

ARP-K-GM-LS1002/3

LS TRANSPLANT KIT

INSTALLATION GUIDE



QUALITY AMERICAN MADE SUPERCHARGERS



Installation Instructions

LS Conversion Supercharger kit

ARP-K-GM-LS1002

ARP-K-GM-LS1003



STEP 1

Disconnect battery.

For the LS-1002 kit, the Waterpump must be a GM 19195105 style pump off a LS1 camaro.

For the LS-1003 kit, the water pump must be a truck GM19195104 or GM19208815.

The O.E. style metal water pump gaskets must also be used.

Install head plate to passenger side head (ARP-GM10030) using four M10 x 1.5 x 30mm bolts and washers. Insert the bolts into the bolt holes that go behind the waterpump and then install the bracket. Otherwise they wont fit after the bracket has been mounted.

Tighten to 29 ft lbs



Installation Instructions

Ls Conversion Supercharger kit

ARP-K-GM-LS1002

ARP-K-GM-LS1003



STEP 2

Install straight water neck with desired thermostat (factory type) (ARP-WTR-LS-1). If you are using an 07+ waterpump you may need thermostat housing ARP-WTR-GEN4.

Re use factory M6 bolts.

Tighten to 11 ft lbs



STEP 3

For truck spacing applications, remove the lower accessory tensioner mounting bolt. If the 3rd lower bolt is left in it will bent the supercharger bracket.

Use a caliper and verify that your accessory tensioner measures $+.010/-0.010$ of the picture shown. If it varies more then this. It can cause misalignment of the supercharger bracket and result in belt issues.

This is for truck spacing kits only.

A good replacement part number is Dayco 89253.



Installation Instructions

Ls Conversion Supercharger kit

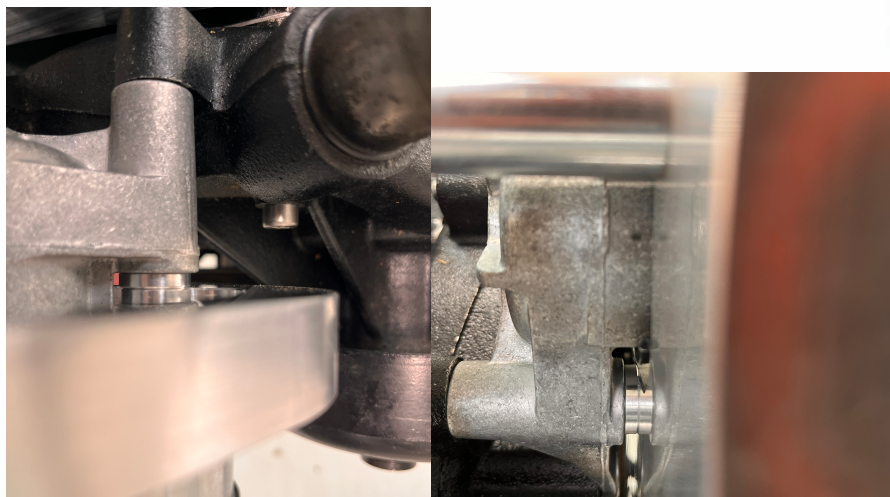
ARP-K-GM-LS1002

ARP-K-GM-LS1003



STEP 4

Bolt and spacer lengths will differ between truck and car spacing, Refer to layout sheets in the back of the booklet. Install (2) M10x 1.5 x 120mm bolts through (2) ARP-1.0 x 3700 spacers.



Install (2) M10 x 1.5 x 80mm through (2) ARP-.75 x 0150. The 0.150 spacers go between the bracket and the tensioner



Tighten to 29 ft lbs

Install the accessory tensioner pulley and supercharger tensioner nut

Tighten to 29 ft lbs

Installation Instructions

Ls Conversion Supercharger kit

ARP-K-GM-LS1002

ARP-K-GM-LS1003



STEP 5

*Mount the supercharger head unit
using (7) 3/8-16 x 1-1/4 shcs
and AN washers.*

Tighten to 27 lbs ft.

*Adjust the supercharger outlet for
plumbing alignment prior to
mounting on bracket. To do so
loosen the v-band clamp to rotate and
re-tighten to 75 lbs inch*



Installation Instructions

Ls Conversion Supercharger kit

ARP-K-GM-LS1002

ARP-K-GM-LS1003



STEP 6

Measure the drill bit through your alignment tool.

Make sure it is through .850" from the

end of the taper of the drill bit to the inside face

of the tool. Wrap a piece of tape around the back

side of the tool on the drill bit.



STEP 7

Slide the bit out of the tool. Check your measurement.

From the end of the taper to the tape should be 1.650".



Installation Instructions

Ls Conversion Supercharger kit

ARP-K-GM-LS1002

ARP-K-GM-LS1003



STEP 8

Install the pin tool with supplied bolt.

Snug down so tool is locked in position while drilling.

STEP 9

Install drill bit into your drill of choice, a 90 degree air drill works well for fitting into tight areas. Make sure you drill in till the tape hits the surface of the tool. Repeat process for the other hole.

Clean shavings from area.



