

Tech Guide

GM L8T 6.6L 2650 Supercharger



Harrop Engineering develops and manufactures premium supercharger kits in Melbourne, Australia. Through 60 years of automotive performance Engineering, Harrop Engineering have successfully manufactured and supplied Superchargers to Automotive OEM programmes including TRD, Lotus Cars and Ford Australia. Harrop Engineering is certified to meet ISO 9001 standards of quality. OEM Quality, performance and vehicle integration are the foundation of Harrop Supercharger kits.



E N G I N E E R I N G P E R F O R M A N C E S I N C E 1 9 5 5

02/05/2023

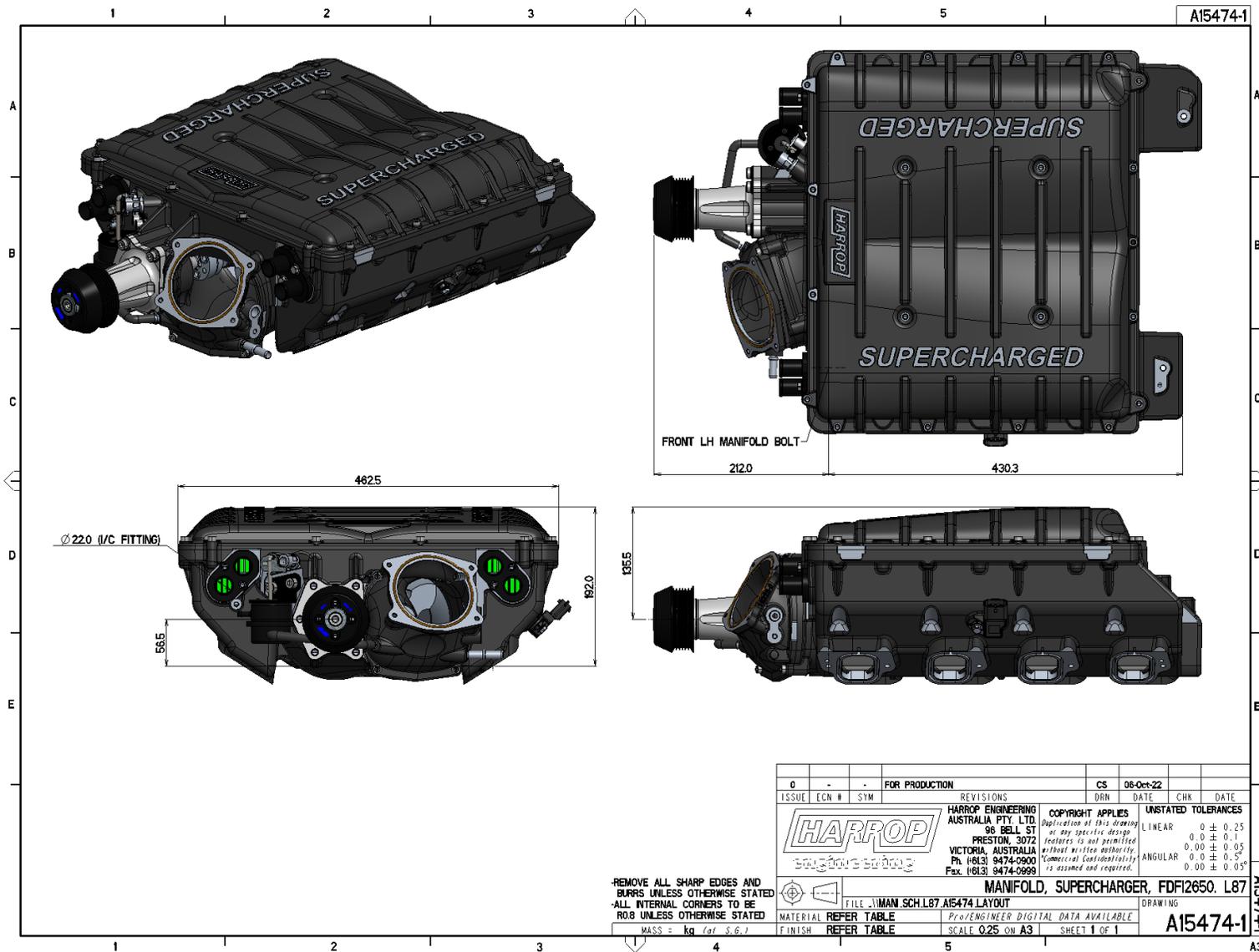
Key Features:

- 2650 Engine kit P/N - 99-EK-A15973
- Inverted Large plenum design
- Dual intercooler cores
- Bosch TMAP 0281002514 2.5Bar
- 22mm water in / out intercooler lines
- 6PK supercharger drive from OEM belt path (GripTec supercharger pulleys 65mm-85mm)
- Alternator relocation and additional idler
- Retains OEM accessories
- Supplied with 87mm throttle body adaptor to suit OEM 87mm throttle body
- Optional billet 103mm and 112mm throttle body adaptors available to suit aftermarket throttle bodies
- Optional port injection kit



Tech Guide

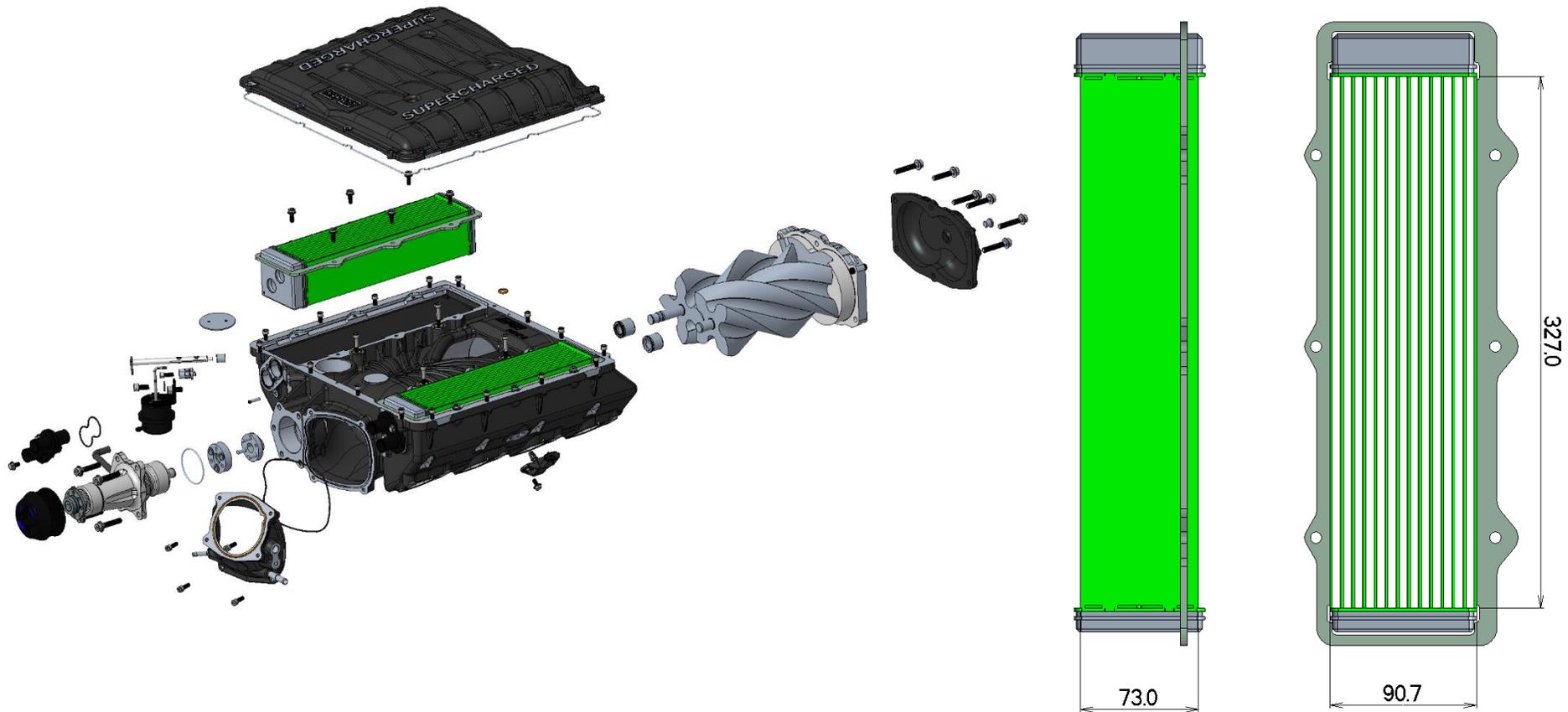
GM L8T 6.6L 2650 Supercharger



ENGINEERING PERFORMANCE SINCE 1955

02/05/2023

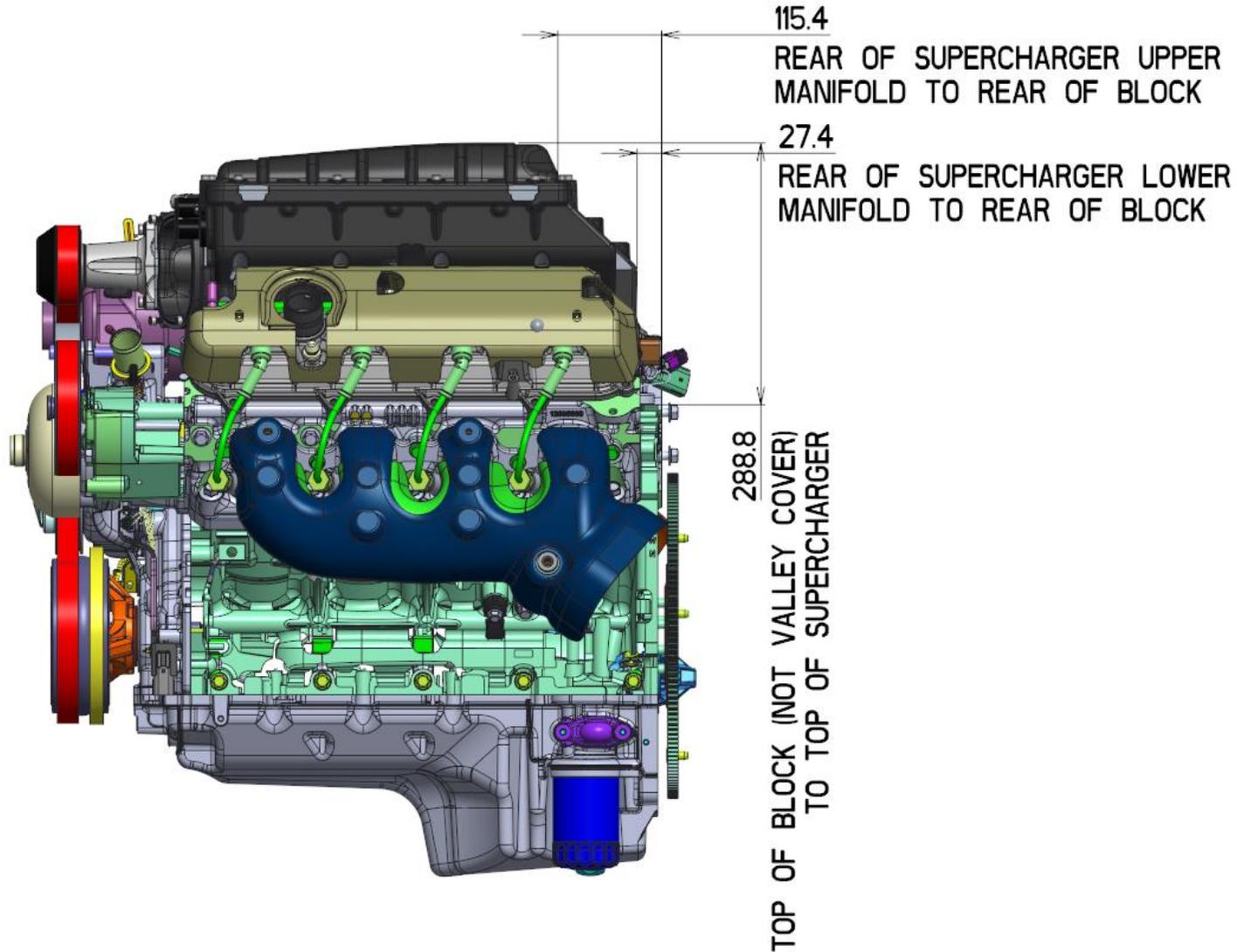
Intercooler layout/dimensions:



Supercharger manifold with port injection spacers vs OEM L8T manifold in OEM position



Supercharger manifold with port injection spacers layout



6PK belt path

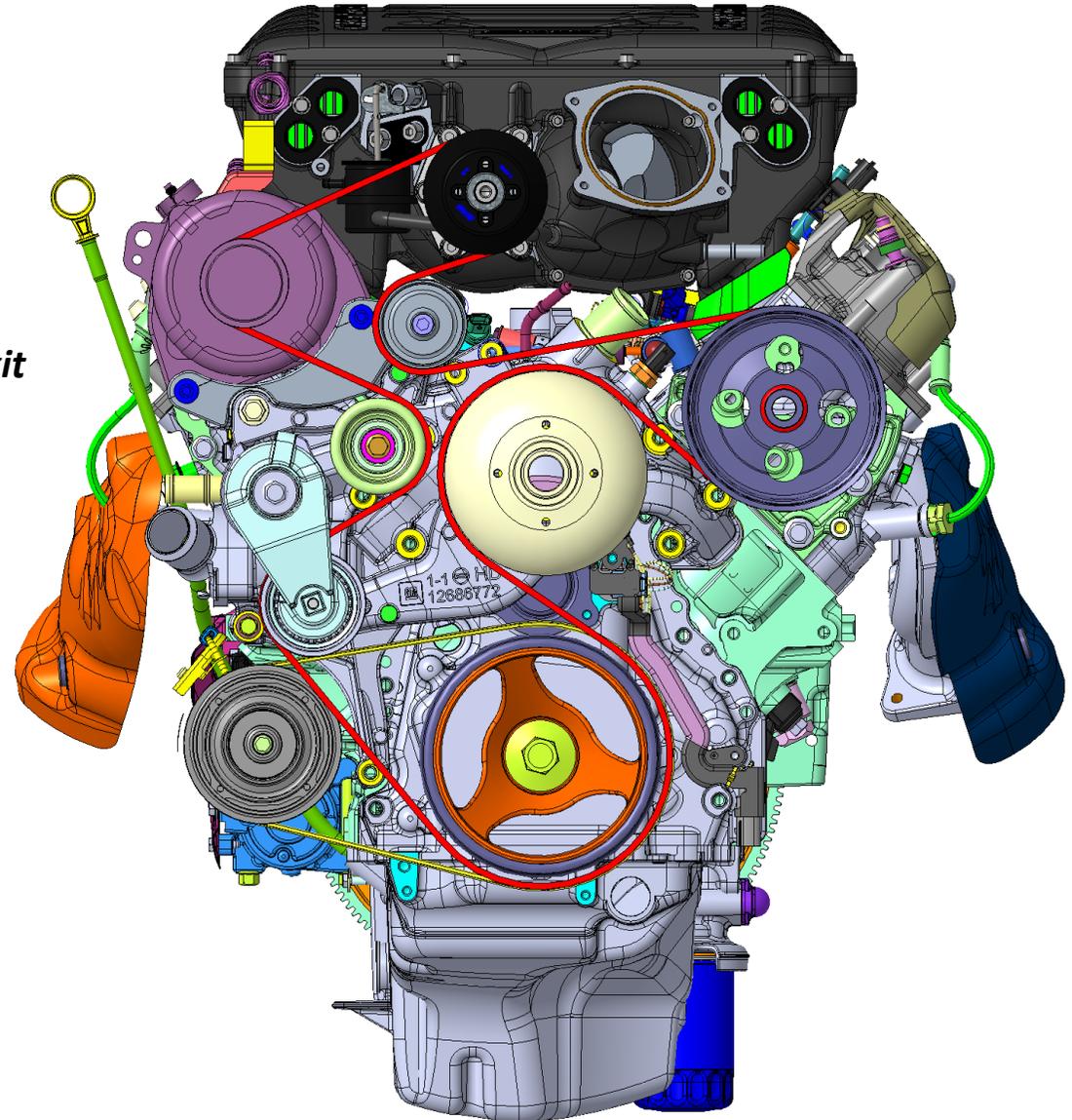
- Belt path shown in red with alternator relocation and additional idler

