

Harmonic Damper Install Instructions





Online Instructions Link

Tech Video Link

Detailed install instructions can be found online at <u>https://innovatorswest.com/innovators-</u> instructions/ or scan the QR codes above.

Harmonic Damper Installation:

Use a proper damper installer to install the damper. Do not use a factory or aftermarket bolt to draw the damper onto the crank. Failure to use the proper installer may result in damage to the damper, crankshaft bolt or crankshaft threads. <u>DO NOT</u> remove the hub from the damper case. Install as a complete assembly! The damper should install with a press fit (see included honing spec sheet). <u>DO NOT</u> hone the hub for a slip fit.

1. Inspect the crankshaft snout for any burrs, nicks and imperfections.

- 2. Inspect your crankshaft key and replace if necessary.
- 3. Use the supplied Extreme Pressure lube (or anti-sieze) on the inside of the damper hub, outside of the crank snout and under the head of the bolt. This lube will help the damper install and remove easier. Additional lube can be purchased from Innovators West if needed.
- 4. Press the damper onto the crankshaft using the proper install tool.
- 5. <u>DO NOT</u> apply direct heat to the damper (ie an open flame/torch). The concentration of heat may damage the components inside the damper.
- 6. Apply some red Loctite to the crank bolt and torque to the BOLT MANUFACTURER'S specifications. If using Innovators West supplied crank bolt, torque to the bolt torque listed in your damper specific install instructions found online.

Harmonic Damper Removal:

Use a proper damper puller (such as shown below) to remove the damper from the crankshaft. Make sure to attach the damper to two or more of the cap screw bolts that are threaded into the hub of the damper. Use of the bolts that attach the pulley to the damper may result in damage to the case of the damper or pulled threads.

- 1. Remove the crankshaft bolt.
- 2. Remove 3 of the 6 inner (counter sunk beneath the face of the damper) 5/16" 18 socket cap screws that secure the damper case to the hub.
- 3. Using a proper damper puller, remove the damper from the crankshaft. (Make sure that the center bolt of the damper puller is not exerting its force directly to the end of the crankshaft as damage to the crankshaft or bolt threads may be possible)
- 4. Reinstall the removed hub bolts back into the damper. Torque the bolt to between 18-20 ft-lbs.

Bolt Torque Specs:

During installation or when reinstalling after removal, it may be necessary to torque fasteners on the damper. The following chart can be used for bolt torques with the Innovators West dampers.

> 5/16-18 Hub Bolts – 20 ft-lbs 3/8-16 Hub Bolts (Steel threads) – 30 ft-lbs. 3/8-16 Pulley bolts (Aluminum threads) – 25 ft-lbs.

For any other fastener torque specs, please call Innovators West at 785-825-6166.

ATTENTION

All Innovators West dampers are honed for a .001" press fit (.0005" on a BBC) when used on a stock dimension crankshaft snout. It is **HIGHLY RECCOMENDED** that you measure your crankshaft snout with a **MICROMETER** to ensure that it is stock sized. If your crank is smaller or larger than stock sizing please contact Innovators West for more information. Press fit dampers tighter than .001" risk the cracking of the hub. Press fits looser than .001 (exc BBC) will not allow the damper to properly function and may increase the risk of shearing the keyway with supercharged applications. **DO NOT** try and hone the damper with a "flapper wheel", carbide burr or any other hand held method or device. Only a proper damper or rod honing machine should be used!!

For supercharged applications OVER 900 crankshaft hp it is **HIGHLY RECCOMENDED** that a second keyway be added to the snout to reduce the chances of the damper hub or crankshaft key failing.

Innovators West – Policy Page



Damaged Merchandise/Shortages

Merchandise damaged in transit is the sole responsibility of the carrier. Innovators West inspects all merchandise prior to shipment and packages it securely. All shipments are F.O.B. Salina, KS. It is your responsibility to inspect the shipment completely, while the driver is present, and have him/her note any damages. If damages are found after delivery, call the carrier immediately for an inspection. DO NOT return any damaged parts to Innovators West. If you do, the carrier may not honor your claim and the loss will become the responsibility of the customer. We can assist with the filing of any damage claims.

If a shortage is found within the shipment, it must be reported to Innovators West within five (5) business days of receipt of shipment. Claims should refer to the invoice number, date of invoice, date of shipment, part number and description.

Return and Exchange Policy



All items except Special Orders can be returned within 30 days of the original date of purchase. Items being returned or exchanged will be subject to a 20% restocking fee. All items returned must be in perfect, "new" condition, and in the original packaging. Items that have been installed are not eligible for return or exchange. It is your responsibility to package all returned merchandise well enough to prevent damage during the return shipment.

NOTE – Purchases made through Innovators West dealers are subject to the return/exchange policy of the applicable dealer. Please contact the purchasing dealer to discuss any return or exchange. Products sent directly to Innovators West without prior dealer authorization will not be accepted.

To initiate a return or exchange, visit the Innovators West website at https://innovatorswest.com/ra-form/. Packages WILL NOT be accepted without prior authorization. All returns must include a copy of the original invoice and return shipping must be prepaid. CODs are NOT accepted.

Warranty

All parts manufactured by Innovators West are intended for off-road or competition use only, and are sold "as is" without any warranty whatsoever. Implied warranties of merchantability or fitness, etc., are also excluded. The entire risk as to quality and performance is with the buyer. Should such accessories prove defective, the buyer assumes the entire cost of all necessary service and repair.

Warning

Do not install any Innovators West product if you do not feel competent at installing the product without causing present or future injury to yourself or others. If necessary, consult a professional installer.

SFI Certification Warning

Any modification to the damper (drilling, machining, cutting, welding, etc.) will void the SFI Certification on the damper. If modifications are needed for use of the damper, contact Innovators West for further information.