



BAVARIAN AUTOSPORT

# Clutch Unlock Valve Installation Instructions

**SAFETY NOTE:** The vehicle must be raised and safely supported on jack stands or on a lift rack. Follow proper safety procedures in raising and supporting the vehicle.

**NOTE:** It is assumed that the basic procedures for bleeding the clutch hydraulic system are understood by the technician. Therefore, these instructions will cover the basic installation of the Bavarian Autosport Unlock Valve, in place of the original lock valve. It is recommended that the appropriate repair manual be consulted for full procedure details. Appropriate manuals can be purchased from Bavarian Autosport.

**PROCEDURE NOTE:** After installing the unlock valve, you will need to bleed the hydraulic fluid. To make this task as easy as possible, we highly recommend using the Bavarian Autosport pressure bleeder (#PB03) and clutch slave cylinder bleeder tool (#CBT TOOL).

## Most BMWs

96 on

### PART NUMBERS:

UNLOCK

UNLOCK2

### PROCEDURE:

1. Raise and support the vehicle, using the proper safety precautions for the method being used.
2. Locate the lock valve. The valve will either be installed directly into the slave cylinder, with the fluid line threading into the female end of the valve (most 14mm valves) or the valve will be installed between the lower and upper lines (most 17mm valves). For valves that are not installed directly into the slave cylinder, just follow the fluid line back from the slave cylinder, to the next junction point.
3. Remove the lock valve by loosening the male nut on the fluid line (that threads into the female end of the valve). Use a wrench to hold the valve stationary. Once the line is loose and pulled from the valve, unthread the valve from the slave cylinder or upper line, whichever is applicable.
4. Install the new unlock valve in place of the original valve.
5. Bleed the clutch hydraulics to fully remove any air from the lines and slave cylinder.

**NOTE:** Following, are the steps for bleeding the clutch hydraulics using the Bavarian Autosport Pressure Bleeder and Clutch Slave Cylinder Bleeder Tool. These instructions, along with illustrations, are included with the Clutch Slave Cylinder Bleeder Tool.

1. Remove the clutch slave cylinder from the transmission bell housing. On models that secure the cylinder with two 13mm nuts (one above the cylinder, one below), use a 13mm socket and a long (or multiple) extension and ratchet. This will ease the access to the upper nut.
2. Affix the slave cylinder in the Clutch Slave Cylinder Bleeder Tool. Position the slave cylinder in the tool so that the bleeder screw is pointed upward. Use the adjustable piston rod seat to apply moderate pressure to the cylinder's piston rod. Some cylinders will require that the adjuster be screwed fully out, others fully in, or anywhere in-between. You just need enough pressure on the piston rod to assure that the cylinder will not fall out of the tool.



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3. Install the Pressure Bleeder to the brake fluid reservoir following the instructions for the unit. We will be bleeding the clutch in a similar manner to bleeding the vehicle's brakes. The fluid for the hydraulic clutch comes from the main brake fluid reservoir. Note the hose attached to the side of the fluid reservoir, this hose feeds the clutch master cylinder. Do not let the brake fluid go below this point in the reservoir.

**NOTE:** We recommend siphoning the old fluid from the reservoir and filling with fresh fluid, before bleeding (unless the fluid has recently been flushed and changed).

4. Pressurize the pressure bleeder following the instructions for the unit (no more than 20psi for this procedure). Install the bleeder drain hose (included with the pressure bleeder) or the hose from the Bavarian Autosport Brake Fluid Catch Bottle or any other drain hose setup that you may prefer.
5. Open the bleeder screw. Allow the fluid to flow until there are no more air bubbles and the fluid is clear and fresh. Close the bleeder screw. Keep an eye on the brake fluid reservoir while bleeding. Do not allow the fluid to go below the clutch hose nipple.
6. Double-check the fluid level, pressure, etc. Perform a final bleed, as in step 5. During this step, slowly pump the clutch pedal to the floor and back up (by hand), a few times, while bleeding. Close the bleeder.
7. Remove the pressure bleeder. Adjust the fluid level in the reservoir. Remove the slave cylinder from the Slave Cylinder Bleeder Tool. Install the slave cylinder into the bell housing. Be careful to ensure that the slave cylinder piston rod seats properly in the end of the clutch release arm, inside the bell housing.
8. Test the clutch operation and then lower the vehicle.



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