



IDLER STAND REPLACEMENT MANUAL

2015 AND UP FORD MUSTANG GT 5.0L COYOTE



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PREMIUM FUEL ONLY (91 OCTANE OR BETTER ALWAYS) RON+MON/2

CALIFORNIA AIR RESOURCE BOARD EXECUTIVE ORDER #D-231-49

*COMPETITION BASED PRODUCT MAY BE USED SOLELY ON VEHICLES USED IN SANCTIONED COMPETITION WHICH
MAY NEVER BE USED UPON A PUBLIC ROAD OR HIGHWAY*

RECOMMENDED TOOLS AND SUPPLIES

The following items are not included in this supercharger kit and it is strongly recommended that they're used for ease of installation or maximum performance:

Torque Wrench

¼" and 3/8" torque wrenches are required during installation.

Tools

Safety glasses, metric wrench set, ¼", 3/8" assorted metric socket set, 5mm ball head allen, 3/8" assorted metric allen socket set and ½" breaker bar.

Clean Shop Towels

Use these to keep the installation area clean.

GLOSSARY OF TERMS

ABBREVIATION	DESCRIPTION
ACT	Air Charger Temperature
DTC	Diagnostic Trouble Code
ECT	Engine Coolant Temperature
EGR	Exhaust Gas Recirculation
ETC	Electronic Throttle Control
EVAP	Evaporative emissions system
FHSCS	Flat Head Socket Cap Screw
IAT	Inlet Air Temperature
IC	Intercooler
ID	Internal Diameter
LB-IN	Pound-force inch
LB-FT	Pound-force foot
LTR	Low temp radiator
MAF	Mass Air Flow
MAP	Manifold Absolute Pressure
MY	Model Year
OBD	On Board Diagnostics
OD	Outside Diameter
PCV	Positive Crankcase Ventilation
PSI	Pound per Square Inch
SC	Supercharger
SHCS	Socket Head Cap Screw
TPS	Throttle Pressure Sensor
TRQ	Torque



****NOTICE:** Installation of Whipple Supercharger products signifies that you have read this document and have agreed to the terms stated within.

It's the purchaser's responsibility to follow all installation instruction guidelines and safety procedures supplied with the product as it's received by the purchaser to determine the compatibility of the product with the vehicle or the device the purchaser intends to install the product on.

Whipple Superchargers assumes no responsibility for damages occurring from accident, misuse, abuse, improper installation, improper operation, lack of reasonable care or all previously stated reasons resulting from incompatibility with other manufacturer's products.

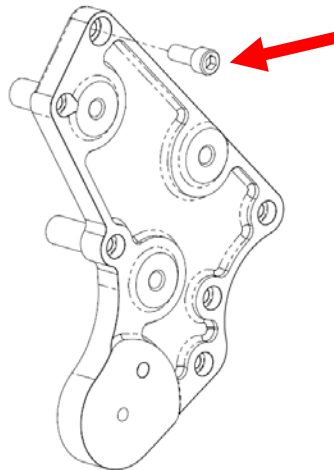
There are no warranties expressed or implied for engine failure or damage to the vehicle in any way, loss of use or inconvenience or labor reimbursement. This includes merchantability and fitness.

The information contained in this publication was accurate and in effect at the time the publication was approved for printing and is subject to change without notice or liability. Whipple Superchargers reserves the right to revise the information presented herein or to discontinue the production of parts described at any time.

