

VEHICLE RECALL

IC CORPORATION RECALL # 02303
NHTSA RECALL # 02V-343

January 2003

All IC Corporation, Affiliate Companies Dealers & International Dealers

SUBJECT: VEHICLE RECALL
DAMAGED MASTER CYLINDERS

IC Corporation has mailed to the affected customers the following notice: "This notice is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act. IC Corporation has decided that a defect, which relates to motor vehicle safety, exists in certain American Transportation RE™, FE™ and CE buses and certain 1552 and 1652-stripped chassis. The hydraulic brake master cylinder may have been damaged during the fill and bleed procedure. This damage can cause brake drag, brake lock-up or extended stopping distance. This could cause a crash, possibly resulting in property damage, personal injury or death and is considered a **safety issue.**"

DEFECT DESCRIPTION

Because of our supplier's incorrect routing of hoses on our evacuation and fill machine, the master cylinder on these subject vehicles may have been damaged during the fill and bleed procedure at the Conway manufacturing plant. The damage is not visible without disassembly and in most cases has not affected normal brake operation.

VEHICLES INVOLVED

The affected RE model buses were built from July 25, 2002 through October 30, 2002. The affected FE model buses were built from July 11, 2002 through November 6, 2002. The affected CE model buses were built from July 9, 2002 through November 26, 2002. The affected 1652 model stripped chassis were built from July 9, 2002 through October 15, 2002. The affected 1552 model stripped chassis were built from August 29, 2002 through October 15, 2002.

ACTIONS REQUIRED

The customer was told to advise the operators of the subject vehicles of this defect. If the operator detects any of the following brake operating abnormalities the vehicle should be placed out of service until the repair is made.

- Dragging or locked brakes.

- Extended stopping distance. This condition is not predictable because it is dependent on the volume of fluid back flow past a damaged seal. The driver may feel the pedal fade or go completely to the floor. The condition also may be detected by the pedal fading to the floor while holding steady pressure on the pedal.
- Illumination of the brake warning light.

All vehicles involved in this recall must have the master cylinder replaced.

REPAIR PROCEDURE

The customer was told that their dealer would make this correction for them at no cost and to contact their dealer to make the arrangements to repair the unit.

They were also told, “if you desire to make this repair yourself, you may purchase the parts from the dealer. When you invoice us for the cost of labor, you may add the cost for the parts purchased at your dealer and replacement brake fluid. If brake fluid costs exceed \$3.00 per unit, a receipt must be attached to the invoice. If for some reason you are unable to obtain the replacement parts from your local dealer, you may return the “**AUTHORIZATION FOR RECALL SERVICE**” card with box # 8 checked and we will ship the parts, except the brake fluid, directly to you at no charge. Brake fluid can be purchased locally. Please verify that your shipping address is correct. A Post Office Box (P.O. Box) number for shipping is not acceptable. We must have a street or road address.”

Dealers may purchase the parts directly from the Parts Depot. When filing your labor charges you may add up to \$3.00 per unit for brake fluid.



To prevent serious eye injury, always wear safe eye protection when you perform vehicle maintenance or service.



Block the wheels to prevent the vehicle from moving. If a vehicle moves unexpectedly or suddenly, the result could be serious personal injury or death.



If the vehicle must be raised, do not work under a vehicle supported only by jacks. Jacks can slip or fall over potentially resulting in serious personal injury or death.

This repair procedure involves replacing the master cylinder and bleeding the brakes. The instructions for replacing the master cylinder on the FE and RE models are different from the other models. Please see notes for FE and RE.

