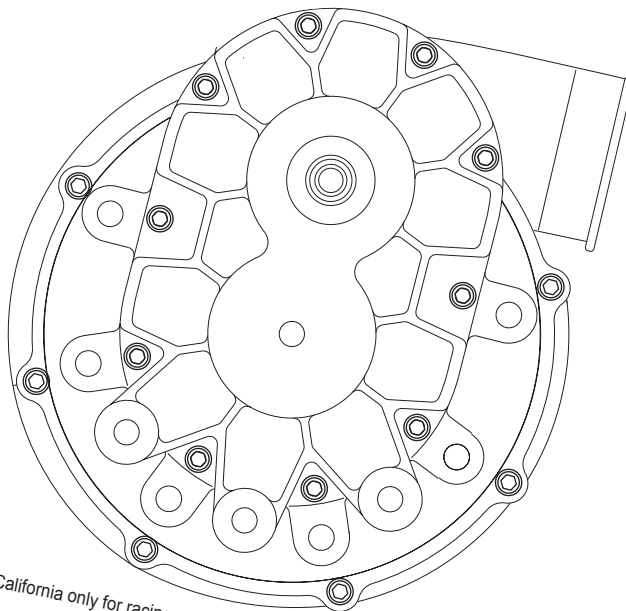


Chevrolet Camaro SS V-7 YSi Tuner Kit Supercharger System Installation Instructions

2016 Model Year*



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



ENGINEERING, INC

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

This manual provides information on the installation, maintenance and service of the Vortech supercharger kit expressly designed for this vehicle. 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 supercharger kit 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 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.

©2019 VORTECH ENGINEERING, INC

All rights reserved. No part of this publication may be reproduced, transmitted, transcribed, or translated into another language in any form, by any means without written permission of Vortech Engineering, Inc.

TABLE OF CONTENTS

FOREWORD	ii
TABLE OF CONTENTS	iii
IMPORTANT NOTES	iv
TOOL & SUPPLY REQUIREMENTS	v
PARTS LIST	vi
1. BASIC COMPONENT REMOVAL	1
2. TRANSMISSION COOLER BRACKET INSTALLATION	13
3. COOLANT HOSES & FAN SHROUD REMOVAL	17
4. DAMPER REMOVAL & INSTALLATION	23
5. COOLING SYTEM MODIFICATION & CHARGE AIR COOLER INSTALLATION	27
6. A/C LINE MODIFICATION & SUPERCHARGER MOUNTING BRACKET INSTALLATION ..	37
7. DISCHARGE TUBE INSTALLATION	45
7.1 DISCHARGE TUBE ASSEMBLY LAYOUT DIAGRAM	48
8. COOLING DUCT MODIFICATION & MAF INSTALLATION	49
9. BOOST/VACUUM REFERENCE TEE INSTALLATION	53
10. AIR INLET ASSEMBLY INSTALLATION	57
11. OIL FEED INSTALLATION	59
12. OIL DRAIN INSTALLATION	61
13. MISCELLANEOUS MODIFICATIONS & RE-ASSEMBLY	63
14. FINAL CHECK	67

NOTICE

This product is protected by state common law, copyright and/or patent. All legal rights therein are reserved. The design, layout, dimensions, geometry, and engineering features shown in this product are the exclusive property of Vortech Engineering, Inc. This product may not be copied or duplicated in whole or part, abstractly or fundamentally, intentionally or fortuitously, nor shall any design, dimension, or other information be incorporated into any product or apparatus without prior written consent of Vortech Engineering, Inc.

2016 CHEVROLET CAMARO

Installation Instructions

Congratulations on selecting the best performing and best backed automotive supercharger available today... the VORTECH® supercharger!

Before beginning this installation, please read through this entire instruction booklet and the Street Supercharger System Owner's Manual which includes the Limited Warranty Program, the Warranty Registration form and return envelope.

Vortech supercharger systems are performance improving devices. In most cases, increases in torque of 30-35% and horsepower between 35-45% can be expected with the boost levels specified by Vortech Engineering. This product is intended for use on healthy, well maintained engines. Installation on a worn-out or damaged engine is not recommended and may result in failure of the engine as well as the supercharger. 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 note of the following key points:

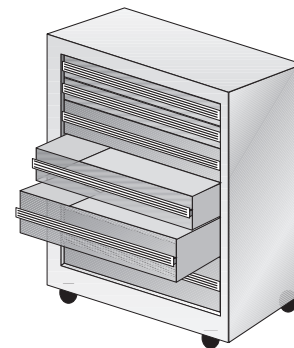
1. Use only premium grade fuel 91 octane or higher (R+M/2).
2. The engine must have stock compression ratio.
3. If the engine has been modified in any way, check with Vortech prior to using this product.
4. Always listen for any sign of detonation (pinging) and discontinue hard use (no boost) until problem is resolved.
5. Before beginning installation, replace all spark plugs that are older than 1-year or 15,000 miles with original heat range plugs as specified by the manufacturer and reset timing to factory specifications (follow the procedures indicated within the factory repair manual and/or as indicated on the factory underhood emissions tag). Do not use platinum spark plugs unless they are original equipment. Change spark plugs every 20,000 miles.
6. **Oil-Fed Units Only:** Perform an oil & filter change upon completion of this installation & prior to test driving your vehicle. Thereafter, always use a high-grade SF rated engine oil or a high quality synthetic, & change the oil & filter every 3,000 miles. Never attempt to extend the oil change interval beyond 3,000 miles, regardless of oil manufacturer's claims as potential damage to the supercharger may result.

TOOL & SUPPLY REQUIREMENTS

- 3/8" ratchet and drive set: SAE & metric
- 1/2" drive breaker bar
- 15/16 or 24mm socket
- Torque wrench
- Open end wrenches: SAE & metric
- 3/8" ratchet extensions
- Damper removal & installation tools
- 15mm crows foot
- Torx 20, Torx 25 & Torx 50 socket
- 3/8" NPT tap
- Screwdriver set
- Hose cutters
- Utility knife
- Red Loctite (#262 or #271)
- Blue Loctite (#242)

If it has been 15,000 miles or more since your vehicle's last spark plug change, then you will also need:

- Spark plug socket
- NEW spark plugs





2016 Camaro SS, V-7 YSi Tuner Kit

Part No. 4GT218-120

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.	PART NUMBER	DESCRIPTION	QTY.
008110	SMALL SILVER DIE CUT DECAL	2	4GT112-070	DISCH ASSY, V7 2016 CAM SS SAT	1
008130	LICENSE PLATE FRAME, VORTECH	1	4GT010-070	MNT TAB, DISCH TUBE B, 16 CAM SS	1
008443	S/C RACE INFO PKG ASSY VORT	1	4GT012-020	TUBE B, DISCH, 2016 CAM SS, SAT	1
2A258-080	S/C ASY, V7 YSI, 16 CAMARO W/PLY	1	4GT012-030	TUBE C, DISCH, 2016 CAM SS	1
4GT016-010	DAMPER, CRANK, 2016 CAMARO SS	1	4GT012-040	TUBE D, DISCH, 2016 CAM SS	1
4GT020-015	INSTR MAN, 2016 CAM SS, V-7	1	4GT012-070	TUBE A, BYP MNT, V7, 16 CAM SS	1
4GT110-050	FLUID SUPPORT ASY, '16 CAM SS	1	4GT020-012	TMPLT, CLNG DUCT MOD, 16 CAM SS	1
4GT010-050	BRACKET, TRANS CLR, '16 CAM	1	5W001-096	HARNES, MAF EXTEN, 16 CAM SS	1
5W001-082	SLEEVE, FLEX BRAID .75" NOM.	2.5FT	7C040-008	M4-7 X 8MM SCHD SS	2
7C060-026	M6 X 1.0 X 25MM, FLG HD, PLATED	2	7C060-017	M6 X 1.0 X 16 BUTN HD ZN PLT	1
7P375-372	FITTING, TRANS CLR, '16 CAM	2	7C080-031	M8 X 1.25 X 30MM SET SCREW	2
7P625-004	5/8 TEE, GF NYLON	1	7P375-250	3/8 X 3/8 X 1/4 MALE BARB TEE	1
7P625-016	5/8" HOSE UNION, BARBED ENDS	1	7PS300-091	ELBOW, BLK, 3" X 90 SILICONE	1
7R002-010	#10 SAE TYPE F SS HOSE CLAMP	2	7PS300-300	SLEEVE, BLACK, 3.00D X 3.00	1
7R004-002	STEPLESS CLAMP, 17.0-70	2	7PS300-301	BUMP HOSE, 3.00D X 3.00L	2
7R004-004	STEPLESS CLAMP, 25.6 X 7MM	4	7PS300-302	SLEEVE, DISCH, CUSTOM, 16 CAM SS	1
7U032-020	HOSE, 3/8" ID P/STEERING RET	5.25IN	7PS388-301	ELBOW, REDUCER, 3.88-3.00 X 90	1
7U100-055	TIE WRAP, 7.5" NYLON	15	7R002-048	#48 SAE TYPE F SS HOSE CLAMP	10
7U133-006	5/8" MOLDED ELBOW, COOLANT, 6"	1	7R002-052	#52 SAE TYPE F SS HOSE CLAMP	2
7U133-048	5/8" MOLDED ELBOW HOSE, 48"	1	7R002-064	#64 SAE TYPE F SS HOSE CLAMP	1
4GT110-101	S/C MTG BRKT ASY, 10-RIB, 16 CAM	1	7R004-002	STEPLESS CLAMP, 17.0-70	4
2A017-882-02	SPACER, .875 OD X .101 LNG	1	7U030-030	1/4" VACUUM HOSE	2
4FD017-011	PILOT, 6203/5 BRG, 1/2 SCREW	2	7U032-016	3/8" EFI FUEL HSE HI-PSR	1.25FT
4GE116-021	IDLER ASSY, SMOOTH, 10-RIB, 75MM	1	4GT116-010	DRIVE ASSY, 10-RIB, 16 CAM	1
4GT010-011	MTG PLATE A, CYL HD, 16 CAM SS	1	2A041-568	BELT, DAYCO 5100568 10 RIB	1
4GT010-021	MTG PLATE B, SC MOUNT, 16 CAM SS	1	4GT014-010	TUBE ASY, RADIATOR, 16 CAM SS	1
4GT010-040	BRKT,SUPPORT,REAR PLT,16 CAM SS	1	4GT017-041	SPACER, CRK PLY, AUX DRV,16 CAM	1
4GT010-090	STRAP, A/C LINE, 16 CAM SS	1	4GT111-052	ASY, 10-RIB TENSIONER, 2016 CAM	1
4GT010-101	MTG PLATE C, AUX DRV, 16 CAM	1	4MA018-051	CRANK PLY, 10-RIB, 7", UNIV	1
4GT010-111	MTG PLATE, TNSR, AUX DRV, 16 CAM	1	7A375-352	3/8-16 X 3.5" HX HD GR8	3
4GT017-011	SPACER, DUAL THREAD, 2016 CAM	4	7C016-010	BOLT, OEM LS1, M16-2.0	1
4GT017-031	SPACER,IDLR,1.342", '16 CAM AUX DRV	2	7E017-075	#17 X .75 HXHD SHEET METAL SCREW	1
4GX016-150	IDLER, GROOVED, 10-RIB, DUAL BRG	1	7J375-044	3/8 SAE WASHER, PLTD	3
7A312-052	5/16-18 X 1/2" SHCS, GR8 PLATED	2	7R002-024	#24 SAE TYPE F SS HOSE CLAMP	2
7A375-105	3/8-16 X 1" HHCS, GR8, PLATED	14	7R003-011	ADEL CLAMP, 3/4 ID, 5/16 EYE	1
7C010-025	M10-1.5 X 25MM HXCSP	2	7U034-020	HOSE, 1.25 DIA RUBBER RAD.	4IN
7C010-030	M10 X 1.5 X 30 HXHD CL10.9	2	4GT130-026	OIL FEED ASY, 2016 CAMARO	1
7C010-035	M10 X 1.5 X 35 HXCS CL10.9 PLT	1	7P016-125	M16 X 1.5 MALE TO 1/8 NPT FEM	1
7C010-100	M10 X 1.5 X 100 HXHD CL8.8	1	7P125-004	1/8 NPT 90 X -4 JIC FTG STL	1
7C012-083	M12 X 1.75 X 80MM HHCS, SS	2	7P125-005	1/8 NPT STR. X -4 JIC FTG STL	1
7C080-025	M8 X 1.25 X 25 HXHD	2	7U100-055	TIE WRAP, 7.5" NYLON	5
7J010-002	WASHER, M10 FLAT, ZN PLT	6	7U250-000-510	OIL FEED HOSE,51.0",-4 STR	1
7K312-001	5/16 AN WASHER, PLATED	2	4GT130-036	OIL DRAIN ASY, 2016 CAMARO	1
7K375-040	3/8 AN960 FLAT WASHER PLATED	14	7P375-017	3/8 NPT X 1/2 BEADED HSE BRB	1
7U038-040	HOSE, 3/4" ID NEOPRENE	6IN	7R001-008	#8 STNLS HOSE CLAMP	2
4GT112-060	AIR INLET ASSY, V7 2016 CAM SS	1	7T560-001	CUTTER, 9/16" ROTABROACH	1
4GT010-060	HEAT SHIELD, AIR INLET, 16 CAM SS	1	7T560-002	ARBOR, ROTABROACH	1
7P100-101	PLUG, RUBBER STOPPER, 1"	1	7U030-036	1/2" OIL DRAIN HOSE	2FT
7P375-008	ELBOW, PLASTIC 3/8 X 90 UNION	1	8D204-111	ASSY, BILLET RACE BOV, BLACK	1
7P625-374	FTG, 5/8 QUICK CONN TO 3/8 BARB	1	8N108-040	CAC ASSY, '16 CAMARO SS	1
7R004-002	STEPLESS CLAMP, 17.0-70	2			
7U030-056	3/8 PCV/VAC RUBBER HOSE	.883FT			
8H040-097	AIR FILTER, 4"FLG 7" LONG	1			

1. BASIC COMPONENT REMOVAL

- A. Open the trunk lid & remove the battery cover on the inside-right side of the trunk.
(See Fig. 1-a)



Fig. 1-a: Remove Battery Cover

- B. With the battery cover removed, unplug the negative battery terminal from the battery using a 10mm wrench. The negative battery terminal is closest to the inside of the trunk..
(See Fig. 1-b)



Fig. 1-b: Unplug Negative Battery Terminal

- C. With the vehicle safely secured on jackstands or on a vehicle lift, remove the lower splash guard by removing 6x 10mm-headed screws & 6x 7mm-headed screws. Next, remove the remaining 7mm-headed screws along the front underside of the bumper that secure the fender liner to the front of the bumper.
(See Fig. 1-c)

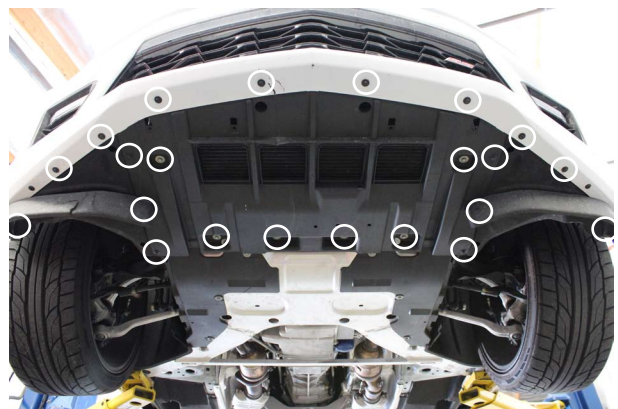


Fig. 1-c: Remove Splash Guard Fasteners

1. BASIC COMPONENT REMOVAL, cont'd

- D. Remove 4x T10 screws securing the front of each fender liner, then pull the fender liner back to expose the front bumper screws. Remove 5x 7mm-headed screws securing the front bumper cover to the fender. Be sure to remove the screw that fastens the corner of the bumper to the fender.