6PK Pulleys and belt length without port injection kit

- 65mm - 99-PLY13099-GT - 6PK2415
- 70mm - 99-PLY11625-GT - 6PK2415
- 75mm - 99-PLY11624-GT - 6PK2415
- 80mm - 99-PLY11623-GT - 6PK2446
- 85mm - 99-PLY11622-GT - 6PK2446

6PK Pulleys and belt length with port injection kit

- 65mm - 99-PLY13099-GT - 6PK2415
- 70mm - 99-PLY11625-GT - 6PK2415
- 75mm - 99-PLY11624-GT - 6PK2446
- 80mm - 99-PLY11623-GT - 6PK2446
- 85mm - 99-PLY11622-GT - 6PK2446



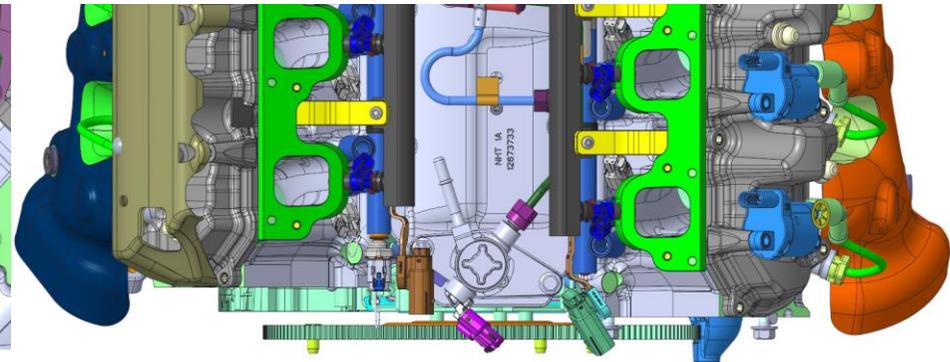
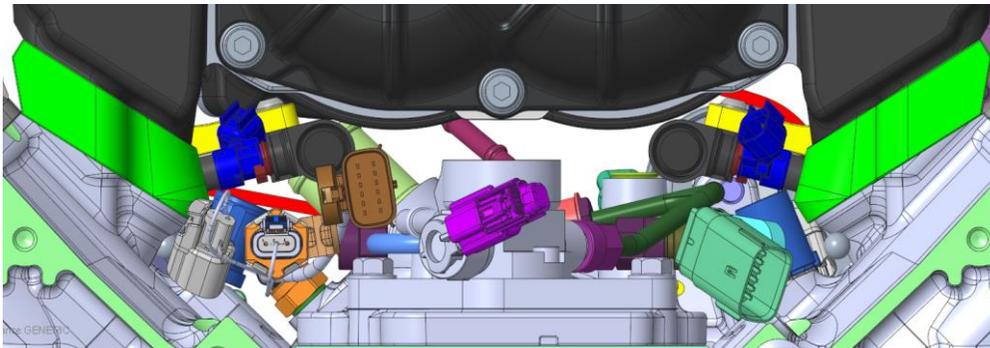
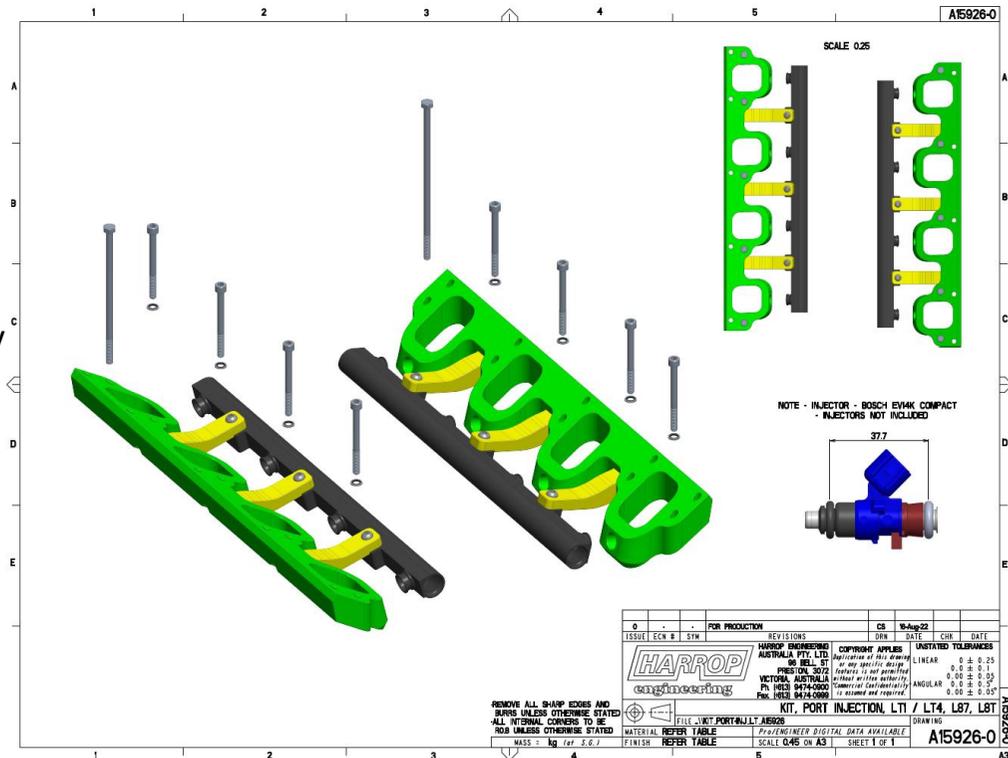
Tech Guide

