

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

It is recommended to confirm all parts are present prior to beginning to remove the OEM exhaust system.

PACKING LIST:

PART NUMBER	DESCRIPTION	QUANTITY INCLUDED
UH001-EX1	Unitronic Upper Downpipe Section	1
UH001-EX2	Unitronic Cat Section	1
UH001-EX3	Unitronic 3-inch – 60mm Reducer	1
UH001-EX0	Unitronic 3" V-Band Clamp	2
UH002-EX7	Unitronic 3" Seal Rings	2
N/A	Unitronic Hardware Kit	1

RECOMMENDED TOOLS NEEDED:

- Safety Glasses
- 3/8" drive ratchet
- 11mm socket
- 13mm socket
- 14mm socket
- 16mm socket
- Torque wrench
- 22mm Oxygen Sensor Wrench
- Pry bar
- Locking Pliers or Channel Locks
- PB Blaster, WD-40, Liquid Wrench, or any other penetrating oil.



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REMOVAL OF STOCK DOWNPIPE:

This guide will cover the removal of the stock downpipe on the 2.0 TFSI (BPY) and TSI (CBFA/CCTA) engines. This guide assumes that the stock cat-back is on the vehicle and vehicle is hoisted in the air using a vehicle lift or a floor jack and jack stands.

For TFSI (BPY) users, follow steps 1-7, then skip to step 11. For TSI (CCTA) users, begin at step 8.

- 1 Open the hood.
- 2 Disconnect the negative terminal from the battery.
- **3** From underneath the vehicle, use the Penetrating Oil to soak the downpipe studs/nuts and oxygen sensors.

NOTE: We recommend you do this first to ensure penetrating oil has ample time to penetrate through any rust or corrosion, by the time you're ready to loosen the nuts. For added ease, spray the studs/nuts multiple times throughout the initial steps.

For TFSI (BPY):

- Disconnect the MAF sensor connector (located at the top, passenger side of the engine cover).
 (See Fig. A)
- **5** Unclip the two (2) clips holding the top of the turbo inlet pipe to the engine cover/intake tubing and separate turbo inlet pipe from engine cover/intake tube. **(See Fig. B)**

NOTE: When removing the turbo inlet pipe from intake tube, ensure that you do not lose or damage the two O-rings used to seal the connection.

- **6** Using locking pliers, release tension from the clamp holding the air inlet from the airbox/engine cover (See Fig. C) and remove air inlet from airbox/engine cover to allow airbox/engine cover removal. (See Fig D)
- 7 Remove the airbox/engine cover from engine by pulling upwards to release it from the retaining posts. There are four (4) retaining posts located roughly at the corners of the engine cover. (See Fig. E)





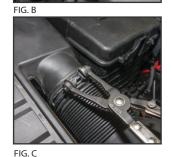






FIG. E

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8 Unplug the primary oxygen sensor connector located near the brake master cylinder on the driver side of engine bay and remove wire from retaining clip on firewall. (See Fig. F)v

For TSI (CCTA/CBFA):

- 9 Disconnect the MAF sensor connector and remove wire from retaining clip on accordion style air intake tube. (See Fig. G)
- **10** Using locking pliers, release tension from the clamp holding the accordion style air intake tube to the MAF housing and slide air tube off of MAF housing. Release clamp safety on edge of air tube. (See Fig. H) Follow the same method for removing the clamp on the other end of the accordion style air intake tube. (See Fig. I) Remove air intake tube from the vehicle.
- 11 Unplug the upper oxygen sensor connector located near the brake master cylinder on the driver side of the vehicle and remove wire from retaining clip on firewall (See Fig. J & K)
- 12 Using a 22mm Oxygen sensor wrench, remove the primary (upper) oxygen sensor from the stock downpipe. (See Fig. L)

NOTE: Please ensure that the sensor probes of the Oxygen sensors are not contaminated with grease, etc. Contaminating the Oxygen sensor may negatively influence function.

- **13** Remove the two (2) upper downpipe flange nuts using a 16mm socket and ratchet. (See Fig. M/M2)
- **14** Remove the [axle shaft] heat shield from the engine block using a 16mm socket and ratchet. (See Fig. N)







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FIG. G



FIG. H



FIG. L

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15 Remove the lower two (2) downpipe flange nuts using a 16mm socket and ratchet. **(see Fig. 0)**

16 Using the 22mm Oxygen sensor wrench, remove the post-catalyst Oxygen sensor from the stock downpipe.

NOTE: Some TSI's were equipped with a second pre-catalyst Oxygen sensor for PZEV compatibility. If necessary, disconnect the second pre-cat Oxygen sensor using the same method as above.

- **17** Unbolt the front portion of the passenger side lower plastic cover **(See Fig. P)** using a 13mm socket and ratchet to access secondary (and third, if PZEV) Oxygen sensor connectors. Temporarily disconnect sensor(s). **(See Fig. Q)**
- **18** Unbolt the two (2) bolts holding the subframe grommet bracket to the vehicle's subframe using a 13mm socket and ratchet. (See Fig. R). Using a pry bar, remove the red grommets from the downpipe hangers. (See Fig. S).
- **19** Unbolt the two exhaust tunnel braces from the vehicle using a 13mm socket and ratchet. Each brace has four (4) 13mm nuts
- **20** Loosen the two (2) 16mm nuts on the stock sleeve clamp holding the downpipe and cat-back sections together using a 16mm socket and ratchet. (See Fig. T)
- **21** Using a pry bar or long screwdriver, remove the exhaust hangers from the rubber hangers mounted to the chassis. **(See Fig. U)**

NOTE: Using a touch of penetrating oil or other lubricant like WD-40 will aid in sliding the rubber hangers off of the exhaust hangers.