(See Fig. 1-d)

NOTE: Driver side shown. Repeat on passenger side.



Fig. 1-d: Remove Front Bumper Fasteners

- E. Remove 4x plastic fasteners & 4x 10mm-headed screws securing the top of the front bumper cover to the vehicle.

(See Fig. 1-e)



Fig. 1-e: Remove Front Bumper Fasteners

- F. Un-snap both corners of the front bumper cover away from the front fenders, then pull the front bumper cover away from the vehicle. Be sure to unplug the fog light connector from the main harness.

(See Fig. 1-f)

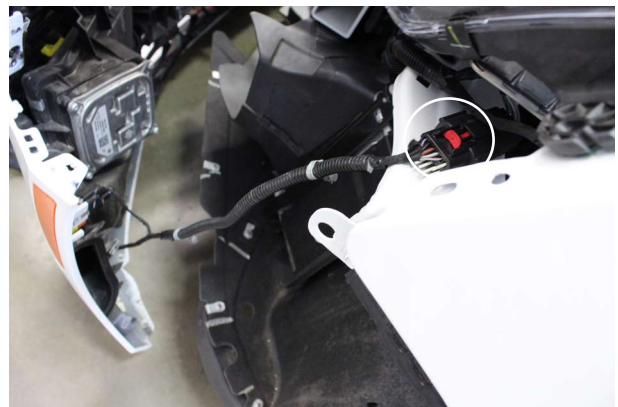


Fig. 1-f: Unplug Fog Light Harness

1. BASIC COMPONENT REMOVAL, cont'd

- G. Remove 2x 7mm-headed screws securing the top of the headlight to the vehicle.
(See Fig. 1-g)

NOTE: Passenger side shown. Repeat on driver side.



Fig. 1-g: Remove Headlight Fasteners

- H. Remove 2x 7mm-headed screw securing the bottom & outer corner of the headlight to the vehicle.
(See Fig. 1-h)

NOTE: Passenger side shown. Repeat on driver side.



Fig. 1-h: Remove Headlight Fasteners

- I. Unplug both electrical connectors from the back of the headlight.
(See Fig. 1-i)

NOTE: Passenger side shown. Repeat on driver side.

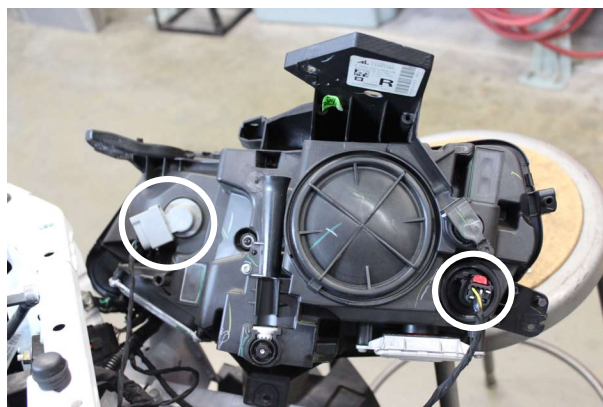


Fig. 1-i: Unplug Headlight Connectors

1. BASIC COMPONENT REMOVAL, cont'd

- J. Remove 6x plastic fasteners securing the transmission cooler shroud to the transmission cooler mounts.

(See Fig. 1-j)



Fig. 1-j: Remove Shroud Fasteners

- K. From underneath the transmission cooler shroud, unclip the mount securing the hard transmission cooler line to the transmission cooler shroud.

(See Fig. 1-k)

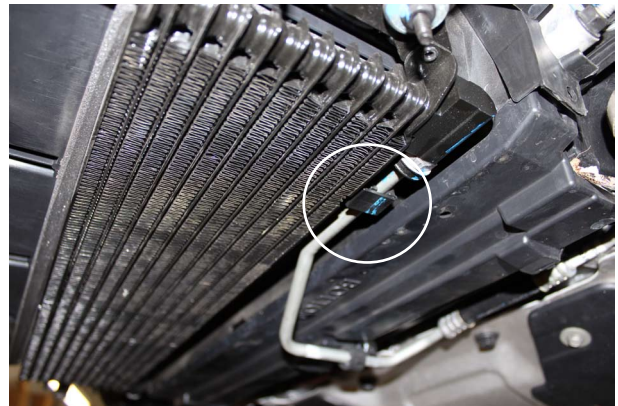


Fig. 1-k: Unclip Oil Line From Mount

- L. Remove the ambient air temperature sensor from the transmission cooler shroud by pushing it out, then proceed to remove the transmission cooler shroud from the vehicle.

(See Fig. 1-l)



Fig. 1-l: Remove Ambient Air Temperature Sensor

1. BASIC COMPONENT REMOVAL, cont'd

- M. There are 5x plastic fasteners securing the supplemental radiator duct & 1x plastic fastener securing the brake cooling duct to the vehicle. Remove these fasteners, then remove both ducts from the vehicle.

(See Fig. 1-m)

NOTE: Passenger side shown. Repeat on driver side.



Fig. 1-m: Zoomed In - Remove Brake Duct Fastener

- N. Remove the 2x 10mm-headed screws securing the transmission cooler mounts to the front bumper support.

(See Fig. 1-n)

NOTE: Passenger side shown. Repeat on driver side.



Fig. 1-n: Remove Trans Cooler Mount Screws

- O. With both transmission cooler mount screws removed, slide the transmission cooler mounts onto the temporary support slots as shown.

(See Fig. 1-o)

NOTE: Passenger side shown. Repeat on driver side.



Fig. 1-o: Temporary Support

1. BASIC COMPONENT REMOVAL, cont'd

- P. Remove the 4x 10mm-headed screws securing the braces from the core support to the front bumper beam. Next, remove the 3x plastic fasteners securing each upper radiator shroud to the vehicle.

(See Fig. 1-p)

NOTE: Passenger side shown. Repeat on driver side.

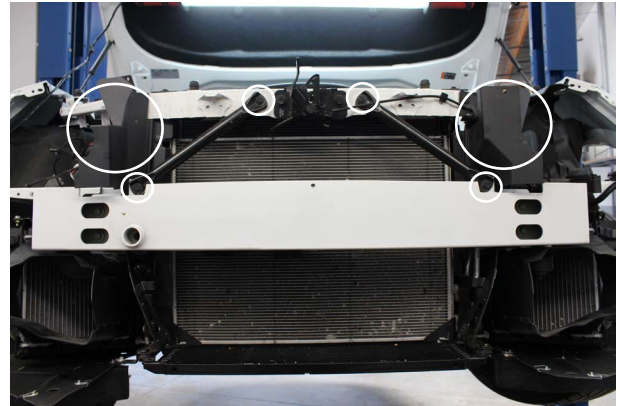


Fig. 1-p: Remove Bracing & Upper Radiator Shrouds

- Q. Remove the 3x plastic tabs securing the wire harness along the top of the front bumper beam.

(See Fig. 1-q)



Fig. 1-q: Remove Plastic Tabs

- R. Remove the plastic screw cover from the horn fastener, then remove the 10mm-headed fastener securing the horn to the front bumper beam.

(See Fig. 1-r)



Fig. 1-r: Remove Horn Fastener

1. BASIC COMPONENT REMOVAL, cont'd

- S. With the fastener removed, lift the horn assembly from it's mounting location & unplug the electrical connector. Set the horn assembly aside at this time.

(See Fig. 1-s)



Fig. 1-s: Unplug Horn Assembly & Set Aside

- T. Remove the 3x plastic fasteners securing the driver side headlight shroud & remove the shroud from the vehicle.

(See Fig. 1-t)



Fig. 1-t: Remove Plastic Fasteners

- U. Next, remove the 8x 13mm-headed screws securing the front bumper beam to the vehicle. The screws are located inside the 4 slots on the front bumper beam.

(See Fig. 1-u)



Fig. 1-u: Remove Front Bumper Beam Fasteners

1. BASIC COMPONENT REMOVAL, cont'd

- V. Using 2x previously removed front bumper beam screws, thread them back in to the bumper beam mount, then use zip ties to temporarily secure the transmission cooler mounts to the screws.

(See Fig. 1-v)

NOTE: Passenger side shown. Repeat on driver side.

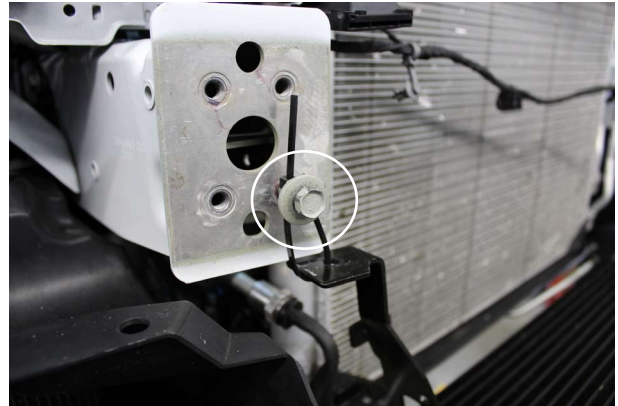


Fig. 1-v: Temporary Trans Cooler Mounting

- W. Remove the 2x plastic fasteners securing the headlight shroud to the vehicle & set aside.

(See Fig. 1-w)



Fig. 1-w: Remove Plastic Fasteners

- X. In order to remove the radiator shroud mounted on the driver side of the radiator, a section of the shroud needs to be cut. Using a razor blade, cut the lower section of the shroud as shown.

(See Fig. 1-x)

NOTE: Removed from vehicle for reference.



Fig. 1-x: Cut Radiator Shroud As Shown

1. BASIC COMPONENT REMOVAL, cont'd

- Y. With the driver side radiator shroud cut, remove the 8x metal fasteners (4x per side) & 2x plastic fasteners (1x per side) & pull the shrouds off of the radiator. These will not be re-used.

(See Fig. 1-y)

NOTE: Removed from vehicle for reference.



Fig. 1-y: Remove Fasteners

- Z. Unplug the electrical connector from the MAF sensor.

(See Fig. 1-z)



Fig. 1-z: Unplug MAF Sensor

- AA. Unclamp the spring clamp & remove the sound tube from the factory air inlet tube.

(See Fig. 1-aa)



Fig. 1-aa: Remove Sound Tube From Air Inlet

1. BASIC COMPONENT REMOVAL, cont'd

- AB. Unplug the EVAP hose from the factory air inlet tube by pressing the gray tab inwards & lifting the EVAP tube upwards. Loosen the hose clamp securing the factory air inlet to the throttle body, then remove the factory air inlet assembly & air box from the vehicle. The factory air box is held in place by 2 rubber grommets & is removed by lifting the air box upwards. These will not be re-used.

(See Fig. 1-ab)

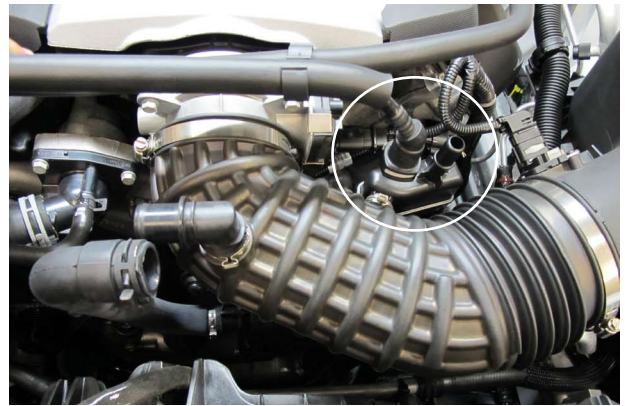


Fig. 1-ab: Remove EVAP Hose From Air Inlet

- AC. Remove the 2x T50 screws securing the sound tube to the water pump.

(See Fig. 1-ac)



Fig. 1-ac: Remove Sound Tube Screws

- AD. Disconnect the sound tube from its connector by squeezing the plastic ring & pulling the sound tube out.

(See Fig. 1-ad)



Fig. 1-ad: Disconnect Sound Tube

1. BASIC COMPONENT REMOVAL, cont'd

- AE. Remove the rubber sound tube mount from the A/C line by removing the plastic fastener. Discard the sound tube as it will not be reused.

(See Fig. 1-ae)



Fig. 1-ae: Unclip & Remove Sound Tube From Vehicle

- AF. Remove the 13mm-headed fastener securing the harness mount to the front of the engine, then unplug the large electrical connector. Remove the steel connector mount from the large connector at this time. It will not be re-used.