GM L8T 6.6L 2650 Supercharger



Port injection kit – optional, P/N: 99-AKIT15926

- Aluminum anodized spacers, mounts, and fuel rails
- Lifts manifold ~28mm
- Injectors in valley for better injection angle
- Can be used in conjunction with OEM DI fuel system
- -8 ORB both ends of rail for fuel line installation flexibility
- Bosch EV14K compact injectors
- Can also be used with OEM or aftermarket manifolds for N/A applications
- Replacement of DI injectors with solid injector plugs is required for port only applications
- 33mm clearance from the port injection rails to the wiring harness at the rear of the engine

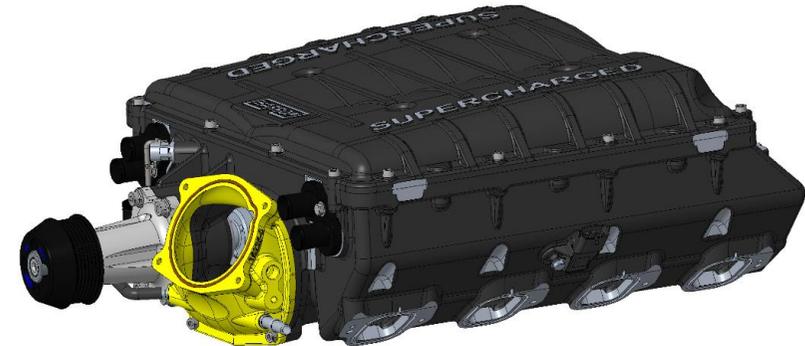
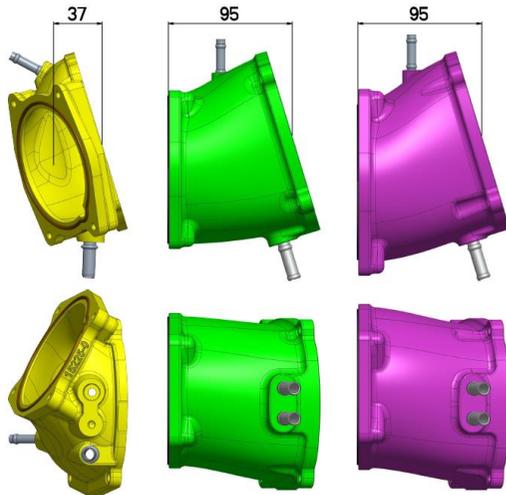


