

8-Rib Drive Upgrade

Installation Instructions



2018 Mustang GT

P/N: 4FQ116-009

* Legal in California only for racing vehicles which may never be used or registered or licensed for use upon a highway.



1650 Pacific Avenue, Channel Islands, CA 93033-9901 • Phone (805) 247-0226
Fax: (805) 247-0669 • www.vortechsuperchargers.com • M-F 7:00 AM - 3:30 PM (PST)

FOREWORD

All information, illustrations and specifications contained herein are based on the latest product information available at the time of this publication. Changes to the manual may be made at any time without notice. Contact Vortech Engineering for any additional information regarding this kit and any of these modifications at (805) 247-0226 7:00am-3:30pm PST.



Take note of the following before proceeding:

1. Proper installation of this accessory requires general automotive mechanic knowledge and experience. Please browse through each step of this instruction manual prior to beginning the installation to determine if you should refer the job to a professional installer/technician. Please contact your dealer or Vortech Engineering for possible installers in your area.
2. **This product was designed for use on stock (un-modified, OEM) vehicles. The PCM (computer), engine, transmission, drive axle ratios and tire O.D. must be stock.** If the vehicle or engine has been modified in any way, check with Vortech prior to installation and use of this product.
3. Use only premium grade fuel with a minimum of 91 octane (R+M/2).
4. Always listen for any sign of detonation (knocking/pinging) and discontinue hard use (no boost) until the problem is resolved.
5. Vortech is not responsible for any clutch, transmission, drive-line or engine damage.

Exclusions from Vortech warranty coverage considerations include, but not limited to:

1. Neglect, abuse, lack of maintenance, abnormal operation or improper installation.
2. Continued operation with an impaired vehicle or sub-system.
3. The combined use of Vortech components with other modifications such as, but not limited to, exhaust headers, aftermarket camshafts, nitrous oxide, third party PCM programming or other such changes.

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NOTICES

(Read before installation is started)

Included in this kit is a pulley combination that may be different than the original pulley combination. This new pulley combination is recommended to achieve the best performance results. Removal of the factory sealed supercharger pulley will reduce the supercharger warranty from three years to one year unless the supercharger unit (with the original supercharger pulley still attached) and new supercharger pulley are sent into Vortech for removal, installation and re-sealing. If the supercharger warranty is not a concern or if the supercharger warranty has expired, the supercharger pulley may simply be removed and replaced with the new part supplied. Hammering/prying etc. on the supercharger and/or pulley will cause damage to the parts. Light heating of the supercharger pulley with a propane torch (if the supercharger pulley is tight on the shaft) will aid removal. A return authorization number is required before the supercharger and supercharger pulley are sent into Vortech. Call the Vortech service department at (805) 247-0226 for a return authorization number. Return freight (ground) will be paid by Vortech.

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This product may not be legal for use on public roads in all 50 states.

IMPORTANT

- Custom ECM programming and fuel / ignition system upgrades will be required when changing the supercharger pulley to any size other than what was originally supplied in the complete supercharger kit.
- Supercharger pulley removal may reduce or void the supercharger unit warranty.
- Pulley Diameter Changes: Careful size selection is mandatory for proper engine and supercharger longevity. Contact the applicable Vortech and Paxton tech line for assistance with impeller speed calculations if necessary.
- A Vortech Maxflow Race or Mondo compressor bypass valve is required for applications producing more than 11-12 psig.

VORTECH 8-RIB DRIVE UPGRADE

Installation Instructions

2018 MUSTANG GT

**Before beginning this installation,
please read through this entire instruction manual**

The Vortech 2018 Mustang GT 8-Rib drive upgrade was designed specifically for use on 2018 Ford Mustang GT vehicles equipped with a supercharger to support application with increased horsepower over the basic kit. As with any power enhancing product, this unit is intended for use on healthy, well-maintained engines. Vortech Engineering is not responsible for engine damage. Installation on new vehicles will not harm or adversely affect the break-in period so long as factory break-in procedures are followed.

For best performance and continued durability, please take a note of the following key points:

1. Use only premium grade fuel 91 octane or higher (R+M/2).
2. Always listen for any sign of detonation (pinging) and discontinue hard use (no boost) until problem is resolved.

TOOL & SUPPLY REQUIREMENTS:

- 3/8" drive ratchet
- 3/8" drive ratchet extensions
- Socket set: SAE and metric
- Combination wrenches: SAE and metric
- Torque wrench
- 18mm impact socket
- 17mm impact hex tool
- Impact gun
- Screwdriver set OR nut driver set
- Damper removal & installation tools
- Flywheel / flexplate locking tool OR large pry bar
- Red threadlocker
- Blue threadlocker

8-RIB DRIVE UPGRADE

2018 MUSTANG GT

Part No. 4FQ116-009

PARTS LIST

IMPORTANT: Before beginning installation, verify that all parts are included in the kit. Report any shortages or damaged parts immediately.