(See Fig. 1-af)

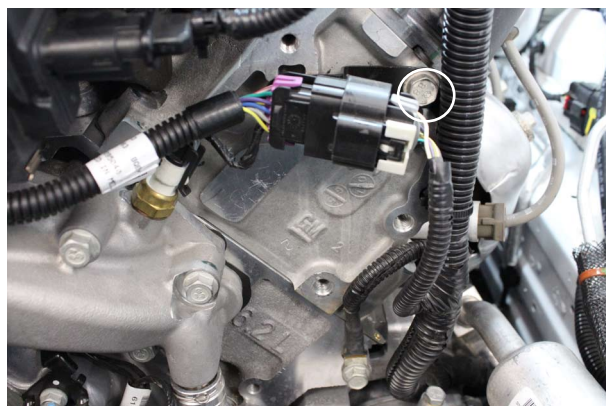


Fig. 1-af: Remove Screws & Unplug Large Connector

- AG. Remove the 13mm-headed fastener securing the ground strap to the front of the engine. Bend the locating tab of the ground harness straight, then mount the ground strap 90° from its original location. Re-secure with the previously removed fastener.

(See Fig. 1-ag)

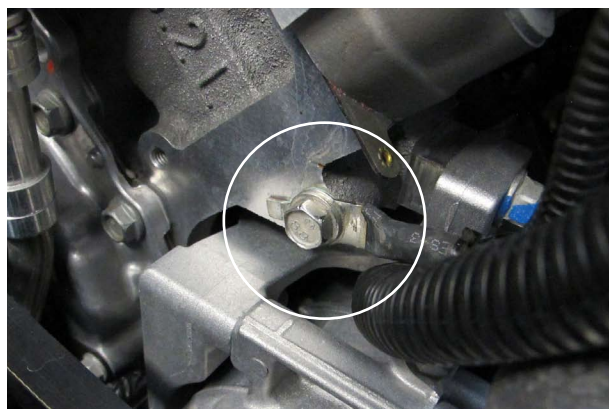


Fig. 1-ag: Modified Ground Strap

1. BASIC COMPONENT REMOVAL, cont'd

- AH. Using a 15mm wrench, turn the belt tensioner clockwise to de-tension the accessory belt & remove the accessory belt from the vehicle. Once the belt is removed, slowly release the tensioner back into its resting position. Failure to do so may result in damage to the tensioner.

(See Fig. 1-ah)



Fig. 1-ah: Remove Accessory Belt

2. TRANS. COOLER BRACKET INSTALLATION

- A. Rest the transmission cooler on a floor jack. Place a rag in between the transmission cooler & the floor jack to avoid damaging the fins on the transmission cooler. Remove the passenger side transmission cooler bracket by loosening the 2x 10mm-headed nuts on the underside of the bracket. (See Fig. 2-a)

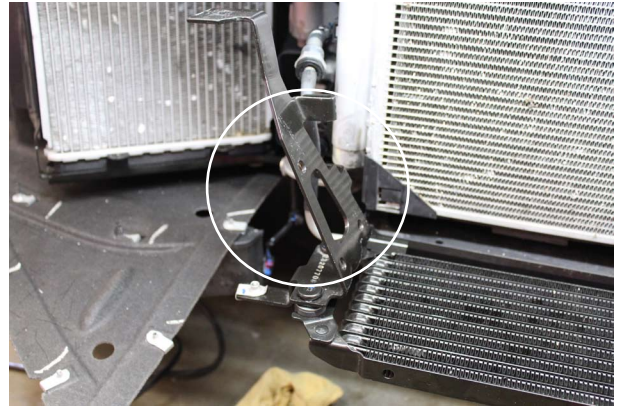


Fig. 2-a: Remove P.Side Trans. Cooler Bracket

- B. Transfer the 2x rubber grommets & 2x 10mm-headed nuts & loosely attach them to the new transmission cooler bracket using the provided M6 X 25mm screws. Also transfer the threaded C-clip to the new bracket. (See Fig. 2-b)



Fig. 2-b: New Trans. Cooler Bracket Layout

- C. With the transmission cooler bracket removed, cut off the marked section of the shroud. (See Fig. 2-c)



Fig. 2-c: Modify Trans. Cooler Shroud

2. TRANS. COOLER BRACKET INSTALLATION, cont'd

- D. The section of transmission cooler line that runs into the engine compartment is attached to the passenger side of the radiator using a plastic push fastener. Detach the plastic push fastener from the radiator.

(See Fig. 2-d)



Fig. 2-d: Detach Trans. Cooler Line From Radiator

- E. Located on the passenger side of the transmission cooler is a quick-release connection for one of the transmission cooler lines. Pull back the black plastic cap, then use a small pick to remove the snap ring securing the transmission cooler line to the transmission cooler. Place a rag or an oil bin underneath the line as some oil will drain. When ready, pull the transmission cooler line away from the transmission cooler. Repeat the same process for the opposite end of the transmission cooler line. Once the transmission cooler line is removed, place the snap rings back in their original location, but leave the black plastic caps off.

(See Fig. 2-e)



Fig. 2-e: Remove P. Side Trans. Cooler Line

- F. Locate the provided transmission cooler bracket & install it in place of the previously removed OEM transmission cooler bracket. Secure using the 2x 10mm-headed fasteners from the underside of the cooler.

(See Fig. 2-f)



Fig. 2-f: Install P.Side Trans. Cooler Bracket

2. TRANS. COOLER BRACKET INSTALLATION, cont'd

- G. Locate the 2x transmission hose fittings. The end of the transmission hose fitting with the cone will go into the transmission cooler. The other end of the transmission hose fitting will go into the 3/8" hose in the next step. The barb in the middle of the transmission hose fitting is the "hose stop".
(See Fig. 2-g)



Fig. 2-g: Transmission Hose Fitting

- H. Locate the 5.25" length of 3/8" hose & insert a transmission hose fitting in each end. Be sure that the hose doesn't go past the hose stops. Secure using 2x 17.0 stepless clamps.
(See Fig. 2-h)



Fig. 2-h: Transmission Hose Assembly

- I. Locate the 2x black plastic caps removed during Step E. Slide the 2x black plastic caps over the transmission hose fittings (1x per side). Insert one hose fitting into the transmission cooler & the other hose fitting into the other section of transmission cooler line from Step D. Once both transmission hose fittings snap into place, slide the black plastic caps over the snap rings.
(See Fig. 2-i)



Fig. 2-i: Insert Transmission Hose Fitting To Transmission Cooler

2. TRANS. COOLER BRACKET INSTALLATION, cont'd

- J. Once installed, ensure that there are no kinks in the rubber hose.
(See Fig. 2-j)



Fig. 2-j: Check Hose For Kinks

3. COOLANT HOSES & FAN SHROUD REMOVAL

- A. Remove the pressure cap from the engine coolant reservoir near the passenger side of the engine compartment. Locate the engine coolant drain valve at the bottom passenger side corner of the radiator. Open the valve and drain the coolant into a clean container for later reuse.

(See Fig. 3-a)

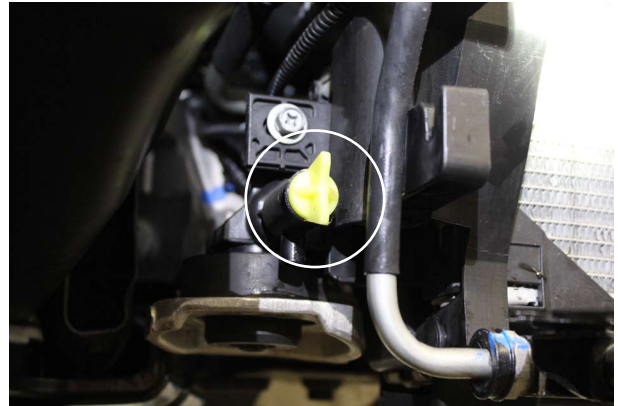


Fig. 3-a: Drain Engine Coolant

- B. Remove the rubber coolant hose from the coolant crossover tube by unclamping the spring clamp, then detach the 2x plastic fasteners securing the coolant crossover tube to the radiator fan shroud.

(See Fig. 3-b)



Fig. 3-b: Remove Coolant Hose

- C. Located on the lower passenger side of the radiator is a small diameter coolant hose. Unclamp the spring clamp & remove the coolant hose from the radiator.

(See Fig. 3-c)



Fig. 3-c: Zoomed In - Remove Lower Passenger Side Coolant Hose

3. COOLANT HOSES & FAN SHROUD REMOVAL, cont'd

- D. On the passenger side supplemental radiator, remove the forwardmost coolant hose from its fitting by removing the OEM spring clamp. Set the OEM spring clamp aside for re-use in a future step.

(See Fig. 3-d)

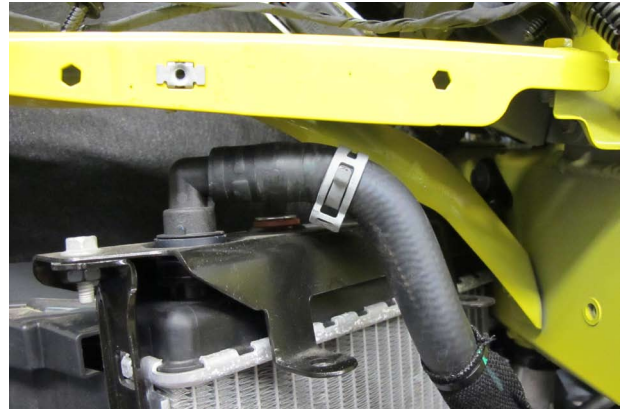


Fig. 3-d: Zoomed In - Remove Forwardmost Coolant Hose

- E. With all 3 hoses detached, remove the coolant hose assembly from the vehicle & set aside. It will not be re-used.

(See Fig. 3-e)



Fig. 3-e: Remove Coolant Hose Assembly

- F. Remove the lower radiator hose from the water pump & cut off 1" from the end of the hose.

(See Fig. 3-f)



Fig. 3-f: Remove Lower Radiator Hose (Water Pump Side)

3. COOLANT HOSES & FAN SHROUD REMOVAL, cont'd

- G. Detach the 1x plastic hose clamp securing the lower radiator hose to the radiator fan shroud. (See Fig. 3-g)



Fig. 3-g: Detach Lower Coolant Hose Assembly

- H. There are 3x coolant hoses that tee into the lower radiator hose assembly. Detach those 3x hoses from the tees. Next, remove the lower radiator hose from the lower driver side of the radiator, then pull the entire assembly (as shown) out of the vehicle.

(See Fig. 3-h)

NOTE: In order to access the spring clamp retaining the driver side of the lower radiator hose, it may be necessary to remove the driver side brake cooling duct & driver side supplemental radiator duct. Remove them if necessary.

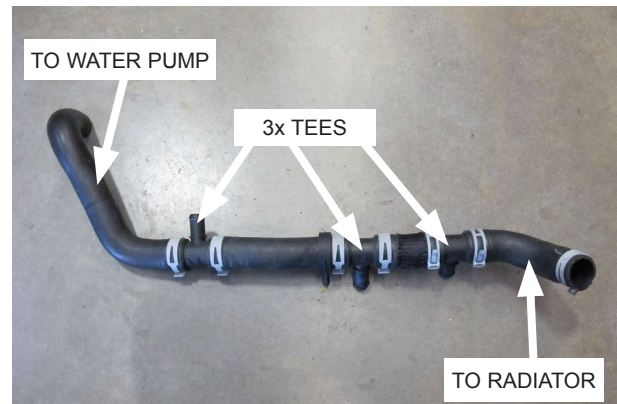


Fig. 3-h: Remove Lower Radiator Hose Assembly (Removed from vehicle for clarity.)

- I. Disconnect the electric fan connector located on the upper passenger side of the fan shroud assembly.

(See Fig. 3-i)

NOTE: In order to provide adequate working space to remove/install the damper, it may be necessary to remove the radiator fan shroud. However, if your remover/installer tool can fit without removing the fan shroud, proceed to Section 4 on Pg.23.



Fig. 3-i: Unplug Electric Fan

3. COOLANT HOSES & FAN SHROUD REMOVAL, cont'd

- J. Remove the upper radiator shroud by removing the 3x plastic fasteners securing it to the upper section of the fan shroud.

(See Fig. 3-j)



Fig. 3-j: Remove Upper Radiator Shroud

- K. Remove the 3x 7mm-headed screws securing the lower section of the radiator fan shroud to the lower radiator shroud.

(See Fig. 3-k)

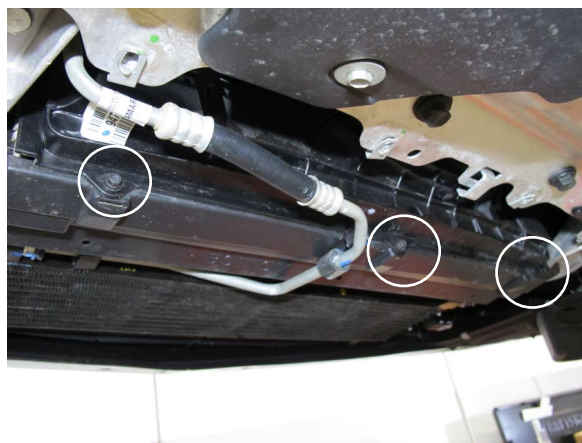


Fig. 3-k: Remove Lower Fan Shroud Screws

- L. Located on the driver side of the radiator is a quick-release connection for one of the transmission cooler lines. Pull back the black plastic cap, then use a small pick to remove the snap ring securing the transmission cooler line to the radiator. Place a rag underneath the line as some oil will drain. When ready, pull the transmission cooler line away from the radiator & free it from the radiator fan shroud.

