## **Installation Instructions for 81395 Universal Harmonic Balancer Master Tool Set**

## **Instructions for Using Harmonic Balancer Puller (Figure 1):**

- 1. Remove crankshaft bolt.
- 2. Thread centering adapter into the end of the puller screw assembly.
- 3. Insert the puller screw assembly into the puller flange, making sure that the bearing in the flange seats against the puller body.
- 4. Depending on your balancer model, insert 2 or 3 bolts through puller flange and thread into balancer. Make sure that the heads of the bolts are at an even height and that the centering adapter rests against the center of the crankshaft.

**CAUTION:** If equipped with a crankshaft sensor, be careful not to thread the bolts too deep and damage/misalign the sensor

5. Using a 5/8 in. wrench or socket, turn the puller screw in a clockwise direction to remove the balancer.

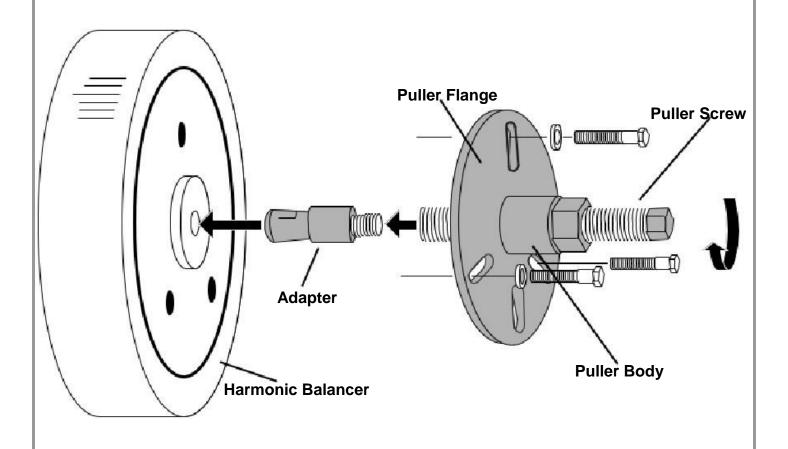


Figure 1



## Instructions for Using Harmonic Balancer Installer (Figure 2):

- 1. Place a small amount of grease or anti-seize compound on the crankshaft snout and the inside diameter of the balancer.
- 2. Select the proper size crankshaft adapter and thread it into the end of the crank. Make sure that the adapter is fully threaded into the crank and tighten snugly with a 12mm socket. **Do not overtighten!**
- 3. Position the balancer on the crankshaft snout aligning the keyway in the balancer with the key in the crankshaft.
- 4. Place the puller flange with the bearing side facing out against the balancer and thread the puller screw assembly onto the adapter in the crankshaft snout. You may need to back off the threads on the puller body to allow the puller screw assembly to be completely threaded onto the adapter.
- 5. Hold the puller screw from turning with a 5/8 in. wrench while turning the puller body clockwise with a 1-1/16 in. wrench to force the balancer onto the crankshaft snout. Continue this process until the balancer is completely seated against the crank timing gear.
- 6. Once the balancer is seated, turn the puller screw counterclockwise to remove the installer screw assembly.
- 7. Remove the crankshaft adapter stud from the crankshaft snout using a 12mm socket.
- 8. Torque the crankshaft bolt to the manufacturers required torque specification to insure that the balancer is completely installed.

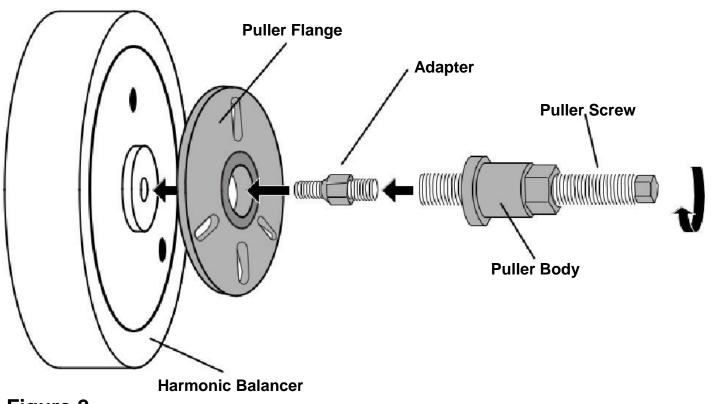


Figure 2



## **Parts List:**

- (2) 6 in. x 5/16 in. NC Bolts
- (3) 3 1/2 in. x 5/16 in. NC Bolts
- (2) 3 in. x 5/16 in. NF Bolts
- (3) 1 1/2 in. x 3/8 in. NF Bolts
- (2) 2 1/2" x 1/4 in. NF Bolts
- (3) 3 in. x 3/8 in. NC Bolts
- (2) 4 1/2 in. x 3/8 in. NC Bolts
- (3) 2 in. x 3/8 in. NC Bolts
- (2) 90 mm M8 x 1.25 Bolts
- (2) 65 mm M8 x 1.25 Bolts
- (3) 45 mm M8 x 1.25 Bolts
- (3) 35 mm M10 x 1.5 Bolts
- (2) 1/4 in. Washers
- (3) 10 mm Washers
- (3) 5/16 in. Washers
- (3) 8 mm Washers
- M16 x 2.0 Adapter
- M14 x 1.5 Adapter
- M12 x 1.5 Adapter
- 3/4 in. x 16 Adapter
- 5/8 in. x 18 Adapter
- 9/16 in. x 18 Adapter
- 1/2 in. x 20 Adapter
- 7/16 in. x 20 Adapter
- Centering Adapter
- 5 in. Puller Screw
- Puller Flange
- Puller Body
- (1) Red Carrying Case

