'90-94 DSM Big Brake FAQ

How to upgrade your '90-94 DSM to '93-94 AWD 'Big Brakes'

My BigBrake kit purchased from DSS

'Big Brake' application questions? Please see the Big Brake Info page.


Wheel and car with stock rotors and calipers


Wheel and car after BigBrakes install

Tools you will need to change your brakes:

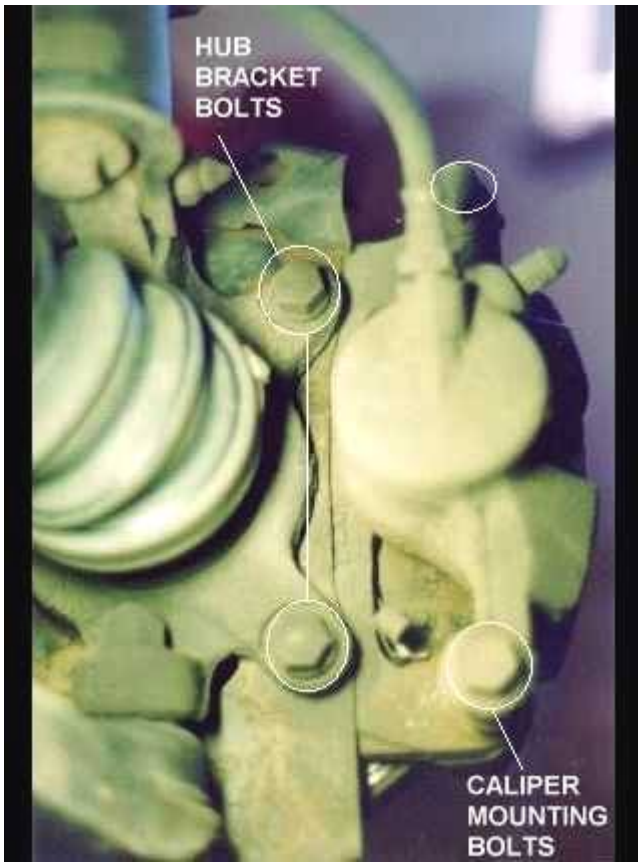
- Lug wrench
- Jackstands
- 17mm socket and ratchet
- 10mm and 17mm open-ended wrenches or a small adjustable wrench
- High-temp grease
- Brake cleaner
- Brake fluid
- Brake anti-squeal compound
- WD-40 or equivalent
- Drain pan
- Small diameter (5/32" or 1/4") vinyl tubing to fit the bleeder screws
- Torque wrench
- Easy access to a puller (just in case)

Note: If your "new" 'Big Brakes' are dirty and/or rusty, you may want to disassemble them and clean them up with a wire brush before installation or even paint them after

cleaning, if you so desire. Paint your calipers at your own risk. Even high-temp 500+ deg F engine paint and 1200 deg flameproof racing paint can ignite and melt your nice new brakes (right Farzaan?) if you overheat them too much.

Jack the car up onto jackstands and remove the front wheels with the lug wrench. Make sure that the car is stable and well-supported.

To make life easier, lubricate all bolts, wheel stud holes, and brake fittings with WD-40 or equivalent and let soak for 10 min before starting (If a car exposed to salt or salt air, spray it down the night before).



Remove the old stock caliper by loosening the two 17mm hub bracket bolts that hold the caliper assembly to the hub. With the bolts removed, you should be able to slide the whole caliper assembly off of the rotor.

Note: If you have an ABS equipped car, be very careful not to damage the ABS pickup sensor mounted next to the hub's toothed ring. If necessary, detach this sensor from the hub and move it out of harm's way.