(See Fig. 3-l)

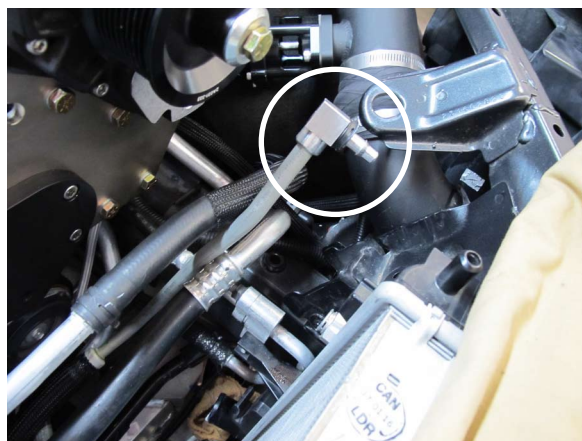


Fig. 3-l: Detach Driver Side Transmission Cooler Line

3. COOLANT HOSES & FAN SHROUD REMOVAL, cont'd

- M. Follow the transmission cooler line towards the bottom of the vehicle & you will see it is also retained on the cross member by a 10mm-headed screw & an adel clamp. Remove the 10mm-headed screw & push the transmission cooler line towards the front of the vehicle as it will be relocated. Thread the 10mm-headed screw back into it's original location, but discard the adel clamp. (See Fig. 3-m)



Fig. 3-m: Release Trans. Cooler Line From Cross Member

- N. Unclamp both spring clamps securing the upper radiator hose & remove the hose. Next, detach the coolant overflow tank hose (smaller diameter) from the radiator. (See Fig. 3-n)

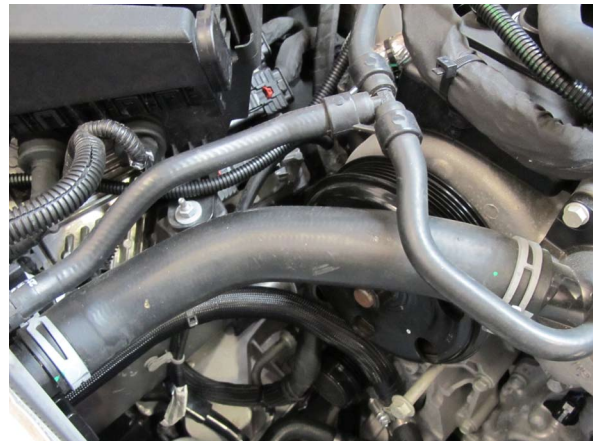
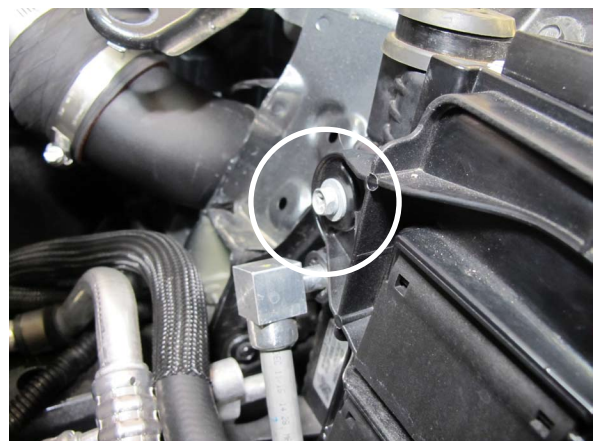


Fig. 3-n: Remove Upper Coolant Hose

- O. There are 2x 10mm-headed screws securing the radiator fan shroud to the radiator (1x per side). Remove both 10mm-headed screws, then carefully remove the fan shroud from the vehicle, making sure not to damage the plastic bungs on the radiator. (See Fig. 3-o)



*Fig. 3-o: Remove Fan Shroud Screws
(1 of 2 screws shown.)*

This page was left intentionally blank.

4. DAMPER REMOVAL & INSTALLATION

- A. Place the car into neutral. Place a strap on the ribbed section of the A/C belt, then rotate the crank pulley so the strap gets sandwiched between the A/C pump & the A/C belt. Once the strap is in place, continue to rotate the crank pulley while simultaneously pulling the strap towards you. This will throw the belt off of its track & cause it to come off. Repeat this step as many times as necessary until the belt is off.

(See Fig. 4-a)



Fig. 4-a: Remove A/C Bel

- B. Lock the engine from rotating and remove the OEM damper pulley bolt using a 1/2" drive or larger breaker bar & a 15/16" or 24mm socket. Discard the used OEM damper pulley bolt as it will not be re-used.

(See Fig. 4-b)

NOTE: Automatic transmission cars can lock the engine through the trans dust cover with an open end wrench to one of the torque converter mounting bosses on the flex plate.

Manual transmission cars place car in 6th gear with wheels on the ground and apply parking brake.



*Fig. 4-b: Remove Damper Bolt
(5th Gen Camaro shown.)*

- C. Remove the damper with the appropriate removal tool. Set the damper aside as it will not be re-used.

(See Fig. 4-c)

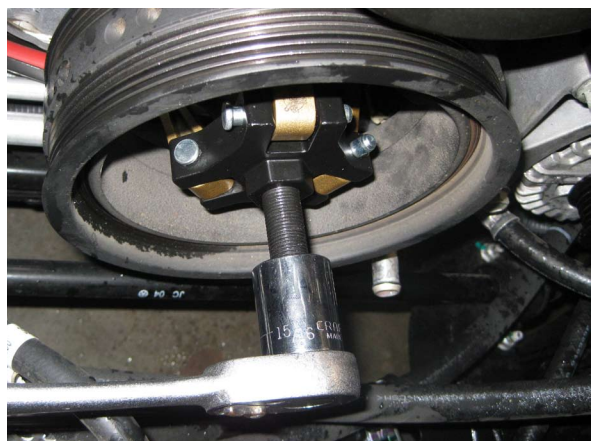


Fig. 4-c: Remove OEM Damper

4. DAMPER REMOVAL & INSTALLATION, cont'd

- D. Insert the hub into the back of the damper making sure to line up the "OFFSET HOLE" in the hub and damper as shown. This hole is labeled on the damper sticker, and there is also an indicator machined into both the damper and the hub.

(See Fig. 4-d)



Fig. 4-d: Align "Offset" Hole

- E. Install the 6x T-40 flat head screws, using blue threadlocker on each, and torque to 16 ft-lb.

(See Fig. 4-e)



Fig. 4-e: Secure Damper To Hub

- F. Install the supplied damper onto the crankshaft using a proper damper installation tool with thrust bearing.

(See Fig. 4-f)

NOTE: DO NOT use the crank bolt to "pull" the damper onto the crankshaft. Use only an appropriate damper installation tool.



Fig. 4-f: Install ATI Damper

4. DAMPER REMOVAL & INSTALLATION, cont'd

- G. Lightly coat the threads of the new damper bolt with red threadlocker. First, install and torque to 37 ft-lb. Next, using a 1/2" drive or larger breaker bar, tighten the damper bolt an additional 120° or torque to 250 ft-lb.

(See Fig. 4-g)



*Fig. 4-g: Install & Torque Damper Bolt
(5th Gen Camaro shown.)*

- H. Re-install the 4-rib A/C stretch belt as follows:
- Route the belt around the 4-rib section of the ATI damper.
 - Start the belt onto the top section of the A/C compressor pulley.
 - While holding the belt in place, rotate the crankshaft clockwise using a 15/16" or 24mm socket and ratchet on the center crankshaft bolt head until the 4-rib belt is fully seated.
 - Confirm proper installation of the 4-rib belt to both the ATI damper & the A/C compressor pulley.
 - Locate the OEM accessory belt that was removed during the original installation of the supercharger kit & re-install it back in its factory position.

(See Fig. 4-h)



Fig. 4-h: Re-Install 4-Rib A/C Stretch Belt

- I. Once the ATI damper is installed, re-install the radiator fan shroud to the radiator. Proceed to re-attach the transmission cooler line to the radiator & secure with the OEM snap ring, then re-secure the coolant crossover tube to the radiator fan shroud using the OEM plastic fasteners. Re-install the upper radiator shroud & secure with the previously removed 3x OEM plastic fasteners, then re-secure the lower section of the radiator fan shroud using the previously removed 3x OEM 7mm-head-ed screws. Reconnect the electric fan connector. Do not re-install any other components at this time.

(See Fig. 4-i)

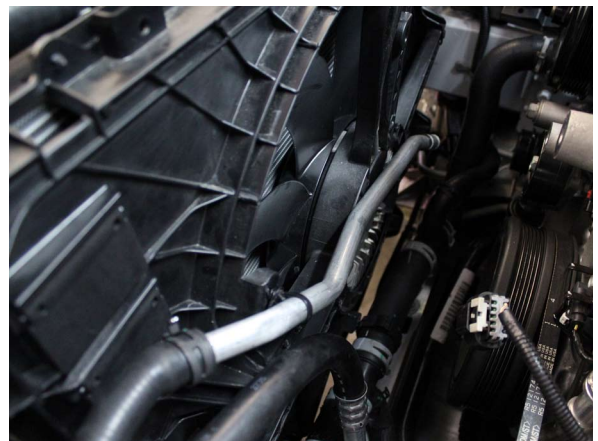


Fig. 4-i: Re-Install Radiator Fan Shroud

This page was left intentionally blank.

5. COOLING SYSTEM MOD. & CHARGE AIR COOLER INSTALLATION

- A. The lower radiator hose assembly will need to be modified in order to clear the 10-rib drive crank pulley. The hose originally attached to the water pump as well as the tee attached to it will be re-used. The hose originally attached to the lower drivers side of the radiator will be re-used. The 2x tees on the driver side as well as the 2x sections of straight hose attached to them can be set aside as they will not be re-used.

(See Fig. 5-a)

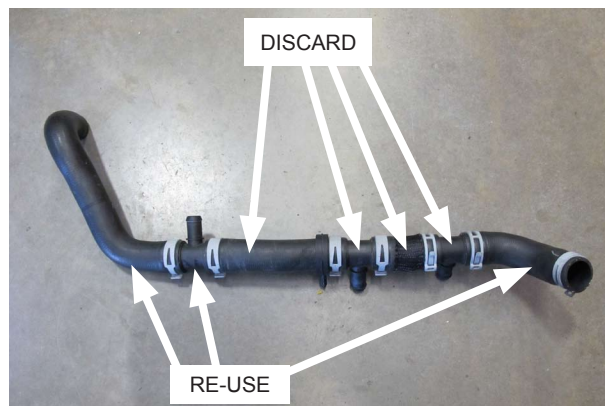


Fig. 5-a: Disassemble Lower Radiator Hose Assembly

- B. Use Diagram 5.1 below for reference on how to assemble the modified lower radiator hose assembly. Trim 1/2" from the radiator side of the driver side lower radiator hose elbow, then loosely assemble the assembly without clamps. Temporarily install it to the vehicle, making sure to clock hoses, tubes & tees correctly for proper fitment. Once in place, remove the assembly from the vehicle & install the OEM spring clamps & provided 2x #24 hose clamps as shown.

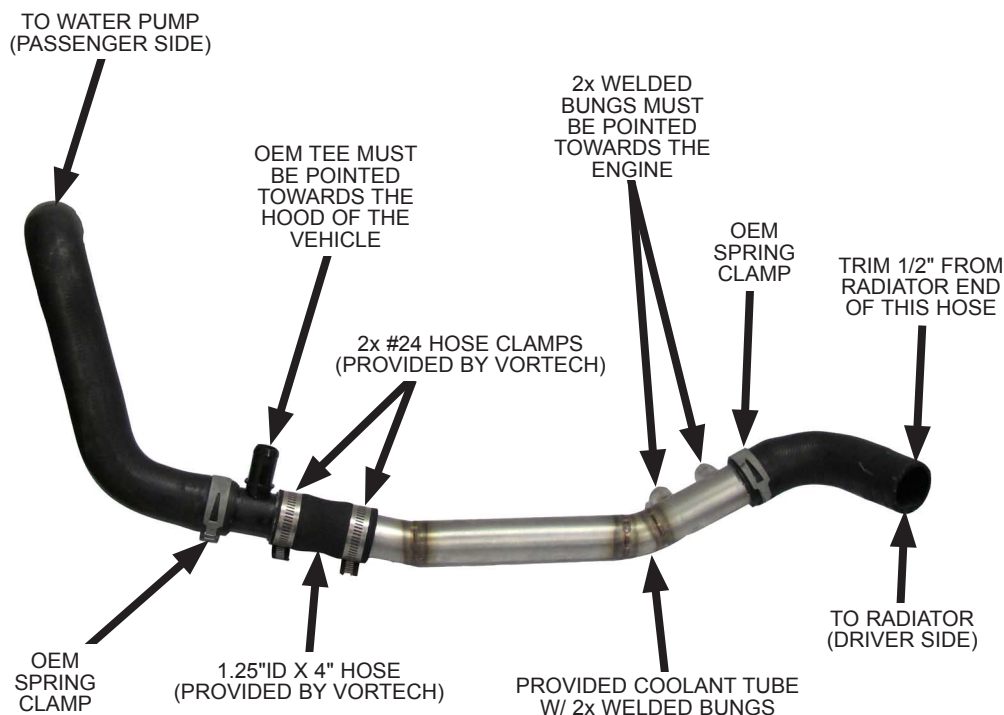


Diagram 5.1: MODIFIED LOWER RADIATOR HOSE ASSEMBLY

5. COOLING SYSTEM MOD. & CHARGE AIR COOLER INSTALLATION, cont'd

- C. There is a hole located on the front side of the aluminum cross member that will be used. Using the provided adel clamp & #17 screw, relocate the transmission cooler line to the front side of the aluminum cross member & secure it to the previously mentioned hole.

(See Fig. 5-c)



Fig. 5-c: Relocate Transmission Cooler Line

- D. Locate the coolant hose coming from the passenger side supplemental radiator & re-attach it to the OEM plastic tee on the modified lower radiator hose assembly. Secure to the OEM plastic tee using the OEM spring clamp.

(See Fig. 5-d)



Fig. 5-d: Re-attach Supplemental Radiator Hose

- E. 1 of the 2 supplemental radiator hoses that tee's into the driver side of the modified lower radiator hose assembly needs to be trimmed. Locate the supplemental radiator hose closest to the driver side wheel well & trim 1/2" from the end of the hose coolant hose. Proceed to attach both hoses to the 2x welded bungs & secure using the OEM spring clamps.

(See Fig. 5-e)



Fig. 5-e: Trim 1/2" From Suppl. Radiator Hose
(Closest to driver side wheel well.)

5. COOLING SYSTEM MOD. & CHARGE AIR COOLER INSTALLATION, cont'd

- F. Locate the provided 5/8" ID X 48" length hose with the molded 90° elbow. Remove 1" from the short leg of the hose.

(See Fig. 5-f)



Fig. 5-f: Remove 1" Of Hose

- G. Next, measure 2" from the inside of the bend on the 5/8" hose & cut, removing the 90° elbow section from the 48" length of hose. Label this hose "ELBOW A".

