

If you experience any problems with installation, operations or need applications information not covered in this brochure, call our "Mopar Technical Service" hot line toll free at:

1-800-86MOPAR (1-800-866-6727)
8am to 5pm M-F (ET)

"Please have Product Part Number and Application available for reference"

MOPAR Remanufactured Bendix ABX-4 Antilock Brake Controller 12 Month / 12,000 Mile Limited Warranty

This MOPAR Antilock Brake Controller is warranted by Chrysler Corporation against defects in workmanship or materials for 12 months or 12,000 miles, whichever comes first, from the date of its installation into a Chrysler, Plymouth, Dodge, Jeep or Eagle vehicle. If it fails, it will be repaired or replaced, at the option of Chrysler Corporation. To obtain service under this Limited Warranty, return the module to an authorized Chrysler Corporation Dealer.

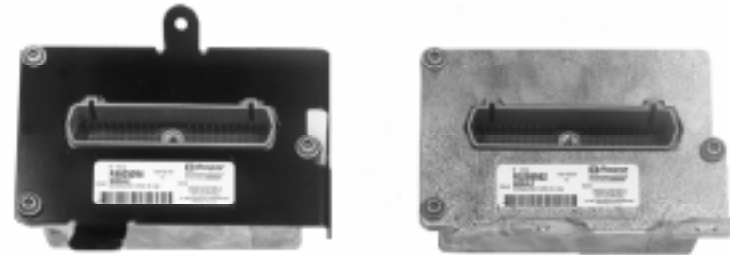
This is the only warranty to this computer. If this computer is not sold for installation into a vehicle which is operated for personal, family or household purposes, Chrysler disclaims any implied warranties which may pass with the sale of this computer, to the extent allowed by law. If this computer is sold for installation into a vehicle which is operated for personal, family or household purposes, Chrysler limits the duration of any implied warranties to the duration of the express warranty made above. Under no circumstances will Chrysler be liable for any incidental or consequential damages which may result from the breach of any expressed or implied warranty, including any liability for loss of use or diminished value.

Some states do not allow limitations on how long an implied warranty will last or the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.



MOPAR REMANUFACTURED BENDIX ABX-4 ANTILOCK BRAKE CONTROLLER

Removal and Installation Instructions



Important

WARNING: If a new Controller - Antilock Brake (CAB) is being/has been installed, it must be initialized prior to driving the vehicle. The CAB is initialized using the DRB Scan Tool and the initializing procedure described upon selecting Bendix ABX-4 Diagnostics. New controllers are programmed to flash the ABS Warning lamp until unit initialized by the installing technician.

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Safety Precautions

Before replacing any damaged component you should always first determine what caused the component to fail and repair that before continuing.

(Continued on page 2)

Static electricity can damage electronic components. By following a few safety procedures you can reduce the risk of damage from static electricity.

1. Avoid contact with the electrical connectors.
2. By frequently touching a known good ground during installation you can discharge any static electricity that you may have developed.

Removal Procedure

REMOVAL:

1. Turn vehicle ignition OFF.
2. Disconnect the wiring harness 60-way connector from the Controller Antilock Brake Module (CAB). **VERIFY THAT THE VEHICLE IGNITION IS OFF BEFORE REMOVING THE 60 WAY CONNECTOR.**
3. Remove the 2 controller bracket mounting nuts or bolts.
4. Remove the CAB from the vehicle.

INSTALLATION:

1. Install CAB and mounting bracket.
2. Install 2 CAB mounting nuts or bolts and securely tighten.
3. Install the 60 way connector by hand into the 60 way CAB connector, as far as possible. Then, use the CAB connector retaining bolt to fully seat wiring harness connector into the CAB.
4. Torque the 60 way connector retaining bolt to 4N.m (38in. lbs.).
5. **If a new CAB is being/has been installed, it must be initialized prior to driving the vehicle. The CAB is initialized using the DRB Scan Tool and the initializing procedure described upon selecting Bendix ABX-4 Diagnostics. New controllers are programmed to flash the ABS Warning lamp until unit initialized by the installing technician.**

Fig. 1

CAB Location - PL Body Vehicles
The CAB is mounted under the instrument panel on the driver's side kick panel of the vehicle.

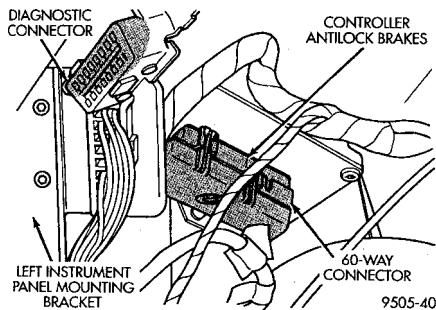
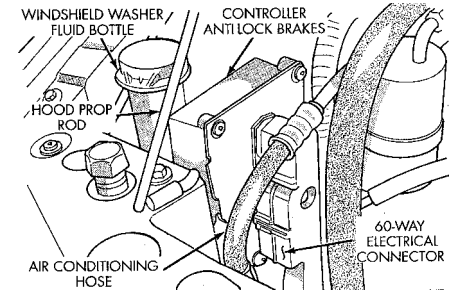


Fig. 2

CAB Location - JA/JX Body Vehicles
The CAB is located in the right front corner of the engine compartment. It is mounted to the vehicle using an integral bracket, which is attached by 2 bolts to the inner fender and the front crossmember.



