



Hybrid Racing Heavy Duty S2000 Detent Springs

Written By: Hybrid Racing

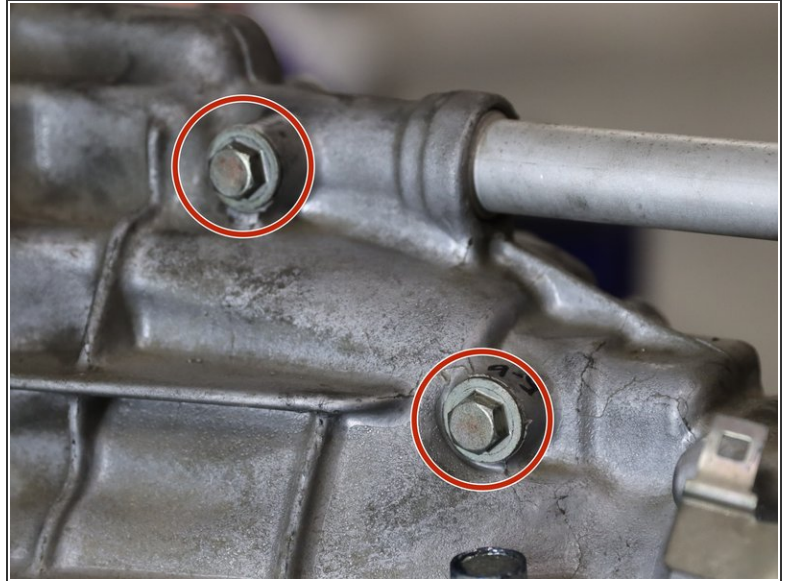
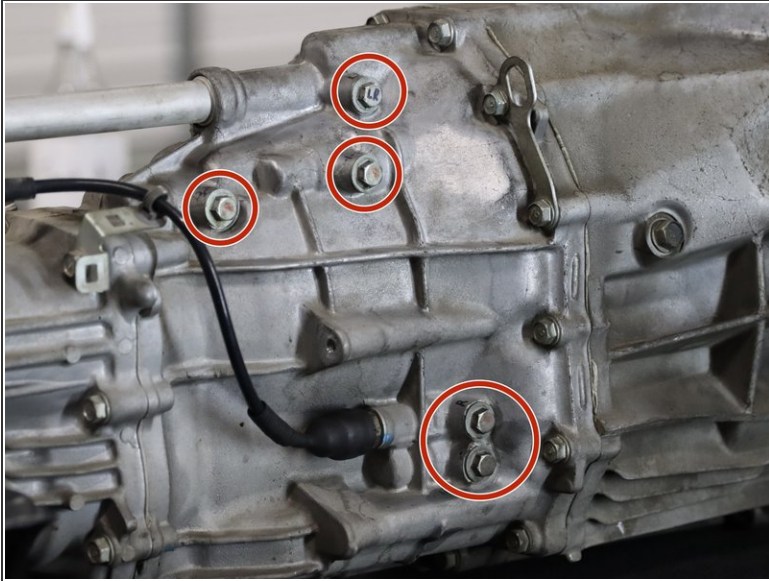


Step 1 — Overview



- ⚠ Please know that these springs are very difficult to reach with the transmission installed in the S2000.
- ⚠ It is recommended that you lower (or remove) the transmission before attempting to install these springs.
- The instructions in this guide show the installation of the springs, we DO NOT cover the removal of the transmission. Please do that at your own risk.

