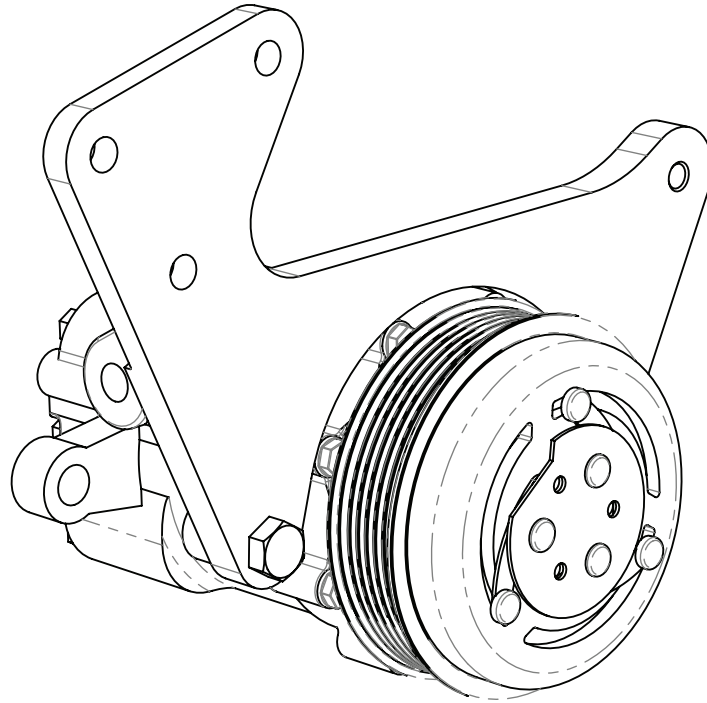


A/C PUMP MOUNTING BRACKET KIT

Installation Instructions



P/N: 4GX110-021

For use with

GM LS Engine Swap Kits

(4GX218-010L to 040L)



ENGINEERING, INC.

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FOREWORD

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 accessory 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.** 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.

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VORTECH A/C PUMP MOUNTING BRACKET KIT

(FOR USE WITH GM LS ENGINE SWAP KITS)

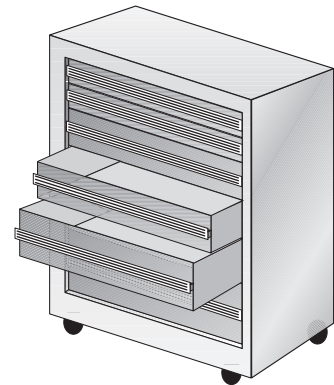
Installation Instructions

**Before beginning this installation,
please read through this entire instruction booklet**

The Vortech A/C Pump Mounting Bracket Kit was designed specifically for use on vehicles equipped with the GM LS Engine Swap Kits (4GX218-010L to -040L). Vortech Engineering is not responsible for any damage.

TOOL & SUPPLY REQUIREMENTS:

- SAE Socket Set (3/8 drive)
- SAE Wrench Set
- 3/8 Drive Ratchet



NOTE: For optimal operation of this A/C Pump Mounting Kit, Vortech requires using the following A/C pump.
(NOT included in this kit & NOT available through Vortech)

Sanden A/C Pump
P/N: SD7B10 / 7176
QTY: 1



A/C Pump Mounting Kit

FOR USE WITH GM LS SWAP KITS

Part No. 4GX110-021

PARTS LIST

IMPORTANT: Before beginning installation, verify that all parts are included in the kit. Report any shortages or damaged parts immediately.