On Board Diagnostics

The Bendix ABX-4 brake system is monitored by the Controller-Antilock Brake (CAB). The CAB monitors critical input and output circuits within the ABS system of the vehicle, making sure they are operating correctly.

Some circuits are tested continuously; others are checked only under certain circumstances.

Each circuit monitored by the CAB has a corresponding trouble code assigned to it. Refer to "Diagnostic Trouble Codes" for a list and definition of these codes.

- If the on-board diagnostic system senses that one of the circuits is malfunctioning, it stores the corresponding trouble code in memory.
- If the on-board diagnostic system stores a diagnostic trouble code and the ABS lamp is inoperative, the CAB will enable the red brake warning light.
- If the malfunction goes away after the trouble code is stored, the trouble code will be erased after approx. 50 key cycles on early Neon controllers and after 5600 Km/h (3500 miles) on later Neon and all JA/JX controllers.

The Bendix ABS control module (CAB) has enhanced diagnostic capability through the use of microprocessor technology. Several advantages have been designed into the system using this technology. First, trouble codes are retained in non-volatile memory until either erased by the technician using a DRB, or erased automatically by the CAB after 50 ignition cycles (early PL version) or after 5600 Km/h (3500 miles)-(late PL & JA/JX version). Second, more than one trouble code can be stored at a time. Third, using the DRB, most functions of the CAB & the ABS system can be accessed by the technician for testing & diagnostic purposes.

Intermittent Diagnostic Trouble Codes

As with virtually any electronic system, intermittent faults in the ABS system may be difficult to accurately diagnose.

Most intermittent faults are caused by faulty electrical connections or wiring. When an intermittent fault is encountered, check suspect circuits for:

- (1) Poor mating of connector halves or terminals not fully seated in the connector body.
- (2) Improperly formed or damaged terminals. All connector terminals in a suspect circuit should be carefully reformed to increase contact tension.
- (3) Poor terminal to wire connection. This requires removing the terminal from the connector body to inspect.
- (4) Pin presence in the connector assembly.
- (5) Proper ground connections. Check all ground connections for signs of corrosion, tight fasteners, or other potential defects. Refer to wiring diagram manual for ground locations.
- (6) If a visual check does not find the cause of the problem, operate the car in an attempt to duplicate the condition and record the Fault code.
- (7) Most failures of the ABS system will disable ABS function for the entire ignition cycle even if the fault clears before key-off. There are some failure conditions, however, which will allow ABS operation to resume during the ignition cycle in which a failure occurred if the failure conditions are no longer present. The following conditions may result in intermittent illumination of the ABS Warning Lamp. All other failures will cause the lamp to remain on until the ignition switch is turned off. Circuits involving these inputs to the (CAB) should be investigated if a complaint of intermittent warning system operation is encountered.
- (8) Low system voltage. If Low System Voltage is detected by the CAB, the CAB will turn on the ABS Warning Lamp until normal system voltage is achieved. Once normal voltage is seen at the CAB, normal operation resumes.
- (9) Additionally, any condition which results in interruption of electrical current to the CAB or modulator assembly may cause the ABS Warning Lamp to turn on intermittently.

Diagnostic Trouble Codes

The Bendix ABX-4 brake system module may report any of the following diagnostic trouble codes:

- ABS Warning Lamp Circuit
- ABS Warning Lamp Diode Circuit
- CAB Malfunction
- CAB Memory Error
- CAB Sensor Circuit
- Intermittent LF WSS Signal
- Intermittent LR WSS Signal
- Intermittent RF WSS Signal
- Intermittent RR WSS Signal
- LF Solenoid Circuit Open
- LF Solenoid Circuit Shorted
- LF WSS Dynamic Continuity
- LF WSS Erratic Signal
- LF WSS Missing Signal
- LF WSS Static Continuity
- LR Solenoid Circuit Open
- LR Solenoid Circuit Shorted
- LR WSS Dynamic Continuity
- LR WSS Erratic Signal
- SS Missing Signal
- SS Static Continuity
- Intermittent CAB WSS Signal
- Pump / Motor Monitor Circuit
- Pump / Motor Relay Control Circuit
- Pump / Motor Relay Output Circuit
- Pump / Motor Stalled
- RF Solenoid Circuit Open
- RF Solenoid Circuit Shorted
- RF WSS Dynamic Continuity
- RF WSS Erratic Signal
- RF WSS Missing Signal
- RF WSS Static Continuity
- RR Solenoid Circuit Open
- RR Solenoid Circuit Shorted
- RR WSS Dynamic Continuity
- RR WSS Erratic Signal
- RR WSS Missing Signal
- RR WSS Static Continuity
- System Relay Gnd Circuit Open
- System Relay Output Circuit
- WSS Speed Comparison

Part Number Applications

<u>Reman. Part No.</u>	<u>Vehicle Application - Year, Body Type</u>
R4605094	1995-97 JA BODY
R4671221	1995-97 JX BODY
R5269963	1994-98 PL BODY
R5269962	1996-97 PLZ BODY