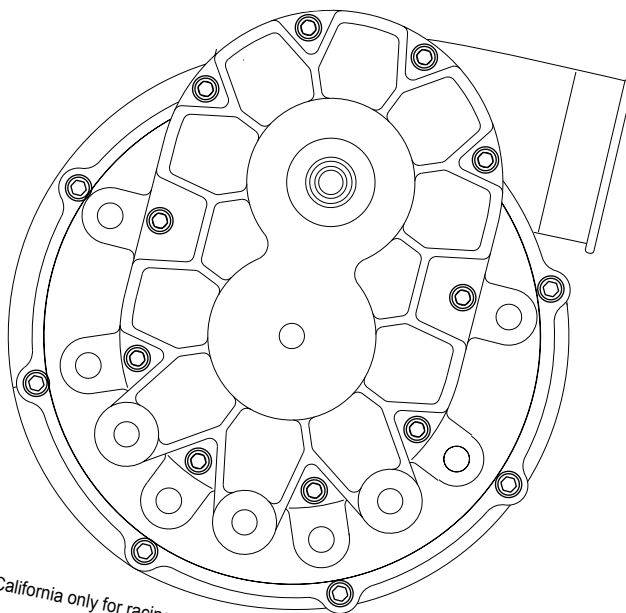


Chevrolet Camaro SS

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.

©2017 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. TRANS. COOLER BRACKET INSTALLATION	13
3. ENGINE COOLING SYSTEM MODIFICATION & CHARGE AIR COOLER INSTALLATION .	17
4. A/C LINE MODIFICATION & SUPERCHARGER MOUNTING BRACKET INSTALLATION .	27
4.1 BELT ROUTING DIAGRAM	32
5. DISCHARGE TUBE INSTALLATION	33
5.1 DISCHARGE TUBE ASSEMBLY LAYOUT DIAGRAM	36
6. COOLING DUCT MODIFICATION & MAF INSTALLATION	37
7. MAP SENSOR & BOOST/VACUUM LINE REFERENCE TEE INSTALLATION	41
8. AIR INLET ASSEMBLY	45
9. MISCELLANEOUS RE-ASSEMBLY	47
10. REFLASH COMPUTER	49
11. FINAL CHECK	51

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.

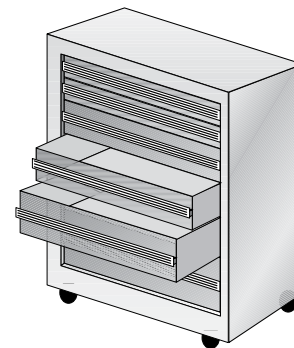
Installation on new vehicles will not harm or adversely affect the break-in period so long as factory break-in procedures are followed.

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. Perform an oil and filter change upon completion of this installation and prior to test driving your vehicle. Thereafter, always use a high grade SF rated engine oil or a high quality synthetic, and change the oil and filter at least 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.
6. 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.

TOOL & SUPPLY REQUIREMENTS

- 3/8" ratchet and drive set: SAE & metric
- Open end wrenches: SAE & metric
- 3/8" ratchet extensions
- 15mm crows foot
- Torx 20 socket
- Torx 25 socket
- Torx 50 socket
- Screwdriver set
- Hose cutters
- Utility knife



If it has been 35,000 miles or more since your vehicle's last spark plug change, then you will also need:

- Spark plug socket
- NEW spark plugs



ENGINEERING, INC

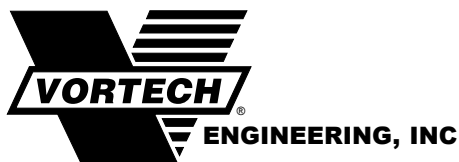
2016 Camaro SS, H.O.