PART NO.	DESCRIPTION	QTY
007140	INSTR MAN, 8-RIB UPGRD, 2018 MUST GT	1
2A017-070	SPACER, .95 O.D. X .694 I.D. X .070L	1
2A017-875-29	SPACER, .875 O.D. X .404 I.D. X 2.035L	4
2A017-878-08	SPACER, .875 OD X .280 L	4
2A017-882-01	SPACER, .875 OD X .140 LNG	1
2A038-347	S/C PULLEY 3.47" 8 GROOVE	1
2A048-100	BELT, K081000-GATES 8-RIB 100.63	1
4FL016-170	IDLER PLY, 8-RIB SMOOTH 3"	1
4FL116-160	IDLER PULLEY ASY, 8-RIB 2.6"	1
4FQ016-041	PULLEY, ALTERNATOR, 8-RIB 2011	1
4FQ016-071	PULLEY, WATER PMP, 8-RIB 2014	1
4FQ017-061	IDLER SPACER, .875OD X .503L	4
4FQ116-031	IDLER PLY ASY, 2.75 8-RIB SMOOTH	3
4FQ116-051	IDLR PLY ASY, 2.75 8-RIB, SMTH, .07 OFFSET	1
7A375-375	3/8-16 X 3-3/4 HX HD	4
7A375-402	3/8-16 X 4.00" BHCS	1
7C012-114	M12 X 1.50 HX BOLT, 2011 MUST GT CRK	1
7C080-086	M8 X 1.25 X 85 HXHD CL8.8	1
7F014-001	NUT, M14 X 1.5, HEX	1
7J438-091	9/16 SAE WASHER PLATED	1
7K312-001	5/16 AN WASHER, PLATED	3
7K375-040	3/8 AN960 FLAT WASHER PLATED	9
8R101-002	PULLEY RETAINER ASSY 8 RIB	1



BEFORE YOU BEGIN

IMPORTANT: This 8-Rib system **DOES NOT** include a damper. We suggest using Innovators West # 818 for this application.
(Not available through Vortech)



Suggested Damper
Innovators West 8-Rib Damper
#818

NOTE: This instruction manual does not detail the removal and installation of the damper. Please follow the removal and installation instructions included with your choice of damper.

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1. PREPARATION AND REMOVAL

- A. Remove the 3x plastic fasteners securing the battery cover, then remove the battery cover. Next, unplug both battery cables and set them aside.

(See Fig. 1-a)



Fig. 1-a: Unplug battery cables.

- B. If your vehicle is equipped with a strut tower brace, it will need to be removed. Using a 15mm socket, remove the 4x nuts securing the strut tower brace to the vehicle, then set the 4x nuts and the strut tower brace aside.

(See Fig. 1-b)



Fig. 1-b: Remove strut tower brace.

- C. There are 2x removable panels that cover the 2x nuts that secure the engine cover to the engine. Using a small flat-head screwdriver, remove the 2x panels and set them aside. Next, use a 10mm socket and an extension to remove the nuts that secure the engine cover to the engine, then proceed to remove the engine cover and set it aside.

(See Fig. 1-c)



Fig. 1-c: Remove engine cover.

1. PREPARATION AND REMOVAL, cont'd

- D. Using a panel removal tool, remove the 6x plastic fasteners that secure the upper radiator support cover to the vehicle and set them aside.
(See Fig. 1-d)



Fig. 1-d: Remove radiator support cover.

- E. Using a 10mm socket, remove the screw securing the air box to the vehicle. Next, using a flat-head screwdriver or a 5/16" nut driver, loosen the hose clamp securing the silicone bump sleeve to the air inlet tube. Remove the air box from the vehicle and set it aside.
(See Fig. 1-e)



Fig. 1-e: Remove air box.

- F. Using a flat-head screwdriver or 5/16" nut driver, loosen the hose clamp securing the silicone sleeve to the supercharger inlet. Next, disconnect the 5/8" breather hose from the valve cover, then disconnect the 3/8" hose from the air inlet tube. With everything disconnected, remove the air inlet tube and set the air inlet tube aside.
(See Fig. 1-f)



Fig. 1-f: Remove air inlet tube.

1. PREPARATION AND REMOVAL, cont'd

- G. Disconnect the MAF sensor connector from the MAF sensor. Next, using a flat-head screwdriver or 5/16" nut driver, loosen the hose clamps securing the large silicone elbow to the throttle body and the silicone reducer sleeve to discharge tube D. Remove the MAF sensor housing and the 2x silicone sleeves as one assembly and set aside.
(See Fig. 1-g)

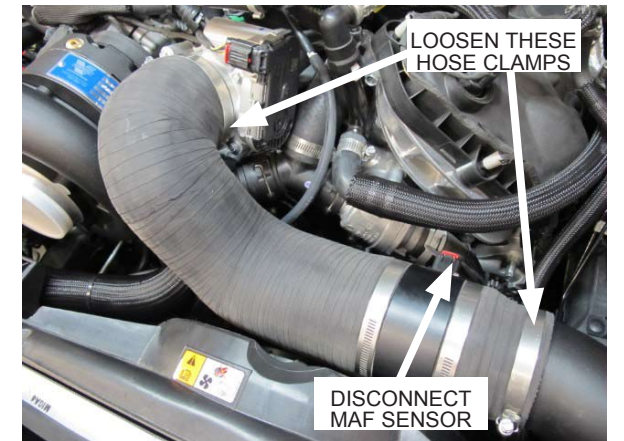


Fig. 1-g: Disconnect MAF sensor then remove MAF housing / silicone sleeve assembly.