(See Fig. 5-g)



Fig. 5-g: Cut 2" From Inside Bend

- H. Locate the 58" molded 90° elbow that is included in the kit. Cut the hose so one leg is 4" & the other is 1-1/2" inches. Label this hose "ELBOW B".

(See Fig. 5-h)



Fig. 5-h: Cut 1-1/2" From Inside Bend

5. COOLING SYSTEM MOD. & CHARGE AIR COOLER INSTALLATION, cont'd

- I. Cut a length of 5/8" hose to 26.5" inches & slide the 2.5ft section of flex braid sleeve over the hose. Secure the ends of the flex braid sleeve with electrical tape.

(See Fig. 5-i)



- J. Locate the remaining length of 5/8" hose & cut a 2-1/2" straight section.

(See Fig. 5-j)



Fig. 5-j: Cut 2" Straight Section

- K. Insert the provided 5/8" hose mender into the 2" leg of "ELBOW A". The other end of the 5/8" hose mender goes into the 1-1/2" leg of "ELBOW B". Insert the 5/8" plastic tee into the 4" leg of "ELBOW B". Insert the 2-1/2" straight section of 5/8" hose onto the 5/8" plastic tee as shown. Do not clamp any of the hoses at this time.

(See Fig. 5-k)



Fig. 5-k: Temporarily Assemble Coolant Lines

5. COOLING SYSTEM MOD. & CHARGE AIR COOLER INSTALLATION, cont'd

- L. Put the coolant line assembly into position & clock the hoses as necessary. Once clocked, remove the hose assembly & secure the hoses with the provided 4x 25.6 stepless clamps. Use 2x stepless clamps to secure the 5/8" brass hose mender & 2x stepless clamps to secure 2 of the 3 legs on the 5/8" plastic tee. The 2-1/2" length of straight 5/8" hose will be secured with an OEM spring clamp to the coolant crossover tube in a later step.

(See Fig. 5-l)



Fig. 5-l: Clock Coolant Line Assembly

- M. In order to provide adequate clearance for the discharge tube, you will need to use the supplied #10 hose clamp in place of the factory spring clamp to attach the new coolant hose assembly to the passenger side of the radiator. Looking at the coolant hose from the top of the vehicle, the worm gear should be sitting on the right side, closest to the radiator fan shroud. You will need an 8mm socket, long extension & a ratchet to tighten this hose clamp. Temporarily position the hose clamp, but do not tighten. It will be tightened in the next step.

(See Fig. 5-m)

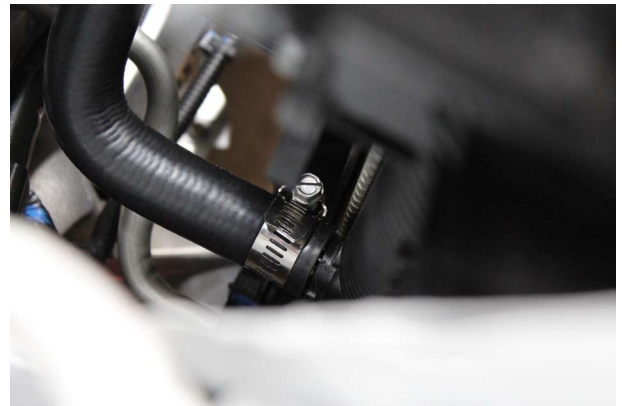


Fig. 5-m: Install Hose Clamp As Shown

- N. Re-install the coolant line assembly. Secure the 2-1/2" length of of straight 5/8" hose to the coolant crossover tube using an OEM spring clamp. At this time, tighten previously installed #10 hose clamp.

(See Fig. 5-n)



Fig. 5-n: Install Coolant Line Assembly

5. COOLING SYSTEM MOD. & CHARGE AIR COOLER INSTALLATION, cont'd

- O. Included in the kit are 2x threaded studs. These will be used to assist in installing the charge air cooler & front bumper support onto the vehicle. Using a 4mm allen wrench, thread in one stud on each side of the vehicle, then slide the charge air cooler in place, making sure that the end of the charge air cooler with the welded elbow goes on the passenger side of the vehicle.
(See Fig. 5-o)



Fig. 5-o: Install Threaded Stud & Charge Air Cooler

- P. With the charge air cooler temporarily supported by the threaded studs, slide the front bumper support into position, making sure that the welded tabs on the front bumper support are facing upwards.
(See Fig. 5-p)



Fig. 5-p: Place Front Bumper Support Into Position

- Q. With the charge air cooler & front bumper support in place, proceed to re-install 6x (3x per side) of the 8x previously removed screws to secure the front bumper beam in place. Once those screws are in place, remove the 2x threaded studs & re-install the remaining 2x (1x per side) screws. Re-secure the harness that runs along the top of the front bumper support.
(See Fig. 5-q)



Fig. 5-q: Secure Front Bumper Support

5. COOLING SYSTEM MOD. & CHARGE AIR COOLER INSTALLATION, cont'd

- R. In order to properly route one of the new coolant hoses, you will need to temporarily install the supplied custom silicone discharge sleeve.

(See Fig. 5-r)

NOTE: The custom silicone discharge sleeve has a "flat" side & a "curved" side. When installed, the "curved" side needs to be against the frame rail, while the "flat" side faces inward towards the radiator.



Fig. 5-r: Custom Silicone Discharge Sleeve

- S. From the top of the vehicle, route the custom silicone discharge sleeve towards the bottom of the vehicle, between the frame rail & radiator. Loosely attach the sleeve to the elbow on the charge air cooler.

(See Fig. 5-s)



Fig. 5-s: Install Custom Silicone Discharge Sleeve To Charge Air Cooler

- T. From the top of the vehicle, the custom silicone discharge sleeve should fit snugly between the radiator & frame rail.

(See Fig. 5-t)



Fig. 5-t: Verify Fitment Of Custom Silicone Discharge Sleeve

5. COOLING SYSTEM MOD. & CHARGE AIR COOLER INSTALLATION, cont'd

- U. Locate Tube C and insert the long leg of the tube into the custom silicone discharge sleeve. Do not secure Tube C at this time.

(See Fig. 5-u)



Fig. 5-u: Loosely Attach Tube C To Custom Silicone Discharge Sleeve

- V. Locate the 26.5" length of 5/8" coolant hose & attach it to the remaining bung on the 5/8" tee in the new coolant hose assembly, then secure with the provided #10 hose clamp.

(See Fig. 5-v)



Fig. 5-v: Install 3ft Length Of 5/8" Coolant Hose & Secure

- W. Route the length of 5/8" coolant hose over Tube C & towards the front of the vehicle. Be sure the 5/8" coolant hose is free & clear of any kinks, sharp edges and/or moving objects.

(See Fig. 5-w)



Fig. 5-w: Route 5/8" Coolant Hose Towards Front Of Vehicle

5. COOLING SYSTEM MOD. & CHARGE AIR COOLER INSTALLATION, cont'd

- X. Insert the 5/8" coolant hose onto the fitting on the supplemental radiator & secure with the OEM spring clamp.

(See Fig. 5-x)

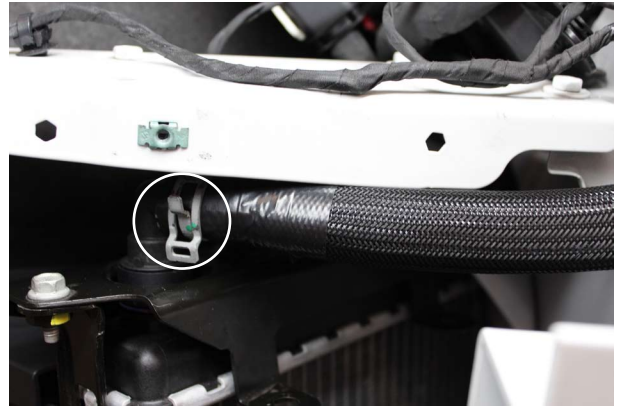


Fig. 5-x: Cut 5/8" Coolant Hose & Braided Sleeve To Length & Secure

- Y. Use 2x provided zip ties to secure the coolant hose to the ground strap, making sure to keep it away from any moving objects or sharp edges.

(See Fig. 5-y)



Fig. 5-y: Zip Tie Coolant Hose To Ground Strap

- Z. In order to make room for Tube D, cut off 1/2" of the small diameter coolant hose located at the thermostat housing, to the left of the throttle body.

(See Fig. 5-z)



Fig. 5-z: Cut 1/2" From Small Diameter Coolant Hose

5. COOLING SYSTEM MOD. & CHARGE AIR COOLER INSTALLATION, cont'd

- AA. Verify that all hose connections are secured with either their OEM spring clamp or provided hose clamps. Close the radiator drain valve at this time.
(See Fig. 5-aa)

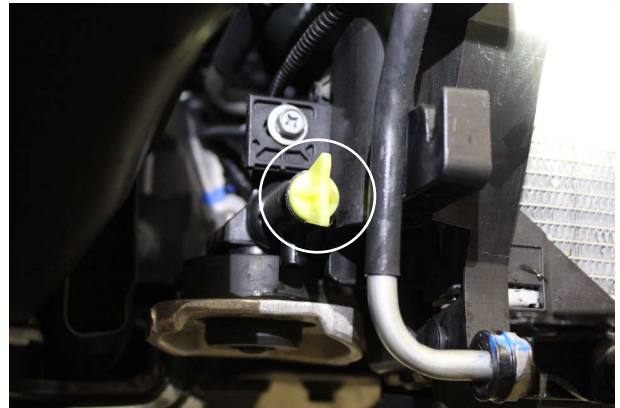


Fig. 5-aa: Verify Hose Connections & Close Radiator Valve

- AB. With all hose connections verified, begin to re-fill the coolant system using the same coolant you removed from the vehicle. This vehicle has an integrated surge tank with 2 separate reservoirs that need to be filled individually. Fill them to the lines marked on the sides of the surge tanks.
(See Fig. 5-ab)



Fig. 5-ab: Fill Both Coolant Reservoirs

6. A/C LINE MOD. & SUPERCHARGER MOUNTING BRACKET INSTALLATION

- A. There is a support bracket attached to the driver side frame rail that supports the A/C line junction. Remove the 10mm-headed fastener securing the support bracket to the driver side frame rail. Once removed, slide the support bracket off of the A/C line junction.
(See Fig. 6-a)

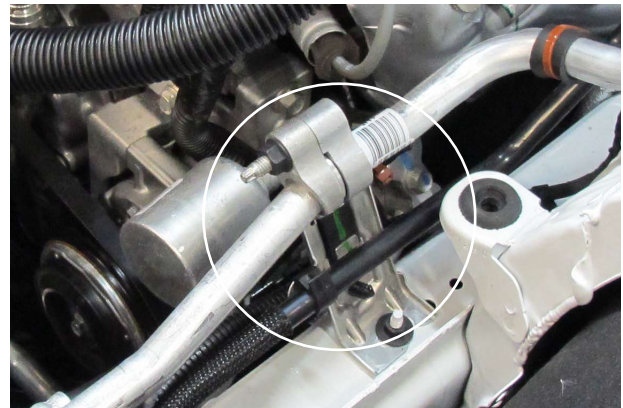


Fig. 6-a: Remove A/C Junction Support Bracket

- B. Notice the tab that protrudes downward out of the A/C line junction. This tab needs to be bent upwards in order to avoid coming into contact with the frame rail in the next step. Once bent, cut a section of provided 3/4" ID neoprene hose to place over the A/C line junction. Use a zip tie to secure it to the A/C line junction.
(See Fig. 6-b)

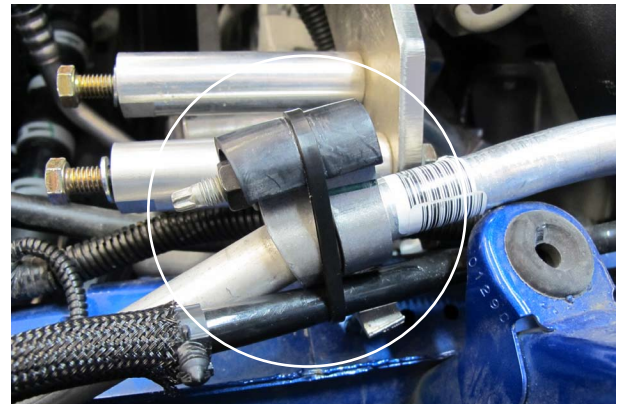


Fig. 6-b: Modify A/C Junction

- C. Located on the driver side frame rail near the driver side supplemental radiator is a 13mm-headed screw. Temporarily remove this screw. Place the remaining length of 3/4" ID neoprene hose around the A/C line & place the A/C line strap around the hose, then secure it to the driver side frame rail using the previously-removed 13mm-headed screw.
(See Fig. 6-c)

NOTE: Make adjustments to the A/C line & A/C line strap as necessary.