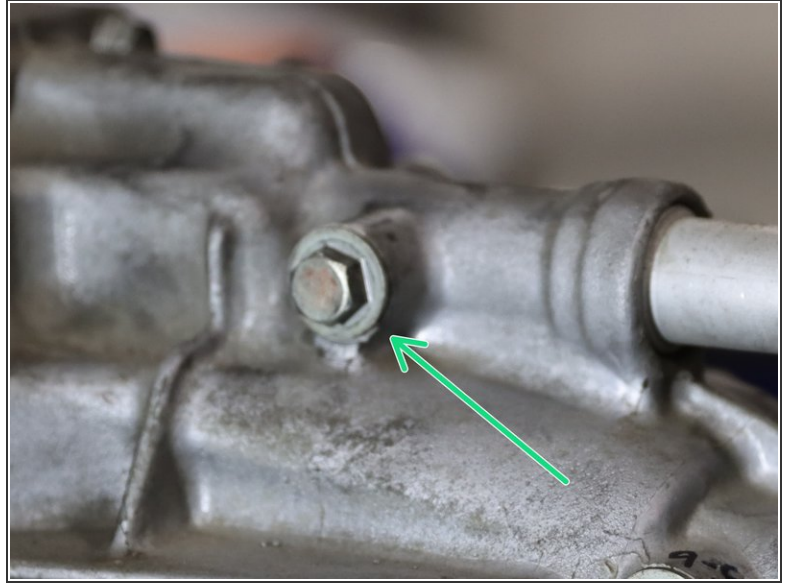
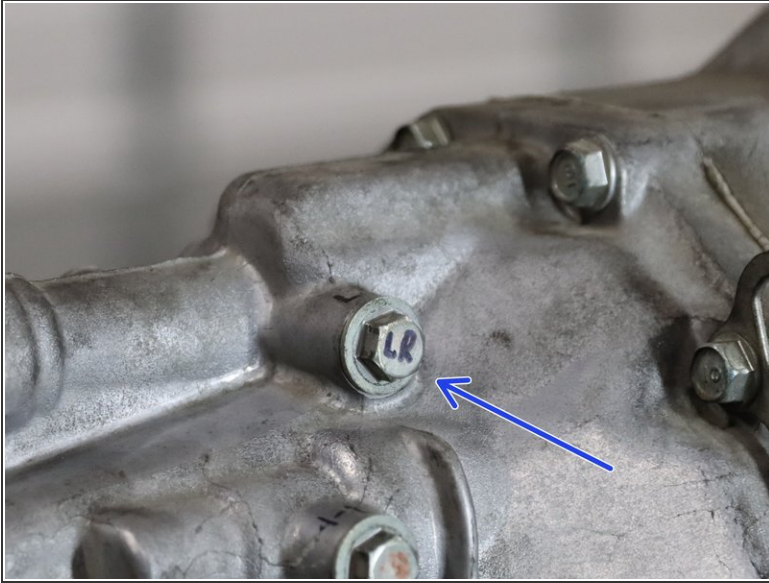
Step 2 — Location Identification



- There are a total of 7 detent springs in the F20/F22 S2000 transmission. 5 of them are located on the RH side of the transmission case.
- Each spring will affect the force in it's own way. You are able to mix and match these to fine tune the shifter movement to your likely. For example, you can install the F/R & L&R springs to give every movement a slight increase in force. Doing this and leaving all other springs stock is a great option.
- If you install the other 5 springs you will further increase the stiffness and required force for each gear change.
- Notice all positions marked in RED.

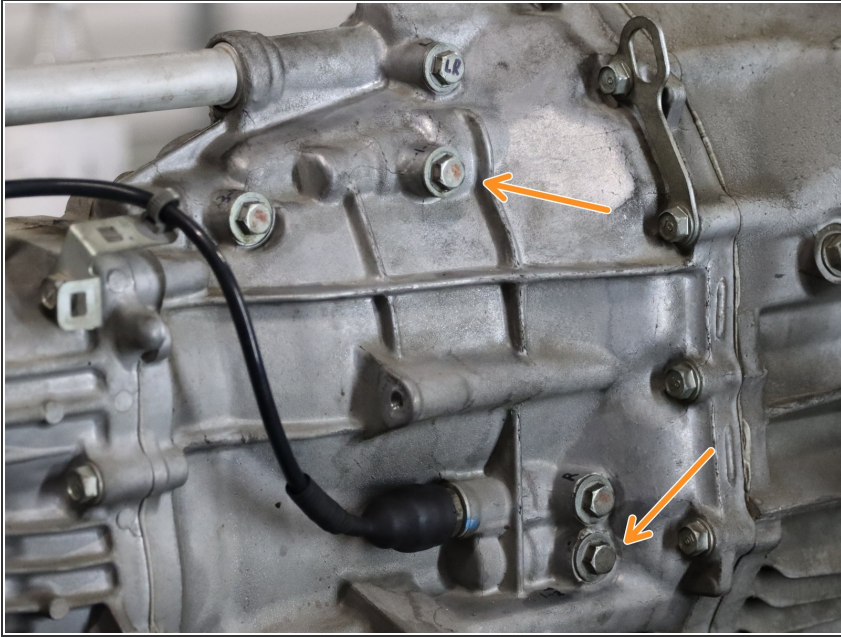
⚠ BE SURE NOT TO LOSE ANY OF THE DETENT BALLS THAT MAY FALL OUT WHEN YOU REMOVE THE OEM SPRING.

