: SERVICE MANAGER

PLEASE COMMUNICATE THE FOLLOWING INFORMATION TO YOUR TEAM

SUBJECT: SAFETY RECALL (U.S., EXPORT)

Replacement of the Bendix EC-17 1030R electronic control unit (ECU) for air brakes on AmTran FE, RE, and IC buses built from 3/01/1998 through 7/13/2000.

PURPOSE OF THIS SECOND NOTICE: International Truck and Engine Corporation has issued this **Second Notice** to customers and dealers to improve completion rates for this campaign. Now is a good time to repair the vehicles in this campaign because many of them will be out of service for the summer. Please do everything you can to get these vehicles fixed as soon as possible. Customers that have not had their vehicle repaired for this Safety Recall as of May 2001 will be receiving the attached notification letter. The Second Notice letter to customers will be mailed in June 2001. Please refer to service letter G-00508 dated September 2000, for Parts, Labor, Warranty and detailed information regarding this recall.

THINGS YOU SHOULD DO

All dealers can help improve the completion rates for Safety Recalls and Authorized Field Changes by following the guidelines below.

1. Check every vehicle that comes in for service for uncompleted Safety Recalls and Authorized Field Changes.
2. Make arrangements to have outstanding Safety Recalls and Authorized Field changes performed before the vehicle leaves your facility.
3. Verify the owner's mailing address and phone number and make all necessary updates to your records before the customer leaves your facility.
4. Selling Dealers are to contact their customers who have not had required Safety Recalls performed on their vehicles and track completion rates by using the green bar reports (VIN list) provided with each campaign.

Distribution: All Dealers

INTERNATIONAL TRUCK AND ENGINE CORPORATION



INTERNATIONAL TRUCK AND ENGINE CORPORATION

455 NORTH CITYFRONT PLAZA DRIVE, CHICAGO, IL 60611

TELEPHONE 312-836-2000

TRUCK GROUP

**SAFETY RECALL 00508
SECOND NOTICE**

June, 2001

Dear International Customer:

WARNING! Your vehicle may be involved in an accident, which could result in property damage, personal injury, or death, if the required service procedure is not performed to complete this Safety Recall.

This is the second notice sent out, in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act, to inform owners of this defect. International has determined that a defect which relates to motor vehicle safety exists in AmTran FE, RE, and IC buses built from 3/01/1998 through 7/13/2000. This second notice is sent as a reminder for owners to get these buses fixed during the summer months when many buses may be out of service. Please have this Safety Recall performed as soon as possible. If you are not the owner, we need your help finding the current owner; please read paragraph number 4 on the next page under "ACTIONS YOU SHOULD TAKE."

REASON FOR THIS RECALL

RISK TO MOTOR VEHICLE SAFETY: Your vehicle could experience an extended stopping distance, without warning, when the vehicle is decelerating from 8 to 4 miles per hour. If an extended stopping distance occurs, **YOUR VEHICLE COULD BE INVOLVED IN AN ACCIDENT, WHICH COULD RESULT IN PROPERTY DAMAGE, PERSONAL INJURY, OR DEATH.**

DEFECT DESCRIPTION: This defect involves the Bendix EC-17 1030R electronic control unit (ECU) which controls the Antilock Braking System (ABS). The ECU can misinterpret erratic signals that can be generated by one of two conditions: 1. A chafed wheel speed sensor wire on a rotating part, or 2. An incorrect gap between a tone ring and a wheel speed sensor. Either of these conditions can cause the air ABS ECU to exhaust the air at the air brake modulators for one or more of the wheels. During the above described conditions, the ABS warning indicator light may not come on to warn the driver of an ABS event or a malfunction.

ACTIONS YOU SHOULD TAKE

- 1. Our records show that you are the owner of the vehicle identified on the enclosed card. If you are not the owner, please read paragraph number 4.**
- 2. Please contact your local International dealer, with your recall card in hand, to schedule an appointment to have your Bendix ABS ECU replaced. This repair will be performed without charge to you and will require approximately one hour.**
- 3. If the vehicle will not or cannot be corrected, please mark on the enclosed card under "CHECK ONE", the box which best describes why the vehicle will not be repaired, and return the postage-prepaid card to us.**
- 4. In the event you no longer own the vehicle described on the card, please complete the card, fill in the new customer name and address if known, and return it to us. This information will allow us to update our records so we can contact the new owner and you will not be contacted again regarding this recall.**

IF YOU NEED ASSISTANCE

If you take your vehicle to your International dealer on a mutually agreed upon service date, and the dealer does not remedy this condition without charge on that date or within five days, you can obtain assistance by following the procedure described in the Owner Assistance Guide section in your Owner's Manual or by calling toll free 1-800-448-7825.

You may also wish to submit a complaint to the Administrator, National Highway Traffic Safety Administration, 400 Seventh Street, S.W., Washington, D.C., 20590, or call the toll-free Auto Safety Hot-Line at 1-888-327-4236 if your International dealer fails to repair or is unable to remedy this condition without charge or within a reasonable time.

We urge your prompt attention to the correction of this safety defect and apologize for any inconvenience this may cause you. If you have any further questions please call 1-800-448-7825 and select option number one.

INTERNATIONAL TRUCK AND ENGINE CORPORATION



VEHICLE RECALL

00V-232.201

RECEIVED

JUN 15 2001 11:52 AM

SERVICE
DEPARTMENT

G-00509

SECOND NOTICE

June, 2001

ATTENTION: SERVICE MANAGER, PLEASE COMMUNICATE THE FOLLOWING INFORMATION TO YOUR TEAM

SUBJECT: SAFETY RECALL (U.S., EXPORT)
Replacement of the Bendix EC-17 1030R electronic control unit (ECU) for air brakes on 3400, 3600 and 3800 buses built at the Springfield Assembly Plant from 3/01/1998 through 6/16/2000.

PURPOSE OF THIS SECOND NOTICE: International Truck and Engine Corporation has issued this **Second Notice** to customers and dealers to improve completion rates for this campaign. Now is a good time to repair the vehicles in this campaign because many of them will be out of service for the summer. Please do everything you can to get these vehicles fixed as soon as possible. Customers that have not had their vehicle repaired for this Safety Recall as of May 2001 will be receiving the attached notification letter. The Second Notice letter to customers will be mailed in June 2001. Please refer to service letter G-00509 dated September 2000, for Parts, Labor, Warranty and detailed information regarding this recall. **NOTE: After completing 00509, Safety Recall 00505 must still be performed on marked VINS.**

THINGS YOU SHOULD DO: All dealers can help improve the completion rates for Field Campaigns by following the guidelines below.

1. Check every vehicle that comes in for service for uncompleted Safety Recalls and Authorized Field Changes.
2. Make arrangements to have outstanding Safety Recalls and Authorized Field changes performed before the vehicle leaves your facility.
3. Verify the owner's mailing address and phone number and make all necessary updates to your records before the customer leaves your facility.
4. Selling Dealers are to contact their customers who have not had required Safety Recalls performed on their vehicles and track completion rates by using the green bar reports (VIN list) provided with each campaign.

Distribution: All Dealers
INTERNATIONAL TRUCK AND ENGINE CORPORATION



INTERNATIONAL TRUCK AND ENGINE CORPORATION
455 NORTH CITYFRONT PLAZA DRIVE, CHICAGO, IL 60611
TELEPHONE 312-636-2000

TRUCK GROUP

**SAFETY RECALL 00509
SECOND NOTICE**

June, 2001

Dear International Customer:

WARNING! Your vehicle may be involved in an accident, which could result in property damage, personal injury, or death, if the required service procedure is not performed to complete this Safety Recall.

This is the second notice sent out, in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act, to inform owners of this defect. International has determined that a defect, which relates to motor vehicle safety, exists in 3400, 3600 and 3800 buses built at the Springfield Assembly Plant from 3/01/1998 through 6/16/2000. This second notice is sent as a reminder for owners to get these buses fixed during the summer months when many buses may be out of service. Please have this Safety Recall performed as soon as possible. If you are not the owner, we need your help finding the current owner; please read paragraph number 4 on the next page under **"ACTIONS YOU SHOULD TAKE."**

REASON FOR THIS RECALL

RISK TO MOTOR VEHICLE SAFETY: Your vehicle could experience an extended stopping distance, without warning, when the vehicle is decelerating from 8 to 4 miles per hour. If an extended stopping distance occurs, your vehicle could be involved in an accident, which could result in property damage, personal injury, or death.

DEFECT DESCRIPTION: This defect involves the Bendix EC-17 1030R electronic control unit (ECU) which controls the Antilock Braking System (ABS). The ECU can misinterpret erratic signals that can be generated by one of two conditions: 1. A chaffed wheel speed sensor wire on a rotating part, or 2. An incorrect gap between a tone ring and a wheel speed sensor. Either of these conditions can cause the air ABS ECU to exhaust the air at the air brake modulators for one or more of the wheels. During the above described conditions, the ABS warning indicator light may not come on to warn the driver of an ABS event or a malfunction.

ACTIONS YOU SHOULD TAKE

- 1. Our records show that you are the owner of the vehicle identified on the enclosed card. If you are not the owner, please read paragraph number 4.**
- 2. Please contact your local International dealer, with your recall card in hand, to schedule an appointment to have your Bendix ABS ECU replaced. This repair will be performed without charge to you and will require approximately one hour. Please ask the dealer if your vehicle needs to have Safety Recall 00505 performed or any other recall at this time.**
- 3. If the vehicle will not or cannot be corrected, please mark on the enclosed card under "CHECK ONE", the box which best describes why the vehicle will not be repaired, and return the postage-prepaid card to us.**
- 4. In the event you no longer own the vehicle described on the card, please complete the card, fill in the new customer name and address if known, and return it to us. This information will allow us to update our records so we can contact the new owner and you will not be contacted again regarding this recall.**

IF YOU NEED ASSISTANCE

If you take your vehicle to your International dealer on a mutually agreed upon service date, and the dealer does not remedy this condition without charge on that date or within five days, you can obtain assistance by following the procedure described in the Owner Assistance Guide section in your Owner's Manual or by calling toll free 1-800-448-7825.

You may also wish to submit a complaint to the Administrator, National Highway Traffic Safety Administration, 400 Seventh Street, S.W., Washington, D.C., 20590, or call the toll-free Auto Safety Hot-Line at 1-888-327-4236 if your International dealer fails to repair or is unable to remedy this condition without charge or within a reasonable time.

We urge your prompt attention to the correction of this safety defect and apologize for any inconvenience this may cause you. If you have any further questions please call 1-800-448-7825 and select option number one.

INTERNATIONAL TRUCK AND ENGINE CORPORATION



00V-232.301

VEHICLE RECALL

G-00510

January, 2001

SUBJECT: SAFETY RECALL (U.S., EXPORT)

Replacement of the Bendix EC-17 1030R electronic control unit (ECU) for air brakes on 2000, 4000, 5000, 8000 and 9000 model STRAIGHT TRUCKS with code 04091.

DEFECT DESCRIPTION

This defect involves the Bendix EC-17 1030R electronic control unit (ECU) which controls the Antilock Braking System (ABS). The ECU can misinterpret erratic signals that can be generated by one of two conditions: 1. A chaffed wheel speed sensor wire on a rotating part, or 2. An incorrect gap between a tone ring and a wheel speed sensor. Either of these conditions can cause the air ABS ECU to exhaust the air at the air brake modulators for one or more of the wheels. During the above described conditions, the ABS warning indicator light may not come on to warn the driver of an ABS malfunction and the driver can experience an extended stopping distance without warning when the vehicle is decelerating from 8 to 4 miles per hour. If an extended stopping distance occurs, the vehicle could be involved in an accident, which could result in property damage, personal injury, or death.

MODELS INVOLVED

This Safety Recall includes 2000, 4000, 5000, 8000 and 9000 model STRAIGHT TRUCKS ONLY (04091) built within the following build date ranges:

- Springfield Plant: vehicles built from 3/1/98 to 6/16/00
- Chatham Plant: vehicles built from 3/1/98 to 6/27/00
- Escobedo Plant: vehicles built from 3/1/98 to 6/20/00
- Garland Plant: vehicles built from 3/1/98 to 7/11/00.

OWNER NOTIFICATION

In September of 2000 International notified customers and dealers of this Safety Recall and projected part availability for January 2001. Parts are now available and the official customer notification letter will be mailed in late January 2001. A copy of the owner letter is attached. 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 since 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.

SERVICE PROCEDURE

Special Note: Before performing the ECU procedure, check to see if the vehicle is marked for Safety Recall 00505 (sensor wire inspection). If the VIN is marked for 00505 but 00505 has not been completed, perform the procedure for 00505. If the VIN is not marked for 00505, do not do the inspection for 00505.

REPLACEMENT PROCEDURE FOR THE BENDIX AIR BRAKE ECU

Introduction: The following instructions are for replacing the original ECU with the new revised ECU. New ECU's should self-configure during initial key-on cycle and not require reconfiguring time if you follow this procedure (note special instructions for vehicles with Automatic Traction Control). All vehicles in this campaign have 4-sensor systems. If there are problems with the ABS system after the new ECU is correctly installed, refer to the CTS 5000 Master Service Manual section CTS-5292 for further information.

Before performing the service, please read and understand the following instructions completely.

WARNING: To prevent serious eye injury, **ALWAYS** wear safe eye protection when you perform vehicle maintenance or service.

WARNING: Block the wheels to prevent the vehicle from moving. Support the vehicle with safety stands. Do not work under a vehicle supported only by jacks. Jacks can slip or fall over resulting in serious personal injury or death.

Please read the following steps carefully before proceeding.

Removing the EC-17:

1. Locate the EC-17 on the inside of the left frame rail.
2. Remove as much contamination as possible from the assembly's exterior. Keep the contamination away from the electrical connections.
3. Vehicles built in the last couple weeks of the build date ranges on page 1 may have had a revised ECU installed at the plant. Only replace ECU's that have one of the following two numbers on the bar code sticker: 5002767 (with LED) or 5002927 (without LED).

Do not replace the ECU if it has:

- A. A green dot sticker on top of the ECU housing,
- B. The number 5008311 on the bar code sticker (for ECU's with LED's), or
- C. The number 5008313 on the bar code sticker (for ECU's without LED's).

4. Note and mark the mounting position of the EC-17 on the valve or the bracket. Do not use an impact wrench to remove the ECU mounting bolts on valve mounted models. For valve mounted ECU's, tap on the heads of the ECU mounting bolts, before removing the bolts, to help eliminate the risk of the bolts breaking off in the valve. Loosen, remove and save the mounting hardware that attaches the controller to the valve or bracket. On some vehicles it may be necessary to remove the frame-mounted bracket, the valve and the ECU as an assembly.

Installing the new ECU (instructions for both the EC-17 and the EC-30)

Note: EC-30's may be automatically substituted if there is a shortage of EC-17's.

1. Use ECU's with LED's (8900072R91) for both vehicles that originally had an LED ECU and all vehicles that have Traction Control (even if the original ECU did not have LED's). Use the non-LED ECU (8900073R91) for vehicles that originally had no LED's and no traction control.
2. Remount the ECU in the proper orientation with the original mounting hardware and torque the bolts to 98 in-lbs or 11 N-M.
3. Reconnect the electrical connections to the EC-17 and torque the connector retaining bolts to 15-20 in-lbs or 1.7-2.3 N-M.
4. **BEFORE TURNING THE IGNITION SWITCH ON IN STEP 5, PICK THE CORRECT INDICATOR LAMP FLASH SEQUENCE BELOW FOR YOUR APPLICATION. AND IF THE VEHICLE HAS AUTOMATIC TRACTION CONTROL, MAKE SURE THE AUTOMATIC TRACTION CONTROL (ATC) SWITCH IS IN THE ON POSITION BEFORE TURNING THE IGNITION ON IN STEP 5.** All straight trucks with ATC were configured from the factory for both torque limiting and differential braking. If the ECU self-configures without the traction control switch in the on position, the ECU will have to be reset before step 5 is performed. The ECU should self-configure and produce one of the following dash indicator lamp flash sequences.
 - A. **For EC-17's with or without traction control:** The ABS lamp and the Traction Control lamp (if equipped with ATC) will come on initially and then flash on twice. This means the ECU has self-configured correctly. If the lamp flash sequence does not flash as described, go to step 5 because the self-configuration did not work.
 - B. **For EC-30's with or without traction control:** The ABS lamp and the Traction Control lamp (if equipped with ATC) will come on for 2.5 seconds and then go out. This means the ECU is self-configured correctly. If the Traction Control lamp flashes once or twice instead of staying on for 2.5 seconds, the ECU did not self-configure correctly and the ECU must be reset and reconfigured (go to step 5).
5. Turn the ignition switch on and watch for the correct indicator lamp sequence from step 4, bring the air system pressure up to governor cut-out, and then turn the ignition switch to the off position. If the indicator lamp sequence was not correct as described in step 4, proceed to step 6 for reconfiguration.
6. If the Indicator lamp sequence was not correct as described in step 4, one of the following methods may be used to reconfigure the ECU. With the ignition in the on position, perform one of the following.

- A. Press the DCI reset switch for about 20 seconds (until the LED's begin to flash rapidly), then release the switch. Turn of ignition switch and repeat step 5 and then go to step 7.
- B. Hold a magnet on the reset location of the diagnostic display for about 20 seconds (if ECU has LED's, they will begin to flash rapidly), then remove the magnet. Turn of ignition switch and repeat step 5 and then go to step 7.
7. After the ECU is properly configured, depress the brake pedal and turn the ignition switch to the on position. The ABS system should cycle through a series of short bursts of air from the modulators. You should hear the air released in the following sequence: Right Front, Left Front, Right Rear and Left Rear. The air burst sequence will automatically be repeated one more time
8. No lights should stay on if the system is functioning properly, but if they do, refer to the CTS 5000 Master Service Manual section, "Initial Start-up Procedure" in section CTS-5292.
9. Check to make sure the brakes are functioning properly.
10. Return the removed ECU as instructed in the "PART INFORMATION" section of this letter. The ECU's will be requested as usual by the R-5185 Parts Disposition Authorization.

PART INFORMATION

Ordering Parts: There are two revised EC-17 ECU part numbers used for this recall.

1. Use (8900072R91) with LED's for both vehicles that originally had an LED ECU and all vehicles that have Traction Control (even if the original ECU did not have LED's).
2. Use (8900073R91) not with LED's for vehicles that originally had no LED's and no traction control.

Part Substitution: If stock is limited on the above part numbers, an upgraded EC-30 may be automatically substituted for an EC-17.

Identifying new ECU's: All replacement ECU's will be easily identified with a white adhesive stripe across the top of the ECU housing and/or a green sticker on the top of the housing.

Ordering parts: In order to allow for part inventory management, please limit order quantities to the number of ECU's that can be installed in a short period of time.

Returning the old parts and identifying defective ECU's: Return all defective parts. Defective parts can be identified by one of the following bar code sticker numbers: 5002767 (with LED) or 5002927 (without LED). Defective parts will not have the white adhesive stripe or the green dot sticker on the ECU housing. All shipments of parts in the U. S. less than 150 lbs. are to be shipped collect via UPS (account A7T 571). Shipments over 150 lbs. are to be shipped collect via Yellow Freight. Ship to:

**Bendix ABS Recall
901 Cleveland Street
Elyria, OH 44036**

LABOR INFORMATION

<u>Operation No.</u>	<u>Description</u>	<u>Time</u>
A40-00510-1	Replace ABS ECU	0.8 hrs

CAMPAIGN IDENTIFICATION LABEL

Each vehicle corrected in accordance with Campaign letter G-00510 will require a CTS-1075 Campaign Identification Label.

Attach the CTS-1075 label 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, 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.

In order 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.

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:

GROUP	NOUN	C	WARR.	TP	PAD
GROUP: Enter Recall Number 00510					
NOUN: Leave Blank.					
C: (CAUSE) Enter either 1, 2, or 3. 1. Inspected (No Repair Required). 2. Inspected and repaired. 3. Defective part from parts stock.					
WARRANTY: (Warranty Code) Enter 40.					
TYPE PART: Enter P for type part causing failure.					
PAD: Enter 100.					

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, 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 Recall letter G-00510.

Distribution: All Dealers

INTERNATIONAL TRUCK AND ENGINE CORPORATION



INTERNATIONAL TRUCK AND ENGINE CORPORATION

486 NORTH CITYFRONT PLAZA DRIVE, CHICAGO, IL 60611

TELEPHONE 312-838-2000

TRUCK GROUP

SAFETY RECALL 00510

January, 2001

Dear International Customer:

This Safety Recall is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act. International has determined that 2000, 4000, 5000, 8000 and 9000 model straight trucks (with code 04091) and built within the following build date ranges, have a defect, which relates to motor vehicle safety:

- Springfield Plant: vehicles built from 3/1/98 to 6/16/00
- Chatham Plant: vehicles built from 3/1/98 to 6/27/00
- Escobedo Plant: vehicles built from 3/1/98 to 6/20/00
- Garland Plant: vehicles built from 3/1/98 to 7/11/00.

In September of 2000 International notified customers of this issue and projected part availability for January 2001. Parts are now available and this letter is the official notification for customers to have their Bendix Anti-lock Braking System electronic control unit replaced by their local dealer.

If you are not the owner, we need your help finding the current owner; PLEASE read paragraph number four under **"ACTIONS YOU SHOULD TAKE."**

REASON FOR THIS RECALL

RISK TO MOTOR VEHICLE SAFETY: Your vehicle could experience an extended stopping distance without warning when the vehicle is decelerating from 8 to 4 miles per hour. If an extended stopping distance occurs, your vehicle could be involved in an accident, which could result in property damage, personal injury, or death.

DEFECT DESCRIPTION: This defect involves the Bendix EC-17 1030R electronic control unit (ECU) which controls the Antilock Braking System (ABS). The ECU can misinterpret erratic signals that can be generated by one of two conditions: 1. A chaffed wheel speed sensor wire on a rotating part, or 2. An incorrect gap between a tone ring and a wheel speed sensor. Either of these conditions can cause the air ABS ECU to exhaust the air at the air brake modulators for one or more of the wheels. During the above described conditions, the ABS warning indicator light may not come on to warn the driver of an ABS malfunction.

ACTIONS YOU SHOULD TAKE

- 1. Our records show that you are the owner of the vehicle identified on the enclosed card. If you are not the owner, please read paragraph number 4.**
- 2. Please contact your local International dealer, with your recall card in hand, to schedule an appointment to have your Bendix ABS ECU replaced. This repair will be performed without charge to you and will require approximately one hour. Please take your recall card to your scheduled appointment.**
- 3. If the vehicle will not or cannot be corrected, please mark on the enclosed card under "CHECK ONE", the box which best describes why the vehicle will not be repaired, and return the postage-prepaid card to us.**
- 4. If you no longer own the vehicle described on the card, please complete the card, fill in the new customer name and address if known, and return it to us. This information will allow us to update our records so we can contact the new owner as soon as possible and you will not be contacted again regarding this Safety Recall.**

IF YOU NEED ASSISTANCE

If you take your vehicle to your International dealer on a mutually agreed upon service date, and the dealer does not remedy this condition without charge on that date or within five days, you can obtain assistance by following the procedure described in the Owner Assistance Guide section in your Owner's Manual or by calling toll free 1-800-448-7825.

You may also wish to submit a complaint to the Administrator, National Highway Traffic Safety Administration, 400 Seventh Street, S.W., Washington, D.C., 20590, or call the toll-free Auto Safety Hot-Line at 1-888-327-4236 if your International dealer fails to repair or is unable to remedy this condition without charge or within a reasonable time.

We urge your prompt attention to the correction of this safety defect and apologize for any inconvenience this may cause.

INTERNATIONAL TRUCK AND ENGINE CORPORATION



001-232.361

RECEIVED

01 AUG -5 PM 1:52

VEHICLE RECALL

**G-00510 REVISION A, JUNE 2001
(REPLACES ORIGINAL G-00510 DATED JANUARY 2001)**

SUBJECT: SAFETY RECALL (U.S., EXPORT)

Replacing the Bendix EC-17 1030R electronic control unit (ECU) for air brakes on 2000, 4000, 5000, 8000 and 9000 model STRAIGHT TRUCKS with code 04091.

SPECIAL NOTE: ACTION REQUIRED!

This letter was written to replace the original recall letter G-00510 Dated January 2001. Please scrap all copies of G-00510 in your facility and replace with copies of this letter. Revisions were made to the "SERVICE PROCEDURE" section and the "PARTS INFORMATION" section. The revisions are due to part application changes and special issues that have arisen since the initial release of this campaign. No changes were made in any other sections of this letter. Please read these sections and familiarize yourself with the changes.

DEFECT DESCRIPTION

This defect involves the Bendix EC-17 1030R electronic control unit (ECU) which controls the Antilock Braking System (ABS). The ECU can misinterpret erratic signals that can be generated by one of two conditions: 1. A chafed wheel speed sensor wire on a rotating part, or 2. An incorrect gap between a tone ring and a wheel speed sensor. Either of these conditions can cause the air ABS ECU to exhaust the air at the air brake modulators for one or more of the wheels. During the above described conditions, the ABS warning indicator light may not come on to warn the driver of an ABS malfunction and the driver can experience an extended stopping distance without warning when the vehicle is decelerating from 8 to 4 miles per hour. If an extended stopping distance occurs, the vehicle could be involved in an accident, which could result in property damage, personal injury, or death.

MODELS INVOLVED

This Safety Recall includes 2000, 4000, 5000, 8000 and 9000 model STRAIGHT TRUCKS ONLY (04091) built within the following build date ranges:

- Springfield Plant: vehicles built from 3/1/98 to 6/16/00
- Chatham Plant: vehicles built from 3/1/98 to 6/27/00
- Escobedo Plant: vehicles built from 3/1/98 to 6/20/00
- Garland Plant: vehicles built from 3/1/98 to 7/11/00.

OWNER NOTIFICATION

In September of 2000 International notified customers and dealers of this Safety Recall and projected part availability for January 2001. Parts are now available and the official customer notification letters were mailed in late January 2001. A copy of the owner letter is attached. 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 since 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.

SERVICE PROCEDURE

REPLACEMENT PROCEDURE FOR THE BENDIX AIR BRAKE ECU

Introduction: The following instructions are for replacing the original ECU with a revised EC-17 or an EC-30. All vehicles in this campaign have 4-sensor systems. There are special instructions for vehicles with Automatic Traction Control or split shaft PTO. If there are problems with the ABS system after the new ECU is correctly installed, refer to the CTS 5000 Master Service Manual section CTS-5292 for further information.

DOES THE VEHICLE HAVE A SPLIT SHAFT PTO?

FOR SPLIT SHAFT PTO APPLICATIONS: If you install ECU part number 8900072R91, 8900073R91, or 8900075R91 and the vehicle has a split shaft PTO or a transfer case that drives something for the body equipment while the truck is stationary, there will be a problem with the ABS light latching ON. To correct this problem a wiring change is necessary; therefore, please call the TECH SERVICE HELP LINE AT 1-800-336-4500 to get instructions for the modification.

Before performing the service, read and understand the following instructions.

WARNING: To prevent serious eye injury, **ALWAYS** wear safe eye protection when you perform vehicle maintenance or service.

WARNING: Block the wheels to prevent the vehicle from moving. Support the vehicle with safety stands. Do not work under a vehicle supported only by jacks. Jacks can slip or fall over resulting in serious personal injury or death.

Please read the following steps carefully before proceeding.

Removing the Original EC-17:

1. Check the "WPID" screen in DDEW or check ISIS to see if the vehicle is marked for the ABS sensor wire inspection Safety Recall 00505. If the VIN is marked for 00505 but 00505 has not been completed, perform the procedure for 00505. If the VIN is not marked for 00505, do not do the inspection for 00505.
2. Locate the EC-17 on the inside of the left or right frame rail, near the rear axle or under the cab.

3. Remove as much contamination as possible from the assembly's exterior. Keep the contamination away from the electrical connections.
4. Vehicles built in the last couple weeks of the build date ranges on page 1 may have had a revised ECU installed at the plant. Only replace ECU's that have one of the following two Bendix numbers on the bar code sticker: 5002767 (with LED) or 5002927 (without LED), OR one of the following five International part numbers on the ECU: 3518871C1, 3520190C91, 3521228C91, 3527451C91 or 3533409C1. **Do not replace the ECU if it has:**
 - A. A green dot sticker on top of the ECU housing,
 - B. A white or green adhesive stripe across the top of the ECU housing,
 - B. The number 5008311 on the bar code sticker (for ECU's with LED's), or
 - C. The number 5008313 on the bar code sticker (for ECU's without LED's).
5. Note and mark the mounting position of the EC-17 on the valve or the bracket. **Do not use an impact wrench to remove the ECU mounting bolts on valve mounted models.** For valve mounted ECU's, it is very important to tap on the heads of the ECU mounting bolts before removing the bolts, to help eliminate the risk of the bolts breaking off in the valve. Loosen, remove and save the mounting hardware that attaches the controller to the valve or bracket. On some vehicles it may be necessary to remove the frame-mounted bracket, the valve and the ECU as an assembly.

Installing the new ECU (instructions for both the EC-17 and the EC-30)

1. Reference the "PART INFORMATION" section in this letter to determine which ECU should be installed.
2. Remount the ECU in the proper orientation with the original mounting hardware and torque the bolts to 98 in-lbs. or 11 N-M.
3. Reconnect the electrical connections to the ECU and torque the connector retaining bolts to 15-20 in-lbs. or 1.7-2.3 N-M.
4. **BEFORE TURNING THE IGNITION SWITCH ON IN STEP 5, PICK THE CORRECT INDICATOR LAMP FLASH SEQUENCE BELOW IN EITHER A OR B FOR YOUR APPLICATION. IF THE VEHICLE HAS AUTOMATIC TRACTION CONTROL, MAKE SURE THE AUTOMATIC TRACTION CONTROL (ATC) SWITCH IS IN THE ENABLED POSITION BEFORE TURNING THE IGNITION ON IN STEP 5.** All straight trucks with ATC were configured from the factory for both torque limiting and differential braking. Upon power-up, one of the following two dash indicator-lamp flash sequences will occur.
 - A. **For EC-17's with or without traction control:** The ABS lamp and the Traction Control lamp (if equipped with ATC) will come on initially and then flash on and off twice. This means the ECU is configured correctly. If the lamp flash sequence does not flash as described, go to step 5.
 - B. **For EC-30's with or without traction control:** The ABS lamp and the Traction Control lamp (if equipped with ATC) will come on for 2.5 seconds and then go out. This means the ECU is self-configured correctly. If the Traction Control lamp flashes once or twice instead of staying on for 2.5 seconds, the ECU is not configured correctly and must be reconfigured (go to step 5).
5. Turn the ignition switch on and watch for the correct indicator lamp sequence from step 4, bring the air system pressure up to governor cut-out, and then turn the ignition switch to the off position. If the indicator lamp sequence was not correct as described in step 4, proceed to step 6 for reconfiguration.

6. If the indicator lamp sequence was not correct as described in step 4, one of the following methods may be used to reconfigure the ECU. With the ignition in the on position, perform one of the following.
 - A. Press the DCI reset switch for about 20 seconds (until the LED's begin to flash rapidly), then release the switch. Turn OFF ignition switch and repeat step 5 and then go to step 7.
 - B. Hold a magnet on the reset location of the diagnostic display for about 20 seconds (if ECU has LED's, they will begin to flash rapidly), then remove the magnet. Turn OFF ignition switch and repeat step 5 and then go to step 7.
7. After the ECU is properly configured, depress the brake pedal and turn the ignition switch to the on position. The ABS system should cycle through a series of short bursts of air from the modulators. You should hear the air released in the following sequence: Right Front, Left Front, Right Rear and Left Rear. The air burst sequence will automatically be repeated one more time.
8. No lights should stay on if the system is functioning properly, but if they do, refer to the CTS 5000 Master Service Manual section, "Initial Start-up Procedure" in section CTS-5292.
9. Check to make sure the brakes are functioning properly.
10. Return the removed ECU as instructed in the "PART INFORMATION" section of this letter. The ECU's will be requested as usual by the R-5185 Parts Disposition Authorization.

PART INFORMATION

THIS SECTION INCLUDES:

1. WHICH ECU SHOULD YOU ORDER?
 - A. If you are the selling dealer.
 - B. If you are not the selling dealer.
 2. PART NUMBER HISTORY AND USAGE
 3. IDENTIFYING NEW ECU'S
 4. RETURNING THE OLD PARTS AND IDENTIFYING DEFECTIVE ECU'S
1. **WHICH ECU SHOULD YOU ORDER? (Please read section 1 completely.)**
 - A. **If you are the selling dealer, order the ECU part number provided in the green bar report with this revision. Due to the complexity of determining which ECU is required for each vehicle, International has provided, in this dealer revision mailing, a special green bar report that gives the ECU part numbers, to selling dealers, for vehicles that were not completed as of June 2001. Note: the part numbers in this special green bar report are recommended for vehicles "as they were built". Body companies may have added a split shaft PTO that would require a wiring change (see SPECIAL NOTE FOR SPLIT SHAFT PTO APPLICATIONS in B. below). Reference the green bar report supplied with this letter to order the correct part for a VIN. To allow the Parts Distribution Centers to manage inventory, please limit your order quantities to the number of ECU's that can be installed in a short period of time. If you are not the selling dealer for the vehicle you are servicing, you can either call the selling dealer and ask them to reference their green bar report or you must follow the rules, in B below, to determine which ECU to install.**

- B. If you are not the selling dealer, you can call the selling dealer and ask them to reference the green bar report OR follow the guidelines below and use the "WPIE" screen in DDEW to search for the build codes below.

To determine which part to order, refer to the following questions.

1. Was the vehicle built with an Eaton Automated Manual Transmission listed in Table 1 below? If yes, then stop and you **MUST USE THE EC-30** (8900075R91). If no, then continue to question 2 below.
2. Was the vehicle built with Traction Control brake code 04AZD or 04AZJ? If yes, then stop and you **MUST ORDER THE EC-30** (8900075R91). An EC-17 with LED's (8900072R91) cannot be ordered anymore but will work if you have one at your location. If no, then continue to question 3 below.
3. Was the vehicle built with brake codes 04AZM or 804AZA (804AZA would be found towards the bottom of the code list, not with the 04 codes)? If yes, then stop and order the EC-30 (8900075R91). An EC-17 with LED's (8900072R91) cannot be ordered anymore but will work if you have one at your location. If no, proceed to step 4 below.
4. Was the vehicle built with brake code 04AZN? If yes, then stop and you **MUST** order the EC-30 (8900075R91). If no, then use 8900073R91. Note: There were only 50 VINS built with code 04AZN and all for the same customer. If you have not determined that the EC-30 is required from answering questions 1 through 4, then you should use the 8900073R91.

AutoShift	AutoShift 2	AutoSelect
13GJU 13GJV 13GJW	13GKU, 13GKV, 13GKW, 13GKX, 13GKY 13GMG, 13GMH 13GMT, 13GMU, 13GMV, 13GMW	13GJE 13GJG 13GJH 13GJJ 13GJK 13GJL 13GJM 13GJN
13GKP 13GKR	13GNR, 13GNS, 13GNT, 13GNU, 13GNV, 13GNW	

- 2. PART NUMBER HISTORY AND USAGE:** Parts Distribution Centers (PDC's) have supplied three ECU part numbers for this campaign, two "revised EC-17 part numbers", and one EC-30 part number. However, production of the revised EC-17 with LED's (8900072R91) has stopped and this part has been replaced by the EC-30 (all EC-30's have LED's). **ONLY 10%** of the vehicles in this campaign should need the EC-30. Do not order all EC-30's just because they work for all applications. Stock of the EC-30 is limited. No more EC-17's will be manufactured by Bendix; however, PDC's have a large quantity of the EC-17 without LED's, which must be used. Reference the special green bar report for the correct part number or follow the part selection guidelines provided in number 1. **WHICH ECU SHOULD YOU ORDER?**

- A. **8900072R91: NO LONGER AVAILABLE.** Bendix quit making this part number. This ECU is the revised EC-17 with LED's. The EC-30 (8900075R91) will automatically be substituted when 8900072R91 is ordered. The 8900072R91 is still a good part and should be used, if you have any in stock at your location. Do Not use with the specific EATON AUTOMATED SHIFT TRANSMISSIONS listed in Table 1 because the shift points can be affected.
- B. **8900073R91:** This is the EC-17 without LED's. Most or 90% of the vehicles in this campaign should use this ECU. Use for vehicles that originally had no LED's or traction control. DO NOT use for vehicles with 04AZJ, 04AZM, or 804AZA. Do Not use with the specific EATON AUTOMATED SHIFT TRANSMISSIONS listed in Table 1 because the shift points can be affected.
- C. **8900075R91:** This is the EC-30. All EC-30's have LED's. The EC-30 will be substituted for all orders for the discontinued 8900072R91.
3. **IDENTIFYING NEW ECU'S:** All replacement ECU's can be easily identified with a white or green adhesive stripe across the top of the ECU housing and/or a green sticker on the top of the housing.
4. **RETURNING THE OLD PARTS AND IDENTIFYING DEFECTIVE ECU'S:** Return all removed (defective) parts. Defective parts can be identified by one of the following bar code sticker numbers: 5002767 (with LED) or 5002927 (without LED) OR by International part numbers 3518871C1, 3520190C91, 3521228C91, 3527451C91 or 3533409C1. Defective parts will not have the white or green adhesive stripe or the green dot sticker on the ECU housing. If you have further questions on how to identify an ECU, please call Bendix at 1-800-AIR-BRAK. All shipments of parts in the U. S. less than 150 lbs. are to be shipped collect via UPS (account A7T 571). Shipments over 150 lbs. are to be shipped collect via Yellow Freight. Ship to:

**Bendix ABS Recall
901 Cleveland Street
Elyria, OH 44036**

LABOR INFORMATION

<u>Operation No.</u>	<u>Description</u>	<u>Time</u>
A40-00510-1	Replace ABS ECU	0.8 hrs

CAMPAIGN IDENTIFICATION LABEL

Each vehicle corrected in accordance with Campaign letter G-00510 will require a CTS-1075 Campaign Identification Label.

Attach the CTS-1075 label 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, 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.

In order 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.

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:

GROUP	NOUN	C	WARR.	TP	PAD
GROUP: Enter Recall Number 00510	NOUN: Leave Blank.	C: (CAUSE) Enter either 1, 2, or 3. 1. Inspected (No Repair Required). 2. Inspected and repaired. 3. Defective part from parts stock.	WARRANTY: (Warranty Code) Enter 40.	TYPE PART: Enter P for type part causing failure.	PAD: Enter 100.

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, 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 Recall letter G-00510.

Distribution: All Dealers

INTERNATIONAL TRUCK AND ENGINE CORPORATION



INTERNATIONAL TRUCK AND ENGINE CORPORATION

456 NORTH CITYFRONT PLAZA DRIVE, CHICAGO, IL 60611

TELEPHONE 312-838-2000

TRUCK GROUP

SAFETY RECALL 00510

January, 2001

Dear International Customer:

This Safety Recall is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act. International has determined that 2000, 4000, 5000, 8000 and 9000 model straight trucks (with code 04091) and built within the following build date ranges, have a defect, which relates to motor vehicle safety:

- Springfield Plant: vehicles built from 3/1/98 to 6/16/00
- Chatham Plant: vehicles built from 3/1/98 to 6/27/00
- Escobedo Plant: vehicles built from 3/1/98 to 6/20/00
- Garland Plant: vehicles built from 3/1/98 to 7/11/00.

In September of 2000 International notified customers of this issue and projected part availability for January 2001. Parts are now available and this letter is the official notification for customers to have their Bendix Anti-lock Braking System electronic control unit replaced by their local dealer.

