

When bleeding these systems you will only get about 40-70cc of fluid out of them. They put the bleed port where you can get to it easily. Using a short piece of hose and a graduated cylinder works just great. Bleed the pressure very slowly.

Remember the newer model ECUs no longer have a LED readout, instead you connect a shorting connector, which is the same one used for the PGM fuel injection, and read the code directly from the ABS light. The code can also be read with a scan tool.

## The Latest Systems

*Figure 8*

In the latest Honda systems the main difference is in the modulator operation and appearance.

The modulator, shown in *Figure 8*, looks like a square aluminum block with brake lines and wires going to it and an electric motor attached to the side of it. This system has 8 solenoid valves that control brake system hydraulic pressure directly.

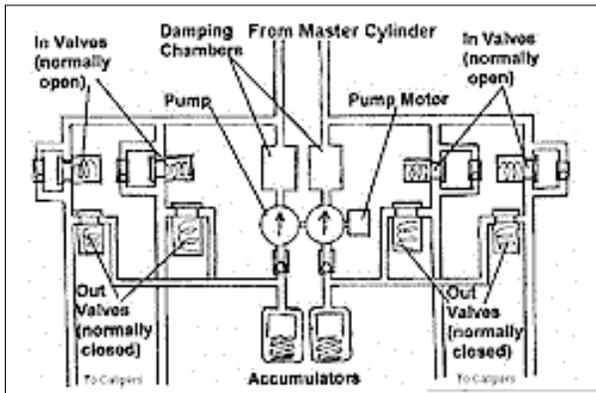
It also only has the 1 reservoir at the master cylinder. Brake bleeding is the same as a non ABS vehicle, although if air has entered the system the Honda scan tool may be required to operate the pump motor to purge all the air from the system.

Operation of this system is quite a bit different than the original Honda types.

Master cylinder fluid pressure is blocked on the respective channel "in valve" and the pressure in the wheel circuit is released through the "out valve" and into the accumulator releasing the respective caliper.



*Figure 9*



When its wheels come to grips the valves return to their normal positions and the pump sends the fluid back to the wheel circuit and the offending wheel is re-applied, as shown in *Figure 9*.

A small pulsation is felt in the brake pedal. Braking pressure is maintained to the other wheels as long as pedal pressure is maintained.

The system operating pressures are also much lower. Other sensors and control unit operation is still basically the same as previous models. This system can also be used on cars with rear drum brakes.

Some of the newest models now have a 4 channel ABS system which controls all 4 wheels separately. They have more solenoid valves and, more inputs and outputs to the ECU, and different size gear pulsars on the front and rear. The operation is still basically the same.

Never probe around any of these systems with a test light, or analog volt meter. Use only a quality digital volt ohm meter. If you are going to do a lot of service on these models you will want an ABS checker Special tool. It will tell you a lot about the system quickly and allow you to make the ABS function on the rack for testing purposes. Do not drive the car with the ABS checker connected though. It could be hazardous to your health and your paycheck. The ABS checker will not work with the latest single reservoir style systems.

When working on any cars brake system you must be very careful to insure a proper repair, and always double-check your work.