Subject: Diagnostic Tip - Spongy Brake Pedal After Hydraulic Brake Component Disconnect Or Replacement - Air Trapped In System

Models: 2006 - 2013 Chevrolet Impala
2014 - 2015 Chevrolet Impala Limited (Fleet Only)
2006 - 2007 Chevrolet Monte Carlo

The following diagnosis might be helpful if the vehicle exhibits the symptom(s) described in this PI.

Condition/Concern
Some technicians may find that it is difficult to remove all the air from the brake system after a hydraulic component has been disconnected or replaced.

Recommendation/Instructions
The brake lines between the master cylinder and the ABS module are routed higher than the master cylinder reservoir. If air gets into these lines due to a component being disconnected or replaced, it will rise to the high point in the lines. Extra steps must be taken to purge all of the air from the lines.

Important: Carefully loosen the fittings on the lines between the master cylinder and the BPMV just enough to be able to rotate the lines temporarily below the fluid level of the reservoir, then tighten the fittings. There is a flexible portion in each of these lines, which makes repositioning possible. Loosen the fittings just enough to allow the lines to move, not enough to allow air to enter then move the lines back to their original positions and retorque the fittings.

Perform the following Automated Bleed following the steps below exactly as written:

1. Install a scan tool.
2. Start engine and let idle while performing the Automated Bleed.
3. With the scan tool, perform the following steps:
   3.1. Select Diagnostics
   3.2. Select the appropriate vehicle information
   3.3. Select Chassis
   3.4. Select Electronic Brake Control Module (EBCM)
   3.5. Select Special Functions
   3.6. Select Automated Bleed

Note: Apply the brake pedal when instructed, using moderate effort.

4. Perform the automated bleed procedure, performing only the pump motor activation step of the Tech2 automated bleed procedure. This step must be performed 5 times in a row (exiting after the pump activation and then selecting automated bleed again and then running the first step again). The brake pedal must be depressed the entire time. Do not open any bleeders while performing Automated Bleed.
5. After the Five Automated Bleeds have been performed, perform a Gravity Bleed of the system one corner at a time starting with the right rear wheel.
6. Repeat step 4 again. After completion of the automated bleed procedure, press and hold the brake pedal to inspect for pedal firmness.
7. If the brake pedal feels spongy, repeat the bleed procedure completely.
8. Adjust the brake fluid level. Refer to Master Cylinder Reservoir Filling.
9. Road test the vehicle while confirming the brake pedal remains high and firm.
Note: If concern is still present after performing the above procedure perform published SI document for Hydraulic Brake System Bleeding (Pressure).

Warranty Information
For vehicles repaired under warranty, please use the appropriate warranty labor operation based on the original cause in addition to well documented straight time when using this supplemental bleed procedure. Please follow this diagnostic or repair process thoroughly and complete each step. If the condition exhibited is resolved without completing every step, the remaining steps do not need to be performed.