

**R00EJ**

February 16, 2001

Dear Blue Bird Owner:

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

Meritor Wabco Vehicle Control Systems has advised Blue Bird Body Company that a condition exist in the Meritor WABCO Phase 1 D-version of their hydraulic ABS electronic control unit which does not comply with Federal Motor Vehicle Safety Standard (FMVSS) 105.

The Wabco hydraulic ABS internal diagnostic system in the affected buses equipped with hydraulic ABS brakes may not detect an extreme wheel speed sensor air gap created while the vehicle is stationary. This condition could occur during original installation or subsequent wheel end service. ABS systems that do not provide a warning under these circumstances do not comply with FMVSS-105 (S.5.3.1. c.)

Blue Bird Body Company's evaluation of the risk to motor vehicle safety reasonably related to this non-compliance is potential for failure of the Meritor Wabco ABS electronic control unit to detect an extreme wheel speed sensor air gap resulting in loss of antilock braking function on the subject wheel (s) where the air gap exist. The Wabco ABS ECU does not provide a warning for this failure. Blue Bird is conducting a recall to correct this non-compliance. Blue Bird is correcting this noncompliance by replacing the defective ECU's with a an updated compliant Wabco ECU.

Your Blue Bird bus (es) affected by recall R00EJ 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.

**To receive replacement Wabco 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.** Replacement electronic control units will be shipped "No Charge" via UPS or common carrier.

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

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 reply sheet.

Time required to inspect the Wabco ECU for part number of defective electronic control unit is 0.1 hours (six minutes) per bus. Time required to remove the defective Wabco electronic control unit and replace it with the new Wabco electronic control unit is 0.4 hours (24 minutes) per bus.

Important: Your prompt return of the pink reimbursement sheet, complete with the correct Body Serial Numbers, permits Blue Bird to update the 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 R00EJ WABCO ECU Noncompliance Replacement Instructions

### For Meritor WABCO ECU Part Numbers:

446 044 071 0

446 044 072 0

Use the following instructions to remove and replace Meritor WABCO ECU for hydraulic ABS brakes if one of the part numbers listed above is installed on your bus.

For complete troubleshooting and testing information, please refer to Meritor WABCO Maintenance Manual 39, *Hydraulic ABS for Medium-Duty Trucks, Buses and Motor Home Chassis*. Copy of manual is enclosed with parts.

1. Park Vehicle on level surface, turn engine off, and remove ignition key.
2. Chock wheels
3. Check the WABCO Label on the upper left corner of the ECU for the WABCO part number. If WABCO ECU is not listed above, NO further action is required. If the WABCO number is listed above, proceed with the following steps

### TC/1000,TC/2000 AND COMMERICAL SERIES PRODUCTS

The WABCO ECU is located below the dash on the left inside front wall (see photo 1).

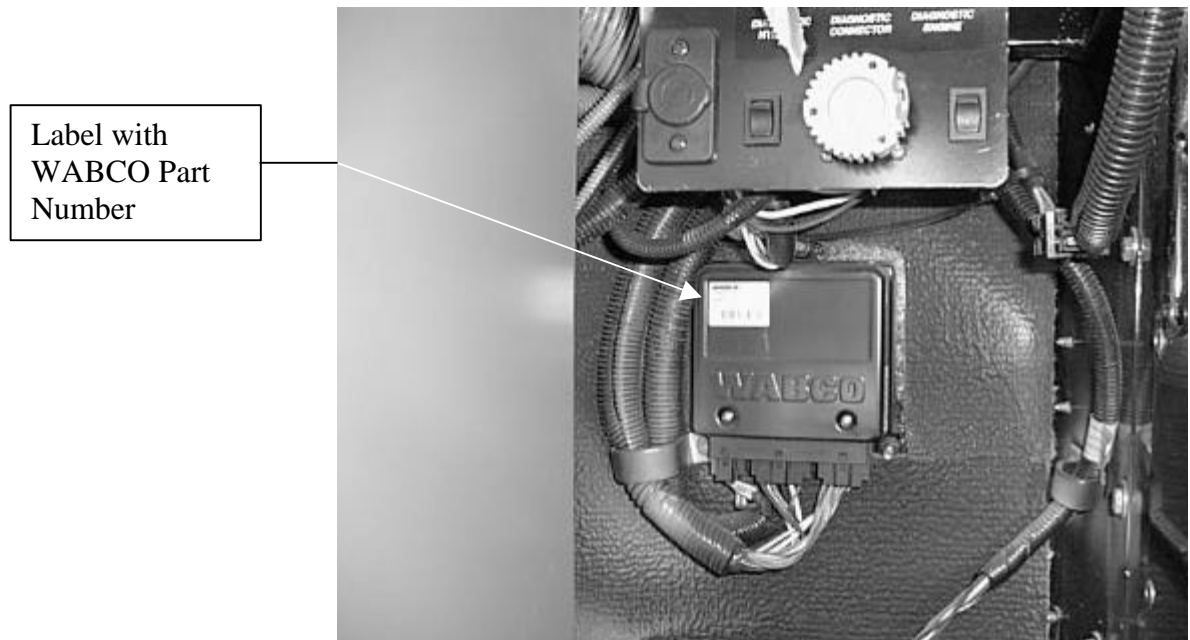


PHOTO 1

**ALL AMERICAN PRODUCTS**

- 1 The WABCO ECU is located on the left outside front chassis outrigger behind left headlight (see photo 2).



