

ARP-K-FD-S550

15-18 MUSTANG GT

INSTALLATION GUIDE



QUALITY AMERICAN MADE SUPERCHARGERS



Installation Instructions

15-18 COYOTE MUSTANG

ARP-K-FD-S550



STEP 1

Disconnect battery.

- Drain coolant.
- Remove engine cover
- Unplug the MAF sensor, and remove factory airbox or CAI
- Remove coolant overflow container
- Remove radiator cover
- Unplug and remove fans



Installation Instructions

15-18 COYOTE MUSTANG

ARP-K-FD-S550



STEP 2

Remove the factory lower radiator hose from the radiator and thermostat housing. There are also two smaller lines connected to the bottom that will need to be disconnected. Keep the clamps and set aside.



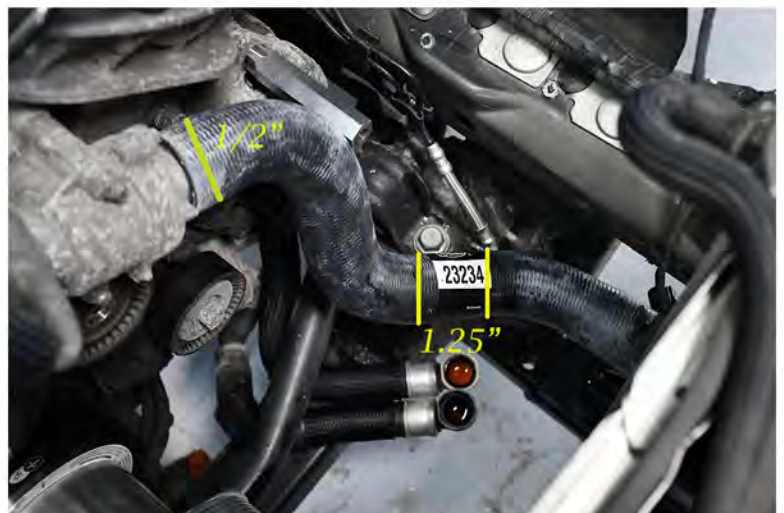
STEP 3

On the the factory lower radiator hose, cut the plastic clamps and remove the plastic oil cooler connector.



STEP 4

Install the new supplied hose. Test fit where the plastic cooler connector will fit. Using masking tape mark your cut lines around the hose in the yellow marked area. Cut out 1.25" in the straight section between the two bends. Then cut off 1/2" from the end of the hose that goes to the thermostat housing.



Installation Instructions

15-18 COYOTE MUSTANG

ARP-K-FD-S550



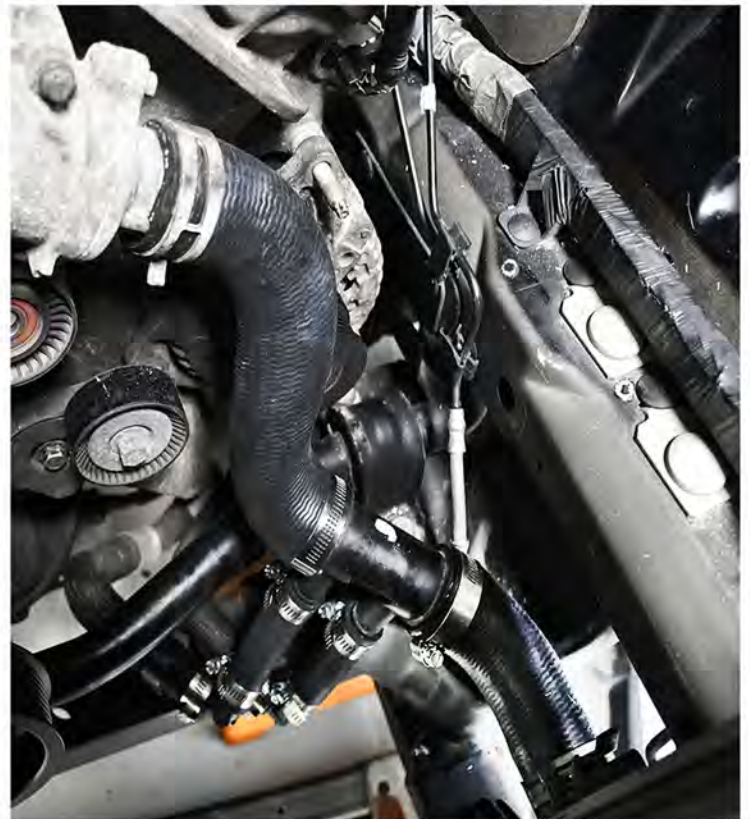
STEP 5

Insert the plastic oil cooler adapter in the cut coolant hose. confirm you like the fitment and that there are no kinked areas. Loosely install the #24 clamps on the ends. Point the two nipples towards the oil cooler lines.