22 Remove the stock slip clamp from the stock cat-back first then from the downpipe and set it aside. If you didn't purchase a new slip clamp, this will be re-used upon installation of your Unitronic Downpipe.

NOTE: If an aftermarket cat-back is installed on the vehicle, the above procedure may vary slightly.

23 Carefully remove the downpipe from the vehicle by sliding the mounting flange from the turbo studs. Once cleared off the studs, the downpipe may require some finagling to get it entirely out.



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 FIG. U



FIG. O





FIG. Q





INSTALLATION OF UNITRONIC DOWNPIPE:

- 1 Locate the Unitronic upper downpipe section, four (4) M14 nuts, downpipe flange gasket, and subframe mounting bracket with red grommets. Place the supplied gasket over the study coming off of the turbocharger. (See Fig. A). Next, push the red grommets onto the front mounting hanger studs of the downpipe (See Fig. B), making sure to orient the bracket as show in (See Fig. C). Then, slide the mounting flange of the upper downpipe section over the mount studs FIG. A on the turbocharger, similar to how you just installed the gasket. By hand, thread the four (4) M14 nuts onto the studs coming off the turbo until they are finger tight.
- **2** Tighten the two (2) lower nuts first **(see Fig. D)** and then tighten the two (2) upper nuts. (**See Fig. E)** Torque all four (4) nuts to 22 ft-lbs (30 N-m).
- **3** Install primary/upper oxygen sensor and tighten with the 22mm Oxygen sensor wrench. (See Fig. F) Reconnect sensor connector to plug near the brake master cylinder, and re-anchor the wire to the retaining clip on the firewall. (See Fig. G)

For TFSI (BPY) users, follow steps 4-5, then skip to step 8. For TSI (CCTA) users, skip to step 8.

- Re-install the engine cover by aligning the four (4) mounting posts and pushing down firmly onto the engine cover. (See Fig. H) Align and connect the turbo inlet pipe to the airbox/engine cover, making sure that the O-rings are properly positioned in place. (See Fig. I) Plug in the MAF sensor. (See Fig. J)
- 5 Re-install the air intake tube to the inlet of the airbox/engine cover using a pair of locking pliers to release tension on clamp until properly positioned. When positioned properly, release tension on clamp. (See Fig. K)







FIG. H REV.Sept.2015









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For TSI users:

- **6** Locate the accordion style air intake tube and align it with the MAF housing. Using the locking pliers, release tension on the retaining clamp until tube is properly positioned on both ends. (See Fig. L) Release tension once tube is in proper place to secure tube to MAF housing. Using the locking pliers again, release tension on the clamp at the other end, align properly, and release tension to secure intake tube. (See Fig. M)
- Plug in MAF sensor and re-anchor sensor wire to retainer on air intake tube. (See Fig. N)
- f 8 Using the 16mm socket and ratchet, mount the [axle shaft] heat shield to the rear of the engine block. Tighten to 22 ft-lbs (30 N-m). (See Fig. O)
- **9** Bolt the subframe mounting bracket to the subframe using a 13mm socket and ratchet. Tighten to 18 ft-lbs (24 N-m). (See Fig. P)
- 10 Locate the Unitronic Mid-pipe section and both of the two (2) v-band clamps. Install secondary (and third, if PZEV) Oxygen sensors into correct location(s). Plug Oxygen sensors into connectors underneath passenger side underbody plastics, while ensuring ample slack is left on wires. (See Fig. Q)
- **11** Position mid-pipe to ensure proper Oxygen sensor bung placement and orientation (See Fig. R) Using one of the v-band clamps, ensure that the v-band flanges are properly aligned before slipping clamp over two flanges. The surfaces of both v-band flanges should be flat against one another prior to tightening v-band clamps. (See Fig. S)













FIG. P







FIG. S

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If connecting to stock cat-back:

12 Locate the Unitronic 3.0" to 60mm reducer and align and hand tighten second v-band connection. **(See Fig. T)**

If connecting to aftermarket 3" cat-back:

- **13** Locate the Unitronic 3.0" V-Band to 3.0" Slip-Fit adapter and align and hand tighten second V-band connection.
- **14** Slip the 3" to 60mm reducer into factory slip clamp and connect the slip clamp and downpipe to the factory cat-back exhaust. **(See Fig. U)**
- **15** Insert two hangers into rubber hangers mounted to chassis of vehicle.
- **16** Install two (2) exhaust tunnel braces using the four (4) nuts per brace and tighten using a 13mm socket and ratchet. Torque to 18 ft-lbs (24 N-m)
- **17** Inspect entire exhaust system for positioning, tip alignment, clamp orientation, and pipe clearance. Make any necessary adjustments while V-band clamps are loose.
- **18** Once exhaust system is at desired fitment/location, tighten the nuts on the v-band clamps to 80 in-lbs (9 N-m).

NOTE: Using an impact gun or otherwise over-tightening the v-band clamps past 80 INCH-POUNDS (9 NEWTON METERS), will result in breaking the V-band clamp. Replacement clamps are available at clients' expense and can be purchased from Unitronic or any Authorized Unitronic Dealer.

- **19** Reconnect the negative terminal to the battery and close the hood. You've completed the installation!
- **20** Unitronic **STRONGLY RECOMMENDS** that all clamps are checked and re-tightened (if necessary) after initial road test is performed, as thermal cycling has occurred.





FIG. U