Part No. 4GT218-010L

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	7PS300-277	SLEEVE, BUMP REDUCER, 3.0- 2.75	1
008130	LICENSE PLATE FRAME, VORTECH	1	7PS300-200	SLEEVE, BLACK, 3.00D X 2.00L	1
008447	1 YR S/C STRT INFO PKG ASY VORT1		7PS300-301	BUMP HOSE, 3.00D X 3.00L	1
009035	S/C LUBE, BOTTLED, 3-PACK	1	7PS300-302	SLEEVE, DISCH, CUSTOM, '16 CAM SS	1
2F238-100	S/C ASSY, '16 CAMARO SS	1	7PS388-301	ELBOW, REDUCER, 3.88-3.00 X 90	1
4GT020-010	INSTR MAN, '16 CAM SS	1	7R002-048	#48 SAE TYPE F SS HOSE CLAMP	12
4GT110-011	MNTG BRKT ASSY, '16 CAM SS	1	7R002-064	#64 SAE TYPE F SS HOSE CLAMP	1
2A017-016	PILOT, 6203/5 BRG, M10 3/8 SCREW	2	7R004-002	STEPLESS CLAMP, 17.0-70	4
2A040-011	PULLEY RETAINER, S/C	2	7U030-030	1/4" VACUUM HOSE	2
2A042-080	BELT, GATES 20MM, 80T COG	1	7U032-016	3/8" EFI FUEL HSE HI-PSR	1.25FT
2D170-171	ASSY, JACKSHAFT, SHORT	1	8PN012-010	DISCH TUBE A, COOLR TO TB 4.6 A/A COOLR	1
4CL116-350	IDLER ASSY, 3.5" DIA 20MM COG, SRT8	1	4GT112-050	AIR INLET ASSY, '16 CAM SS	1
4FD017-011	PILOT, 6203/5 BRG, 1/2 SCREW	1	4GT010-060	HEAT SHIELD, AIR INLET, '16 CAM SS	1
4FR016-150	IDLER PLY, STEEL 3" 6 RIB SMOOTH	2	7P100-101	PLUG, RUBBER STOPPER, 1"	1
4FR017-071	SPACER, IDLER 1.676	1	7P375-008	ELBOW, PLASTIC 3/8 X 90 UNION	1
4GR032-032	PLY, JACKSHAFT, C5, 20MM, 32T	1	7P625-374	FTG, 5/8 QUICK CONN TO 3/8 BARB	1
4GT010-011	MTG PLATE A, CYL HD, '16 CAM SS	1	7R004-002	STEPLESS CLAMP, 17.0-70	2
4GT010-021	MTG PLATE B, SC MOUNT, '16 CAM SS	1	7U030-056	3/8 PCV/VAC RUBBER HOSE	.833FT
4GT010-031	MTG PLATE C, IDLER, '16 CAM SS	1	8H040-050	AIR FILTER 3.5" FLG X 7"L	1
4GT010-040	BRKT, REAR PLT, 2016 CAM SS	1	5A002-070	SENSOR, MAP, ZR1 3-BAR	1
4GT010-090	STRAP, A/C LINE, 2016 CAM SS	1	5A003-060	TUNER, SCT, GM	1
4GT017-011	SPACER, DUAL THREAD, 2016 CAM	4	8D204-064	RACE BYPASS VALVE, G3	1
4GT017-021	SPACER, IDLER, 2016 CAM SS, .540	2	8H040-175	FILTER, 1.75" I.D., RACE BYPASS	1
4GT020-012	TEMPLATE, COOLING DUCT MOD, '16 CAM SS	1	8N108-040	CAC ASSY, '16 CAMARO SS	1
7A312-127	5/16-18 X 1.25" SHCS ZINC PLT	4			
7A375-105	3/8-16 X 1" HHCS, GR8, PLATED	14			
7A375-225	3/8-16 X 2-1/4 HXHD G8	1			
7A375-227	3/8-16 X 2.25 BHCS	1			
7B375-075	3/8-24 X 3/4" GR8 HXHD BOLT	2			
7C010-025	M10-1.5 X 25MM HXCSP	2			
7C010-030	M10 X 1.5 X 30 HXHD CL10.9	2			
7C012-100	M12 X 1.75 X 100 HXHD BOLT	1			
7C080-025	M8 X 1.25 X 25 HXHD	2			
7F375-021	3/8-16 NYLOCK NUT, FLG HEAD	2			
7G010-175	M12 X 1.75 NUT	1			
7J010-002	WASHER, M10 FLAT, ZN PLT	4			
7J012-092	WASHER, M12 FLAT, ZN PLT	1			
7J500-002	1/2" WASHER, SPLIT LOCK	1			
7K312-001	5/16 AN WASHER, PLATED	2			
7K375-040	3/8 AN960 FLAT WASHER PLATED	15			
7U038-040	HOSE, 3/4" ID NEOPRENE	6IN			
7U100-069	KEY, 3/16 SQUARE X .73 LONG	2			
4GT110-050	FLUID SUPPORT ASY, '16 CAM SS	1			
4GT010-050	BRACKET, TRANS CLR, '16 CAM	1			
5W001-082	SLEEVE, FLEX BRAID .75" NOM.	3FT			
7C060-026	M6 X 1.0 X 25MM, FLG HD, PLATED	2			
7P375-372	FITTING, TRANS CLR, '16 CAM	2			
7P625-004	5/8 TEE, GF NYLON	1			
7P625-016	5/8" HOSE UNION, BARBED ENDS	1			
7R002-010	#10 SAE TYPE F SS HOSE CLAMP	2			
7R004-002	STEPLESS CLAMP, 17.0-70	2			
7R004-004	STEPLESS CLAMP, 25.6 X 7MM	4			
7U032-020	HOSE, 3/8" ID P/STEERING RET	5.25IN			
7U133-006	5/8" MOLDED ELBOW, COOLANT, 6"	1			
7U133-048	5/8" MOLDED ELBOW HOSE, 48"	1			
4GT112-010	DISCH ASSY, '16 CAM SS	1			
4GT010-070	MNT TAB, DISCH TUBE B, '16 CAM SS	1			
4GT012-010	TUBE A, BYP MOUNT, 2016 CAM SS	1			
4GT012-020	TUBE B, DISCH, 2016 CAM SS	1			
4GT012-030	TUBE D, DISCH, 2016 CAM SS	1			
5W001-096	HARNESS, MAF EXTEN, '16 CAM SS	1			
7C040-008	M4-.7 X 8MM SCHD SS	2			
7C060-017	M6 X 1.0 X 16 BUTN HD ZN PLT	1			
7C080-031	M8 X 1.25 X 30MM SET SCREW	2			
7P375-250	3/8 X 3/8 X 1/4 MALE BARB TEE	1			
7PS275-092	ELBOW, 2.75 X 90 SILICONE BLK	1			