- H. Be sure to cover the throttle body, discharge tube D, and the supercharger inlet in order to keep foreign debris out during the installation process.
(See Fig. 1-h)



Fig. 1-h:

- I. Using a hex tool, remove the screws securing the upper radiator brackets, but leave the brackets installed. This is done to allow the radiator assembly to move freely, making it easier to work within the engine bay in future steps.
(See Fig. 1-i)

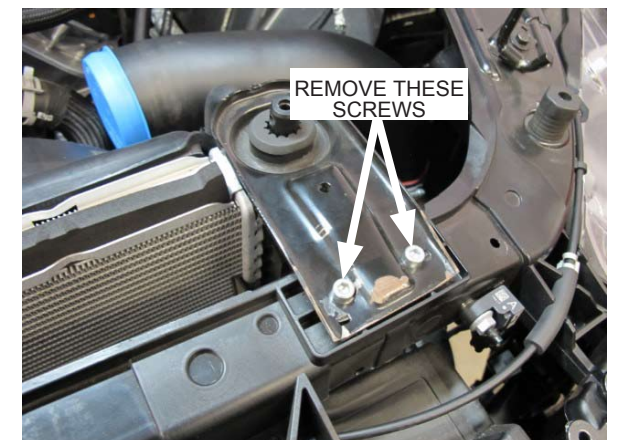


Fig. 1-i: Remove upper radiator bracket screws.

1. PREPARATION AND REMOVAL, cont'd

- J. Using a 10mm socket, loosen the 3x water pump pulley screws.
(See Fig. 1-j)



Fig. 1-j: Loosen water pump pulley screws.

- K. Using a 15mm socket, rotate the belt tensioner counter-clockwise and remove the serpentine drive belt.
(See Fig. 1-k)



Fig. 1-k: Remove serpentine drive belt.

- L. Using a flat-head screwdriver or 5/16" nut driver, loosen the hose clamp that secures the silicone sleeve to discharge tube A.
(See Fig. 1-l)

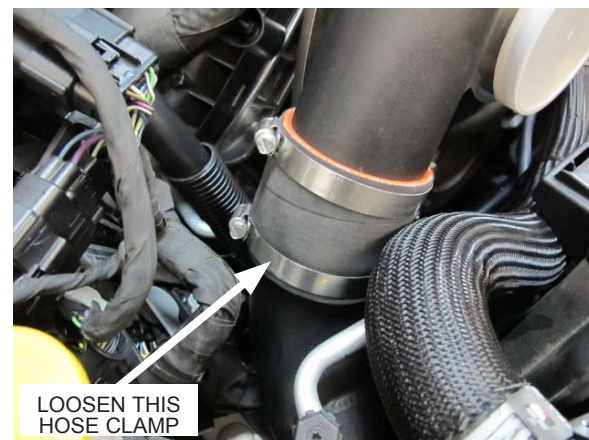


Fig. 1-l: Loosen hose clamp.

1. PREPARATION AND REMOVAL, cont'd

- M. Using a flat-head screwdriver or 5/16" nut driver, loosen the hose clamp that secures the silicone bump sleeve to discharge tube A.
(See Fig. 1-m)



Fig. 1-m: Loosen hose clamp.

- N. Disconnect the vacuum line from the bypass valve and set it aside.
(See Fig. 1-n)



Fig. 1-n: Disconnect vacuum line from bypass valve.

- O. Using an 8mm socket, remove the 4x screws securing the throttle body to the throttle body spacer. Next, disconnect the throttle body connector, then remove the throttle body from the vehicle. Temporarily place a rag in the intake manifold to keep foreign debris from entering the engine.
(See Fig. 1-o)



Fig. 1-o: Remove throttle body.

1. PREPARATION AND REMOVAL, cont'd

- P. There is a 2.730" length spacer on the right side of the supercharger mounting bracket assembly between the smooth idler pulleys. Using a 9/16" socket, remove the 3/8-16 x 3.50" screw that secures this spacer to the bracket, then set the spacer and screw aside. (See Fig. 1-p)

NOTE: This spacer is removed to gain better access to one of the 5x supercharger mounting screws that will be removed in a later step.



Fig. 1-p:

- Q. Using a 9/16" wrench, remove the 5x 3/8-16 x 1.25" supercharger mounting screws. Once all screws are removed, proceed to remove the supercharger from the vehicle. (See Fig. 1-q)



Fig. 1-q:

- R. In order to provide enough room for the supercharger mounting bracket assembly to be removed, it will be necessary to temporarily remove discharge tube A from the vehicle. Remove discharge tube A at this time. (See Fig. 1-r)



Fig. 1-r: Remove discharge tube A.

1. PREPARATION AND REMOVAL, cont'd

- S. Located directly behind the upper smooth idler pulley is an M8 x 100mm button head cap screw that retains the rear supercharger mounting plate to the passenger side of the engine. In order to access this screw, the upper smooth idler pulley will need to be removed. Using a 9/16" socket, remove the 3/8-16 x 3.50" screw, smooth idler pulley, spacer and pilot spacer. Set them aside as they will not be reused. (See Fig. 1-s)



Fig. 1-s: Remove upper smooth idler pulley.