Step 3 — Front / Back & Left / Right Springs



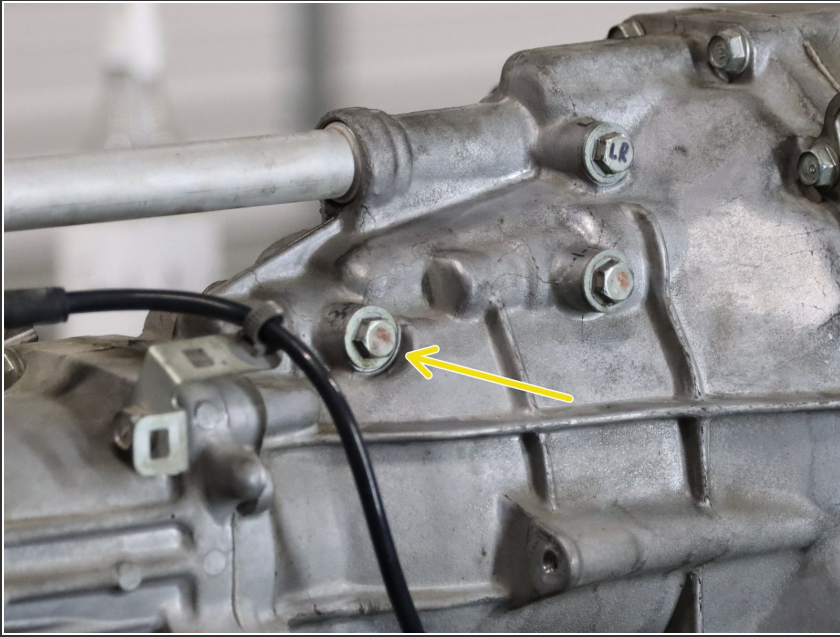
- On the RH side of the transmission case, you will find the Left/Right detent spring. This is the **ONLY** location where the **BLACK SPRING** should be installed. It is specifically made to go in this location. Find the only **BLACK** spring and install it here. This will increase the stiffness when you move the shift lever **LEFT-RIGHT**.
- On the LH side of the transmission case, you will find the Front/Back detent spring located directly across from the L/R spring. This spring controls the stiffness when moving the shift lever forward or backward. Meaning this will increase the stiffness while shifting into **ALL** gears. You can install any of the remaining springs in this location.

Step 4 — 1/2 Detent Springs



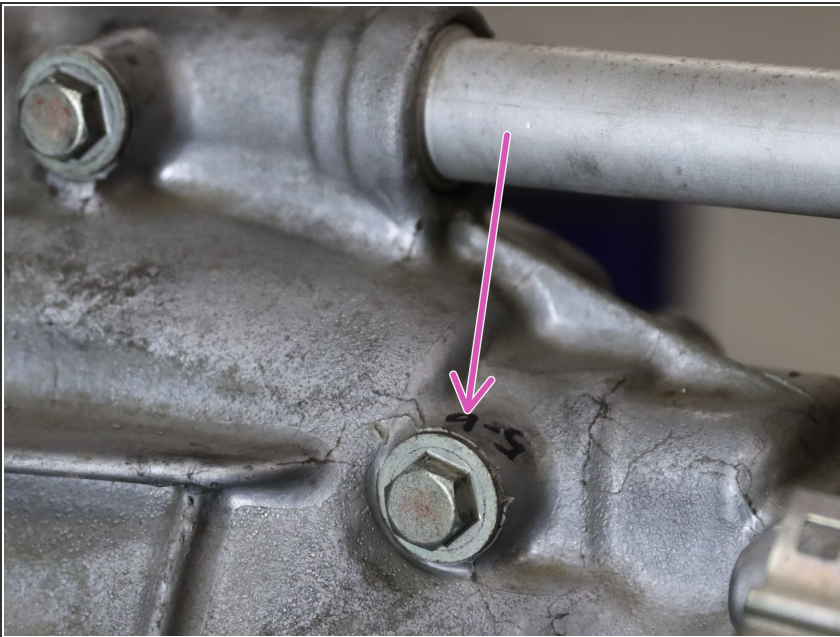
- The 1/2 gate has two specific detent springs that affect the engagement force. One on the upper section of the trans case, and one near the bottom RH side of the case. These are marked in orange.
- You can change both springs for the maximum level of engagement force. If you want to increase the level of stiffness in the first and second gate, swap out both springs.
- ★ We suggest installing one at a time and moving the shifter so you can feel it. Make your own decisions based on what feels best to you.
- ⓘ Be sure to use a dab of Hondabond on the thread when reinstalling the detent bolt.
- Use a torque wrench and tighten to 16 lbf-ft (29 N-m / 3.0 kgf-m). Do NOT over tighten as the bolts will break.