If you are not the owner, we need your help finding the current owner; **PLEASE** read paragraph number four under **"ACTIONS YOU SHOULD TAKE."**

REASON FOR THIS RECALL

RISK TO MOTOR VEHICLE SAFETY: Your vehicle could experience an extended stopping distance without warning when the vehicle is decelerating from 8 to 4 miles per hour. If an extended stopping distance occurs, your vehicle could be involved in an accident, which could result in property damage, personal injury, or death.

DEFECT DESCRIPTION: This defect involves the Bendix EC-17 1030R electronic control unit (ECU) which controls the Antilock Braking System (ABS). The ECU can misinterpret erratic signals that can be generated by one of two conditions: 1. A chafed wheel speed sensor wire on a rotating part, or 2. An incorrect gap between a tone ring and a wheel speed sensor. Either of these conditions can cause the air ABS ECU to exhaust the air at the air brake modulators for one or more of the wheels. During the above described conditions, the ABS warning indicator light may not come on to warn the driver of an ABS malfunction.

ACTIONS YOU SHOULD TAKE

- 1. Our records show that you are the owner of the vehicle identified on the enclosed card. If you are not the owner, please read paragraph number 4.**
- 2. Please contact your local International dealer, with your recall card in hand, to schedule an appointment to have your Bendix ABS ECU replaced. This repair will be performed without charge to you and will require approximately one hour. Please take your recall card to your scheduled appointment.**
- 3. If the vehicle will not or cannot be corrected, please mark on the enclosed card under "CHECK ONE", the box which best describes why the vehicle will not be repaired, and return the postage-prepaid card to us.**
- 4. If you no longer own the vehicle described on the card, please complete the card, fill in the new customer name and address if known, and return it to us. This information will allow us to update our records so we can contact the new owner as soon as possible and you will not be contacted again regarding this Safety Recall.**

IF YOU NEED ASSISTANCE

If you take your vehicle to your International dealer on a mutually agreed upon service date, and the dealer does not remedy this condition without charge on that date or within five days, you can obtain assistance by following the procedure described in the Owner Assistance Guide section in your Owner's Manual or by calling toll free 1-800-448-7825.

You may also wish to submit a complaint to the Administrator, National Highway Traffic Safety Administration, 400 Seventh Street, S.W., Washington, D.C., 20590, or call the toll-free Auto Safety Hot-Line at 1-888-327-4236 if your International dealer fails to repair or is unable to remedy this condition without charge or within a reasonable time.

We urge your prompt attention to the correction of this safety defect and apologize for any inconvenience this may cause.

INTERNATIONAL TRUCK AND ENGINE CORPORATION



VEHICLE RECALL

00V-232.4

G-00511
April, 2001

SUBJECT: SAFETY RECALL (U.S., EXPORT)

Replacement of the Bendix EC-17 1030R electronic control unit (ECU) for air brakes on 2000, 4000, 5000, 8000 and 9000 model TRACTORS with code 04092.

DEFECT DESCRIPTION

This defect involves the Bendix EC-17 1030R electronic control unit (ECU) which controls the Antilock Braking System (ABS). The ECU can misinterpret erratic signals that can be generated by one of two conditions: 1. A chaffed wheel speed sensor wire on a rotating part, or 2. An incorrect gap between a tone ring and a wheel speed sensor. Either of these conditions can cause the air ABS ECU to exhaust the air at the air brake modulators for one or more of the wheels. During the above described conditions, the ABS warning indicator light may not come on to warn the driver of an ABS malfunction and the driver can experience an extended stopping distance without warning when the vehicle is decelerating from 8 to 4 miles per hour. If an extended stopping distance occurs, the vehicle could be involved in an accident, which could result in property damage, personal injury, or death.

MODELS INVOLVED

This Safety Recall includes 2000, 4000, 5000, 8000 and 9000 model TRACTORS ONLY (04092) built within the following build date ranges:

- Springfield Plant: vehicles built from 3/1/98 to 6/16/00
- Chatham Plant: vehicles built from 3/1/98 to 6/27/00
- Escobedo Plant: vehicles built from 3/1/98 to 8/20/00
- Gartland Plant: vehicles built from 3/1/98 to 7/11/00.

OWNER NOTIFICATION

In September of 2000 International notified customers and dealers of this Safety Recall and projected part availability for April 2001. Parts are now available and the official customer notification letter will be mailed in late April 2001. A copy of the owner letter is attached. 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 since 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.

SERVICE PROCEDURE

Special Note: Before performing the ECU procedure, check to see if the vehicle is marked for Safety Recall 00505 (sensor wire inspection). If the VIN is marked for 00505 but 00505 has not been completed, perform the procedure for 00505. If the VIN is not marked for 00505, do not do the inspection for 00505.

REPLACEMENT PROCEDURE FOR THE BENDIX AIR BRAKE ECU

Introduction: The following instructions are for replacing the original ECU. New ECU's should self-configure during initial key-on cycle and not require reconfiguring time if you follow this procedure (note special instructions for vehicles with Automatic Traction Control). All vehicles in this campaign have 4-sensor systems. If there are problems with the ABS system after the new ECU is correctly installed, refer to Master Service Manual section CTS-5292 for further information.

Before performing the service, please read and understand the following instructions completely.

WARNING: To prevent serious eye injury, **ALWAYS** wear safe eye protection when you perform vehicle maintenance or service.

WARNING: Block the wheels to prevent the vehicle from moving. Support the vehicle with safety stands. Do not work under a vehicle supported only by jacks. Jacks can slip or fail over resulting in serious personal injury or death.

Please read the following steps carefully before proceeding.

REMOVING THE EC-17:

1. Locate the EC-17 on the inside of the left frame rail, near the rear axle or under the cab.
2. Remove as much contamination as possible from the assembly's exterior. Keep the contamination away from the electrical connections.
3. Vehicles built in the last couple weeks of the build date ranges on page 1 may have had a revised ECU installed at the plant. Only replace ECU's that have one of the following two numbers on the bar code sticker: 5002767 (with LED) or 5002927 (without LED).

DO NOT replace the ECU if it has:

- A. A green dot sticker on top of the ECU housing,
 - B. The number 5008311 on the bar code sticker (for ECU's with LED's), or
 - C. The number 5008313 on the bar code sticker (for ECU's without LED's).
4. **Note and mark the mounting position of the EC-17 on the valve or the bracket. Do not use an impact wrench to remove the ECU mounting bolts on valve mounted models.** For valve mounted ECU's, tap on the heads of the ECU mounting bolts, before removing the bolts, to help eliminate the risk of the bolts breaking off in the valve. Loosen, remove and save the mounting hardware that attaches the controller to the valve or bracket. On some vehicles it may be necessary to remove the frame-mounted bracket, the valve and the ECU as an assembly.

INSTALLING THE NEW ECU (instructions are for both the EC-17 and the EC-30)

Note: Automatic part substitutions may occur when ordering, see "Part Substitution" under the "PART INFORMATION" section.

1. To determine required ECU, see "Ordering Parts" under the "PART INFORMATION" section for details.
2. Remount the ECU in the proper orientation with the original mounting hardware and torque the bolts to 98 in-lbs or 11 NM.
3. Reconnect the electrical connections to the ECU and torque the connector retaining bolts to 15-20 in-lbs or 1.7-2.3 NM.
4. **BEFORE TURNING THE IGNITION SWITCH ON IN STEP 5, PICK THE CORRECT INDICATOR LAMP FLASH SEQUENCE BELOW FOR YOUR APPLICATION. AND IF THE VEHICLE HAS AUTOMATIC TRACTION CONTROL, MAKE SURE THE AUTOMATIC TRACTION CONTROL (ATC) SWITCH IS IN THE ON POSITION BEFORE TURNING THE IGNITION ON IN STEP 5.** Most vehicles with ATC were configured from the factory for both torque limiting and differential braking. If the ECU self-configures without the traction control switch in the ON position, the ECU will have to be reset before step 5 is performed. The ECU should self-configure and produce one of the following dash indicator lamp flash sequences.
 - A. **For EC-17's with or without traction control:** The ABS lamp and the Traction Control lamp (if equipped with ATC) will come on initially and then flash on twice. This means the ECU has self-configured correctly. If the lamp flash sequence does not flash as described, go to step 5 because the self-configuration did not work.
 - B. **For EC-30's with or without traction control:** The ABS lamp and the Traction Control lamp (if equipped with ATC) will come on for 2.5 seconds and then go out. This means the ECU is self-configured correctly. If the Traction Control lamp flashes once or twice instead of staying on for 2.5 seconds, the ECU did not self-configure correctly and the ECU must be reset and reconfigured (go to step 5).
5. Turn the ignition switch ON and watch for the correct indicator lamp sequence from step 4, bring the air system pressure up to governor cut-out, and then turn the ignition switch to the OFF position. If the indicator lamp sequence was not correct as described in step 4, proceed to step 6 for reconfiguration.

6. If the indicator lamp sequence was not correct as described in step 4, one of the following methods may be used to reconfigure the ECU. With the ignition in the ON position, perform one of the following.
 - A. Press the DCI reset switch for about 20 seconds (until the LED's begin to flash rapidly), then release the switch. Turn OFF ignition switch and repeat step 5 and then go to step 7.
 - B. Hold a magnet on the reset location of the diagnostic display for about 20 seconds (if ECU has LED's, they will begin to flash rapidly), then remove the magnet. Turn OFF ignition switch and repeat step 5 and then go to step 7.
7. After the ECU is properly configured, depress the brake pedal and turn the ignition switch to the ON position. The ABS system should cycle through a series of short bursts of air from the modulators. You should hear the air released in the following sequence: Right Front, Left Front, Right Rear and Left Rear. The air burst sequence will automatically be repeated one more time.
8. No lights should stay on if the system is functioning properly, but if they do, refer to Master Service Manual, "Initial Start-up Procedure" in section CTS-5292.
9. Check to make sure the brakes are functioning properly.
10. Return the removed ECU as instructed in the "PART INFORMATION" section of this letter. The ECU's will be requested as usual by the R-5185 Parts Disposition Authorization.

PART INFORMATION

Ordering Parts: There are two revised EC-17 ECU part numbers and one EC-30 part number used for this recall. Please read the following usage instructions completely. To manage part inventory, it is imperative that you order the parts according to the usage instructions provided in this section.

1. Order EC-30 (8900075R91) **ONLY** for **ALL** vehicles with an EATON AUTOMATED MANUAL TRANSMISSION (this applies to vehicles in the Straight Truck portion of the Bendix Safety Recall 00510 also). Do not use EC-17's with these transmissions because the revised EC-17 can affect shift points. A list of these transmissions is provided below in Table 1.

Table 1: EATON AUTOMATED MANUAL TRANSMISSION CODES		
AutoShift	AutoShift 2	AutoSelect
13GJU 13GJV 13GJW	13GKU, 13GKV, 13GKW, 13GKX, 13GKY	0013GJE 0013GJG 0013GJH
13GKP 13GKR	13GMG, 13GMH 13GMT, 13GMU, 13GMV, 13GMW 13GNR, 13GNS, 13GNT, 13GNU, 13GNV, 13GNW	0013GJJ 0013GJK 0013GJL 0013GJM 0013GJN

2. Use (8900072R91) with LED's for both vehicles that originally had an LED ECU and all vehicles that have Traction Control (even if the original ECU did not have LED's). In other words, use this ECU if the vehicle was built with one of following codes: 04AZJ (the traction control code used for these vehicles), 04AZM (one of the two optional codes to get LED ECU), or 804AZA (optional code to get LED ECU). Do Not use with EATON AUTOMATED SHIFT TRANSMISSIONS.
3. Use (8900073R91) without LED's for vehicles that originally had no LED's and no Traction Control. DO NOT use for vehicles with 04AZJ, 04AZM, or 804AZA. Do Not use with EATON AUTOMATED SHIFT TRANSMISSIONS.

Part Substitution: If stock is limited on the above part numbers, an upgraded EC-30 may be automatically substituted for an EC-17 or an EC-17 with LED may be substituted for one without LED. However, do not substitute a non LED EC-17 for an ECU that had LED's. To manage part inventory, it is imperative that you order the parts according to the usage instructions provided under "Ordering Parts" in this section.

Identifying new ECU's: All replacement ECU's will be easily identified with a white adhesive stripe across the top of the ECU housing and/or a green sticker on the top of the housing.

Ordering parts: In order to allow for part inventory management, please limit order quantities to the number of ECU's that can be installed in a short period of time.

Returning the old parts and identifying defective ECU's: Return all defective parts. Defective parts can be identified by one of the following bar code sticker numbers: 5002767 (with LED) or 5002927 (without LED). Defective parts will not have the white adhesive stripe or the green dot sticker on the ECU housing. All shipments of parts in the U. S. less than 150 lbs. are to be shipped collect via UPS (account A7T 571). Shipments over 150 lbs. are to be shipped collect via Yellow Freight. Ship to:

**Bendix ABS Recall
901 Cleveland Street
Elyria, OH 44036**

LABOR INFORMATION

<u>Operation No.</u>	<u>Description</u>	<u>Time</u>
A40-00511-1	Replace ABS ECU	0.8 hrs

CAMPAIGN IDENTIFICATION LABEL

Each vehicle corrected in accordance with Campaign letter G-00511 will require a CTS-1075 Campaign Identification Label.

Attach the CTS-1075 label 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, 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.

In order 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.

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:

GROUP	NOUN	C	WARR.	TP	PAD
GROUP: Enter Recall Number 00511	NOUN: Leave Blank.	C: (CAUSE) Enter either 1, 2, or 3. 1. Inspected (No Repair Required). 2. Inspected and repaired. 3. Defective part from parts stock.	WARRANTY: (Warranty Code) Enter 40.	TYPE PART: Enter P for type part causing failure.	PAD: Enter 100.

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, 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 Recall letter G-00511.

Distribution: All Dealers

INTERNATIONAL TRUCK AND ENGINE CORPORATION



INTERNATIONAL TRUCK AND ENGINE CORPORATION

455 NORTH CITYFRONT PLAZA DRIVE, CHICAGO, IL 60611

TELEPHONE 312-835-2000

TRUCK GROUP

SAFETY RECALL 00511

April, 2001

Dear International Customer:

This Safety Recall is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act. International has determined that 2000, 4000, 5000, 8000 and 9000 model tractors (with code D4092) and built within the following build date ranges, have a defect, which relates to motor vehicle safety:

- Springfield Plant: vehicles built from 3/1/98 to 6/16/00
- Chatham Plant: vehicles built from 3/1/98 to 6/27/00
- Escobedo Plant: vehicles built from 3/1/98 to 6/20/00
- Garland Plant: vehicles built from 3/1/98 to 7/11/00.

In September of 2000 International notified customers of this issue and projected part availability for April 2001. Parts are now available and this letter is the official notification for customers to have their Bendix Anti-lock Braking System electronic control unit replaced by their local dealer.

If you are not the owner, we need your help finding the current owner; PLEASE read paragraph number four under "**ACTIONS YOU SHOULD TAKE**."

REASON FOR THIS RECALL

RISK TO MOTOR VEHICLE SAFETY: Your vehicle could experience an extended stopping distance without warning when the vehicle is decelerating from 8 to 4 miles per hour. If an extended stopping distance occurs, your vehicle could be involved in an accident, which could result in property damage, personal injury, or death.

DEFECT DESCRIPTION: This defect involves the Bendix EC-17 1030R electronic control unit (ECU) which controls the Antilock Braking System (ABS). The ECU can misinterpret erratic signals that can be generated by one of two conditions: 1. A chaffed wheel speed sensor wire on a rotating part, or 2. An incorrect gap between a tone ring and a wheel speed sensor. Either of these conditions can cause the air ABS ECU to exhaust the air at the air brake modulators for one or more of the wheels. During the above described conditions, the ABS warning indicator light may not come on to warn the driver of an ABS malfunction.

ACTIONS YOU SHOULD TAKE

- 1. Our records show that you are the owner of the vehicle identified on the enclosed card. If you are not the owner, please read paragraph number four.**
- 2. Please contact your local International dealer, with your recall card in hand, to schedule an appointment to have your Bendix ABS ECU replaced. This repair will be performed without charge to you and will require approximately one hour. Please take your recall card to your scheduled appointment.**
- 3. If the vehicle will not or cannot be corrected, please mark on the enclosed card under "CHECK ONE", the box which best describes why the vehicle will not be repaired, and return the postage-prepaid card to us.**
- 4. If you no longer own the vehicle described on the card, please complete the card, fill in the new customer name and address if known, and return it to us. This information will allow us to update our records so we can contact the new owner as soon as possible and you will not be contacted again regarding this Safety Recall.**

IF YOU NEED ASSISTANCE

If you take your vehicle to your International dealer on a mutually agreed upon service date, and the dealer does not remedy this condition without charge on that date or within five days, you can obtain assistance by following the procedure described in the Owner Assistance Guide section in your Owner's Manual or by calling toll free 1-800-448-7825.

You may also wish to submit a complaint to the Administrator, National Highway Traffic Safety Administration, 400 Seventh Street, S.W., Washington, D.C., 20590, or call the toll-free Auto Safety Hot-Line at 1-888-327-4236 if your International dealer fails to repair or is unable to remedy this condition without charge or within a reasonable time.

We urge your prompt attention to the correction of this safety defect and apologize for any inconvenience this may cause.

INTERNATIONAL TRUCK AND ENGINE CORPORATION



VEHICLE RECALL

00V-232-401

RECEIVED

01 AUG -6 PM 1:52

OFFICE
RECALLS
12/15/00

**G-00511 REVISION A, JUNE, 2001
(REPLACES ORIGINAL G-00511 DATED APRIL 2001)**

SUBJECT: SAFETY RECALL (U.S., EXPORT)

Replacement of the Bendix EC-17 1030R electronic control unit (ECU) for air brakes on 2000, 4000, 5000, 8000 and 9000 model TRACTORS with code 04092.

SPECIAL NOTE: ACTION REQUIRED!

This letter was written to replace the original recall letter G-00511 Dated April 2001. Please scrap all copies of G-00511 in your facility and replace with copies of this letter. Revisions were made to the "SERVICE PROCEDURE" section and the "PARTS INFORMATION" section. The revisions are due to part application changes and special issues that have arisen since the initial release of this campaign. No changes were made in any other sections of this letter. Please read these sections and familiarize yourself with the changes.

DEFECT DESCRIPTION

This defect involves the Bendix EC-17 1030R electronic control unit (ECU) which controls the Antilock Braking System (ABS). The ECU can misinterpret erratic signals that can be generated by one of two conditions: 1. A chafed wheel speed sensor wire on a rotating part, or 2. An incorrect gap between a tone ring and a wheel speed sensor. Either of these conditions can cause the air ABS ECU to exhaust the air at the air brake modulators for one or more of the wheels. During the above described conditions, the ABS warning indicator light may not come on to warn the driver of an ABS malfunction and the driver can experience an extended stopping distance without warning when the vehicle is decelerating from 8 to 4 miles per hour. If an extended stopping distance occurs, the vehicle could be involved in an accident, which could result in property damage, personal injury, or death.

MODELS INVOLVED

This Safety Recall includes 2000, 4000, 5000, 8000 and 9000 model TRACTORS ONLY (04092) built within the following build date ranges:

- Springfield Plant: vehicles built from 3/1/98 to 6/16/00
- Chatham Plant: vehicles built from 3/1/98 to 6/27/00
- Escobedo Plant: vehicles built from 3/1/98 to 6/20/00
- Garland Plant: vehicles built from 3/1/98 to 7/11/00.

OWNER NOTIFICATION

In September of 2000 International notified customers and dealers of this Safety Recall and projected part availability for April 2001. Parts are now available and the official customer notification letters were mailed in late April 2001. A copy of the owner letter is attached. 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 since 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.

SERVICE PROCEDURE

REPLACEMENT PROCEDURE FOR THE BENDIX AIR BRAKE ECU

Introduction: The following instructions are for replacing the original ECU with a revised EC-17 or an EC-30. All vehicles in this campaign have 4-sensor systems. There are special instructions for vehicles with Automatic Traction Control or split shaft PTO. If there are problems with the ABS system after the new ECU is correctly installed, refer to the CTS 5000 Master Service Manual section CTS-5282 for further information.

DOES THE VEHICLE HAVE A SPLIT SHAFT PTO?

FOR SPLIT SHAFT PTO APPLICATIONS: If you install ECU part number 8900072R91, 8900073R91, or 8900075R91 and the vehicle has a split shaft PTO or a transfer case that drives something for the body equipment while the truck is stationary, there will be a problem with the ABS light latching ON. To correct this problem a wiring change is necessary; therefore, please call the TECH SERVICE HELP LINE AT 1-800-336-4500 to get instructions for the modification.

Before performing the service, read and understand the following instructions.

WARNING: To prevent serious eye injury, **ALWAYS** wear safe eye protection when you perform vehicle maintenance or service.

WARNING: Block the wheels to prevent the vehicle from moving. Support the vehicle with safety stands. Do not work under a vehicle supported only by jacks. Jacks can slip or fall over resulting in serious personal injury or death.

Please read the following steps carefully before proceeding.

REMOVING THE ORIGINAL EC-17:

1. Check the "WPID" screen in DDEW or check ISIS to see if the vehicle is marked for the ABS sensor wire inspection Safety Recall 00505. If the VIN is marked for 00505 but 00505 has not been completed, perform the procedure for 00505. If the VIN is not marked for 00505, do not do the inspection for 00505.
2. Locate the EC-17 on the inside of the left or right frame rail, near the rear axle or under the cab.

3. Remove as much contamination as possible from the assembly's exterior. Keep the contamination away from the electrical connections.
4. Vehicles built in the last couple weeks of the build date ranges on page 1 may have had a revised ECU installed at the plant. Only replace ECU's that have one of the following two Bendix numbers on the bar code sticker: 5002767 (with LED) or 5002927 (without LED), OR one of the following five International part numbers on the ECU: 3518871C1, 3520190C91, 3521228C91, 3527451C91 or 3533409C1. **DO NOT** replace the ECU if it has:
 - A. A green dot sticker on top of the ECU housing,
 - B. A white or green adhesive stripe across the top of the ECU housing,
 - B. The number 5008311 on the bar code sticker (for ECU's with LED's), or
 - C. The number 5008313 on the bar code sticker (for ECU's without LED's).
5. Note and mark the mounting position of the EC-17 on the valve or the bracket. **Do not use an impact wrench to remove the ECU mounting bolts on valve mounted models.** For valve mounted ECU's, it is very important to tap on the heads of the ECU mounting bolts, before removing the bolts, to help eliminate the risk of the bolts breaking off in the valve. Loosen, remove and save the mounting hardware that attaches the controller to the valve or bracket. On some vehicles it may be necessary to remove the frame-mounted bracket, the valve and the ECU as an assembly.

INSTALLING THE NEW ECU (Instructions are for both the EC-17 and the EC-30)

1. Reference the "PART INFORMATION" section in this letter to determine which ECU should be installed.
2. Remount the ECU in the proper orientation with the original mounting hardware and torque the bolts to 98 in-lbs or 11 NM.
3. Reconnect the electrical connections to the ECU and torque the connector retaining bolts to 15-20 in-lbs or 1.7-2.3 NM.
4. **BEFORE TURNING THE IGNITION SWITCH ON IN STEP 5, PICK THE CORRECT INDICATOR LAMP FLASH SEQUENCE BELOW IN EITHER A OR B FOR YOUR APPLICATION. IF THE VEHICLE HAS AUTOMATIC TRACTION CONTROL, MAKE SURE THE AUTOMATIC TRACTION CONTROL (ATC) SWITCH IS IN THE ENABLED POSITION BEFORE TURNING THE IGNITION ON IN STEP 5.** All straight trucks with ATC were configured from the factory for both torque limiting and differential braking. Upon power-up, one of the following two dash Indicator-lamp flash sequences will occur.
 - A. For EC-17's with or without traction control: The ABS lamp and the Traction Control lamp (if equipped with ATC) will come on initially and then flash on and off twice. This means the ECU is configured correctly. If the lamp flash sequence does not flash as described, go to step 5.
 - B. For EC-30's with or without traction control: The ABS lamp and the Traction Control lamp (if equipped with ATC) will come on for 2.5 seconds and then go out. This means the ECU is configured correctly. If the Traction Control lamp flashes once or twice instead of staying on for 2.5 seconds, the ECU is not configured correctly and must be reconfigured (go to step 5).
5. Turn the ignition switch ON and watch for the correct indicator lamp sequence from step 4, bring the air system pressure up to governor cut-out, and then turn the ignition switch to the OFF position. If the indicator lamp sequence was not correct as described in step 4, proceed to step 6 for reconfiguration.

6. If the indicator lamp sequence was not correct as described in step 4, one of the following methods may be used to reconfigure the ECU. With the ignition in the ON position, perform one of the following.
 - A. Press the DCI reset switch for about 20 seconds (until the LED's begin to flash rapidly), then release the switch. Turn OFF ignition switch and repeat step 5 and then go to step 7.
 - B. Hold a magnet on the reset location of the diagnostic display for about 20 seconds (if ECU has LED's, they will begin to flash rapidly), then remove the magnet. Turn OFF ignition switch and repeat step 5 and then go to step 7.
7. After the ECU is properly configured, depress the brake pedal and turn the ignition switch to the ON position. The ABS system should cycle through a series of short bursts of air from the modulators. You should hear the air released in the following sequence: Right Front, Left Front, Right Rear and Left Rear. The air burst sequence will automatically be repeated one more time.
8. No lights should stay on if the system is functioning properly, but if they do, refer to Master Service Manual, "Initial Start-up Procedure" in section CTS-5292.
9. Check to make sure the brakes are functioning properly.
10. Return the removed ECU as instructed in the "PART INFORMATION" section of this letter. The ECU's will be requested as usual by the R-5185 Parts Disposition Authorization.

PART INFORMATION

THIS SECTION INCLUDES:

1. WHICH ECU SHOULD YOU ORDER?
 - A. If you are the selling dealer.
 - B. If you are not the selling dealer.
2. PART NUMBER HISTORY AND USAGE
3. IDENTIFYING NEW ECU'S
4. RETURNING THE OLD PARTS AND IDENTIFYING DEFECTIVE ECU'S

1. WHICH ECU SHOULD YOU ORDER? (Please read section 1 completely.)

- A. If you are the selling dealer, order the ECU part number provided in the green bar report with this revision. Due to the complexity of determining which ECU is required for each vehicle, International has provided, in this dealer revision mailing, a special green bar report that gives the ECU part numbers, to selling dealers, for vehicles that were not completed as of June 2001. **Note:** the part numbers in this special green bar report are recommended for vehicles "as they were built" and body companies may have added a split shaft PTO that would require a wiring change (see **SPECIAL NOTE FOR SPLIT SHAFT PTO APPLICATIONS** in B. below). Reference the green bar report supplied with this letter to order the correct part for a VIN. To allow the Parts Distribution Centers to manage inventory, please limit your order quantities to the number of ECU's that can be installed in a short period of time. If you are not the selling dealer for the vehicle you are servicing, you can either call the selling dealer and ask them to reference their green bar report or you must follow the guidelines, in B. below, to determine which ECU to install.

B. If you are not the selling dealer, you can call the selling dealer and ask them to reference the green bar report OR follow the guidelines below and use the "WPIE" screen in DDEW to search for the build codes below.

To determine which part to order, refer to the following questions.

1. Was the vehicle built with an Eaton Automated Manual Transmission listed in Table 1 below? If yes, then stop and you **MUST USE THE EC-30** (8900075R91). If no, then continue to question 2 below.
2. Was the vehicle built with Traction Control brake code 04AZD or 04AZJ? If yes, then stop and you **MUST ORDER THE EC-30** (8900075R91). An EC-17 with LED's (8900072R91) cannot be ordered anymore but will work if you have one at your location. If no, then continue to question 3 below.
3. Was the vehicle built with brake codes 04AZM or 804AZA (804AZA would be found towards the bottom of the code list, not with the 04 codes)? If yes, then stop and order the EC-30 (8900075R91). An EC-17 with LED's (8900072R91) cannot be ordered anymore but will work if you have one at your location. If no, proceed to step 4 below.
4. Was the vehicle built with brake code 04AZN? If yes, then stop and you **MUST** order the EC-30 (8900075R91). If no, then use 8900073R91. Note: There were only 50 VINS built with code 04AZN and all for the same customer. If you have not determined that the EC-30 is required from answering questions 1 through 4, then you should use the 8900073R91.

AutoShift	AutoShift 2	AutoSelect
13GJU	13GKU, 13GKV, 13GKW, 13GKX, 13GKY	13GJE
13GJV		13GJG
13GJW	13GMG, 13GMH	13GJH
	13GMT, 13GMU, 13GMV, 13GMW	13GJJ
13GKP		13GJK
13GKR	13GNR, 13GNS, 13GNT,	13GJL
	13GNU, 13GNV, 13GNW	13GJM
		13GJN

2. PART NUMBER HISTORY AND USAGE: Parts Distribution Centers (PDC's) have supplied three ECU part numbers for this campaign, two "revised EC-17 part numbers", and one EC-30 part number. However, production of the revised EC-17 with LED's (8900072R91) has stopped and this part has been replaced by the EC-30 (all EC-30's have LED's). **ONLY 10%** of the vehicles in this campaign should need the EC-30. Do not order all EC-30's just because they work for all applications. Stock of the EC-30 is limited. No more EC-17's will be manufactured by Bendix; however, PDC's have a large quantity of the EC-17 without LED's, which must be used. Reference the special green bar report for the correct part number or follow the part selection guidelines provided in number 1. **WHICH ECU SHOULD YOU ORDER?**

- A. 8900072R91: NO LONGER AVAILABLE.** Bendix quit making this part number. This ECU is the revised EC-17 with LED's. The EC-30 (8900075R91) will automatically be substituted when 8900072R91 is ordered. The 8900072R91 is still a good part and should be used, if you have any in stock at your location. **Do Not use with the specific EATON AUTOMATED SHIFT TRANSMISSIONS listed in Table 1 because the shift points can be affected.**
- B. 8900073R91:** This is the EC-17 without LED's. Most or 90% of the vehicles in this campaign should use this ECU. Use for vehicles that originally had no LED's or traction control. **DO NOT use for vehicles with 04AZJ, 04AZM, or 804AZA. Do Not use with the specific EATON AUTOMATED SHIFT TRANSMISSIONS listed in Table 1 because the shift points can be affected.**
- C. 8900075R91:** This is the EC-30. All EC-30's have LED's. The EC-30 will be substituted for all orders for the discontinued 8900072R91.
- 3. IDENTIFYING NEW ECU'S:** All replacement ECU's can be easily identified with a white or green adhesive stripe across the top of the ECU housing and/or a green sticker on the top of the housing.
- 4. RETURNING THE OLD PARTS AND IDENTIFYING DEFECTIVE ECU'S:** Return all removed (defective) parts. Defective parts can be identified by one of the following bar code sticker numbers: 5002767 (with LED) or 5002927 (without LED) OR by International part numbers 3518871C1, 3520190C91, 3521228C91, 3527451C91 or 3533409C1. Defective parts will not have the white or green adhesive stripe or the green dot sticker on the ECU housing. If you have further questions on how to identify an ECU, please call Bendix at 1-800-AIR-BRAK. All shipments of parts in the U. S. less than 150 lbs. are to be shipped collect via UPS (account A7T 571). Shipments over 150 lbs. are to be shipped collect via Yellow Freight. Ship to:

**Bendix ABS Recall
901 Cleveland Street
Elyria, OH 44036**

LABOR INFORMATION

<u>Operation No.</u>	<u>Description</u>	<u>Time</u>
A40-00511-1	Replace ABS ECU	0.8 hrs

CAMPAIGN IDENTIFICATION LABEL

Each vehicle corrected in accordance with Campaign letter G-00511 will require a CTS-1075 Campaign Identification Label.

Attach the CTS-1075 label 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, 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.

In order 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.

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:

GROUP	NOUN	C	WARR	TP	PAD
GROUP: Enter Recall Number 00511	NOUN: Leave Blank.	C: (CAUSE) Enter either 1, 2, or 3. 1. Inspected (No Repair Required). 2. Inspected and repaired. 3. Defective part from parts stock.	WARRANTY: (Warranty Code) Enter 40.	TYPE PART: Enter P for type part causing failure.	PAD: Enter 100.

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, 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 Recall letter G-00511.

Distribution: All Dealers

INTERNATIONAL TRUCK AND ENGINE CORPORATION



INTERNATIONAL TRUCK AND ENGINE CORPORATION

455 NORTH CITYFRONT PLAZA DRIVE, CHICAGO, IL 60611

TELEPHONE 312-838-2000

TRUCK GROUP

SAFETY RECALL 00511

April, 2001

Dear International Customer:

This Safety Recall is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act. International has determined that 2000, 4000, 5000, 8000 and 9000 model tractors (with code D4092) and built within the following build date ranges, have a defect, which relates to motor vehicle safety:

- Springfield Plant: vehicles built from 3/1/98 to 6/16/00
- Chatham Plant: vehicles built from 3/1/98 to 6/27/00
- Escobedo Plant: vehicles built from 3/1/98 to 6/20/00
- Garland Plant: vehicles built from 3/1/98 to 7/11/00.

In September of 2000 International notified customers of this issue and projected part availability for April 2001. Parts are now available and this letter is the official notification for customers to have their Bendix Anti-lock Braking System electronic control unit replaced by their local dealer.

If you are not the owner, we need your help finding the current owner; **PLEASE** read paragraph number four under **"ACTIONS YOU SHOULD TAKE."**

REASON FOR THIS RECALL

RISK TO MOTOR VEHICLE SAFETY: Your vehicle could experience an extended stopping distance without warning when the vehicle is decelerating from 8 to 4 miles per hour. If an extended stopping distance occurs, your vehicle could be involved in an accident, which could result in property damage, personal injury, or death.

DEFECT DESCRIPTION: This defect involves the Bendix EC-17 1030R electronic control unit (ECU) which controls the Antilock Braking System (ABS). The ECU can misinterpret erratic signals that can be generated by one of two conditions: 1. A chafed wheel speed sensor wire on a rotating part, or 2. An incorrect gap between a tone ring and a wheel speed sensor. Either of these conditions can cause the air ABS ECU to exhaust the air at the air brake modulators for one or more of the wheels. During the above described conditions, the ABS warning indicator light may not come on to warn the driver of an ABS malfunction.

ACTIONS YOU SHOULD TAKE

- 1. Our records show that you are the owner of the vehicle identified on the enclosed card. If you are not the owner, please read paragraph number four.**
- 2. Please contact your local International dealer, with your recall card in hand, to schedule an appointment to have your Bendix ABS ECU replaced. This repair will be performed without charge to you and will require approximately one hour. Please take your recall card to your scheduled appointment.**
- 3. If the vehicle will not or cannot be corrected, please mark on the enclosed card under "CHECK ONE", the box which best describes why the vehicle will not be repaired, and return the postage-prepaid card to us.**
- 4. If you no longer own the vehicle described on the card, please complete the card, fill in the new customer name and address if known, and return it to us. This information will allow us to update our records so we can contact the new owner as soon as possible and you will not be contacted again regarding this Safety Recall.**

IF YOU NEED ASSISTANCE

If you take your vehicle to your International dealer on a mutually agreed upon service date, and the dealer does not remedy this condition without charge on that date or within five days, you can obtain assistance by following the procedure described in the Owner Assistance Guide section in your Owner's Manual or by calling toll free 1-800-448-7825.

You may also wish to submit a complaint to the Administrator, National Highway Traffic Safety Administration, 400 Seventh Street, S.W., Washington, D.C., 20590, or call the toll-free Auto Safety Hot-Line at 1-888-327-4238 if your International dealer fails to repair or is unable to remedy this condition without charge or within a reasonable time.

We urge your prompt attention to the correction of this safety defect and apologize for any inconvenience this may cause.

INTERNATIONAL TRUCK AND ENGINE CORPORATION

00V-232.101

Date: 6/7/01
Subject: 00508: Second Notice: Bendix ECU Replacement for AmTran Built Buses, US only

**ATTENTION!!!
SECOND NOTICE LETTER FOR
SAFETY RECALL 00508**

- * This message is to inform everyone that we are mailing a second notice for 00508 to remind both dealers and customers to take advantage of the summer time while school is out and get the uncompleted buses repaired for 00508.
- * There were no changes to the original letters for 00508; therefore, these second notice letters will not be put on our intranet sight (thus, no hotlink attached).
- * This message can be forwarded to anyone INTERNALLY who needs information on this campaign.
- * Send me an e-mail if you want to add or delete individuals on the distribution list above.
- * UNCOMPLETED US VEHICLES = 1,324
- * CANADIAN VEHICLES = 0
- * MEXICO = 0
- * BRAZIL = 0
- * OTHER EXPORT = 0
- * US Dealer mailing: 6/11/01
- * US Customer mailing: 6/11/01
- * If you have any questions or comments regarding field campaigns please contact me.
- * THANKS.

Mark Clark
Compliance Coordinator
International Truck and Engine Corporation
Phone: 219-461-1873
Fax: 219-461-1814

00Y-232.201

Date: 6/7/01
Subject: 00509: Second Notice: Bendix ECU Replacement for Springfield (SAP) Built Buses

**ATTENTION!!!
SECOND NOTICE LETTER FOR
SAFETY RECALL 00509**

* This message is to inform everyone that we are mailing a second notice for 00509 to remind both dealers and customers to take advantage of the summer time while school is out and get the uncompleted buses repaired for 00509.

* There were no changes to the original letters for 00509; therefore, these second notice letters will not be put on our intranet site (thus, no hotlink attached).

* This message can be forwarded to anyone INTERNALLY who needs information on this campaign.

* Send me an e-mail if you want to add or delete individuals on the distribution list above.

* UNCOMPLETED US VEHICLES = 4,764

* CANADIAN VEHICLES = 17

* MEXICO = 0

* BRAZIL = 0

* OTHER EXPORT = 14

* US Dealer mailing: 6/11/01

* US Customer mailing: 6/11/01

* Canadian mailing: No mailing will be done for Canada because only 17 left uncompleted; however the customer cards.

* If you have any questions or comments regarding field campaigns please contact me.

* THANKS.

Mark Clark
Compliance Coordinator
International Truck and Engine Corporation
Phone: 219-461-1873
Fax: 219-461-1814

00V-232.301

Date: 7/20/01 ;
Subject: 00510 REVISION A: BENDIX ECU ON STRAIGHT TRUCKS

ATTENTION!!!
LETTER G-00510 HAS BEEN REVISED (REV. A):
SUBJECT: BENDIX ECU FOR STRAIGHT TRUCKS
THIS LETTER REPLACES THE ORIGINAL G-00510 LETTER

- * Clicking on the hot link below will take you directly to the dealer letter on our web site.
- * Once you have clicked on the hot link, review the campaign letter for subject matter.
- * This message can be forwarded to anyone INTERNALLY who needs information on this campaign.
- * Send me an e-mail if you want to add or delete individuals on the distribution list above.
- * TO PRINT HARD COPYS: USE THE BLUE HOTLINKS WHICH ARE PDF FILES AND ARE FOUND ON THE FIRST PAGE OF THE INTRANET DEALER LETTER. If you need a hard copy, simply click on the PDF hot link to open the letter and select the print command. The letters will print out as you see them.
- * UNCOMPLETED VINS AS OF 7/20/01 ARE AS FOLLOWS:
- * PLEASE MAKE EVERY EFFORT TO ASSIST IN GETTING THESE VEHICLES REPAIRED.
- * US VEHICLES = 38,932
- * CANADIAN VEHICLES = 1,988
- * MEXICO = 244
- * BRAZIL = 2
- * OTHER EXPORT = 312
- * US Dealer mailing: 7/03/01
- * Canadian Dealer mailing: 7/17/01
- * NO CUSTOMER MAILING WAS DONE
- * THIS WAS STRICTLY A DEALER LETTER REVISION MAILING
- * HOT LINK: http://service.navistar.com/recalls/00510_1.xml
- * Please let me know if we still have printing problems or other issues.
- * THANKS.

