



## INSTALLATION INSTRUCTIONS

### Unitronic Supercharger Pulley Upgrade for 3.0 TFSI® UH004-BTA

Unitronic recommends that you read through the entire installation instructions prior to beginning the installation to familiarize yourself with the included components, tools required, and procedures involved with the installation.

**DISCLAIMER:** Unitronic recommends that a Unitronic Authorized Dealer or other qualified and trained professional should perform the installation of this product.

Unitronic Installation Instructions are also available in digital format, if you prefer. Please visit the corresponding product page for a link to download the digital Installation Instructions. [www.getunitronic.com](http://www.getunitronic.com)

It is recommended to confirm all parts are present prior to beginning the installation.

#### PACKING LIST:

PART NUMBER	DESCRIPTION	QUANTITY INCLUDED
UH004-BT0	Unitronic Supercharger Pulley	1
UH006-BT0	Belt	1

#### RECOMMENDED TOOLS NEEDED:

- Ratchet
- 17mm socket
- 19mm box wrench
- 16mm socket
- Phillips head screw driver
- T30 Torx
- T25 Torx
- Can of compressed air
- 10" extension
- Magnet
- Breaker Bar (2)
- Toaster Oven
- Unitronic Supercharger Pulley Removal Tool (UH005-BT0) [Sold separately]

#### NOTE:

*Exhaust Manifold Nut Tightening Procedure:* Tighten the first, third, fifth, second, and fourth (in that order) nuts in order from the front of the engine to rear to 5 Nm. Repeat same order tightening to 12 Nm. Repeat again to 16 Nm. Finally, apply final torque of 25 Nm in same order.



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- 1** Start by putting the vehicle on jack stands or vehicle hoist and remove the front two wheels using a 17mm socket and breaker bar or impact gun.
- 2** Open the hood and remove the engine cover by pulling firmly upwards. (See Fig. A)
- 3** Place the Unitronic Supercharger Pulley (UH004-BT0) in your toaster oven (or similar equivalent) and set temperature to 400 degrees for one hour or more.
- 4** Remove the two T30 torx screws attaching the front bumper to the belly pan.
- 5** Remove the belly pan from the underside of the vehicle. (See Fig. B)
- 6** Remove the T25 torx screws and plastic retaining clips on the inside of each fender liners for the front wheels. (See Fig. C & D)
- 7** Pull back the fender liner and remove the 10mm bolt from the bumper cover on both sides. (See Fig. E)
- 8** Remove the (4) T30 torx bolts holding the radiator support cover. (See Fig. F)
- 9** Remove the (2) T25 torx bolts holding the air duct to the radiator support/upper bumper cover. (See Fig. G)
- 10** Remove the (2) T25 torx bolts from the top of the bumper cover. (See Fig. H)



FIG. A

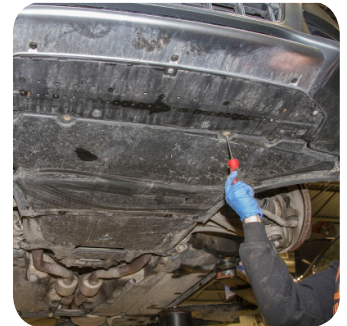


FIG. B

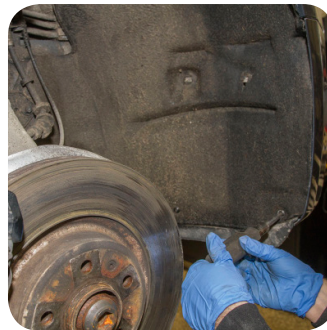


FIG. C



FIG. D



FIG. E



FIG. F

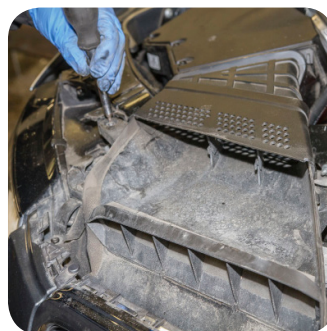


FIG. G

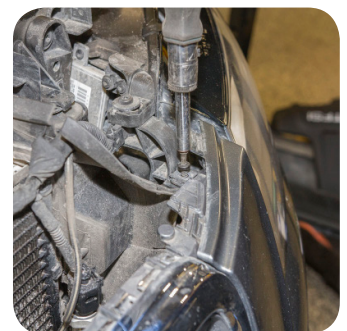


FIG. H



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- 11** Remove the bumper cover and be sure to unplug the fog lights before completely removing the bumper cover from vehicle. (See Fig. I). If your vehicle is equipped with parking sensors, please unplug those sensors as well.
- 12** Unscrew the coolant reservoir cap to release the pressure of the system. (See Fig. J) Next, remove the coolant bleed hose from the coolant reservoir. (See Fig. K)
- 13** Carefully remove the air ducts by pulling the sides outward to align the bolts with the larger openings in the air ducts for the radiator. This will allow you to remove the air duct once bolts are aligned with larger openings. (See Fig. L & M)
- 14** Remove the (2) T30 torx bolts from the radiator support beam. (See Fig. N)
- 15** Next, remove the two 16mm bolts on each side, holding the radiator support to the frame rails. (See Fig. O & P) Using the long bolts supplied in Unitronic's Supercharger Pulley Removal Tool Kit (UH005-BT0 – sold separately), replace the two stock bolts (one by one) with the long supplied bolts to ensure the radiator support can be placed in the "service position". (See Fig. Q & R) Then, pull the radiator support forward into the service position to ensure space is made for the following steps.