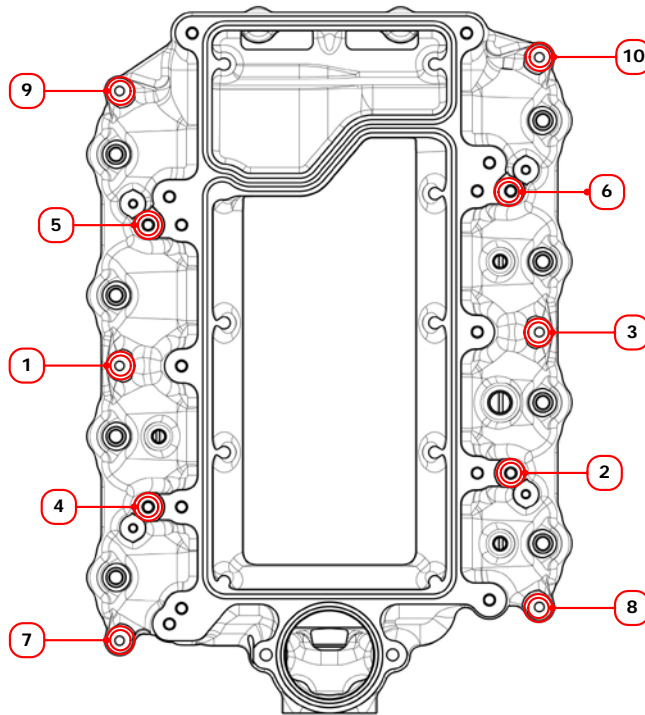
SUPERCHARGER INSTALLATION INSTRUCTIONS

It is strongly recommended that you read through this guide **before** you begin installing the Whipple Supercharger.

1. Using an air hose, blow off any loose dirt or debris from engine compartment. If really dirty, then steam clean the engine compartment before proceeding to the next step.
2. Carefully loosen (do not remove) the (3) bolts securing the water pump pulley to the water pump.
3. Carefully loosen (do not remove) the (4) 6mm x 12mm socket head allen bolts from the supercharger pulley.
4. Remove the supercharger belt from the engine, using a ½" breaker bar to release the tension of the spring-loaded tensioner.
5. Remove the (3) idlers from the Whipple billet idler plate along with the (1) spring loaded tensioner.
6. Remove the supercharger pulley.
7. Remove the (1) 10mm x 25mm SHCS through the idler plate and supercharger front support.



- Using a 5mm allen socket, loosen (do not remove) the (10) 6mm SHCS bolts securing manifold to the motor.

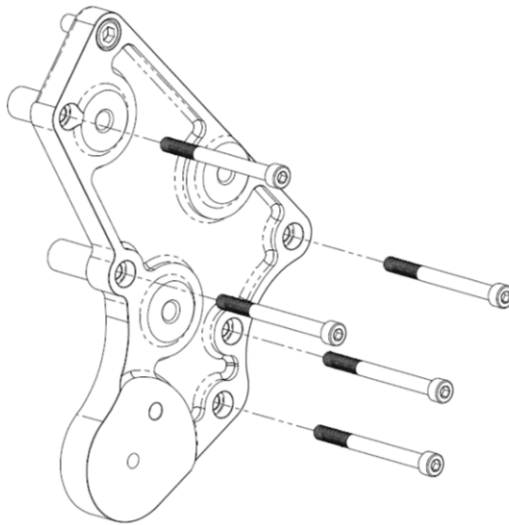


- Remove the water pump pulley from the water pump.
- Remove the Whipple billet idler plate from the engine.
- Remove the (5) previously installed support stands from the idler plate. Once removed, remove any rough edges that may conflict with new stands.

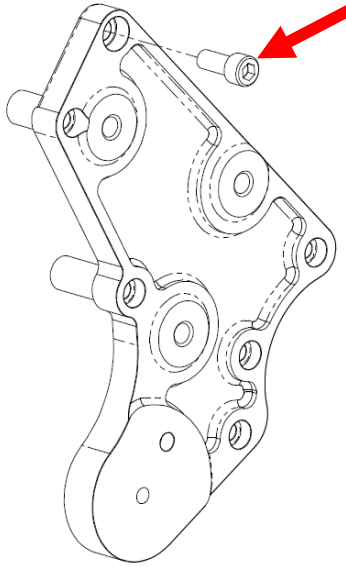
12. Install the (5) support stands to the front idler plate. These are loose fit, therefore you must tilt backwards during installation or the stands will fall. You can use masking tape to help hold in place during installation if installation becomes difficult. Each support stand is marked with an identifying number, as well as the idler plate for ease of placement. Assemble together with the number facing out for future reference.