STEP 6

Cut the factory ends off the oil cooler lines. Insert a #12 clamp on each line. Then insert 90 degree fittings in each hose. The line on the left will require a 4" section of 3/4" hose. On the right will be a 3.5" section of 3/4" hose. (This will depend on where you put your oil cooler adapter in your coolant hose) But should be very close. Just make sure there are no kinks in the hoses.



Insert a #12 hose clamp on each end and tighten all clamps.

Be sure the coolant hose has plenty of clearance away from the alternator pulley.

Installation Instructions

15-18 COYOTE MUSTANG

ARP-K-FD-S550



THE FOLLOWING STEPS ARE BEST TO DO WITH THE CAR ON THE GROUND. IF THE SUSPENSION IS DROOPED THE SWAY BAR COULD INTERFERE

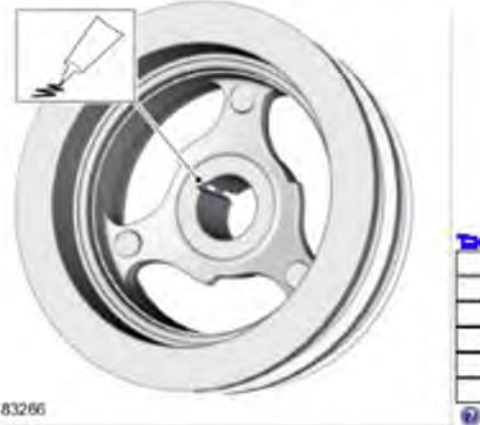
STEP 7

Remove the factory ac and accessory belts.
Remove the factory damper. Make sure the keyway and crank are clean and key is still in place.



STEP 8

Install the ATI damper Part #ATI918047 with proper install tool. Lube the snout area of the crank damper. Apply loctite to the keyway area.



84. Lubricate the crankshaft pulley sealing surface with clean engine oil prior to installation.
Material: Motorcraft® SAE 5W-20 Premium Synthetic Blend Motor Oil / XD-5W20-QSP (WSS-M2C945-A)



85. Using the special tools, install the crankshaft pulley.
Use Special Service Tool: [303-335 \(T88T-6701-A\) Installer, Front Cover Oil Seal](#), [303-1531 Installer, Front Crank Seal and Damper](#).

Installation Instructions

15-18 COYOTE MUSTANG

ARP-K-FD-S550



STEP 9

Install your provided crank bolt, apply red loctite. Torque per provided specs from manufacturer as shown in diagram.

“step 1 103 ft lbs

step 2 loosen 360 degrees

step 3 74 ft lbs

step 4 90 degrees ”

STEP 10

Install the supercharger spacer ARP-FD50082.

Using the (3) 3/8“ bolts and washers supplied with the ATI, attach the spacer/hub to the ATI damper.