Mark Clark
Compliance Coordinator
International Truck and Engine Corporation
Phone: 219-481-1873
Fax: 219-481-1814

Date: 4/30/02

00V-232.201

Subject: FW: 00509 THIRD NOTICE: Replacement of the Bendix EC-17 1030R electronic control unit (ECU) for air brakes on 3400, 3600 and 38

Sorry, I corrected the campaign number in the body of the email.

I had 00508 and it should have been 00509 as shown below.

THIRD NOTICE FOR SAFETY RECALL 00509

> —Original Message—

> From: Clark, Mark K

> Sent: Tuesday, April 30, 2002 11:14 AM

> To: DL CSO; Osterkil, Al; Ezell, Angella R; McDaniel, Barbara C;

> Bensinger, Bob J; Jolley, Carey F; Cumlin, Carlos A; Stone, Charles K

> (Keith); Hansen, Cindy G; Guest, Clara; Holmes, Craig N; Kilgore, Daryl M;

> Morse, David E; Loakes, David; Reaume, Donald L (Don); Cochran, Ellen R;

> Pradilla, Enrique; Adamczyk, Frank R; Giles, Gary E; Simmons, Gary;

> Landin, Gene D; Chebli, Hadi; Alices, Henry; Runyan, Jack S; Craddock, Jim

> R; Jensen, James S; Pirls, Jim L; Soest, JoAnne K.; Sanchez, Joe O;

> Rangel, Jose O; Johnson, Lee S; Grobart, Louise M; Vann, Lynn D; Rene De

> Cotret, Marc; Dookittle, Marcia J; Boykin, Nancy C; Neves, Otavio F; Van

> Laar, Richard L (Rick); Douglas, Robert L (Bob); Steinberg, Robert W;

> Garcia, Sergio; Tow, Sharon G; Waller, Shirley D; Wortham, J S (Steve);

> Jenks, Thomas F; Quinlan, Tim; Staley, John; Espinosa, Victor; Mills,

> Wayne R; Pockele, Jerry S; McInnis, William A (Bill); Ferguson, Steve E

> (Cantera); 'NHTSA PAT WALLACE'; Coffee, Gary A; Lightwine, Lee L; Garcia,

> Eduardo M (Navistar); Groeneyeld, Benjamin R (Ben); Coppe, Timothy A (Tim)

> Subject: 00509 THIRD NOTICE: Replacement of the Bendix EC-17 1030R

> electronic control unit (ECU) for air brakes on 3400, 3600 and 3800 buses

> built at the Springfield Assembly Plant from 3/01/1998 through 8/18/2000.

>

>

> ATTENTION!

>

> PLEASE HELP IMPROVE THE COMPLETION RATE FOR THIS CAMPAIGN.

>

> THIRD NOTICE FOR SAFETY RECALL 00509

> SUBJECT: Replacement of the Bendix EC-17 1030R electronic control unit

> (ECU) for air brakes on 3400, 3600 and 3800 buses built at the Springfield

> Assembly Plant from 3/01/1998 through 8/18/2000.

>

> * Clicking on the blue hot link below will take you directly to the

> latest complete dealer letter on our web site.

> * The follow up notice letter that will be sent to dealers, refers to

> the latest complete dealer letter so it will not be put on the intranet.

> * The customer follow up notice for this campaign will not be found on

> the intranet either.

> * Once you have clicked on the hot link, review the campaign letter

> for the subject matter.

> * This message can be forwarded to anyone internally who needs

> information on this campaign.

> * Send me an e-mail if you want to add or delete individuals on the

> distribution list above.

> * There is a printable PDF file for the dealer letter at the hotlink

> below.

> * U.S. Dealer mailing: F: 4/19/02 (for follow-up notices, dealer

- > and customer mailings can go out at the same time)
- > * U.S. Customer mailing: F: 4/19/02
- > * Canadian Dealer mailing: DID NOT DO MAILING FOR ONLY 8
- > VEHICLES
- > * Canadian Customer mailing: DID NOT DO MAILING FOR ONLY 8
- > VEHICLES
- > * PLEASE MAKE EVERY EFFORT TO ASSIST IN GETTING THESE BUSES REPAIRED
- > AS QUICKLY AS POSSIBLE AND DURING THE SUMMER MONTHS WHILE MANY OF THEM MAY
- > BE OUT OF SERVICE.
- > * BELOW ARE THE UNCOMPLETED QUANTITIES OF VEHICLES IN THIS SAFETY
- > RECALL.
- > * US: 1905
- > * Canada: 8
- > * BRAZIL: 0
- > * Mexico: 0
- > * Other export: 0
- > * http://service.navistar.com/recalls/00508_1.xml
- > * If you have any questions, please let me know.
- > * Thank You.
- >
- >
- > Mark Clark
- > Compliance Coordinator
- > International Truck and Engine Corporation
- > phone: 260-461-1873
- > fax: 260-461-1813
- >
- >
- >
- >
- >

Date: 4/25/02
Subject: 00610 SECOND NOTICE: Replacement of the Bendix EC-17 1030R electronic control unit (ECU) for air brakes on 2000, 4000, 5000, 8000

ATTENTION!

00V-232.301

PLEASE HELP IMPROVE THE COMPLETION RATE FOR THIS CAMPAIGN.

SECOND NOTICE FOR SAFETY RECALL 00510
SUBJECT: Replacement of the Bendix EC-17 1030R electronic control unit (ECU) for air brakes on 2000, 4000, 5000, 8000 and 9000 model STRAIGHT TRUCKS with code 04081.

- * Clicking on the blue hot link below will take you directly to the latest complete dealer letter on our web site.
- * The follow up notice letter that will be sent to dealers, refers to the latest complete dealer letter so it will not be put on the Intranet.
- * The customer follow up notice for this campaign will not be found on the intranet either.
- * Once you have clicked on the hot link, review the campaign letter for the subject matter.
- * This message can be forwarded to anyone Internally who needs information on this campaign.
- * Send me an e-mail if you want to add or delete individuals on the distribution list above.
- * There are PDF files for printing of this campaign at the hotlink below.
- * U.S. Dealer mailing: W: 4/24/02 (for follow-up notices, dealer and customer mailings can go out at the same time)
- * U.S. Customer mailing: M: 4/29/02
- * Canadian Dealer mailing: F: 4/26/02
- * Canadian Customer mailing: T: 4/30/02
- * PLEASE MAKE EVERY EFFORT TO ASSIST IN GETTING THESE VEHICLES REPAIRED.
- * BELOW ARE THE UNCOMPLETED QUANTITIES OF VEHICLES IN THIS SAFETY RECALL.
- * US: 25,667
- * Canada: 910
- * BRAZIL: 2
- * Mexico: 244
- * Other export: 312
- * http://service.navistar.com/recalls/00510_1.xml
- * If you have any questions, please let me know.
- * Thank You.

Mark Clark
Compliance Coordinator
International Truck and Engine Corporation
phone: 260-461-1873
fax: 260-461-1813

Date: 1/2/01
Subject: RE: Population for Bendix recall

Our current estimates are:
00V232.301 - 00510 is 79,465 and
00V232.401 - 00511 is 62,480

Mark Clark
Compliance Coordinator
International Truck and Engine Corporation
Phone: 219-461-1873
Fax: 219-461-1814

00V-232.301
00V-232.401

Date: 7/20/01
Subject: FW: 00511 REVISION A: BENDIX ECU FOR TRACTORS

00V-232.401

SORRY, IGNORE THE FIRST MESSAGE FOR 00511 I HAD THE WRONG HOTLINK
THIS TIME IT IS CORRECT SEE BELOW.

THANKS

Mark Clark
Compliance Coordinator
International Truck and Engine Corporation
Phone: 219-461-1873
Fax: 219-461-1814

> ---Original Message---

> From: Clark, Mark K
> Sent: Friday, July 20, 2001 3:16 PM
> To: .DL CSO; Osterkil, Al; Opila, Andy J; Ezell, Angella R; McDaniel,
> Barbara C; Bensinger, Bob J; Jolley, Carey F; Curren, Carlos A; Stone,
> Charles K (Keith); Hansen, Cindy G; Guest, Clara; Holmes, Craig N; Van
> Brunt, Dan R; Kligore, Daryl M; Morse, David E; Loakes, David; Reaume,
> Donald L (Don); 'Faucett, Dorothy'; Cochren, Ellen R; 'Lepere, Emmanuel';
> Pradilla, Enrique; Adamczyk, Frank R; Giles, Gary E; Simmons, Gary;
> Landin, Gene D; Chebil, Hedl; Alcea, Henry; Runyan, Jack S; Craddock, Jim
> R; Jensen, James S; Pirie, Jim L; Soest, JoAnne K.; Sanchez, Joe O;
> Rangel, Jose O; Haley, Julia M; Johnson, Lee S; Grobart, Louise M; Vann,
> Lynn D; Rene De Cotret, Marc; Doolittle, Marola J; Boykin, Nancy C; Neves,
> Otavio F; Van Laar, Richard L (Rick); Douglas, Robert L (Bob); Steinberg,
> Robert W; Sanghavi, Roger V; Garcia, Sergio; Tow, Sharon G; Walter,
> Shirley D; Wortham, J S (Steve); Jenks, Thomas F; Quinlan, Tim; Staley,
> John; Espinosa, Victor; Mills, Wayne R; Pockele, Jerry S; McInnis, William
> A (Bill); Ferguson, Steve E (Cantera); 'NHTSA PAT WALLACE'; Lepere,
> Emmanuel
> Subject: 00511 REVISION A: BENDIX ECU FOR TRACTORS

> ATTENTION!!!

> LETTER G-00511 HAS BEEN REVISED (REV. A);
> SUBJECT: BENDIX ECU FOR TRACTORS
> THIS LETTER REPLACES THE ORIGINAL G-00511 LETTER

> * Clicking on the hot link below will take you directly to the dealer
> letter on our web site.
> * Once you have clicked on the hot link, review the campaign letter
> for subject matter.
> * This message can be forwarded to anyone INTERNALLY who needs
> information on this campaign.
> * Send me an e-mail if you want to add or delete individuals on the
> distribution list above.
> * TO PRINT HARD COPIES: USE THE BLUE HOTLINKS WHICH ARE PDF FILES AND
> ARE FOUND ON THE FIRST PAGE OF THE INTRANET DEALER LETTER. If you need a
> hard copy, simply click on the PDF hot link to open the letter and select
> the print command. The letters will print out as you see them.
> * UNCOMPLETED VINS AS OF 7/20/01 ARE AS FOLLOWS:
> * PLEASE MAKE EVERY EFFORT TO ASSIST IN GETTING THESE VEHICLES
> REPAIRED.

- > * US VEHICLES = 42,864
- > * CANADIAN VEHICLES = 8,037
- > * MEXICO = 928
- > * BRAZIL = 10
- > * OTHER EXPORT = 158
- > * US Dealer mailing: 7/05/01
- > * Canadian Dealer mailing: 7/17/01
- > * NO CUSTOMER MAILING WAS DONE
- > * THIS WAS STRICTLY A DEALER LETTER REVISION MAILING
- > * HOT LINK: http://service.navistar.com/recalls/00511_1.xml
- > * Please let me know if we still have printing problems or other
- > issues.
- > * THANKS.
- >
- >
- > Mark Clark
- > Compliance Coordinator
- > International Truck and Engine Corporation
- > Phone: 219-461-1873
- > Fax: 219-461-1814
- >

Date: 7/20/01
Subject: 00511 REVISION A: BENDIX ECU FOR TRACTORS

ATTENTION!!!
LETTER G-00511 HAS BEEN REVISED (REV. A):
SUBJECT: BENDIX ECU FOR TRACTORS
THIS LETTER REPLACES THE ORIGINAL G-00511 LETTER

- * Clicking on the hot link below will take you directly to the dealer letter on our web site.
- * Once you have clicked on the hot link, review the campaign letter for subject matter.
- * This message can be forwarded to anyone INTERNALLY who needs information on this campaign.
- * Send me an e-mail if you want to add or delete individuals on the distribution list above.
- * **TO PRINT HARD COPIES: USE THE BLUE HOTLINKS WHICH ARE PDF FILES AND ARE FOUND ON THE FIRST PAGE OF THE INTRANET DEALER LETTER. If you need a hard copy, simply click on the PDF hot link to open the letter and select the print command. The letters will print out as you see them.**
- * **UNCOMPLETED VINS AS OF 7/20/01 ARE AS FOLLOWS:**
- * **PLEASE MAKE EVERY EFFORT TO ASSIST IN GETTING THESE VEHICLES REPAIRED.**
- * **US VEHICLES = 42,884**
- * **CANADIAN VEHICLES = 6,037**
- * **MEXICO = 928**
- * **BRAZIL= 10**
- * **OTHER EXPORT= 156**
- * **US Dealer mailing: 7/05/01**
- * **Canadian Dealer mailing: 7/17/01**
- * **NO CUSTOMER MAILING WAS DONE**
- * **THIS WAS STRICTLY A DEALER LETTER REVISION MAILING**
- * **HOT LINK: http://service.naviestar.com/recalls/00510_1.xml**
- * Please let me know if we still have printing problems or other issues.
- * **THANKS.**

Mark Clark
Compliance Coordinator
International Truck and Engine Corporation
Phone: 219-461-1873
Fax: 219-461-1814

Date: 4/25/02
Subject: 00511 SECOND NOTICE: Replacement of the Bendix EC-17 1030R electronic control unit (ECU) for air brakes on 2000, 4000, 5000, 8000

ATTENTION!

PLEASE HELP IMPROVE THE COMPLETION RATE FOR THIS CAMPAIGN.

SECOND NOTICE FOR SAFETY RECALL 00511
SUBJECT: Replacement of the Bendix EC-17 1030R electronic control unit (ECU) for air brakes on 2000, 4000, 5000, 8000 and 9000 model TRACTORS with code 04092.

00V-232.401

- * Clicking on the blue hot link below will take you directly to the latest complete dealer letter on our web site.
- * The follow up notice letter that will be sent to dealers, refers to the latest complete dealer letter so it will not be put on the intranet.
- * The customer follow up notice for this campaign will not be found on the intranet either.
- * Once you have clicked on the hot link, review the campaign letter for the subject matter.
- * This message can be forwarded to anyone internally who needs information on this campaign.
- * Send me an e-mail if you want to add or delete individuals on the distribution list above.
- * There are PDF files for printing of this campaign at the hotlink below.
- * U.S. Dealer mailing: W: 4/24/02 (for follow-up notices, dealer and customer mailings can go out at the same time)
- * U.S. Customer mailing: F: 4/23/02
- * Canadian Dealer mailing: F: 4/26/02
- * Canadian Customer mailing: T: 4/30/02
- * PLEASE MAKE EVERY EFFORT TO ASSIST IN GETTING THESE VEHICLES REPAIRED.
- * BELOW ARE THE UNCOMPLETED QUANTITIES OF VEHICLES IN THIS SAFETY RECALL.
- * US: 22,641
- * Canada: 2,339
- * BRAZIL: 10
- * Mexico: 926
- * Other export: 153
- * http://service.navistar.com/recalls/00511_1.xml
- * If you have any questions, please let me know.
- * Thank You.

Mark Clark
Compliance Coordinator
International Truck and Engine Corporation
phone: 260-461-1873
fax: 260-461-1813

August 30, 2000

IMPORTANT RECALL CAMPAIGN INFORMATION

TO: ALL FREIGHTLINER DEALERS - US AND CANADA
ALL FREIGHTLINER CUSTOM CHASSIS DEALERS - US AND CANADA
ALL STERLING DEALERS - US AND CANADA

ATTENTION: SERVICE MANAGER
PARTS MANAGER
WARRANTY MANAGER

SUBJECT: Bendix ABS Systems
FL266A

FL266A is being released to correct a defect involving approximately 1,200 Freightliner Custom Chassis Corporation FS-65 School Bus chassis and Sterling fire, rescue, and emergency vehicles manufactured between March 1998 and August 2000 and equipped with Bendix ABS EC-17 electronic control units (ECU). The ECU can misinterpret certain signals from the wheel ends, which can result in the temporary loss of braking capability in one or more wheel positions.

The repair consists of replacing the ABS ECU. The repair will require approximately 1 hour per vehicle.

Repair kits are currently being manufactured. We expect kits to be shipped by the manufacturer to the FDCs by November 2000.

Preliminary owner notification letters were mailed Tuesday, August 29, 2000. If the parts are not available in time to meet customers' operating needs, the inspection detailed below may be performed.

This is an industry-wide recall involving approximately 300,000 vehicles. Due to parts availability, we are addressing the highest risk vehicles first. We will be expanding our campaign as parts availability allows.

INSPECTION PROCEDURE

Use the following procedure to inspect the Bendix antilock braking system (ABS) wheel end components on a Freightliner Custom Chassis Corporation FS-65 School Bus chassis or Sterling emergency vehicle:

- 1 Park the vehicle on a level surface, apply the parking brakes and shut down the engine. Chock the rear tires.
- 2 Raise the front of the vehicle until the tires clear the floor. Place safety stands under the front axle. Be sure the stands will support the weight of the vehicle.
- 3 Remove the wheel on one side of the vehicle. For instructions, see Group 40 in the appropriate vehicle workshop manual.
- 4 Remove the brake drum. For instructions, see Group 33 in the appropriate vehicle workshop manual.
- 5 Inspect the tone wheel. It should be firmly and uniformly seated all around the hub. A gap may exist behind the tone wheel on some hub assemblies.

This is acceptable if the gap is a consistent width all around the hub. Check for damaged tone wheel teeth. If the tone wheel is loose, improperly seated, or damaged, then replace the tone wheel or hub assembly. See Group 33 in the appropriate vehicle workshop manual for instructions.

6 Inspect the wheel speed sensor wiring. If the insulation is chaffed, or if the wiring is pinched or damaged, replace the sensor.

REPLACEMENT PROCEDURE FRONT WHEEL SPEED SENSOR

For Sterling vehicles, refer to the *Sterling L-Line and A-Line Workshop Manual* for procedures if sensor replacement is required.

FCCC 78-65 School Bus chassis sensor replacement procedure:

- 6.1 Twist and pull the sensor to remove it from the steer axle knuckle.
- 6.2 Remove the sensor harness from the knuckle top cap.
- 6.3 Disconnect the sensor harness from the chassis harness.
- 6.4 Remove the clamping bushing from the brake spider hole.
- 6.5 Connect the new sensor harness to the chassis harness.
- 6.6 Attach the sensor harness to the knuckle top cap.
- 6.7 Push the clamping bushing into the brake spider hole until it stops.
- 6.8 Coat the sensor with Mobil HP, Valvoline EP 633, Penzoil 707L, or equivalent grease. Push the sensor into the clamping bushing until it is stopped by the tone wheel.

7 Install the brake drum. For instructions, see Group 33 in the appropriate vehicle workshop manual.

8 Install the wheel. For instructions, see Group 40 in the appropriate vehicle workshop manual.

9 Repeat the above procedure for the other side of the vehicle.

10 Remove the safety stands from the front axle and lower the vehicle.

11 Remove the chocks from the rear tires and chock the front tires.

12 Raise the rear of the vehicle until the tires clear the floor. Place safety stands under the rear axle.

13 Remove the wheels and brake drum from one side of the vehicle. For instructions, see Group 40 and Group 35, respectively, in the appropriate vehicle workshop manual.

14 Inspect the tone wheel. It should be firmly and uniformly seated all around the hub. A gap may exist behind the tone wheel on some hub assemblies. This is acceptable if the gap is a consistent width all around the hub. Check for damaged tone wheel teeth. If the tone wheel is loose, improperly seated, or damaged, replace the tone wheel or hub assembly. See Group 35 in the appropriate vehicle workshop manual for instructions.

15 Inspect the wheel speed sensor wiring. If the insulation is chaffed, or if the wiring is pinched or damaged, replace the sensor.

REPLACEMENT PROCEDURE REAR WHEEL SPEED SENSOR

For Sterling vehicles, refer to the *Sterling L-Line and A-Line Workshop Manual* for procedures if sensor replacement is required.

FCCC FB-65 School Bus chassis sensor replacement procedure:

- 15.1 Twist and pull the sensor to remove it from the mounting block on the axle housing.
 - 15.2 Remove the clamping bushing from the mounting block.
 - 15.3 Remove the clamp that attaches the sensor harness to the axle.
 - 15.4 Disconnect the sensor harness from the chassis harness.
 - 15.5 Connect the new sensor harness to the chassis harness.
 - 15.6 Attach the clamp and sensor harness to the axle.
 - 15.7 Push the clamping bushing into the mounting block until it stops.
 - 15.8 Coat the sensor with Mobil HP, Valvoline EP633, Penzoil 707L, or equivalent grease. Push the sensor into the clamping bushing until it is stopped by the tone wheel.
- 16 Install the brake drum. For instructions, see Group 35 in the appropriate vehicle workshop manual.
- 17 Install the wheels. For instructions, see Group 40 in the appropriate vehicle workshop manual.
- 18 Repeat the procedure for the other side of the vehicle.
- 19 Remove the safety stands from the rear axle and lower the vehicle.
- 20 When the modification has been completed, clean a spot on the passenger door jamb of the Sterling vehicle or above the drivers side window of the FCCC FB-65 School Bus vehicle and attach a completion sticker (Form W-147) referencing FL266A and the date the work was performed.
- 21 Remove the chocks from the tires.

CLAIMS FOR CREDIT

-
- Claim type is RECALL
 - In the FSDOC Field enter FL266A.
 - In the Primary Failed Part Number Field enter 25-FL266-000.
 - No parts are necessary for the inspection.
 - The Labor Allowance (SRT) for the Bendix ABS EC-17 Wheel End Hardware Inspection is 996-0362A for up to 2.5 hours.
 - The Damage Code is 000-Inspected.

If you have any questions, please call the Warranty Campaigns Department, at (800) 547-0712, 7:00 AM through 4:30 PM, Pacific Standard Time.

WARRANTY CAMPAIGNS DEPARTMENT
CUSTOMER SUPPORT DIVISION
FREIGHTLINER LLC



RECEIVED
00 SEP 19 AM 11:04
OFFICE
DEFECTS INVESTIGATION

Gary W. Rossow
Director
Government Technical Affairs

DATE: September 11, 2000

Freightliner LLC
4747 N Channel Ave.
Portland, OR 97217
503.746.8862 Phone
503.746.6800 Fax
GaryRossow@Freightliner.com

Office of Defects Investigation, Room 5326
National Highway Traffic Safety Administration
400 Seventh St., S.W.
Washington, D.C. 20590

Attn: Jonathan D. White

Subject: Information Report, NHTSA No. 00V-232.002

In accordance with Title 49, Part 573, Freightliner LLC herewith submits an information report supplying copies of documents distributed to dealers and purchasers.

Sincerely,

Gary W. Rossow

Cc: Michael Mason, CAL-OSHA

Certified Mail No. Z 224 782 569

Section 573.5 Defect Information Report

Supplement No.: 2

Date: September 11, 2000

(c) (1) Manufacturer: FREIGHTLINER LLC
P.O. BOX 3849
Portland, Oregon 97208
(503) 735-8078

(c) (2) Vehicles Identification:
Manufacture dates: Revise ending date to August 16, 2000

(c) (3) Total number of vehicles potentially affected: (Revise to read)
Approximately 39,500

(c) (10) Copy of proposed owner notification letter: Owner letters were mailed to the remaining population that do not include school buses or emergency vehicles on September 9, 2000



A DaimlerChrysler Company

Freightliner LLC
P.O. Box 4000
Portland, OR 97208-4000
800.547.0712 Phone
503.746.7415 Fax

September 2000
FL266A-B

Dear Freightliner or Sterling Vehicle Owner:

This notice is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act and the Canadian Motor Vehicles Safety Act. Freightliner LLC, on behalf of its Freightliner Trucks Division and wholly owned subsidiary, Sterling Truck Corporation, has determined that a defect which relates to motor vehicle safety exists on the vehicle(s) identified on the enclosed form.

The defect involves specific Freightliner and Sterling vehicles manufactured between February 13, 1998, and August 16, 2000, equipped with Bendix ABS EC-17-1030R electronic control units (ECU). The ECU can misinterpret certain signals from wheel ends, which can result in the temporary loss of braking capability in one or more wheel positions. This may result in extended stopping distance and a potential vehicle crash without prior warning. The risk is greatest for straight trucks and tractors operating without trailers. Trailers have independent braking systems which would continue to operate normally.

Repair kits are currently being manufactured. We expect availability of replacement ECUs to be no later than November 2000 for trucks and April 2001 for tractors. These dates are based on Bendix's ability to supply parts and priorities approved by the National Highway Traffic Safety Administration. Contact your authorized dealer regarding scheduling and availability of parts. If parts are not available to meet your requirements, an inspection of the wheel speed sensors, associated wiring, and tone rings must be performed to assure that there are no conditions present that could trigger a response by the ECU that results in a loss of braking. The inspection may be performed by any authorized Freightliner or Sterling dealer regardless of the brand of your vehicle. If you have other questions, you may contact the Warranty Campaigns Department.

This defect will be remedied without charge. The repair consists of replacing the ABS ECU with a new ECU. This repair will require approximately 1.0 hour per vehicle. If an inspection prior to replacement of the ECU (as described in the paragraph above) is needed, it will require approximately 2.5 hours.

If you do not own the vehicle that corresponds to the identification number(s), which appears on the Recall Notification, please return the notification to the Warranty Campaigns Department with any information you can furnish that will assist us in locating the present owner. If you have leased this vehicle, please make sure this notification is immediately forwarded to the lessee.

If you are unable to have the defect remedied without charge and within a reasonable time after the vehicle is tendered for repair, please contact the Warranty Campaigns Department at (800) 547-0712, from 7:00 a.m. to 4:30 p.m. Monday through Friday Pacific Time, or the Freightliner Customer Assistance Center at (800) FTL-HELP, after normal business hours. You may wish to notify the Administrator, National Highway Traffic Safety Administration, 400 Seventh Street, SW, Washington, DC 20590, or call (800) 424-9393. If your vehicle is part of the Canadian portion, you may wish to notify the Manager, Recall and Public Compliance, Road and Motor Vehicle Traffic Safety Branch, Transport Canada, Ottawa, Ontario, or phone (819) 993-9851.

We regret any inconvenience this action may cause, but feel certain you understand our interest in motor vehicle safety.

WARRANTY CAMPAIGNS DEPARTMENT

Enclosure

Freightliner LLC is a Member
of the Daimler-Benz Group

**September 2000
FL266A-B**

September 2000

IMPORTANT RECALL CAMPAIGN INFORMATION**TO:** ALL FREIGHTLINER DEALERS
ALL FREIGHTLINER CUSTOM CHASSIS DEALERS
ALL STERLING DEALERS**ATTENTION:** SERVICE MANAGER
PARTS MANAGER
WARRANTY MANAGER**SUBJECT:** Bendix ABS Systems
FL266A-B

Please replace the earlier FL266A campaign information with this FL266A-B bulletin.

General Information

FL266A-B is being released to correct a defect involving approximately 41,200 Freightliner, Freightliner Custom Chassis, and Sterling vehicles manufactured between March 1998 and August 2000 equipped with Bendix ABS EC-17 electronic control units (ECU). This is an industry-wide recall involving approximately 300,000 vehicles.

Notification for FL266A was mailed to owners on August 29, 2000. It included Freightliner Custom Chassis FS-65 School Bus Chassis and Sterling emergency vehicles. Approximately 1,200 vehicles are included in this group.

Notification for FL266B is expected to be mailed to owners on September 9, 2000. This notice expands the population by approximately 40,000 Freightliner and Sterling vehicles, which brings our total involvement to approximately 41,200 vehicles.

The ABS ECU can misinterpret certain signals from the wheel ends, which can result in the temporary loss of braking capability in one or more wheel positions. The repair consists of replacing the ABS ECU. Repair kits are currently being manufactured. We expect the manufacturer to begin shipment of kits to the PDCs to address the expanded population by November 2000.

The repair will require approximately 1.0 hour per vehicle. If parts are not available in time to meet customers' operating needs, the inspection detailed below should be performed. The inspection will require approximately 2.5 hours. This inspection procedure is included to ensure that these vehicles are safe to operate until repair kits are available.

Note: Due to the seriousness of this issue, we are allowing owners to have either Freightliner or Sterling dealers perform the inspection regardless of the brand of the vehicle. Please help all owners schedule any necessary inspections in a timely fashion.

September 2000
FL266A-B

WORK INSTRUCTIONS

Inspection Procedure

Use the following procedure to inspect the Bendix antilock braking system (ABS) wheel end components on the vehicle:

1. Park the vehicle on a level surface, apply the parking brakes and shut down the engine. Chock the rear tires.
2. Check the door frame (or applicable location for the vehicle) for a completion label (Form W-147) for Recall FL266A or FL266B. If the label is found, no further work is required.
3. Raise the front of the vehicle until the tires clear the floor. Place safety stands under the front axle. Be sure the stands will support the weight of the vehicle.
4. Remove the wheel on one side of the vehicle. For instructions, see Group 40 in the appropriate vehicle workshop manual.

IMPORTANT: Be sure to back off the slack adjuster before removing the brake drum.

5. Remove the brake drum. For instructions, see Group 33 in the appropriate vehicle workshop manual.
6. Inspect the tone wheel. It should be firmly and uniformly seated all around the hub. A gap may exist behind the tone wheel on some hub assemblies. This is acceptable if the gap is a consistent width all around the hub. Check for damaged tone wheel teeth.

If the tone wheel is loose, improperly seated, or damaged, replace the tone wheel or hub assembly. See Group 33 in the appropriate vehicle workshop manual for instructions.

7. Inspect the wheel speed sensor wiring. If the insulation is chafed or if the wiring is pinched or damaged, replace the sensor.

For Freightliner models FLD, Century Class, Argosy, Business Class, and FLC 112, and all Sterling vehicles, refer to Group 42 in the applicable service or workshop manual for instructions.

For Columbia vehicles, refer to Group 42 in the *Century Class Trucks Workshop Manual* for instructions.

For FCCC FS-65 School Bus Chassis, use the following procedure for sensor replacement:

- 7.1 Twist and pull the sensor to remove it from the steer axle knuckle.
- 7.2 Remove the sensor harness from the knuckle top cap.
- 7.3 Disconnect the sensor harness from the chassis harness.
- 7.4 Remove the clamping bushing from the brake spider hole.
- 7.5 Connect the new sensor harness to the chassis harness.

September 2000**FL266A-B**

- 7.6 Attach the sensor harness to the knuckle top cap.
- 7.7 Push the clamping bushing into the brake spider hole until it stops.
- 7.8 Coat the sensor with Mobil HP, Valvoline EP 633, Penzoll 707L, or equivalent grease.
Push the sensor into the clamping bushing until it is stopped by the tone wheel.

8. Install the brake drum. For instructions, see Group 33 in the appropriate vehicle workshop manual.

9. Install the wheel. For instructions, see Group 40 in the appropriate vehicle workshop manual.

10. Repeat the above procedure for the other side of the vehicle.

11. Remove the safety stands from the front axle and lower the vehicle.

12. Remove the chocks from the rear tires and chock the front tires.

13. Raise the rear of the vehicle until the tires clear the floor. Place safety stands under the rear axle.

14. Remove the wheels and brake drum from one side of the vehicle. For instructions, see Group 40 and Group 35, respectively, in the appropriate vehicle workshop manual.

15. Inspect the tone wheel. It should be firmly and uniformly seated all around the hub. A gap may exist behind the tone wheel on some hub assemblies. This is acceptable if the gap is a consistent width all around the hub. Check for damaged tone wheel teeth.

If the tone wheel is loose, improperly seated, or damaged, replace the tone wheel or hub assembly. See Group 35 in the appropriate vehicle workshop manual for instructions.

16. Inspect the wheel speed sensor wiring. If the insulation is chaffed or if the wiring is pinched or damaged, replace the sensor.

For Freightliner models FLD, Century Class, Argosy, Business Class, and FLC 112, and all Sterling vehicles, refer to Group 42 in the applicable service or workshop manual for instructions.

For Columbia vehicles, refer to Group 42 in the *Century Class Trucks Workshop Manual* for instructions.

For FCCC FS-65 School Bus Chassis, use the following procedure for sensor replacement:

- 16.1 Twist and pull the sensor to remove it from the mounting block on the axle housing.
- 16.2 Remove the clamping bushing from the mounting block.
- 16.3 Remove the clamp that attaches the sensor harness to the axle.
- 16.4 Disconnect the sensor harness from the chassis harness.
- 16.5 Connect the new sensor harness to the chassis harness.
- 16.6 Attach the clamp and sensor harness to the axle.
- 16.7 Push the clamping bushing into the mounting block until it stops.

Recall Campaign

September 2000

FL266A-B

16.8 Coat the sensor with Mobil HP, Valvoline EP633, Penzoil 707L, or equivalent grease.
Push the sensor into the clamping bushing until it is stopped by the tone wheel.

17. Install the brake drum. For instructions, see Group 35 in the appropriate vehicle workshop manual.

18. Install the wheels. For instructions, see Group 40 in the appropriate vehicle workshop manual.

19. Repeat the procedure for the other side of the vehicle.

Note: If you replace any damaged tone rings, sensors, or wires as part of your inspection, make a note of it in the comments field of the Recall claim. Please file all claims for this campaign immediately.

20. Remove the safety stands from the rear axle and lower the vehicle.

21. Enter the recall campaign number (FL266A-B) and the date the work was performed on a completion label (Form W-147). Clean an area in the appropriate location for your vehicle and attach the label.

21. Remove the chocks from the tires.

CLAIMS FOR CREDIT

- Claim type is RECALL.
- In the FSDOC Field, enter FL266A or FL266B as appropriate.
- In the Primary Failed Part Number Field, enter 25-FL266-000.
- No parts are necessary for the inspection.
- The Labor Allowance (SRT) for the Bendix ABS EC-17 Wheel End Hardware Inspection is 996-0362A for up to 2.5 hours.
- The Damage Code is 000-Inspected (use this damage code for ALL claims for FL266A-B).

If you have any questions, please call the Warranty Campaigns Department at (800) 547-0712, 7:00 AM through 4:30 PM, Pacific Time.

WARRANTY CAMPAIGNS DEPARTMENT
CUSTOMER SUPPORT DIVISION
FREIGHTLINER LLC



RECEIVED
NOV 15 AM 11:08
OFFICE
DEFECTS INVESTIGATION

Gary W. Rossow
Director
Government Technical Affairs

DATE: November 9, 2000

Freightliner LLC
4747 N Channel Ave.
Portland, OR 97217
503.746.8882 Phone
503.746.6800 Fax
Gary.Rossow@Freightliner.com

Office of Defects Investigation, Room 5326
National Highway Traffic Safety Administration
400 Seventh St., S.W.
Washington, D.C. 20590

Attn: Jonathan D. White

Subject: Information Report, NHTSA No. 00V-232.002

In accordance with Title 49, Part 573, Freightliner LLC herewith submits an information report supplying copies of documents distributed to dealers and purchasers. These documents are notifying dealers and owners of school buses and emergency vehicles, that parts are now available to repair their vehicles.

Sincerely,

Gary W. Rossow

Cc: Michael Mason, CAL-OSHA

Certified Mail No. Z 224 782 584



Freightliner LLC
P.O. Box 4090
Portland, OR 97208-4090
800.847.0712 Phone
503.745.7415 Fax

October 2000
FL268A-C
(NHTSA 00V-232.002)

Dear Freightliner Custom Chassis Owner:

This notice is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act and the Canadian Motor Vehicles Safety Act.

Freightliner LLC, on behalf of its wholly-owned subsidiaries, Sterling Truck Corporation and Freightliner Custom Chassis Corporation, and its Freightliner Trucks Division, has determined that a defect which relates to motor vehicle safety exists on specific Sterling, Freightliner Custom Chassis, and Freightliner models manufactured with Bendix ABS Electronic Control Units (ECU) between February 13, 1998, and August 16, 2000.

The Bendix ABS ECU misinterprets certain signals from wheel ends, which can result in the temporary loss of braking capability in one or more wheel positions for several seconds, which can lead to a possible vehicle crash without prior warning.

The modification consists of replacing the ABS ECU with a new, corrected unit capable of detecting and properly responding to erroneous signals.

Parts are being made available by Bendix in limited quantities. Please work with your authorized dealer to schedule the replacement and to confirm that your dealer has received replacement parts for your vehicle.

When you contact your dealer, refer to campaign number FL268 and your vehicle identification number. Once the kit for your vehicle has been received by your dealer, the modification will take approximately 1 hour and will be performed at no charge to you.

IMPORTANT: When the campaign has been completed, please ensure that a sticker has been affixed to your vehicle referencing FL268 and the date the work was performed.

If you do not own the vehicle that corresponds to the identification number(s) which appears on the Recall Notification, please return the notification to the Warranty Campaigns Department with any information you can furnish that will assist us in locating the present owner. If you have leased this vehicle, please make sure this notification is immediately forwarded to the lessee.

If you are unable to have the defect remedied without charge and within a reasonable time after you tender the vehicle for repair, please contact the Warranty Campaigns Department at (800) 648-0712, 7:00 a.m. to 4:30 p.m. Pacific Time, or the Customer Assistance Center at (800) FTL-HELP, after normal business hours. You may also wish to notify the Administrator, National Highway Traffic Safety Administration, 400 7th Street S.W., Washington, D.C. 20590, or phone (800) 424-9393. If your vehicle is involved in the Canadian portion, you may notify the Manager, Recall and Public Compliance, Road and Motor Vehicle Traffic Safety Branch, Transport Canada, Ottawa, Ontario, or phone (613) 993-9861.

We regret any inconvenience this action may cause, but feel certain you understand our interest in motor vehicle safety.

WARRANTY CAMPAIGNS DEPARTMENT

Enclosure

Freightliner LLC is a Member
of the Daimler-Benz Group



A DaimlerChrysler Company

Freightliner LLC
P.O. Box 4080
Portland, OR 97208-4080
800.647.0712 Phone
503.745.7415 Fax

October 2000
FL266A-C
(NHTSA 00V-232.002)

Dear Sterling Vehicle Owner:

This notice is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act and the Canadian Motor Vehicles Safety Act.

Freightliner LLC, on behalf of its wholly-owned subsidiaries, Sterling Truck Corporation and Freightliner Custom Chassis Corporation, and its Freightliner Trucks Division, has determined that a defect which relates to motor vehicle safety exists on specific Sterling, Freightliner Custom Chassis, and Freightliner models manufactured with Bendix ABS Electronic Control Units (ECU) between February 13, 1998, and August 15, 2000.

The Bendix ABS ECU misinterprets certain signals from wheel ends, which can result in the temporary loss of braking capability in one or more wheel positions for several seconds, which can lead to a possible vehicle crash without prior warning.

The modification consists of replacing the ABS ECU with a new, corrected unit capable of detecting and properly responding to erroneous signals.

Parts are being made available by Bendix in limited quantities. Please work with your authorized dealer to schedule the replacement and to confirm that your dealer has received replacement parts for your vehicle.

When you contact your dealer, refer to campaign number FL266 and your vehicle identification number. Once the kit for your vehicle has been received by your dealer, the modification will take approximately 1 hour and will be performed at no charge to you.

IMPORTANT: When the campaign has been completed, please ensure that a sticker has been affixed to your vehicle referencing FL266 and the date the work was performed.

If you do not own the vehicle that corresponds to the identification number(s) which appears on the Recall Notification, please return the notification to the Warranty Campaigns Department with any information you can furnish that will assist us in locating the present owner. If you have leased this vehicle, please make sure this notification is immediately forwarded to the lessee.