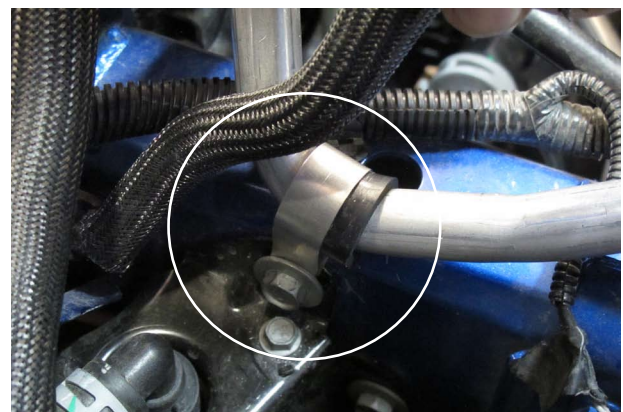


Fig. 6-c: Attach A/C Line Strap

6. A/C LINE MOD. & SUPERCHARGER MOUNTING BRACKET INSTALLATION, cont'd

- D. Using a 15mm wrench, loosen the A/C mount screw & thread it half-way out.
(See Fig. 6-d)



Fig. 6-d: Loosen A/C Mount Screw

- E. Locate the mounting bracket assembly. Make sure that the 2x 3/8-16 x 1.00" screws securing the rear support bracket to the cylinder head bracket are loose at this time.
(See Fig. 6-e)

NOTE: Be sure to use blue loctite on all mounting bracket hardware

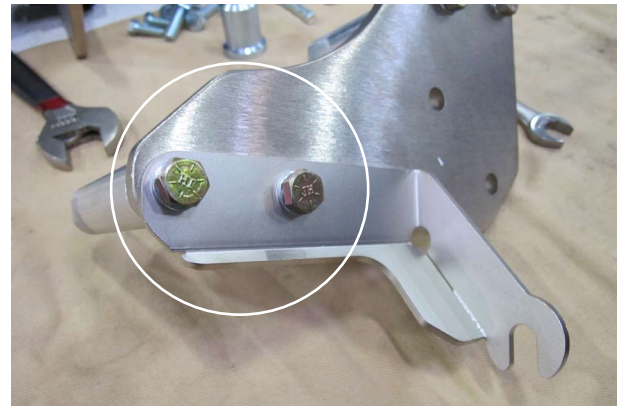


Fig. 6-e: Loosely Attached Rear Support Bracket

- F. The rear support bracket is slotted for ease of installation. Slide the slotted section of the rear support bracket between the A/C mount & the backed-out A/C mount screw.
(See Fig. 6-f)



Fig. 6-f: Slide Rear Support Bracket Between A/C Mount & Screw

6. A/C LINE MOD. & SUPERCHARGER MOUNTING BRACKET INSTALLATION, cont'd

- G. With the rear support bracket in position, cylinder head bracket assembly up against the drivers side cylinder head & loosely attach using the 2x M8 X 25mm screws & 2x M10 X 25mm screws, making sure to use the appropriate washers with each screw. Slide the engine harness in between the spacers.

(See Fig. 6-g)

NOTE: Make sure the face of the cylinder head is clean & free of any debris prior to installing the mounting bracket.

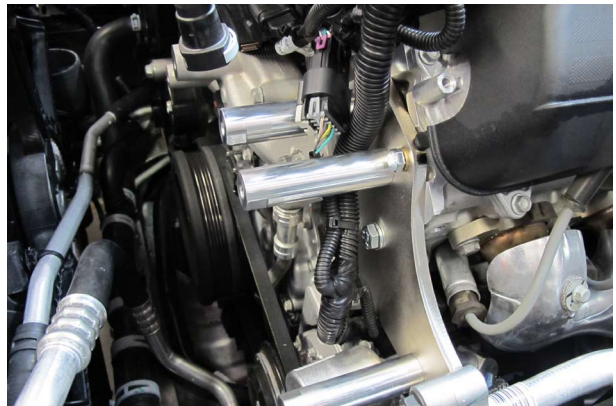


Fig. 6-g: Attach Supercharger Mounting Bracket To D. Side Cylinder Head

- H. Locate the supercharger bracket & attach the bracket to the spacers on the cylinder head bracket. Secure using the provided 4x 3/8-16 x 1.00" screws & 4x 3/8 AN washers. Use a 7/8" open end wrench to hold the slotted spacers in place while you attach the supercharger bracket.

(See Fig. 6-h)



Fig. 6-h: Attach Supercharger Mounting Bracket To Cylinder Head Bracket

- I. Loosely install the provided idler bracket as shown using the provided 2x M10 X 30mm screws, 2x M10 washers, 2x 3/8-16 X 1.00" screws, 2x 3/8 washers & 2x 5/16-18 x 1/2" socket head cap screws. With all screws in place, proceed to tighten the screws at this time.

(See Fig. 6-i)

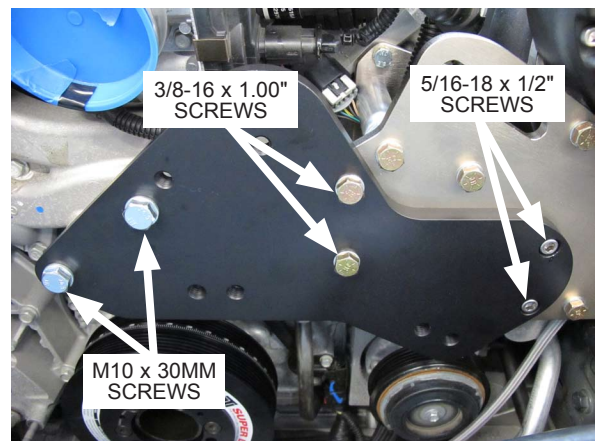


Fig. 6-i: Attach Idler Plate To Water Pump & Supercharger Mounting Bracket

6. A/C LINE MOD. & SUPERCHARGER MOUNTING BRACKET INSTALLATION, cont'd

- J. Now that the main bracket is in position, proceed to tighten the rear support bracket to the main bracket.

(See Fig. 6-j)



Fig. 6-j: Tighten Rear Support Bracket Screws

- K. Using a 15mm crows foot & a short extension, proceed to re-tighten the A/C mount screw.

(See Fig. 6-k)



Fig. 6-k: Re-tighten A/C Mount Screw

- L. In order to provide space for the air filter used on the supercharger inlet, the driver side engine cover will need to be removed. Remove the driver side breather hose, oil cap & 2x T-25 screws securing the driver side plastic engine cover to the valve cover.

(See Fig. 6-l)



Fig. 6-l: Remove Plastic Engine Cover

6. A/C LINE MOD. & SUPERCHARGER MOUNTING BRACKET INSTALLATION, cont'd

- M. Place the supercharger unit back into the supercharger mounting bracket & re-secure using the previously removed 4x 3/8-16 x 1.00" screws & 4x 3/8 washers. Mock up the previously removed plastic engine cover & trim it as necessary to clear the volute of the supercharger unit. Re-attach the engine cover once trimming is complete.

(See Fig. 6-m)

NOTE: Install the provided length of oil drain line to the oil drain fitting on the supercharger unit & secure using the provided hose clamp. Route the oil drain line towards the bottom of the vehicle as it will be attached to the oil pan in a later step.



Fig. 6-m: Re-Install Supercharger Unit

- N. Locate 1 of the 2 idler spacers provided, as well as the provided .101" shim. Slide the provided .101" shim onto the pilot of the idler spacer.

(See Fig. 6-n)

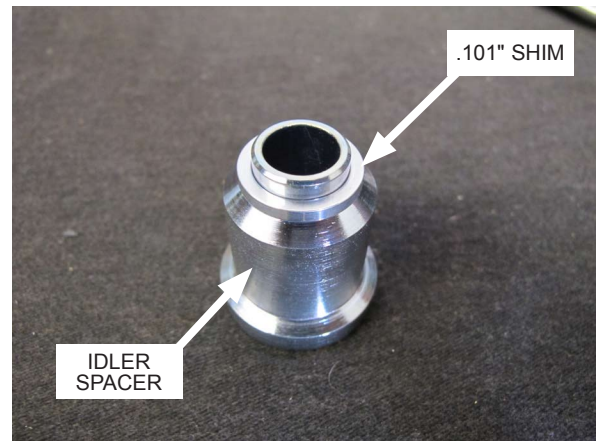


Fig. 6-n: Install .101" Shim To Idler Spacer

- O. Locate the provided 10-rib grooved idler pulley & slide it onto the pilot of the spacer mentioned in the previous step, making sure that the .101" shim is sandwiched between the idler spacer & bearing in the idler. Next, you will notice there are 2x threaded holes on the bottom-left side of the idler plate. Using the provided M12 x 80mm screw & 1/2" ID bearing pilot, mount the 10-rib grooved idler to the threaded hole furthest to the left.

(See Fig. 6-o)



Fig. 6-o: Install 10-Rib Grooved Idler To Idler Plate

6. A/C LINE MOD. & SUPERCHARGER MOUNTING BRACKET INSTALLATION, cont'd

- P. Locate the remaining idler spacer & slide the pilot into the smooth steel idler. Make sure that the snap ring is facing towards the idler spacer.
(See Fig. 6-p)



Fig. 6p: Smooth Steel Idler Orientation

- Q. Next, you will notice there are 2x threaded holes on the bottom-right side of the idler plate. Using the provided M12 x 80mm screw & 1/2" ID bearing pilot, mount the smooth steel idler to the threaded hole furthest to the right.
(See Fig. 6-q)

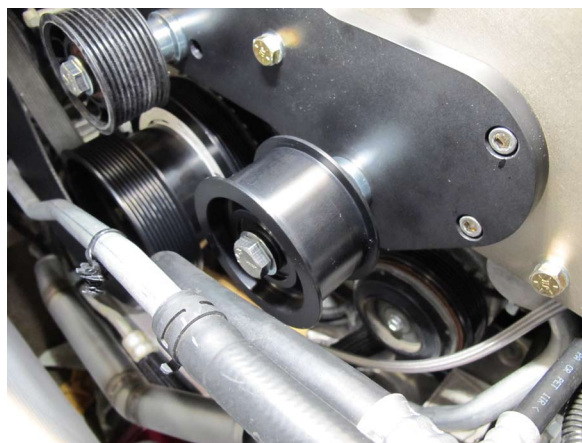


Fig. 6-q: Install Smooth Steel Idler To Idler Plate

- R. Locate the tensioner mounting plate. The tensioner mounting plate has 3 different holes for the spring tensioner locating pin to allow for varying degrees of tensioner adjustment. Additionally, the tensioner mounting plate is slotted to allow for further adjustability.
(See Fig. 6-r)



Fig. 6-r: Tensioner Mounting Plate

6. A/C LINE MOD. & SUPERCHARGER MOUNTING BRACKET INSTALLATION, cont'd

- S. Locate the provided spring tensioner. The pulley/belt combination included in this kit will require the spring tensioner locating pin to be placed in the middle of the 3 holes. Using the provided 1x M10 x 100mm screw & 1x M10 washer, assemble the spring tensioner & tensioner mounting plate as shown.

(See Fig. 6-s)



Fig. 6-s: Spring Tensioner & Tensioner Mounting Plate

- T. Loosely attach 1x M10 x 100mm screw into the threaded hole closest to the top of the idler plate. Next, locate the provided 1x M10 x 35mm & 1x M10 washer & insert it through the slotted hole in the tensioner mounting plate & thread it into the remaining threaded hole on the idler plate. With both M10 screws in place, position the tensioner mounting plate so it is flush with the idler plate. Once in position, proceed to tighten both M10 screws.

(See Fig. 6-t)



Fig. 6-t: Install Spring Tensioner & Tensioner Mounting Plate

- U. Locate the provided 10-rib drive belt. Using a 1/2" drive ratchet or breaker bar, turn the spring tensioner counter-clockwise, then route the drive belt as shown. Once the 10-rib drive belt is in position, slowly release the spring tensioner, allowing the smooth idler on the spring tensioner to apply tension to the smooth side of the 10-rib drive belt.

(See Fig. 6-u)



Fig. 6-u: Install 10-Rib Drive Belt

This page was left intentionally blank.

7. DISCHARGE TUBE INSTALLATION

- A. You will notice a tab protruding out of the rear of the driver side headlight assembly directly above the HID ballast. In order to provide adequate space for the headlight to clear Tube B, this tab will need to be trimmed down, leaving only about 1/4" of the tab. Be sure not to completely remove this tab from the headlight as there is a hole directly behind the tab.

(See Fig. 7-a)

NOTE: If too much of the tab is removed & the hole behind the tab becomes exposed, use a small amount of RTV to fill the hole. Failure to do so will result in condensation build-up within the headlight assembly.

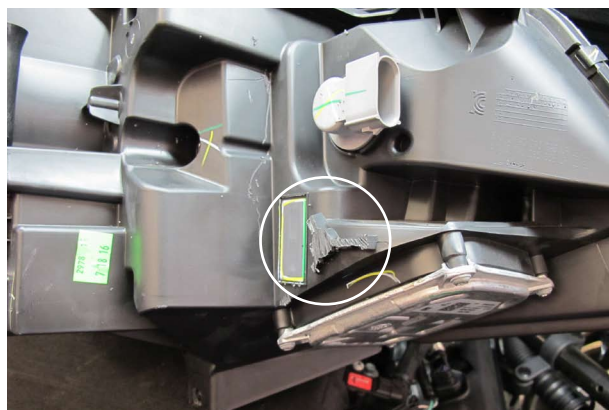


Fig. 7-a: Remove Tab From D.Side Headlight

- B. Located inside the headlight pocket is a 10mm-headed screw that needs to be removed for clearance for Tube B. Remove this screw, then replace it with the provided button-head screw, making sure you also install the provided support bracket for Tube B. The support bracket should be pointed towards the rear of the vehicle.

(See Fig. 7-b)

NOTE: For discharge tube identification, reference diagram 7.1 on Pg. 48.



Fig. 7-b: Install Tube B Support Bracket & Button-Head Screw

- C. Install the provided 3" silicone sleeve to the drivers side of the charge air cooler, then slide Tube B into the sleeve.

(See Fig. 7-c)



Fig. 7-c: Install Discharge Tube "B" As Shown

7. DISCHARGE TUBE INSTALLATION, cont'd

- D. Rest Tube B onto the previously installed support bracket. Loosely attach a #48 hose clamp to Tube B, trapping the support bracket between Tube B & the hose clamp.

(See Fig. 7-d)



Fig. 7-d: Attach Hose Clamp To Tube B

- E. Temporarily install the driver side headlight. Check the clearance between the HID ballast mounted to the headlight & Tube B. Clock the tube as necessary to provide adequate clearance. Once everything is in position, remove the headlight from the vehicle.

(See Fig. 7-e)

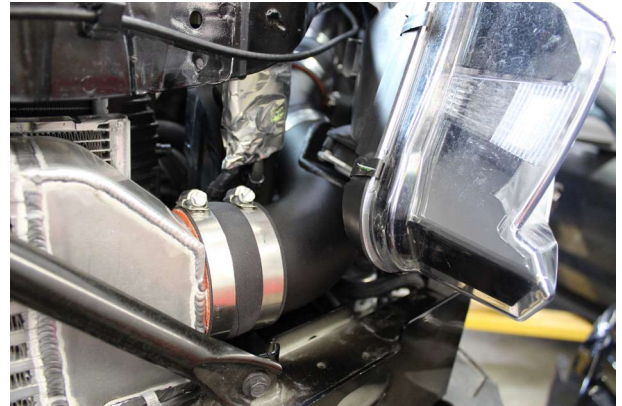


Fig. 7-e: Verify Headlight Clearance

- F. Install the bypass valve onto Tube A using the provided hardware & gasket. Attach the 90° silicone elbow to the supercharger discharge, then slide in Tube A as shown. Next use the provided bump sleeve reducer to join Tube A & Tube B together. Once all tubes are in position, tighten the hose clamp securing Tube B to its support bracket, then proceed to use 4x #48 hose clamps & 2x #52 hose clamps to secure the silicone sleeves.