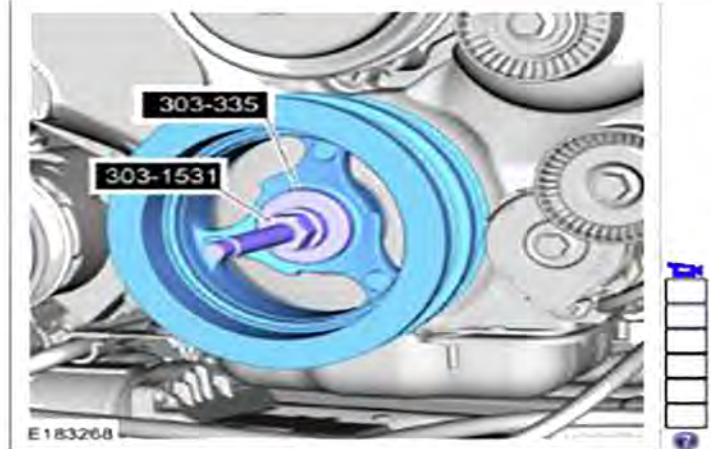
Torque to 29 ft lbs

Then install the 8 rib crank pulley

ARP-DG68023 to the hub using

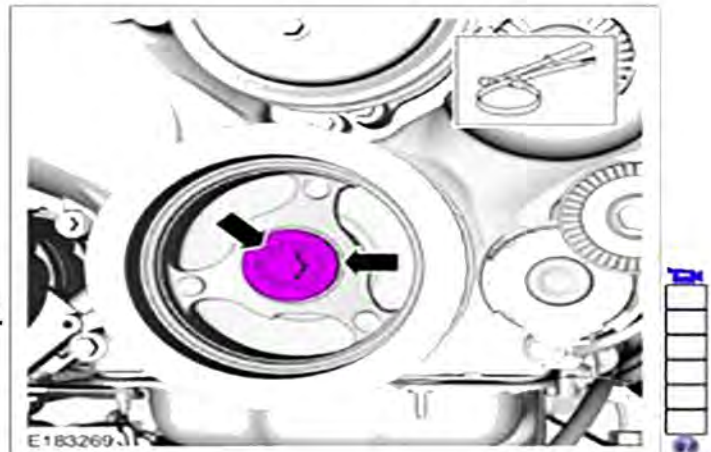
(4) 5/16-24 x 3/4” bolts and washers

Torque to 29 ft lbs



86. Using the Strap Wrench, install a new crankshaft pulley bolt and the original washer. Use the General Equipment: Strap Wrench

Torque:
Stage 1: 103 lb.ft (140 Nm)
Stage 2: Loosen: 360°
Stage 3: 74 lb.ft (100 Nm)
Stage 4: 90°



Installation Instructions

15-18 COYOTE MUSTANG

ARP-K-FD-S550



STEP 11

Remove the factory nut that goes on the stud holding the alternator in place.

STEP 12

Install the supplied hex spacer part number ARP-FR50075 on stud.

Torque to 29 ft lbs.



Installation Instructions

15-18 COYOTE MUSTANG

ARP-K-FD-S550



STEP 13

Remove the factory idler bolt and keep the idler in place.



STEP 14

Unplug and remove the throttle body



STEP 15

Pressing the white tabs, pull coolant hose off drivers side tube.



STEP 16

Squeeze and slide back the clamp from drivers side radiator hose.



Installation Instructions

15-18 COYOTE MUSTANG

ARP-K-FD-S550



STEP 17

Pull the clip back with a pic or flat head screw driver on the coolant quick connect as seen in pic.



STEP 18

Slide hose off and push aside temporarily.



STEP 19

Squeeze clamp and slide hose off the front of steel coolant tube and set aside.

Remove steel tube from engine.



Installation Instructions

15-18 COYOTE MUSTANG

ARP-K-FD-S550



STEP 20

Assemble new coolant tube ARP-FD50072 and upper fitting ARP-FD50073. Then brass fitting in the front port. And O-ring on the bottom groove. *Use teflon tape when inserting fittings. Tighten down.*



STEP 21

Insert new assembled coolant tube using the factory bolt.

Torque to 104 in lbs



STEP 22

Attach factory quick clip on the top fitting and re-attach the coolant hose.

Installation Instructions

15-18 COYOTE MUSTANG

ARP-K-FD-S550

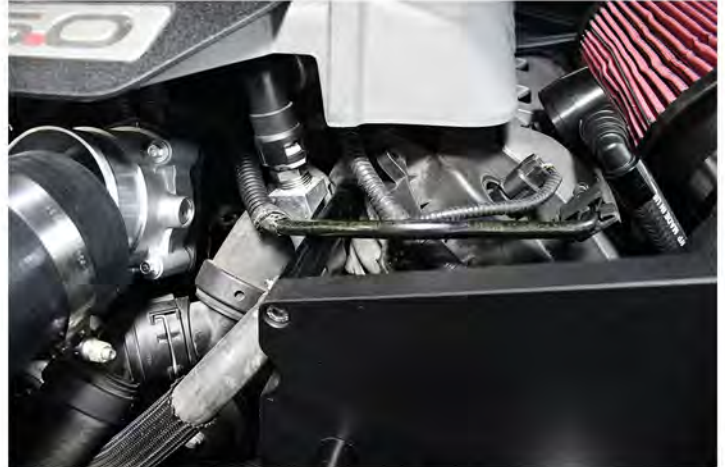


STEP 23

Re-install the coolant hoses on the new fitting and clamp tight.

STEP 24

Install the supercharger bracket ARP-FD10063. Remove the tensioner to access one of the mounting holes. (remember which pin location it is in) In the upper left corner going into the cylinder head will be (1) M8 x 1.25 x 180mm bolt and .75" x 4.285" spacer. Down in the lower left hole of the bracket going into the idler bolt hole will be (1)M8 x 1.25 x 80mm and 1" x 1.6" spacer. Behind the tensioner in that mounting hole will receive (1) M8 x 1.25 x 180mm bolt and .75" x 4.285" spacer going into the engine. And lastly, (1) M10 x 1.5 x 30mm bolt going in the lower right corner of the bracket into the hex spacer that is mounted on the alternator stud.