If you are unable to have the defect remedied without charge and within a reasonable time after you tender the vehicle for repair, please contact the Warranty Campaigns Department at (800) 546-0712, 7:00 a.m. to 4:30 p.m. Pacific Time, or the Customer Assistance Center at (800) FTL-HELP, after normal business hours. You may also wish to notify the Administrator, National Highway Traffic Safety Administration, 400 7th Street S.W., Washington, D.C. 20590, or phone (800) 424-9393. If your vehicle is involved in the Canadian portion, you may notify the Manager, Recall and Public Compliance, Road and Motor Vehicle Traffic Safety Branch, Transport Canada, Ottawa, Ontario, or phone (613) 993-9851.

We regret any inconvenience this action may cause, but feel certain you understand our interest in motor vehicle safety.

WARRANTY CAMPAIGNS DEPARTMENT

Enclosure

Freightliner LLC is a Member
of the Daimler-Benz Group

Subject: Bendix Anti-lock Braking Systems

MODELS AFFECTED: Specific Sterling, Freightliner, and Freightliner Custom Chassis models manufactured with Bendix ABS ECUs between February 13, 1998, and August 16, 2000.

GENERAL INFORMATION

Freightliner LLC, on behalf of its wholly-owned subsidiaries, Sterling Truck Corporation and Freightliner Custom Chassis Corporation, and its Freightliner Trucks Division, has determined that a defect which relates to motor vehicle safety exists on the above mentioned vehicles.

There are approximately 41,000 vehicles involved in this campaign. We anticipate that 80% of these vehicles will be inspected/modified.

The Bendix EC-17 ABS ECU misinterprets certain signals from wheel ends, which can result in the temporary loss of braking capability in one or more wheel positions for several seconds, which can lead to a possible vehicle crash without prior warning.

The modification consists of replacing the ABS ECU with a new, corrected unit capable of detecting and properly responding to erroneous signals.

This bulletin replaces previous information released via e-mail. It combines the information needed to perform both the ECU replacement and the vehicle inspection prior to replacement.

WORK INSTRUCTIONS

Please refer to the attached work instructions. Included in this bulletin are:

1. ECU Replacement Instructions for FL266C. Use these instructions when replacement parts are available for a specific vehicle.
2. Inspection Procedures for FL266AB. Use these instructions for inspections prior to availability of replacement parts for a specific vehicle.

REPLACEMENT PARTS

A very limited number of replacement kits are now available. Order the kit listed in this bulletin for vehicles involved in FL266C ONLY from your facing Parts Distribution Center.

IMPORTANT: DO NOT ORDER KITS FOR STOCK FOR THIS RECALL CAMPAIGN. INCLUDE THE VEHICLE IDENTIFICATION NUMBER (VIN) ON EACH ORDER.

If your dealership has ordered any vehicle(s) involved in campaign number FL266A-C, a computer listing of the customers and vehicle identification numbers will be enclosed. Please refer to this list when ordering parts for this recall.

Refer to Table 1 for FL266C replacement kit 25-FL266-000.

25-FL266-000

Campaign Number	Kit Number	Part Description	Part Number	Qty. per Kit	Suggested Wholesale*
FL266C	25-FL266-000	Bendix ABS ECU	BW 5008096	1	\$285.29 U.S. \$422.22 CAN

* Please charge all Direct Warranty Customers the above-listed price for the kit, as they are authorized to perform their own Recalls.

Table 1

Recall Campaign

October 2000
FL266A-C
(NHTSA 00V-232,002)

REMOVED PARTS

Please follow Warranty Failed Parts Tracking shipping instructions for the disposition of all removed parts.

LABOR ALLOWANCE

Refer to Table 2 for labor allowance.

Campaign Number	Brands	Procedure	Time Allowed (hours)	SRT Code	Damage Code
FL266AB	AI	Inspect wheel end hardware, disc wheels, 4 sensors	2.6 hours	998-0362A	000-Inspected
FL266AB	AI	Inspect wheel end hardware, disc wheels, 6 sensors	3.5 hours	998-0362B	000-Inspected
FL266AB	AI	Inspect wheel end hardware, spoke wheels, 4 sensors	4.5 hours	998-0362C	000-Inspected
FL266AB	AI	Inspect wheel end hardware, spoke wheels, 6 sensors	6.9 hours	998-0362D	000-Inspected
FL266C	Columbia, FLD, FLC, Business Class, FCCC, Sterling, Acterra	Remove/replace ABS ECU	0.8 hours	998-0362E	000-Modified
FL266C	Century and Argosy Only	Remove/replace ABS ECU	0.8 hours	998-0362F	000-Modified

Table 2

IMPORTANT: When the recall has been completed, clean a spot on the appropriate location of the vehicle and attach a completion sticker (Form W-147) referencing Recall FL266A, B, or C and date the work was performed.

CLAIMS FOR CREDIT

You will be reimbursed for your parts, labor, and handling by submitting your claim through the Warranty system. Please reference the following information in QuickClaim:

- Claim type is Recall.
- In the FSDOC field, enter the campaign number and the appropriate condition code (e.g. FL266A, FL266B, FL266C, etc.).
- In the Primary Failed Part Number field, enter 25-FL266-000.
- In the Parts field, enter the appropriate kit number(s) as shown in the Replacement Part Tables.

NOTE: ServicePro®/Service Advisor® must be viewed prior to performing the recall to ensure the vehicle is involved and the campaign has not been previously completed. Also, check for a completion sticker prior to beginning work.

Contact the Warranty Campaigns Department at (800) 547-0712, from 7:00 a.m. to 4:30 p.m. Pacific Time Monday through Friday, or the Customer Assistance Center at (800) 385-4357, after normal business hours, if you have any questions or need additional information.

To return excess kit inventory related to this campaign, U.S. dealers must submit a Parts Authorization Return (PAR) to the Memphis PDC, and Canadian dealers must submit a PAR to their facing PDC. All kits must be in resalable condition. PAR requests must include the original purchase invoice number.

The letter notifying vehicle owners is included for your reference.

Please note that the National Traffic and Motor Vehicle Safety Act, as amended (49 USC), requires the owner's vehicle(s) to be corrected within a reasonable time after parts are available to you. The Act states that failure to repair a vehicle within 60 days after tender for repair shall be prima facie evidence of an unreasonable time. However, circumstances of a particular situation may reduce the 60 day period. Failure to repair a vehicle within a reasonable time can result in either the obligation to: (a) replace the vehicle with an identical or reasonably equivalent vehicle without charge or (b) refund the purchase price in full, less a reasonable allowance for depreciation. The Act further prohibits dealers from selling a vehicle unless all outstanding recalls are performed. Also, any lessor is required to send a copy of the recall notification to the lessee.

Finally, the Act states that a remedy need not be provided without charge if the vehicle was bought by the first purchaser more than eight (8) calendar years before notice is given.

WARRANTY CAMPAIGNS DEPARTMENT

Recall Campaign

October 2000
FL286A-C
(NHTSA 00V-232.002)

Copy of Letter to Owner Subject: Bendix Anti-lock Braking Systems

Dear (Involved Brand) Vehicle Owner:

This notice is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act and the Canadian Motor Vehicles Safety Act.

Freightliner LLC, on behalf of its wholly-owned subsidiaries, Sterling Truck Corporation and Freightliner Custom Chassis Corporation, and its Freightliner Trucks Division, has determined that a defect which relates to motor vehicle safety exists on specific Sterling, Freightliner Custom Chassis, and Freightliner models manufactured with Bendix ABS Electronic Control Units (ECU) between February 13, 1998, and August 16, 2000.

The Bendix ABS ECU misinterprets certain signals from wheel ends, which can result in the temporary loss of braking capability in one or more wheel positions for several seconds, which can lead to a possible vehicle crash without prior warning.

The modification consists of replacing the ABS ECU with a new, corrected unit capable of detecting and properly responding to erroneous signals.

Parts are being made available by Bendix in limited quantities. Please work with your authorized dealer to schedule the replacement and to confirm that your dealer has received replacement parts for your vehicle.

When you contact your dealer, refer to campaign number FL286 and your vehicle identification number. Once the kit for your vehicle has been received by your dealer, the modification will take approximately 1 hour and will be performed at no charge to you.

IMPORTANT: When the campaign has been completed, please ensure that a sticker has been affixed to your vehicle referencing FL286 and the date the work was performed.

If you do not own the vehicle that corresponds to the identification number(s) which appears on the Recall Notification, please return the notification to the Warranty Campaigns Department with any information you can furnish that will assist us in locating the present owner. If you have leased this vehicle, please make sure this notification is immediately forwarded to the lessee.

If you are unable to have the defect remedied without charge and within a reasonable time after you tender the vehicle for repair, please contact the Warranty Campaigns Department at (800) 548-0712, 7:00 a.m. to 4:30 p.m. Pacific Time, or the Customer Assistance Center at (800) FTL-HELP, after normal business hours. You may also wish to notify the Administrator, National Highway Traffic Safety Administration, 400 7th Street S.W., Washington, D.C. 20590, or phone (800) 424-9393. If your vehicle is involved in the Canadian portion, you may notify the Manager, Recall and Public Compliance, Road and Motor Vehicle Traffic Safety Branch, Transport Canada, Ottawa, Ontario, or phone (613) 993-8851.

We regret any inconvenience this action may cause, but feel certain you understand our interest in motor vehicle safety.

WARRANTY CAMPAIGNS DEPARTMENT

Enclosure

Work Instructions

Subject: Bendix Anti-lock Braking Systems

MODELS AFFECTED: Specific Sterling, Freightliner, and Freightliner Custom Chassis models manufactured with Bendix ABS ECUs between February 13, 1998, and August 16, 2000.

Included In these Work Instructions:

1. ECU Replacement Instructions for FL286C. Use these instructions when replacement parts are available for a specific vehicle.
2. Inspection Procedure for FL286AB. Use these instructions for inspections prior to availability of replacement parts for a specific vehicle.

ECU REPLACEMENT

Before starting this recall procedure, turn the ignition switch on and check the anti-lock and traction control (if equipped) indicator lights on the dash. They should light, blink twice, then turn off. Also check the LEDs on the ECU diagnostic display. If any of these checks indicate a system fault, correct the problem before replacing the ECU. Pre-existing faults are not part of this recall.

The following work instructions include replacing the anti-lock braking system (ABS) electronic control unit (ECU), performing the self-configuring and initial start-up procedures, and testing the brakes.

The ECU may be mounted on the rear brake relay valve, on a crossmember bracket, or on the B-pillar panel in the cab. The replacement procedure is the same for each application; only the ECU mounting fasteners vary.

1. Park the vehicle on a level surface, shut down the engine, and apply the parking brakes. Chock the rear tires.
2. Check the appropriate location of the vehicle for a completion label (Form W-147). If a completion label for Recall FL286A or FL286B is found, continue with the following procedure. If a completion label for Recall FL286C is found, no further work is required.
3. If the ECU is mounted on the B-pillar panel (Century Class and Argosy only), open the B-pillar door on the driver's side.
4. Remove the two retaining screws securing the electrical connectors to the ECU. See Fig. 1. Remove the connectors.

NOTE: Note the orientation of the ECU before you remove it.

5. Remove the four mounting capscrews (or bolts and nuts) and washers from the ECU. Remove the ECU.
6. Install the new ECU (EC-17).
 - 6.1 Place the ECU in the same position noted for the old unit.
 - 6.2 Install four capscrews (or bolts) and washers in the top mounting holes. On bracket-mounted ECUs, install washers and locknuts on the bolts. Tighten the fasteners 98 lbf-in (1100 N-cm).
7. Install the two electrical connectors.
 - 7.1 Connect the 18-pin and 30-pin harness connectors to the ECU.
 - 7.2 Install a retaining screw in the center of each connector. Tighten the screws 15 to 20 lbf-in (170 to 225 N-cm).

Recall Campaign

FREIGHTLINER
LLC

A DaimlerChrysler Company

October 2000
FL298A-C
(NHTSA 00V-232.002)

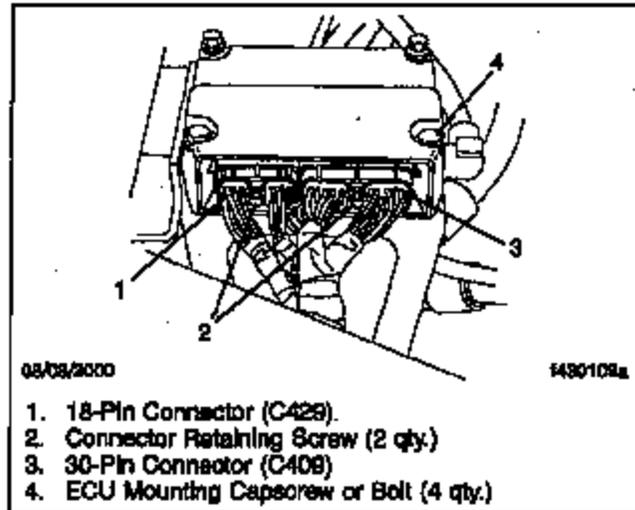


Fig. 1. ECU installation (relay mount shown)

Self-Configuration Procedure

When a replacement ECU is installed on a vehicle that does not have one or more of the preprogrammed features, a fault is indicated on the anti-lock dash light and on the ECU diagnostic display. For this reason, it is necessary to perform the following self-configuration procedure.

IMPORTANT: On vehicles with automatic traction control, do not perform the self-configuration procedure without toggling the traction control enable/disable switch. Omitting this step prevents any traction features from being activated.

1. Turn the ignition switch on and toggle the traction control enable/disable switch back and forth (if equipped).
2. Reset the magnetic switch on the ECU display.

Hold a magnetic screwdriver (or other magnet capable of lifting a 3-ounce weight) against the RESET area on the ECU diagnostic display. See Fig. 2. When the magnet is in place, all of the LEDs light steadily, then start flashing. Remove the magnet as soon as the LEDs begin to flash. The magnet may have to be held on the RESET area for as long as 20 seconds before the lights flash.

- When the magnet is held against the RESET area, the magnetic switch resets the diagnostic system and all the LEDs flash until the magnet is removed.
- If the magnet is not removed when the LEDs flash, a second self-configuration cycle may be initiated automatically.

- When the self-configuration process is complete, the ECU automatically performs a self-test and you will hear the valves cycle individually.
3. Place the traction control enable/disable switch in the enabled position, if equipped.
 4. Turn the ignition switch off.
 5. If the ECU is mounted on the B-pillar panel, close and secure the B-pillar door.

Initial Start-Up Procedure

1. Check the anti-lock light (TRAC ABS) on the dash.
 - 1.1 Turn the ignition switch on. The anti-lock light should light briefly, blink twice, then go off, indicating the system is enabled but there are no faults.
 - If the anti-lock light does not turn on, check the diagnostic display on the ECU. If the green VLT-LED is flashing or not lighted, check for power to the ECU.
 - If the anti-lock light stays lit, a fault exists in the anti-lock system.
 - 1.2 Turn the ignition switch off.
2. Check the traction control light (WHEEL SPIN on Freightliner vehicles; TRAC on Sterling) on the dash, if equipped.
 - 2.1 Turn the ignition switch on. The traction control light should come on briefly, blink twice, then go off, indicating the system is enabled but not active (no wheel spin).
 - If it does not light, make sure the traction control enable/disable switch is in the enable position.
 - If it stays lit, a problem exists in the traction control system.
 - 2.2 Turn the ignition switch off.
3. Remove the chocks from the tires.
4. Start the engine and drive the vehicle above 7 mph (11 km/h) for at least 10 seconds. The anti-lock and traction control lights on the dash should light briefly at startup, blink, then go off and stay off. If either of them remain lit, a fault exists in the anti-lock or traction control system.
5. Park the vehicle, set the parking brakes, and shut down the engine.
6. Write the recall number, FL286C, and the date the work was performed on a completion label (form W-147). Clean a spot on the appropriate location of the vehicle and attach the label.

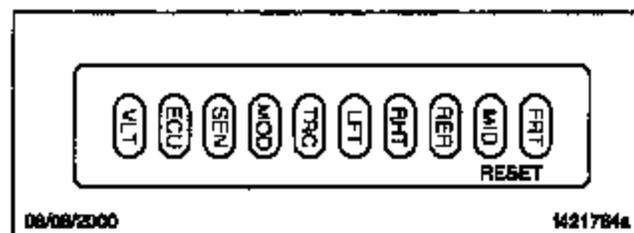


Fig. 2, ECU Diagnostic Display

Recall Campaign

October 2000
FL266A-C
(NHTSA 00V-232.002)

INSPECTION PROCEDURE

Use the following procedure to inspect the Bendix anti-lock braking system (ABS) wheel end components on the vehicle:

1. Check the appropriate location of the vehicle for a completion label (Form W-147). If a completion label for Recall FL266A, FL266B, or FL266C is found, no further work is required.
2. Raise the front of the vehicle until the tires clear the floor. Place safety stands under the front axle. Be sure the stands will support the weight of the vehicle.
3. Remove the wheel on one side of the vehicle. For instructions, see Group 40 in the applicable vehicle service or workshop manual.
4. Remove the brake drum. For instructions, see Group 33 in the service or workshop manual.
5. Inspect the tone wheel. It should be firmly and uniformly seated all around the hub. A gap may exist behind the tone wheel on some hub assemblies. This is acceptable if the gap is a consistent width all around the hub. Check for damaged tone wheel teeth.

If the tone wheel is loose, improperly seated, or damaged, replace the tone wheel or hub assembly. See Group 33 in the service or workshop manual for instructions.

6. Inspect the wheel speed sensor wiring. If the insulation is chafed or if the wiring is pinched or damaged, replace the sensor.
 - For Freightliner models FLD, Century Class, Argosy, Business Class, and FLC 112, and all Sterling vehicles, refer to Group 42 in the applicable service or workshop manual for instructions.
 - For Columbia vehicles, refer to Group 42 in the *Century Class Trucks Workshop Manual* for instructions.
 - For FCCC FS-65 School Bus chassis, refer to Group 42 in the *Business Class Trucks Service Manual* for instructions.
7. Install the brake drum. For instructions, see Group 33 in the service or workshop manual.
8. Install the wheel. For instructions, see Group 40 in the service or workshop manual.
9. Repeat the above procedure for the other side of the vehicle.
10. Remove the safety stands from the front axle and lower the vehicle.
11. Remove the chocks from the rear tires and chock the front tires.
12. Raise the rear of the vehicle until the tires clear the floor. Place safety stands under the rear axle.
13. Remove the wheels from one side of the vehicle. For instructions, see Group 40 in the service or workshop manual.
14. Remove the brake drum. For instructions, see Group 35 in the service or workshop manual.
15. Inspect the tone wheel. It should be firmly and uniformly seated all around the hub. A gap may exist behind the tone wheel on some hub assemblies. This is acceptable if the gap is a consistent width all around the hub. Check for damaged tone wheel teeth.

If the tone wheel is loose, improperly seated, or damaged, replace the tone wheel or hub assembly. See Group 35 in the service or workshop manual for instructions.
16. Inspect the wheel speed sensor wiring. If the insulation is chafed or if the wiring is pinched or damaged, replace the sensor.

Recall Campaign

October 2000
FL266A-C
(NHTSA 00V-232.002)

- For Freightliner models FLD, Century Class, Argosy, Business Class, and FLC 112, and all Sterling vehicles, refer to Group 42 in the applicable service or workshop manual for instructions.
 - For Columbia vehicles, refer to Group 42 in the *Century Class Trucks Workshop Manual* for instructions.
 - For FCCC FS-65 School Bus chassis, refer to Group 42 in the *Business Class Trucks Service Manual* for instructions.
17. Install the brake drum. For instructions, see Group 35 in the service or workshop manual.
 18. Install the wheels. For instructions, see Group 40 in the service or workshop manual.
 19. Repeat the procedure for the other side of the vehicle.
 20. Remove the safety stands from the rear axle and lower the vehicle.
 21. Enter the recall number (FL266A or FL266B) and the date the work was performed on a completion label (Form W-147). Clean an area in the appropriate location of the vehicle and attach the label.
 22. Remove the chocks from the tires.



Gary W. Rossow
Director
Government Technical Affairs

January 4, 2001

Freightliner LLC
4747 N Channel Ave.
Portland, OR 97217
503.745.8882 Phone
503.745.8800 Fax
GaryRossow@Freightliner.com

Office of Defects Investigation, Room 5326
National Highway Traffic Safety Administration
400 Seventh St., S.W.
Washington, D.C. 20590

Attn: Jonathan D. White

Subject: Information Report, NHTSA No. 00V-232.002

In accordance with Title 49, Part 573, Freightliner LLC herewith submits an information report supplying supplemental information and copies of documents distributed to dealers and purchasers. These documents are notifying dealers and owners of vocationally sensitive vehicles that parts are now available to repair their vehicles.

Sincerely,

A handwritten signature in black ink that reads "Gary W. Rossow". The signature is written in a cursive style.

Gary W. Rossow

Cc: Michael Mason, CAL-OSHA

Certified Mail No. Z 224 782 596

Section 573.5 Defect Information Report

Supplement No.: 5

Date: January 4, 2001

(c) (1) Manufacturer: FREIGHTLINER LLC
P.O. BOX 3849
Portland, Oregon 97208
(503) 735-8078

(c) (9) Communications sent to dealers and owners:

Dealer notification sent 12/20/00
Owner notification sent 12/27/00

Subject: Bendix Anti-lock Braking Systems

MODELS AFFECTED: Specific Sterling, Freightliner, and Freightliner Custom Chassis models manufactured with Bendix ABS ECUs between February 13, 1998, and August 16, 2000.

GENERAL INFORMATION

Freightliner LLC, on behalf of its wholly-owned subsidiaries, Sterling Truck Corporation and Freightliner Custom Chassis Corporation, and its Freightliner Trucks Division, has determined that a defect which relates to motor vehicle safety exists on the above mentioned vehicles.

There are approximately 41,000 vehicles involved in this campaign. We anticipate that 80% of these vehicles will be inspected/modified.

The Bendix EC-17 ABS ECU misinterprets certain signals from wheel ends, which can result in the temporary loss of braking capability in one or more wheel positions for several seconds, which can lead to a possible vehicle crash without prior warning.

The modification consists of replacing the ABS ECU with a new, corrected unit capable of detecting and properly responding to erroneous signals.

This bulletin replaces the previous bulletin and information released via e-mail. It combines the information needed to perform both the ECU replacement and the vehicle inspection prior to replacement.

At this time, replacement ECUs may be ordered for vehicles involved in FL266C (school buses and emergency vehicles) and FL266D (refuse service, airport service, and severe duty mixer vehicles). Check Service Advisor to confirm that replacement ECUs are available for a given vehicle. All other vehicles, FL266B, will require the inspection (all other straight trucks and tractors).

WORK INSTRUCTIONS

Please refer to the attached work instructions. Included in this bulletin are:

1. ECU Replacement Instructions for FL266CD (school buses, emergency, refuse service, airport service, and severe duty mixer vehicles). Use these instructions when replacement parts are available for a specific vehicle.
2. Inspection Procedure for FL266B (all other straight trucks and tractors). Use these instructions for inspections prior to availability of replacement parts for a specific vehicle.

REPLACEMENT PARTS

A limited number of replacement kits are now available. Order the kit listed in this bulletin for vehicles involved in FL266C and FL266D ONLY from your facing Parts Distribution Center.

IMPORTANT: DO NOT ORDER KITS FOR STOCK FOR THIS RECALL CAMPAIGN. INCLUDE THE VEHICLE IDENTIFICATION NUMBER (VIN) ON EACH ORDER.

If your dealership has ordered any vehicle(s) involved in campaign number FL266D, a computer listing of the customers and vehicle identification numbers is enclosed. Please refer to this list when ordering parts for this recall.

Recall Campaign

December 2000
 FL266B-D
 (NHTSA 00V-232.002)
 REVISED EDITION

Refer to Table 1 for FL266C replacement kit 25-FL266-000.

25-FL266-000

Campaign Number	Kit Number	Part Description	Part Number	Qty. per Kit	Suggested Wholesale*
FL266C	25-FL266-000	Bendix ABS ECU	BW 5006036	1	\$285.29 U.S. \$422.22 CAN

* Please charge all Direct Warranty Customers the above-listed price for the kit, as they are authorized to perform their own Recalls.

Table 1

Refer to Table 2 for FL266D replacement kit 25-FL266-001.

25-FL266-001

Campaign Number	Kit Number	Part Description	Part Number	Qty. per Kit	Suggested Wholesale*
FL266D	25-FL266-001	Bendix ABS ECU	BW 5006037	1	\$285.29 U.S. \$422.22 CAN

* Please charge all Direct Warranty Customers the above-listed price for the kit, as they are authorized to perform their own Recalls.

Table 2

REMOVED PARTS

Please follow Warranty Failed Parts Tracking shipping instructions for the disposition of all removed parts.

LABOR ALLOWANCE

Refer to Table 3 for labor allowance.

Campaign Number	Brands	Procedure	Time Allowed (hours)	SRT Code	Damage Code
FL266B	All	Inspect wheel end hardware, disc wheels, 4 sensors	2.5 hours	996-0362A	000-Inspected
FL266B	All	Inspect wheel end hardware, disc wheels, 6 sensors	3.5 hours	996-0362B	000-Inspected
FL266B	All	Inspect wheel end hardware, spoke wheels, 4 sensors	4.5 hours	996-0362C	000-Inspected
FL266B	All	Inspect wheel end hardware, spoke wheels, 6 sensors	6.9 hours	996-0362D	000-Inspected
FL266CD	Columbia, FLD, FLC, Business Class, FCCG, Sterling, Acterra	Remove/replace ABS ECU	0.8 hours	996-0362E	000-Modified
FL266CD	Century and Argosy Only	Remove/replace ABS ECU	0.9 hours	996-0362F	000-Modified

Table 3

IMPORTANT: When the recall has been completed, clean a spot on the appropriate location of the vehicle and attach a completion sticker (Form W-147) referencing Recall FL266B, C, or D and the date the work was performed.

December 2000

FL266B-D

(NHTSA 00V-232.002)

REVISED EDITION

CLAIMS FOR CREDIT

You will be reimbursed for your parts, labor, and handling by submitting your claim through the Warranty system. Please reference the following information in QuickClaim:

- Claim type is **Recall**.
- In the FSDOC field, enter the campaign number and the appropriate condition code (e.g. FL266B, FL266C, FL266D, etc.).
- In the Primary Failed Part Number field, enter **25-FL266-000**.
- In the Parts field, enter the appropriate kit number(s) as shown in the Replacement Part Tables.

NOTE: FL266A has been superseded. Claims for the FL266A inspection performed after October 28, 2000, may not be submitted. Inspections for vehicles in FL266D should no longer be performed or claims submitted. ECUs are now available for these vehicles, and the replacement should be done at this time.

NOTE: ServicePro®/Service Advisor® must be viewed prior to performing the recall to ensure the vehicle is involved and the campaign has not been previously completed. Also, check for a completion sticker prior to beginning work.

Contact the Warranty Campaigns Department at (800) 547-0712, from 7:00 a.m. to 4:30 p.m. Pacific Time Monday through Friday, or the Customer Assistance Center at (800) 386-4357, after normal business hours, if you have any questions or need additional information.

To return excess kit inventory related to this campaign, U.S. dealers must submit a Parts Authorization Return (PAR) to the Memphis PDC, and Canadian dealers must submit a PAR to their facing PDC. All kits must be in resalable condition. PAR requests must include the original purchase invoice number.

The letter notifying vehicle owners is included for your reference.

Please note that the National Traffic and Motor Vehicle Safety Act, as amended (49 USC), requires the owner's vehicle(s) to be corrected within a reasonable time after parts are available to you. The Act states that failure to repair a vehicle within 60 days after tender for repair shall be prima facie evidence of an unreasonable time. However, circumstances of a particular situation may reduce the 60 day period. Failure to repair a vehicle within a reasonable time can result in either the obligation to: (a) replace the vehicle with an identical or reasonably equivalent vehicle without charge or (b) refund the purchase price in full, less a reasonable allowance for depreciation. The Act further prohibits dealers from selling a vehicle unless all outstanding recalls are performed. Also, any lessor is required to send a copy of the recall notification to the lessee.

Finally, the Act states that a remedy need not be provided without charge if the vehicle was bought by the first purchaser more than ten (10) calendar years before notice is given.

WARRANTY CAMPAIGNS DEPARTMENT

Recall Campaign

December 2000
FL266B-D
(NHTSA 00V-232.002)

Copy of Letter to Owner **Subject: Bendix Anti-lock Braking Systems**

Dear (Involved Brands) Vehicle Owner:

This notice is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act and the Canadian Motor Vehicles Safety Act.

Freightliner LLC, on behalf of its wholly-owned subsidiaries, Sterling Truck Corporation and Freightliner Custom Chassis Corporation, and its Freightliner Trucks Division, has determined that a defect which relates to motor vehicle safety exists on specific Sterling, Freightliner Custom Chassis, and Freightliner models manufactured with Bendix Anti-lock Braking Systems (ABS) Electronic Control Units (ECU) between February 13, 1998, and August 16, 2000.

The Bendix ABS ECU misinterprets certain signals from wheel ends, which can result in the temporary loss of braking capability in one or more wheel positions for several seconds, which can lead to a possible vehicle crash without prior warning.

The modification consists of replacing the ABS ECU with a new, corrected unit capable of detecting and properly responding to erroneous signals.

Parts are being made available by Bendix in limited quantities. Please work with your authorized dealer to schedule the replacement and to confirm that your dealer has received replacement parts for your vehicle.

When you contact your dealer, refer to campaign number **FL266** and your vehicle identification number. Once the kit for your vehicle has been received by your dealer, the modification will take approximately 1 hour and will be performed at no charge to you.

IMPORTANT: When the recall has been completed, please ensure that a sticker has been affixed to your vehicle referencing **FL266** and the date the work was performed.

If you do not own the vehicle that corresponds to the identification number(s) which appears on the Recall Notification, please return the notification to the Warranty Campaigns Department with any information you can furnish that will assist us in locating the present owner. If you have leased this vehicle, please make sure this notification is immediately forwarded to the lessee.

If you are unable to have the defect remedied without charge and within a reasonable time after you tender the vehicle for repair, please contact the Warranty Campaigns Department at (800) 548-0712, 7:00 a.m. to 4:30 p.m. Pacific Time Monday through Friday, or the Customer Assistance Center at (800) FTL-HELP, after normal business hours. You may also wish to notify the Administrator, National Highway Traffic Safety Administration, 400 7th Street S.W., Washington, D.C. 20590, or phone (800) 424-8363. If your vehicle is involved in the Canadian portion, you may notify the Manager, Recall and Public Compliance, Road and Motor Vehicle Traffic Safety Branch, Transport Canada, Ottawa, Ontario, or phone (613) 983-9851.

We regret any inconvenience this action may cause, but feel certain you understand our interest in motor vehicle safety.

WARRANTY CAMPAIGNS DEPARTMENT

Enclosure

Work Instructions

Subject: Bendix Anti-lock Braking Systems

MODELS AFFECTED: Specific Sterling, Freightliner, and Freightliner Custom Chassis models manufactured with Bendix ABS ECUs between February 13, 1998, and August 16, 2000.

Included In these Work Instructions:

1. ECU Replacement Instructions for FL266CD. Use these instructions when replacement parts are available for a specific vehicle.
2. Inspection Procedure for FL266B. Use these instructions for inspections prior to availability of replacement parts for a specific vehicle.

At this time, replacement ECUs may be ordered for vehicles involved in FL266C (school buses and emergency vehicles) and FL266D (refuse service, airport service, and severe duty mixer vehicles). Check Service Advisor to confirm that replacement ECUs are available for a given vehicle. All other vehicles, FL266B, will require the inspection (all other straight trucks and tractors).

ECU REPLACEMENT

Before starting this recall procedure, turn the ignition switch on and check the anti-lock and traction control (if equipped) indicator lights on the dash. They should light, blink twice, then turn off. Also check the LEDs on the ECU diagnostic display. If any of these checks indicate a system fault, correct the problem before replacing the ECU. Pre-existing faults are not part of this recall.

The following work instructions include replacing the anti-lock braking system (ABS) electronic control unit (ECU), performing the self-configuring and initial start-up procedures, and testing the brakes.

The ECU may be mounted on the rear brake relay valve, on a crossmember bracket, or on the B-pillar panel in the cab. The replacement procedure is the same for each application; only the ECU mounting fasteners vary.

1. Park the vehicle on a level surface, shut down the engine, and apply the parking brakes. Check the rear tires.
2. Check the appropriate location of the vehicle for a completion label (Form W-147). If a completion label for Recall FL266A or FL266B is found, continue with the following procedure. If a completion label for Recall FL266C or FL266D is found, no further work is required.
3. If the ECU is mounted on the B-pillar panel (Century Class and Argosy only), open the B-pillar door on the driver's side.
4. Remove the two retaining screws securing the electrical connectors to the ECU. See Fig. 1. Remove the connectors.

NOTE: Note the orientation of the ECU before you remove it.

5. Remove the four mounting capscrews (or bolts and nuts) and washers from the ECU. Remove the ECU.
6. Install the new ECU (EC-17).
 - 6.1 Place the ECU in the same position noted for the old unit.
 - 6.2 Install four capscrews (or bolts) and washers in the top mounting holes. On bracket-mounted ECUs, install washers and locknuts on the bolts. Tighten the fasteners 98 lbf-in (1100 N-cm).
7. Install the two electrical connectors.

Recall Campaign

December 2000
FL265B-D
(NHTSA 00V-232.002)

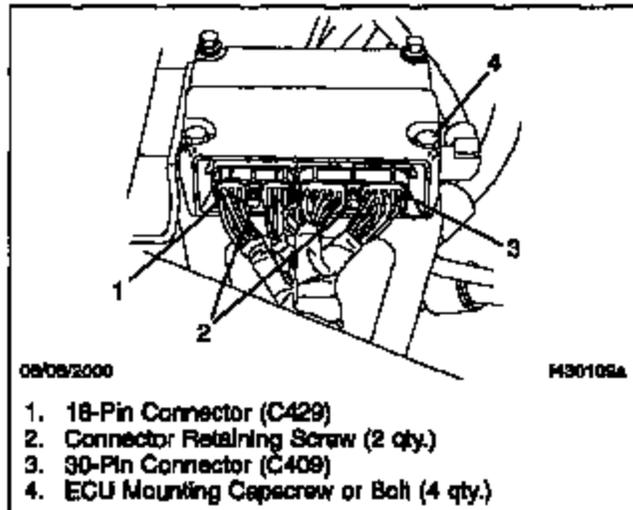


Fig. 1. ECU installation (relay mount shown)

- 7.1 Connect the 18-pin and 30-pin harness connectors to the ECU.
- 7.2 Install a retaining screw in the center of each connector. Tighten the screws 15 to 20 lbf-in (170 to 225 N-cm).

Self-Configuration Procedure

When a replacement ECU is installed on a vehicle that does not have one or more of the preprogrammed features, a fault is indicated on the anti-lock dash light and on the ECU diagnostic display. For this reason, it is necessary to perform the following self-configuration procedure.

IMPORTANT: On vehicles with automatic traction control, do not perform the self-configuration procedure without toggling the traction control enable/disable switch. Omitting this step prevents any traction features from being activated.

1. Turn the ignition switch on and toggle the traction control enable/disable switch back and forth (if equipped).
2. Reset the magnetic switch on the ECU display.

Hold a magnetic screwdriver (or other magnet capable of lifting a 3-ounce weight) against the RESET area on the ECU diagnostic display. See Fig. 2. When the magnet is in place, all of the LEDs light steadily, then start flashing. Remove the magnet as soon as the LEDs begin to flash. The magnet may have to be held on the RESET area for as long as 20 seconds before the lights flash.

- When the magnet is held against the RESET area, the magnetic switch resets the diagnostic system and all the LEDs flash until the magnet is removed.
 - If the magnet is not removed when the LEDs flash, a second self-configuration cycle may be initiated automatically.
 - When the self-configuration process is complete, the ECU automatically performs a self-test and you will hear the valves cycle individually.
3. Place the traction control enable/disable switch in the enabled position, if equipped.
 4. Turn the ignition switch off.
 5. If the ECU is mounted on the B-pillar panel, close and secure the B-pillar door.

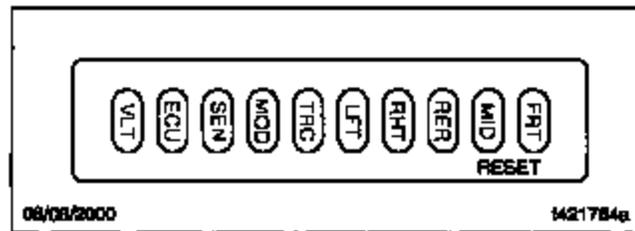


Fig. 2, ECU Diagnostic Display

Initial Start-Up Procedure

1. Check the anti-lock light (TRAC ABS) on the dash.
 - 1.1 Turn the ignition switch on. The anti-lock light should light briefly, blink twice, then go off, indicating the system is enabled but there are no faults.
 - If the anti-lock light does not turn on, check the diagnostic display on the ECU. If the green VLT LED is flashing or not lighted, check for power to the ECU.
 - If the anti-lock light stays lit, a fault exists in the anti-lock system.
 - 1.2 Turn the ignition switch off.
2. Check the traction control light (WHEEL SPIN on Freightliner vehicles; TRAC on Sterling) on the dash, if equipped.
 - 2.1 Turn the ignition switch on. The traction control light should come on briefly, blink twice, then go off, indicating the system is enabled but not active (no wheel spin).
 - If it does not light, make sure the traction control enable/disable switch is in the enable position.
 - If it stays lit, a problem exists in the traction control system.
 - 2.2 Turn the ignition switch off.
3. Remove the chocks from the tires.
4. Start the engine and drive the vehicle above 7 mph (11 km/h) for at least 10 seconds. The anti-lock and traction control lights on the dash should light briefly at startup, blink, then go off and stay off. If either of them remain lit, a fault exists in the anti-lock or traction control system.
5. Park the vehicle, set the parking brakes, and shut down the engine.
6. Write the recall number, FL266C or FL266D, and the date the work was performed on a completion label (form W-147). Clean a spot on the appropriate location of the vehicle and attach the label.

INSPECTION PROCEDURE

Use the following procedure to inspect the Bendix anti-lock braking system (ABS) wheel end components on the vehicle:

1. Check the appropriate location of the vehicle for a completion label (Form W-147). If a completion label for Recall FL266A, FL266B, FL266C, or FL266D is found, no further work is required.
2. Raise the front of the vehicle until the tires clear the floor. Place safety stands under the front axle. Be sure the stands will support the weight of the vehicle.
3. Remove the wheel on one side of the vehicle. For instructions, see Group 40 in the applicable vehicle service or workshop manual.

Recall Campaign

December 2000
FL268B-D
(NHTSA 00V-232-002)

4. Remove the brake drum. For instructions, see Group 33 in the service or workshop manual.
5. Inspect the tone wheel. It should be firmly and uniformly seated all around the hub. A gap may exist behind the tone wheel on some hub assemblies. This is acceptable if the gap is a consistent width all around the hub. Check for damaged tone wheel teeth.

If the tone wheel is loose, improperly seated, or damaged, replace the tone wheel or hub assembly. See Group 33 in the service or workshop manual for instructions.
6. Inspect the wheel speed sensor wiring. If the insulation is chaffed or if the wiring is pinched or damaged, replace the sensor.
 - For Freightliner models FLD, Century Class, Argosy, Business Class, and FLC 112, and all Sterling vehicles, refer to Group 42 in the applicable service or workshop manual for instructions.
 - For Columbia vehicles, refer to Group 42 in the *Century Class Trucks Workshop Manual* for instructions.
 - For FCCG FS-85 School Bus chassis, refer to Group 42 in the *Business Class Trucks Service Manual* for instructions.
7. Install the brake drum. For instructions, see Group 33 in the service or workshop manual.
8. Install the wheel. For instructions, see Group 40 in the service or workshop manual.
9. Repeat the above procedure for the other side of the vehicle.
10. Remove the safety stands from the front axle and lower the vehicle.
11. Remove the chocks from the rear tires and chock the front tires.
12. Raise the rear of the vehicle until the tires clear the floor. Place safety stands under the rear axle.
13. Remove the wheels from one side of the vehicle. For instructions, see Group 40 in the service or workshop manual.
14. Remove the brake drum. For instructions, see Group 35 in the service or workshop manual.
15. Inspect the tone wheel. It should be firmly and uniformly seated all around the hub. A gap may exist behind the tone wheel on some hub assemblies. This is acceptable if the gap is a consistent width all around the hub. Check for damaged tone wheel teeth.