Installation Instructions
Ls Conversion Supercharger kit
ARP-K-GM-LS1002
ARP-K-GM-LS1003



STEP 10

For ATI Installation

Install pins into drilled holes. Verify the pins are both flush or below the surface of the Bolt/Washer surface of the pulley.



STEP 11

Apply red loctite and install supplied bolt
Tighten to factory torque specs

GM 219 ft. lbs



STEP 12

For stock balancer and hub.

Insert longer pins into holes in hub.

Install the hub into the crank face, lining up the drilled holes.

Be sure the hub is seated flat against the crank face.

STEP 13

Apply red loctite and install supplied bolt

Tighten to factory torque specs

GM 219 ft. lbs

STEP 14

Install supercharger crank pulley using (4) 5/16

bolts and washers. Use loctite

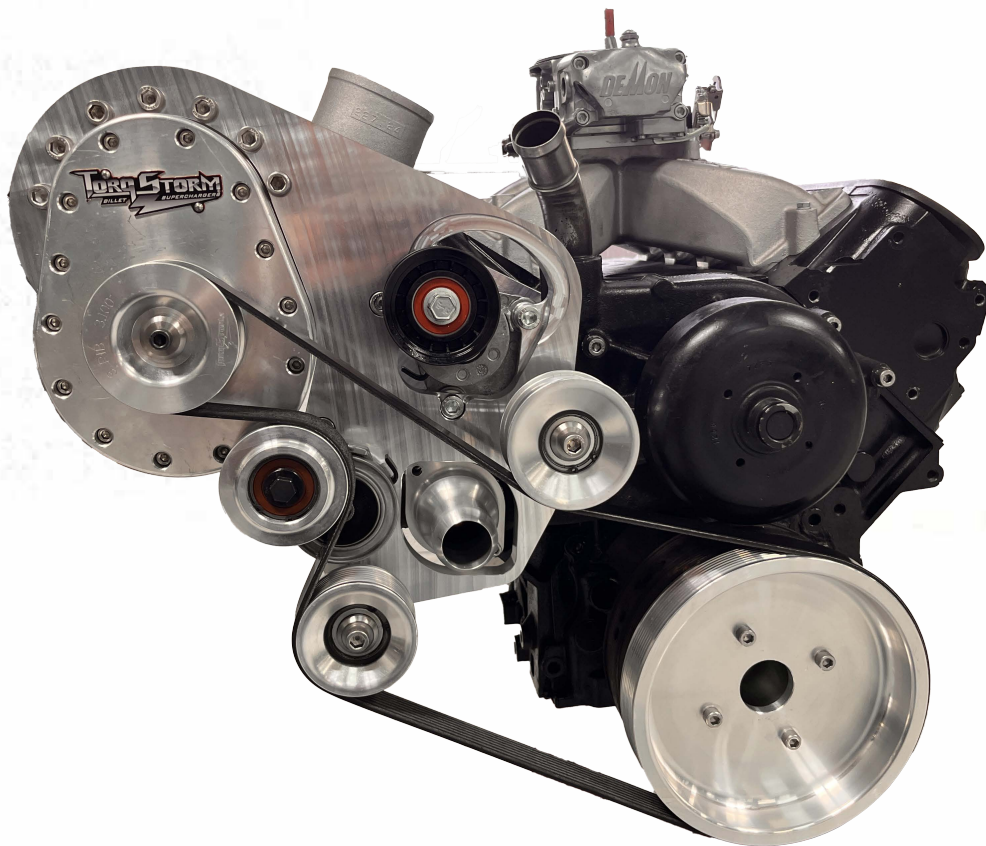
Torque to 19ft lbs



STEP 15

Now that your supercharger and crank pulley are mounted you can re-install the accessory belt per factory routing. Install supercharger belt as shown.

Using a 13mm wrench carefully turn the tensioner counter clockwise to release tension and install dayco 5080575 belt. Double check to make sure the belts are properly installed.



Installation Instructions
Ls Conversion Supercharger kit
ARP-K-GM-LS1002
ARP-K-GM-LS1003



STEP 16

Install ARP-Bov-Torq-52 BOV between the supercharger and TB. Connect to a vacuum source from of the intake with ARP-27043 7/32 vacuum line.



STEP 17

Plumb the intake according to your vehicle, you may have to adjust the supercharger scroll for proper alignment to supercharger. Note: Do not over tighten V-band clamp on scroll.

Tighten clamp until scroll cannot be rotated. Approx. 1/8"-1/4" threads showing past nut on clamp.

STEP 18

Install air filter with a clamp on the back of supercharger. You may place the filter in a different location with additional (not included) piping if you would like.



Installation Instructions

Ls Conversion Supercharger kit

ARP-K-GM-LS1002

ARP-K-GM-LS1003



- *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

- We recommend using the following sensors: GM12569241 2 BAR map sensor and Fast 307004 AIT if going speed density.
- It is suggested to run a wideband o2 sensor to monitor correct air/fuel ratio. 11.6 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

Oil Change Instructions



*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.



