

PERRIN

Shifter Detent Upgrade for 2015+ WRX

2024-11-19

PSP-INR-041

Thank you for purchasing this PERRIN product for your car! Installation of this product should only be performed by persons experienced with installation of aftermarket performance parts and proper operation of high performance vehicles. If vehicle needs to be raised off the ground for installation, the installer must use proper jacks, jack-stands and/or a professional vehicle hoist for safety of the installer and to protect property. If the vehicle is lifted improperly, serious injury or death may occur! Please read through all instructions before performing any portion of installation. If you have any questions, please contact our tech department prior to starting installation. We can be reached in any of the following methods:

Email Tech@PERRIN.com

Instant Chat off the main page of www.PERRIN.com

Or simply call our tech team at 503-693-1702



WARNING: This product can expose you to chemicals including Lead which is known to the State of California to cause cancer birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov

SPECIAL NOTES:

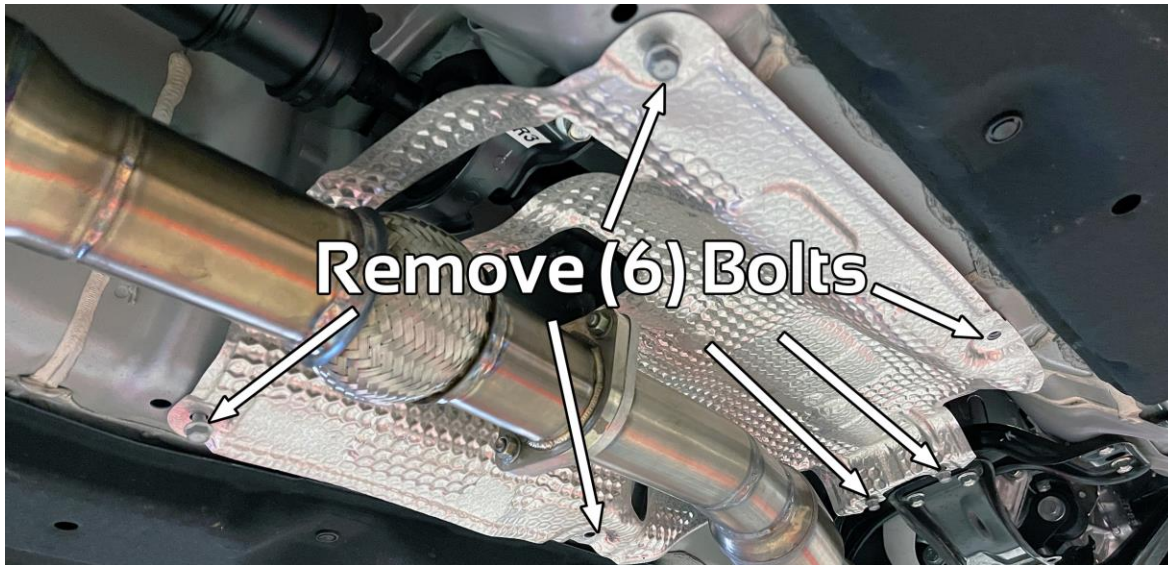
- It will be normal to have some additional force required to shift the transmission, but it is not normal to not be able to select the gears. If you are not able to shift into each gear, remove the parts and return it to stock then contact the tech department.

Parts Included with the PERRIN Detent Upgrade:

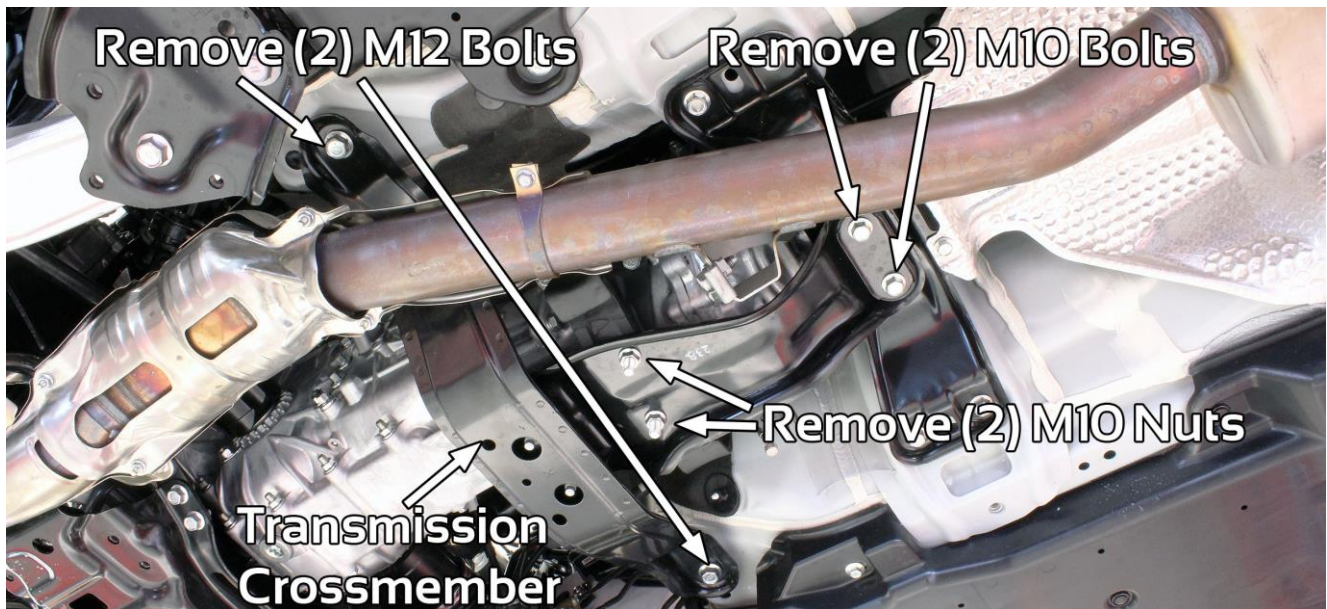
4	X-PSP-INR-040RD	Detent Bolt Small M12 Size Red
4	X-BLT-016-N70	O-Ring Size 16
1	X-PSP-INR-040-1RD	Detent Bolt Large M14 Size Red

Installation of PERRIN Shifter Detent Upgrade

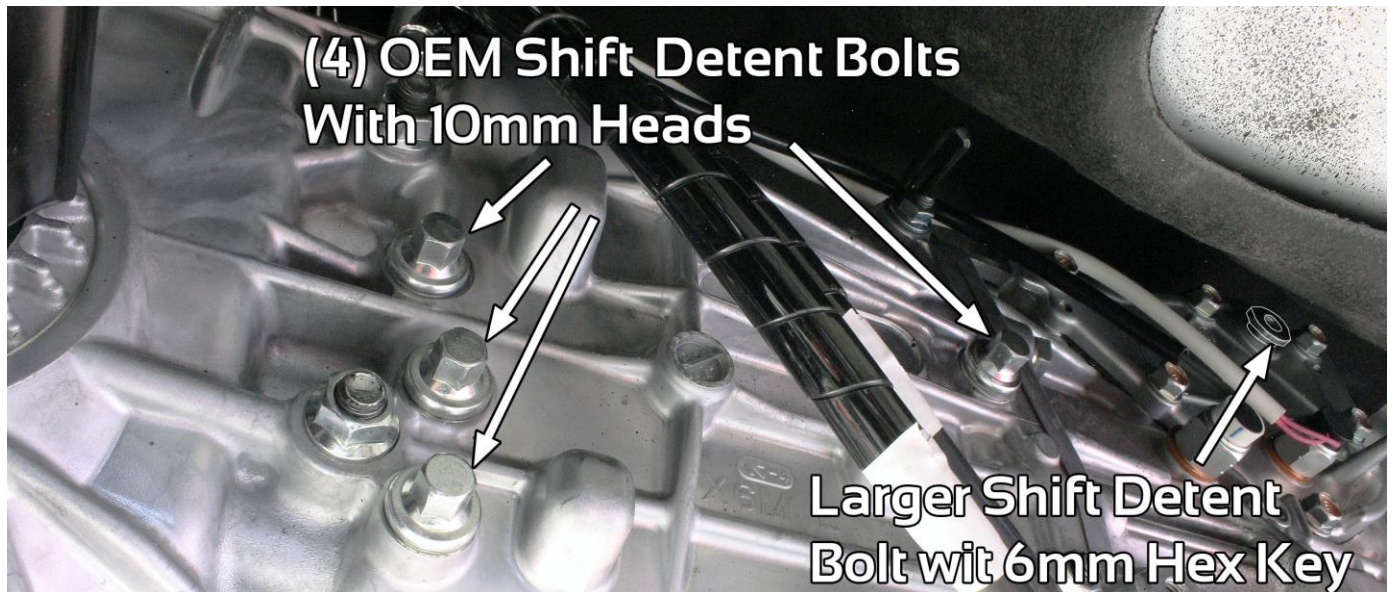
- Raise vehicle off ground using vehicle hoist or proper jack and jack stands. Never support vehicle with jack as death or injury may occur.
- Place a jack under the transmission case (behind the drain bolt is a good place) to support it for the next two steps. **NOTE: A small amount of tension on it is all that is required.**