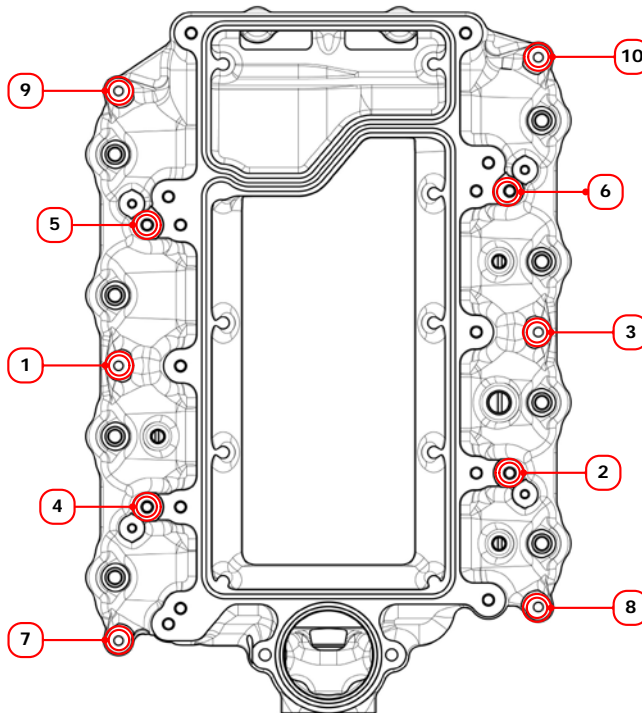
13. Use the supplied (5) 8mm x 90mm SHCS to secure the idler plate to the front of the passenger side of engine, install hand tight.



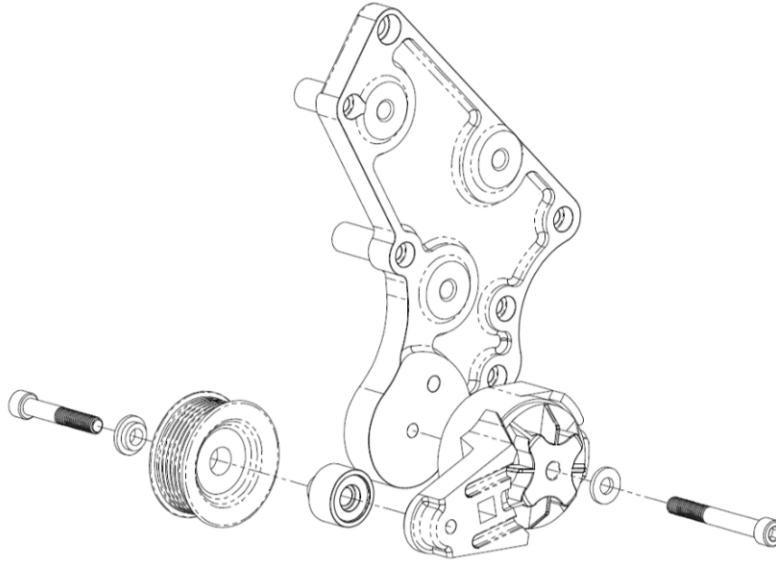
14. Install the supplied (1) 10mm x 25mm SHCS through the idler plate and supercharger front support. Install hand tight.



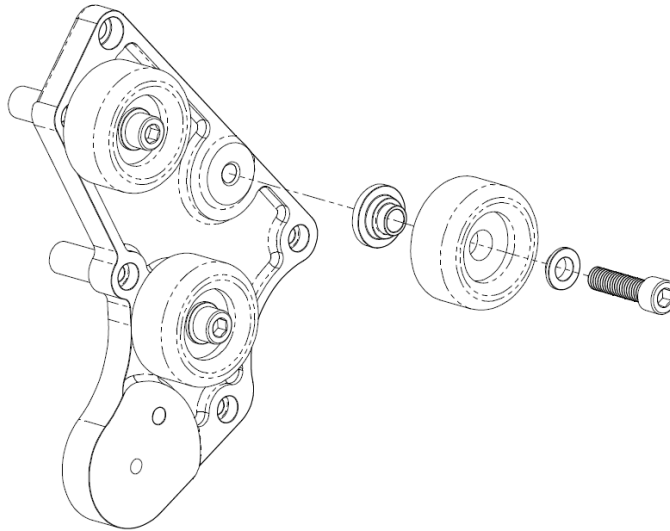
15. Torque the (5) 8mm x 90mm SHCS idler plate bolts to 18 lbs-ft.
16. Torque the (1) 10mm x 25mm SHCS bolt to 25 lbs-ft.
17. Torque the (10) 6mm SHCS manifold bolts in the following pattern using a 5mm ball head allen socket. First pass: 88 lbs-in. Second pass: 106 lb-in.