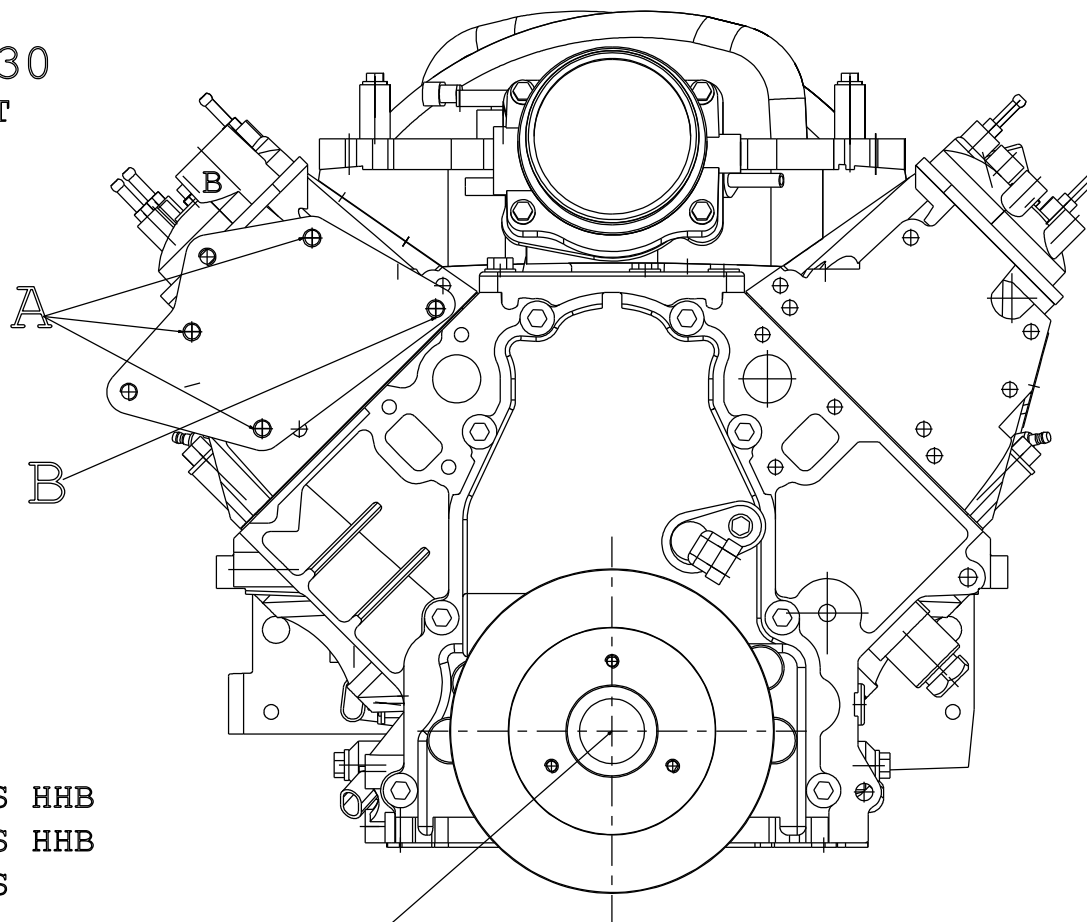
STEP 7

Attach your vacuum line and check operation.



HEAD BRACKET LAYOUT

ARP-GM10030
HEAD BRACKET

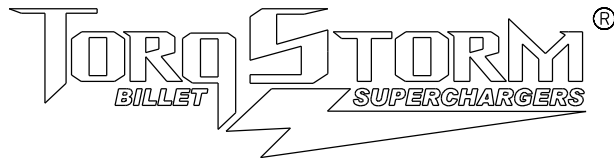


A = 3 @ M10 x 1.5 x 35mm SS HHB
B = 1 @ M10 x 1.5 x 30mm SS HHB
A-B = 4 @ 3/8 AN SS WASHERS