If the tone wheel is loose, improperly seated, or damaged, replace the tone wheel or hub assembly. See Group 35 in the service or workshop manual for instructions.
16. Inspect the wheel speed sensor wiring. If the insulation is chaffed or if the wiring is pinched or damaged, replace the sensor.
 - For Freightliner models FLD, Century Class, Argosy, Business Class, and FLC 112, and all Sterling vehicles, refer to Group 42 in the applicable service or workshop manual for instructions.
 - For Columbia vehicles, refer to Group 42 in the *Century Class Trucks Workshop Manual* for instructions.
 - For FCCG FS-85 School Bus chassis, refer to Group 42 in the *Business Class Trucks Service Manual* for instructions.
17. Install the brake drum. For instructions, see Group 35 in the service or workshop manual.
18. Install the wheels. For instructions, see Group 40 in the service or workshop manual.
19. Repeat the procedure for the other side of the vehicle.
20. Remove the safety stands from the rear axle and lower the vehicle.

Recall Campaign

December 2000

FL266B-D

(NHTSA 00V-232.002)

21. Enter the recall number (FL266B) and the date the work was performed on a completion label (Form W-147).
Clean an area in the appropriate location of the vehicle and attach the label.
22. Remove the chocks from the tires.



Gary W. Rossow
Director
Government Technical Affairs

February 2, 2001

Freightliner LLC
4747 N Channel Ave.
Portland, OR 97217
503.745.8882 Phone
503.745.8800 Fax
GaryRossow@Freightliner.com

Office of Defects Investigation, Room 5326
National Highway Traffic Safety Administration
400 Seventh St., S.W.
Washington, D.C. 20590

Attn: Jonathan D. White

Subject: Information Report, NHTSA No.00V-232-002

In accordance with Title 49, Part 573, Freightliner LLC herewith submits an information report supplying copies of documents distributed to dealers and purchasers. These documents are notifying 17,910 owners of straight trucks that parts are now available to repair their vehicles.

Sincerely,

A handwritten signature in black ink that reads "Gary W. Rossow". The signature is written in a cursive, flowing style.

Gary W. Rossow

Cc: Michael Mason, CAL-OSHA

Certified Mail No. Z 224 782 804

Section 573.5 Defect Information Report

Supplement No.: 6

Date: February 2, 2001

(c) (1) Manufacturer: FREIGHTLINER LLC
P.O. BOX 3849
Portland, Oregon 97208
(503) 735-8078

(c) (9) Communications sent to owners: January 30, 2001

FREIGHTLINER.
LLC

A DaimlerChrysler Company

Freightliner LLC
P.O. Box 4090
Portland, OR 97208-4090
800.547.0712 Phone
503.746.7415 Fax

January 2001
FL266D

Dear Freightliner or Sterling Vehicle Owner:

This notice is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act and the Canadian Motor Vehicles Safety Act.

Freightliner LLC, on behalf of its wholly-owned subsidiaries, Sterling Truck Corporation and Freightliner Custom Chassis Corporation, and its Freightliner Trucks Division, has determined that a defect which relates to motor vehicle safety exists on specific Sterling, Freightliner Custom Chassis, and Freightliner models manufactured with Bendix Anti-lock Braking Systems (ABS) Electronic Control Units (ECU) between February 13, 1998, and August 16, 2000.

The Bendix ABS ECU misinterprets certain signals from wheel ends, which can result in the temporary loss of braking capability in one or more wheel positions for several seconds, which can lead to a possible vehicle crash without prior warning.

The modification consists of replacing the ABS ECU with a new, corrected unit capable of detecting and properly responding to erroneous signals.

Parts are being made available by Bendix in limited quantities. Please work with your authorized dealer to schedule the replacement and to confirm that your dealer has received replacement parts for your vehicle.

When you contact your dealer, refer to campaign number FL266 and your vehicle identification number. Once the kit for your vehicle has been received by your dealer, the modification will take approximately 1 hour and will be performed at no charge to you.

IMPORTANT: When the recall has been completed, please ensure that a sticker has been affixed to your vehicle referencing FL266 and the date the work was performed.

If you do not own the vehicle that corresponds to the identification number(s) which appears on the Recall Notification, please return the notification to the Warranty Campaigns Department with any information you can furnish that will assist us in locating the present owner. If you have leased this vehicle, please make sure this notification is immediately forwarded to the lessee.

If you are unable to have the defect remedied without charge and within a reasonable time after you tender the vehicle for repair, please contact the Warranty Campaigns Department at (800) 546-0712, 7:00 a.m. to 4:30 p.m. Pacific Time Monday through Friday, or the Customer Assistance Center at (800) FTL-HELP, after normal business hours. You may also wish to notify the Administrator, National Highway Traffic Safety Administration, 400 7th Street S.W., Washington, D.C. 20590, or phone (888) 327-4236. If your vehicle is involved in the Canadian portion, you may notify the Manager, Recall and Public Compliance, Road and Motor Vehicle Traffic Safety Branch, Transport Canada, Ottawa, Ontario, or phone (613) 963-9851.

We regret any inconvenience this action may cause, but feel certain you understand our interest in motor vehicle safety.

WARRANTY CAMPAIGNS DEPARTMENT

Enclosure

Freightliner LLC is a Member
of the Daimler-Benz Group

RECEIVED



01 MAY 25 PM 1:37

OFFICE
OF DEFECTS INVESTIGATION

Gary W. Rossow
Director
Government Technical Affairs

May 22, 2001

Freightliner LLC
4747 N Channel Ave.
Portland, OR 97217
503.745.8882 Phone
503.745.8800 Fax
Gary.Rossow@Freightliner.com

Office of Defects Investigation, Room 5328
National Highway Traffic Safety Administration
400 Seventh St., S.W.
Washington, D.C. 20590

Attn: Jonathan D. White

Subject: Information Report, NHTSA No. 00V-232.002

In accordance with Title 49, Part 573, Freightliner LLC herewith submits an information report supplying supplemental information and copies of documents distributed to dealers and purchasers. This mail out completes the notifications to owners that parts are now available.

Sincerely,

A handwritten signature in black ink that reads "Gary W. Rossow".

Gary W. Rossow

Cc: Michael Mason, CAL-OSHA

Certified Mail No. Z 224 782 624

Section 573.5 Defect Information Report

Supplement No.: 8

Date: May 22, 2001

(c) (1) Manufacturer: FREIGHTLINER LLC
P.O. BOX 3849
Portland, Oregon 97208
(503) 735-8078

(c) (9) Communications sent to dealers: 5/1/01
Communications sent to owners: 5/8/01

April 2001
FL266C-E
(NHTSA 00V-232.002)
SECOND REVISED NOTICE

Subject: Bendix Anti-Lock Braking Systems

MODELS AFFECTED: Specific Sterling, Freightliner, and Freightliner Custom Chassis models manufactured with Bendix ABS ECUs between February 13, 1998, and August 16, 2000.

GENERAL INFORMATION

Freightliner LLC, on behalf of its wholly-owned subsidiaries, Sterling Truck Corporation and Freightliner Custom Chassis Corporation, and its Freightliner Trucks Division, has determined that a defect which relates to motor vehicle safety exists on the vehicles mentioned above.

There are approximately 41,000 vehicles involved in this campaign. We anticipate that 80% of these vehicles will be inspected/modified.

The Bendix EC-17 ABS ECU misinterprets certain signals from wheel ends, which can result in the temporary loss of braking capability in one or more wheel positions for several seconds, which can lead to a possible vehicle crash without prior warning.

The modification consists of replacing the ABS ECU with a new, corrected unit capable of detecting and properly responding to erroneous signals.

KITS MAY BE ORDERED FOR ALL INVOLVED VEHICLES AT THIS TIME. INSPECTIONS SHOULD NO LONGER BE PERFORMED.

WORK INSTRUCTIONS

Please refer to the attached work instructions for the ECU replacement procedure. Inspections should no longer be performed.

REPLACEMENT PARTS

IMPORTANT: DO NOT ORDER LARGE NUMBERS OF KITS FOR DEALER STOCK.

If our records show your dealership has ordered any vehicles involved in campaign number FL266E ONLY, a list of the customers and vehicle identification numbers is enclosed.

Refer to Table 1 replacement kit for FL266C is 25-FL266-000.

25-FL266-000

Campaign Number	Kit Number	Part Description	Part Number	Qty. per Kit	Suggested Wholesale*
FL266C	25-FL266-000	Bendix ABS ECU	BW 5009036	1	\$285.29 U.S. \$422.22 CAN

* Please charge all Direct Warranty Customers the above-listed price for the kit, as they are authorized to perform their own Recalls.

Table 1

Recall Campaign

April 2001
FL266C-E
 (NHTSA 00V-232.002)
SECOND REVISED NOTICE

Refer to Table 2 replacement kit for FL266DE is 25-FL266-001.

25-FL266-001

Campaign Number	Kit Number	Part Description	Part Number	Qty. per Kit	Suggested Wholesale*
FL266DE	25-FL266-001	Bendix ABS ECU	BW 5009037	1	\$285.29 U.S. \$422.22 CAN

* Please charge all Direct Warranty Customers the above-listed price for the kit, as they are authorized to perform their own Recalls.

Table 2**REMOVED PARTS**

Bendix has requested that all ECUs removed as part of this recall be returned directly to them. Please use the following information provided by Bendix for returning removed parts.

FOR SHIPMENTS ORIGINATING IN THE U.S. Ship individual boxes up to 150 lbs. via UPS ground (receiver/third party account #A7T571) to:

Receiving (440-329-9517)
 Bendix Commercial Vehicle Systems
 901 Cleveland Street
 Elyria, OH 44036

Please note Freightliner Recall FL266 in the shipper's reference line.

Ship individual boxes weighing more than 150 lbs. via Yellow Freight (collect) to the same address.

FOR SHIPMENTS ORIGINATING IN CANADA. Send all shipments, regardless of weight, via Purolator (collect) to:

Receiving (440-329-9517)
 Bendix Commercial Vehicle Systems
 Freightliner Recall FL266
 901 Cleveland Street
 Elyria, OH 44036 USA

Please note Freightliner Recall FL266 in the shipper's reference line.

LABOR ALLOWANCE

Refer to Table 3 for labor allowance.

Campaign Number	Brands	Procedure	Time Allowed (hours)	SRT Code	Damage Code
FL266CDE	Columbia, FLD, FLC, Business Class, FCCC, Sterling, Acterra	Remove/replace ABS ECU	0.8 hours	998-0362E	000-Modifiedx
FL266CDE	Century and Argosy Only	Remove/replace ABS ECU	0.9 hours	998-0362F	000-Modifiedx

Table 3

IMPORTANT: When the recall has been completed, clean a spot on the appropriate location of the vehicle and attach a completion sticker (Form W-147) referencing Recall FL266C, D, or E and the date the work was performed.

April 2001

FL266C-E

(NHTSA 00V-232.002)

SECOND REVISED NOTICE

CLAIMS FOR CREDIT

You will be reimbursed for your parts, labor, and handling by submitting your claim through the Warranty system within 30 days of completing this campaign. Please reference the following information in QuickClaim:

- Claim type is Recall.
- In the FSDOC field, enter the campaign number and the appropriate condition code (e.g. FL266C, FL266D, or FL266E).
- In the Primary Failed Part Number field, enter 25-FL266-000.
- In the Parts field, enter the appropriate kit number(s) as shown in the Replacement Part Tables.

NOTE: FL266A and FL266B have been superseded. Claims for inspections under the FL266A and FL266B may not be submitted and will be rejected or denied. ECUs are now available for all vehicles, and the replacement should be done at this time.

NOTE: ServicePro[®]/Service Advisor[®] must be viewed prior to performing the recall to ensure the vehicle is involved and the campaign has not been previously completed. Also, check for a completion sticker prior to beginning work.

Contact the Warranty Campaigns Department at (800) 547-0712, from 7:30 a.m. to 4:30 p.m. Pacific Time, Monday through Friday, e-mail WarrantyCampaigns@Freightliner.com, or the Customer Assistance Center at (800) 385-4357, after normal business hours, if you have any questions or need additional information.

To return excess kit inventory related to this campaign, U.S. dealers must submit a Parts Authorization Return (PAR) to the Memphis PDC, and Canadian dealers must submit a PAR to their facing PDC. All kits must be in resalable condition. PAR requests must include the original purchase invoice number.

The letter notifying vehicle owners is included for your reference.

Please note that the National Traffic and Motor Vehicle Safety Act, as amended (49 USC), requires the owner's vehicle(s) to be corrected within a reasonable time after parts are available to you. The Act states that failure to repair a vehicle within 60 days after tender for repair shall be prima facie evidence of an unreasonable time. However, circumstances of a particular situation may reduce the 60 day period. Failure to repair a vehicle within a reasonable time can result in either the obligation to: (a) replace the vehicle with an identical or reasonably equivalent vehicle without charge or (b) refund the purchase price in full, less a reasonable allowance for depreciation. The Act further prohibits dealers from selling a vehicle unless all outstanding recalls are performed. Also, any lessor is required to send a copy of the recall notification to the lessee.

Finally, the Act states that a remedy need not be provided without charge if the vehicle was bought by the first purchaser more than ten (10) calendar years before notice is given.

WARRANTY CAMPAIGNS DEPARTMENT

Recall Campaign

April 2001
FL266C-E
(NHTSA 00V-232.002)

SECOND REVISED NOTICE

Copy of Letter to Owner

Subject: Bendix Anti-lock Braking Systems

This notice is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act and the Canadian Motor Vehicles Safety Act.

Freightliner LLC, on behalf of its wholly-owned subsidiaries, Sterling Truck Corporation and Freightliner Custom Chassis Corporation, and its Freightliner Trucks Division, has determined that a defect which relates to motor vehicle safety exists on specific Sterling, Freightliner Custom Chassis, and Freightliner models manufactured with Bendix Anti-lock Braking Systems Electronic Control Units between February 13, 1998, and August 16, 2000.

The Bendix ABS ECU misinterprets certain signals from wheel ends, which can result in the temporary loss of braking capability in one or more wheel positions for several seconds, which can lead to a possible vehicle crash without prior warning.

The modification consists of replacing the ABS ECU with a new, corrected unit capable of detecting and properly responding to erroneous signals.

Parts are being made available by Bendix in limited quantities. Please work with your authorized dealer to schedule the replacement and to confirm that your dealer has received replacement parts for your vehicle.

When you contact your dealer, refer to campaign number FL266 and your vehicle identification number. Once the kit for your vehicle has been received by your dealer, the modification will take approximately one hour and will be performed at no charge to you.

IMPORTANT: When the recall has been completed, please ensure that a sticker has been affixed to your vehicle referencing FL266 and the date the work was performed.

If you do not own the vehicle that corresponds to the identification number(s) which appears on the Recall Notification, please return the notification to the Warranty Campaigns Department with any information you can furnish that will assist us in locating the present owner. If you have leased this vehicle, please make sure this notification is immediately forwarded to the lessee.

If you are unable to have the defect remedied without charge and within a reasonable time after you tender the vehicle for repair, please contact the Warranty Campaigns Department at (800) 547-0712, 7:00 a.m. to 4:30 p.m. Pacific Time Monday through Friday, e-mail WarrantyCampaigns@Freightliner.com, or the Customer Assistance Center at (800) FTL-HELP, after normal business hours. You may also wish to notify the Administrator, National Highway Traffic Safety Administration, 400 7th Street S.W., Washington, D.C. 20590, or phone (888) 327-4236. If your vehicle is involved in the Canadian portion, you may notify the Manager, Recall and Public Compliance, Road and Motor Vehicle Traffic Safety Branch, Transport Canada, Ottawa, Ontario, or phone (613) 993-9851.

We regret any inconvenience this action may cause but feel certain you understand our interest in motor vehicle safety.

WARRANTY CAMPAIGNS DEPARTMENT

Enclosure

Work Instructions

Subject: Bendix Anti-Lock Braking Systems

MODELS AFFECTED: Specific Sterling, Freightliner, and Freightliner Custom Chassis models manufactured with Bendix ABS ECUs between February 13, 1998, and August 16, 2000.

Included in these Work Instructions:

ECU Replacement Instructions for FL266CDE. Use these instructions for all vehicles. INSPECTIONS SHOULD NO LONGER BE PERFORMED.

ECU REPLACEMENT

Before starting this recall procedure, turn the ignition switch on and check the anti-lock and traction control (if equipped) indicator lights on the dash. They should light, blink twice, then turn off. Also check the LEDs on the ECU diagnostic display. If any of these checks indicate a system fault, correct the problem before replacing the ECU. PRE-EXISTING FAULTS ARE NOT PART OF THIS RECALL.

The following work instructions include replacing the anti-lock braking system (ABS) electronic control unit (ECU), performing the self-configuring and initial start-up procedures, and testing the brakes.

The ECU may be mounted on the rear brake relay valve, on a crossmember bracket, or on the B-pillar panel in the cab. The replacement procedure is the same for each application; only the ECU mounting fasteners vary.

1. Park the vehicle on a level surface, shut down the engine, and apply the parking brakes. Chock the rear tires.
2. Check the appropriate location of the vehicle for a completion label (Form W-147). If a completion label for Recall FL266A or FL266B is found, continue with the following procedure. If a completion label for Recall FL266C, FL266D, or FL266E is found, no further work is required.
3. If the ECU is mounted on the B-pillar panel (Century Class and Argosy only), open the B-pillar door on the driver's side.
4. Remove the two retaining screws securing the electrical connectors to the ECU. See Fig. 1. Remove the connectors.

NOTE: Note the orientation of the ECU before you remove it.

5. Remove the four mounting capscrews (or bolts and nuts) and washers from the ECU. Remove the ECU.
6. Install the new ECU (EC-17).
 - 6.1 Place the ECU in the same position noted for the old unit.
 - 6.2 Install four capscrews (or bolts) and washers in the top mounting holes. On bracket-mounted ECUs, install washers and locknuts on the bolts. Tighten the fasteners 98 lbf-in (1100 N-cm).
7. Install the two electrical connectors.
 - 7.1 Connect the 18-pin and 30-pin harness connectors to the ECU.
 - 7.2 Install a retaining screw in the center of each connector. Tighten the screws 15 to 20 lbf-in (170 to 225 N-cm).

Recall Campaign

April 2001
FL268C-E
(NHTSA 00V-232.002)
SECOND REVISED NOTICE

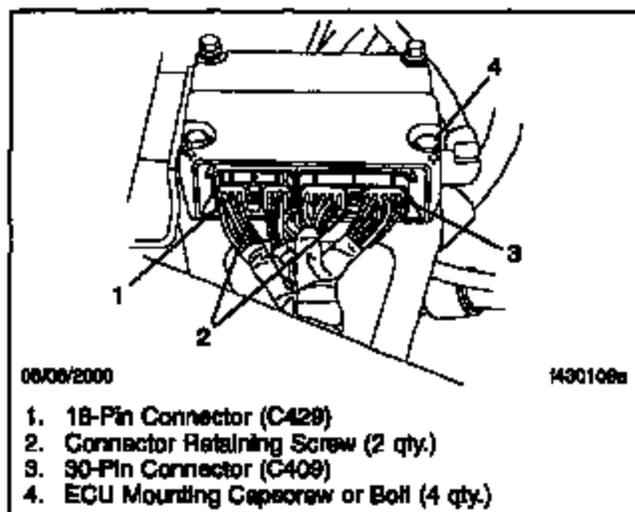


Fig. 1, ECU Installation (relay mount shown)

Self-Configuration Procedure

When a replacement ECU is installed on a vehicle that does not have one or more of the preprogrammed features, a fault is indicated on the anti-lock dash light and on the ECU diagnostic display. For this reason, it is necessary to perform the following self-configuration procedure.

IMPORTANT: On vehicles with automatic traction control, do not perform the self-configuration procedure without toggling the traction control enable/disable switch. Omitting this step prevents any traction features from being activated.

1. Turn the ignition switch on and toggle the traction control enable/disable switch back and forth (if equipped).
2. Reset the magnetic switch on the ECU display.

Hold a magnetic screwdriver (or other magnet capable of lifting a 3-ounce weight) against the RESET area on the ECU diagnostic display. See Fig. 2. When the magnet is in place, all of the LEDs light steadily, then start flashing. Remove the magnet as soon as the LEDs begin to flash. The magnet may have to be held on the RESET area for as long as 20 seconds before the lights flash.

- When the magnet is held against the RESET area, the magnetic switch resets the diagnostic system and all the LEDs flash until the magnet is removed.
 - If the magnet is not removed when the LEDs flash, a second self-configuration cycle may be initiated automatically.
 - When the self-configuration process is complete, the ECU automatically performs a self-test and you will hear the valves cycle individually.
3. Place the traction control enable/disable switch in the enabled position, if equipped.
 4. Turn the ignition switch off.
 5. If the ECU is mounted on the B-pillar panel, close and secure the B-pillar door.

Initial Start-Up Procedure

1. Check the anti-lock light (TRAC ABS) on the dash.
 - 1.1 Turn the ignition switch on. The anti-lock light should light briefly, blink twice, then go off, indicating the system is enabled but there are no faults.
 - If the anti-lock light does not turn on, check the diagnostic display on the ECU. If the green VLT LED is flashing or not lighted, check for power to the ECU.
 - If the anti-lock light stays lit, a fault exists in the anti-lock system.
 - 1.2 Turn the ignition switch off.
2. Check the traction control light (WHEEL SPIN on Freightliner vehicles; TRAC on Sterling) on the dash, if equipped.
 - 2.1 Turn the ignition switch on. The traction control light should come on briefly, blink twice, then go off, indicating the system is enabled but not active (no wheel spin).
 - If it does not light, make sure the traction control enable/disable switch is in the enable position.
 - If it stays lit, a problem exists in the traction control system.
 - 2.2 Turn the ignition switch off.
3. Remove the chocks from the tires.
4. Start the engine and drive the vehicle above 7 mph (11 km/h) for at least 10 seconds. The anti-lock and traction control lights on the dash should light briefly at startup, blink, then go off and stay off. If either of them remain lit, a fault exists in the anti-lock or traction control system.
5. Park the vehicle, set the parking brakes, and shut down the engine.
6. Write the recall number, FL266C, D, or E, and the date the work was performed on a completion label (form W-147). Clean a spot on the appropriate location of the vehicle and attach the label.

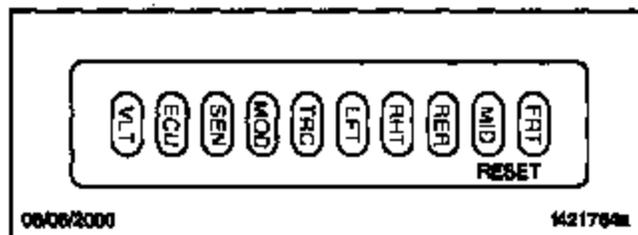


Fig. 2, ECU Diagnostic Display

VOLVO

Volvo Trucks North America, Inc.

December 15, 2000

RECEIVED
OFFICE
DEFECTS INVESTIGATION
DEC 20 AM 10:29

CERTIFIED MAIL - RETURN RECEIPT

Associate Administrator for Enforcement
National Highway Traffic Safety Administration
400 Seventh Street, S.W.
Washington, DC 20590

RE: NHTSA Recall Campaign Number: Not Available
Volvo Trucks North America, Inc., Recall Number: RVXX0003

00V-232.003

Volvo Trucks North America, Inc. of Greensboro, North Carolina, per the requirements of 49 CFR Part 573.5(c)(9), herewith submits a copy of its recall bulletin and owner notice for the subject recall. Mailing of the bulletin, and critical category "A" owner notices was started on December 11, 2000 and was completed on December 15, 2000.

Very Truly Yours



Charles D. Powell
Recall Administrator

Enclosures (2)

SAFETY RECALL BULLETIN

VOLVO

SAFETY RECALL RVXX0003
DECEMBER 2000

**ATTENTION: SERVICE MANAGERS
PARTS MANAGERS**

SUBJECT: Bendix ABS ECU

SAFETY RECALL INFORMATION:

Volvo Trucks North America, Inc. has decided that a defect relating to motor vehicle safety exists in certain Volvo model vehicles.

The Bendix ABS, ECU can misinterpret, at low speeds, certain signals from the wheel end sensors.

If this condition occurs it can result in the temporary loss of braking capability on one or more wheel positions, increasing stopping distances with potential for vehicle crash.

VEHICLES AFFECTED:

Certain Volvo model vehicles manufactured by Volvo Trucks North America, Inc. between November 6, 1997, and August 7, 2000.

The affected vehicles are categorized according to recall (notification) priority codes "A", "B", and "C". Due to number of vehicles affected by the recall industry wide (300,000) and Bendix's ability to supply parts for the recalled vehicles, the vehicles have to be grouped according to risk factors identified by Bendix.

"A" Priority Code Vehicles: Certain AC, WG, WX, WXLL, and WXR model straight trucks used in the refuse or fuel delivery vocations.

"B" Priority Code Vehicles: Certain AC, WG, and WX model straight trucks used in vocations other than refuse or fuel delivery.

"C" Priority Code Vehicles: Certain VN, AC, and WG model tractors.

Timing of owner notifications will be according to the following schedule:

Priority "A" Coded Vehicles:	during December 2000
Priority "B" Coded Vehicles:	during January 2001
Priority "C" Coded Vehicles:	during April 2001

Page 1 of 6

SAFETY RECALL RVXX0003
DECEMBER 2000

VEHICLE IDENTIFICATION NUMBERS (VIN):

There are twenty-three thousand, three hundred and eighty-three (23,383) vehicles affected by this recall.

NOTE: To verify or determine if a particular vehicle is affected by this recall (or any other recall), you should consult the Dealer Communication System (WINS). By entering the Vehicle Identification Number into the Vehicle Inquiry (VEHINQ) segment, the screen will display in the upper right hand corner any outstanding recall.

The enclosed "Dealer Listing" identifies the vehicles that were sold or shipped to your dealership. Be sure to check the VEHINQ screen before performing the recall to verify that the recall is still open.

INSPECTION INSTRUCTIONS:

There are no vehicle inspections required for this recall.

REPAIR:

The repair consists of replacing the factory installed Bendix EC-17 with an updated Bendix EC-30. The repair instructions are found starting on page 6 of this Bulletin.

TIME ALLOWANCE:

Inspection:	- No inspection time required
Repair:	- 0.7 hour per vehicle

RECALL PARTS:

Recall Kit Number - 3099332

One kit is required per vehicle

KIT ORDERING PROCEDURES:

Kits for this recall must be ordered through Volvo Trucks North America, Inc. Dealer Communications System on an as required basis only. The following information is required to place an order:

1. Your dealer account number
2. Recall kit number
3. Quantity of kits
4. Order priority: VOR

SAFETY RECALL RVXX0003 DECEMBER 2000

The cost of the kit plus 30% dealer mark-up will have to be claimed per the guidelines identified under the heading "Claims for Credit".

DEALER INVENTORY:

No parts should be required from dealer stock.

REMOVED PARTS:

Bendix EC-17 ECUs removed per this recall must be tagged with a copy of the claim and shipped to:

Technical Material Analysis Center
Volvo Trucks North America
5276 New Bern Road, Building 107
Dublin, VA 24084

Your claim for performing this recall will not be processed until receipt of the removed ECU with the associated claim attached.

CLAIMS FOR CREDIT:

Expenses associated with the performance of this recall will be reimbursed based on the guidelines identified in this Bulletin, and by submitting a claim following published instructions in the claim preparation section of the "Warranty Administration Procedures Manual".

NOTE: Claims for the recall repair must be submitted within 2 working days from the repair date.

Special Note: Expenses associated with correcting pre-existing ECU fault code conditions are not covered by this recall, and are the responsibility of the vehicle owner unless the vehicle is still under Warranty. If the vehicle is under Warranty a warranty claim must be submitted according to the 'Warranty Administration Procedures Manual'.

CLAIM CODING INFORMATION:

Type	- P
Authorization Number	- RVXX0003
Inspection	- No Inspection Required
Repair:	- 59301-0-05 0.7 hour per vehicle

**SAFETY RECALL RVXX0003
DECEMBER 2000**

OWNER RECALL RESPONSE CARD:

The "Owner Recall Response Card" is to provide the vehicle owner with a convenient way to notify Volvo Trucks North America, Inc. of changes affecting the ownership of the subject vehicle. The owner card is not intended for dealer usage other than to assist you in the preparation of the repair orders necessary to perform the applicable recall on the subject vehicle. Please do not use the card as a way to inform Volvo Trucks North America, Inc. that the vehicle has been inspected or modified. Your WINS on-line system entry is sufficient.

DEALER RECALL RESPONSIBILITY:

Dealers are to perform the recall on all vehicles subject to the recall at no charge to the owner regardless of mileage, age of vehicle, or ownership from this time forward. Whenever a vehicle subject to this recall is taken into or is in your vehicle inventory or dealership for service, we strongly recommend you make every effort to perform the recall correction before the vehicle is sold or released to the owner.

IMPORTANT NOTICE:

A copy of the Owner Notice has been included for your reference. Please note that the National Traffic and Motor Vehicle Safety Act requires that the owner's vehicle(s) be corrected within a reasonable time after parts are available to you. The law states that failure to repair a vehicle within sixty (60) day after tender for repair shall be a prima facie evidence of unreasonable time. However, circumstances of a particular situation may reduce the sixty (60) day period. If an owner's vehicle is not repaired within a reasonable time, he or she may be entitled, without charge, to a reasonable equivalent vehicle or refund of the purchase price, less reasonable allowance for depreciation.

Volvo Trucks North America, Inc.
P.O. Box 26115
Greensboro, NC 27102-6115

VOLVO

SAFETY RECALL BULLETIN

**SAFETY RECALL RVXX0003
DECEMBER 2000**

SAFETY RECALL NOTICE **VOLVO**
SAFETY RECALL RVXX0003
DECEMBER 2000

Dear Volvo Truck Dealer:

This notice is sent to you to assist you with the requirements of the National Highway Traffic and Motor Vehicle Safety Act.

Volvo Trucks North America, Inc. has decided that a defect that relates to motor vehicle safety exists in Motor Vehicle Safety Act.

SAFETY DEFECT: The Brake Auxiliary Brake System (ABS), Electronic Control Unit (ECU) models AC, VA, WAH, WAG, WPC, WSD, and WEL, model vehicles built between November 6, 1997 and August 7, 2000.

POTENTIAL HAZARD: If the condition occurs, it can result in the temporary loss of braking capability or one or more wheel lockups, increasing stopping distance and the risk of an accident.

REPAIR/WORK YOU CAN EXPECT: There are no procedures you can take other than having a Volvo truck dealer inspect the Brake ABS ECU.

YOUR RIGHTS: As you change the ownership of your vehicle's title or change a Volvo truck dealer, you must have a new Brake ABS ECU. From the date of the recall, you may be entitled to a refund of the purchase price of the vehicle.

WHAT YOU SHOULD DO: The Motor Vehicle Safety Act requires you to inform your vehicle's dealer of this recall. Volvo Trucks North America, Inc. has provided you with a "Driver Response Card" to be placed in your vehicle to inform your dealer of this recall. The "Driver Response Card" is available for download on the dealer website, your Volvo Trucks dealer, or at www.volvotrucks.com. You may also contact Volvo Trucks North America, Inc. at 1-800-441-4336 for more information.

Copy of Letter to Owners

**NOTICE REGARDING
LEASED VEHICLES:**

If you are a Lessee of a vehicle subject to this Notice, you have an obligation under Federal Law to provide a copy of this Notice to all Lessees within 10 days of your receipt of this Notice. Further, you must maintain a record which identifies the Lessee(s) to whom you send a copy of this Notice, the date you send this Notice, and the Vehicle Identification Number(s) of the vehicle(s) for which you have leased to that Lessee. For purposes of this Notice, the term Lessee means a person or entity that is the owner, as reflected on the vehicle's title, of any 2½ or more leased vehicles (as defined in 49 CFR Section 677.6), as of the date of notification by the manufacturer of the existence of a safety-related defect or non-compliance with a Federal Motor Vehicle Safety Standard in case or more of the leased motor vehicles.

**OWNER RECALL
RESPONSE CARD:**

The enclosed "Owner Recall Response Card" identifies your vehicle. Receipt of this card by your dealer will assist in the processing of your vehicle in the dealer's shop. If you do not own, lease, sell or have leased the vehicle identified, please let us know by returning, and signing the postage-paid Card and returning it to Volvo Trucks North America, Inc. at an address on the card.

ADDRESS:

If your vehicle has not been recalled within a reasonable time after delivering it to the dealer on the signed open card, please contact:
Volvo Trucks North America, Inc.
Recall Department
P.O. Box 25115
Greensboro, NC 27402-4115
or call our toll-free number: 1-800-441-4336. You may also submit a complaint to the Administrator, National Highway Traffic Safety Administration, 401 L'Enfant Plaza, S.W., Washington, DC 20013 or call the toll-free Auto Safety Hot Line at 1-800-424-9393. Washington, DC area residents may call 202-366-0123.

We regret any inconvenience this recall may cause, but hope you will share in our concern for your safety and satisfaction with your vehicle.

SAFETY RECALL RVXX0003
DECEMBER 2000

Repair Instructions

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.

NOTE: Check for pre existing fault code, which are not the subject of the RECALL. Pre existing fault codes corrections are not covered by this RECALL.

- Using a Pro-Link Tool check for pre existing fault codes.
- Ensure the vehicle ignition is OFF.
- Locate the ABS ECU.
VN models mounted on crossmember.
WG & AC models mounted on RH frame rail.
WX models inside cab on the RH side.
- Disconnect all connectors from the ECU.
- Unbolt the ECU mounting bracket (if equipped) from the vehicle by removing the two mounting nuts. Remove the ECU and bracket.
- Remove the four bolts and nuts that hold the ECU to its bracket.
- Verify the vehicle ignition is OFF.
- Bolt the replacement ECU to its mounting bracket (if equipped). Torque the bolts to 7.3 ± 1.7 Nm (85 ± 16 in-lb).
- Install the ECU mounting bracket or ECU in the original position and install the mounting nuts. Torque the bolts to 24 ± 4 Nm (213 ± 36 in-lb).
- Connect all electrical connectors to the ECU. Torque the connector screws to 1.15 ± 0.35 Nm (10 ± 3 in-lb).
- Turn the vehicle Ignition to ON.
- Place the TCS switch to OFF.
- Configure the ECU by holding a magnet over the point labeled RESET on the LED side of the ECU for at least 20 seconds.

NOTE: The LEDs will flash while self-configuration is taking place. Power should not be removed from the ECU during self-configuration.

- Verify that the LEDs flash to indicate self-configuration is occurring.
- Using the Pro-Link Tool verify that the ABS system is operational.



001-232.004

WST NO: GSL01-006
 PART NO: N/A
 DATE: Mar 01, 2001

WESTERN STAR TRUCKS®
GENERAL SERVICE LETTER
 To: ALL SERVICE MANAGERS

Subject: Bendix ABS Recalls for Solar Series

Two separate recalls have been issued regarding the Bendix ABS system on Solar (Class 7) series trucks:

Recall W-0003 - This recall was issued to avoid potential problems due to the unavailability of the required ECU's to properly correct the defect. It involved inspecting the tone rings, sensors and harnesses to ensure that they were functioning properly as the ECU's may not have been sending a signal that a problem existed.

Important Note: Recall W-0003 has been superseded by Recall W-0101 and effective February 14, 2001 should no longer be performed.

Recall W-0101 - This recall is for replacement of the defective ECU's. Since the replacement ECU's will correctly sense problems in the wheel end equipment, the performance of Recall W-0003 is no longer required.

Should you check the truck registration under either Truck Inquiry or Owner Information on StarNet, you may find that some Solar series trucks have both recalls showing as outstanding. The reason for this is that a number of dealers have performed recall W-0003 prior to February 14, 2001 but have not yet submitted a claim. If we were to remove this recall, dealers would not be able to submit claims for work already performed.

In order to remove this potentially confusing item, we ask you to follow the guidelines below:

1. **DO NOT perform Recall W-0003.** Repairs involving Recall W-0003 after February 14, 2001 will not be reimbursed.
2. If you have performed Recall W-0003 on or prior to February 14, 2001, please submit your claim right away. On March 19, 2001 this recall will be deleted from the system and no further claims will be able to be filed for this work.
3. Perform the work as outlined in Recall W-0101 as soon as possible in order to ensure the safety of your customers. We recommend you take the following actions:

a. Check each of your stock trucks (Including any corporate inventory trucks) on either Truck Inquiry or Owner Information to determine if Recall W-0101 has been performed. If it has not, it will appear as a note near the top of the page in the section entitled "TRUCK INFO" right underneath the truck model as a note entitled "UNCLAIMED RECALLS". Please perform Recall W-0101 on all your stock trucks.

b. Check your sales records of any Solar series trucks that have already been sold by your dealership and check the vehicle registration to ensure that Recall W-0101 has been performed. If not, we strongly recommend that you contact your customer and arrange a mutually suitable appointment to have this recall performed.

Should you have any questions regarding this bulletin, contact your Warranty Claims Analyst in Kelowna.

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October 11, 2000

Mr. Sonny Murlanka
National Highway Traffic Safety Administration
Room 5319 (NEF-111)
400 Seventh Street, SW
Washington, DC 20590

Dear Mr. Murlanka:

Blue Bird Body Company issued the following for the month of September, 2000, copies enclosed:

Recalls - 2

R00EE - September 5, 2000

R00EF - September 6, 2000

ODV-232,005

ODV-245

Service Bulletins - 0

Service Updates - 0

Should questions arise concerning these or other matters, please do not hesitate to contact me at 912/822-2242.

Sincerely,

Bill Coleman
Recall Administrator

jd

RECEIVED
OCT 15 PM 1:39
OFFICE
DEFECTS INVESTIGATION



R00EE

DATE: SEPTEMBER 06, 2000

TO: U.S. DISTRIBUTORS

**SUBJECT: RECALL R00EE BENDIX ECU-17-1030R ABS ELECTRONIC
CONTROLLER UNIT REPLACEMENT**

This notice is sent to you in accordance with the requirements of The National Traffic and Motor Vehicle Safety Act. Blue Bird Body Company has determined that a defect which relates to motor vehicle safety exists in certain 1998-2000 year model Blue Bird All American and TC/2000 school and transit buses and Q Bus and Commercial Series transit buses equipped with Bendix controlled ABS air brakes. Blue Bird is conducting a recall to correct this defect. Subject buses must be modified according to the instructions provided with recall R00EE, copy attached.

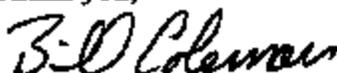
If our records indicate affected units were delivered in your service area, a printout identifying affected units is enclosed. Distributors should verify correct owners are listed for each for each body number shown on the enclosed printout and that complete UPS shipping (street) addresses are provided for each listed vehicle. If you have in your possession or have sold a vehicle that was purchased from another distributor that may be affected by this recall, please notify me at 912-822-2242.