2016 Camaro SS, H.O. Tuner Kit

Part No. 4GT218-110L

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	7PS300-277	SLEEVE, BUMP REDUCER, 3.0- 2.75	1
008130	LICENSE PLATE FRAME, VORTECH	1	7PS300-200	SLEEVE, BLACK, 3.00D X 2.00L	1
008447	1 YR S/C STRT INFO PKG ASY VORT1		7PS300-301	BUMP HOSE, 3.00D X 3.00L	1
009035	S/C LUBE, BOTTLED, 3-PACK	1	7PS300-302	SLEEVE, DISCH, CUSTOM, '16 CAM SS	1
2F238-100	S/C ASSY, '16 CAMARO SS	1	7PS388-301	ELBOW, REDUCER, 3.88-3.00 X 90	1
4GT020-010	INSTR MAN, '16 CAM SS	1	7R002-048	#48 SAE TYPE F SS HOSE CLAMP	12
4GT110-011	MNTG BRKT ASSY, '16 CAM SS	1	7R002-064	#64 SAE TYPE F SS HOSE CLAMP	1
2A017-016	PILOT, 6203/5 BRG, M10 3/8 SCREW	2	7R004-002	STEPLESS CLAMP, 17.0-70	4
2A040-011	PULLEY RETAINER, S/C	2	7U030-030	1/4" VACUUM HOSE	2
2A042-080	BELT, GATES 20MM, 80T COG	1	7U032-016	3/8" EFI FUEL HSE HI-PSR	1.25FT
2D170-171	ASSY, JACKSHAFT, SHORT	1	8PN012-010	DISCH TUBE A, COOLR TO TB 4.6 A/A COOLR	1
4CL116-350	IDLER ASSY, 3.5" DIA 20MM COG, SRT8	1	4GT112-050	AIR INLET ASSY, '16 CAM SS	1
4FD017-011	PILOT, 6203/5 BRG, 1/2 SCREW	1	4GT010-060	HEAT SHIELD, AIR INLET, '16 CAM SS	1
4FR016-150	IDLER PLY, STEEL 3" 6 RIB SMOOTH	2	7P100-101	PLUG, RUBBER STOPPER, 1"	1
4FR017-071	SPACER, IDLER 1.676	1	7P375-008	ELBOW, PLASTIC 3/8 X 90 UNION	1
4GR032-032	PLY, JACKSHAFT, C5, 20MM, 32T	1	7P625-374	FTG, 5/8 QUICK CONN TO 3/8 BARB	1
4GT010-011	MTG PLATE A, CYL HD, '16 CAM SS	1	7R004-002	STEPLESS CLAMP, 17.0-70	2
4GT010-021	MTG PLATE B, SC MOUNT, '16 CAM SS	1	7U030-056	3/8 PCV/VAC RUBBER HOSE	.833FT
4GT010-031	MTG PLATE C, IDLER, '16 CAM SS	1	8H040-050	AIR FILTER 3.5"FLG X 7"L	1
4GT010-040	BRKT, REAR PLT, 2016 CAM SS	1	8D204-064	RACE BYPASS VALVE, G3	1
4GT010-090	STRAP, A/C LINE, 2016 CAM SS	1	8H040-175	FILTER, 1.75" I.D., RACE BYPASS	1
4GT017-011	SPACER, DUAL THREAD, 2016 CAM	4	8N108-040	CAC ASSY, '16 CAMARO SS	1
4GT017-021	SPACER, IDLER, 2016 CAM SS, .540	2			
4GT020-012	TEMPLATE, COOLING DUCT MOD, '16 CAM SS	1			
7A312-127	5/16-18 X 1.25" SHCS ZINC PLT	4			
7A375-105	3/8-16 X 1" HHCS, GR8, PLATED	14			
7A375-225	3/8-16 X 2-1/4 HXHD G8	1			
7A375-227	3/8-16 X 2.25 BHCS	1			
7B375-075	3/8-24 X 3/4" GR8 HXHD BOLT	2			
7C010-025	M10-1.5 X 25MM HXCSP	2			
7C010-030	M10 X 1.5 X 30 HXHD CL10.9	2			
7C012-100	M12 X 1.75 X 100 HXHD BOLT	1			
7C080-025	M8 X 1.25 X 25 HXHD	2			
7F375-021	3/8-16 NYLOCK NUT, FLG HEAD	2			
7G010-175	M12 X 1.75 NUT	1			
7J010-002	WASHER, M10 FLAT, ZN PLT	4			
7J012-092	WASHER, M12 FLAT, ZN PLT	1			
7J500-002	1/2" WASHER, SPLIT LOCK	1			
7K312-001	5/16 AN WASHER, PLATED	2			
7K375-040	3/8 AN960 FLAT WASHER PLATED	15			
7U038-040	HOSE, 3/4" ID NEOPRENE	6IN			
7U100-069	KEY, 3/16 SQUARE X .73 LONG	2			
4GT110-050	FLUID SUPPORT ASY, '16 CAM SS	1			
4GT010-050	BRACKET, TRANS CLR, '16 CAM	1			
5W001-082	SLEEVE, FLEX BRAID .75" NOM.	3FT			
7C060-026	M6 X 1.0 X 25MM, FLG HD, PLATED	2			
7P375-372	FITTING, TRANS CLR, '16 CAM	2			
7P625-004	5/8 TEE, GF NYLON	1			
7P625-016	5/8" HOSE UNION, BARBED ENDS	1			
7R002-010	#10 SAE TYPE F SS HOSE CLAMP	2			
7R004-002	STEPLESS CLAMP, 17.0-70	2			
7R004-004	STEPLESS CLAMP, 25.6 X 7MM	4			
7U032-020	HOSE, 3/8" ID P/STEERING RET	5.25IN			
7U133-006	5/8" MOLDED ELBOW, COOLANT, 6"	1			
7U133-048	5/8" MOLDED ELBOW HOSE, 48"	1			
4GT112-010	DISCH ASSY, '16 CAM SS	1			
4GT010-070	MNT TAB, DISCH TUBE B, '16 CAM SS	1			
4GT012-010	TUBE A, BYP MOUNT, 2016 CAM SS	1			
4GT012-020	TUBE B, DISCH, 2016 CAM SS	1			
4GT012-030	TUBE D, DISCH, 2016 CAM SS	1			
5W001-096	HARNESS, MAF EXTEN, '16 CAM SS	1			
7C040-008	M4-.7 X 8MM SCHD SS	2			
7C060-017	M6 X 1.0 X 16 BUTN HD ZN PLT	1			
7C080-031	M8 X 1.25 X 30MM SET SCREW	2			
7P375-250	3/8 X 3/8 X 1/4 MALE BARB TEE	1			
7PS275-092	ELBOW, 2.75 X 90 SILICONE BLK	1			

This page was left intentionally blank.

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: *Drivers 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 drivers 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 drivers 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 drivers 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 drivers 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 drivers 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 drivers 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 drivers 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 drivers side.*

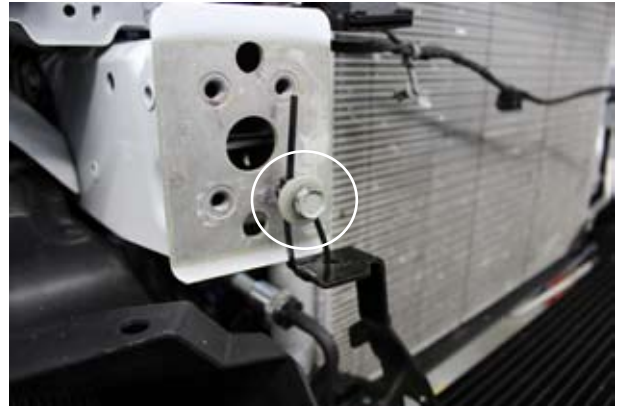


Fig. 1-v: Temporary Trans Cooler Mounting

- 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 drivers 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 drivers 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 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. Prior to mounting the transmission cooler bracket, the previously removed transmission cooler shroud needs to be modified for a future step. Using 2x plastic fasteners, temporarily mount the transmission cooler bracket to the shroud. The section to the left of the bracket needs to be cut off for charge air cooler & MAF sensor clearance. Mark the section that needs to be cut then remove the transmission cooler bracket.
(See Fig. 2-c)



Fig. 2-c: Temporarily Mount New Trans. Cooler Bracket

2. TRANS. COOLER BRACKET INSTALLATION, cont'd

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



Fig. 2-d: Modify Trans. Cooler Shroud

- 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.