- T. With the upper smooth idler pulley removed, use a 5mm hex tool to remove the M8 x 100mm button head cap screw from the passenger side of the engine. This screw is "trapped" and will remain within the supercharger mounting bracket assembly at this time. Next, there is a 2.058" length spacer that rests between the passenger side of the engine and the rear supercharger mounting plate. Be sure to save this spacer as it will be reused in a later step. (See Fig. 1-t)



Fig. 1-t: Remove button head screw from passenger side of engine.

- U. Using a 1/2" socket, remove the M8 x 80mm screw and 1.928" length spacer furthest to the left of the supercharger mounting bracket. Once removed, set them aside as they will not be reused. (See Fig. 1-u)

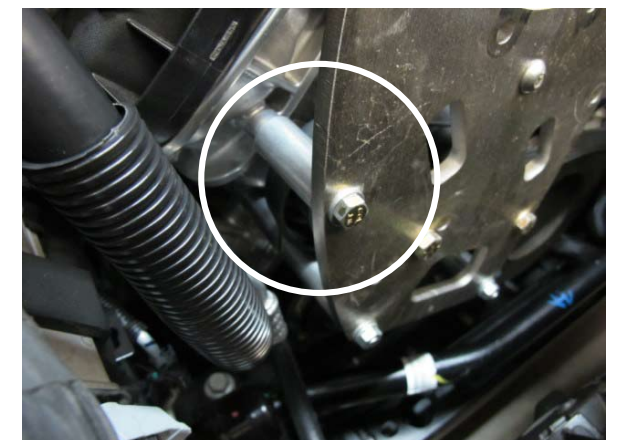


Fig. 1-u: Remove M8 x 100mm screw and 1.928" length spacer.

1. PREPARATION AND REMOVAL, cont'd

- V. At the very bottom of the supercharger mounting bracket assembly are 2x nuts that screw onto 2x M8 x 200mm threaded studs. Using a 1/2" socket, remove these 2x nuts. In some cases, attempting to remove the 2x nuts will result in the 2x M8 x 200mm threaded studs coming loose, which is fine. Once the 2x nuts and/or 2x M8 x 200mm threaded studs are loose, proceed to remove the entire supercharger mounting bracket assembly from the vehicle.

(See Fig. 1-v)

NOTE: Be careful not to lose any spacers during this step. If by accident you forget the original location of the spacers, refer to **Appendix A** near the back of this manual for an assembly diagram.



Fig. 1-v: Remove 2x nuts and/or 2x M8 x 200mm threaded studs.

2. 8-RIB PREPARATION AND INSTALLATION

NOTE: Be sure to replace old washers with the new washers that have been included in this upgrade. Also, use blue threadlocker on all hardware in this section.

- A. Your existing supercharger mounting bracket assembly will need to be converted from 6-rib to 8-rib. Refer to **Appendix A**, located near the back of this manual, for an assembly diagram and assemble it as shown. Some spacers and hardware from the 6-rib supercharger mounting bracket assembly will be reused.

(See Fig. 2-a)



Fig. 2-a: Assemble 8-Rib supercharger mounting bracket assembly.

- B. Before installing the 8-rib supercharger mounting bracket assembly to the vehicle, locate the provided 8-rib serpentine belt and wrap it around the ribbed idler pulley as shown.

(See Fig. 2-b)

NOTE: This mounting bracket assembly includes four different locations for the ribbed idler, which allows you to use various belt lengths and pulley combinations. If you are using a damper that's the same diameter as stock, use the hole that's 3rd from the left.



Fig. 2-b: Install 8-Rib serpentine belt as shown.

- C. Near the bottom of the supercharger mounting bracket assembly there are 2x 2.730" spacers and 2x .280" spacers sandwiched in between the supercharger mounting plates. These spacers are usually held in place by the 2x M8 x 200mm studs. These spacers need to remain in place during installation of the supercharger mounting bracket assembly.

(See Fig. 2-c)



Fig. 2-c: 2x 2.730" spacers and 2x .280" spacers.

2. 8-RIB PREPARATION AND INSTALLATION, cont'd

- D. Temporarily remove the 1x 1.928" spacer, 1x .280" spacer, 1x M8 x 85mm screw, and 5/16" washer. They will be reinstalled once the supercharger mounting bracket assembly is installed on the engine.

(See Fig. 2-d)

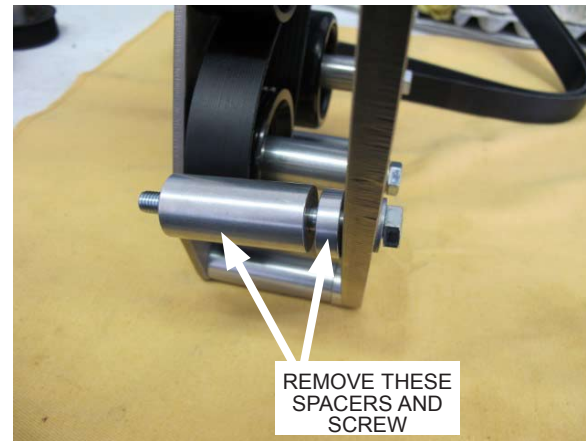


Fig. 2-d: Temporarily remove these spacers, screw, and washer.

- E. With the 2x M8 x 200mm studs installed to the engine, be sure that the 1x 2.058" spacer is installed on the stud to the left of the A/C compressor and the 1x 2.146" spacer is installed on the stud to the right of the A/C compressor. Measuring from the front of the spacers, leave 4.00" of the M8 x 200mm stud exposed.

