



# VEHICLE RECALL

G-00508

September, 2000

**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**

**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 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 AmTran FE, RE, and IC buses built from 3/01/1998 through 7/13/2000 with Bendix Air ABS brakes.

**OWNER NOTIFICATION**

International Truck and Engine Corporation **has already notified owners** of these vehicles about this campaign. 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**

### **INTERIM ACTIONS DEALERS CAN PERFORM UNTIL THE ECU IS AVAILABLE (ESTIMATED ECU AVAILABILITY DATE OF 9/15/2000):**

- A. Perform safety recall 00505 on all buses built 3/01/1998 through 7/13/2000.
- B. If the ABS-lamp comes on, service the ABS system, even if the lamp goes off.

### **REPLACEMENT PROCEDURE FOR THE EC-17**

**Introduction:** The following instructions for Replacing the original ECU, with the new revised ECU, on all of these vehicles are simple instructions for physical removal, installation and testing of the ECU and will not require reconfiguring time. None of these vehicles have Automatic Traction Control and all are 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.**

#### **Removal of the valve-mounted EC-17:**

1. Locate the EC-17 on the inside of the left frame rail behind the rear axle.
2. Remove as much contamination as possible from the assembly's exterior. Keep the contamination away from the electrical connections.
3. On vehicles built in July of 2000, check to see if the revised ECU was installed at the assembly plant. There are two ways to determine this. First, if there is a green dot sticker on top of the ECU it is a revised ECU and does not need to be changed. Second, if the bar code sticker on the side of the ECU has the number 5008311 (LED models only) it is a revised ECU and does not have to be changed.
4. Note and mark the mounting position of the EC-17 on the valve. **Do not use an impact wrench to remove the ECU mounting bolts.** Before removing the ECU mounting bolts, tap on the heads of the ECU mounting 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. On some vehicles it may be necessary to remove the frame-mounted bracket, the valve and the ECU as an assembly.

## **Installing the new EC-17**

1. Remount the ECU in the proper orientation with the original mounting hardware and torque the bolts to 98 in-lbs or 11 N-M.
2. 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.
3. Start the vehicle and bring the air system pressure up to governor cut-out and turn the ignition switch to the off position.
4. 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.
5. While the ECU is releasing the air bursts in step 4 above, the lamp should come on and stay on during the test, flash twice, and go out.
6. 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.
7. Check to make sure the brakes are functioning properly.

**Note: Retain the removed ECU as they all must be returned. They will be requested as usual by the R-5185 Parts Disposition Authorization.**

## **PART INFORMATION**

There is one ECU part number used on all of the buses in this recall: **PN: 8900072R91**. The estimated part availability date is September 15, 2000. All of these replacement parts will be easily identified with a white adhesive stripe on them.

**Returning the old parts:** Return all parts. 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>
A40-00508-1	Replace ABS ECU	0.8 hrs

### CAMPAIGN IDENTIFICATION LABEL

Each vehicle corrected in accordance with Campaign letter **G-00508** 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 00508	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-00508.

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

Distribution: All Dealers

## **INTERNATIONAL TRUCK AND ENGINE CORPORATION**