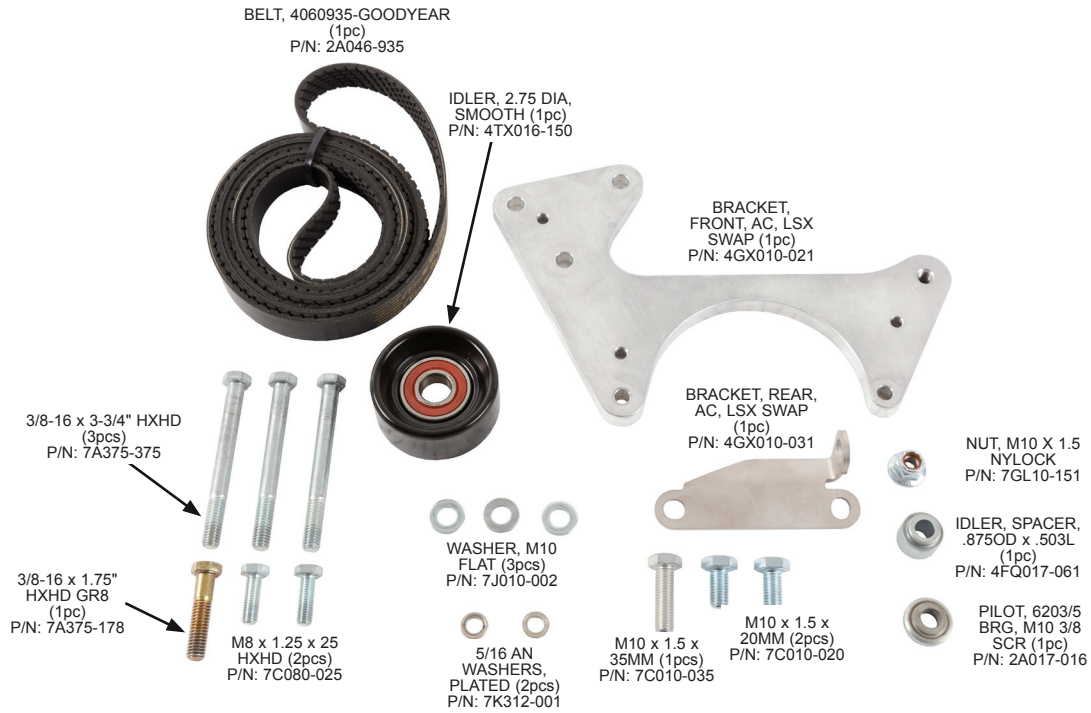
PART NO.	DESCRIPTION	QTY
2A017-016	PILOT, 6203/5 BRG, M10 3/8 SPC	1
2A046-935	BELT, 4060935-GOODYEAR	1
4FQ017-061	IDLER SPACER, .875 OD X .503 L	1
4GX010-021	BRACKET, FRONT, AC, LSX SWAP	1
4GX010-031	BRACKET, REAR, AC, LSX SWAP	1
4TX016-150	IDLER, 2.75" DIA, SMOOTH, 7 RIB	1
7A375-178	3/8-16 X 1-3/4 HXHD GR8	1
7A375-375	3/8-16 X 3-3/4 HXHD	3
7C010-020	M10 X 1.5 X 20 HXHD CL8.8	2
7C010-035	M10 X 1.5 X 35 HXCS CL10.9 PLT	1
7C080-025	M8 X 1.25 X 25 HXHD	2
7GL10-151	LOCK NUT, FLANGE, M10 X 1.5 ZN	1
7J010-002	WASHER, M10 FLAT, ZN PLT	3
7K312-001	5/16 AN WASHER, PLATED	2