(See Fig. 2-e)

NOTE: The spacers and studs in this step are reused from the 6-rib supercharger mounting bracket.



Fig. 2-e: Install 1x 2.058" and 1x 2.146" spacers.

- F. Position the supercharger mounting bracket assembly in the engine compartment, then slide the 2x lower mounting holes onto the 2x M8 x 200mm studs, making sure they pass through both mounting plates, 2x .280" spacers, and the 2x 2.730" spacers sandwiched in between the mounting plates.

(See Fig. 2-f)



Fig. 2-f: Install 8-Rib drive supercharger mounting bracket assembly.

2. 8-RIB PREPARATION AND INSTALLATION, cont'd

- G. Temporarily remove the uppermost smooth idler pulley and its hardware. This is done in order to access one of the screws that secures the supercharger mounting bracket assembly to the engine. Locate 1x 2.058" spacer and place it between the rear mounting plate and the uppermost engine timing cover hole. Using a 5mm hex tool, secure the M8 x 100mm button head cap screw to the uppermost engine timing cover hole.

(See Fig. 2-g)

NOTE: The spacer and screw in this step are reused from the 6-rib supercharger mounting bracket.



Fig. 2-g: Install 1x 2.058" spacer.

- H. Locate 1x 1.928" spacer, 1x .280" spacer, M8 x 85mm screw, and 5/16" washer. Place the spacer in between the front mounting plate & cylinder head. Using the M8 x 80mm screw & 5/16 washer, secure the front plate & spacer to the cylinder head.

(See Fig. 2-h)



Fig. 2-h: Install 1x 1.928" and 1x .280" spacers.

- I. Locate the previously removed 2x M8 flanged nuts and 2x 5/16 washers and use them to secure the lower section of the supercharger mounting bracket to the previously installed 2x M8 x 200mm studs.

(See Fig. 2-i)



Fig. 2-i: Install 2x M8 nuts and 2x 5/16" washers.

2. 8-RIB PREPARATION AND INSTALLATION, cont'd

- J. Located directly to the right of the water pump pulley is a smooth idler pulley. Using a 13mm socket, remove the screw securing the smooth idler pulley. Discard the smooth idler pulley, but keep the OEM screw and washer. Locate the provided .140" length spacer and slide it onto the pilot where the idler gets installed.

(See Fig. 2-j)



Fig. 2-j: Install .140" spacer onto pilot.

- K. Locate the provided smooth idler pulley labeled 4FQ116-031 and install it to the pilot where the previously removed OEM idler was installed. Install the smooth idler pulley with the snap ring pointed away from you. If installed properly, you should not be able to see the snap ring. Use the OEM hardware to secure the idler pulley.

(See Fig. 2-k)



Fig. 2-k: Install smooth idler pulley and secure using OEM screw and washer.

- L. The smooth idler pulley on the belt tensioner will also need to be replaced. Using a 15mm socket, remove the screw securing the smooth idler pulley to the belt tensioner. Discard the smooth idler pulley and the washer, but keep the OEM screw.

(See Fig. 2-l)

NOTE: The screw securing the smooth idler on the tensioner is reverse threaded. It will need to be turned to the right (clockwise) to be loosened.



Fig. 2-l: Remove OEM smooth idler pulley located on belt tensioner.

2. 8-RIB PREPARATION AND INSTALLATION, cont'd

- M. Locate the provided .070" spacer and slide it onto the pilot where the smooth idler gets installed.

(See Fig. 2-m)



Fig. 2-m: Install .070" spacer onto pilot.

- N. Locate the provided smooth idler pulley labeled 4FQ116-051. **The center of this smooth idler pulley is offset and can only be used in this location. The description on the label should also say "offset".** Install it to the pilot where the previously removed OEM smooth idler was installed. Install the smooth idler pulley with the snap ring pointed away from you. If installed properly, you should not be able to see the snap ring. Use the OEM screw to secure the idler pulley. Do not reuse the washer.

(See Fig. 2-n)

NOTE: The screw securing the smooth idler on the tensioner is reverse threaded. It will need to be turned to the left (counter clockwise) to be tightened.



Fig. 2-n: Install offset smooth idler pulley and secure using OEM screw only.

- O. Using a 10mm socket, remove the OEM water pump pulley and hardware and replace it with the 8-rib water pump pulley. Secure using the OEM hardware. The hardware will be retightened once the 8-rib serpentine belt is installed.

(See Fig. 2-o)



Fig. 2-o: Install 8-rib water pump pulley.

2. 8-RIB DRIVE PREPARATION AND INSTALLATION, cont'd

- P. Using a 17mm hex tool and an impact gun, remove the fastener securing the 6-rib alternator pulley to the alternator. Discard both the fastener and 6-rib alternator pulley as they will not be reused.

(See Fig. 2-p)

NOTE: If you are using a large impact gun, it may be necessary to remove the cooling fan assembly in order to provide enough space to get the impact gun into the engine compartment.



Fig. 2-p: Remove 6-rib alternator pulley.

- Q. Locate the provided 8-rib alternator pulley and install it onto the alternator shaft. Using a 22mm socket and an impact gun, secure the 8-rib alternator pulley using the provided 9/16" washer and M14 x 1.5 nut.