(See Fig. 2-e)

NOTE: We recommend doing Step E thru Step H as quickly as possible, as to avoid excessive loss of transmission fluid.



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

- F. 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 & allow the transmission cooler line to sit lower than its original position. This is done to add clearance for a future step.

(See Fig. 2-f)



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

2. TRANS. COOLER BRACKET INSTALLATION, cont'd

- G. 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-g)



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

- H. Install the provided section of rubber transmission cooler line in place of the previously removed OEM transmission cooler line.

(See Fig. 2-h)

NOTE: Ensure that there are no kinks in the rubber hose when installed. Trim hose length if necessary.



Fig. 2-h: Install Provided Trans. Cooler Line

This page was left intentionally blank.

3. ENGINE COOLING SYSTEM MOD. & CHARGE AIR COOLER INSTALLATION

- 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 hard coolant tube by unclamping the spring clamp. Be sure not to damage the hard coolant tube.
(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. ENGINE COOLING SYSTEM MOD. & CHARGE AIR COOLER INSTALLATION, cont'd

- D. On the passenger side supplemental radiator, remove the forwardmost coolant hose. Use a small flathead screwdriver or a small pick to remove the snap ring from the quick-release fitting, then lift the fitting & coolant hose upward to detach it from the supplemental radiator. Remove the quick-release fitting & OEM spring clamp from this hose & set aside for re-use in a future step. (See Fig. 3-d)

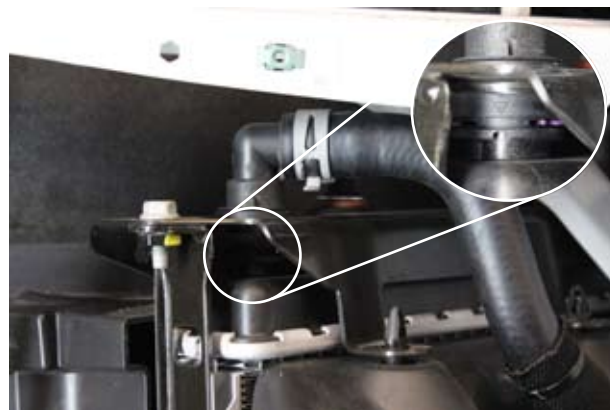


Fig. 3-d: Zoomed In - Remove Forwardmost Coolant Hose

- 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. Re-attach the hose & secure with the OEM spring clamp. (See Fig. 3-f)



Fig. 3-f: Modify Lower Radiator Hose

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

- G. Locate the provided 5/8" ID X 48" length hose with the molded 90° elbow. remove 1/2" from the short leg of the hose.
(See Fig. 3-g)



Fig. 3-g: Remove 1/2" Of Hose

- H. 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. 3-h)



Fig. 3-h: Cut 2" From Inside Bend

- I. 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. 3-i)



Fig. 3-i: Cut 1-1/2" From Inside Bend

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

- J. Locate the remaining length of 5/8" hose & cut a 2-1/2" straight section.
(See Fig. 3-j)



Fig. 3-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. 3-k)



Fig. 3-k: Temporarily Assemble Coolant Lines

- 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. 3-l)



Fig. 3-l: Clock Coolant Line Assembly

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

- 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. 3-m)



Fig. 3-m: Install Hose Clamp As Shown

- N. Re-install the coolant line assembly. Secure the 2-1/2" length 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. 3-n)



Fig. 3-n: Install Coolant Line Assembly

- 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. 3-o)



Fig. 3-o: Install Threaded Stud & Charge Air Cooler

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

- 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. 3-p)



Fig. 3-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. 3-q)



Fig. 3-q: Secure Front Bumper Support

- 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. 3-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. 3-r: Custom Silicone Discharge Sleeve

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

- 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. 3-s)



Fig. 3-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. 3-t)



Fig. 3-t: Verify Fitment Of Custom Silicone Discharge Sleeve

- 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. 3-u)



Fig. 3-u: Loosely Attach Tube C To Custom Silicone Discharge Sleeve

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

- V. Locate the length of 5/8" coolant hose (previously cut from the 5/8" 90° elbow) & 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. At this time, locate the length of braided sleeve & slide it over the length of 5/8" hose.

(See Fig. 3-v)

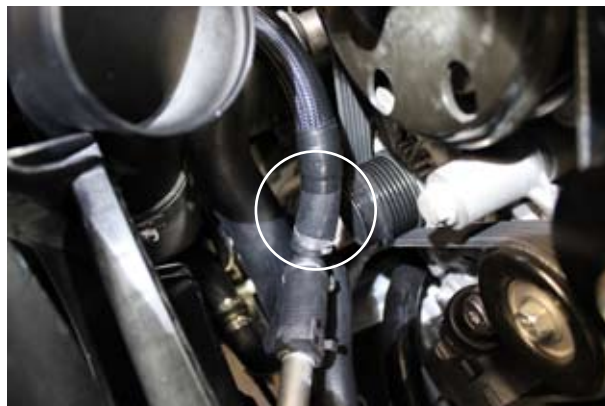


Fig. 3-v: Install 3ft Length Of 5/8" Coolant Hose & Secure

- 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. 3-w)



Fig. 3-w: Route 5/8" Coolant Hose Towards Front Of Vehicle

- X. Cut the remaining length of 5/8" coolant hose & braided sleeve to length. Insert the previously removed quick-release fitting from the supplemental radiator into the 5/8" coolant hose & secure with an OEM spring clamp. Attach the quick-release fitting to the supplemental radiator.

