

# Service-Information Motorcycle



**BMW NA**  
Service Department

Group: **3**  
**Equipment**  
**Advice**

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For USA Only

## **BMW Pressure Brake Bleeding System - Operation**

BMW has developed the pressure brake bleeding system to assist BMW dealers in achieving the optimal flush and fluid replacement capability, while maximizing productivity. The pressure bleeding system will flush and "clean" the brake system of harmful contaminants, then refill the brake system with fresh fluid during one quick series of steps. The pressure bleeding system will even "top-up" the reservoir.

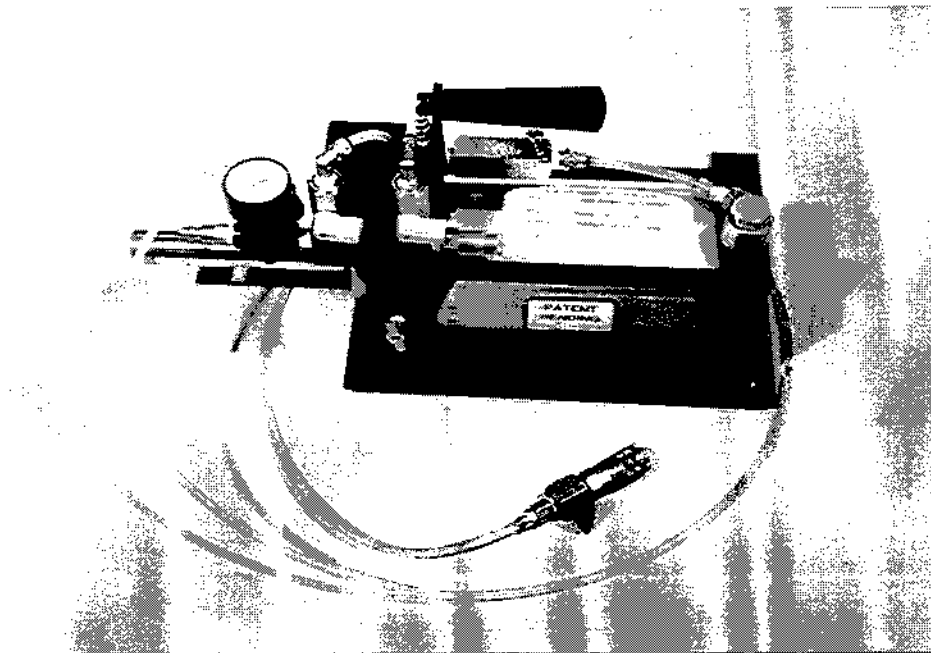
**The key advantages of this system over conventional pressure or vacuum systems is as follows:**

1. This system always operates at the fully regulated pressure (15 psi). This ensures maximum-system integrity.
2. This system does not use a rubber bladder divider between the air and fluid like most other system, so when this system is out of fluid, it is totally out of fluid. Other systems are designed in a way that you can not expel all of the fluid (bladder can only stretch so far), so your fluid is never totally fresh.
3. Precision adapters have been made for each BMW model motorcycle from 1974 forward. You have capability with the full BMW range of motorcycles plus other adapters are available from the vendor for non-BMW models.
4. Unlike vacuum systems, the pressure system forces fluid through the master cylinder. While fluid is passing through, you operate the brake lever. This allows the system to "pressure wash" the master cylinder piston, via the bleed-back hole, to dislodge any contaminants and force them through the system, out the bleeder screw. Vacuum systems cannot do this.
5. A vacuum system can actually gain air inside the brake system since most brake seals are designed to expand under internal pressure. They are not designed for internal vacuum, so it is possible to bring air or other contaminants into the system.
6. When used in conjunction with a cart (setting up a "brake bleeding station"), this system can dramatically reduce the time required to bleed or flush brake system.
7. This system is the most efficient method to bleed convoluted brake lines as used on ABS models and current models with brake pipes running over the tire from one caliper to another.

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Service	Parts	Sales	Warranty	Technicians

8. This system enables one technician to efficiently flush and bleed any BMW motorcycle system without assistance, in a minimum of time.
9. When finished, the system leaves the reservoir "topped-up" by means of adapters with an outlet pipe that is below the top of the reservoir wall. This creates an air pocket between the bottom of the adapter and the point where the fluid stops. During adapter removal, this is quite important because you don't want to risk getting brake fluid on the motorcycle paint surfaces with a reservoir that is full to the brim.

The BMW Pressure Brake Bleeding System is available under part number 95 341000 900 through the BMW parts system. Please note that the kit part number is an "explosion" number, which means that when you order that number, the computer selects a pre-determined list of part numbers to pick. Therefore, if you check stock on an "explosion" number, it will say "No Stock" even though stock is available under the separate part numbers..



Very truly yours,

BMW of North America, Inc.