(See Fig. 7-f)



Fig. 7-f: Attach 90° Silicone Elbow & Discharge Tube "A"

7. DISCHARGE TUBE INSTALLATION, cont'd

- G. Use a #48 hose clamp to secure the previously installed custom silicone discharge sleeve to the charge air cooler. Make sure the worm gear faces towards the top of the vehicle. Once in place, check for frame rail clearance.

(See Fig. 7-g)



Fig. 7-g: Secure Custom Silicone Discharge Sleeve

- H. Slide a 3" silicone bump sleeve onto Tube C, then proceed to insert Tube D into the other end of the silicone bump sleeve. Make sure there is enough clearance between the tube & the radiator fan shroud.

(See Fig. 7-h)



Fig. 7-h: Attach Discharge Tube "D" To Discharge Tube "C"

- I. Attach the 90° silicone reducer sleeve to the throttle body & Tube D. The short leg of Tube D goes into the bump sleeve while the long leg of Tube D goes into the 90° silicone reducer sleeve. Make sure all of the tubes are free & clear of any obstructions, then proceed to use the remaining #48 hose clamps to secure the silicone sleeves to the discharge tubes. Use a #64 hose clamp to secure the 90° silicone sleeve to the throttle body.

(See Fig. 7-i)



Fig. 7-i: Attach 90° Reducer Elbow To Throttle Body & Discharge Tube "D"

7. DISCHARGE TUBE INSTALLATION, cont'd

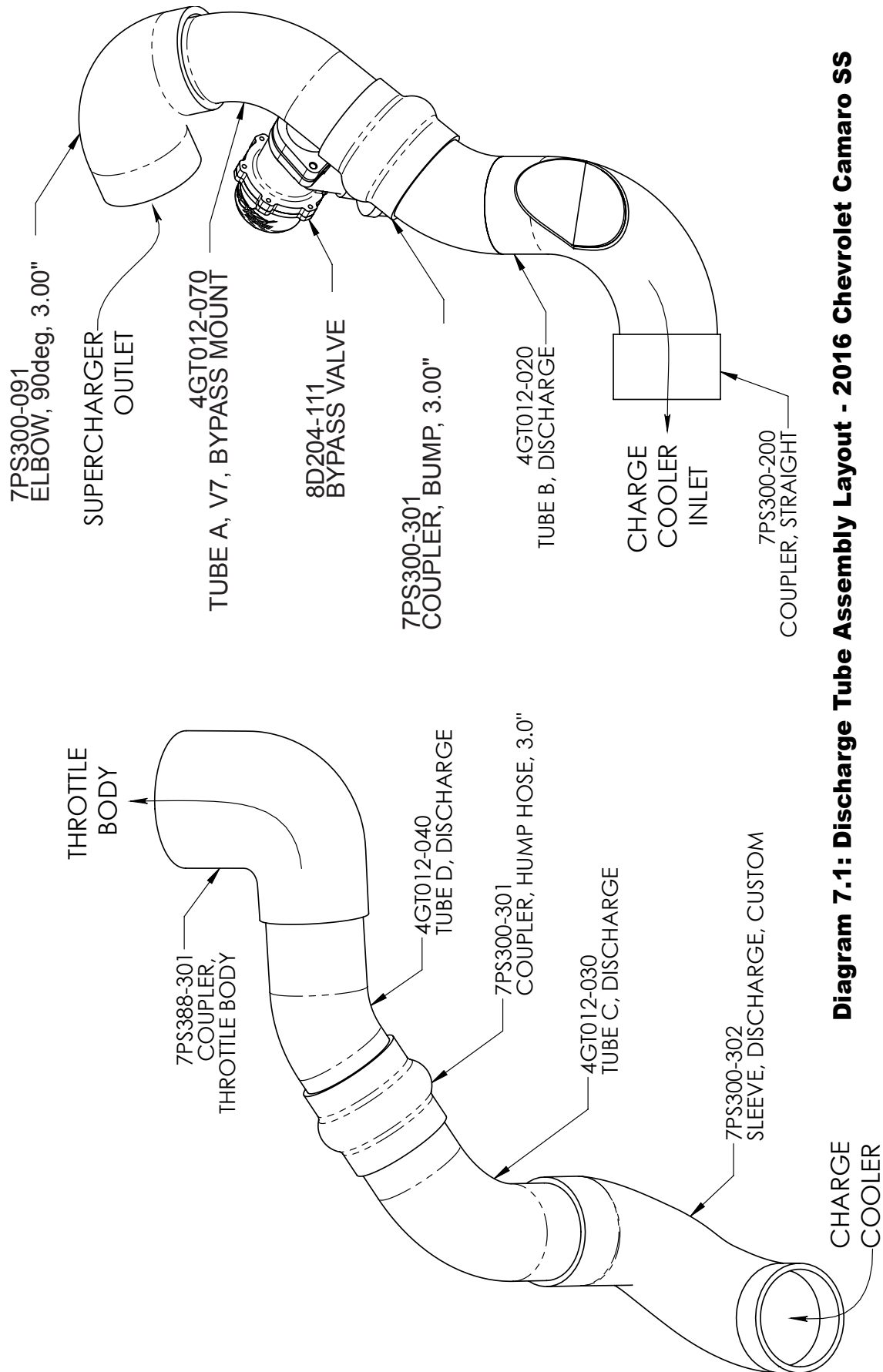


Diagram 7.1: Discharge Tube Assembly Layout - 2016 Chevrolet Camaro SS

8. COOLING DUCT MODIFICATION & MAF INSTALLATION

- A. Included in this manual are templates to trim the supplemental radiator cooling duct & passenger side brake cooling duct. Locate the template labeled "RADIATOR DUCT FACE" & place it on the side of the cooling duct closest to the brake cooling duct & trim accordingly.

(See Fig. 8-a)



Fig. 8-a: Modified Supplemental Radiator Cooling Duct

- B. Locate the template labeled "INNER BRAKE DUCT" & place it over the side of the brake duct that is closest the radiator & trim it accordingly. A 7/16" hole for the ambient air temperature sensor will also need to be drilled on the underside of the brake duct. Prior to drilling, verify that the harness for the ambient air temperature sensor will reach the location of the 7/16" hole.

(See Fig. 8-b)



Fig. 8-b: Modified Brake Cooling Duct (Inner Section)

- C. Locate the template labeled "OUTER BRAKE DUCT" & place it over the side of the brake duct that is furthest from the radiator & trim it accordingly.

(See Fig. 8-c)



Fig. 8-c: Modified Brake Cooling Duct (Outer Section)

8. COOLING DUCT MODIFICATION & MAF INSTALLATION, cont'd

- D. Check to make sure that enough material has been trimmed from both cooling ducts & adjust accordingly. Proceed to install the supplemental radiator cooling duct with the OEM plastic fasteners. Attach the rear of the brake cooling duct to its mating slot. The front of the brake cooling duct will be fixed to the transmission cooler mount in a later step.

(See Fig. 8-d)



Fig. 8-d: Test Fit Cooling Ducts

- E. Remove the MAF sensor from the OEM air box & install it to the charge air cooler. The MAF sensor is directional & only goes in one way. Secure using the provided M4 X 8mm screws. Attach the MAF harness extension at this time.

(See Fig. 8-e)

NOTE: Ensure that the OEM seal is properly seated on the MAF module prior to installation.



Fig. 8-e: Install MAF Sensor

- F. Secure the top of the transmission cooler mount to the underside of the front bumper support using the OEM 10mm-headed screw. Proceed to re-attach the transmission cooler shroud to the top of the transmission cooler. Only secure the driver side of the transmission cooler shroud at this time using 3x of the 6x OEM plastic fasteners.

(See Fig. 8-f)



Fig. 8-f: Secure Transmission Cooler Mount

8. COOLING DUCT MODIFICATION & MAF INSTALLATION, cont'd

- G. Locate the ambient air temperature sensor & relocate it into the hole previously drilled in the brake cooling duct.

(See Fig. 8-g)



Fig. 8-g: Relocate Ambient Air Temperature Sensor

- H. Proceed to secure the passenger side of the transmission cooler shroud using 2x OEM plastic fasteners, making sure that one of the fasteners goes through the transmission cooler shroud, transmission cooler mount & brake cooling duct. Discard the remaining 1x OEM plastic fastener.

(See Fig. 8-h)

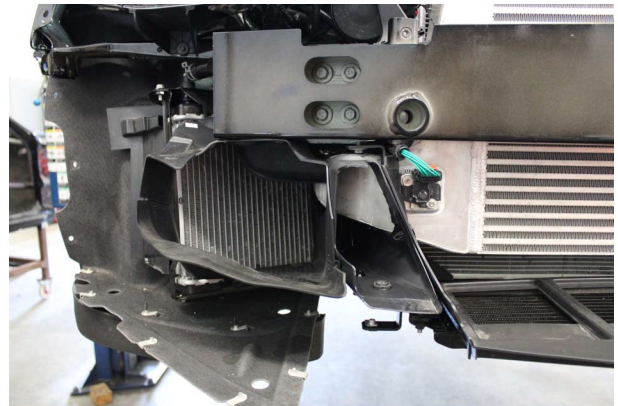


Fig. 8-h: Secure Cooling Ducts

- I. Route the MAF harness extension towards the top of the vehicle. Use the provided zip ties to secure MAF harness extension away from any moving parts, sharp edges or obstructions that may cause damage to the MAF harness extension. Once complete, install the provided MAF cover.

(See Fig. 8-i)



Fig. 8-i: Route MAF Harness Extension Towards Top Of Vehicle

8. COOLING DUCT MODIFICATION & MAF INSTALLATION, cont'd

- J. Route the MAF harness extension towards the fuse box located on the passenger side of the engine compartment. Use the provided zip ties to secure MAF harness extension away from any moving parts, sharp edges or obstructions that may cause damage to the MAF harness extension.

(See Fig. 8-j)



Fig. 8-j: Route MAF Harness Extension Towards Fuse Box

- K. Route the MAF harness extension along the front-passenger side of the engine, securing it to the main vehicle harness using the provided zip ties.

(See Fig. 8-k)



Fig. 8-k: Route MAF Harness Extension Along Front-Passenger Side Of Engine

- L. Route the MAF harness extension underneath the throttle body & plug it in to the MAF sensor connector located near the throttle body.

(See Fig. 8-l)



Fig. 6-l: Plug In MAF Extension Harness To MAF Sensor Connector

9. BOOST/VACUUM REFERENCE TEE INSTALLATION

- A. Remove the 2x "CAMARO" engine covers by pulling up on them. Set aside for later re-installation.
(See Fig. 9-a)



Fig. 9-a: Remove "CAMARO" Engine Covers

- B. Located near the driver side shock tower is a hard plastic vacuum line. Press the grey retaining clip inwards, then pull the fitting away from the vacuum tee.
(See Fig. 9-b)



Fig. 9-b: Detach Hard Plastic Vacuum Line

- C. The opposite end of the hard plastic vacuum line is located at the driver side rear of the intake manifold. The red retaining clip securing the 45° vacuum fitting from the hard plastic vacuum line to the back of the intake manifold is a 2 piece retainer. Pull the 45° vacuum fitting away from the manifold, exposing the second piece of the red retainer. In order to separate the second piece of the red retainer from the 45° vacuum fitting, insert a small flathead screwdriver between the 45° vacuum fitting & the second piece of the red retainer. Push the second piece of the red retainer back towards the intake manifold while simultaneously pulling the 45° vacuum fitting away from the intake manifold. This will allow the 45° vacuum fitting to be released from the red retaining clip.
(See Fig. 9-c)



Fig. 9-c: Zoomed In - Remove 45° Fitting From Rear Of Intake Manifold

9. BOOST/VACUUM REFERENCE TEE INSTALLATION, cont'd

- D. Use a razor blade to carefully slit each end of the plastic tube until it can be split away from the barbed fittings inside. Be sure not to damage the fittings as they will be re-used.

(See Fig. 9-i)



Fig. 9-d: Remove Fittings From Hard Plastic Vacuum Line

- E. For this step, slide the 17.0 stepless clamps over the lengths of cut hose, but do not secure until instructed to. Cut a 2" section of the provided 3/8" vacuum hose and attach it between the check valve on the OEM hard plastic vacuum line & the provided brass vacuum tee. Attach the remaining 14" length of 3/8" vacuum hose to the other end of the vacuum tee. Locate the OEM 45° vacuum fitting & insert the barbed end of the fitting it into the open end of the 3/8" vacuum hose. Mock up the new vacuum line assembly to the vehicle & clock the fittings as necessary. Once in position, clock the brass tee downward, then proceed to secure the stepless clamps & re-install the fittings to their appropriate locations.

(See Fig. 9-j)



Fig. 9-e: New Vacuum Line Assembly

- F. Install the provided rubber plug into the OEM sound tube. Next, use a zip tie to secure the vacuum line assembly to the remaining length of sound tube, located near the drivers side strut tower.

(See Fig. 9-k)



Fig. 9-f: Install Rubber Plug & Secure Vacuum Line To Sound Tube

9. BOOST/VACUUM REFERENCE TEE INSTALLATION, cont'd

- G. Locate the length of 1/4" vacuum hose. Attach one end of the hose to the previously installed vacuum tee & the other end of the hose to the vacuum fitting located on the top of the bypass valve. Be sure to route the vacuum away from the exhaust manifold, away from any sharp edges and/or moving objects.
(See Fig. 9-g)



Fig. 9-g: Attach Vacuum Hose To Fitting

This page was left intentionally blank.

10. AIR INLET ASSEMBLY INSTALLATION

- A. Remove 3x 10mm-headed screws from the driver side valve cover, closest to the front of the motor. Set the screws aside as they will be re-used.

(See Fig. 10-a)



Fig. 10-a: Remove Valve Cover Screws

- B. Place the heat shield into position & loosely re-install the previously removed 3x 10mm-headed screws.