Owners are being advised they may perform this work themselves or have the work performed by a local repair facility. They may also contact their distributor for assistance. The owner notification for R00EE will include a labor reimbursement sheet, which will permit owners to file for reimbursement for labor directly to Blue Bird Body Company. For units modified by the distributor, warranty applications may be submitted to Blue Bird VIA BBOND (use CBCLAIM in the warranty menu). Time required to inspect wheel sensors, wheel sensor wiring and tone rings is 2 hours. Time required to remove the defective electronic control unit and replace it with the new electronic control unit is 0.4 hours.

Distributors are reminded of their responsibilities under section 154 of The National Traffic and Motor Vehicle Safety Act of 1991. Dealers are required to complete modifications/repairs on units in their inventory before delivering to the final owner. Reference Blue Bird Body Company Distributor Memo No. 42-92.

Questions regarding this recall campaign should be directed to me at (912) 822-2242.

Thank you,


Bill Coleman
Recall Administrator

BLUE BIRD BODY COMPANY
P.O. Box 937 • Fort Valley, Georgia 31030 • (912) 825-2021



R00EE

September 06, 2000

Dear Blue Bird Owner:

This notice is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act.

Blue Bird Body Company has determined that a defect which relates to motor vehicle safety exists in certain 1998-2000 year model Blue Bird All American and TC/2000 school and transit buses and Q Bus and Commercial Series transit buses equipped with Bendix controlled ABS (antilock brake system) air brakes. Blue Bird is conducting a recall to correct this defect.

The defect involves the Bendix model ECU-17-1030R electronic control unit (ECU). Bendix has made Blue Bird aware of reported incidents of unwanted, temporary, ABS activation on units equipped with this model ECU. The unwanted activation on units equipped with this ECU will occur, **ONLY** if, there has been damage to the sensor, sensor wiring or tone ring. Blue Bird has received one report of a pulsing brake, which resulted from a chafed sensor wire.

Blue Bird Body Company's evaluation of the risk to motor vehicle safety reasonably related to this defect is unwanted, temporary, ABS activation in the event damage has occurred to the sensor wire, sensor or tone ring resulting in unexpected extended stopping distance of the vehicle at speeds below 20mph.

Bendix advises replacement electronic control units will be available in mid October with sufficient quantities for all buses by the end of November. **In the interim, the wheel sensor wiring should be inspected for chafing and contact with rotating wheel end components. In addition the wheel sensors and tone rings should be inspected for damage. Damaged parts should be replaced prior to returning the bus to service.** Any dash mounted ABS warning light activation should be checked using Bendix trouble shooting guide contained in the vehicle maintenance manual. The ECU-17 trouble shooting guide is also available at the following website: www.bendix.com/Bendix-BusOEM.shtml.

Your Blue Bird bus (es) affected by recall R00EE are identified by body serial number(s) on the enclosed reply sheets. If you no longer own the subject bus (es), please complete the appropriate section of the yellow reply sheet and return to Blue Bird in the enclosed pink postage prepaid envelope.

You may perform this modification yourself or have the work done by a qualified repair facility convenient to you. You may contact your Blue Bird distributor for assistance.

BLUE BIRD BODY COMPANY
P.O. Box 937 • Fort Valley, Georgia 31030 • (912) 825-2021

Page 2

To receive replacement electronic control units, verify that the address shown at the top of the yellow reply sheet is a valid UPS shipping address and return to Blue Bird in the pink self-addressed postage paid envelope. Bendix advises replacement electronic control units will be available in mid October with sufficient quantities for all buses by the end of November. Replacement electronic control units will be shipped "No Charge" via UPS or common carrier.

Upon completion of the recall the owner should complete and return the pink reply sheet in the postage prepaid envelope provided. The owner may request reimbursement of labor costs by completing the appropriate section of the pink reply sheet. If repair is performed by other than the owner or a Blue Bird distributor, attach a copy of the paid work order/invoice to the pink reply sheet. Time required to inspect the wheel sensors, wheel sensor wiring and tone rings is 2 hours per bus. It is not necessary to remove hub to inspect tone ring. Time required to remove the defective ECU-17-1030R electronic control unit and replace it with the new ECU-17-2.30 electronic control unit is 0.4 hours per bus.

Important: Your prompt return of the pink reimbursement sheet, complete with the correct Body Serial Numbers, permits Blue Bird to update our record indicating recall has been completed and prevents the mailing of a second notice. This is much appreciated. We regret any inconvenience this may have caused.

If Blue Bird Body Company should fail to or is unable to remedy this condition without charge to you, you may contact:

**ADMINISTRATOR
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
WASHINGTON, D.C. 20590**

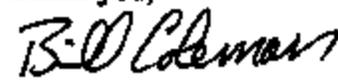
or you may call The National Highway Traffic Safety Administration toll free at:

1-800-424-9393

Washington D.C. residents may call: 202-366-0123.

Questions regarding this recall campaign should be directed to me at (912) 822-2242.

Thank you,



Bill Coleman
Recall Administrator

RECALL R00EE
INSTRUCTIONS FOR REPLACING
BENDIX ABS ELECTRONIC CONTROL UNIT

1. Park buses on a level surface, apply parking brakes, turn engine off and remove ignition key.
2. Chock wheels.
3. Locate rear brake valve assembly in forward of rear axle. The Bendix Antilock Electronic Control Unit (EC-17) is mounted on this assembly.
4. Remove as much contamination as possible from the assembly's exterior. Keep the contamination away from open electrical connections.
5. Disconnect the two electrical connectors from the EC -17 1030R.
6. Note the mounting position of the EC-17 1030R on the mounting bracket. Remove the EC-17 1030R by removing four (4) existing ¼" lock nuts and bolts.
7. Mount the new EC17 - 2.30 ECU (BB # 0029673) in the same position as the previous EC-17 1030R. Attach the new EC17 -2.30 to the mounting bracket with four (4) new ¼-20 X 1 ¾, grade 5 bolts (BB# 1672153) and four (4) new ¼ -20 lock nuts (BB# 1339639). Tighten to 60-70 inch pounds.
8. Check new EC17-2.30 for dielectric grease. If the connector has none, add dielectric grease to connectors. Purchase locally if needed.
9. Reconnect the two electrical connectors to the EC17- 2.30 and torque to the electrical connector retaining bolts to 15-20 inch pounds.
10. Turn the ignition on, and then hold a magnet on the RESET position of the EC17- 2.30 diagnostic display until the LED's begin to flash in sequence and then remove the magnet. Approximate reset time is 20 seconds.
NOTE: If the magnet is not removed during the LED flashing, a second self-configuration may be initiated.
11. After the configuration process is complete the EC17 -2.30 automatically will perform a self-test. LED's will display the new configuration.
A. SEN + FRT (FRONT) + RER (REAR) = A Four Sensor system.
12. INITIAL START UP PROCEDURE: Turn the ignition on and observe the dash antilock lamp. The lamp will be on during the system self test (Chuff Test described below). After the self-test, the lamp blinks twice and then will remain off, provided no faults are detected. If the dash lamp remains on the system has located a fault. Inspect the red LED's located on the ECU and follow the troubleshooting information in Bendix SERVICE DATA BOOK SD-13-4788 for EC-17 ANTILOCK -TRACTION CONTROLLER. Trouble shooting guide is available on line at www.bendix.com/bendix-busOEM.shtml.
CHUFF TEST: Upon initial power-up, the system will perform a short diagnostic activation of all modulators. With a light application of the brake pedal, the operator can monitor the activation of the solenoids by short blast of air coming from the modulators. The pattern of activation is Right Front, Left Front, Right Rear, and Left Rear. The pattern is performed twice at each power-up.
13. After the ECU has been replaced and is operating correctly, remove wheel chock.

Ford Motor Company

James P. Vondale, Director
Automotive Safety Office
Environmental & Safety Engineering

March 16, 2001

Mr. Kenneth N. Weinstein
Associate Administrator for Safety Assurance
National Highway Traffic Safety Administration
400 Seventh Street, S.W.
Washington, D.C. 20590

Dear Mr. Weinstein:

Subject: Safety Recall 00V-232⁰⁰⁷ NSA-11paw
(Ford Number 00S28)

Enclosed are dealer and owner letters issued by Ford Customer Service Division regarding a recall of certain 2000 and 2001 F-650 and F-750 vehicles. Specific details were forwarded to you in our letter dated September 21, 2000. Owner notification letters were mailed on March 7, 2001.

Sincerely,

James P. Vondale

00S28dir.doc/tty
Enclosures

RECEIVED
MARCH 28 11 58 AM
SAFETY INVESTIGATION



Ford Motor Company

February 2001

TO: All Ford Medium Truck Dealers

SUBJECT: Safety Recall 00S28: Certain 2000 and 2001 Model Year F-650 and F-750 vehicles equipped with Air Brakes – Anti-Lock Brake ECU (Controller) Replacement

REF: Dealer Announcement dated May 10, 1999, Low Volume Recalls and Owner Notification Programs (Attachment IV)

AFFECTED VEHICLES

- Certain 2000 model year F-650 and F-750 vehicles equipped with air brakes and built at the Cuautitlan Assembly Plant from November 23, 1998 through August 17, 2000.
- Certain 2001 model year F-650 and F-750 vehicles equipped with air brakes and built at the Cuautitlan Assembly Plant from June 7, 2000 through August 29, 2000.

SAFETY CONCERN

In some of the affected vehicles the anti-lock brake ECU (Controller) may interpret wheel speed sensor background noise as actual wheel speed information. This may allow false activation of the anti-lock brake system at speeds below 20 mph when the brakes are applied.

SERVICE ACTION

To prevent the possibility of false activation of the anti-lock brake system, the dealership will replace the affected anti-lock brake ECU (Controller) with a revised ECU that has improved signal processing capability.

PLEASE NOTE

Correct all vehicles in stock before delivery. Federal law requires dealers to complete any outstanding safety recall service before a new vehicle is delivered to the buyer or lessee. Violation of this requirement by a dealer could result in a civil penalty of up to \$5,000 per vehicle.

LOW VOLUME RECALL

This recall is being processed as a Low Volume Recall. This type of field action was announced in an All-Dealer letter dated May 10, 1999. (See Attachment IV)

Owners will be contacting the Low Volume Recall Coordination Center to arrange for this service. We will advise you via MORS III of the owners that chose your dealership to perform the service provided by this Recall program. The parts will be ordered for you by the Program Coordination Center.

You are requested to contact the owner and arrange for this service. (Note that our Coordination Center will advise owners that they will hear from you within the next two business days.)

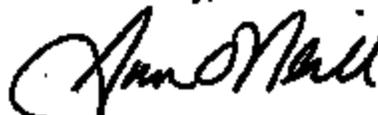
ATTACHMENTS

- Attachment I: Administrative Information
- Attachment II: Labor Allowances and Parts Ordering Information
- Attachment III: Technical Information
- Attachment IV: Low Volume Dealer Announcement Letter
Customer Notification Letter

QUESTIONS?

- Claims Information:.....1-800-423-8851
- Other (Dealer Only) Recall Questions:.....1-800-325-5621

Sincerely,



Ann O'Neil
Director
Vehicle Service and Programs

Safety Recall 00S26:
Certain 2000 and 2001 Model Year F-850 and F-750 vehicles equipped with Air Brakes –
Anti-Lock Brake ECU (Controller) Replacement

OASIS

You must use OASIS to determine if a vehicle is eligible for this recall.

PROMPTLY CORRECT

Promptly correct all affected vehicles on your dealer Recall/ONP Involved Unit Listings available on QCDDealer.Com or in the Ford Dealer Consolidated Communicator (FDCC). Also, correct other eligible vehicles, which are brought to your dealership.

You must contact the Low Volume Recall Coordination Center at 1-800-248-0185 to arrange for parts if you have an involved vehicle in stock. When calling this number, identify Safety Recall 00S26 and have the VIN of the dealer stock vehicle to be serviced.

DEALER-OWNER CONTACT

When you receive notification through MORS III, you should contact the owner and arrange for this service. Please note that our Coordination Center will advise owners that they will hear from you within the next two business days. For more information, see referenced copy of "Low Volume Announcement Letter" dated May 10, 1999.

Immediately contact any of your affected owners whose names are not on your VIN list but identified in OASIS. Give the owner a copy of the Owner Letter and schedule a service date.

REGIONAL CONTACT

Advise regional office if an owner:

- cannot be contacted.
- does not make a service date.

CLAIMS PREPARATION AND SUBMISSION

- Enter claims using DWE.
- Refer to ACESII manual for claims preparation and submission information.

OWNER REFUNDS

Ford Motor Company will only refund owner-paid repairs made before the date of the Owner Letter (or after the date of the Owner Letter if an emergency repair was made away from the servicing dealer). Refer to ACESII manual for refund information.

RENTAL CARS

Rental vehicles are not approved for this program.

Safety Recall 00S28:
Certain 2000 and 2001 Model Year F-850 and F-750 vehicles equipped with Air Brakes –
Anti-Lock Brake ECU (Controller) Replacement

LABOR ALLOWANCES

Description	Labor Operation	Labor Time
Replace Anti-Lock Brake ECU (Controller)	00S28B	0.8 Hour
Administrative Allowance	Misc. Expense Code "ADMIN"	0.1 Hour

PARTS REQUIREMENTS

Parts Ordering Information

Parts will not be direct shipped for this campaign. This is a "Small Volume" program and dealers/customers will be required to call the Campaign Headquarters at 1-800-248-0186 and supply the VIN of the vehicles to order parts. This process will remain in effect for 90 days after the launch of the campaign.

All order types	90 days after launch	Call 1-800-248-1088
All order types	91 days after launch	Normal order process

Part Number	Description	Quantity
YC3Z-2G218-AC	ECU (controller)	1

ORDER INFORMATION

DOR/COR number 50221 identifies parts ordered for this campaign.

DEALER PRICE

For latest prices, refer to DOES II or updated price book.

EXCESS STOCK RETURN

Excess stock returned for credit must have been purchased from Ford Customer Service Division in accordance with Policy Procedure Bulletin 4000.

F-650/750 ANTI-LOCK BRAKE ECU REPLACEMENT

AFFECTED VEHICLES: CERTAIN 2000-2001 MODEL YEAR F-650 AND F-750 MEDIUM DUTY TRUCKS EQUIPPED WITH ANTI-LOCK AIR BRAKE SYSTEMS

OVERVIEW

This procedure details the replacement of the anti-lock brake ECU.

REMOVAL

1. Set the parking brake and place chocks behind the rear wheels.
2. Drain the brake's air supply system to 0 kPa (0 psi).
3. Unfasten and disconnect the electrical connectors from the anti-lock brake ECU.
4. Remove the bolts securing the anti-lock brake ECU to the modulator relay valve. See Figure 1.

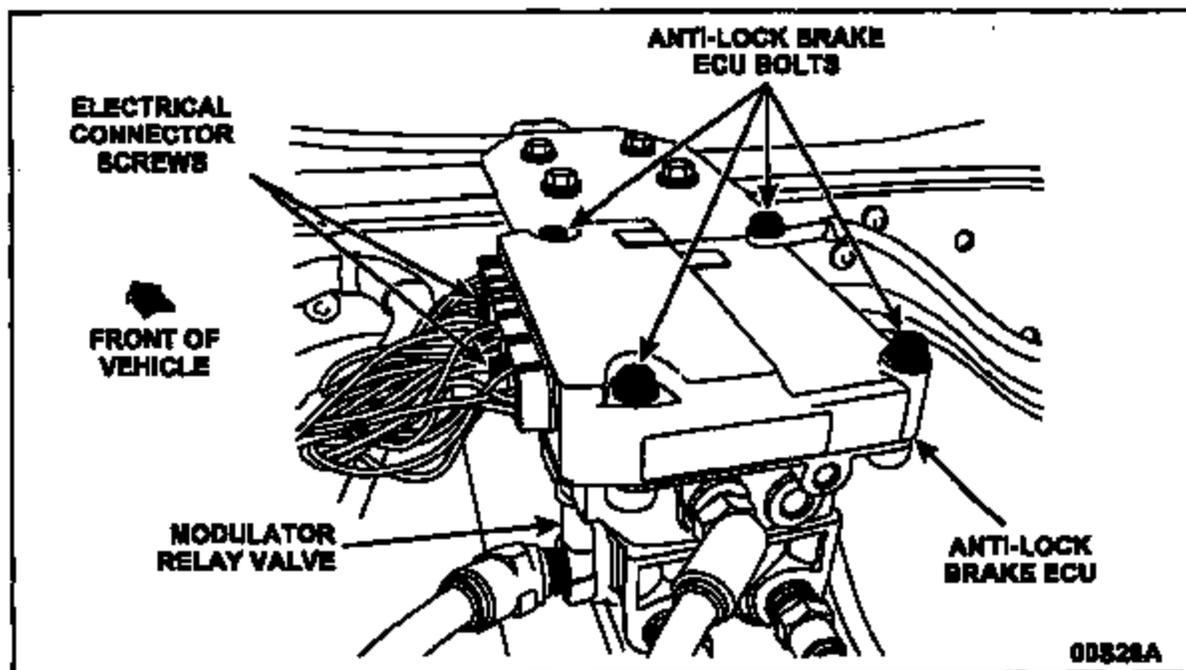


FIGURE 1

Ford Motor Company

CPR © 2001 FORD MOTOR COMPANY
DEARBORN, MICHIGAN 48121
02/01

5. Remove the anti-lock brake ECU from the modulator relay valve. See Figure 2.

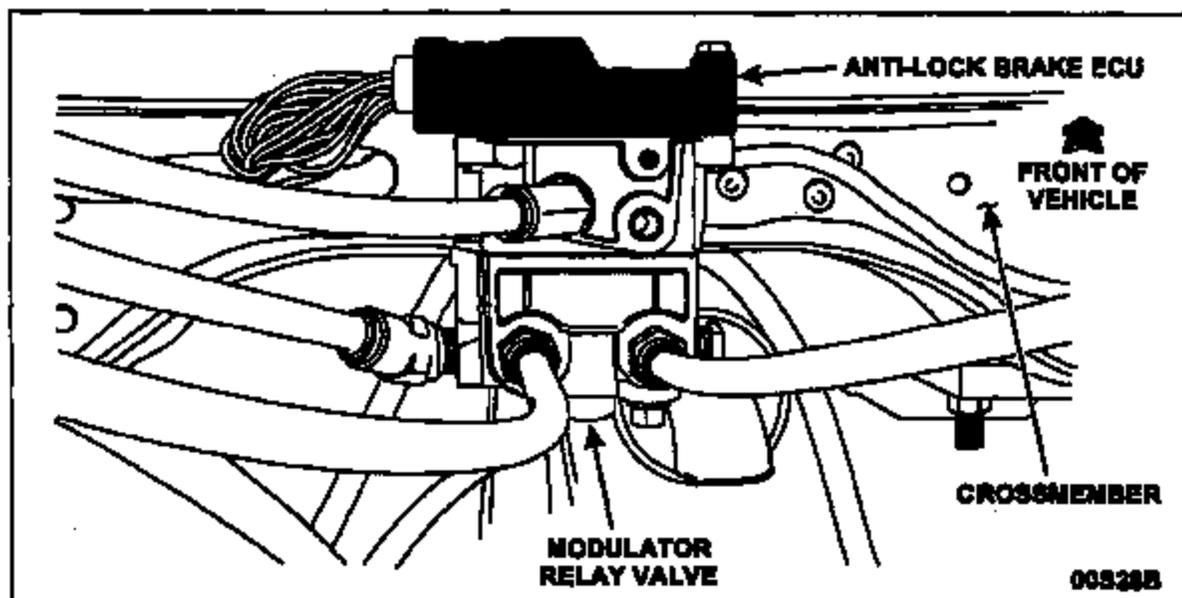


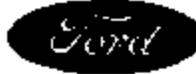
FIGURE 2

INSTALLATION

1. Position the new anti-lock brake ECU on the modulator relay valve.
2. Install the bolts securing the anti-lock brake ECU to the modulator relay valve and tighten to 7 Nm (62 lb-in).
3. Connect the anti-lock brake ECU electrical connectors and tighten the screws to 5 Nm (44 lb-in).
4. Fill the brake system with air.
6. Remove the chocks from behind the rear wheels and release the parking brake.

All Dealer Letter
Part Procurement Process for Low Volume Programs

Ford Customer Service Division



Ford Motor Company
P.O. Box 1904
Dearborn, Michigan 48121

May 10, 1999

To: All Ford and Lincoln Mercury Dealers

cc: All Parts Managers
All Service Managers

Subject: Updated Part Procurement Process For Low Volume Recalls

The purpose of this communication is to update the process for dealer acquisition of service parts for certain Recalls/Owner Notification Programs with a small number of involved vehicles.

Background:

- Situations where Recalls/Owner Notification Programs have a small number of involved units require special handling.
- There are no controls in the parts system to prevent the over-ordering of parts in low volume situations.
- Many dealers order one or more parts even if they do not have an involved unit to insure customer satisfaction. This can result in parts in the inventory of dealers who do not need them and exhausted supply for dealers who do need them.
- With existing procedures, there is a cost to the Company and the Dealers (handling, returning, scrapping, etc.).

What's "Small Volume"?

- Generally, recalls, or ONP's involving 5,000 or fewer vehicles.

What We Propose

- Procedure to better manage "Parts-To-Affected-Vehicle" process.
- Vehicle owner (retail customer/fleet/dealer) requested to contact a "process facilitator" via a special 1-800 toll-free line or with a special postcard provided with the owner letter.
- Process facilitator verifies VIN/Owner information and works with owner (or dealer) to identify repairing dealer.
- Process facilitator inputs part order and sends a MORS III message with Customer/VIN/part shipping information to the identified repairing dealer.
- Dealer would be charged for the part at the lowest acquisition cost.

What's Different:

- Owner asked to call special toll-free line or send back special postcard.
- Parts would not be available through the normal parts ordering system.
- Owners would need to have an appointment.

Dealer Benefits:

- Eliminates back-orders—guarantees part availability.
- Increases customer satisfaction with your "Service Experience"
- New process will enable dealers to initiate pro-active service scheduling—with the information we will provide on the MORS III message, you call the customers to arrange a service appointment knowing that the part will be there and the customer's vehicle needs service.

Additional details will be provided as specific Recalls/Owner Notification Programs suitable for this process are launched.

We ask that you share this procedure with your parts and service personnel to insure they are aware of this process.

Ann O'Neill
Director
Vehicle Service and Programs

R. E. Turacki
Director
Global Parts Supply and Logistics



Ford Motor Company
P. O. Box 1904
Dearborn, Michigan 48121

March 2001

00S28

Mr. John Sample
123 Main Street
Anywhere, USA 12345

Your Vehicle Identification Number: 12345678901234567

This notice is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act.

Ford Motor Company has decided that a defect which relates to motor vehicle safety exists in certain 2000 and 2001 model year F-650 and F-750 vehicles.

We apologize for this situation and want to assure you that with your assistance we will correct this condition. Our commitment, together with Ford and Lincoln Mercury dealers, is to provide you with the highest level of service and support possible.

What the safety issue is ... During application of service brakes, if vehicle speed is below 20 mph, the anti-lock brake ECU (Controller) in your vehicle may allow inappropriate activation of the anti-lock brakes resulting in increased stopping distance.

What Ford Motor Company and your dealer will do ... Ford Motor Company will repair your vehicle free of charge (parts and labor.) To restore proper anti-lock brake operation, your dealer will replace the anti-lock brake ECU (Controller) with a redesigned ECU.

How long will it take? The time needed for this repair is less than one-half day. However, due to service scheduling issues, your dealer may need your vehicle for a longer period of time.

**What we are asking
you to do ...**

Call toll-free 1-800-248-0188 and inform the Ford representative that you wish to have your vehicle serviced under Safety Recall 00S28. Representatives are available 7:30AM to 7:30PM Monday through Friday, and 8:00AM to 3:00PM on Saturday (times are Eastern Time).

Please have this letter with you when you call. The Ford representative will ask for the serial number of your vehicle. The serial number is printed on the top of this letter.

Arrangements will be made with the dealership of your choice to have parts available. The dealership will call you to schedule an appointment. If you have not heard from your dealer within two working days, call your dealer to request a service appointment. You need do nothing else except bring your vehicle to the dealership on the service date.

If you misplace this letter, your dealer will still do the work, free of charge.

**If you've already paid
for this service ...**

If you paid to have this service done before the date of this letter, Ford is offering a full refund. For the refund, please give your paid original receipt to your dealer. To avoid delays, do not send receipts to Ford Motor Company.

**If you've changed
address or sold the
vehicle ...**

Please fill out the enclosed prepaid postcard and mail it to us if you have changed address or sold the vehicle.

If you have concerns ...

If you have trouble getting your vehicle repaired promptly and without charge, please contact your dealership's Service Manager. If you still need assistance, please contact the Ford Motor Company Customer Relationship Center and one of our representatives will be happy to assist you.

**CALL: (800) 392-3673
(800) 232-5952 (TDD for the Hearing Impaired)**

Office Hours: (Eastern Standard Time)

Monday-Friday: 8am - 11pm

Saturday: 8am - 6pm

or you may contact us through the Internet at:

www.ownersconnection.com

Our current response time to Internet inquiries is three business days.

You also may send a complaint to the Administrator, National Highway Traffic Safety Administration, 400 Seventh Street S. W., Washington, D. C. 20590 or call the toll free Auto Safety Hotline at 1-888-327-4236 or 1-800-424-9393.

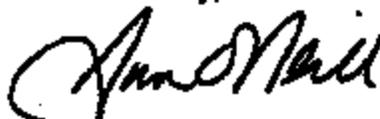
Quality Care service is there for you all year round.

QualityCare
of your service

Quality Care is the commitment of Ford Motor Company and its dealerships to provide you with a superior service and ownership experience. While we regret the inconvenience caused by this program, we stand committed with our dealers to assist you with all of your automotive service needs. With our nationwide dealer network, we're here to ensure you receive Quality Care service so that your vehicle maintains peak performance throughout your ownership experience.

We pride ourselves on becoming the world's leading consumer company for automotive products and services. Thank you for your attention to this important matter.

Sincerely,



Ann O'Neill

Director

Vehicle Service and Programs



File In Section: Product Campaigns
 Bulletin No.: 00076
 Date: December, 2000

Campaign Bulletin

00V-232-008



PRODUCT SAFETY CAMPAIGN

SUBJECT: 00076 – BENDIX AIR BRAKE ABS UNWANTED ACTIVATION

MODELS: 1998-2001 CHEVROLET AND GMC C SERIES, T SERIES, AND SCHOOL BUS CHASSIS MEDIUM DUTY VEHICLES EQUIPPED WITH ABS AIR BRAKES (JE5)

DUE TO THE AVAILABILITY OF PARTS, THIS CAMPAIGN IS BEING ADMINISTERED IN THREE PHASES. THE FIRST PHASE WILL CONSIST OF SCHOOL BUS VEHICLES. ENCLOSED IS THE DEALER LISTING FOR INVOLVED VEHICLES IN THE FIRST PHASE. A NEW DEALER LISTING FOR THE SECOND AND THIRD PHASES WILL BE MAILED TO YOU WHEN ADDITIONAL PARTS BECOME AVAILABLE.

CONDITION

General Motors has decided that a defect which relates to motor vehicle safety exists in certain 1998-2001 Chevrolet and GMC C Series, T Series, and School Bus chassis medium duty vehicles equipped with Bendix ABS air brakes (JE5). Some of these vehicles have a condition in which the vehicle may have unwanted temporary ABS activation at low speeds. If this occurred when minimum stopping distance was required, it could result in a vehicle crash.

CORRECTION

Dealers are to replace the air brake ECU module and inspect the wheel sensor cables and wire harnesses for proper routing.

VEHICLES INVOLVED

Involved are certain 1998-2001 Chevrolet and GMC C Series, T Series, and School Bus chassis medium duty vehicles equipped with ABS air brakes (JE5) and built within these VIN breakpoints:

YEAR	DIVISION	MODEL	PLANT	FROM	THROUGH
1998	GMC	C	Janesville	WJ500001	WJ521861
1999	GMC	C	Janesville	XJ500037	XJ520544

VEHICLES INVOLVED. Cont'd.

YEAR	DIVISION	MODEL	PLANT	FROM	THROUGH
2000	GMC	C	Janesville	YJ500003	YJ908854
2001	GMC	C	Janesville	1J500008	1J500072
1998	GMC	T	Janesville	WJ500562	WJ521844
1999	GMC	T	Janesville	XJ500045	XJ854179
2000	GMC	T	Janesville	YJ500004	YJ908832
2001	GMC	T	Janesville	1J500066	1J500066*
1998	GMC	B	Janesville	WJ500014	WJ521817
1999	GMC	B	Janesville	XJ500036	XJ520538
2000	GMC	B	Janesville	YJ500066	YJ528029
1998	Chevrolet	C	Janesville	WJ101113	WJ113664
1999	Chevrolet	C	Janesville	XJ100002	XJ109138
2000	Chevrolet	C	Janesville	YJ500030	YJ528611
2001	Chevrolet	C	Janesville	1J500020	1J500069
1998	Chevrolet	T	Janesville	WJ101104	WJ112496
1999	Chevrolet	T	Janesville	XJ100238	XJ109114
2000	Chevrolet	T	Janesville	YJ500008	YJ527354
1998	Chevrolet	B	Janesville	WJ105096	WJ113640
1999	Chevrolet	B	Janesville	XJ100024	XJ109110
2000	Chevrolet	B	Janesville	YJ500119	YJ527229
2001	Chevrolet	B	Janesville	1J500056	1J500074

* Only one vehicle involved

IMPORTANT: Dealers should confirm vehicle eligibility through **GMVIS** (GM Vehicle Inquiry System) or **GM Access Screen** (Canada only) or **DCS Screen 445** (IPC only) before beginning campaign repairs. [Not all vehicles within the above breakpoints may be involved.]

Involved vehicles have been identified by Vehicle Identification Number. Computer listings containing the complete Vehicle Identification Number, customer name and address data have been prepared, and are being furnished to involved dealers with the campaign bulletin. The customer name and address data furnished will enable dealers to follow up with customers involved in this campaign. Any dealer not receiving a computer listing with the campaign bulletin has no involved vehicles currently assigned.

These dealer listings may contain customer names and addresses obtained from Motor Vehicle Registration Records. The use of such motor vehicle registration data for any other purpose is a violation of law in several states/provinces/countries. Accordingly, you are urged to limit the use of this listing to the follow-up necessary to complete this campaign.

PARTS INFORMATION

Parts required to complete this campaign are to be obtained from General Motors Service Parts Operations (GMSPO). Please refer to your "involved vehicles listing" before ordering parts. Normal orders should be placed on a DRO = Daily Replenishment Order. In an emergency situation, parts should be ordered on a CSO = Customer Special Order.

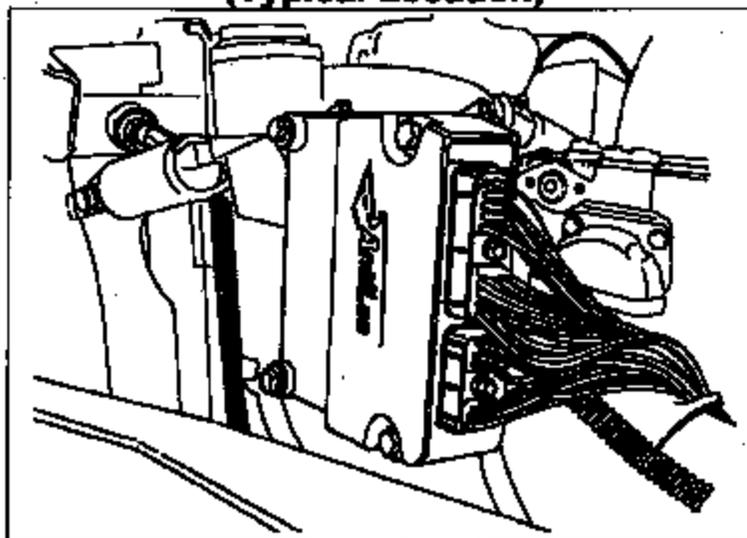
Part Number	Description	Quantity/Vehicle
88935705*	Module Asm, Elek Brk Cont (Equipped With FL1)	1
88935706*	Module Asm, Elek Brk Cont (Equipped Without FL1)	1

*** Important:** Due to the small number of vehicles involved and due to limited initial parts availability, dealers are encouraged not to order campaign parts for use as shelf stock. Parts should only be ordered when a vehicle is brought in for service.

SERVICE PROCEDURE

1. Disconnect the battery negative cable.
2. Disconnect the two wiring connectors from the Electronic Control Unit (ECU) (Figure 1).
 - On the C Series and School Bus Chassis, the ECU is located on the left-hand radiator support.
 - On the T Series, the ECU is located underneath the cab at the rear support.

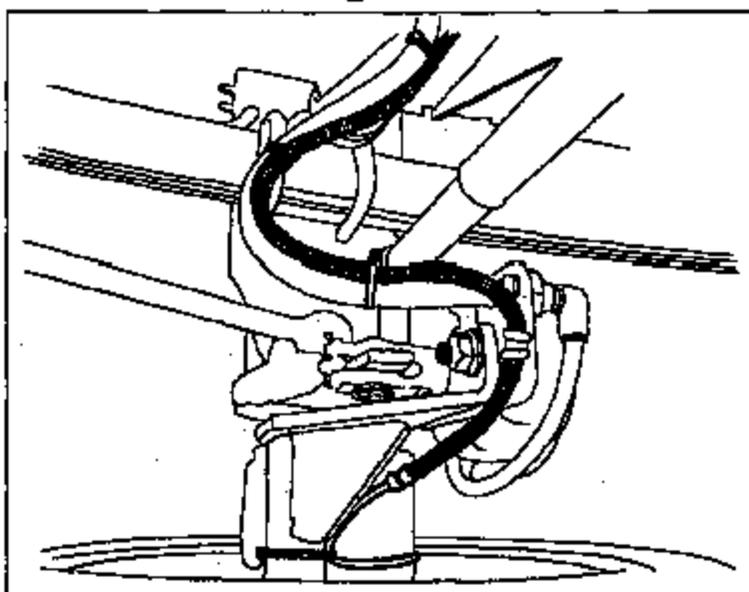
Figure 1
(Typical Location)



3. Remove the four bolts retaining the ECU to the mounting plate.
4. Install the new ECU to the plate with the four bolts. Tighten bolts to 11 Nm (98 lb in).

5. Connect the two wiring connectors to the ECU.
6. Beginning at the ABS speed sensor cables at the ECU module, trace the wires to each front wheel and verify the following:
 - Verify that all connectors in line are fully engaged.
 - Verify that all secondary locks are engaged.
 - Verify that all speed sensor wires passing through any frame member are encased in conduit.
 - Verify that cables are secured to the front brake air lines and axles at 152 mm (6") intervals (Figure 2).
 - Verify that cables have a minimum clearance of 38 mm (1.5") from all moving parts. Secure all cables that exhibit the minimum clearance of 38 mm (1.5"). Wind, snow, and other road hazards can exert force on the wires and decrease the clearance if not properly secured.

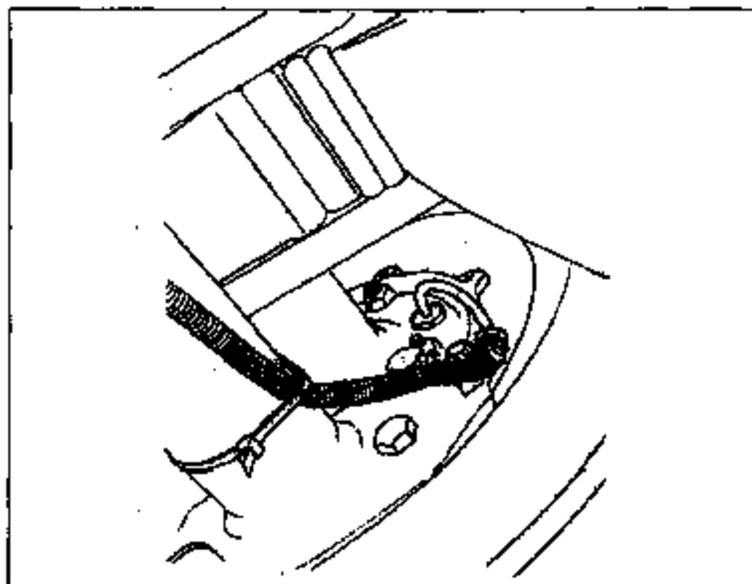
Figure 2



7. Ensure that the wheel speed sensor wires are secured against the rear brake slack adjuster shafts with two tie wraps and with one tie wrap at the front brake slack adjuster shafts.
8. Beginning in the engine compartment, trace the rear wheel speed sensor cables to the wheel hubs and verify the following:
 - Verify that the cables are secured to the frame at 305 mm (12") intervals.
 - Verify that the cables are routed to avoid sharp edges, heat sources, and moving or rotating parts.
 - Verify that all cables passing through any frame member are encased in conduit.
 - On shorter wheelbase vehicles, verify that any additional length of cable tied up underneath the vehicle is well secured with several tie straps.

- On vehicles with limited clearance between the rotating brake drum and the sensor wires, secure the sensor wires to the axle end to eliminate the free motion of the sensor wires (Figure 3).
- Verify that all connectors in line are fully engaged.
- Verify that all secondary locks are engaged.
- Verify all wires exiting connectors are allowed to come out straight for 75 mm (3") before bending, and that the wires are secured with a tie wrap at the 75 mm (3") point.

Figure 3



9. Install the GM Campaign Identification Label.

CAMPAIGN IDENTIFICATION LABEL – For US and IPC

Place a Campaign Identification Label on each vehicle corrected in accordance with the instructions outlined in this Product Campaign Bulletin. Each label provides a space to include the campaign number and the five (5) digit dealer code of the dealer performing the campaign service. This information may be inserted with a typewriter or a ball point pen.

Put the Campaign Identification Label on a clean and dry surface of the radiator core support in an area that will be visible to people servicing the vehicle. **When installing the Campaign Identification Label, be sure to pull the tab to allow adhesion of the clear protective covering. Additional Campaign Identification Labels for US dealers can be obtained from Dealer Support Materials by calling 1-888-549-6152 (Monday-Friday, 8:00 a.m. to 5:00 p.m. EST). Ask for Item Number S-1015 when ordering.**

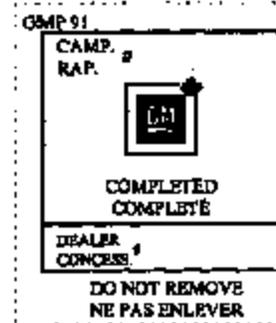
Additional Campaign Identification Labels for IPC dealers can be obtained from your Regional Marketing Office



CAMPAIGN IDENTIFICATION LABEL – For CANADA

Place a Campaign Identification Label on each vehicle corrected in accordance with the instructions outlined in this Product Campaign Bulletin. Each label provides a space to include the campaign number and the five (5) digit dealer code of the dealer performing the campaign service. This information may be inserted with a typewriter or a ball point pen.

Put the Campaign Identification Label on a clean and dry surface of the radiator core support in an area that will be visible to people servicing the vehicle. **Additional Campaign Identification Labels for Canadian dealers can be obtained from DGN by calling 1-800-668-5539 (Monday-Friday, 8:00 a.m. to 5:00 p.m. EST). Ask for Item Number GMP 91 when ordering.**

**CLAIM INFORMATION**

Submit a Product Campaign Claim with the information indicated below:

REPAIR PERFORMED	PART COUNT	PART NO.	PARTS ALLOW	CC-FC	LABOR OP	LABOR HOURS
Replace ECU Module & Inspect/Reroute Wires & Cable	1	—	**	MA-96	V0580	0.6
Add: Electrical Repair, If Req'd.						0.1

- * For Campaign Administrative Allowance, add 0.1 hours to the "Labor Hours".
- ** The "Parts Allowance" should be the sum total of the current GMSPD Dealer net price plus applicable Mark-Up or Landed Cost Mark-Up (for IPC) for the module assembly needed to complete the repair.