(See Fig. 3-x)



Fig. 3-x: Cut 5/8" Coolant Hose & Braided Sleeve To Length & Secure

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

- 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. 3-y)



Fig. 3-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. 3-z)



Fig. 3-z: Cut 1/2" From Small Diameter Coolant Hose

- 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. 3-aa)



Fig. 3-aa: Verify Hose Connections & Close Radiator Valve

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

- 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. 3-ab)



Fig. 3-ab: Fill Both Coolant Reservoirs

4. 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. 4-a)



- 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. 4-b)



- 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. 4-c)

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



Fig. 4-c: Attach A/C Line Strap

4. 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. 4-d)



Fig. 4-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. 4-e)



Fig. 4-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. 4-f)



Fig. 4-f: Slide Rear Support Bracket Between A/C Mount & Screw

4. 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. 4-g)

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



Fig. 4-g: Attach Supercharger Mounting Bracket To D. Side Cylinder Head

- H. Locate the supercharger bracket with the jack-shaft assembly. 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. Once installed, the cog pulley should be facing towards you, while the 6-rib pulley sits between the brackets.

(See Fig. 4-h)



Fig. 4-h: Attach Supercharger Mounting Bracket To Cylinder Head Bracket

- I. Use the provided zip ties to secure the engine harness away from the 6-rib pulley. Failure to do so could result in damage to the engine harness.

(See Fig. 4-i)



Fig. 4-i: Secure Engine Harness With Zip Ties

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

- J. With the steel idler pulleys facing towards the back of the vehicle, loosely attach the idler bracket assembly to the water pump & supercharger mounting bracket using the 2x M10 X 30mm screws & 2x 3/8-16 X 1.00" screws. Be sure to use the appropriate washer with each screw. With the idler plate in position, proceed to secure all of the mounting hardware, including the hardware securing the supercharger mounting bracket to the cylinder head.

(See Fig. 4-j)



Fig. 4-j: Attach Idler Plate To Water Pump & Supercharger Mounting Bracket

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

(See Fig. 4-k)



Fig. 4-k: Tighten Rear Support Bracket Screws

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

(See Fig. 4-l)



Fig. 4-l: Re-tighten A/C Mount Screw

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

- M. Using the belt routing diagram on Pg. 32, loosely route the belt as shown, leaving it off of the tensioner pulley. Once in position, use a 15mm wrench to turn the belt tensioner clockwise, then slide the belt over the top of the tensioner pulley. With the belt in place, slowly release the tensioner back into its resting position. Failure to do so may result in damage to the tensioner. Verify that the belt is properly aligned & make adjustments as necessary.

(See Fig. 4-m)

NOTE: For belt routing, reference diagram 4.1 on Pg. 32.



Fig. 4-m: Install Serpentine Drive Belt

- N. Place the supercharger unit into the supercharger mounting bracket & secure using 4x 3/8-16 X 1.00" screws & 4x 3/8 AN washers. Be sure to route the oil drain line down towards the bottom of the vehicle, making sure it is free & clear of any kinks, sharp edges and/or moving objects.

(See Fig. 4-n)



Fig. 4-n: Mount Supercharger Unit To Supercharger Mounting Bracket

- O. Using the supplied M12 X 1.75 X 100mm screw, install the aluminum idler with the bearing retaining snap ring pointed towards the rear of the vehicle. The screw should pass through a pilot spacer, the idler, the 1.680" spacer and the supercharger mounting plate. Loosely attach the washer, lock washer & nut on the end of the screw.

(See Fig. 4-o)



Fig. 4-o: Install Flanged Aluminum Idler

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

- P. Slide the small cog belt over the supercharger pulley & jackshaft pulley. Once in place, push the idler towards the belt & tighten the idler. The proper amount of tension on the cog belt should allow you to twist the straight section of the belt 1/4 turn. Tension should not exceed this amount.
(See Fig. 4-p)