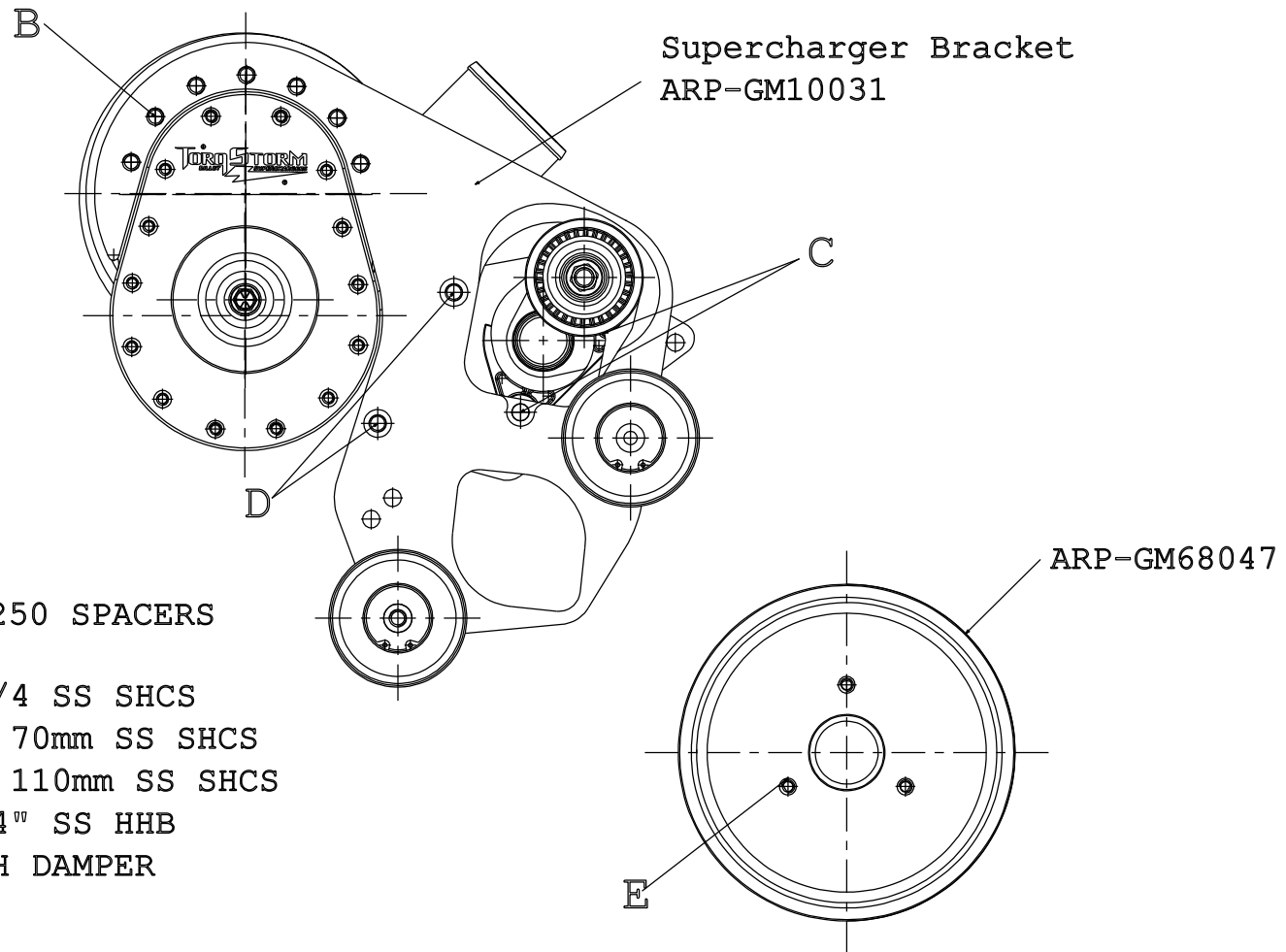
ATI-918853
DAMPER

THIS KIT IS DESIGNED TO USE THE FOLLOWING

GM WATERPUMP - PN. GM19256263
OR ORILEY'S WATER PUMP - PN.CP5081

Description	HEAD BRACKET LAYOUT
Part #	ARP-K-GM-LS1002-ATI
	

SUPERCHARGER BRACKET LAYOUT



D = 2 @ ARP-S-100-3250 SPACERS

B = 7 @ 3/8-16 x 1-1/4 SS SHCS

C = 2 @ M10 x 1.5 x 70mm SS SHCS

D = 2 @ M10 x 1.5 x 110mm SS SHCS

E = 4 @ 5/16-24 x 3/4" SS HHB

E = 3 @ SUPPLIED WITH DAMPER

THIS KIT IS DESIGNED TO USE
THE FOLLOWING GM DAMPER AND WATER PUMP

GM DAMPER - PN. GM12553118

GM WATERPUMP - PN. GM19256263

OR ORILEY'S WATER PUMP - PN.CP5081

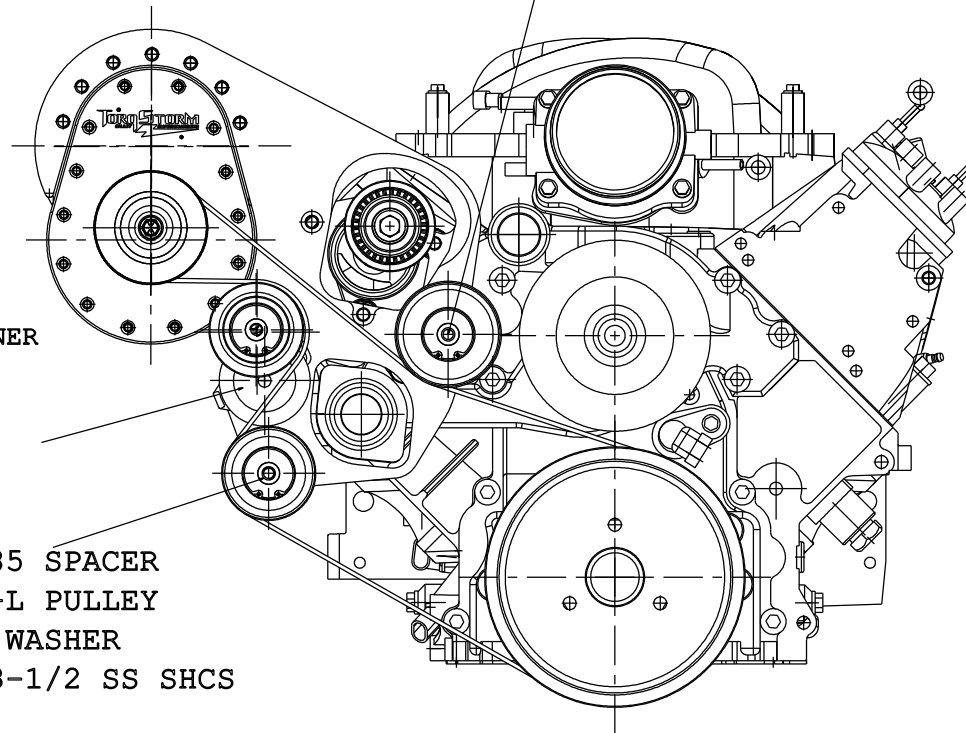
Description	SUPERCHARGER BRACKET LAYOUT
Part #	ARP-K-GM-LS1002-ATI