1. Disconnect the pressure differential switch plug.
2. Place a container under the master cylinder to catch fluid and spray lubricant on all brake line fittings at the master cylinder. Observe the location of the hydraulic lines at the master cylinder to prevent lines being switched at re-assembly.
3. Remove the two pressure brake lines and immediately plug and cap lines to keep out foreign matter. Loosen the reservoir cap and allow all brake fluid in the reservoir to drain through the master cylinder and into the drain pan. Do not reuse the fluid. (**Note FE and RE models only:** Loosen the two supply lines at the top of the master cylinder.)
4. Remove the four nuts securing the master cylinder to the booster assembly.
5. Remove any brake or electrical supports that may hinder removal.
6. (**Note FE and RE models only:** Disconnect the two brake lines on top of the master cylinder and cover the open ends of the lines to prevent contaminants from entering the brake lines.) Remove the master cylinder.
7. Remove the new master cylinder, which has a new pressure differential switch installed, from the box.
8. Install the new master cylinder. Reinstall any brake or electrical supports that were removed. Torque the four mounting nuts to 25-30 Lb-Ft (34-41 NM).
9. (**Note FE and RE models only:** Remove the cover from the supply lines and re-connect the top two brake lines and torque to 16-17 Lb-Ft (22-23 NM). Be careful when connecting hydraulic brake line fittings to avoid damage from cross-threading or over tightening.)
10. Reconnect the wire connector to the pressure differential switch.
11. Refill the reservoir with new DOT3 brake fluid.
12. Bleed the master cylinder on the vehicle.
13. Remove the cover and reconnect the two pressure lines to the master cylinder and torque to 16-17 Lb-Ft (22-23 NM). Be careful when connecting hydraulic brake line fittings to avoid damage from cross-threading or over tightening.
14. Bleed the complete system, top-off the reservoir and tighten the reservoir cap.

CHECKING THE BRAKE SYSTEM:

1. With the ignition in the OFF position, apply brake pedal and verify that the Electric Motor Back-up Pump is operating (should be audible).
2. With the ignition key ON and the engine NOT Running, observe that the Electric Motor Back-up Pump is operating and BRAKE PRESS light is on.
3. With the engine running, depress the brake pedal with sufficient force until a "hard pedal" is felt and hold this position for 10 seconds. Repeat this procedure three times.
4. Check the master cylinder/booster assembly and all brake line connections for leaks. If any leak or other abnormality is observed, repair before operating the vehicle.
5. Remove chocks from wheels.

LABOR:

All vehicles in this campaign will require replacement of the master cylinder. Only one of the labor operations below should be used for replacement of the master cylinder, depending on which model is repaired.

Labor Operation Number	Description	Time (Hours)
A40-02303-1	R & R Master Cylinder On All Models Except FE and RE	1.3
A40-02303-2	R & R Master Cylinder On FE and RE Models Only	1.5

PARTS:

<u>PART NUMBER</u>	<u>PART DESCRIPTION</u>	<u>QUANTITY</u>
1681210C92	Master Cylinder 1552 models	1
1691291C92	Master Cylinder CE & 1652 models	1
1691024C94	Master Cylinder FE & RE models	1

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

Proceed immediately to make the necessary corrections to the units in your 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/or Authorization for Recall Service cards for those vehicles, the transfer location or the customer must be notified from your dealer location.

The National Traffic and Motor Vehicle Safety Act, as amended, provides that each vehicle which 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.

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

RECALL CLAIMS – Repairs Performed By Authorized Dealers

Refer to the Dealer's Policy Manual for procedures to conduct Recall Campaigns. It is important that the Recall Coding be completed properly to assist in processing the recall 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
0	2	3	0	3			2	40	P	100	

GROUP Enter Recall Number _____

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 _____

RECALL CLAIMS:

For Repairs and/or Inspections Performed By Dealers Other Than Authorized Dealers

To assist in processing the recall, it is important that you provide an invoice with the following information to IC Corporation, P.O. Box 6000, Conway, AR, 72033, Attn: Compliance Department.

Body Serial #: **Vin #:** **Recall Campaign #:** **Facilities Repair Labor Rate:**

Parts Cost: Provide copy of receipt for new master cylinder. (If brake fluid costs exceed \$3.00 per unit, you must include a copy of the receipt for same, otherwise, add as miscellaneous materials.)

All correspondence must be returned to IC Corporation, PO Box 6000, Conway, Arkansas, 72033, Attn: Compliance Department.

ADMINISTRATIVE/DISTRIBUTOR RESPONSIBILITY (EXPORT)

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

Export locations are to submit warranty claims in the usual manner making reference to Safety Recall 02303.

IC Corporation asks 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.