18. Install the spring-loaded tensioner to idler plate, locating the tang into position. (Billet tensioner) Secure with supplied 10mm x 60mm SHCS. (Cast tensioner) Secure with the supplied 10mm x 80mm SHCS and .875" stainless steel washer. Use light amount of anti-seize on threads. Torque to 25 lbs-ft.

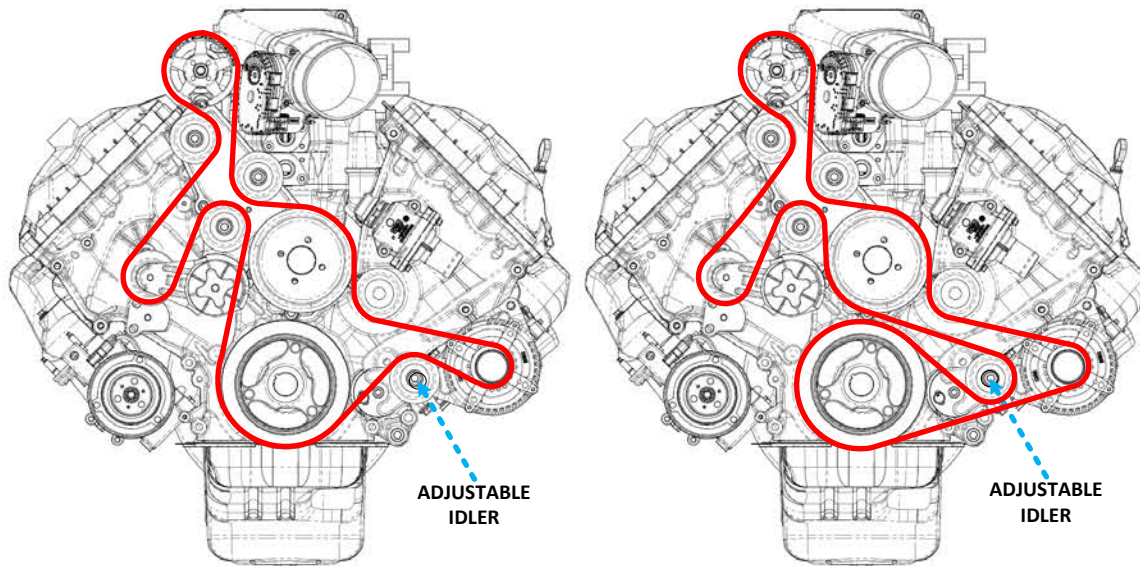


19. Install the supplied (3) smooth idler pulleys #36101 to the idler plate using the (3) step spacers. Sandwich the idler pulley to the step spacer using the supplied (3) step washer and (3) 1/2"-13 x 1 3/4" SHCS and torque to 30 lbs-ft. using a 3/8" allen socket. Use light amount of anti-seize on threads.



20. Install the supercharger pulley using the supplied (4) 6mm x 14mm SHCS using a 5mm allen socket. Leave hand tight until belt installation.
21. Reinstall the water pump pulley using the (3) factory fastener. Wrap the belt around the pulley to hold in place and torque to 18 lbs-ft.

22. Install the supercharger belt by following the routing diagram. Once in position, lock the adjustable idler pulley by torqueing the SHCS to 30 lbs-ft. **NOTE:** It's good to set the tensioner at 75-80% of its travel when belt is cold. If setup at max open position, the tensioner will consistently hit its stop. If setup near its full close position, then the tensioner will not continue to apply torque to the belt during belt stretch and will allow it to jump or walk. Use the adjustable idler to set the tensioner in its correct position.



23. Torque the supercharger (4) 6mm x 14mm SHCS bolts to 130 lbs-in using a 5mm allen socket.