BELT ROUTING

DAYCO 89234 TENSIONER
ARP-52002 PULLEY
ARP-50056 BOLT
M10x1.5 FLANGE NUT

ARP-IS-1985 SPACER
ARP-50001-L PULLEY
ARP-50026 WASHER
3/8-16 x 3-1/2 SS SHCS

ARP-IS-1985 SPACER
ARP-50001-A PULLEY
ARP-50026 WASHER
3/8-16 x 3-1/2 SS SHCS

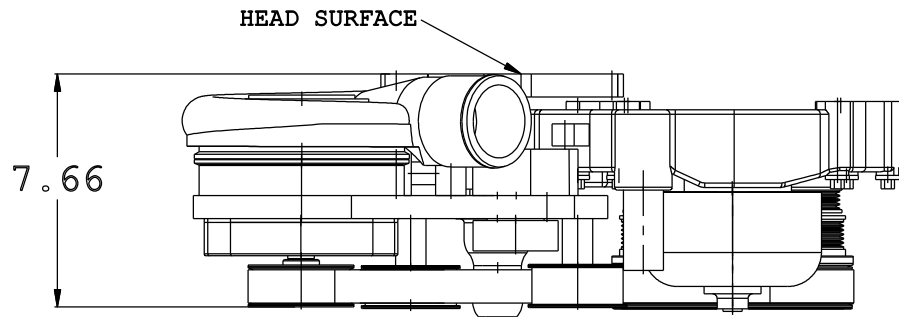


SUPERCHARGER BELT

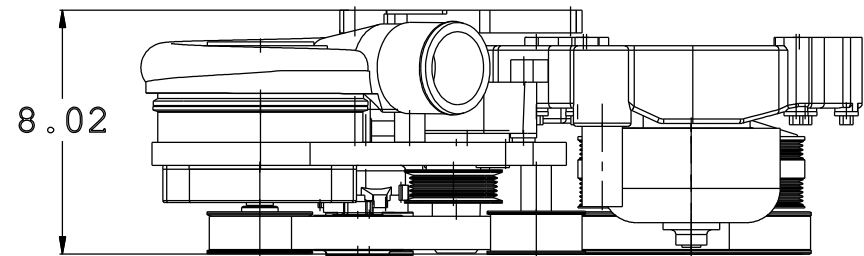
3.1" PULLEY = GATES K080575
DAYCO 5080575
3.25" PULLEY = GATES K080575
DAYCO 5080575
3.50" PULLEY = GATES K080575
DAYCO 5080575
4.0" PULLEY = GATES K080585
DAYCO 5080585