TORQUE M8 BOLTS TO 19 FT LBS AND M10 BOLT TO 29 FT LBS

STEP 25

Install the tensioner back on the bracket, making sure it is in the correct pin location.

Tighten nut to 29 ft lbs



STEP 26

Install the supercharger head unit using (7) 3/8 -16 x 1.25" bolts. Loosen the compressor housing clamp and rotate so that the outlet fits between the bracket and strut tower. Tighten the v-band clamp. When doing so it only needs to be tight enough for the compressor housing to not be able to move. There is an o-ring in the case. So no need to overtighten. You may cause damage.

STEP 27

Install the ac and accessory belt per factory routing.

Install the supercharger belt. Using a 15 mm socket rotate the tensioner clockwise to raise the pulley, and slide the belt under it. Let rest. Confirm your belt is setting on all the pulleys correct.

Installation Instructions

15-18 COYOTE MUSTANG

ARP-K-FD-S550



STEP 28

Before re-installing your electric fans, you will need to get the harness tucked closer to the assembly.

STEP 29

Remove the stock harness ties and zip tie the harness tight to the fan frame. Test fit to make sure you won't have any contact between the supercharger crank pulley and any wires. After completed, mount the fan permanently with the factory bolts. Plug in to harness.

STEP 30

Install all coolant lines and fill coolant tank. We opted for an aftermarket coolant tank on this install with the way we finished off the piping. This was just a generic tank we found online and made a bracket to give proper clearance for the piping.



Installation Instructions

15-18 COYOTE MUSTANG

ARP-K-FD-S550



STEP 31

Install the air filter with 45 degree coupler, and straight 3.5" tube. Trimming will be needed to fit in your desired location. Tighten 3.5" clamps.



STEP 32

Install the supercharger bov by welding the provided aluminum nipple to your piping, then sliding the bov on and tightening the set screws and nuts. Connect the vacuum line to a source of vacuum on the car. You can tee into the brake booster line.

Installation Instructions

15-18 COYOTE MUSTANG

ARP-K-FD-S550



- Replace all spark plugs with one or two heat ranges cooler.
- Fuel/ Ignition managment system must be tuned when installing Torqstorm Supercharger.
- Reconnect battery
- Double check all fittings, bolts, clamps. Make sure all wires and lines are properly secured with clamps or wire ties .
- Make sure fuel tank is filled with 91 octane or higher fuel.
- Start engine and allow to idle a few minutes then shut down.
- Recheck to be sure that no hoses, wires, ect are near the exhaust or headers.
- Recheck tune before commencing test drive.
- After test drive examine all bolts, belts and check for leaks or running issues before finishing with the vehicle.

Oil must be changed every 10k miles or once a year, whichever comes first.