CUSTOMER NOTIFICATION – For US and CANADA

Customers will be notified of this campaign on their vehicles by General Motors (see copy of customer letter included with this bulletin).

CUSTOMER NOTIFICATION – For IPC

Letters will be sent to known owners of record located within areas covered by the US National Traffic and Motor Vehicle Safety Act. For owners outside these areas, dealers should notify customers using the attached suggested dealer letter.

DEALER CAMPAIGN RESPONSIBILITY – For US and IPC (US States, Territories, and Possessions)

The US National Traffic and Motor Vehicle Safety Act provides that each vehicle that is subject to a recall campaign of this type must be adequately repaired within a reasonable time after the customer has tendered it for repair. A failure to repair within sixty days after tender of a vehicle is prima facie evidence of failure to repair within a reasonable time. If the condition is not adequately repaired within a reasonable time, the customer may be entitled to an identical or reasonably equivalent vehicle at no charge or to a refund of the purchase price less a reasonable allowance for depreciation. To avoid having to provide these burdensome

remedies, every effort must be made to promptly schedule an appointment with each customer and to repair their vehicle as soon as possible. In the recall campaign notification letters, customers are told how to contact the US National Highway Traffic Safety Administration if the campaign is not completed within a reasonable time.

DEALER CAMPAIGN RESPONSIBILITY - ALL

All unsold new vehicles in dealers' possession and subject to this campaign must be held and inspected/repared per the service procedure of this campaign bulletin before customers take possession of these vehicles.

Dealers are to service all vehicles subject to this campaign at no charge to customers, regardless of mileage, age of vehicle, or ownership, from this time forward.

Customers who have recently purchased vehicles sold from your vehicle inventory, and for which there is no customer information indicated on the dealer listing, are to be contacted by the dealer. Arrangements are to be made to make the required correction according to the instructions contained in this bulletin. This could be done by mailing to such customers, a copy of the customer letter accompanying this bulletin. Campaign follow-up cards should not be used for this purpose, since the customer may not as yet have received the notification letter.

In summary, whenever a vehicle subject to this campaign enters your vehicle inventory, or is in your dealership for service in the future, you must take the steps necessary to be sure the campaign correction has been made before selling or releasing the vehicle.

GM bulletins are intended for use by professional technicians, NOT a "do-it-yourselfer". They are written to inform these technicians of conditions that may occur on some vehicles, or to provide information that could assist in the proper service of a vehicle. Properly trained technicians have the tools, equipment, safety instructions, and know-how to do a job properly and safely. If a condition is described, DO NOT assume that the bulletin applies to your vehicle, or that your vehicle will have that condition. See your dealer/retailer for information on whether your vehicle may benefit from this information.



**We Support
Voluntary Technician
Certification**

December, 2000

Dear General Motors Customer:

This notice is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act.

Reason For This Recall: General Motors has decided that a defect which relates to motor vehicle safety exists in certain 1998-2001 Chevrolet and GMC C Series, T Series, and School Bus chassis medium duty vehicles equipped with Bendix ABS air brakes. Some of these vehicles have a condition in which the vehicle may have unwanted temporary ABS activation at low speeds. If this occurred when minimum stopping distance was required, it could result in a vehicle crash.

What Will Be Done: Your dealer will replace the air brake electronic control unit module and inspect the wheel sensor cables and wire harnesses for the proper routing. This service will be performed for you at no charge.

How Long Will The Repair Take? The length of time required to perform this inspection and service correction is approximately 40 minutes. Additional time may be required to schedule and process your vehicle. If your dealer has a large number of vehicles awaiting service, this additional time may be significant. Please ask your dealer if you wish to know how much additional time will be needed to schedule, process and repair your vehicle.

Contacting Your Dealer: Please contact your dealer as soon as possible to arrange a service date. Parts are available and instructions for making this correction have been sent to your dealer. Your dealer is best equipped to obtain parts and provide services to correct your vehicle as promptly as possible. Should your dealer be unable to schedule a service date within a reasonable time, you should contact the appropriate Customer Assistance Center at the listed number below:

Division	Number	Deaf, Hearing Impaired or Speech Impaired *
Chevrolet	1-800-222-1020	1-800-833-2438
GMC	1-800-462-8782	1-800-462-8583
GMODC	(905) 644-4112	
Puerto Rico - English	1-800-496-9992	
Puerto Rico - Español	1-800-496-9993	
Virgin Islands	1-800-496-9994	

* Utilizes Telecommunication Devices for the Deaf/Text Telephones (TDD/TTY)

If, after contacting the appropriate Customer Assistance Center, you are still not satisfied that we have done our best to remedy this condition without charge and within a reasonable time, you may wish to write the Administrator, National

Highway Traffic Safety Administration, 400 Seventh Street, SW, Washington, DC 20590 or call 1-888-327-4236.

Customer Reply Card: The attached customer reply card identifies your vehicle. Presentation of this card to your dealer will assist in making the necessary correction in the shortest possible time. If you no longer own this vehicle, please let us know by completing the attached and mailing it in the postage paid envelope.

We are sorry to cause you this inconvenience; however, we have taken this action in the interest of your safety and continued satisfaction with our products.

General Motors Corporation

Enclosure

(SUGGESTED DEALER LETTER)

General Motors has decided that a defect which relates to motor vehicle safety exists in certain 1998-2001 Chevrolet and GMC C Series, T Series, and School Bus Chassis medium duty vehicles equipped with Bendix ABS air brakes. Some of these vehicles have a condition in which the vehicle may have unwanted temporary ABS activation at low speeds. If this occurred when minimum stopping distance was required, it could result in a vehicle crash.

Your dealer will replace the air brake Electronic Control Unit module and inspect the wheel sensor cables and wire harnesses for the proper routing. This service will be performed for you at no charge.

Please contact us as soon as possible to arrange a service date.

We sincerely regret any inconvenience this causes you; however, we have taken this action in the interest of your continued satisfaction with our products.

GMODC
General Motors Corporation
00076

/s/

THOMAS W HASKINS@US_GM_SATURN, Vernon J. Staks@GMAAC, FCN Team/US/GM/GMC@GM,
Jim Coyer@US_GM_PON_PO001, Karen D. Raab@US_GM_PON_PO001, Robert
Zavadil/US/GM/GMC@GM, Karen A. Grimaldi/US/GM/GMC@GM, Teena A Joseph/US/GM/GMC@GM,
Dana E. Evans/US/GM/GMC @ GM

GM SERVICE OPERATIONS
DCS638
URGENT - DISTRIBUTE IMMEDIATELY

DATE: December 7, 2000

SUBJECT: 00076 - Product Safety Campaign
Bendix Air Brake ABS Unwanted Activation

MODELS: 1998-2001 Chevrolet and GMC C Series, T Series, and School
Bus Chassis Medium Duty Vehicles Equipped with ABS Air
Brakes (JES)

TO: All Chevrolet and GMC Dealers

ATTN: Service Manager, Parts Manager,
and Warranty Administrator

00V-232.008

DUE TO THE AVAILABILITY OF PARTS, THIS CAMPAIGN IS BEING ADMINISTERED IN THREE PHASES. THE FIRST PHASE WILL CONSIST OF SCHOOL BUS VEHICLES. ENCLOSED IS THE DEALER LISTING FOR INVOLVED VEHICLES IN THE FIRST PHASE. A NEW DEALER LISTING FOR THE SECOND AND THIRD PHASES WILL BE MAILED TO YOU WHEN ADDITIONAL PARTS BECOME AVAILABLE.

CONDITION

General Motors has decided that a defect which relates to motor vehicle safety exists in certain 1998-2001 Chevrolet and GMC C Series, T Series, and School Bus chassis medium duty vehicles equipped with Bendix ABS air brakes (JES). Some of these vehicles have a condition in which the vehicle may have unwanted temporary ABS activation at low speeds. If this occurred when minimum stopping distance was required, it could result in a vehicle crash.

CORRECTION

Dealers are to replace the air brake ECU module and inspect the wheel sensor cables and wire harnesses for proper routing.

VEHICLES INVOLVED

Involved are certain 1998-2001 Chevrolet and GMC C Series, T Series, and School Bus chassis medium duty vehicles equipped with ABS air brakes (JES) and built within these VIN breakpoints:

YEAR	DIVISION	MODEL	PLANT	FROM	THROUGH
1998	GMC	C	Janesville	WJ500001	WJ521861
1999	GMC	C	Janesville	XJ500027	XJ520544

2000	GMC	C	Janesville	YJ500003	YJ500884
2001	GMC	C	Janesville	1J500008	1J500072
1998	GMC	T	Janesville	WJ500562	WJ521844
1999	GMC	T	Janesville	XJ500048	XJ554179
2000	GMC	T	Janesville	YJ500004	YJ500812
2001	GMC	T	Janesville	1J500066	1J500066*
1998	GMC	B	Janesville	WJ500014	WJ521817
1999	GMC	B	Janesville	XJ500036	XJ520538
2000	GMC	B	Janesville	YJ500066	YJ528029
1998	Chevrolet	C	Janesville	WJ101113	WJ113664
1999	Chevrolet	C	Janesville	XJ100002	XJ109138
2000	Chevrolet	C	Janesville	YJ500010	YJ528611
2001	Chevrolet	C	Janesville	1J500020	1J500069
1998	Chevrolet	T	Janesville	WJ101104	WJ112496
1999	Chevrolet	T	Janesville	XJ100238	XJ109114
2000	Chevrolet	T	Janesville	YJ500002	YJ527354
1998	Chevrolet	B	Janesville	WJ102096	WJ113640
1999	Chevrolet	B	Janesville	XJ100024	XJ109110
2000	Chevrolet	B	Janesville	YJ500119	YJ527329
2001	Chevrolet	B	Janesville	1J500086	1J500074

* Only one vehicle involved

IMPORTANT: Dealers should confirm vehicle eligibility through GMVIS (GM Vehicle Inquiry System) or GM Access Screen (Canada only) or DCH Screen 445 (IPC only) before beginning campaign repairs. [Not all vehicles within the above breakpoints may be involved.]

MAILING INFORMATION

Dealer mailing will begin on December 7, 2000.
Owner mailing will begin on December 14, 2000.

GMVIS INFORMATION

GMVIS information will be available on December 8, 2000.

END OF MESSAGE
GM SERVICE OPERATIONS



Service Parts Operations

Campaign Parts Bulletin

CPB#

DISTRIBUTION:

- | | |
|---|--|
| <input type="checkbox"/> DEALER PRINCIPAL | <input type="checkbox"/> USED CAR SALES |
| <input type="checkbox"/> PARTS MANAGER | <input type="checkbox"/> BODY SHOP MANAGER |
| <input type="checkbox"/> SERVICE MANAGER | <input type="checkbox"/> BUSINESS/GENERAL |
| <input type="checkbox"/> NEW CAR SALES | <input type="checkbox"/> OTHER |

PLEASE INITIAL AND RETURN TO PARTS MANAGER FOR PERMANENT FILE

**TO: CHEVROLET AND GMC
DEALERS ONLY**

DATE: DECEMBER 8, 2000

FROM: J. M. STONE, RECALL CAMPAIGNS

001-232.008

**SUBJECT: 00076 - BENDIX AIR BRAKE ABS UNWANTED
ACTIVATION**

ATTN: PARTS MANAGER

PRODUCT SAFETY CAMPAIGN BULLETIN #00076 - DECEMBER 7, 2000

DUE TO THE AVAILABILITY OF PARTS, THIS CAMPAIGN IS BEING ADMINISTERED IN THREE PHASES. THE FIRST PHASE WILL CONSIST OF SCHOOL BUS VEHICLES. ENCLOSED WITH YOUR PRODUCT CAMPAIGN BULLETIN IS THE DEALER LISTING FOR INVOLVED VEHICLES IN THE FIRST PHASE. A NEW DEALER LISTING FOR THE SECOND AND THIRD PHASES WILL BE MAILED TO YOU WHEN ADDITIONAL PARTS BECOME AVAILABLE.

DESCRIPTION:

- **Condition:** General Motors has decided that a defect which relates to motor vehicle safety exists in certain 1998-2001 Chevrolet and GMC C Series, T Series, and School Bus chassis medium duty vehicles equipped with Bendix ABS air brakes (JES). Some of these vehicles have a condition in which the vehicle may have unwanted temporary ABS activation at low speeds. If this occurred when minimum stopping distance was required, it could result in a vehicle crash.
- Dealers are to replace the air brake ECU module and inspect the wheel sensor cables and wire harnesses for proper routing.
- Refer to the Product Campaign Bulletin for further information.

EFFECTIVE DATE:

- Initial owner mailing is scheduled to begin December 14, 2000. No preshipment.

GENERAL INFORMATION:

PART NUMBER	DESCRIPTION	QUANTITY/ VEHICLE
88935705*	Module Asm, Elek Brk Cont (Equipped With FL1)	1
88935706*	Module Asm, Elek Brk Cont (Equipped Without FL1)	1

***Important:** Due to the small number of vehicles involved and due to limited initial parts availability, dealers are encouraged not to order campaign parts for use as shelf stock. Parts should only be ordered when a vehicle is brought in for service.

GM SERVICE OPERATIONS
DCS688
URGENT - DISTRIBUTE IMMEDIATELY

DATE: March 8, 2001

SUBJECT: 00076 - Product Safety Campaign
Bendix Air Brake ABS Unwanted Activation
Release of Final Phase, and Revised VIN
Breakpoints

TO: All Chevrolet and GMC Medium Duty Dealers

ATTN: Service Manager, Parts Manager, and
Warranty Administrator

001-232.008

Due to the availability of parts, this campaign is being administered in two phases. The first phase was released in December, 2000, and consisted of school bus vehicles. This second and final phase consists of C and T Series vehicles.

The beginning VIN breakpoints have been revised for the 1998 model year. See the table below for the new breakpoints

VEHICLES INVOLVED

YEAR	DIVISION	MODEL	PLANT	FROM	THROUGH
1998	GMC	C	Janesville	WJ506287	WJ521861**
1999	GMC	C	Janesville	XJ500037	XJ520544
2000	GMC	C	Janesville	YJ500003	YJ908854
2001	GMC	C	Janesville	1J500008	1J500072
1998	GMC	T	Janesville	WJ506288	WJ521844**
1999	GMC	T	Janesville	XJ500045	XJ854179
2000	GMC	T	Janesville	YJ500004	YJ908832
2001	GMC	T	Janesville	1J500066	1J500066*
1998	GMC	B	Janesville	WJ500014	WJ321817
1999	GMC	B	Janesville	XJ500036	XJ520538
2000	GMC	B	Janesville	YJ500066	YJ528029
1998	Chevrolet	C	Janesville	WJ107700	WJ113664**
1999	Chevrolet	C	Janesville	XJ100002	XJ109138
2000	Chevrolet	C	Janesville	YJ500030	YJ528611
2001	Chevrolet	C	Janesville	1J500020	1J500069
1998	Chevrolet	T	Janesville	WJ108711	WJ112496**
1999	Chevrolet	T	Janesville	XJ100238	XJ109114
2000	Chevrolet	T	Janesville	YJ500008	YJ527354
1998	Chevrolet	B	Janesville	WJ105096	WJ113640
1999	Chevrolet	B	Janesville	XJ100024	XJ109110
2000	Chevrolet	B	Janesville	YJ500119	YJ527229
2001	Chevrolet	B	Janesville	1J500056	1J500074

- * Only one vehicle involved
- ** Revised breakpoint

MAILING INFORMATION

Dealer listings for this final phase will be mailed to involved dealers beginning March 8, 2001.

Owner mailing will begin on March 15, 2001.

END OF MESSAGE
GM SERVICE OPERATIONS

DATE: March 8, 2001

SUBJECT: **Campaign 00076**
Bendix Air Brake ABS Unwanted Activation -
Release of Final Phase, and Revised VIN Breakpoints

TO: All Chevrolet and GMC Dealers

Due to the availability of parts, this campaign is being administered in two phases. The first phase was released in December, 2000, and consisted of school bus vehicles. This second and final phase consists of C and T Series vehicles.

The beginning VIN breakpoints have been revised for the 1998 model year. See the table below for the new breakpoints. The revised breakpoints are shaded in grey.

VEHICLES INVOLVED

YEAR	DIVISION	MODEL	PLANT	FROM	THROUGH
1998	GMC	C	Janesville		WJ521861
1999	GMC	C	Janesville	XJ500037	XJ520544
2000	GMC	C	Janesville	YJ500003	YJ908854
2001	GMC	C	Janesville	1J500008	1J500072
1998	GMC	T	Janesville		WJ521844
1999	GMC	T	Janesville	XJ500045	XJ854179
2000	GMC	T	Janesville	YJ500004	YJ908832
2001	GMC	T	Janesville	1J500066	1J500066*
1998	GMC	B	Janesville	WJ500014	WJ521817
1999	GMC	B	Janesville	XJ500038	XJ520538
2000	GMC	B	Janesville	YJ500068	YJ528029
1998	Chevrolet	C	Janesville		WJ113884
1999	Chevrolet	C	Janesville	XJ100002	XJ109138
2000	Chevrolet	C	Janesville	YJ500030	YJ528611
2001	Chevrolet	C	Janesville	1J500020	1J500069
1998	Chevrolet	T	Janesville		WJ112496
1999	Chevrolet	T	Janesville	XJ100238	XJ109114
2000	Chevrolet	T	Janesville	YJ500008	YJ527354
1998	Chevrolet	B	Janesville	WJ105096	WJ113640
1999	Chevrolet	B	Janesville	XJ100024	XJ109110
2000	Chevrolet	B	Janesville	YJ500119	YJ527229
2001	Chevrolet	B	Janesville	1J500056	1J500074

* Only one vehicle involved

bm
00V-232.008

DATE: March 8, 2001

RECEIVED

01 MAR 14 2001

SUBJECT: Campaign 00076
Bendix Air Brake ABS Unwanted Activation -
Release of Final Phase, and Revised VIN Breakpoints

DEFENSE
DEFECTS INVESTIGATION

TO: All Chevrolet and GMC Dealers

Due to the availability of parts, this campaign is being administered in two phases. The first phase was released in December, 2000, and consisted of school bus vehicles. This second and final phase consists of C and T Series vehicles.

The beginning VIN breakpoints have been revised for the 1998 model year. See the table below for the new breakpoints. The revised breakpoints are shaded in grey.

VEHICLES INVOLVED

YEAR	DIVISION	MODEL	PLANT	FROM	THROUGH
1998	GMC	C	Janesville		WJ521861
1999	GMC	C	Janesville	XJ500037	XJ520544
2000	GMC	C	Janesville	YJ500003	YJ908854
2001	GMC	C	Janesville	1J500008	1J500072
1998	GMC	T	Janesville		WJ521844
1999	GMC	T	Janesville	XJ500045	XJ854179
2000	GMC	T	Janesville	YJ500004	YJ908832
2001	GMC	T	Janesville	1J500066	1J500066*
1998	GMC	B	Janesville	WJ500014	WJ521817
1999	GMC	B	Janesville	XJ500038	XJ520538
2000	GMC	B	Janesville	YJ500066	YJ528029
1998	Chevrolet	C	Janesville		WJ113664
1999	Chevrolet	C	Janesville	XJ100002	XJ109138
2000	Chevrolet	C	Janesville	YJ500030	YJ528611
2001	Chevrolet	C	Janesville	1J500020	1J500069
1998	Chevrolet	T	Janesville		WJ112496
1999	Chevrolet	T	Janesville	XJ100238	XJ109114
2000	Chevrolet	T	Janesville	YJ500008	YJ527354
1998	Chevrolet	B	Janesville	WJ105096	WJ113640
1999	Chevrolet	B	Janesville	XJ100024	XJ109110
2000	Chevrolet	B	Janesville	YJ500119	YJ527229
2001	Chevrolet	B	Janesville	1J500056	1J500074

* Only one vehicle involved



Service Parts Operations

CPB#

DISTRIBUTION:

- | | |
|---|--|
| <input type="checkbox"/> DEALER PRINCIPAL | <input type="checkbox"/> USED CAR SALES |
| <input type="checkbox"/> PARTS MANAGER | <input type="checkbox"/> BODY SHOP MANAGER |
| <input type="checkbox"/> SERVICE MANAGER | <input type="checkbox"/> BUSINESS/GENERAL |
| <input type="checkbox"/> NEW CAR SALES | <input type="checkbox"/> OTHER |

PLEASE INITIAL AND RETURN TO PARTS MANAGER FOR PERMANENT FILE

Campaign Parts Bulletin

**TO: CHEVROLET AND GMC
MEDIUM DUTY DEALERS
ONLY**

DATE: MARCH 9, 2001

FROM: J. M. STONE, RECALL CAMPAIGNS

00V-232.008

**SUBJECT: 00076 – BENDIX AIR BRAKE ABS UNWANTED
ACTIVATION - RELEASE OF FINAL PHASE, AND
REVISED VIN BREAKPOINTS**

ATTN: PARTS MANAGER

PRODUCT SAFETY CAMPAIGN BULLETIN #00076 – MARCH 8, 2000

DUE TO THE AVAILABILITY OF PARTS, THIS CAMPAIGN IS BEING ADMINISTERED IN TWO PHASES. THE FIRST PHASE WAS RELEASED IN DECEMBER, 2000, AND CONSISTED OF SCHOOL BUS VEHICLES. THIS SECOND AND FINAL PHASE CONSISTS OF C AND T SERIES VEHICLES.

DESCRIPTION:

- **Condition:** General Motors has decided that a defect which relates to motor vehicle safety exists in certain 1998-2001 Chevrolet and GMC C Series, T Series, and School Bus chassis medium duty vehicles equipped with Bendix ABS air brakes (JE5). Some of these vehicles have a condition in which the vehicle may have unwanted temporary ABS activation at low speeds. If this occurred when minimum stopping distance was required, it could result in a vehicle crash.
- Dealers are to replace the air brake ECU module and inspect the wheel sensor cables and wire harnesses for proper routing.
- Refer to the Product Campaign Bulletin for further information.

EFFECTIVE DATE:

- Initial owner mailing is scheduled to begin **March 15, 2001**. No preshipment.

GENERAL INFORMATION:

PART NUMBER	DESCRIPTION	QUANTITY/ VEHICLE
88935705*	Module Asm, Elek Brk Cont (Equipped With FL1)	1
88935706*	Module Asm, Elek Brk Cont (Equipped Without FL1)	1



Service Parts Operations

CPB#01-108

DISTRIBUTION:

- | | |
|---|--|
| <input type="checkbox"/> DEALER PRINCIPAL | <input type="checkbox"/> USED CAR SALES |
| <input type="checkbox"/> PARTS MANAGER | <input type="checkbox"/> BODY SHOP MANAGER |
| <input type="checkbox"/> SERVICE MANAGER | <input type="checkbox"/> BUSINESS/GENERAL |
| <input type="checkbox"/> NEW CAR SALES | <input type="checkbox"/> OTHER |

PLEASE INITIAL AND RETURN TO PARTS MANAGER FOR PERMANENT FILE

Campaign Parts Bulletin

**TO: CHEVROLET AND GMC
MEDIUM DUTY DEALERS**

DATE: MARCH 16, 2001

FROM: J. M. STONE, RECALL CAMPAIGNS

00V-232.008

**SUBJECT: BENDIX AIR BRAKE ABS UNWANTED ACTIVATION -
RELEASE OF FINAL PHASE AND REVISED VIN BREAKPOINTS**

ATTN: PARTS MANAGER

PRODUCT SAFETY CAMPAIGN BULLETIN #00076 - MARCH 8, 2000

DUE TO THE AVAILABILITY OF PARTS, THIS CAMPAIGN IS BEING ADMINISTERED IN TWO PHASES. THE FIRST PHASE WAS RELEASED IN DECEMBER 2000, AND CONSISTED OF SCHOOL BUS VEHICLES. THIS SECOND AND FINAL PHASE CONSISTS OF C AND T SERIES VEHICLES.

DESCRIPTION:

- Condition: General Motors has decided that a defect which relates to motor vehicle safety exists in certain 1998-2001 Chevrolet and GMC C Series, T Series, and School Bus chassis medium duty vehicles equipped with Bendix ABS air brakes (JE5). Some of these vehicles have a condition in which the vehicle may have unwanted temporary ABS activation at low speeds. If this occurred when minimum-stopping distance was required, it could result in a vehicle crash.
- Dealers are to replace the air brake ECU module and inspect the wheel sensor cables and wire harnesses for proper routing.
- Refer to the Product Campaign Bulletin for further information.

EFFECTIVE DATE:

Initial owner mailing was scheduled to begin March 15, 2001. No preshipment.

GENERAL INFORMATION:

88935705*	Module Asm, Elek Brk Cont (Equipped With FL1)	1
88935706*	Module Asm, Elek Brk Cont (Equipped Without FL1)	1



MACK TRUCKS, INC.
WORLD HEADQUARTERS
P.O. BOX M
ALLENTOWN, PA 18106-5000
TELEPHONE: 610.709.3011
TELECOPIER: 610.709. 2186

RECEIVED
FEB 14 11 09 AM '01
OFFICE
DEFECTS INVESTIGATION

February 7, 2001

Mr. Kenneth Weinstein, Associate Administrator
Safety Assurance NSA-11
National Highway Traffic Safety Administration
400 Seventh Street, S.W., Room 5319
Washington, DC 20590

**SUBJECT: Vehicle Recall Campaign - SC0260
Bendix ABS ECU (00V-232.009)**

Dear Mr. Weinstein:

8. Remedy Program:

All known owners of the subject vehicles were notified by first class mail beginning January 19, 2001 of Mack's inspection program involving suspect vehicles and replacement if necessary. All Mack Authorized Service Centers were sent on January 17, 2001, a service bulletin detailing the program we have undertaken.

9. Notices, Bulletins and Communications:

Copies of the owner notifications and dealer repair instructions are attached.

Sincerely yours,

MACK TRUCKS, INC.

D.L. Lemarche
Campaign Administrator

260NHTSB.DOC



MACK TRUCKS, INC.
WORLD HEADQUARTERS
P.O. BOX M
ALLENTOWN, PA 18105-6000
TELEPHONE: 610.709.3011
TELECOPIER: 610.706.2186

DEAR MACK TRUCK OWNER:

This notice is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act.

Mack Trucks, Inc. has determined that a defect which relates to motor vehicle safety exists in the anti-lock brake system electronic control units (ABS ECU), and installed on class 8, CH, RD, MR and LE model vehicles equipped with Bendix ABS. The recall includes chassis built between July 1, 1998 and August 15, 2000.

SAFETY DEFECT: The Bendix ABS ECU misinterprets certain signals from wheel ends which can result in the temporary loss of braking capability on one or more wheel positions for several seconds.

POTENTIAL RISK: It has been determined that extended stopping distance when decelerating from 8 to 4 miles per hour may be experienced. The defect, if not corrected, could result in vehicle crash.

IS THERE ANY WARNING OF AN IMPENDING MALFUNCTION? The system is intended to perform a self-diagnosis to determine if it is operating properly. If a fault is found, the red indicator light on the dashboard should illuminate. However, Bendix the manufacturer of the ABS system, has not been able to state that this warning light would illuminate every time there was such an event. If at any time the red warning light illuminates, even briefly, you should take your truck in to be inspected.

PRECAUTIONS YOU CAN TAKE: If, when stopping, you experience a loss of brake performance, pull out the yellow parking brake knob on the dash, which will apply the parking brakes. This malfunction, if it were to occur, happens at decelerating from 8 to 4 miles per hour. Perform regular inspections of the vehicle brake system to ensure components are in proper working condition.

TIME REQUIRED FOR THE REPAIR: Time to remove and install the Bendix ABS ECU on CH and RD model chassis is 0.5 hour. On MR and LE model chassis, the time required is 1.0 hour.

WHAT YOU SHOULD DO: To prevent an in-service failure, we urge you to call the nearest Mack Parts and Service Center and make an appointment. The Bendix ABS ECU will be replaced at a Mack Parts and Service Center at no charge to you. All Mack Parts and Service Centers have been sent a bulletin covering all the details required to perform the campaign.

**NOTICE REGARDING
LEASED VEHICLES:**

If you are a Lessor of vehicles subject to this Notice, you have an obligation under Federal Law to provide a copy of this Notice to all Lessees within 10 days of your receipt of this Notice. Further, you must maintain a record which identifies the Lessee(s) to whom you send a copy of this letter, the date you send this letter, and the Vehicle Identification Number(s) of the vehicle(s) that you have leased to that lessee. For purposes of this Notice, the term Lessor means: a person or entity that is the owner, as reflected on the vehicle's title, of any five or more leased vehicles (as defined in CFR Section 577.4), as of the date of notification by the manufacturer of the existence of a safety-related defect or non-compliance with a Federal Motor Vehicle Safety Standard in one or more of the leased motor vehicles.

**OWNER RECALL
RESPONSE CARD:**

The enclosed "Notice of Vehicle Recall" identifies your vehicle. If you no longer own the truck, please help us update our records. Complete the "Vehicle Disposition Record" portion of the enclosed postage-free Notice of Mandatory Safety Campaign card and mail it to us.

ASSISTANCE:

If you experience any difficulty in obtaining the corrective service, you should contact the Mack Regional Service Office in your area (listed under "Regional Offices" in the Mack Sales, Parts & Service Center Directory) for assistance. The Regional Office will take the necessary action to ensure prompt correction of your vehicle.

If Mack Trucks, Inc. has not fixed your truck free within a reasonable time, you may submit a complaint to: Administrator, National Highway Traffic Safety Administration, 400 Seventh Street, S.W., Washington, DC 20590, or call the toll-free Auto Safety Hotline at (888) 327-4236.

We regret any inconvenience this may cause to your operation, but hope you will appreciate our sincere efforts to demonstrate Mack's commitment to provide our customers with the best possible product.

**MACK TRUCKS, INC.
WARRANTY DEPARTMENT**



VEHICLE RECALL

DATE: 1/16/01

SC260

TO: ALL MACK DISTRIBUTORS AND SUBSIDIARIES

SUBJECT: BENDIX ANTI-LOCK BRAKE SYSTEM ELECTRONIC CONTROL UNIT REPLACEMENT

It has been determined that extended stopping distance when decelerating from 8 to 4 miles per hour may be experienced on certain CH, RD, MR and LE model chassis equipped with Bendix ABS. The cause of this condition is that the ABS electronic control unit (ECU) interprets a false wheel speed input and results in the release of air by the ABS modulator valves for one or more of the wheels. Since the Bendix EC-17-1030R model ECU cannot be reprogrammed, replacement of the ECU is required. Approximately 651 CH, RD, MR and LE model chassis manufactured between 7/1/98 and 8/15/00 are involved in this campaign. A list of affected chassis has been sent to all applicable dealers.

PROCEDURES:

The existing Bendix ECU (model EC-17-1030R) must be replaced by a new unit. Part number for the replacement ECU is 745-6009039. This ECU is only to be used for this recall campaign, and is not to be used as a service replacement part when replacing an ECU on a chassis not involved in this campaign.

Locating the ECU

1. Locate the ABS ECU. The ECU is located on the chassis as follows:
 - On CH and RD model chassis, the ABS ECU is located inside the cab, on the right-hand side of the vehicle, below the dashboard. To access the ECU, remove the kick panel.

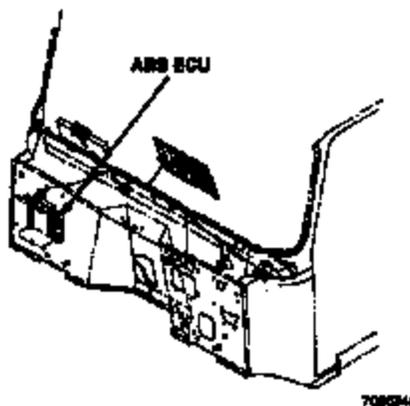


Figure 1 — ABS ECU Location — CH Model Chassis

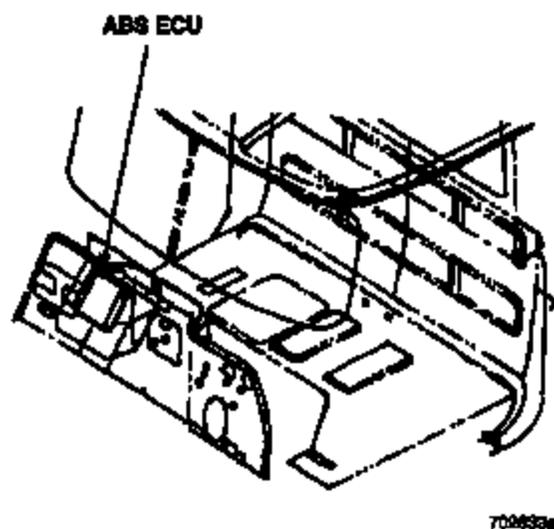


Figure 2 — ABS ECU Location — RD Model Chassis

- On MR model chassis, the ABS ECU is located on the center tunnel. To access the ECU, remove the cover from the tunnel.

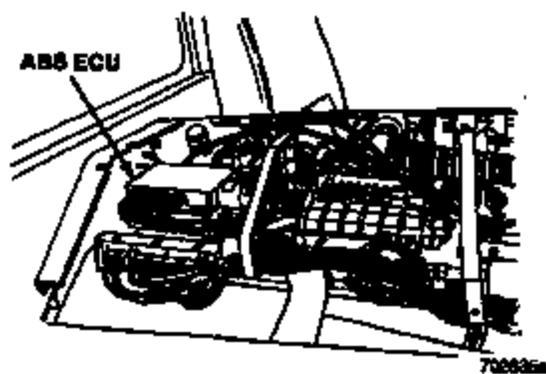


Figure 3 — ABS ECU Location — MR Model Chassis

- On LE model chassis, the ABS ECU is located inside the cab, on the left-hand side of the vehicle, in the electrical equipment area below the driver's position. To access the ECU, remove the cover from the electrical equipment area.



Figure 4— ABS ECU Location — LE Model Chassis

Verifying the ECU as an EC-17 Unit

1. After locating the ECU, verify that it is an EC-17 unit. The EC-17 ECU is enclosed in a black plastic case, while the EC-16 unit is housed in a metal enclosure.
2. The recall replacement ECU (part No. 745-5009039) has a 3/4 " white adhesive strip affixed around the housing. If the ECU installed on the vehicle is an EC-17 without the white plastic strip, it must be replaced. Current production and recall replacement EC-17 ECUs have bar code ECU identification numbers 5008311 (ECUs with LEDs) OR 5008313 (ECUs without LEDs) located on the side of the housing. The piece numbers stamped on the ECUs will be in one of the following two series of numbers, either 5008XXX or 5009XXX. These numbers are pin-stamped into the housing and may be more difficult to read. Refer to the following illustration for location of the bar code label and the stamped piece number.

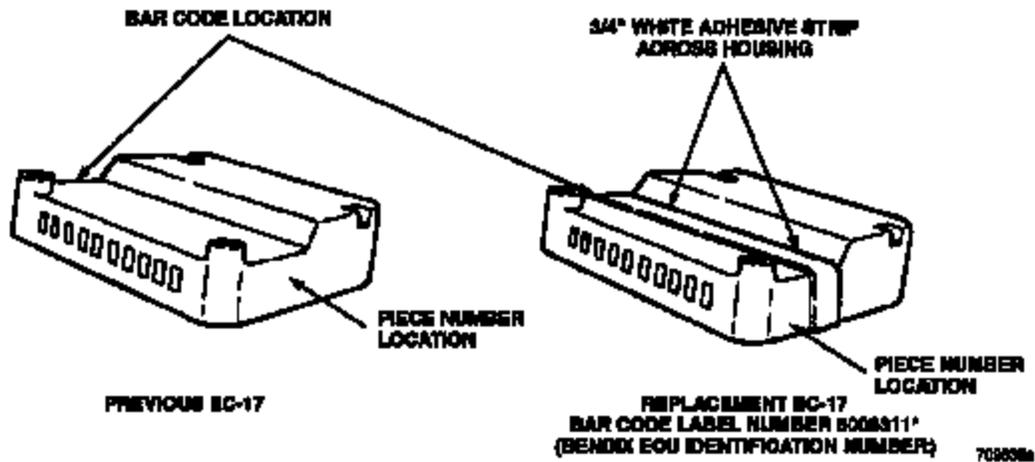
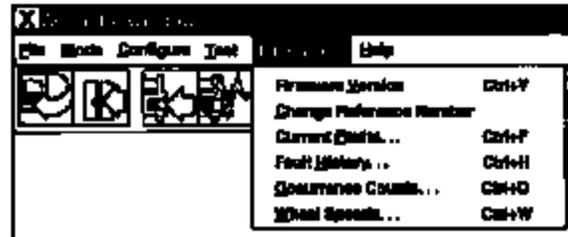


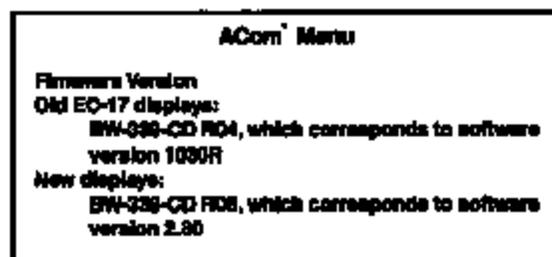
Figure 5 — Identifying EC-17 ECU

3. An alternative method of identifying the ECU is by using the PC-based Bendix diagnostic software (ACom® for Windows™), or a hand-held diagnostic tool such as the Pro-Link 9000. The following illustrations show the ACom® display.



709897a

Figure 6 — ACom® Display Screen



702832x

Figure 7 -- ACom® Menu

The Pro-Link hand-held diagnostic tool displays the ABS software version as follows:

- Old-Rev: BW-339-CD R04
- New-Rev: BW-339-CD R06

Removing and Reinstalling the ABS ECU from the Vehicle

1. With the ignition system turned off, use a ratchet and 1/4 " socket to loosen the connector "jack-screw," and then disconnect the electrical connectors from the ECU.
2. Remove the four capscrews that secure the ECU to the mounting bracket.
3. Remove the ECU from the cab.
4. Install the replacement ECU (part No. 745-5009039) to the mounting bracket and tighten the capscrews to 96 lb-in (11 N·m).
5. Reconnect the electrical connectors to the ECU and tighten the connector retaining "jack-screws" to 15–20 lb-in (2–3 N·m).

NOTE

Dielectric grease is applied to the ECU connectors by the manufacturer.

Testing the System

NOTE

If the replacement EC-17 ECU is being installed on a six sensor system or a system with automatic traction control (ATC), the ECU must be re-configured. Refer to the Bendix EC-17 Recall Installation Instructions, BWS-1313. These instructions are available through Bendix on their web site at www.bendix.com, or by calling Bendix EC-17 Recall Hotline at 800-478-1793.

1. Start the engine and allow the air system to build pressure to governor cut-out.
2. Once the air system has achieved governor cut-out, turn the ignition switch off.
3. Depress the brake pedal and then turn the Ignition switch on. The ABS system should cycle through a series of short bursts of air from the ABS modulator valves. This cycling is known as the "Chuff Test." Listen carefully to verify that the "chuffs" occur in the following sequence: Right-Front, Left-Front, Right-Rear, Left-Rear. The sequence should be repeated for a total of eight chuffs.

