

# Component Procedures: Electronic Brake Control Module

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# Component Procedures: Electronic Brake Control Module

## Parts and Labor (itype\_189)

### Parts

| Qualifier          | Part #     | Name           | Price | Note |
|--------------------|------------|----------------|-------|------|
| ABS Control Module | 56027271AB | Control Module | 0.00  |      |

### Labor

| Operation | Qualifier Path | Skill | Std Hrs | Wty Hrs |
|-----------|----------------|-------|---------|---------|
| Replace   | Control Module | B     | 0.4     | 0.3     |

## Components (itype\_392)

### CONTROLLER ANTILOCK BRAKE

(  
CAB  
)

The controller antilock brake (CAB) is a microprocessor-based device that monitors wheel speeds and controls the antilock functions.

The primary functions of the CAB are:

- monitor wheel speeds
- detect wheel locking tendencies
- control fluid pressure modulation to the brakes during antilock stop operation
- monitor the system for proper operation
- provide communication to the DRB III while in diagnostic mode
- store diagnostic information in non-volatile memory

The CAB continuously monitors the speed of each wheel. When a wheel locking tendency is detected, the CAB will command the appropriate valve to modulate brake fluid pressure in its hydraulic unit

. Brake pedal position is maintained during an antilock stop by being a closed system with the use of 3 accumulators. The CAB continues to control pressure in individual hydraulic circuits until a wheel locking tendency is no longer present. The CAB turns on the pump/motor during an antilock stop.

The antilock brake system is constantly monitored by the CAB for proper operation. If the CAB detects a system malfunction, it can disable the antilock system and turn on the antilock warning indicator. If the antilock function is disabled, the system will revert to standard base brake system operation.

The CAB inputs include the following:

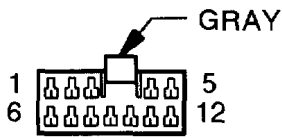
- four wheel speed sensors
- brake lamp switch
- ignition switch
- main relay output
- pump motor relay output
- battery voltage
- Diagnostic communication ISO/KY
- G switch (acceleration switch)

) The CAB outputs include the following:

- six valve/solenoid drivers
- Main relay actuation (Mark IVG only)
- pump/motor actuation
- ABS warning indicator actuation

- diagnostic communication

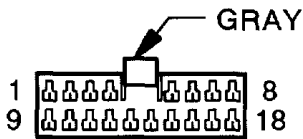
### Connector Views (itype\_47)



**CONTROLLER  
ANTI-LOCK  
BRAKE - C1**

#### CONTROLLER ANTI-LOCK BRAKE C1 - GRAY 12 WAY

| CAV | CIRCUIT     | FUNCTION                           |
|-----|-------------|------------------------------------|
| 1   | G19 20LG/OR | ABS WARNING INDICATOR DRIVER       |
| 2   | B43 20PK/OR | G-SWITCH TEST SIGNAL               |
| 3   | D21 20PK    | SCI TRANSMIT/ISO 9141K             |
| 4   | -           | -                                  |
| 5   | F20 20VT/WT | FUSED IGNITION SWITCH OUTPUT (RUN) |
| 6   | B41 20YL/VT | G-SWITCH NO. 1 SENSE               |
| 7   | B42 20TN/WT | G-SWITCH NO. 2 SENSE               |
| 8   | L50 18WT/TN | BRAKE LAMP SWITCH OUTPUT           |
| 9   | B3 18LG/DB  | LEFT REAR WHEEL SPEED SENSOR (-)   |
| 10  | B4 18LG     | LEFT REAR WHEEL SPEED SENSOR (+)   |
| 11  | B1 18YL/DB  | RIGHT REAR WHEEL SPEED SENSOR (-)  |
| 12  | B2 18YL     | RIGHT REAR WHEEL SPEED SENSOR (+)  |