Order oil direct from TorqStorm. Part number ARP-OIL-MTL

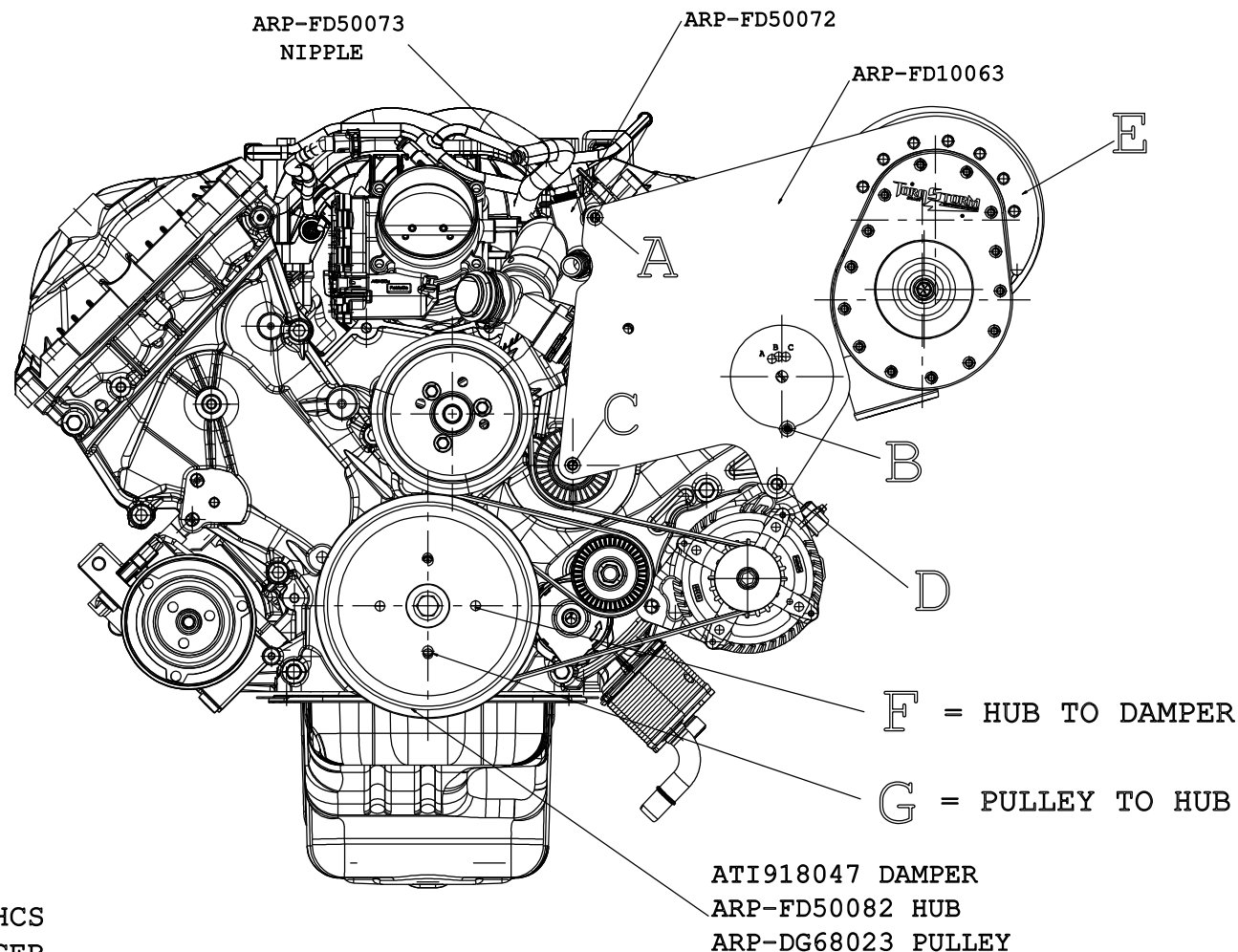
Your TorqStorm Supercharger will have a 1 year limited warranty from the date on your paid invoice.

Additional information for Boost

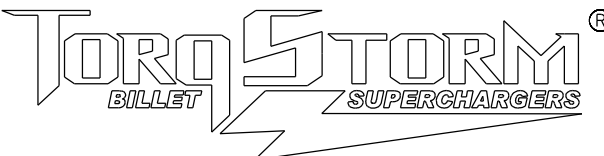
- It is suggested to run a wideband o2 sensor to monitor correct air/fuel ratio. 11.5 is ideal for pump gas.
- *PLEASE TAKE SPECIAL NOTE: Operating the vehicle without all the sub assemblies completed and properly installed and working may cause FAILURE OF MAJOR ENGINE COMPONENTS.*
- If you have any questions or concerns contact us at sales@torqstorm.com
- *Torqstorm superchargers come from the factory filled with 6 oz of ARP-OIL-MTL*