Description
BELT ROUTING
Part #
ARP-K-GM-LS1002
TORQSTORM BILLET SUPERCHARGERS

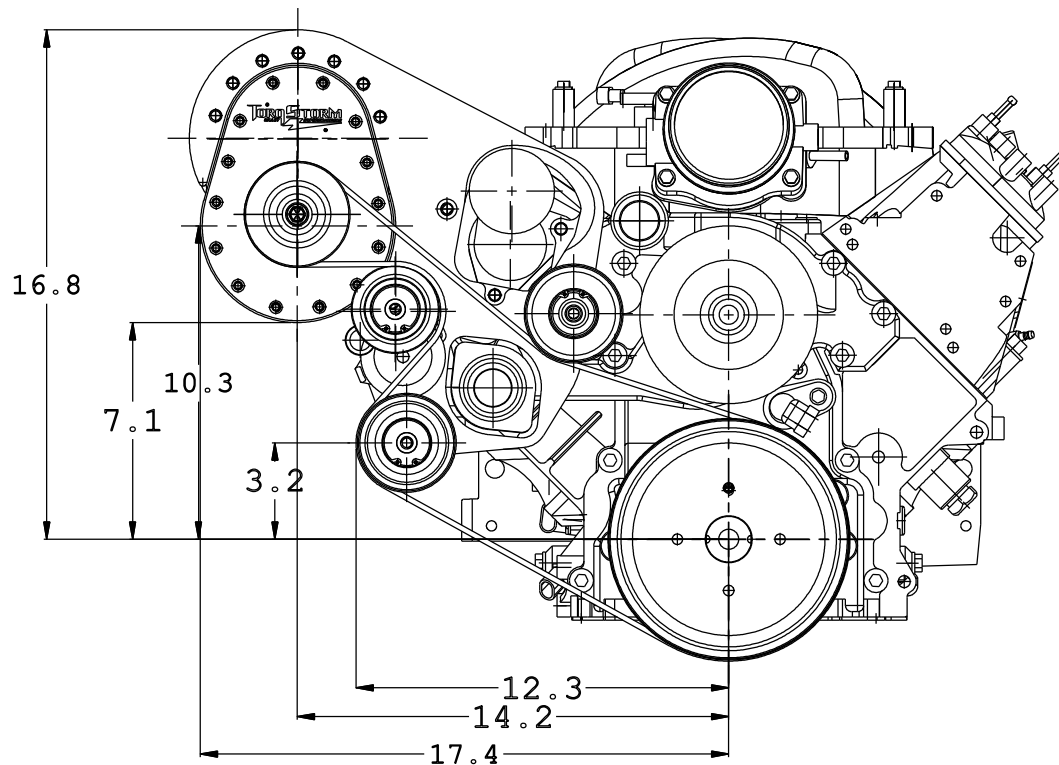
KIT DIMENSIONS

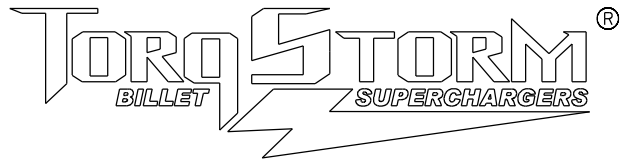


LS1 SPACING

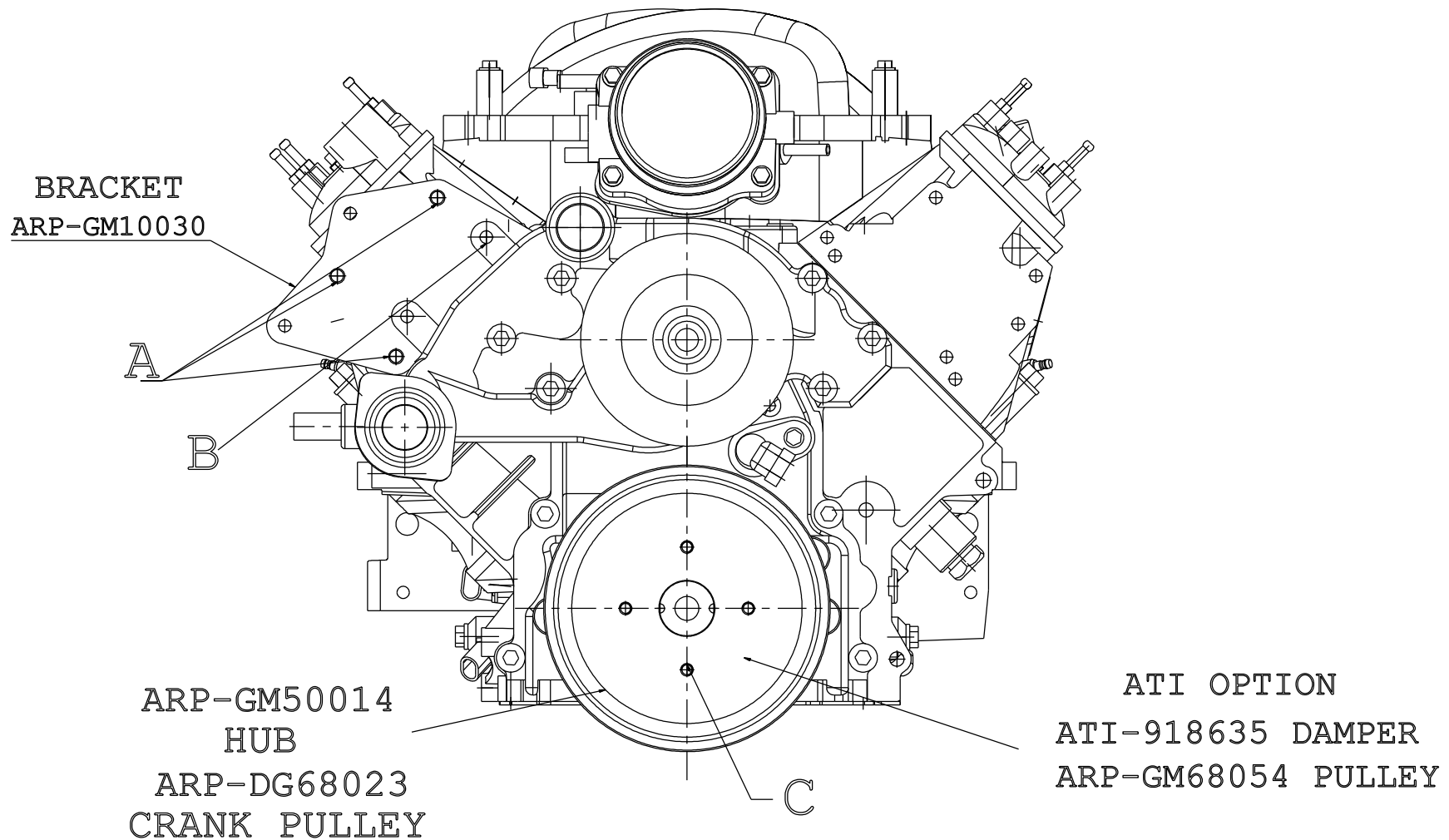


TRUCK SPACING

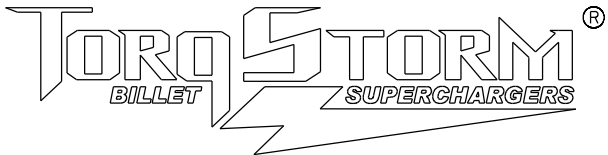


