

# BLEED PROCEDURES KELSEY-HAYES EBC4 4WAL ABS

## VEHICLE APPLICATIONS:

- 1990-1995 M/L VAN
- 1991-1995 S/T TRUCK (4 CYL.)
- 1991-1996 S/T TRUCK (6 CYL.)
- 1992-1994 C/K TRUCK
- 1993-1995 G VAN

### IMPORTANT NOTES

**DO NOT USE GRAVITY OR VACUUM BLEEDING FOR THIS SYSTEM.**

**DO NOT PUMP THE BRAKE PEDAL, AS FLUID CAVITATION MAY OCCUR.**

**DO NOT DRIVE THE VEHICLE UNTIL BRAKE PEDAL FEEL IS FIRM.**

**DO NOT RE-USE BRAKE FLUID AFTER IT HAS BEEN USED FOR BLEEDING PROCEDURES.**



15005.11-C

## RECOMMENDED PROCEDURE (TWO-PERSON)

1. Raise the vehicle for access to the bleeder valves.
2. Prepare the BPMV assembly:
  - Open the two internal bleeder valves 1/2 turn.
  - Install tool J 39177 on the two HPA valve stems (two tools are needed).
3. Bleed the **RIGHT REAR** wheel circuit:
  - Install a clear hose on the bleeder valve. Immerse the opposite end of the hose into a container partially filled with clean DOT 3 brake fluid.
  - Open the bleeder valve 1/2 to 1 turn.
  - Slowly press the brake pedal to full travel.
  - Tighten the bleeder valve.
  - Release the brake pedal.
  - Wait 15 seconds for the master cylinder pistons to return to home position.
  - Check the master cylinder fluid level.
  - Repeat the procedure until one pint of fluid has been bled. Bleed fluid until no air is seen in the fluid.
4. Bleed the **LEFT REAR, RIGHT FRONT** and **LEFT FRONT** wheel circuits in order, using the same procedure as in step 3.
5. Remove the two tools from the HPA valve stems on the BPMV assembly and close the internal bleeder valves.
6. Use TECH 1 to perform six 4WAL function tests. **FIRMLY PRESS THE BRAKE PEDAL DURING THE FUNCTION TESTS.** This will purge air from the BPMV assembly.
7. Bleed all wheel circuits again, repeating steps 3 and 4.
8. Check brake pedal feel. If sponginess exists, repeat steps 3 and 4.
9. Recheck brake pedal feel.

## ALTERNATE PROCEDURE (LOW-PRESSURE BLEEDING)

1. Install pressure bleeding equipment on the master cylinder reservoir.
  2. Prepare the BPMV assembly:
    - Open the two internal bleeder valves 1/2 turn.
    - Install tool J 39177 on each of the two HPA valve stems.
    - Install tool J 39177 on the metering stem of the combination valve.
- NOTE THAT THREE J 39177 TOOLS ARE NEEDED FOR THIS PROCEDURE.**
3. Bleed the **RIGHT REAR** wheel circuit:
    - Install a clear hose on the bleeder valve. Immerse the opposite end of the hose into a container partially filled with clean DOT 3 brake fluid.
    - Open the bleeder valve 1/2 to 1 turn until one pint of fluid has been bled. Bleed fluid until no air is seen in the fluid.
    - Tighten the bleeder valve.
  4. Bleed the **LEFT REAR, RIGHT FRONT** and **LEFT FRONT** wheel circuits in order, using the same procedure as in step 3.
  5. Remove the three tools from the BPMV assembly and combination valve. Close the internal bleeder valves.
  6. Use TECH 1 to perform six 4WAL function tests. **FIRMLY PRESS THE BRAKE PEDAL DURING THE FUNCTION TESTS.** This will purge air from the BPMV assembly.
  7. Bleed all wheel circuits again, repeating steps 3 and 4.
  8. Check brake pedal feel. If sponginess exists, repeat steps 3 and 4.
  9. Recheck brake pedal feel.
  10. Remove the pressure bleeding equipment from the master cylinder reservoir.

# BLEED PROCEDURES KELSEY-HAYES EBC310 4WAL ABS

## VEHICLE APPLICATIONS:

- 1995-TO-PRESENT C/K TRUCK
- 1996-TO-PRESENT M/L VAN
- 1996-TO-PRESENT G VAN
- 1996-TO-PRESENT S/T TRUCK (4 CYL.)
- 1997-TO-PRESENT S/T TRUCK (6 CYL.)

### IMPORTANT NOTES

**THE TWO-PERSON BLEED  
PROCEDURE IS RECOMMENDED  
WHEN INSTALLING A NEW ELECTRO-  
HYDRAULIC CONTROL UNIT.**

**DO NOT USE GRAVITY OR VACUUM  
BLEEDING FOR THIS SYSTEM.**

**DO NOT PUMP THE BRAKE PEDAL, AS  
FLUID CAVITATION MAY OCCUR.**

**DO NOT DRIVE THE VEHICLE UNTIL  
BRAKE PEDAL FEEL IS FIRM.**

**DO NOT RE-USE BRAKE FLUID AFTER  
IT HAS BEEN USED FOR BLEEDING  
PROCEDURES.**



15005.11-C

## RECOMMENDED PROCEDURE (TWO-PERSON)

1. Raise the vehicle for access to the bleeder valves.
2. Bleed the **RIGHT REAR** wheel circuit:
  - Install a clear hose on the bleeder valve. Immerse the opposite end of the hose into a container partially filled with clean DOT 3 brake fluid.
  - Open the bleeder valve 1/2 to 1 turn.
  - Slowly press the brake pedal to full travel.
  - Tighten the bleeder valve.
  - Release the brake pedal.
  - Wait 15 seconds for the master cylinder pistons to return to home position.
  - Check the master cylinder fluid level.
  - Repeat the procedure until one pint of fluid has been bled. Bleed fluid until no air is seen in the fluid.
3. Bleed the **LEFT REAR, RIGHT FRONT** and **LEFT FRONT** wheel circuits in order, using the same procedure as in step 2.
4. Use TECH 1 to perform four 4WAL function tests. This will purge air from the BPMV assembly.
5. Re-bleed each wheel circuit, using steps 2 and 3.
6. Check brake pedal feel. If sponginess exists, repeat steps 2 through 4.
7. Recheck brake pedal feel.

## ALTERNATE PROCEDURE (LOW-PRESSURE BLEEDING)

1. Install pressure bleeding equipment on the master cylinder reservoir.
2. Install tool J 39177 to press the metering stem of the combination valve mounted on the BPMV assembly.
3. Bleed the **RIGHT REAR** wheel circuit:
  - Install a clear hose on the bleeder valve. Immerse the opposite end of the hose into a container partially filled with clean DOT 3 brake fluid.
  - Open the bleeder valve 1/2 to 1 turn until one pint of fluid has been bled. Bleed fluid until no air is seen in the fluid.
  - Tighten the bleeder valve.
4. Bleed the **LEFT REAR, RIGHT FRONT** and **LEFT FRONT** wheel circuits in order, using the same procedure as in step 3.
5. Remove tool J 39177 from the metering stem of the combination valve.
6. Use TECH 1 to perform four 4WAL function tests. This will purge air from the BPMV assembly.
7. Re-bleed each wheel circuit, using steps 3 and 4.
8. Check brake pedal feel. If sponginess exists, repeat steps 2 through 6.
9. Recheck brake pedal feel.
10. Remove the pressure bleeding equipment from the master cylinder reservoir.