Supercharger is ready to run

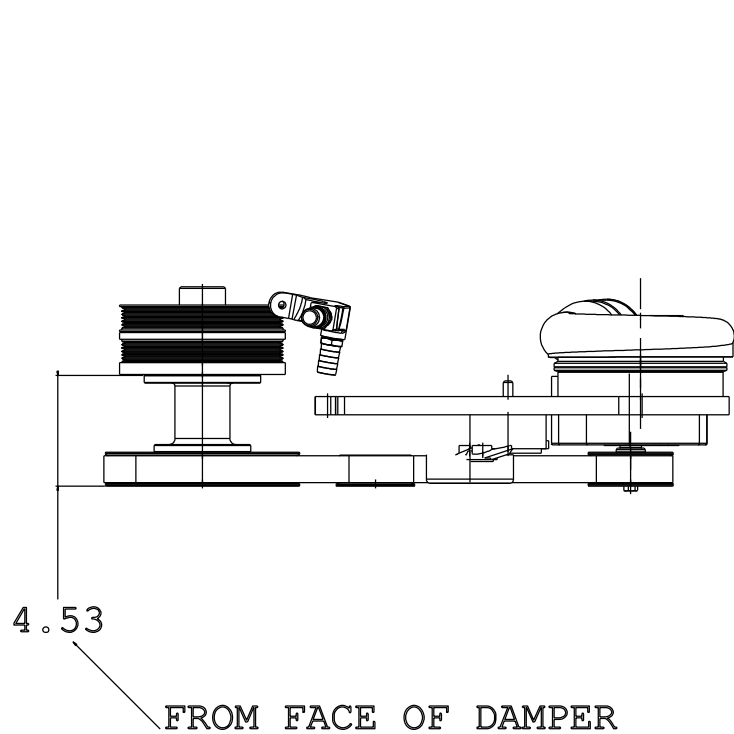
BRACKET LAYOUT



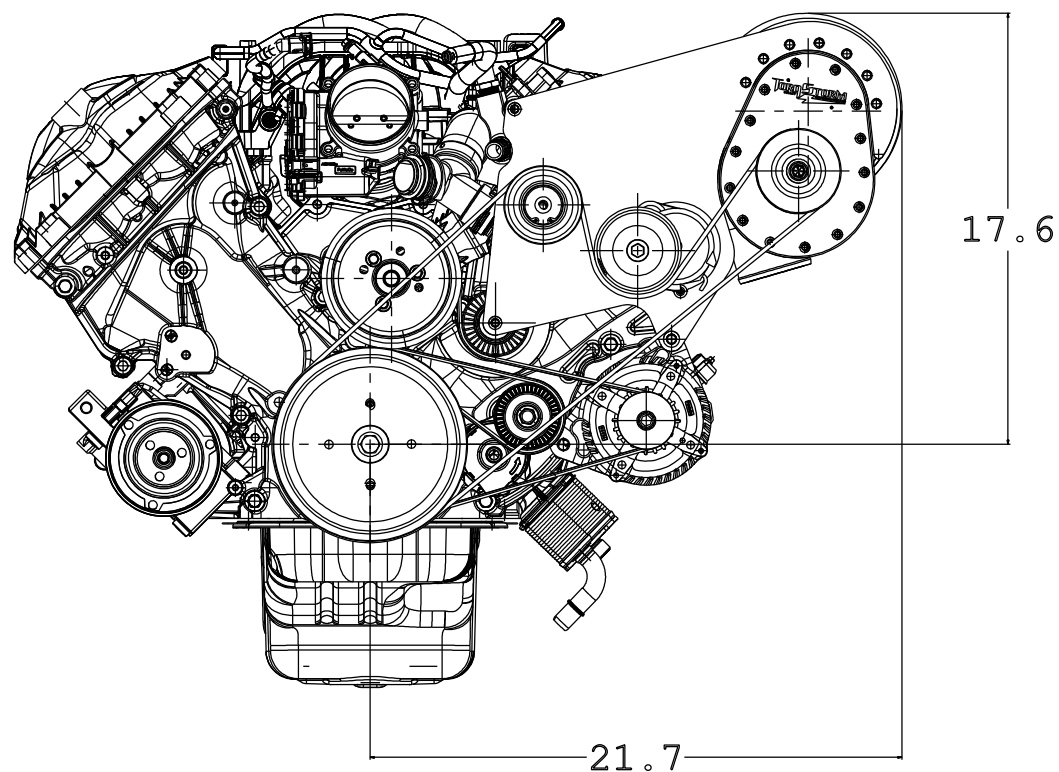
- A = 1 @ M8x1.25 x 180mm SHCS
- A = 1 @ ARP-S-75-4285 SPACER
- B = 1 @ M8x1.25 x 180mm SHCS
- B = 1 @ ARP-S-75-4285 SPACER
- C = 1 @ M8x1.25 x 80mm SHCS
- C = 1 @ ARP-S-100-1600 SPACER
- D = 1 @ M10x1.5 x 30mm SS SHCS
- D = 1 @ ARP-FD50075 HEX SPACER
- E = 7 @ 3/8-16 x 1-1/4 SS SHCS & WASHERS
- F = 3 @ 3/8-16 x 1-1/4 SUPPLIED WITH ATI DAMPER
- G = 4 @ 5/16-24 x 3/4 SS SHCS AND WASHER