(See Fig. 2-q)

NOTE: The alternator shaft will be a tight fit on the supplied 8-rib alternator pulley. Because of this, it may be necessary to heat the 8-rib alternator pulley in order for it to slide onto the alternator shaft.

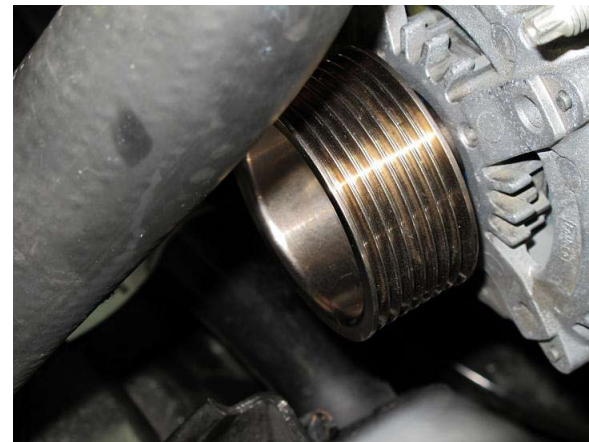


Fig. 2-q: Install provided 8-rib alternator pulley.

- R. Remove the Ø3.60" 6-rib supercharger pulley and fastener assembly. They will not be reused. Install the provided Ø3.47" 8-rib supercharger pulley and secure using the provided pulley retainer assembly. Be sure that the long hub of the supercharger pulley is pointed away from the supercharger as shown.

(See Fig. 2-r)



Fig. 2-r: Install 8-rib supercharger pulley.

3. COMPONENT REASSEMBLY

- A. On the right side of the supercharger mounting bracket assembly between the upper & lower smooth idlers there is a 2.730" spacer and .280" spacer secured by a 3/8-16 x 3.75" screw and a 3/8" AN washer. Remove these spacers and hardware and set aside for reinstallation in a later step. This spacer is temporarily removed to gain better access to one of the 5x supercharger mounting screw locations. All other supercharger mounting bracket hardware can be tightened at this time.

(See Fig. 3-a)



Fig. 3-a: Temporarily remove these spacers and hardware.

- B. Reinstall discharge tube A to the bump sleeve on discharge tube B. Do not tighten it at this time.

(See Fig. 3-b)



Fig. 3-b: Reinstall discharge tube A.

- C. Notice the mounting holes on the front mounting plate. 3x screws can be easily accessed. However, the 2x screws that are circled will require the use of a long 9/16" wrench for ease of installation.

(See Fig. 3-c)

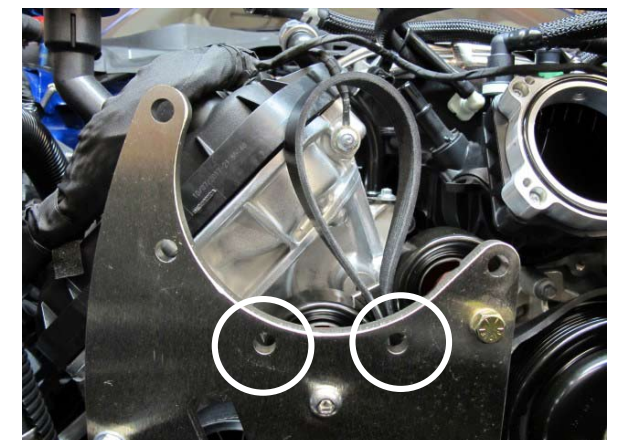


Fig. 3-c: Use a long 9/16" wrench to install these screws.

3. COMPONENT REASSEMBLY, cont'd

- D. Prior to installing the supercharger to the supercharger mounting bracket assembly, it is suggested that you lubricate the threads in the mounting bosses on the supercharger. To do this, locate the provided 5x 3/8-16 x 1.25" screws, lightly coat the screw threads with lubricant and screw them into the mounting bosses until they bottom out. Once complete, remove the screws from the mounting bosses. This process makes it easier to reach supercharger mounting screws. (See Fig. 3-d)



Fig. 3-d: Lubricate supercharger mounting boss threads.

- E. Mount the supercharger to the supercharger mounting bracket assembly, then begin to thread the 5x 3/8-16 x 1.25" supercharger mounting screws by hand, making sure to use 3/8" AN washers on all 5x screws. Once in position, proceed to tighten all 5x 3/8-16 x 1.25" supercharger mounting screws. (See Fig. 3-e)



Fig. 3-e: Install supercharger.

- F. Using a flat-head screwdriver or 5/16" nut driver, proceed to secure discharge tube A to the supercharger using the silicone sleeve and 2x hose clamps. (See Fig. 3-f)



Fig. 3-f:

3. COMPONENT REASSEMBLY, cont'd

- G. Using a flat-head screwdriver or 5/16" nut driver, proceed to secure discharge tube A to discharge tube B using the silicone bump sleeve and 2x hose clamps. (See Fig. 3-g)



Fig. 3-g: Secure discharge tube A to discharge tube B.

- H. With the supercharger secured to the supercharger mounting bracket assembly, proceed to reinstall the previously removed 2.730" spacer and .280" spacer, making sure that the drive belt runs above and below the spacers as shown. Secure with the previously removed 3/8-16 x 3.75" screw & 3/8 AN washer. (See Fig. 3-h)



Fig. 3-h: Reinstall these spacers and hardware.