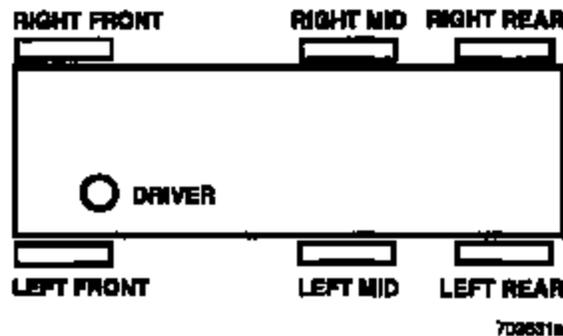


Figure 8 — Vehicle Orientation

4. While the ECU is performing the "Chuff Test," monitor the ABS indicator lamp on the dashboard. The lamp should turn on and remain on during the test, flash twice and then turn off at the end of the test.
5. If the "chuff test" and the ABS indicator lamp cycle appropriately and no LEDs on the side of the ECU remain turned on, the ECU replacement process is complete and the vehicle can be returned to service. If the system failed the testing procedure, refer to the EC-17 Service Data Sheet, SD-13-4788 (Bendix literature order No. BW-1910) and/or the EC-17 Troubleshooting Card (Bendix literature order No. BW1982) for troubleshooting information. Using the service manual, test the anti-lock system for proper operation prior to placing the vehicle in service. Begin by performing the "Initial Start-Up Procedure" outlined in the Service Data Sheet SD-13-4788.

NOTE

For questions or additional information regarding this campaign, call the Bendix EC-17 Recall Hotline number at 1-800-478-1793.

PARTS REQUIRED:

Order vehicle recall parts on a separate stock order and process through the parts distribution center normally serving your area. Do not include parts on this requisition that are not required for this recall campaign.

International orders are to be prefixed V.O.R.

Required Part Numbers:

Qty.	Part No.	Description
1	745-6009039	Bendix ABS EC-17 ECU

REMOVED PARTS:

The removed EC-17 ECU must be returned along with the recall paperwork to Bendix at the following address:

In the United States —

- Under 150 pounds, ship collect using UPS account No. A7T571 for this campaign only.

Honeywell/Bendix ABS
(MACK Recall Campaign No. SC280)
1124 East Franklin Street
Huntington, IN 48750

In Canada —

- Send all shipments using Purolator, collect against Honeywell/Bendix.

Honeywell/Bendix ABS
(MACK Recall Campaign No. SC280)
8851 Crescent 4
Anjou, Quebec H1J 1A9

REIMBURSEMENT:

Expenses incurred as a result of this campaign are to be recovered through normal warranty claim procedures. Enter the following information on the warranty claim:

UNDER	ENTER	
Failed Part Number	SC0280	
Labor Code/Allowance	735 1A BC 95 — 0.5 hr.	Time to remove and install Bendix ABS electronic control unit on CH and RD model chassis.
	— 1.0 hr.	Time to remove and install Bendix ABS electronic control unit on MR and LE model chassis.



A Subsidiary of **FREIGHTLINER CORPORATION**

RECEIVED
00 SEP 11 PM 12: 03
OFFICE
DEFECTS INVESTIGATION

September 5, 2000

Thomas Built Buses, Inc.
PO Box 2450 (27261)
1408 Courtesy Road
High Point, NC 27260
(336) 889-4871 Phone
(336) 869-2588 Fax

Office of Defects Investigation
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
400 Seventh Street, SW
Washington, DC 20590

SUBJECT: ADDITIONAL CORRESPONDENCE FOR RECALL 00V-232, 011

Dear Sir,

Enclosed are copies of the letters sent to our distributors and our customers for the recall referenced above.

Sincerely,

Wanda B. Curtis
Specifications Engineer

Enclosures

c. L. Winslow



A subsidiary of FREIGHTLINER
CORPORATION

Memorandum

To: All Dealers

From: Bob Price

Date: August 28, 2000

Re: Brake Recall

The purpose of this memo is to advise you of a brake recall we will be issuing the week of August 28, 2000. This is a Bendix ABS brake recall and is a serious matter, to which our customers will be very sensitive. Here are some of the details and pertinent points.

- **Industry wide problem and affects more than 300,000 trucks and buses.**
- **The issue is the Antilock Braking System provided by Bendix. Specifically the SCM unit in the system and its potential failure.**
- **There are over 45,000 buses and coaches involved so it will affect our competitors both Navistar and Blue Bird.**
- **It will effect approximately 4900 Thomas transit units and 1100 P865 units. Any P865 units that have Wabco ABS brakes will not be affected (the majority of P865s).**
- **The most serious concern we have is that we will not be able to get all replacement ECUs from Bendix until approximately November 2000.**
- **We plan to call all our key transit customers early this week to inform them of this pending recall.**
- **It is important that you know that Thomas has not experienced any ABS failures on units equipped with drum brakes, which are the overwhelming majority of our transits in the field.**

For further information please contact your Regional Service and Training Manager or Ron Hughes.

Bob

The information contained in this communication is confidential and intended solely for the use of the individual to whom it is addressed and others authorized to receive it. If you are not the intended recipient, any disclosure, distribution or taking of any action in reliance on the contents of this information is prohibited. If you have received this communication in error, please immediately notify the sender of the phone number indicated, and return the original message and documents to the sender via the US Postal Service.



Product Recall

A subsidiary of **FREIGHTLINER**
CORPORATION

To: ALL DEALERS

From: RON HUGHES
CUSTOMER SUPPORT DIVISION

Subject: RECALL 00V-232 - Bendix ABS

Date: August 29, 2000

Enclosed are copies of the customer notification letter and repair procedure for Recall 00V-232. Thomas Built MVP-ER, MVP-EF, ER Transit, TL960, and CL960 units manufactured by Thomas Built Buses between March 1998 and August 2000 equipped with Bendix ABS EC-17 electronic control units (ECU) are involved in this recall. The ECU could misinterpret certain signals from wheel ends which could result in the temporary loss of braking capability on one or more wheel positions.

This is a universal notification sent to all dealers. You may or may not have customers in your area affected by this recall. If owners in your area are subject to this recall, we have enclosed a printout listing those customers' names and addresses. There will be two (2) different kits for this recall, one for air disc brakes and the other will be for all other units. Your printout will note which, if any of your units need the kit for air disc brakes. If there is no printout enclosed, according to our records there are no units in your area involved. If you have a printout and any of the units on it is still in your possession, it is your responsibility to ensure the recall is performed before the unit is delivered to the customer.

Thomas Built Buses has elected to notify all customers directly. Each dealer should order the necessary parts from your servicing parts distribution center. **Your customers will be contacting you to schedule an appointment for you, the dealer, to repair their unit.** Reimbursement for the parts, as well as labor, (if requested) may be obtained by filing a warranty claim.

If you know of any customers who own or operate a Thomas bus in this recall, whose name and address is NOT listed or is INCORRECTLY listed on the enclosed printout, please promptly notify Thomas Built Buses of that additional information in writing. Thank you for your cooperation and assistance.

Ron Hughes

Enclosures: Customer Letter Repair Procedure Printout (if applicable)

Page 1 of 1

5-24-99

PSD301B

4/99

Page 1 of 1

*Freightliner Corporation is a
Daimler Chrysler Company*



A Division of **FREIGHTLINER**
CORPORATION

August 30, 2000

Recall 00V-232

Thomas Built Buses, Inc.
PO Box 2450 (27281)
1408 Courtesy Road
High Point, NC 27290
(336) 888-4871 Phone
(336) 888-2889 Fax

Dear Thomas Bus Owner,

This notice is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act and the Canadian Motor Vehicles Safety Act. Thomas Built Buses has determined that a defect, which relates to motor vehicle safety exists on the vehicle(s) identified on the enclosed postcard (Form PSD 304).

The defect involves Thomas MVP-ER, MVP-EF, ER Transit, TL950 and CL950 units manufactured between March 1998 and August 2000 and equipped with Bendix ABS EC-17 electronic control units (ECU). The ECU can misinterpret certain signals from wheel ends, which can result in the temporary loss of braking capability in one or more wheel positions. This may result in an inability to stop the vehicle and potential vehicle crash without prior warning.

Repair kits are currently being manufactured. We expect kits to be shipped by the manufacturer no later than November 2000. You should contact your authorized dealer regarding scheduling and availability of parts. If parts are not available in time to meet your operating requirements, then an inspection of the wheel speed sensors, associated wiring and tone rings must be performed to assure that there are no defects present that could trigger a response by the ECU that results in loss of braking. If the wheel speed hardware must be inspected prior to replacement of the ECU, the inspection will require approximately 2.5 hours. On vehicles equipped with air disc brakes, an inspection of the wheel speed sensors, associated wiring and tone rings must be performed regardless of parts availability. If you have other questions, you may contact the Customer Support Division.

This defect will be remedied without charge. The repair consists of replacing the ABS ECU with a new ECU. The repair will require approximately .5 hour per vehicle.

Please complete each postage paid card separately and return it to Thomas Built Buses to verify completion. The identification number for each vehicle involved in this recall campaign can be found just above the address on the enclosed postcard. If you have leased this vehicle, please make sure this notification is immediately forwarded to the lessee. In addition to being used to verify repair completion, the postcard must be completed and returned if you no longer own the vehicle, or the vehicle identified on the postcard has been exported, stolen, or destroyed/totaled.

If you are unable to have the defect remedied without charge and within a reasonable time after the vehicle is tendered for repair, please contact the Customer Support Division at (336) 841-5992. You may wish to notify the Administrator, National Highway Traffic Safety Administration, 400 Seventh Street, SW, Washington, DC 20590, or call (888) 327-4238. If your vehicle is part of the Canadian portion, you may wish to notify the Manager, Recall and Public Compliance, Road and Motor Vehicle Traffic Safety Branch, Transport Canada, Ottawa, Ontario, or phone (613) 893-9851.

We regret any inconvenience this action may cause, but feel certain you understand our interest in motor vehicle safety.

Ron Hughes, Manager
Customer Support Division

RH/ts
Enclosures Postcard

Freightliner Corporation is
a DaimlerChrysler Company



A Subsidiary of **FREIGHTLINER**
CORPORATION

Thomas Built Buses, Inc.
PO Box 2450 (27281)
1408 Courtesy Road
High Point, NC 27280
(336) 889-4871 Phone
(336) 889-2589 Fax

**INSPECTION AND REPAIR
PROCEDURE HAS BEEN
LEFT OUT.**

WILL BE FORTHCOMING.



Recall Number 00V-232

Repair Procedure #TBB 85490012

Title: Bendix ECU Replacement – MVP-EF, MVP-ER, ER Transit, TL960, CL960 with Drum Brakes or Air Disc Brakes.

One (1) Kit required per vehicle.

Time Allowance: .5 hour per vehicle

Read all instructions before beginning replacement.

This repair procedure covers the replacement of the Bendix ABS Electronic Control Unit (ECU) on MVP-EF's, MVP-ER's, ER Transit's, TL960's and CL960's. Kit #TBB 85490011, and basic installation is the same on all units. The mounting locations of the ECU will vary between models.

Replacement of ECU

Check the current operation of the ABS system for any existing faults. Repair the system if necessary before replacing the ECU. Turn the ignition switch to the on position. Do not crank the vehicle. The ECU should cycle through the normal power up, all red lights will go out and the green light will remain on.

1. Turn the vehicle ignition off and chock the wheels.
2. Disconnect negative battery cable.
3. Locate the ABS Electronic Control Unit (ECU) on the vehicle. (Locations vary depending on model) See Figure 1, 2, & 3.



MVP-BF: The ECU is located below the driver's platform.

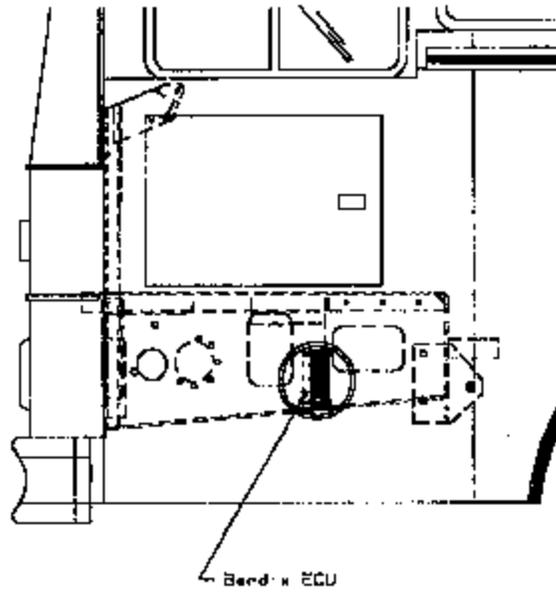


Figure 1

MVP-ER: The ECU is located in the rear engine compartment beneath the electrical panel and is accessible through the right side engine access door. The heat shield is required on the ECU.

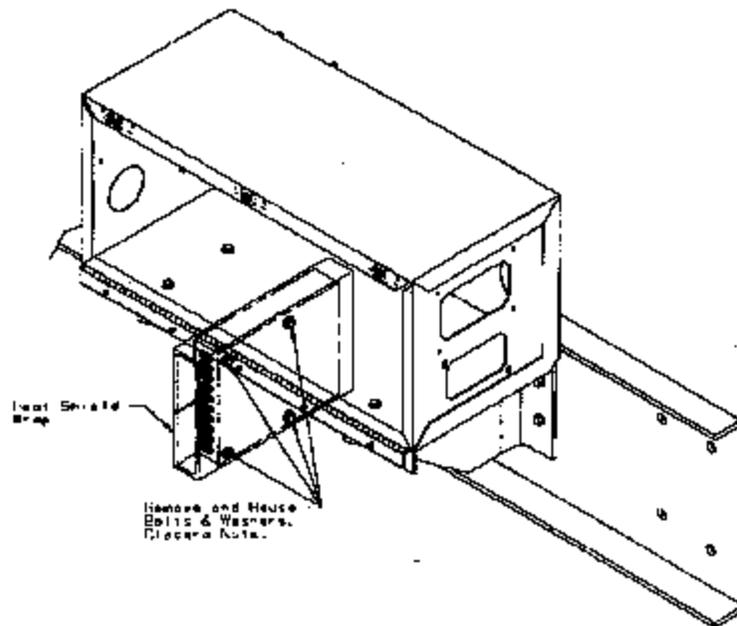


Figure 2



ER Transit, TL960, and CL960: The ECU is located in the rear engine compartment mounted on top of the rear electrical panel and is accessible through the rear engine compartment door.

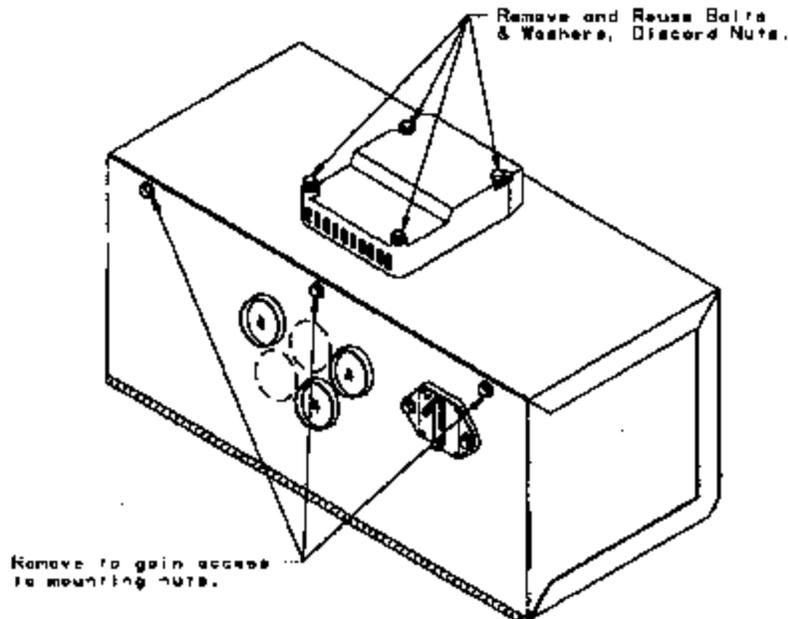


Figure 3

4. Remove the four mounting bolts. Retain the bolts and washers for later installation. Discard the locking nuts.

* On the MVP-EF, the ECU is located below the driver's platform. See Figure 1.

* On the MVP-ER, a heat shield is wrapped around the unit to protect it. This heat shield **must** be removed and wrapped around the new unit. See Figure 2.

* On the ER Transit, TL960, and CL960, It will be necessary to open the electrical box to gain access to the mounting fasteners. See Figure 3.

5. Disconnect the two cables from the ABS unit using a 1/4" socket. Reconnect the two cables to the new unit. Torque nut to 15-20 in/lbs.

* Caution must be used to ensure proper alignment of cables into connectors. Improper alignment can cause the ABS to be inoperable.

6. Remount the new ECU, to its original position, using the existing bolts and washers. Use new locknuts, #TBB 61370078. Torque by turning the nut to 5-7 ft/lbs.



The new ECU, part #TBB 61201717 (BW 800 886), can be identified two different ways. If the ECU is supplied by Thomas Built Buses manufacturing, it can be identified by a green dot and #5008687 stamped into the top and side of the unit. See Figure 4. If the ECU is supplied by Friehtliner Customer Support, it can be identified by a 3/4" wide white adhesive strip and #5009036 stamped into the top and side of the unit. See Figure 5. Both are acceptable.

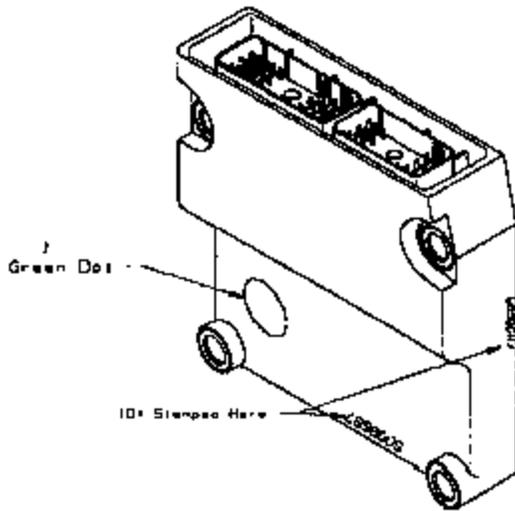


Figure 4

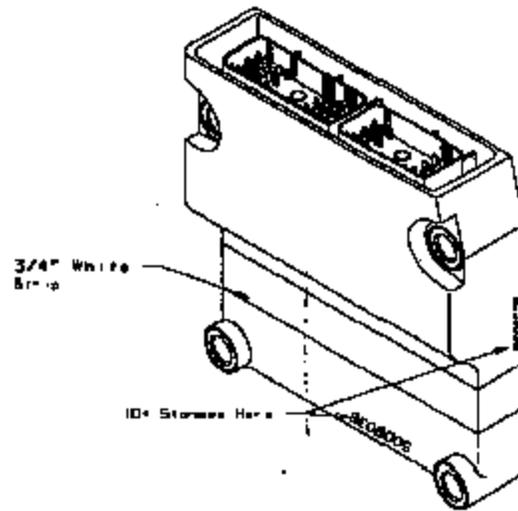


Figure 5

7. Reconnect negative battery cable.
8. Turn ignition key to the on position sending power to the ECU. Do not crank the vehicle. Place a *magnet over the reset on the ECU and hold there for thirty (30) seconds. All LED lights should light up while clearing the unit. See Figure 5

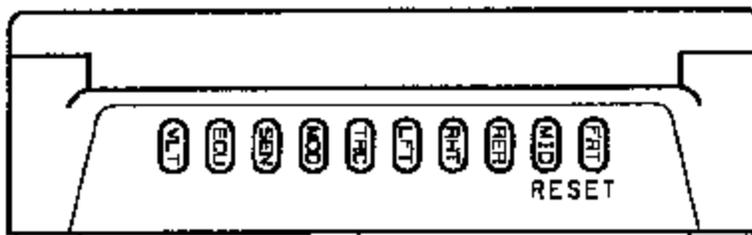


Figure 5

*Magnet must be capable of lifting 3 oz. of metal.



9. Turn ignition switch off for thirty (30) seconds.

10. Turn the ignition switch to the on position. Do not crank the vehicle. The ECU should cycle through the normal power up, all red lights will go out and the green light will remain on.

Contact Thomas Built Buses Customer Support Division, at 1-866-246-0967, for information on returning the ECU removed from the vehicle.

Kit #TBB 85490011

<u>Part Number</u>	<u>Qty</u>	<u>Description</u>
TBB 61201717	1	ECU – Antilock Brake (BW 800 886)
TBB 61370078	4	Nut – Lock, 1/4-20
TBB 85490012	1	Procedure, Repair



A subsidiary of **FREIGHTLINER**
CORPORATION

RECEIVED

01 FEB 12 11 09 AM

OFFICE
DEFECTS INVESTIGATION

February 5, 2001

Thomas Bull Buses, Inc.
PO Box 2450 (27281)
1408 Courtesy Road
High Point, NC 27280
(336) 880-4871 Phone
(336) 888-2588 Fax

Office of Defects Investigation
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
400 Seventh Street, SW
Washington, DC 20590

SUBJECT: ADDITIONAL CORRESPONDENCE FOR RECALL 00V-232-011

Dear Sir,

Enclosed are copies of three work instructions sent to our dealers during the recall referenced above.

Sincerely,

JAMES FREIBURGER,
Senior Staff Engineer

Enclosures

c. L. Winslow

Freightliner Corporation is
a DaimlerChrysler Company



AMENDED PROCEDURE 9-6-2000

Recall Number 00V-232

DRUM BRAKES

Inspection Procedure #85490017

Title: Tone Ring and Wheel Sensor Inspection Procedure – MVP-EF, MVP-ER, ER Transit, TL960, CL960 with Drum Brakes

Time Allowance: 2.5 hour per vehicle

Read all instructions before beginning.

As a separate part of recall 00V-232, this procedure covers the inspection of the front and rear tone rings, wheel sensor and harness assemblies. This will be done to minimize conditions that could send a false or misleading signal to the ECU prior to the new ECU being installed.

Read all instructions before beginning.

Inspection of Front and Rear wheel tone ring, and sensor and harness assembly

1. Turn the vehicle ignition off, remove the keys and chock the wheels.
2. With the proper equipment, raise the rear of the vehicle until the tires clear the floor/ground.
3. Remove the outer and inner tire and wheel assembly.
4. While supporting the drum, slide it off the hub completely.
5. Inspect the tone ring for proper seating on the hub flange. There should be an even gap at the seat and tone ring as the hub is rotated.

* All hubs are equipped with tone rings with the exception of the 23,000# axles equipped with 7" or 8 5/8" brakes. (On 23,000# axles with 7" or 8 5/8" brakes, the tone ring is machined into the hub surface.) Inspect machine surface for damage.

6. Inspect the 90 deg. ABS wheel sensor and harness assembly. Inspect the harness between the sensor and where it passes through the brake spider for any damage.
7. Secure wire harness to the axle housing as shown by using two (2) 15" tie raps, and connect them together. See Figure 1. Trim any excess tie wrap from installation.

Add Tie Wrap
Here



Figure 1

8. Push the sensor all the way into the sensor block, making sure that it contacts the tone ring, setting the proper gap.
9. Reinstall the drum assembly.
 - * Torque all fasteners to the axle manufacturer specifications.
10. Put the key into the ignition and turn the switch to the on position. Do not crank the vehicle.
11. Listen for the "click" as each sensor completes the automatic check and be sure that no fault is listed for the sensor.
12. Reinstall the inner and outer wheel and tire assembly.
 - * Torque all fasteners to the axle manufacturer specifications.



13. Repeat the procedure for the opposite wheel.
14. With the proper equipment, raise the front of the vehicle until the tires clear the floor/ground.
15. Remove the tire and wheel assembly.
16. While supporting the drum, slide it off the hub completely.
17. Inspect tone ring for proper seating on the hub flange. . There should be an even gap at the seat and tone ring as the hub is rotated.
18. Inspect the ABS wheel sensor and harness assembly for any damage. The sensor is mounted into the axle spindle flange. Harness should be secured to the camshaft bracket. See Figure 2.

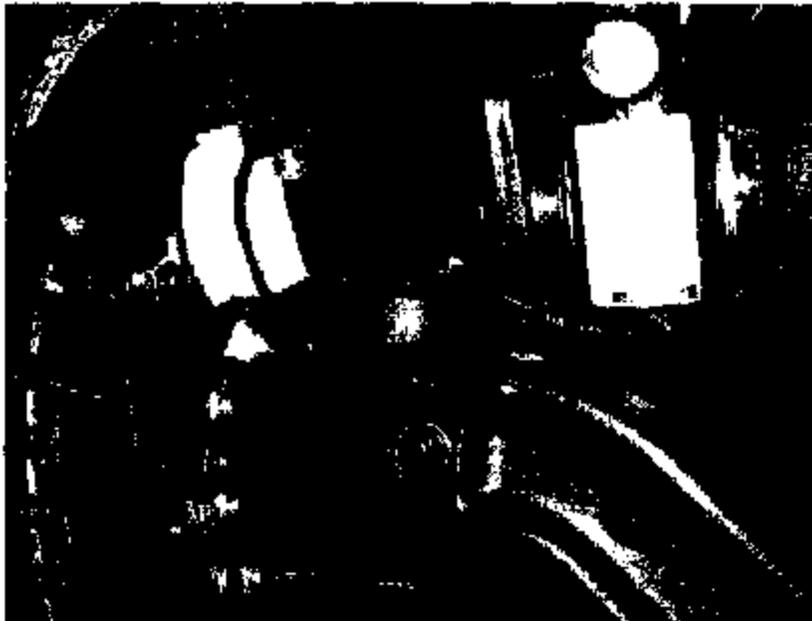


Figure 2

19. Push the sensor all the way into the sensor block, making sure that it contacts the tone ring, setting the proper gap.



20. Reinstall the hub and drum assembly. This will make contact with the sensor and push it in setting the proper gap.
 - * Torque all fasteners to the axle manufacturer specifications.
21. Put the key into the ignition and turn the switch to the on position. Do not crank the vehicle.
22. Listen for the "click" as each sensor completes the automatic check and be sure that no fault is listed for the sensor.
23. Reinstall the wheel and tire assembly.
 - * Torque all fasteners to the axle manufacturer specifications.
24. Repeat the procedure for the opposite wheel.
25. Complete the necessary paper work and verify system is functioning properly.

An ECU replacement procedure will be included in the ECU replacement kit.

00V-232.012

ISUZU

Campaign Service

BULLETIN

DEFECTS INVESTIGATION SERVICE

IMPORTANT SERVICE INFORMATION FOR:

- ✓ SERVICE MANAGER
- ✓ SERVICE ADVISOR
- ✓ TECHNICIAN
- ✓ PARTS DEPARTMENT
- ✓ WARRANTY PERSONNEL



SB01-09-C001

BULLETIN NUMBER:
SB01-09-C001

ISSUE DATE:
MARCH 2001

GROUP:
BRAKES

BENDIX AIR BRAKE ABS UNWANTED ACTIVATION SAFETY CAMPAIGN # 00V-232



CAMPAIGN IDENTIFICATION NUMBER

Number 00V-232 has been assigned to this campaign. This number will appear on all communications and documentation of any nature dealing with the campaign.

DEALER RESPONSIBILITY

Isuzu dealers must service all affected vehicles at **no charge to the owner**, regardless of mileage, age of vehicle, or ownership.

AFFECTED VEHICLES

Certain 1998 – 2001 Isuzu F-series Commercial Vehicles with Bendix ABS air brakes (see attached VIN list).

Whenever a vehicle subject to this campaign is in a dealer's vehicle inventory, or arrives at a dealership for service, the dealer must take the necessary steps to ensure that this campaign correction has been made before selling or releasing the vehicle.

SERVICE INFORMATION

CONDITION

General Motors has decided that a defect, which relates to motor vehicle safety, exists in certain 1998 – 2001 Isuzu F-series Commercial Vehicles equipped with Bendix ABS air brakes. Some vehicles may have a condition in which the vehicle may have unwanted temporary ABS activation at low speeds. Unwanted temporary ABS activation at low speed could result in extended stopping distances, which may lead to a vehicle crash.

All unsold new vehicles in dealer's possession and subject to this campaign must be held and repaired per the service procedure in this Campaign Bulletin before customers take possession of their vehicles.

CORRECTION

Dealers are to replace the Electronic Brake Control Module (EBCM) (ABS-Air) and inspect the wheel sensor cables and wire harnesses for condition and proper routing.

OWNER NOTIFICATION

American Isuzu Motors Inc. will send a notification letter to owners of affected vehicles already retailed (*See Enclosed Copy*). Dealers should follow up with vehicle owners by sending a Campaign Reminder Notice (AIMI SVCF-1052) to all vehicle owners listed in the Campaign Report AWS 128-1A. Dealers may obtain these post-cards from their Regional Office.

This Service Bulletin is intended for use by professional, qualified technicians. Attempting repairs or service without the appropriate training, tools, and equipment could cause injury to you or others and damage to your vehicle that may cause it not to operate properly.



SERVICE PROCEDURE

1. Record radio settings.
2. Disconnect the negative battery cable.
3. Disconnect the two wiring connectors from the Electronic Brake Control Module (EBCM) located underneath the cab at the rear support. (Figure 1)

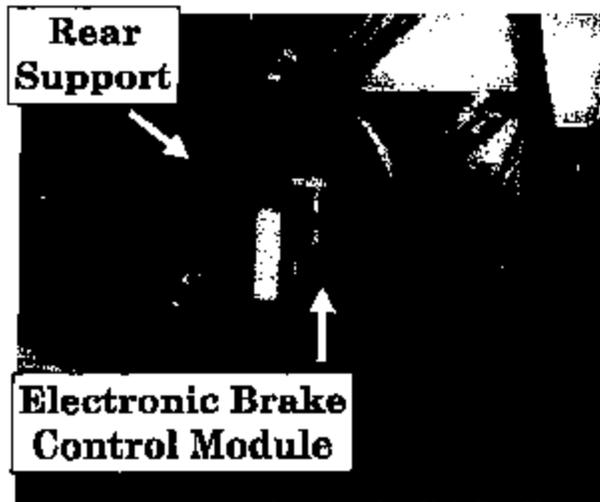


Figure 1: Electronic Brake Control Module (EBCM)

4. Remove the four bolts retaining the EBCM to the mounting plate, and remove the EBCM.
5. Install the new EBCM to the plate with the four bolts previously removed. Tighten the bolts to the specified Torque of 98 lb. in (11 N.m).
6. Connect the two wiring connectors to the EBCM.
7. Connect the negative battery cable.
8. Turn the ignition key ON, then hold a 3-oz magnet (or greater) above the RESET button of the EBCM for about 20 – 40 seconds or until the light blinks fast and immediately remove the magnet. This is done to reconfigure the EBCM diagnostics. Repeat this step if the EBCM is not reconfigured properly or a diagnostic code remains

lit. At this point the EBCM will go through a self-reconfiguration process which will cause diagnostic lamps to initially illuminate and erase all malfunctions (turning off any illuminated diagnostic status lamps). (Figure 2)

IMPORTANT: The EBCM must be reconfigured prior to vehicle operation.

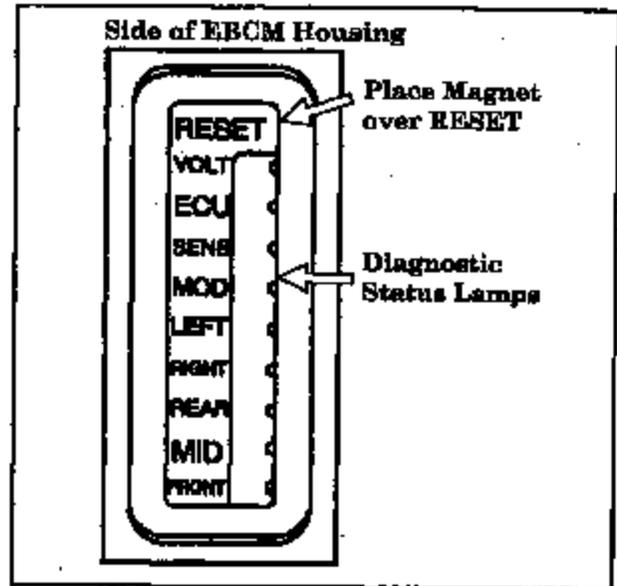


Figure 2: EBCM Diagnostics

9. Follow and inspect the ABS speed sensor cables from the EBCM to both front wheels, and verify the following:
 - Verify that all connectors in line are fully engaged.
 - Verify that all secondary locks are engaged.
 - Verify that all speed sensor wires passing through any frame member are encased in conduit.
 - Verify that cables are secured to the front brake air lines and axles at 6-in. (152 mm) intervals. (Figure 3)
 - Verify that cables have a minimum clearance of 1.5-in. (39 mm) from all moving parts. Secure all cables that exhibit the minimum clearance of 1.5-in. (39 mm).

NOTE: Wind, snow, and other road hazards can exert force on the wires and decrease the clearance if not properly secured.

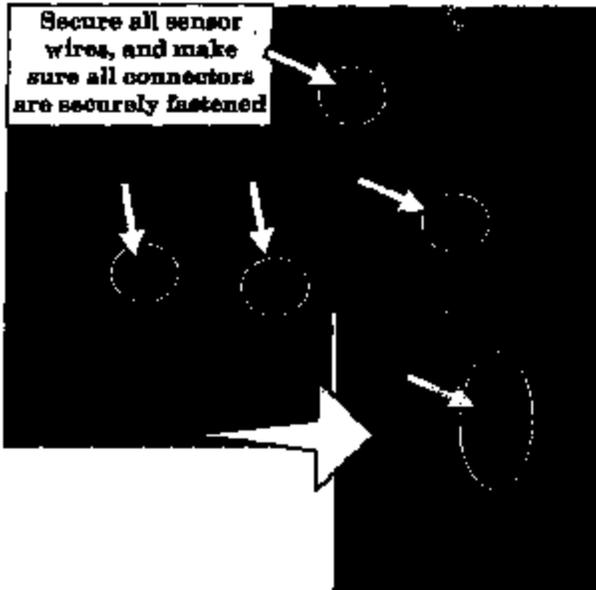


Figure 3: Front Wheel ABS Speed Sensor Wire

10. Ensure that the wheel speed sensor wires are secured against the rear brake slack adjuster shafts with two tie wraps and with one tie wrap at the front brake slack adjuster shafts.

11. Follow and inspect the rear wheel speed sensor cables from the engine compartment to the wheel hubs and verify the following:

- Verify that the cables are secured to the frame at 12-in. (312 mm) intervals.
- Verify that the cables are routed to avoid sharp edges, heat sources, and moving or rotating parts.
- Verify that all cables passing through any frame member are encased in conduit.
- On shorter wheelbase vehicles, verify that any additional length of cable tied up underneath the vehicle is well secured with several tie straps.

- On vehicles with limited clearance between the rotating brake drum and the sensor wires, secure the sensor wires to the axle end to eliminate the free motion of the sensor wires. (Figure 4)
- Verify that all connectors in line are fully engaged.
- Verify that all secondary locks are engaged.
- Verify all wires exiting connectors are allowed to come out straight for 3 in. (78 mm) before bending, and that the wires are secured with a tie wrap at the 3-in. (78 mm) point.

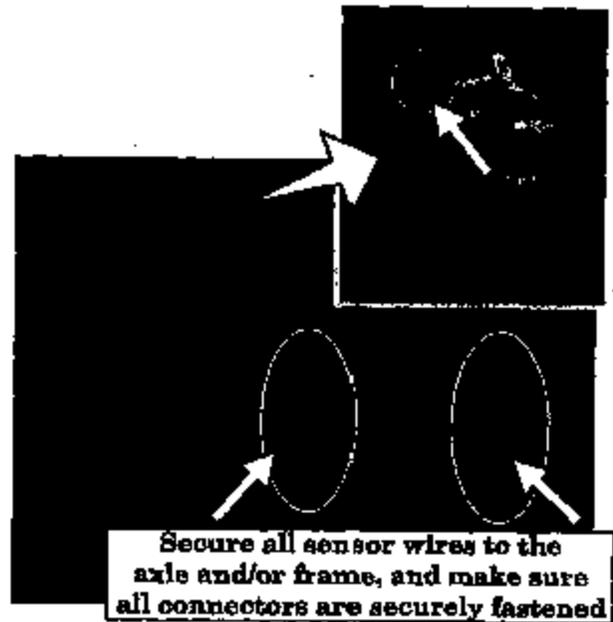


Figure 4: Rear Wheel ABS Speed Sensor Wire

12. Enter the customer's radio station presets and set the clock.

13. Fill out the campaign label.

APPLYING THE CAMPAIGN LABEL

1. Using a ball-point pen, fill out the following information on a campaign label (Part Number: 2-90028-700-0)

- This safety campaign number:
00V-282
- Dealer Code
- Repair Date: (Month/Day/Year)

2. Affix the campaign label adjacent to the manufacturer's identification label located on the driver's side B-pillar.

ISUZU

CAMPAIGN NUMBER:

00V - 232

DEALER CODE: (Enter Code)

REPAIR DATE: (MO/DY/YEAR)

P/N 2-90028-700-0

PARTS INFORMATION

Part Number	Description	Quantity Required
8-88935-706-0	Module Assembly, Electronic Brake Control	1*

*Quantity required per vehicle application.

WARRANTY CLAIM INFORMATION

Use the following *new* labor operation:

Operation	Operation Number	Task	Time	Additional Instructions
ABS BENDIX MODULE CAMPAIGN	V0580	REPLACE	0.7	Includes: Inspect/Reroute wires and cables
		PLUS	0.1	For additional electrical repair (if required)

Use Trouble Code 96 (Campaign Bulletin) for this Labor Operation.
Labor Time **includes** administrative time allowance.

WARRANTY CLAIM SUBMISSION INFORMATION

For your convenience please use the following information when submitting your warranty claim:

LABOR OPERATION:	V0580
LABOR TIME ALLOWED:	0.7 Hours to REPLACE the ABS EBCM, plus 0.1 for additional electrical repair (if required)
TROUBLE CODE:	96
SUBLET CODE:	
SUBLET ALLOWANCE:	
FAILED PART NUMBERS:	8-88985-706-0

NATIONAL SERVICE DEPARTMENT

SB01-09-C001

Dear Isuzu F-Series Owner:

This notice is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act.

❑ WHAT IS THE CONDITION?

General Motors has determined that a defect relating to motor vehicle safety exists in certain Model Year 1998 – 2001 F-Series Commercial Vehicles, equipped with Bendix ABS (Anti-Lock Brake System) air brakes. Some of these vehicles have a condition in which the vehicle may have unwanted temporary ABS activation at low speeds. If this occurs when minimum stopping distance is required, it could result in a vehicle crash.

❑ WHAT WE WILL DO:

Your dealer will replace the ABS air brake Electronic Control Unit (ECU) and inspect the ABS wheel sensor cables and wire harness for proper routing. This service will be performed for you at no charge.

❑ WHAT YOU SHOULD DO:

Please contact your Isuzu dealer as soon as possible to arrange a service date. Present this letter to your dealer or refer to Safety Campaign Bulletin SB01-09-C001. The earliest date your dealer can make this correction is March 15, 2001. The length of time required to perform this inspection and service correction is approximately one hour. To locate the Isuzu dealer nearest you, or if you have any questions regarding this matter, please call Owner Relations at 1-800-862-4369.

Your Isuzu dealer is best equipped to obtain parts and provide service to ensure that your vehicle receives this repair as promptly as possible. If you believe that the condition has not been or cannot be addressed within a reasonable time, you may contact:

Owner Relations Department
Post Office Box 44947
Detroit, MI 48244

After contacting your Isuzu dealer, or Owner Relations with any problems, if you are still not satisfied that we have done our best to remedy this condition without charge and within a reasonable time, you may wish to write the Administrator, National Highway Traffic Safety Administration, 400 Seventh Street S. W., Washington, D.C. 20590; or call 1-888-DASH-2-DOT (1-888-327-4236).

We are sorry for this inconvenience; however, in the interest of your safety, it is very important that your vehicle be brought in to your Isuzu dealer as soon as possible.

Sincerely,

AMERICAN ISUZU MOTORS INC.

IMPORTANT: If you have sold or traded your Isuzu vehicle, please enter the current owner's name and address, if known, on the enclosed "Change of Information" postcard and drop it in the mail. Postage has already been paid. We will contact the new owner.

CHART A

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