Fig. 4-p: Install Cog Belt & Apply Tension

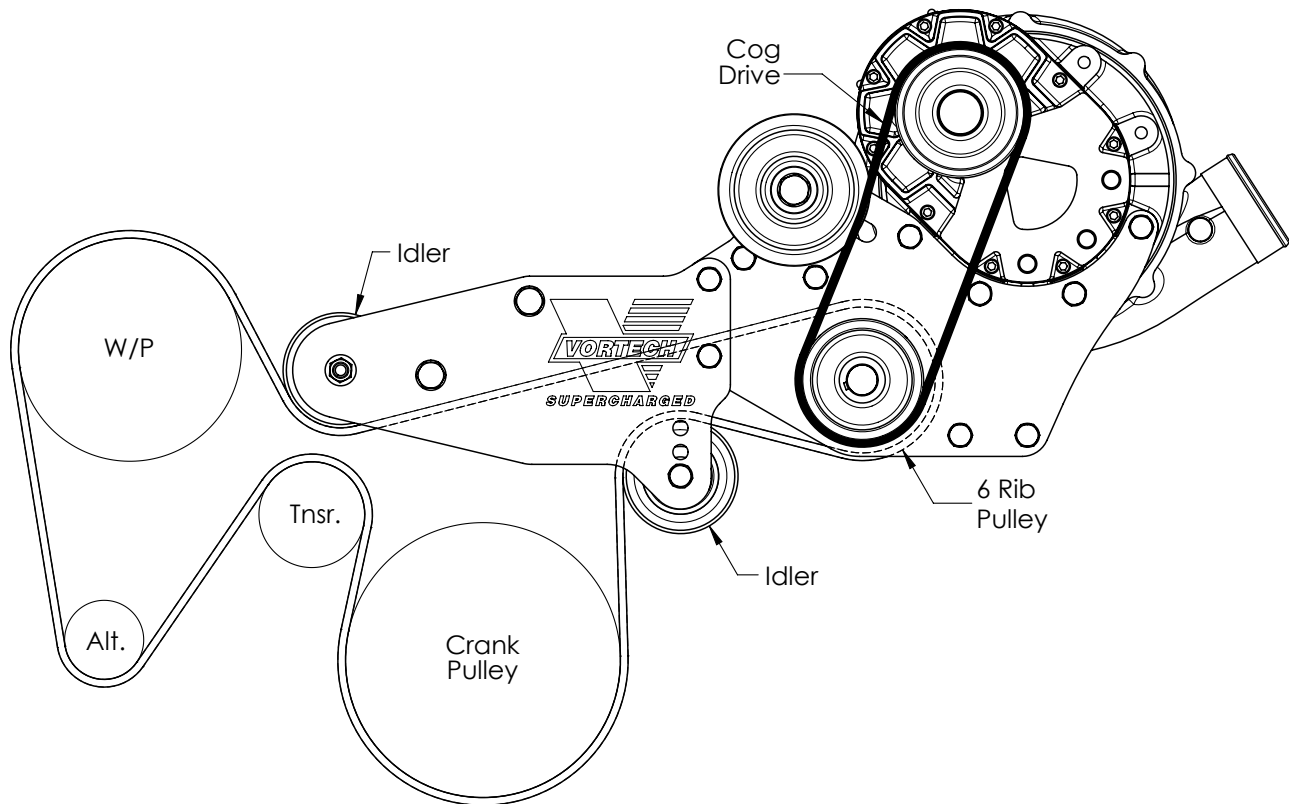


Diagram 4.1: Belt Routing Diagram - 2016 Chevrolet Camaro SS

5. DISCHARGE TUBE INSTALLATION

- A. You will notice a tab protruding out of the rear of the drivers 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 cut off.

(See Fig. 5-a)



Fig. 5-a: Remove Tab From 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 is 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. 5-b)

NOTE: For discharge tube identification, reference diagram 5.1 on Pg. 36.



Fig. 5-b: Install Tube B Support Bracket & Button-Head Screw

- C. Install the provided 2" silicone sleeve to the drivers side of the charge air cooler, then slide Tube B into the sleeve.

(See Fig. 5-c)



Fig. 5-c: Install Discharge Tube "B" As Shown

5. 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. 5-d)



Fig. 5-d: Attach Hose Clamp To Tube B

- E. Temporarily install the drivers 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. 5-e)



Fig. 5-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 6x #48 hose clamps to secure the silicone sleeves.

(See Fig. 5-f)



Fig. 5-f: Attach 90° Silicone Elbow & Discharge Tube "A"

5. 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. 5-g)



Fig. 5-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. 5-h)



Fig. 5-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. 5-i)



Fig. 5-i: Attach 90° Reducer Elbow To Throttle Body & Discharge Tube "D"

5. DISCHARGE TUBE INSTALLATION, cont'd

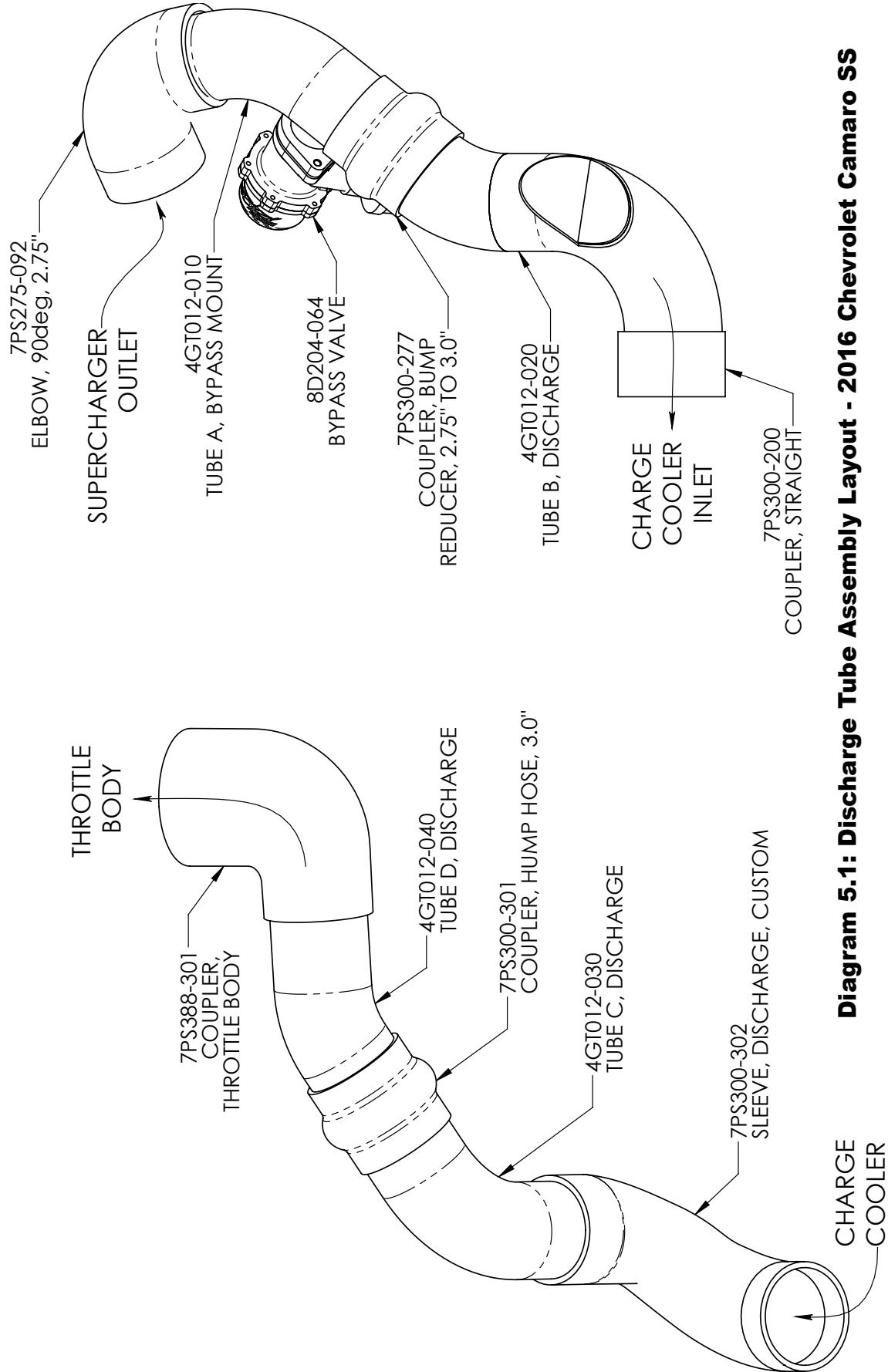


Diagram 5.1: Discharge Tube Assembly Layout - 2016 Chevrolet Camaro SS

6. 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. 6-a)