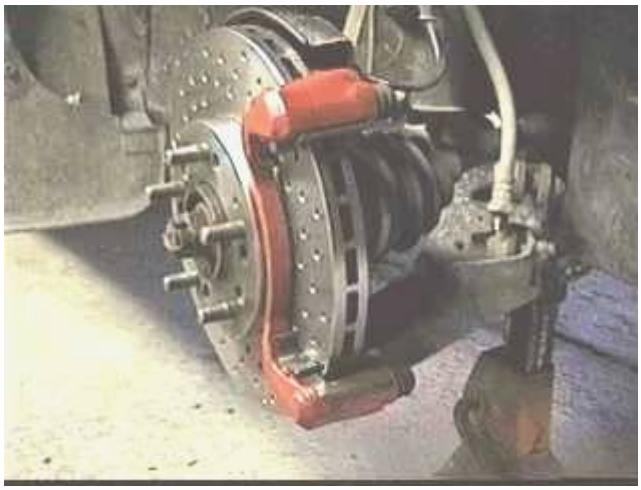
Have a pan handy? Remove the brake line from the just-removed caliper using your 17mm or adjustable wrench and let the fluid drain into your drain pan.

Remove the rotor from the hub. **Note:** There are no bolts that hold the rotor on, so it may come off easily. However, usually the rotor is rusted to the hub, and is difficult to remove. There are a number of ways to remove a rusted rotor, in no particular order, but do help yourself by using WD-40 liberally:

- Use a puller
- Thread 2-8mmx1.25 bolts (12-13mm head) into the holes provided on the rotor. Alternately tighten each bolt incrementally and evenly until the rotor is loose
- Soak the rotor with WD-40 through the wheel studs holes and let sit overnight
- Tap the backside of the rotor using a hammer and turning the rotor so that it comes off evenly
- Heat the rotor with a propane torch and try any/all of the above

Once you have the rotor off, clean the hub and brake dust shield with brake cleaner.

- Install the new 'Big' rotor by sliding it onto the hub. If you are using new rotors, don't forget to clean the rotor surface with brake cleaner to remove the protective factory coating.
- Bolt in the new hub mounting bracket where the old one used to be (see picture), and install the new shimming hardware onto the bracket (see the old brackets you removed if you have questions).
- (**Note:** If your new calipers and hubs are not separated (i.e. pads and calipers



already installed), LEAVE them together, install the brake line, bolt them on the spindle/hub, and skip to bleeding the brakes.)

- Install the new pads into the hub mounting bracket. Be sure to apply anti-squeal compound to the backing of the new pads.
- Reattach the brake lines to the new 'Big' caliper. If you have chosen to paint your calipers, be careful not to spill brake fluid on them as it will likely dissolve your nice new paint.
- Install the new caliper onto the hub bracket and pads. Be **SURE** to clean and lubricate the caliper slide bolts with high-temp grease before you reinstall them. Note that the top of each bolt has a "G" or "L" imprinted upon it that matches a "G" or "L" on each caliper for for correct installation.
- Be sure to ***lightly*** grease the stainless steel slides for the prake pad (white line points to one) to avoid binding in the future.

If you never want to have to worry about getting the rims off again, coat the rotor hat surface with antisieze, as shown here. Then wipe it off with a rag, leaving a thin coat behind. Do the same for the back of the rim where it mounts to the rotor.

The white arrow points to a SpeedBleeder™, a GREAT addition while you are upgrading. SpeedBleeders™ allow you to bleed your brakes ***so*** much faster, and guarantee ***no*** old fluid gets sucked back in.
Sizes are SB1010 (10mmx1.0) for **non**BigBrake calipers (front and rear), and SB7100 (7mmx1.0) for the BigBrake calipers. However, put a boxend wrench on ***both*** the front and rear bleed screws and make sure of this, as I believe Apr 92-up cars use 7mm on the front and rear, whether they have BigBrakes or not.

Ta Da! You now have 'Big Brakes' installed. Now bleed the brakes with fresh DOT 3, 4 or 5.1 fluid, and then reinstall the wheels. Torque the wheel lugnuts to 75-80 ft-lbs, and you're finished!

Remember to take it easy for a hundred miles or so to let the new pads and rotors bed properly with each other. If you are too aggressive before they are bedded you may glaze the pads, reducing stopping power (not to mention if you stop TOO fast, you can heat the calipers to the point of smoking/igniting your fresh paint, *trust me* -TS).

Stock vs. 'Big Brake' upgrade parts comparison. Can you guess which is which? (stock = left)

Credits

- Pics by:
  - Damian Sigman
  - Kyle Zingg
  - Tom Stangl
- Text by:
  - Kyle Zingg
  - Tom Stangl