Description
BRACKET LAYOUT
Part #
ARP-K-FD-S550


KIT DIMENSIONS

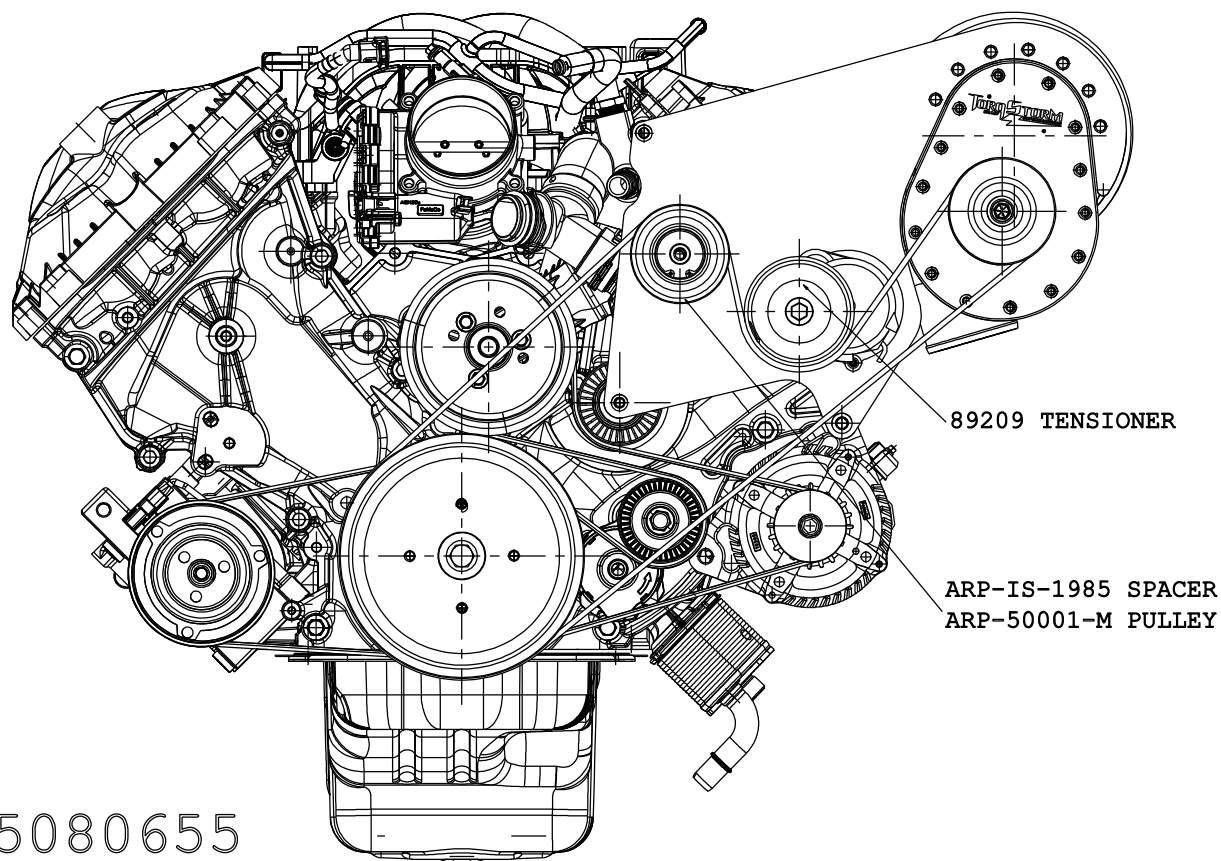


TOP VIEW



Description
KIT DIMENSIONS
Part #
ARP-K-FD-S550
TORQSTORM[®] BILLET SUPERCHARGERS

BELT ROUTING

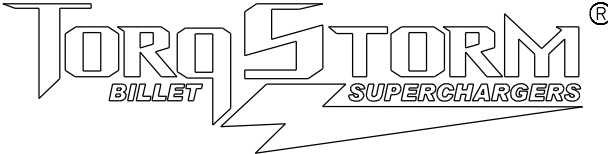


BELT = DAYCO 5080655
GATES K080655

3.1 PULLEY USES PIN "A"

3-1/4" & 3-1/2" PULLEY USES "PIN B"

4.0" PULLEY USES "PIN C"

Description	
BELT ROUTING	
Part #	
ARP-K-FD-S550	
	

**OIL CHANGE MUST BE
PERFORMED EVERY 10,000
MILES OR ONCE A YEAR,
WHICHEVER COMES FIRST.**

**FAILURE TO DO SO WILL VOID
YOUR WARRANTY.**

YOU CAN PURCHASE OIL

FROM US DIRECTLY AT

TORQSTORM.COM

PART # ARP-OIL-MTL

STEP 1

Remove your supercharger from your car
and flip over to backside to access the drain
plug.

STEP 2

Remove drain plug with a 1/4" allen and drain oil.



STEP 3

*Pour in your Torqstorm specific oil,
6oz into the same hole you drained
from.*



STEP 4

*Replace the drain plug.
Torque to 15 ft lbs*



STEP 5

*Re-install the supercharger on your vehicle.
Take note of the mileage on your odometer.*

In many cases your vehicle is exposed to harsh weather and road debris. Regular maintenance is important in order for your mechanical pieces to function properly. BOV inspection every oil change interval.

STEP 1

You can leave the body of the BOV attached to your plumbing as long as your able to remove the lid from your BOV. Remove the lid, counter clockwise, there is a strong spring beneath it.



STEP 2

Remove the spring and brass piston. Clean and inspect the piston and spring for any abnormal wear or defects.