Description
KIT DIMENSIONS
Part #
ARP-K-GM-LS1002-LS1003-LS1007-LS1014


HEAD BRACKET LAYOUT

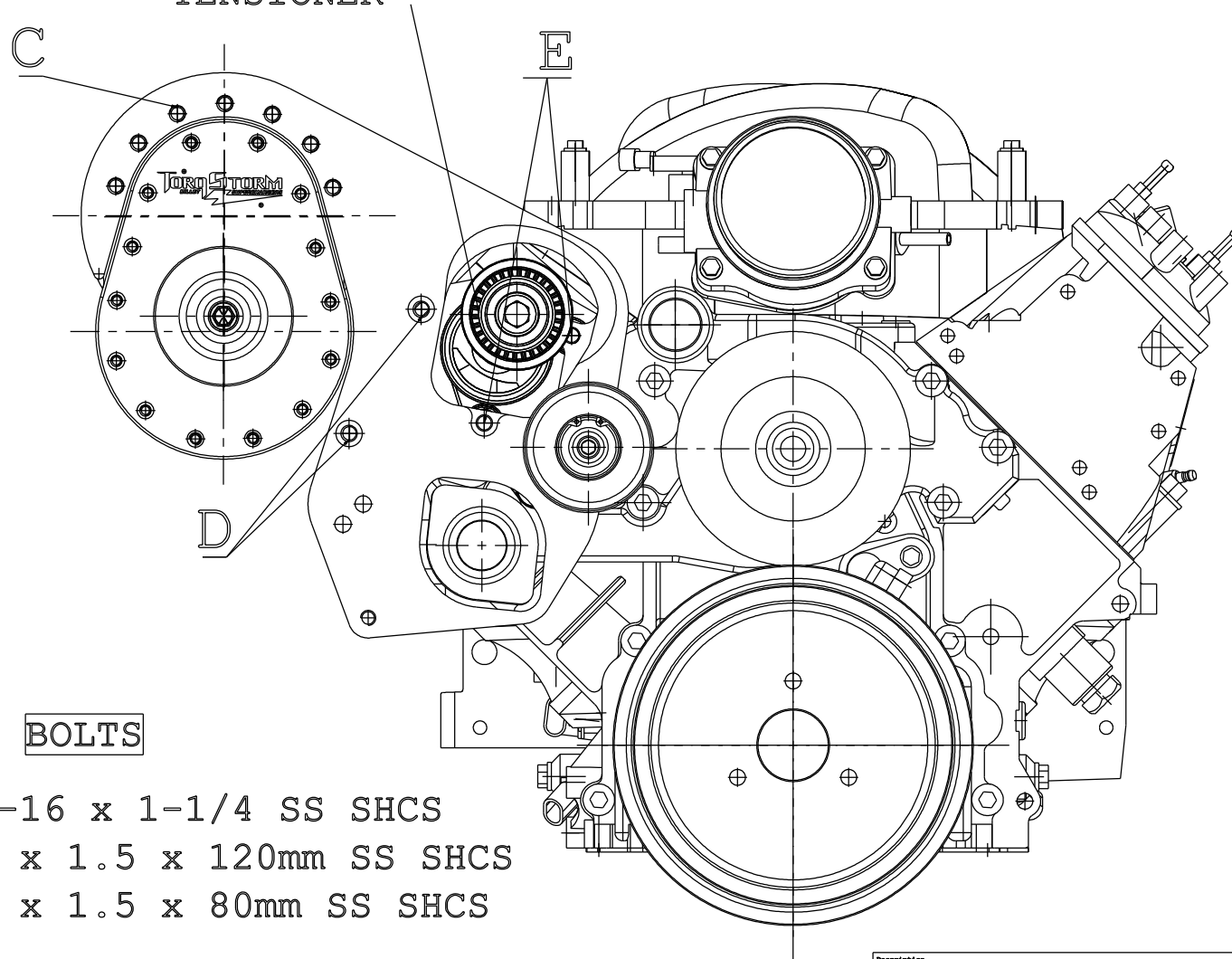


A = 3 @ M10 x 1.5 x 35mm SS HHB
B = 1 @ M10 x 1.5 x 30mm SS HHB
A-B = 4 @ 3/8 AN SS WASHERS
C - HUB = 4 @ 5/16-24 x 3/4 HHB
C - ATI = SUPPLIED WITH ATI DAMPER