A/C Pump Mounting Kit

FOR USE WITH GM LS SWAP KITS

Part No. 4GX110-021

PARTS LAYOUT

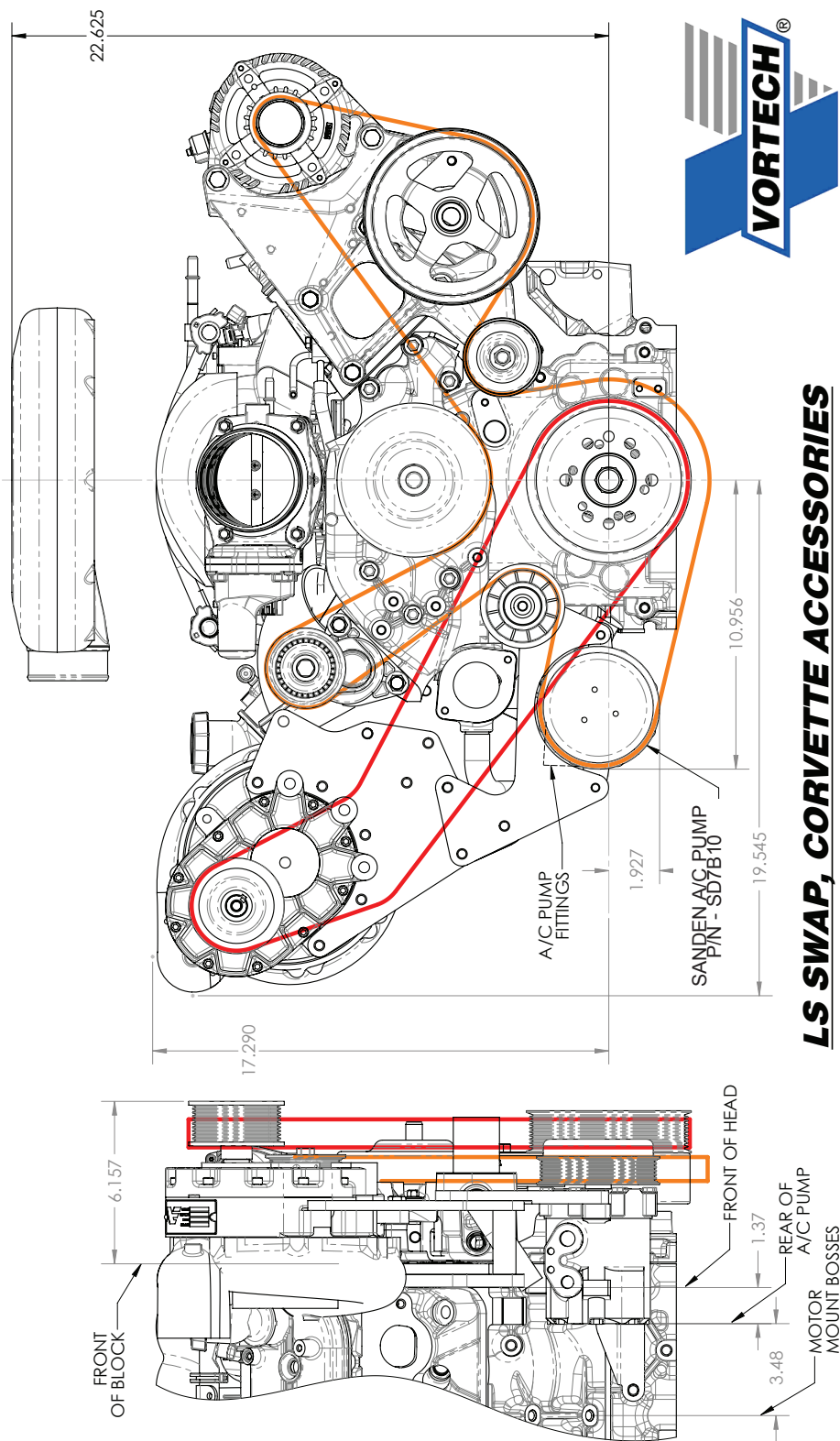


A/C Pump Mounting Kit

FOR USE WITH GM LS SWAP KITS

Part No. 4GX110-021

REFERENCE DIMENSIONS



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1. PREPARATION & REMOVAL

- A. Release the tension from the manual belt tensioner by loosening the (3) M10 screws securing the tensioner plate to the supercharger. Remove the supercharger drive belt & set aside for reinstallation at a later time. (See Fig. 1-a)

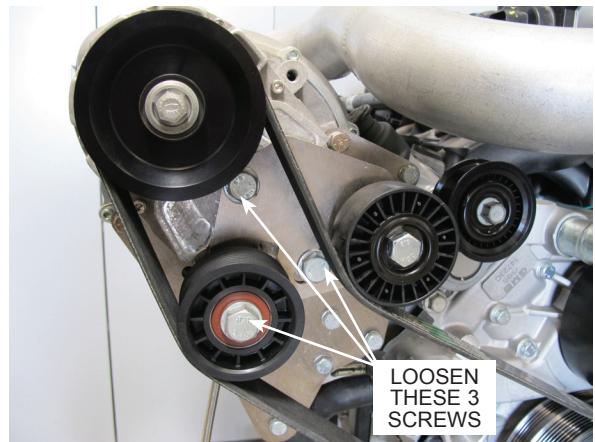


Fig 1-a

- B. Remove the lower (3) 3/8-16 X 3.5" mounting bracket screws. The 3/8 AN washers will be reused, but you may discard the screws, as they will be replaced with longer screws in a future step. (See Fig. 1-b)

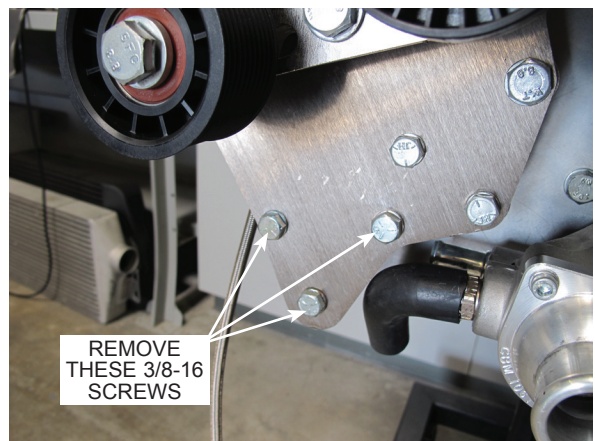


Fig 1-b

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2. A/C PUMP MOUNTING BRACKET INSTALLATION

NOTE: This section is for kits with the optional "A/C Pump Mounting Bracket Kit". All others proceed to Section 5.