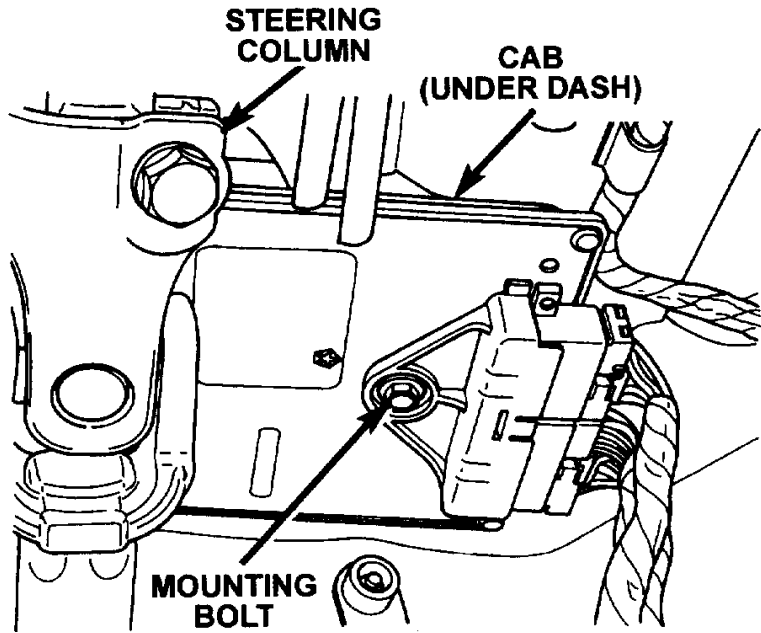


**CONTROLLER  
ANTI-LOCK  
BRAKE - C2**

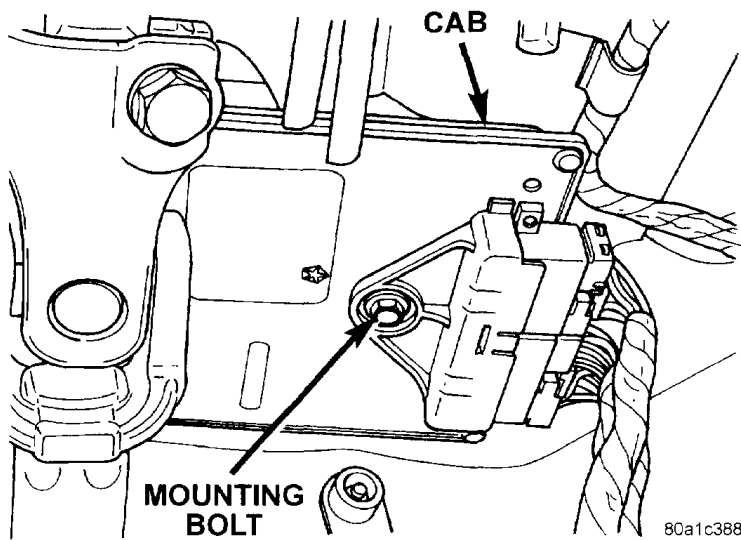
#### CONTROLLER ANTI-LOCK BRAKE C2 - GRAY 18 WAY

| CAV | CIRCUIT      | FUNCTION                           |
|-----|--------------|------------------------------------|
| 1   | B7 18WT      | RIGHT FRONT WHEEL SPEED SENSOR (+) |
| 2   | B6 18WT/DB   | RIGHT FRONT WHEEL SPEED SENSOR (-) |
| 3   | B120 16BR/WT | ABS PUMP MOTOR RELAY OUTPUT        |
| 4   | B251 20WT/BK | REAR INLET VALVE CONTROL           |
| 5   | B48 20RD/YL  | ABS MAIN RELAY OUTPUT              |
| 6   | B248 20DG/WT | RIGHT FRONT OUTLET VALVE CONTROL   |
| 7   | B116 20GY    | ABS PUMP MOTOR RELAY CONTROL       |
| 8   | B243 20DG/BK | LEFT FRONT OUTLET VALVE CONTROL    |
| 9   | B9 18RD      | LEFT FRONT WHEEL SPEED SENSOR (+)  |
| 10  | B8 18RD/DB   | LEFT FRONT WHEEL SPEED SENSOR (-)  |
| 11  | B58 20GY/LB  | ABS MAIN RELAY CONTROL             |
| 12  | B254 20DG/OR | REAR OUTLET VALVE CONTROL          |
| 13  | Z22 16BK/PK  | GROUND                             |
| 14  | Z22 16BK/PK  | GROUND                             |
| 15  | B249 20WT/DG | RIGHT FRONT INLET VALVE CONTROL    |
| 16  | -            | -                                  |
| 17  | -            | -                                  |
| 18  | B245 20WT/LG | LEFT FRONT INLET VALVE CONTROL     |

### Controller Antilock Brake (CAB) (Article 2025277)



**Controller Antilock Brake (CAB) Replacement (Article 2025611)**



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**Mechanical (including Torque) (itype\_28)**

Mounting Bolt ..... 7-9 Nm (60-80 inch lbs.)