Fig. 6-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. 6-b)



Fig. 6-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. 6-c)



Fig. 6-c: Modified Brake Cooling Duct (Outer Section)

6. 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. 6-d)



Fig. 6-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. 6-e)

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



Fig. 6-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 drivers side of the transmission cooler shroud at this time using 3x of the 6x OEM plastic fasteners.

(See Fig. 6-f)



Fig. 6-f: Secure Transmission Cooler Mount

6. 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. 6-g)



Fig. 6-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. 6-h)



Fig. 6-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. 6-i)



Fig. 6-i: Route MAF Harness Extension Towards Top Of Vehicle

6. 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. 6-j)



Fig. 6-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. 6-k)



Fig. 6-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. 6-l)



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

7. MAP SENSOR & 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. 7-a)



Fig. 7-a: Remove "CAMARO" Engine Covers

- B. Open the 2x clips along the top of grey engine cover securing the fuel line to the engine cover. Once open, remove the fuel line & push it aside. Leave the clips open at this time.
(See Fig. 7-b)



Fig. 7-b: Detach Fuel Line From Engine Cover

- C. Located on the drivers side of the grey engine cover, unplug the MAP sensor connector from the MAP sensor.
(See Fig. 7-c)



Fig. 7-c: Unplug MAP Sensor Connector

7. MAP SENSOR & BOOST/VACUUM REFERENCE TEE INSTALLATION, cont'd

- D. Remove the 4x 10mm-headed fasteners that secure the grey engine cover to the engine. Set aside for later re-installation.

(See Fig. 7-d)



Fig. 7-d: Remove Engine Cover Fasteners

- E. The drivers side of the engine harness that runs along the top of the grey engine cover is secured using plastic push fasteners. Detach the engine harness from the drivers side of the grey engine cover & push it aside.

(See Fig. 7-e)



Fig. 7-e: Detach D. Side Engine Harness From Engine Cover

- F. Lift the drivers side of the grey engine cover & remove the T25-headed fastener securing the MAP sensor to the intake manifold. Lift the MAP sensor upwards to detach it from the intake manifold. Once removed, replace the OEM MAP sensor with the provided 3 bar MAP sensor. Proceed to re-install all fasteners & engine covers. Be sure to re-attach the harness to the grey engine cover & plug the MAP sensor connector back in.

(See Fig. 7-f)



Fig. 7-f: Replace MAP Sensor

7. MAP SENSOR & BOOST/VACUUM REFERENCE TEE INSTALLATION, cont'd

- G. Located near the drivers 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. 7-g)



Fig. 7-g: Detach Hard Plastic Vacuum Line

- H. The opposite end of the hard plastic vacuum line is located at the drivers 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. 7-h)



Fig. 7-h: Zoomed In - Remove 45° Fitting From Rear Of Intake Manifold

- I. 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. 7-i)



Fig. 7-i: Remove Fittings From Hard Plastic Vacuum Line

7. MAP SENSOR & BOOST/VACUUM REFERENCE TEE INSTALLATION, cont'd

- J. 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. 7-j)



Fig. 7-j: New Vacuum Line Assembly

- K. 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. 7-k)



Fig. 7-k: Install Rubber Plug & Secure Vacuum Line To Sound Tube

- L. 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. 7-l)



Fig. 7-l: Attach Vacuum Hose To Fitting

8. AIR INLET ASSEMBLY INSTALLATION

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

(See Fig. 8-a)



Fig. 8-a: Remove Valve Cover Screws

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

(See Fig. 8-b)



Fig. 8-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. 8-c)



Fig. 8-c: Secure Heat Shield

8. 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. 8-d)



Fig. 8-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. 8-e)



Fig. 8-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. 8-f)



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

9. MISCELLANEOUS RE-ASSEMBLY

- A. Disassemble the OEM horn assembly & reassemble as shown.
(See Fig. 9-a)



Fig. 9-a: New Horn Positioning

- B. Straighten out the locating tab on the horn bracket assembly.
(See Fig. 9-b)



Fig. 9-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. 9-c)

NOTE: Late-model 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. 9-c: Temporarily Remove Ground Strap

9. MISCELLANEOUS 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. 9-d)



Fig. 9-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. 9-e)



Fig. 9-e: Re-Install Headlights & Core Support Brackets

- F. 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. 9-f)



Fig. 9-f: Re-attach Front Bumper Cover & Panels

10. REFLASH COMPUTER

- A. Reconnect the battery if previously disconnected. Attach the OBD2 connector from the flash tool that is provided in the kit to the vehicle's OBD2 port. Make sure this connector is seated all the way in the vehicle's OBD2 port. You don't want this connector to disconnect during programming or damage may occur to the vehicle's ECM.

(See Fig. 10-a)



Fig. 10-b

- B. The flash tool should power up and display PROGRAM VEHICLE at the top of the screen. Press the SELECT button. Next, PREPROGRAMMED TUNE will be displayed at the top of the screen. Press the SELECT button.

(See Fig. 10-b)



Fig. 10-b

- C. Read the disclaimer entirely, then press the SELECT button if you agree with the terms of the disclaimer. At this point you will need to turn the ignition to the ON position by pressing the START button once while keeping your foot OFF the clutch pedal.