- I. Reconnect the vacuum line to the fitting on the bypass valve. (See Fig. 3-i)



Fig. 3-i: Reconnect vacuum line to bypass valve.

3. COMPONENT REASSEMBLY, cont'd

- J. Locate **Appendix B** near the back of this manual for the belt routing diagram. Route the belt as shown. Once in position, use a 15mm socket to rotate the belt tensioner counter-clockwise, then slide the new drive belt over the smooth idler on the tensioner. Once the belt is in position and properly routed, release the tension on the belt tensioner.

(See Fig. 3-j)



Fig. 3-j: Install supercharger drive belt.

- K. Reinstall all previously removed discharge tubes, air box, air inlet tube, panels, engine cover, and strut tower brace. Check for proper fitment & clearance during reinstallation. You may reconnect the battery at this time.

(See Fig. 3-k)



Fig. 3-k: Reinstall all previously removed components.

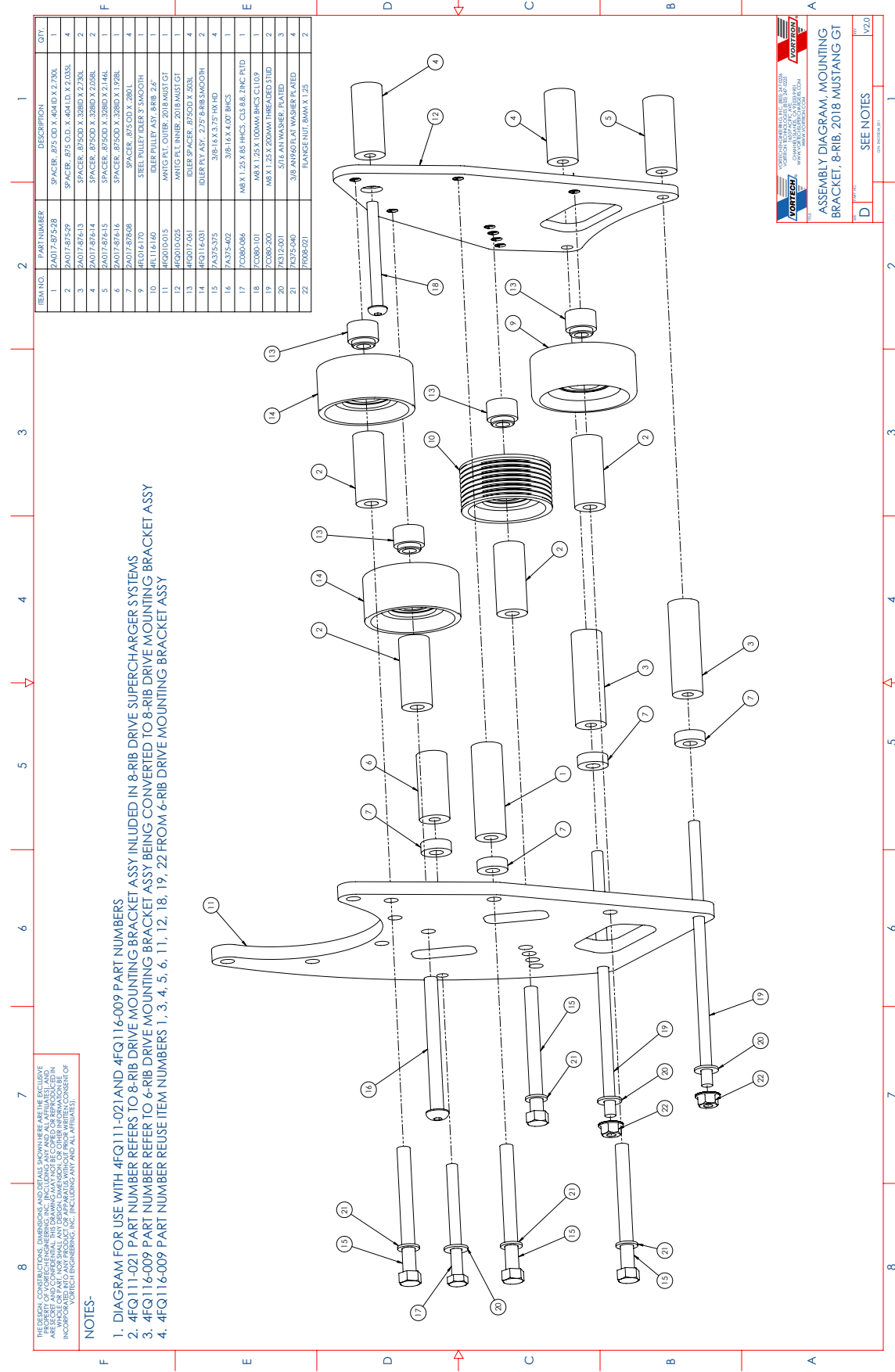
4. FINAL CHECK

WARNING: Do not attempt to operate the vehicle until all components are installed and all operations are completed including the final check.