STEP 3

Using Silicone paste apply a modest amount inside the body of the BOV.

STEP 4

Install the brass piston into the body of the BOV, checking to make sure it goes in and out smoothly.

STEP 5

Install the spring into the piston, making sure it is seated flat in the “Cup”



STEP 6

Install the BOV cap. Make sure the spring is seated properly. Be careful not to cross thread it. A little wd-40 on the threads will help it to assemble easier.



STEP 7

Attach your vacuum line and check operation.



Accelerated Racing Products, LLC

Billet Supercharger Limited 1-Year Warranty

Accelerated Racing Products, LLC ("we," "our" or "us") warrants only to the original consumer purchaser ("you" or "your") that your new Billet Supercharger head unit (referred to herein as your "supercharger") shall be free of defects in workmanship and materials for 1 year, from the date of purchase. This Limited 1-Year Warranty (this "Limited Warranty") does not extend to any subsequent owner or other transferee of your supercharger and shall terminate upon any transfer of your supercharger. This Limited Warranty is effective for superchargers purchased on or after 1/01/2023.

Our authorization must be obtained before you return the supercharger for warranty inspection. Superchargers that we authorize to be inspected must be shipped freight prepaid, at your expense. Additional warranty procedures are set forth below.

Subject to the other limitations set forth in this Limited Warranty, we will, in our sole discretion, either repair or replace the supercharger or portion thereof subject to warranty free of charge. No refunds or credits will be allowed.

Superchargers will not qualify for warranty if (i) the supercharger pulley or impeller has been removed or changed, (ii) the pulley or impeller warranty seal has been broken or tampered with and/or (iii) the kit parts have been altered or improperly installed.

Further, this Limited Warranty does not cover any defects or damage due to: (i) transportation; (ii) storage; (iii) improper installation or use; (iii) failure to follow the product instructions; (iv) alterations or modifications without our prior written consent; (v) use of a component or accessory not approved by us; (vi) unauthorized repair; (vii) normal wear and tear; or (viii) external causes such as accidents, abuse, misuse or other actions or events beyond our reasonable control.

Superchargers that we repair or replace will be returned to you with ground transportation charges prepaid by us, within the continental United States, or to the point of embarkation within the continental United States, via UPS ground (or similar) service. You will be responsible for any charges associated with expedited delivery or freight charges outside the continental United States.

Superchargers authorized to be returned and inspected but which do not qualify for warranty, and which are not repaired at your expense, will be subject to a US\$100.00 inspection fee and returned to you, at your expense.

Warranty Procedure

Go to the website and fill out the Warranty/Repair form at: <https://torqstorm.com/warranty-repair-form/>

1. Serial number of the supercharger.
2. Description of the problem.
3. Make, Model, and Year of the vehicle.
4. Your name, shipping address (No PO Boxes allowed), and your daytime telephone number.
5. A copy of your original purchase invoice.
6. A clear picture of supercharger mounted in the vehicle.

Upon receipt of the above, if warranty service is appropriate, an Accelerated Racing Products Return Authorization Number will be assigned. You should then send the supercharger or other defective part, with all of the above information to:

Accelerated Racing Products LLC
2909 Buchanan Ave SW
Wyoming, MI 49548

The return authorization number must be included on the package. Freight collect shipments will be refused and returned to the sender at the sender's expense.

Disclaimers

THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS AND YOU MAY ALSO HAVE OTHER RIGHTS, WHICH VARY FROM STATE TO STATE.

WE HEREBY LIMIT THE DURATION AND REMEDIES OF ALL IMPLIED WARRANTIES, INCLUDING WITHOUT LIMITATION THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, TO ONE YEAR.

SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

OUR RESPONSIBILITY FOR DEFECTIVE SUPERCHARGERS IS LIMITED TO REPAIR OR REPLACEMENT AS DESCRIBED ABOVE IN THIS LIMITED WARRANTY.

Limitation of Liability

THE REMEDIES DESCRIBED ABOVE ARE YOUR SOLE AND EXCLUSIVE REMEDIES AND OUR ENTIRE LIABILITY FOR ANY BREACH OF THIS LIMITED WARRANTY. OUR LIABILITY SHALL UNDER NO CIRCUMSTANCES EXCEED THE ACTUAL AMOUNT PAID BY YOU FOR THE DEFECTIVE SUPERCHARGER, NOR SHALL WE UNDER ANY CIRCUMSTANCES BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL OR PUNITIVE DAMAGES OR LOSSES, WHETHER DIRECT OR INDIRECT (INCLUDING, WITHOUT LIMITATION, ENGINE DAMAGE).

SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.