Frank Stevens  
National Service Manager  
Motorcycle Group

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FS:tb/bleedop

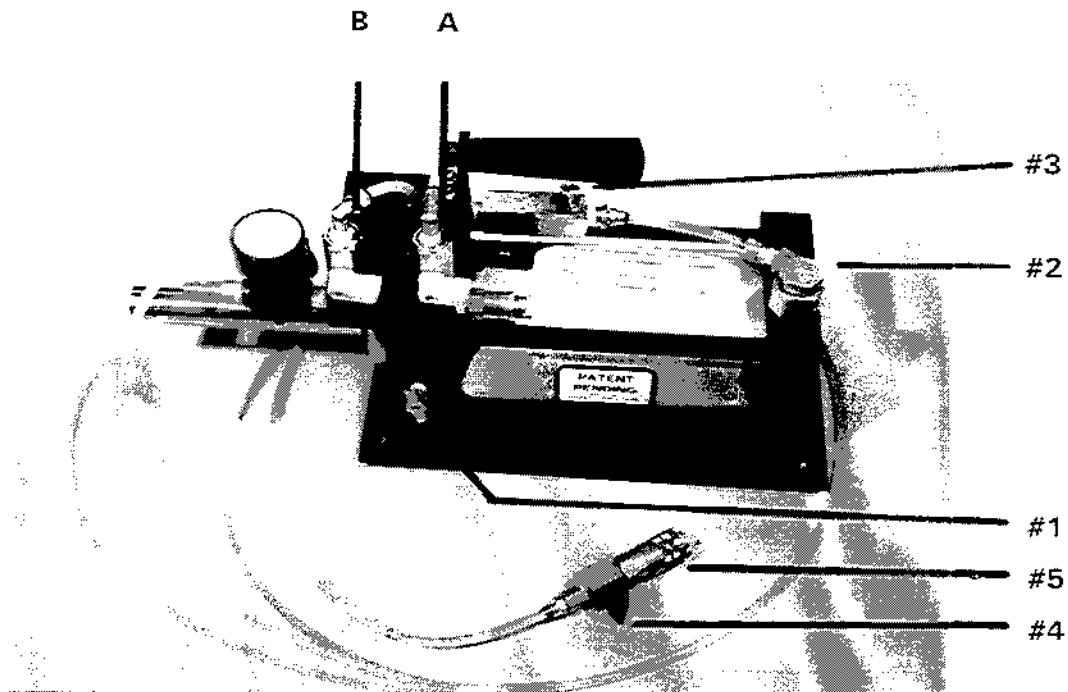
# Operating the BMW Pressure Brake Bleeding System

## Filling The System With Fluid:

- Disconnect compressed air supply from pressure bleeder.
- Retract the piston to gain room for the fluid. Open drain cock (#1). This allows the air behind the piston to escape, enabling it to retract without resistance.
- Remove the brake fluid fill cap (#2). Using a safety air gun with a rubber tip, carefully blow a small amount of air into the fill hole to push the piston back. Close drain cock (#1)
- Open drain cock (#3). This allows air to leave the cylinder and line as fluid enters the system. Pour brake fluid (approximately 1.2 liters maximum capacity) into the cylinder at the fill hole (#2). Close the drain cock (#3) and replace the brake fluid fill cap (finger tight only). Do not over tighten the fluid fill cap!

## Air Pressure Fluid Evacuation:

- Install reservoir adapter onto the master cylinder (see instruction sheet for proper model application). Use the screws that came with the motorcycle master cylinder. This avoids encountering difficulties by using the wrong length screws.
- Connect supply line connector (#4) to reservoir adapter. Open valve (#5) at end of supply line.



- Close both valves A (air) & B (brake fluid) by placing them in a horizontal position and connect air supply to regulator (#6). Adjust regulator to 15 psi, which is also the point where the blow-off valve will just begin to "hiss".
- Connect a drain bottle to the bleeder valve at the caliper, and open the bleeder valve.
- Open the A valve (air), leaving the B valve (brake fluid) closed. Once all fluid is evacuated, close the A valve. Close the bleeder valve on the caliper. On systems with multiple bleeder valves, you may wish to bleed them all to ensure fluid is removed, but opening the last bleeder valve in the system is usually sufficient.

### **Brake Fluid Filling:**

- Make sure that A valve (air) is closed. Open B valve (brake fluid).
- Open bleeder valve at the caliper.
- Work the brake lever / pedal in & out a few times to release air or contaminants from around the piston seals.
- Wait until all air bubbles are pushed out. Open and close bleeder valve a few times to loosen trapped air bubbles. On ABS models, bleed modulators to ensure that no air present.
- Close B valve (brake fluid) and the brake fluid supply valve (#5). Open and close the drain cock (#1) to release pressure behind the piston. Open and close bleeder valve to release pressure within the brake system prior to removing adapter.
- Before uncoupling adapter, loosen adapter\* from master cylinder reservoir. Only then should you uncouple the adapter supply line and place aside. Now when you remove the adapter, any fluid in the fitting will drain into the master cylinder reservoir.

\*Note: This is a precaution because the system may still be under a very small pressure. If you uncouple the adapter first, some fluid may push out of the adapter fitting, causing a mess. By unscrewing / loosening the adapter first, you release the internal pressure.