- Locate and remove (6) M8 bolts securing transmission exhaust shield to subframe. This does not need to be removed from the car, just loosened to let the transmission drop down.
- If your catback exhaust is stock, uses a donut type gasket, or has a flex joint built into it, you can skip this step. If your catback exhaust has a solid connection without a flex joint or donut gasket, unbolt catback exhaust from front section of the exhaust. **NOTE: This step will vary depending on catback exhaust that is installed on the vehicle.**



5. Locate and remove (2) M10 and (2) M12 bolts securing transmission crossmember to chassis.
6. Locate and remove (2) M10 nuts securing crossmember to transmission mount, then remove subframe from chassis.
7. Slowly release the jack supporting the transmission to allow the transmission to drop down until it stops. This step is done to allow easier access to the larger detent bolt located toward the top of the transmission. **NOTE: Aftermarket pitch stop mounts, and catback exhausts that do not use flex joints can affect how far the transmission drops. We recommend loosening the pitch stop mount bolts and or unbolting the catback from the exhaust to allow the transmission to drop further.**



8. Locate and remove the large M12 detent bolt that is secured using a 6mm hex key. This is best done with a standard hex key not a socket driven hex key. This bolt is very tight and using some form of an extension is highly recommended. Since this is not a standard type of tool, what works well is a 3/8 ratchet extension and deep socket that fits over an M6 hex key handle. The longer the 3/8 extension the better. **NOTE: The spring that is behind this bolt should stay inside of the transmission, but if it comes out, make sure to reinstall it.**



9. Carefully remove O-ring from the OEM detent bolt and install it onto the larger size PERRIN Detent Bolt all the way up to the flange.
10. Screw larger PERRIN Detent Bolt into the transmission by hand. It's normal to have to compress the spring slightly to get the bolt started. Then tighten to 120in-lbs using a 16mm wrench. **NOTE: Since this bolt can be very difficult to tighten with a torque wrench, just past hand tight is acceptable. Do NOT use a torque wrench with a minimum setting of 120in-lbs or 10ft-lbs as this can lead to over tightening and failure of bolt.**
11. Before proceeding, check inside the car that all gears are still selectable by the shifter and no binding is felt.
12. Install supplied O-rings to all (4) smaller sized PERRIN Detent Bolts. Once the O-ring is installed, roll your finger around the edge to ensure it is not going to pop off during the installation. **NOTE: These are slightly larger than the groove to ensure they stay in place during the next steps.**
13. Locate the (4) remaining OEM detent bolts (these have a 10mm hex head on them) and one by one follow these steps below. **NOTE: The 2 lower bolts will let some transmission oil drip out. Make sure to do these ones as fast as possible to ensure there is a minimal amount of oil lost. Then make sure to wipe up any oil that spilled. As long as this step is done quickly, there is no need to refill the transmission with oil.**
 - a. Remove OEM detent bolt, washer and spring from one of the 4 locations.
 - b. Remove spring from OEM detent bolt and place it into one of the PERRIN Detent Bolts. OEM detent bolt and washer will not be reused.