ENGINEERING PERFORMANCE SINCE 1955

02/05/2023

Throttle body adaptor options

- Cast 87mm angled adaptor for OEM L8T, L87, LT1, LT4 throttles (supplied with supercharger)
 - 104x70mm bolt pattern
- Billet 103mm straight adaptor for LS, LT 102/103mm throttles (available at additional cost and requires optional port injection kit for clearance to water neck)
 - 104x70mm bolt pattern
- Billet 112mm straight adaptor for LS, LT 112mm throttles (available at additional cost and requires optional port injection kit for clearance to water neck)
 - 126x70mm bolt pattern



87mm angled adaptor P/N – 99-AADP14994



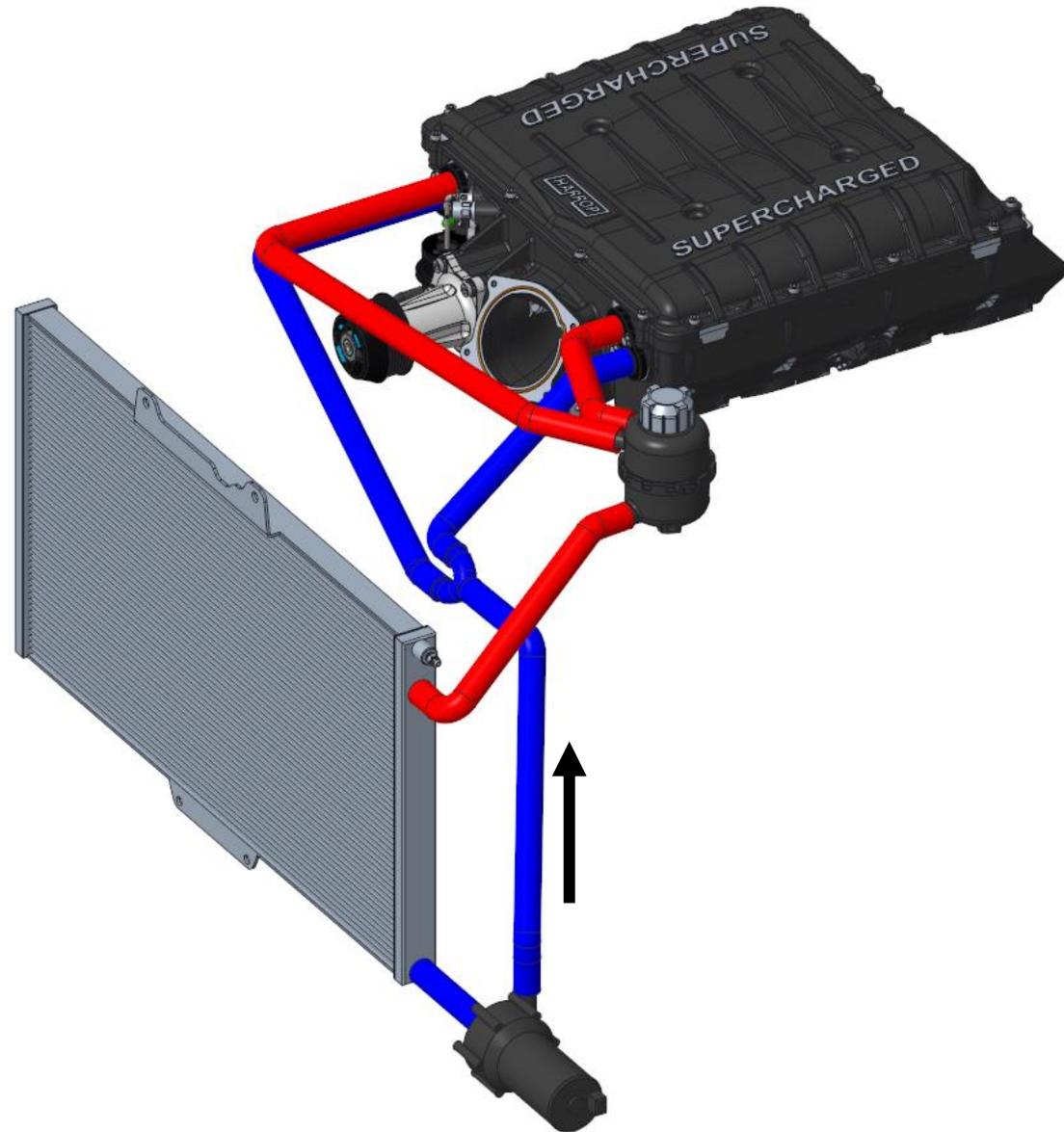
103mm straight adaptor P/N – 99-AADP15981