FIG. I



FIG. J



FIG. K



FIG. L

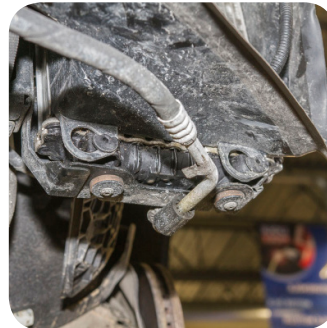


FIG. M

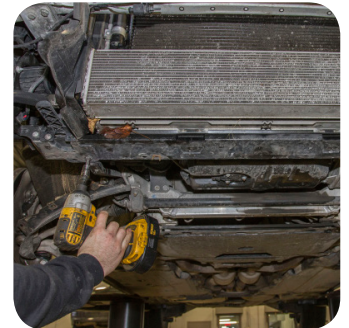


FIG. N



FIG. O

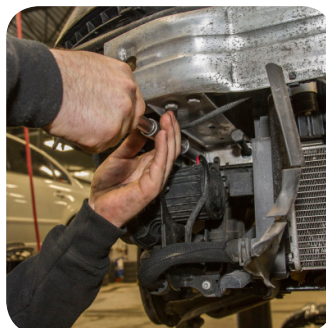


FIG. P



FIG. Q

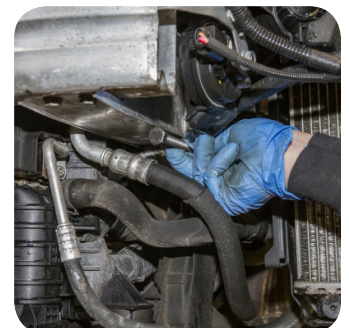


FIG. R



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### Unitronic Supercharger Pulley Upgrade for 3.0 TFSI® UH004-BTA

- 16** Use your flat head screw driver or small pick to remove the plastic pulley bolt cover. (See Fig. S)
- 17** Next, remove tension on the belt by using a 16mm socket and ratchet. (See Fig. T) Remove the belt.
- 18** Next, grease center bolt of the supercharger pulley removal tool (See Fig. U)
- 19** Place both "half moons" of the puller around the pulley and insert retaining cup.
- 20** Next, align the supercharger pulley removal tool perfectly with the center of the pulley (See Fig. V) and extract the pulley from the supercharger using your 19mm box wrench on the center bolt and a 1/2" ratchet. The 1/2" ratchet is used to ensure the pulley removal tool does not slip, so hold the ratchet to stabilize the tool, while you turn the 19mm bolt to extract the pulley. (See Fig. W) Failure to install the removal tool in the center of the pulley will cause the pulley to "jam" on the shaft during removal and will create a headache.
- 21** Once the pulley is removed, clean the supercharger shaft before installing the Unitronic Supercharger Pulley. (See Fig. X)
- 22** Now that your supercharger pulley has been in the oven for approximately one hour at this point, using heat resistant gloves, press-fit the pulley on the shaft. (See Fig. Y). Be sure to allow time for cool down after you're done installing the pulley.

\*It may be necessary to use compressed air to freeze the supercharger shaft causing it to shrink, along with heating the pulley. If so, rotate the can of compressed air upside down and spray onto shaft to shrink.



FIG. S



FIG. T



FIG. U



FIG. V

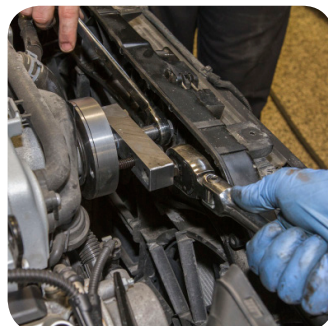


FIG. W

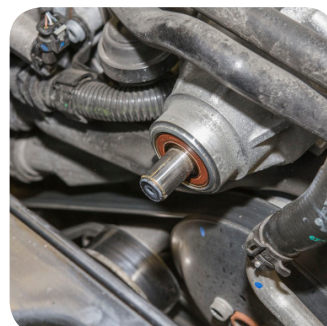


FIG. X

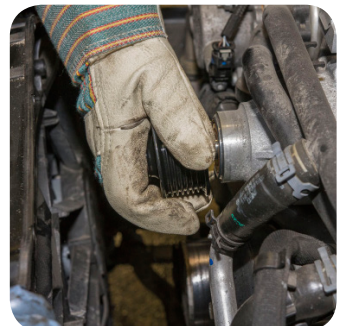


FIG. Y



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UH004-BTA

- 23** You may re-install the plastic supercharger pulley cap/cover if you wish.
- 24** Finally, re-mount the radiator support, and affix the bumper cover, fender liners, and belly pan. Re-install wheels, and enjoy!

**CONGRATULATIONS! You have successfully installed Unitronic's Supercharger Pulley Upgrade!**