Install Spring Into PERRIN Shift Detent Bolt

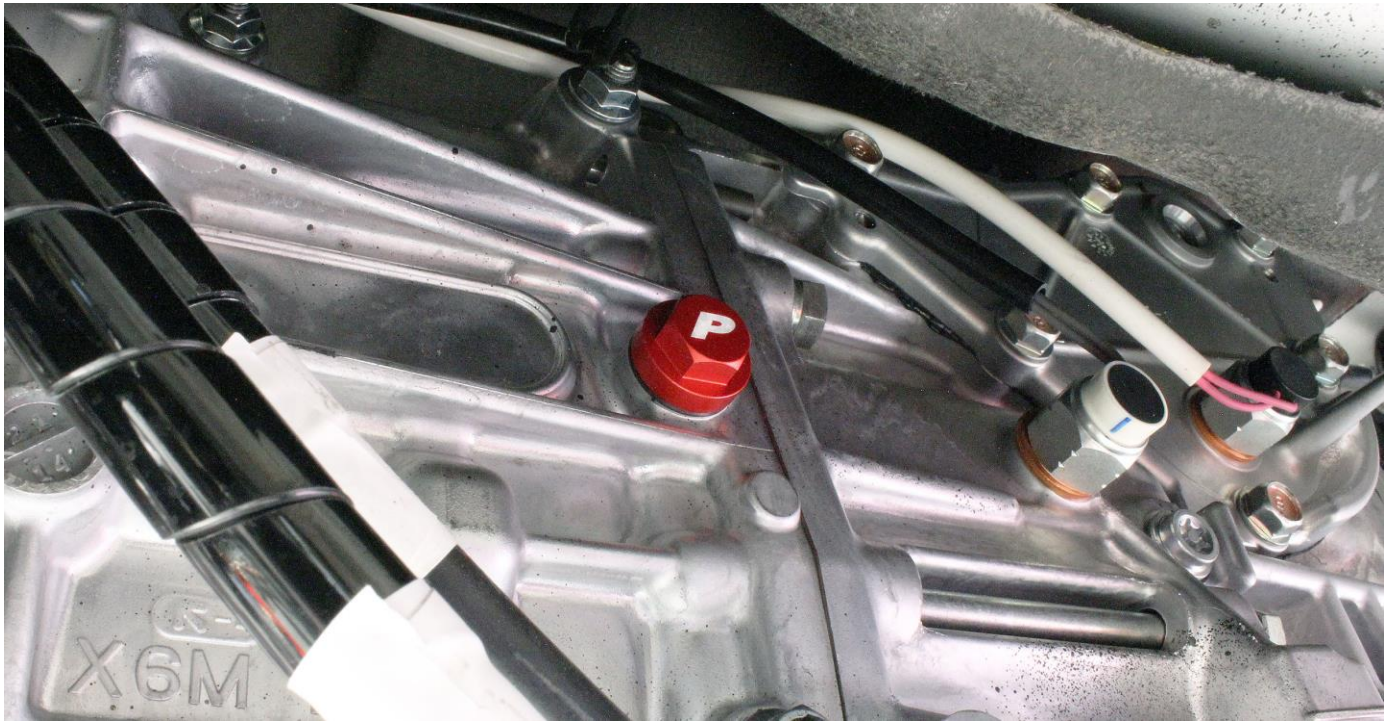


**OEM Shift Detent Bolt
With 10mm Head**



**PERRIN Shift
Detent Bolt**

- c. Screw PERRIN Detent Bolt (with O-ring and spring installed) into transmission. It's normal to have to compress the spring slightly to get the bolt started.
- d. Tighten PERRIN Detent Bolt to 80in-lbs. **NOTE: Only use a properly sized 1/4" drive torque wrench to tighten bolts. Do not use a 1/2" drive torque wrench, or a torque wrench that the smallest adjustment is 6ft-lbs or 80in-lbs as this will lead to overtightening of bolt and could cause a failure.**
- e. Before proceeding, check inside the car that all gears are still selectable by the shifter and no binding is felt.



14. Raise the transmission back up using a jack, then reinstall crossmember back to chassis. Install hardware and tighten M10 nuts to 25ft-lbs, M10 bolts to 51ft-lbs and M12 bolts to 100ft-lbs.
15. Lower jack down and remove from car.
16. Install exhaust shield to chassis and tighten M8 bolts to 8ft-lbs.
17. Reinstall the catback exhaust to the front exhaust section.
18. Before driving car, shift through all the gears and make sure there is no binding felt and that all gears are selectable.
19. Take car for test drive and verify there are no clunking noises or abnormal sounds. When installed properly, there should not be any extreme vibration felt. Re-check the installation and re-test.

Questions, Comments and Suggestions Contact: Tech@PERRIN.com
Visit Our Website for Instant Chat Options at www.PERRIN.com
Call Our Tech Team at 503-693-1702