112mm straight adaptor P/N – 99-AADP16068

Generic intercooler routing

- Illustration is a generic coolant circuit diagram. Engine kit does not include reservoir, radiator, pump or hoses
- Black arrow indicates flow direction
- Intercooler reservoir must be mounted at the highest point in the circuit
- Intercooler pump must be mounted at the lowest point in the circuit
- Intercooler system must be filled with a 1:1 mix of GM6277M coolant concentrate and distilled or deionised water



Tech Guide

GM L8T 6.6L 2650 Supercharger



Engine kit P/N 99-EK-A15973

ITEM	DESCRIPTION	QTY	MATERIAL	FILENAME	DRAWING
1	ASSEMBLY	1	REFER TABLE	MANI_SCHRG.2650.L87.A15474	A15474-1
2	PART	1	6061 ALUMINIUM	MNT_ALT.L87.SC.IS189	IS189-0
3	PART	2	STEEL_CS1020	DOWL_TUBE.10-15.IS165	IS165-0
4	PART	1	4140 STEEL	SPCR_IDLR.L8T.IS843	IS843-0
5	PART	1	MILD STEEL	PLY_IDL_FLAT.EP257	-
6	PART	1	2011 ALUMINIUM	WASH_PUL_TRANS.LS112.7430	7430-00
7	PART	1	AS.SUPPLIED	SH.M10X120.ZINC	-
8	PART	1	304L S/S	SPCR.PLY.SC.1-2MM.4X40.IS970	IS970-0
9	PART	4	AS.SUPPLIED	SH.M6X16.GEOMET500A.TUFLOC	6390386
10	PART	2	AS.SUPPLIED	BH.M10X80.ZINC	-

SUPERCHARGER PULLEYS		THROTTLE BODY ADAPTERS	
11622-GT	65MM	14994	87MM
11623-GT	80MM	15981	103MM
11624-GT	75MM	16061	112MM
11625-GT	70MM		
13099-GT	65MM		

0	FOR PRODUCTION	CS	05-Oct-22
ISSUE	ECN # SYM	DRN	DATE
REVISIONS		CHK	DATE

HARROP engineering		COPYRIGHT APPLIES		UNSTATED TOLERANCES	
HARROP ENGINEERING AUSTRALIA PTY. LTD. 96 BELL ST PRESTON, 3072 VICTORIA, AUSTRALIA Ph: (613) 9474-0900 Fax: (613) 9474-0999		Duplication of this drawing or any specific design features is not permitted without written authority. Commercial Confidentiality is assumed and required.		LINEAR 0 ± 0.25 0.0 ± 0.1 0.00 ± 0.05 ANGULAR 0.0 ± 0.5° 0.00 ± 0.05°	

REMOVE ALL SHARP EDGES AND BURRS UNLESS OTHERWISE STATED
ALL INTERNAL CORNERS TO BE R0.8 UNLESS OTHERWISE STATED

FILE: J:\KIT.ENGINE.SC.L8T.A15973
MATERIAL REFER TABLE P=ENGINEER DIGITAL DATA AVAILABLE
FINISH REFER TABLE SCALE 0.25 ON A3 SHEET 1 OF 1

MASS = kg for 3.0.7

KIT, ENGINE, SUPERCHARGER, L8T
DRAWING A15973-0

ENGINEERING PERFORMANCE SINCE 1955

02/05/2023