

🔧 Replacing rear drum brakes with discs 🔧

Background:

- While there is negligible performance gain, many RS/ESi owners wish to upgrade their rear brakes from the stock drums to discs. The benefit here is better modulation, heat soak capacity, and looks. The only downside is a slight increase in weight (rotors + calipers are heavier than the drums)

Tools:

- metric socket set
- 8, 10 & 12 mm wrenches
- Phillips screwdriver
- knife to cut carpet
- floor jack and jackstands
- pliers
- hammer
- DOT 3, 4 or 5.1 brake fluid (1 qt)

Parts:

(these must be sourced from a 1995-1999 GS, GS-T or GS-X)

- 2 rear calipers
- 2 brake rotors
- 2 brake caliper hoses
- 2 emergency brake assemblies/caliper mounting assemblies that has the emergency brake cables attached. Installs as one unit.
- complete sets of rear brake pads

Installation:

1. Remove center console in car to have access to parking brake cables
2. Remove airbag ecm(4bolts) and disconnect the E-brake cables(2each).
3. Remove cable retaining clamps about 5 inches back, underneath the carpet. There is a retaining block that holds the retaining clamps and that stays in place. The bolt head is 12mm and is difficult to reach. I cut a slit in the carpet (3 inches long) to help me gain access. Lift the carpet with one hand and ratchet with the other. Use a 12mm socket with 3/8 ratchet. When the bolts are out, spread the clamps and remove them. You will have to replace them when the new cables are hooked up. The cables are now free to be pulled out.
4. Raise car on lift or jack one side at a time, using floor jack.
5. Remove rear wheel and drum cover (screw a bolt into it to loosen). Disconnect rear brake line clamp at the knuckle and at the (10mm) b-nut fitting in the forward part of the wheel well. Slide the retaining clip out (pull/tap toward you with a pliers and hammer if necessary). You will not need to reconnect the new brake line to the knuckle assembly. The new line goes directly from the caliper to the b-nut fitting.
6. Remove the hub assembly by taking out the 4 bolts that retain it and then the emergency brake/drum brake assembly will come right off.
7. Remove the three retaining clamps that hold the emergency brake cable to the underneath of the car. Pull the cable out from underneath the car. It might take some extra pulling to get it released from the sealed grommet plug.
8. Install the new parking brake assembly so the caliper mounting bolt holes line up to position the left caliper in the 10 o'clock position and the right caliper in the 2 o'clock position. The emergency brake cables (from the bottom of the assembly) will also point to the first mounting clamp.

9. Install the hub (4 bolts) in the same position it came off. There is a slightly rounded side (internally) and three flat sides. I am not sure if it makes a big difference, but do it anyway.
10. Push the parking brake cable into the grommet hole (have fun) then connect the cable/mounting clamp from inside the car. I just stuck the cable in the mounting hole, connected the end to the E-brake T-bar assembly and then installed that nasty retaining clamp under the carpet.
11. Install the rest of the clamps for the cable under the car.
12. Install the new rotor, slide the caliper over it and tighten down the two bolts. Make sure your brake hose and bleed screw (8mm) is already installed on the caliper. Connect your brake hose then slide the line retaining clip back in and tap with a hammer until it locks into place. Do not force it or you will bend the clip.
13. This side is done. Now do the other....this one will go much faster...LOL
14. When both sides are done, put in new fluid and bleed brakes. I recommend buying 1 quart of brake fluid and flushing the whole system. The old fluid will look milky and the new fluid is clear. Install a small vacuum tube over the bleeder and pump fluid into a can. You can bleed with only one person if you have speedbleeders and do not have to tighten down bleeder between pumps. I do suggest someone else to monitor the fluid coming out and then you will know when the old fluid is completely out.
15. Tighten down bleed screw and clean off any brake fluid on painted surfaces. I suggest using Dot 4 or Dot 5.1 fluid. There are even some high temp Dot 3 fluids available that will not brake the bank. Ford heavy duty dot 3 comes highly recommended. I used Wagner severe duty Dot 5.1.....one quart will take care of an entire car. Remember to fill reservoir before it gets empty and then retighten the cap down before applying pressure on the brake pedal.
16. Put wheels back on and attempt to spin freely. I know the pads will rub slightly, but you are looking for proper freedom of movement from parking brake assembly. If too tight or too loose adjust it at the T-block assembly where the cables are attached in the center console. I did not have to adjust anything when I did this.
17. The parking brake is much harder to engage than with regular drum brakes. It is also an instantaneous engagement. What I mean is.....it is not gradual like before and to watch out doing any e-braking slides. You WILL lock up the rear end and spin out.....a friend in his GS-T told me this.
18. Install airbag ecm (4 bolts) and center console. If you do not know how to take out your center console, do not attempt to do this brake job....hehehe.
19. Drive car slowly and pull your e-brake handle and make sure it works properly. The feel is totally different and does take more effort to engage it.
20. Seat your brake pads in properly. If you need directions, just ask. If you are using a high coefficient pad (performance street) they tend to squeal with light braking applications. Medium to heavy they do not make any noise. The price we have to pay for killer brakes.

Comments:

- This job can be done without a lift, but I highly recommend one.
- The whole job takes 4 hours your first time from removing the rear wheels to bleeding the brakes. If you buy speed bleeders, you can do everything yourself.
- Specs on SpeedBleeders:
 - Size of bleeders: 7mm x 1.0 Overall length 34mm
 - Part #'s Russell #3957 Earl #28005
 - The same size bleeders are used in the front and rear. Each package come with 2 bleeders. 2 packages are required per car.

- You do not need a proportioning valve. The brake proportioning valve in the RS-drum/GS/GS-T is all the same part number verified by my mitsubishi parts manager.
- If I left anything out or you have any questions, e-mail: Deane Duerkop at duerkop@cei.net
- Conversion kits are available from Dan Gill at <http://www.allmitsubishi.com> or 1-800-899-2933

Source:

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