(See Fig. 10-b)



Fig. 10-b: Loosely Attach Heat Shield

- C. Making sure that the head shield isn't coming into contact with the supercharger unit, A/C line or spark plug cables, proceed to tighten the 3x 10mm-headed valve cover screws.

(See Fig. 10-c)



Fig. 10-c: Secure Heat Shield

10. AIR INLET ASSEMBLY INSTALLATION, cont'd

- D. Locate the provided hose fitting & insert it into the breather hose, making sure that the barb at the center of the fitting clips into the OEM quick-release fitting.

(See Fig. 10-d)



Fig. 10-d: Insert Hose Fitting To OEM Quick Release Fitting

- E. Attach the air filter to the supercharger unit & secure with the provided hose clamp. Make sure that the 90° plastic fitting is installed to the top of the air filter.

(See Fig. 10-e)

NOTE: If you wish to retain the driver side engine cover, you will need to install the air filter to the supercharger inlet & trim the driver side engine cover accordingly. Otherwise, it can be left out of the vehicle.



Fig. 10-e: Attach Air Filter To Supercharger Unit

- F. Locate the provided 3/8" hose. Attach one end of the hose to the fitting on the air filter & the other to the quick-release fitting, then secure it to the breather hose coming out of the valve cover.

(See Fig. 10-f)



Fig. 10-f: Attach 3/8" Hose

11. OIL FEED INSTALLATION

- A. Locate the provided 1/8 NPT 90° x -4 fitting & thread it into the oil feed nozzle & install it as shown. Next, connect one end of the -4 oil feed line to the -4 fitting installed in the oil feed nozzle. Route the oil feed line towards the bottom of the vehicle, making sure it stays clear of any sharp edges or moving objects.

(See Fig. 11-a)

NOTE: Use only clean engine oil on the pipe threads. Teflon tape or pipe sealant is not recommended as it might loosen & cause blockage of the small oil feed orifice resulting in possible super-charger failure.



Fig. 11-a: Attach Oil Feed Line

- B. Cover the open end of the oil line. Make sure that no dirt/debris gets inside. Route the oil feed line towards the back of the engine, near the oil filter. To avoid damaging the oil feed line, be sure to secure it away from the steering column.

(See Fig. 11-b)



Fig. 11-b: Route Oil Feed Line

- C. Locate the provided M16 x 1.5 male to 1/8 NPT female adapter & 1/8 NPT x -4 straight fitting. Insert the male end of the 1/8 NPT x -4 straight fitting into the female end of the M16 adapter. Tighten both fittings at this time.

(See Fig. 11-c)



Fig. 11-c: Assemble Adapter Fittings

11. OIL FEED INSTALLATION, cont'd

- D. Located near the rear of the engine block, above the oil filter, is an oil galley plug. Remove the plug from the engine block. A small amount of oil will drip from the oil galley, so keep a rag or oil bin near by to catch any oil that drips.

(See Fig. 11-d)



Fig. 11-d: Remove Oil Galley Plug

- E. Insert the M16 adapter into the oil galley where the plug was previously installed. Make sure that the provided copper crush washer is in between the engine block & M16 adapter.

(See Fig. 11-e)



Fig. 11-e: Install Adapter Fittings

- F. Connect the other end of the -4 oil feed line to the -4 fitting on the M16 adapter.

(See Fig. 11-f)



Fig. 11-f: Attach Other End Of Oil Feed Line

12. OIL DRAIN INSTALLATION

- A. Disconnect the 3x electrical connectors from the electronic-assist module on the power steering rack

(See Fig. 12-a)

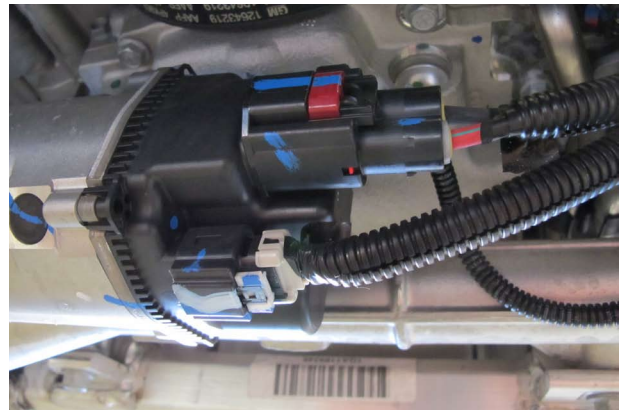


Fig. 12-a: Disconnect Electrical Connectors

- B. The steering rack will need to be lowered to allow better access to the oil pan for installation of the oil drain fitting. Remove the screw securing the steering shaft to the input shaft of the steering rack.

(See Fig. 12-b)



Fig. 12-b: Remove Steering Rack Screw

- C. Depending on if the vehicle is on a lift or jack-stands, you will need to find a way to support the steering rack when you begin to lower it. Remove the 2x screws securing the steering rack to the aluminum cross member, then begin to lower the steering rack from the vehicle. Lower the rack just enough to gain access to the front driver side of the oil pan as shown in the following steps.

(See Fig. 12-c)

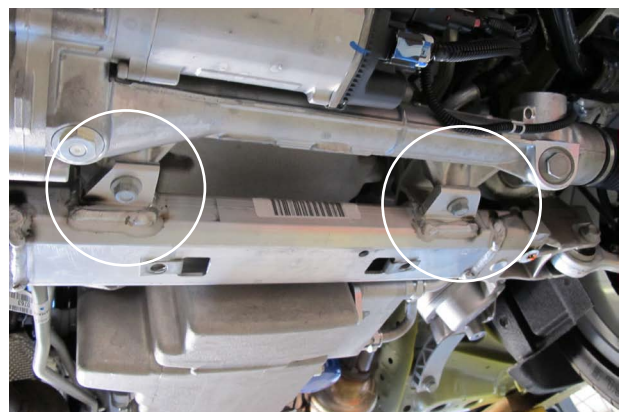


Fig. 12-c: Remove Steering Rack Support Screws

12. OIL DRAIN INSTALLATION, cont'd

- D. To provide an oil drain for the supercharger, it is necessary to make a hole in the side of the oil pan. The drain fitting location MUST allow the oil to drain back ABOVE the oil level in the pan. Located on the driver side of the oil pan, remove the screw securing the coolant lines to the threaded boss on the oil pan. Push the coolant lines down & out of the way. Do not discard the screw as it will be re-used.

(See Fig. 12-d)



Fig. 12-d: Remove Coolant Tube Support Screw

- E. To the right side of the threaded boss on the oil pan is where you need to drill the hole for the 3/8" NPT oil drain fitting. Before marking the hole, you need to use a file or grinder to flatten down a boss on the oil pan. Once the boss is flat, temporarily put the coolant lines back into their original position, then mark where the 3/8" NPT oil drain fitting will be placed. Mark the hole for drilling so that it is as close to the top of the oil pan as possible, while still allowing enough clearance to install the fitting so that it clears the rail on the oil pan. Once marked, remove the coolant lines. Drill an 1/8" hole at the center location of the marking. Use the supplied 9/16" cutter to enlarge the pilot hole, making sure to break through the oil pan easily so that the cutout does not fall into the oil pan.

(See Fig. 12-e)

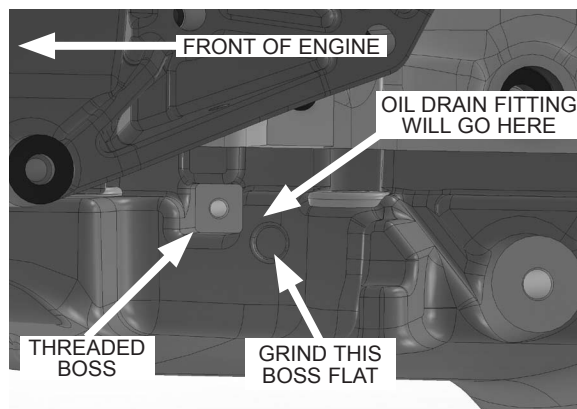


Fig. 12-e: Mark Location Of Oil Drain Fitting & Test Fit Oil Drain Hose

- F. Once drilled, thread the hole with a 3/8" NPT tap to approximately 1/2" deep or until the fitting can be started. Pack the flutes of the tap with grease to minimize the amount of debris that gets into the engine. Thoroughly clean the threaded area. Install the 3/8" NPT oil drain fitting into the tapped hole. Temporarily cover the 3/8" NPT oil drain fitting to keep out debris. Drain the engine oil, install a new filter & refill with fresh oil. Uncover the 3/8" NPT oil drain fitting & attach the 1/2" oil drain line & secure with the provided #8 hose clamp.

(See Fig. 12-f)

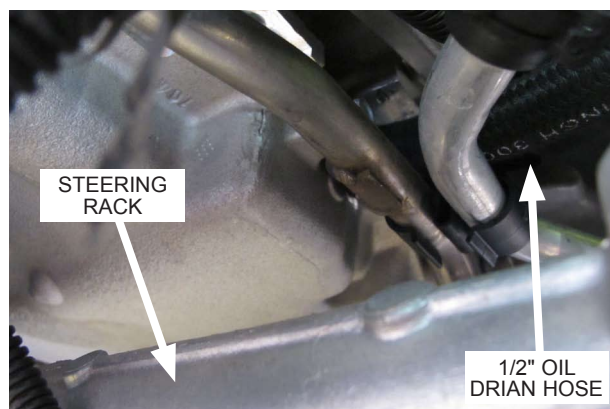


Fig. 12-f: Install Oil Drain Fitting & Oil Drain Line

NOTE: Oil drain hose must be routed downhill with minimal bends and no kinks. The supercharger relies on a free-flowing gravity drain for proper operation. Uphill hose routing will result in improper drainage & possible supercharger failure. Trim hose length if necessary.

13. MISCELLANEOUS MODIFICATIONS & RE-ASSEMBLY

- A. Disassemble the OEM horn assembly & reassemble as shown.
(See Fig. 13-a)



Fig. 13-a: New Horn Positioning

- B. Straighten out the locating tab on the horn bracket assembly.
(See Fig. 13-b)



Fig. 13-b: Straighten Out Locating Tab

- C. On the passenger side of the core support closest to the passenger side headlight is a ground strap. Loosen the screw securing the ground strap to the core support.
(See Fig. 13-c)

NOTE: Late-mode; vehicles have a patch of sound deadening material covering this ground strap. Simply peel back the patch of material, then re-attach it once this step is complete.

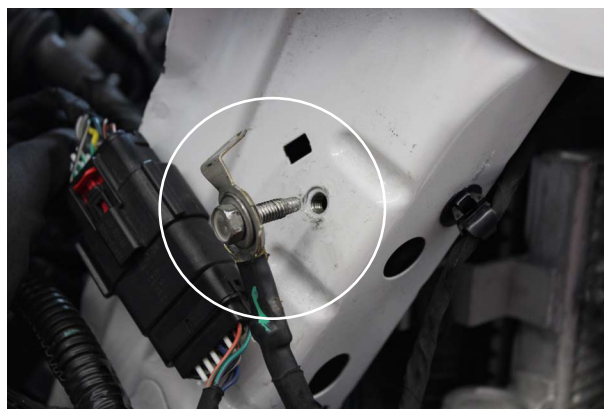


Fig. 13-c: Temporarily Remove Ground Strap

13. MISCELLANEOUS MODIFICATIONS & RE-ASSEMBLY, cont'd

- D. Sandwich the horn bracket between the core support & the previously removed ground strap. Verify that the horn assembly fits into its new mounting location & proceed to tighten the ground strap screw. Once in position, plug in the electrical connector for the horn assembly.

(See Fig. 13-d)



Fig. 13-d: Install Horn Assembly & Ground Strap

- E. Re-install both headlights at this time, making sure to plug in all of the headlight connectors to the headlight assembly & verifying fitment. Re-install the 2x brackets that attach to the core support & front bumper support & re-secure using the OEM screws.

(See Fig. 13-e)



Fig. 13-e: Re-Install Headlights & Core Support Brackets

- F. Trimming of the underside of the driver side hood vent may be necessary in order to clear the supercharger unit. Lower the hood & make note of where the hood vent comes into contact with the supercharger unit. Begin to trim away at the vent, but periodically stop to check clearance as you trim. Keep in mind that the engine will move during operation of the vehicle, so be sure to leave enough clearance to account for engine movement.

(See Fig. 13-f)



Fig. 13-f: Modify Underside Of Driver Side Hood Vent

13. MISCELLANEOUS MODIFICATIONS & RE-ASSEMBLY, cont'd

- G. Verify that all electrical connectors are plugged in, hose clamps & hardware securing the charge cooler to the vehicle are secured, then proceed to re-install the front bumper cover & any panels that have been removed & secure with the proper fasteners. Once complete, re-connect the battery. (See Fig. 13-g)



Fig. 13-g: Re-attach Front Bumper Cover & Panels

This page was left intentionally blank.

14. 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. If your vehicle has gone over 35,000 miles since its last spark plug change, you will need to change the spark plugs now *before* test driving the vehicle.
- B. Check all fittings, nuts, bolts and clamps for tightness. Pay particular attention to oil and fuel lines around moving parts, sharp edges and exhaust system parts. Make sure all wires and lines are properly secured with clamps or tie-wraps.
- C. Check all fluid levels, making sure that your tank(s) is/are filled with 91 octane or higher fuel before commencing test drive.
- D. Start the engine and allow to idle a few minutes, then shut off.
- E. Recheck to be sure that no hoses, wires, etc. are near exhaust headers or moving parts. Look also for any signs of fluid leakage.
- F. Use a wide band O2 sensor to verify a proper air/fuel ratio (Vortech suggests 11.0:1 for 91 octane pump fuel.) Check ignition timing to make sure it is properly set before commencing test drive.
- G. **PLEASE TAKE SPECIAL NOTE:** Operating the vehicle without ALL the subassemblies completely and properly installed may cause **FAILURE OF MAJOR COMPONENTS.**
- H. Keep in mind that this manual does not address air/fuel or ignition timing considerations.
- I. Test drive the vehicle.
- J. Always listen carefully for engine detonation. Discontinue heavy throttle usage if detonation is heard.
- K. Read the **STREET SUPERCHARGER SYSTEM OWNER'S MANUAL AND RETURN THE WARRANTY REGISTRATION FORM** within thirty (30) days of purchasing your supercharger system to qualify.



ENGINEERING, INC

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)