- A. Remove the factory-installed bushing from the rear of the A/C pump, opposite of the connection ports. (See Fig. 2-a)

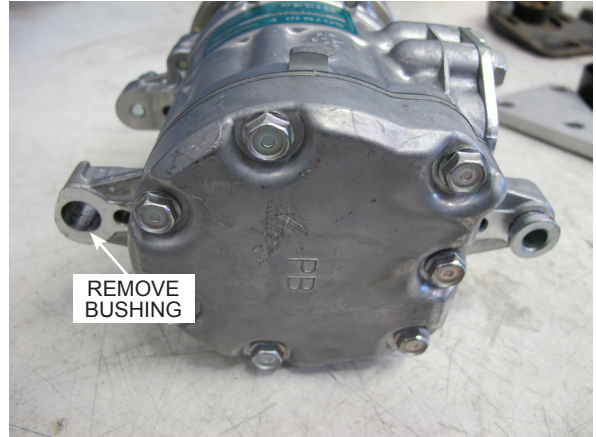


Fig 2-a

- B. Using the provided M10 X 20MM screws & M10 washers, loosely attach the rear A/C pump bracket to the threaded bosses above the oil pan, near the front passenger-side of the engine. (See Fig. 2-b)

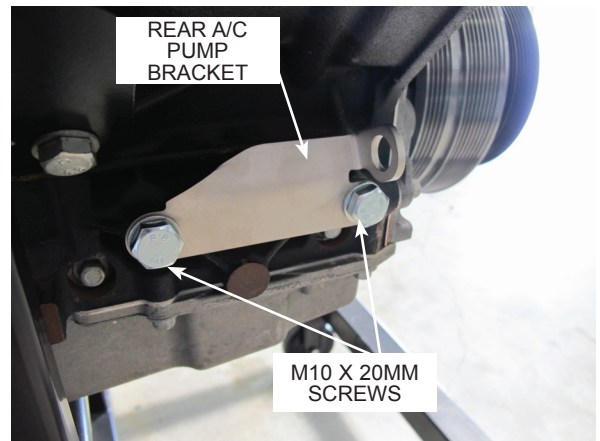


Fig 2-b

- C. Using the longer 3/8-16 X 3.75" screws & 3/8 AN washers, mount the bracket as shown. Only hand-tighten the screws at this time. (See Fig. 2-c)

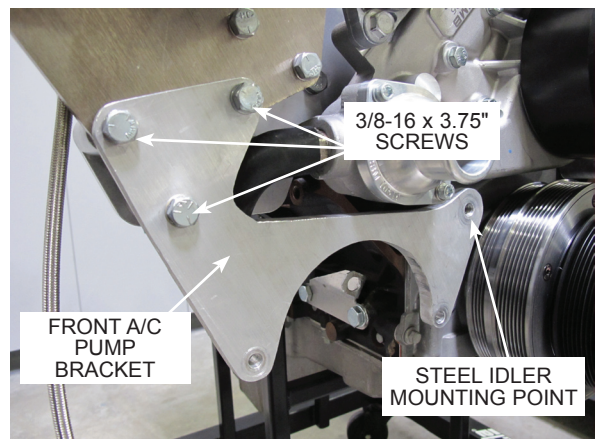


Fig 2-c

2. A/C PUMP MOUNTING BRACKET INSTALLATION, CONT'D

- D. Install the provided 2.75" steel idler to the provided A/C bracket using the provided 3/8-16 X 1.75" screw, .503 idler spacer & bearing pilot. (See Fig. 2-d)

NOTE: Due to the variance in casting methods, the water pump housing may need to be modified slightly in order to provide proper clearance for the steel idler pulley.

- E. Using an M10 X 35MM screw, M10 washer & M10 nylock nut on the rear A/C mounting point & an M8 X 25MM & 5/16 AN washer on the front A/C mounting point, loosely install the right side of the A/C pump to both A/C brackets as shown. (See Fig. 2-e)

- F. Swing the A/C pump upwards & secure it to the remaining mounting location using an M8 X 25MM screw & 5/16 AN washer. Once everything is lined up & secure, proceed to tighten all hardware. (See Fig. 2-f)

- G. Route the provided accessory drive belt as shown. Turn the spring tensioner clockwise to release tension, then slide the belt underneath the water pump pulley. Once in place, verify that the belt is correctly routed & tension the belt. (See Fig. 2-g)