(See Fig. 10-c)

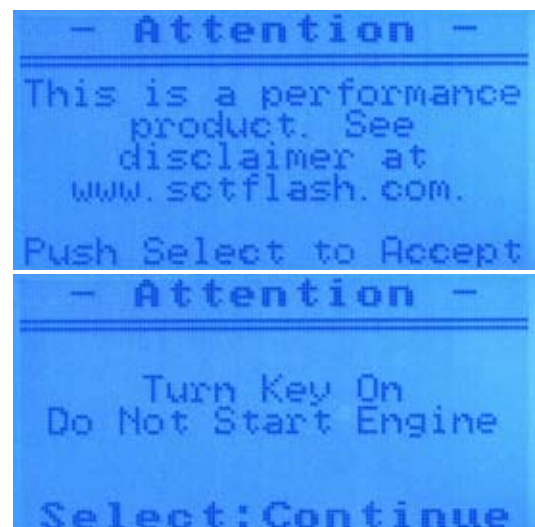


Fig. 10-c

10. REFLASH COMPUTER, cont'd

- D. The flash tool will proceed to check the Operating System (OS) part number of the ECU. Once the tool has identified the OS of the ECU, you will see SELECT AUTO displayed at the top of the screen & a list of available tunes below. Use the arrow keys to select the appropriate tune for your vehicle & press the SELECT button.

(See Fig. 10-d)

NOTE: Automatic vehicles select
"VORTECH CAMARO A6"

Manual vehicles select
"VORTECH CAMARO M6"

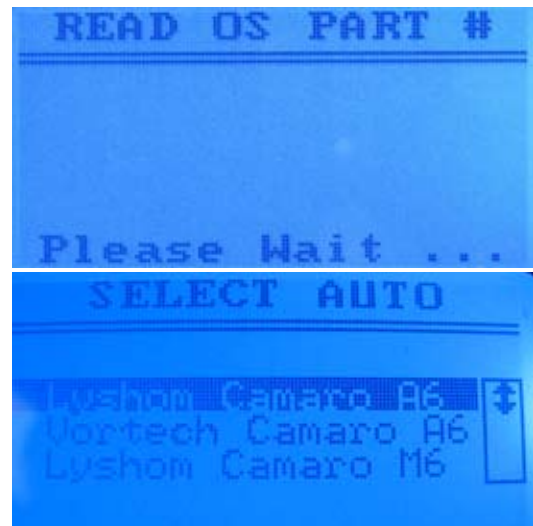


Fig. 10-d

- E. ADJUST OPTIONS will be displayed at the top of the screen. Arrow down to SKIP OPTIONS & press the SELECT button. PROGRAM VEHICLE will be displayed at the top of the screen. At this time, make sure you have turned off any additional accessories that may cause an unnecessary draw on the battery (headlights, radio, etc.). Press the SELECT button to proceed with BEGIN PROGRAM. Automatic vehicles will require a second selection.

(See Fig. 10-e)

NOTE: Once the programming sequence has started, be sure NOT to disturb the cable or turn the ignition or any accessories on/off. It is normal for the flash tool to cycle during the process. If programming is disrupted, permanent damage to the ECU may occur.

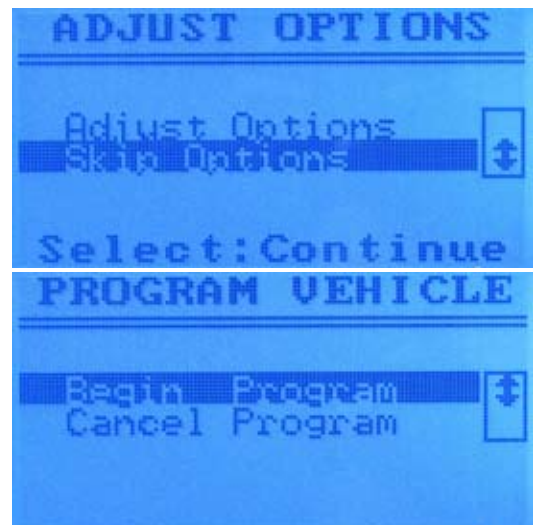


Fig. 10-e

- F. Once the flash tool has completed the DOWNLOAD TUNE process, the screen should read "Turn Key Off And Remove Key." At this time, press the START button to turn off the vehicle, then press the SELECT button on the flash tool to continue. Once the tool has successfully completed the POWER DOWN ECU sequence, you will see "Download Complete" displayed on the screen. Press the SELECT button. You have successfully completed reflashing the ECU. You may now unplug the flash tool from the OBD2 port.

(See Fig. 10-f)



Fig. 10-f

11. 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 15,000 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. **PLEASE TAKE SPECIAL NOTE:** Operating the vehicle without ALL the subassemblies completely and properly installed may cause **FAILURE OF MAJOR COMPONENTS.**
- G. Test drive the vehicle.
- H. Always listen carefully for engine detonation. Discontinue heavy throttle usage if detonation is heard.
- I. 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.

For internally lubricated V3 units only

This supercharger has been factory pre-filled with special Vortech synthetic lubricant. Oil does not need to be added to a brand new unit; however a fluid level check should be performed.

Prior to operating the supercharger on the vehicle and after installation onto the vehicle:

Remove the factory installed flat-head brass shipping plug (not the dipstick) from the top of the supercharger case. Replace the sealed shipping plug with the supplied "vented" plug. Do not operate the supercharger without it. Check the supercharger fluid level.

Fluid level checking procedure:

1. Ensure that the .06" copper sealing washer is located on the dipstick base.
2. Thread the clean dipstick into the unit until it seats.
3. Once the dipstick has seated, remove the dipstick from the unit. Fluid should register in the crosshatched area on the dipstick.
4. **DO NOT OVERFILL!!!** Drain excess fluid from the unit if it is above the maximum level on the dipstick.

Check the fluid level using the dipstick at least every 2,500 miles.

Initial supercharger fluid change must be performed at 2,500 miles. The supercharger fluid must be changed at least every 7,500 miles.

Drain the fluid, refill the unit with 4 oz. of Vortech V3 lubricating fluid and then confirm proper oil level using the dipstick. **DO NOT OVERFILL!!!**

WARNING: Use of any other fluid other than the special Vortech lubricant will void the warranty and may cause component failure.



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)