Step 5 — 3/4 Detent Spring



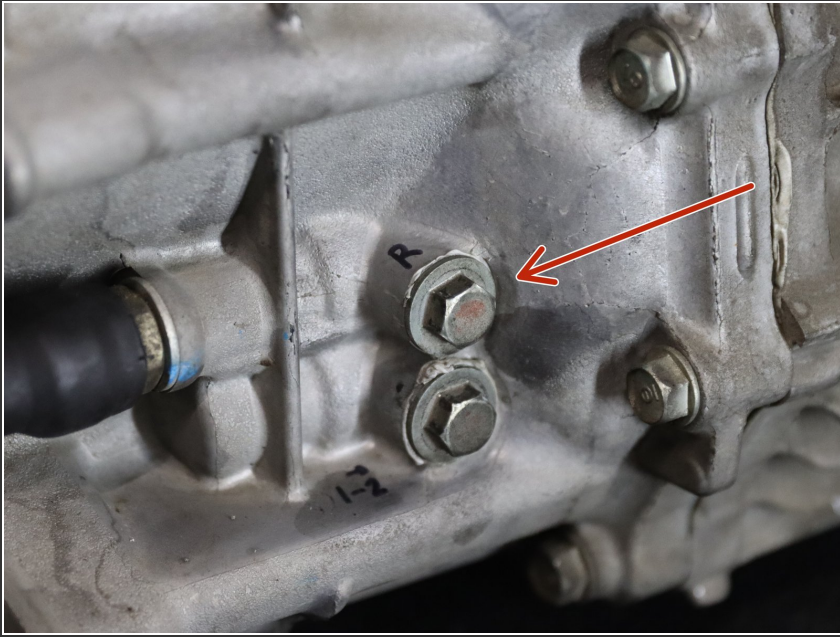
- There is only one detent spring for the 3/4 gear gate. This is marked in yellow.
- Install the HR spring in this location to increase the stiffness in the 3/4 gear change.
- ⓘ Be sure to use a dab of Hondabond when reinstalling the detent bolt.
- Use a torque wrench and tighten to 16 lbf-ft (29 N-m / 3.0 kgf-m). Do NOT over tighten as the bolts will break.

Step 6 — 5/6 Detent Spring



- There is only one detent spring for the 5/6 gear gate. This is marked in pink.
- Install the HR spring in this location to increase the stiffness in the 5/6 gear change.
- Be sure to use a dab of Hondabond when reinstalling the detent bolt.
- Use a torque wrench and tighten to 16 lbf-ft (29 N-m / 3.0 kgf-m). Do NOT over tighten as the bolts will break.

Step 7 — Reverse Gear Detent Spring



- There is only one spring that affects the reverse gear. It's located on the lower right-hand section of the case, above the (2nd) 1/2 spring.
- Remove this spring and install the HR spring to increase the sharpness of the reverse gear.
- This is an optional step, typically this spring is not changed but can be if desired.

⚠ Be sure to use a dab of Hondabond on the threads to prevent a fluid leak.

- Use a torque wrench and tighten to 16 lbf-ft (29 N-m / 3.0 kgf-m). Do NOT over tighten as the bolts will break.

Step 8 — Final



- You have reached the end of the install. Put the transmission back in your car, ya animal!
- You can use as many or as few springs as you choose, there is not BEST solution. The BEST solution is the one that suits your preference.
- You should be happy with the way your car shifts, changing these springs gives you the ability to change it up.

⚠ Use a torque wrench and tighten to 16 lbf-ft (29 N-m / 3.0 kgf-m). Do NOT over tighten as the bolts will break.