Description	HEAD BRACKET LAYOUT
Part #	ARP-K-GM-LS1003/LS1007/LS1014
	

SUPERCHARGER BRACKET LAYOUT

DAYCO 89253
TENSIONER

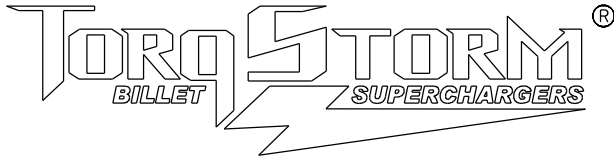


BOLTS

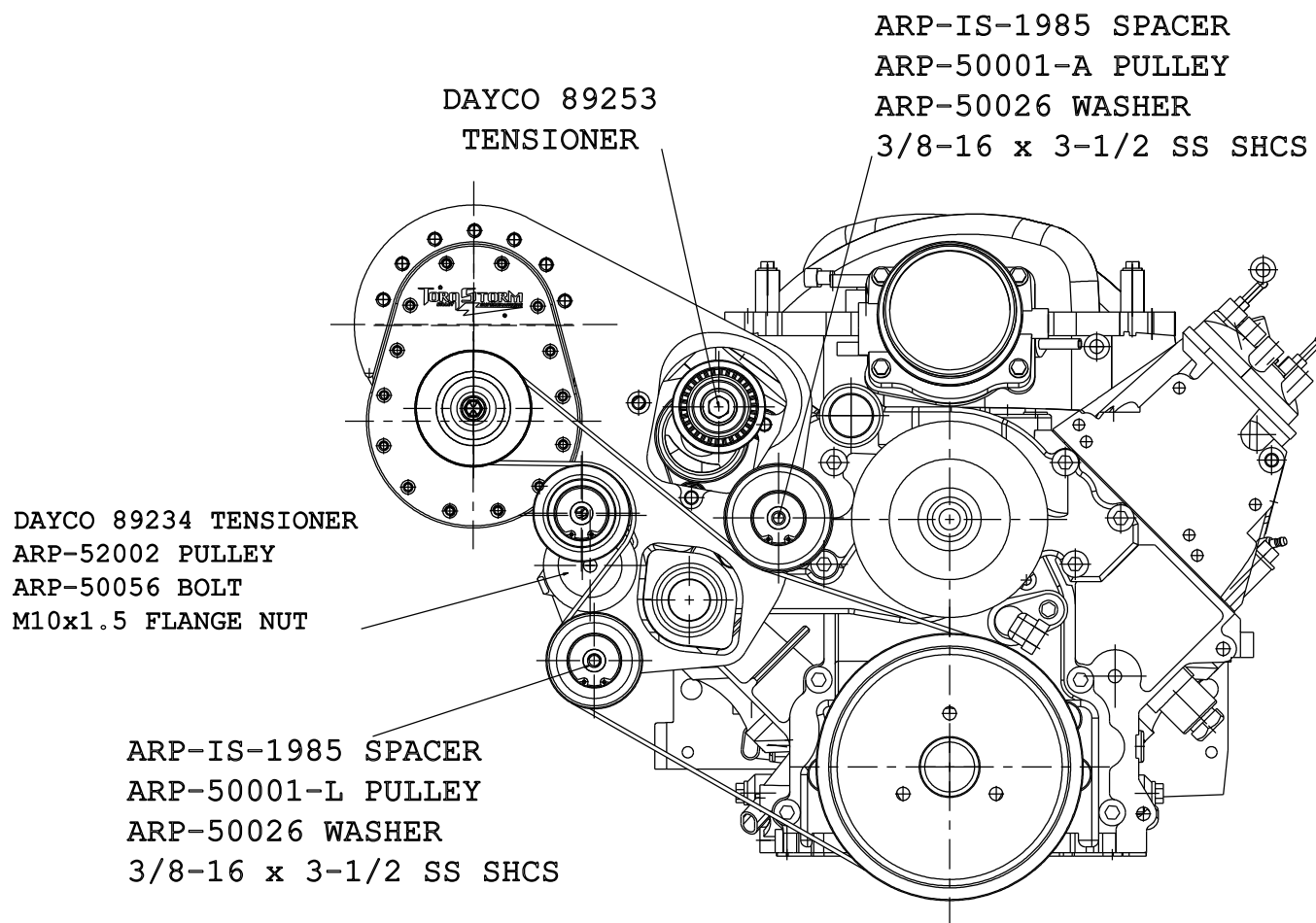
- C = 7 @ 3/8-16 x 1-1/4 SS SHCS
- D = 2 @ M10 x 1.5 x 120mm SS SHCS
- E = 2 @ M10 x 1.5 x 80mm SS SHCS

SPACERS

- D = 2 @ ARP-1.0 x 3700
- E = 2 @ ARP-.75 x 0150
- E = BEHIND MAIN BRACKET BUT IN FRONT OF TENSIONER

Description
SUPERCHARGER BRACKET LAYOUT
Part #
ARP-K-GM-LS1003/LS1007/LS1014


BELT ROUTING



SUPERCHARGER BELT

- 3.1" PULLEY = GATES K080575
DAYCO 5080575
- 3.25" PULLEY = GATES K080575
DAYCO 5080575
- 3.50" PULLEY = GATES K080575
DAYCO 5080575
- 4.0" PULLEY = GATES K080585
DAYCO 5080585

Description
BELT ROUTING
Part #
ARP-K-GM-LS1003-LS1007-LS1014


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.