

# **Alternator Pulley for 22+ BRZ/GR86**

2022-08-29

PSP-ENG-122

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 <a href="https://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>

### **SPECIAL NOTES:**

- This part requires a ½" Drive 17mm Hex key and an impact gun to be removed and a 24mm socket to be installed. These are not standard tools found in toolboxes, so make sure you have these before starting the install.
- When removing pulley or tightening nut, DO NOT try to hold alternator from turning by placing a tool through the insides. This will cause internal damage to alternator.
- Depending on the type of impact gun you are using, you may not be able to access the alternator pulley easily. This may require removal of the alternator to install the PERRIN Alternator pulley. Please follow the factory service manual to remove alternator, then skip to step (5) in the removal section below.

# Parts Included with the PERRIN Alternator Pulley:

- (1) Alternator Pulley
- (1) 17mmx1.5 Flanged Nut

#### Removal of Alternator Pulley

- Remove Intake system from engine bay to provide better accessibility to the alternator pulley. This step will vary greatly depending on intake system installed. To remove OEM intake system:
  - a. Remove (3) 10mm bolts holding air box to chassis.
  - b. Loosen clamp securing air box to rubber intake hose.
  - c. Unplug MAF sensor and unclip harness from airbox. Note: Do not turn car on with this unplugged.
  - d. Carefully pull air box out of engine bay and set aside.
- 2. Locate and remove (2) 10mm bolts securing plastic alternator belt cover on right side of engine.
- 3. Install a 14mm wrench onto the automatic belt tensioner and rotate enough to remove serpentine belt from alternator pulley.



4. Remove plastic cap from alternator pulley to expose hex drive, located in center of pulley.

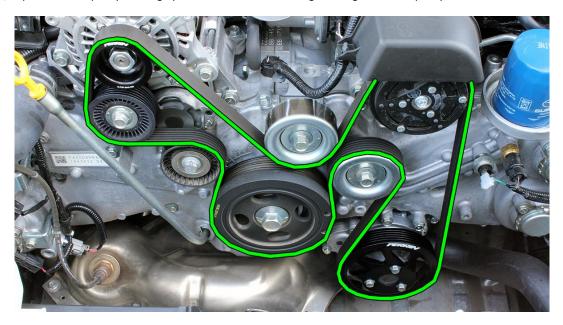
Pry Cap Off From Alternator Pulley To Expose 17mm Hex



- 5. Using the 17mm hex key and impact gun, unscrew (standard counterclockwise direction) pulley from alternator. **NOTE: This will** require several short bursts to free pulley from alternator. **DO NOT** install something through the insides of the alternator while trying to remove pulley.
- 6. Clean any corrosion and or thread locking compound from shaft and threads.

## Installation of PERRIN Alternator Pulley

- 1. Remove alternator pulley from alternator and slide PERRIN Pulley onto alternator shaft until it stops, then thread nut down supplied by hand. **NOTE: The pulley a precise fit onto the shaft. Take time in aligning pulley with shaft before pushing it on.**
- 2. Install a 14mm wrench on the automatic belt tensioner and rotate enough to re-install serpentine belt around alternator pulley. NOTE: Make sure that belt is lined up into each groove on all the pulleys before proceeding.
- 3. Using a 24mm socket, tighten nut on pulley using short bursts from the impact gun until you see the nut stop spinning. One last time, impact nut onto pulley for roughly 1 second and this will be tight enough to secure pulley to alternator.



- 4. Reinstall belt cover back to right side of engine and tighten bolts to 10ft-lbs.
- 5. Reinstall intake system back to engine, making sure to plug MAF sensor back in.
- 6. Start engine and make sure belt is riding completely on all pulleys, and check that all pulleys are running true and not wobbling.
- 7. If no problems are found, take car for test drive. Recheck hardware removed during installation, for being tight.

Questions, Comments and Suggestions Contact: Tech@PERRIN.com
Visit Our Website for Instant Chat Options at www.PERRIN.com
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