- A. Check all hardware and clamps for tightness. Pay particular attention to oil and vacuum lines around moving parts, sharp edges and exhaust system parts. Make sure all oil and vacuum lines are properly secured with clamps or tie-wraps.
- B. Start the engine and allow to idle for a few minutes and verify that the supercharger drive belt is tracking correctly. Shut off the vehicle.
- C. Recheck to be sure that no hoses, wires, etc. are near exhaust headers or moving parts. Look also for any signs of fluid leakage.
- D. **PLEASE TAKE SPECIAL NOTE:** Operating the vehicle without ALL the subassemblies completely and properly installed may cause **FAILURE OF MAJOR COMPONENTS.**
- E. Test drive the vehicle.

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APPENDIX A. DIAGRAM, ASSEMBLY, SUPERCHARGER MOUNTING BRACKET



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- NOTES-**
1. DIAGRAM FOR USE WITH 4FQ111-021 AND 4FQ116-009 PART NUMBERS
 2. 4FQ111-021 PART NUMBER REFERS TO 8-RIB DRIVE MOUNTING BRACKET ASSY
 3. 4FQ116-009 PART NUMBER REFERS TO 6-RIB DRIVE MOUNTING BRACKET ASSY
 4. 4FQ116-009 PART NUMBER REFERS TO 4-RIB DRIVE MOUNTING BRACKET ASSY

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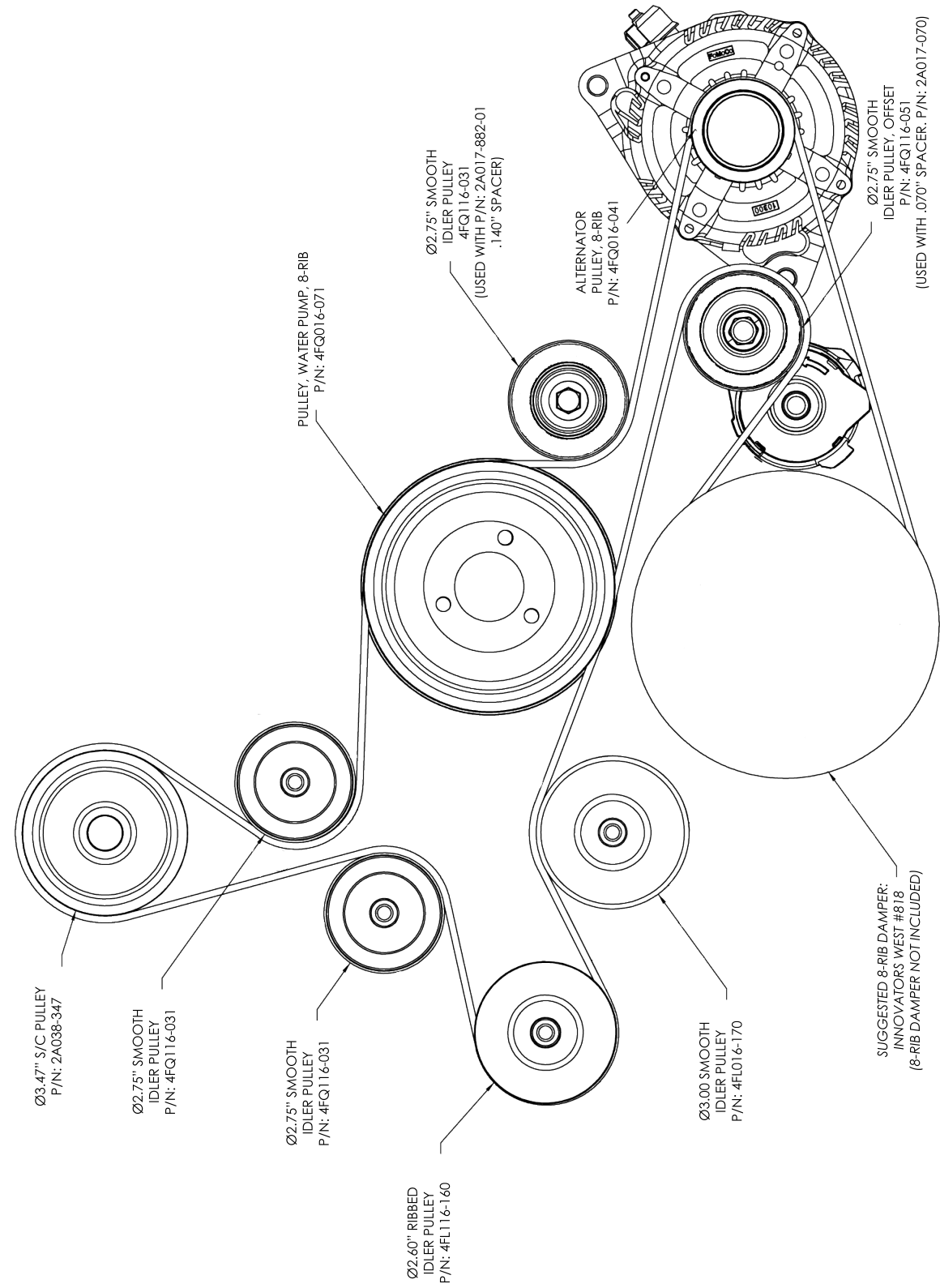
ASSEMBLY DIAGRAM MOUNTING BRACKET, 8-RIB, 2018 MUSTANG GT

REV: 1
 DATE: 01/14/2019

SEE NOTES

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APPENDIX B. DIAGRAM, BELT ROUTING / PULLEY IDENTIFICATION



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