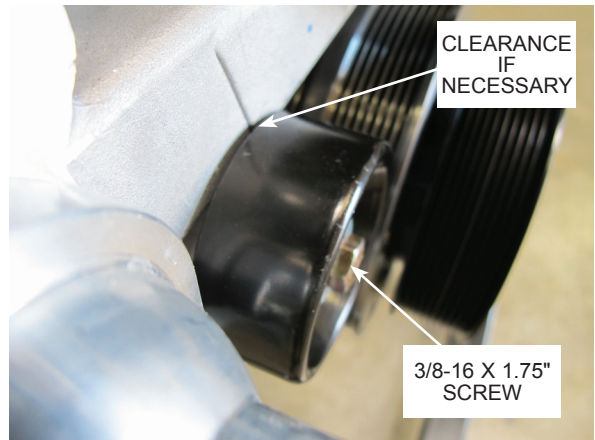


Fig 2-d

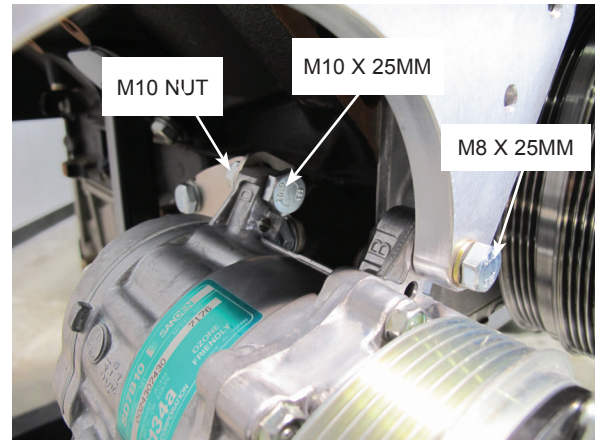


Fig 2-e

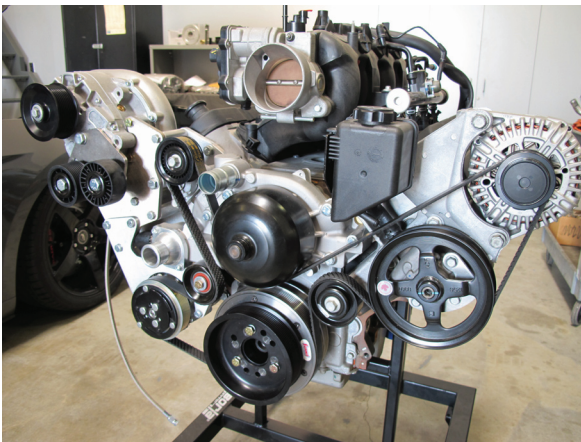


Fig 2-g

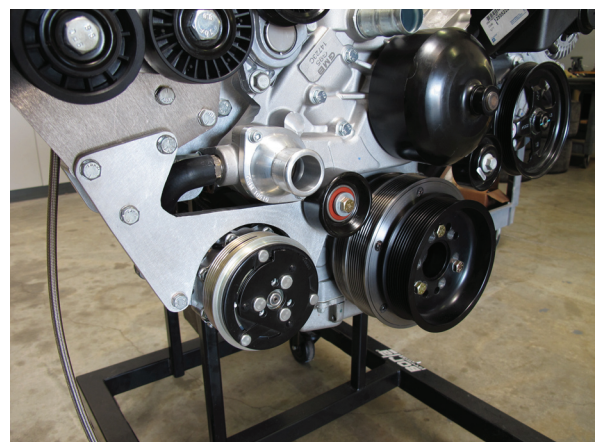
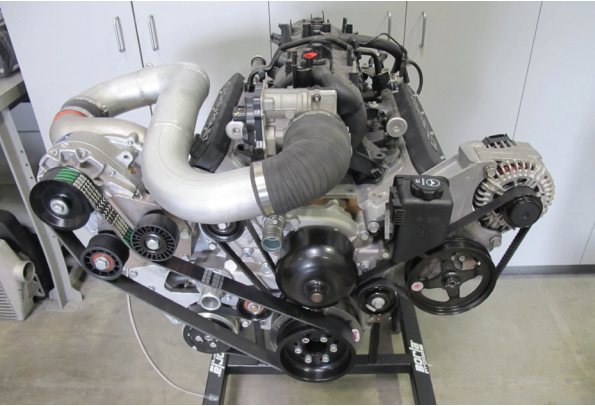


Fig 2-f

3. 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. 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.

- B. Start the engine & allow it to idle for a few minutes. Re-check belt alignment and hardware prior to taking the vehicle for a test drive.



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