Electrical  
Access  
Panel  
Cover

**PHOTO 2**

- 2 Open left hand front windshield wiper access door. Remove the electrical access panel cover by turning latch knob counter clockwise (see Photo 2). From underneath the left front bumper, remove the electrical access panel (ECU behind panel) (see Photo 3) by removing four (4) 1/4-20 X 1" bolts, eight (8) flat washers, and four (4) 1/4-20 nuts.



Electrical Access Panel

**PHOTO 3**

3. After the ECU inspection and/or replacement procedure has been completed, install the electrical access panel with the four (4) ¼” bolts, eight (8) flat washers and four (4) ¼” nuts remove in Step 2 above. Tighten to 5 FT.LB.
4. Install the electrical access panel cover and turn latch knob clockwise to latch and tighten against front structure.

## ALL PRODUCTS

Before beginning the replacement procedure:

1. Clear all active blink codes from the ECU.

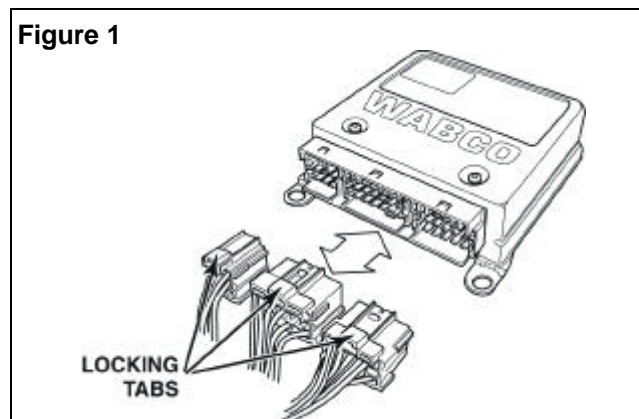
To clear active blink codes:

- With the ignition on, check the ABS indicator lamp on the vehicle dash.
  - If the ABS indicator lamp is ON, there are active faults in the system. Identify the fault and make the necessary repair BEFORE continuing with the replacement. Refer to Maintenance Manual 39 for information about blink code diagnostics and repair.
  - If the ABS indicator lamp is OFF, there are no active faults in the system. Proceed with the replacement.

## ECU REPLACEMENT PROCEDURE

1. Disconnect the negative battery terminal.
2. Locate the ABS ECU.
3. Disconnect the 9-pin, 15-pin and 18-pin harness connectors from the ECU.

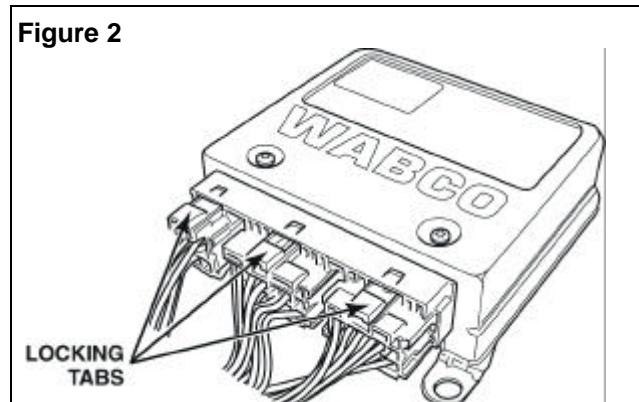
To do this, depress the locking tab located at the top of each harness connector to loosen, then pull the connector loose. DO NOT pull on the wires when disconnecting the harness. **Figure 1.**



4. Remove the three ¼ nuts holding the ECU and wiring harness clamp to the vehicle then remove the ECU. Do not discard the three nuts.
5. Install the new ECU. Use the three ¼ “ nuts removed from the old ECU to attach the new ECU and wiring harness clamp to the vehicle. Tighten the nuts to 5 FT.LB.
6. Connect the three harnesses to the ECU. There are three separate harness connectors: 9-pin, 15-pin and 18-pin.

**NOTE:** The harness connectors should slide easily into the ECU connector. If they do not, they are upside-down; turn the harness over and make the proper connection.

7. Make sure the three harness connectors are pushed all the way in to the ECU connectors. When the proper connection is made, the locking tab will lock into the mating connector. **Figure 2.**



8. Reconnect the negative battery terminal.
9. Test the vehicle:
  - Start the vehicle. The ABS lamp will come on and stay on.
  - Drive the vehicle. When the speed reaches 4-6 mph (6-10 kph), the ABS lamp will go out.

**NOTE:** During future power-ups the ABS lamp will come on when the vehicle is started, remain on for about four seconds, then go out and remain out until a fault is detected.

If you do not get these results, there is something wrong with the installation. Verify that the ECU and harnesses are properly connected and retest the vehicle. If the system is still not functioning correctly, check the Sensor Adjustment.

#### SENSOR ADJUSTMENT:

On steering axles, the sensor is typically accessible on the in-board side of the steering knuckle.

On drive axles, the drum assembly may have to be pulled to gain access to the sensor.

To adjust the sensor, push the sensor in until it contacts the tooth wheel:

- Do not pry or push sensors with sharp objects.
- Sensors will self-adjust during wheel rotation.

**NOTE:** No gap is allowable at installation. During normal operation a gap not to exceed 0.04-inch is allowable.

**NOTE:** If the problem persists, contact the Arvin Meritor Customer Service Center at 1-800-535-5560.

10. The installing technician must mark the date of installation and sign the recall completion sticker located on the front of the replacement ECU to the right of the original WABCO label.
11. To prevent the inadvertent reuse of the original Wabco ECU use a hammer to destroy the original ECU. Then, properly dispose of the unit.