

INSTALLATION NOTES

(AUXILIARY ALTERNATOR MOUNTING BRACKET/HARDWARE)

1. The buyer is responsible for providing trained and experienced installation decision making with technical know-how to apply professional judgment that specifically applies to each individual installation.
2. Be sure to read and understand all available information including but not limited to instructions, warnings, sale terms, and warranties for the vehicle and all system components prior to attempting installation.
3. Disconnect the negative battery cable. The battery is located under the floor board in front of the driver's side seat.
4. Completely drain the engine coolant by removing the lower radiator hose. The lower radiator hose will not be reused. Remove the OEM serpentine belt. Remove a ring gear inspection plug from the transmission bell housing. Using a pry bar thru that hole (this will be a two-person task), place the end between two teeth on the ring gear to hold the engine from turning while the second person removes the crankshaft pulley bolt. Remove the plastic A/C hose support from the vehicle frame. It will not be reused. Reference Image A if needed (additional hardware to clamp the A/C line will be installed later).
5. Install drive pulley (1) with bolt (2) and thick flat washer (3). Run bolt (2) finger tight making sure the pulley has piloted into the engine damper properly. Rotate pulley (1) counter-clockwise until the pins in the back of the pulley make contact with the spokes in the damper. Torque bolt (2) to 30 ft/lbs. Then, turn bolt (2) 105°. Replace the inspection plug back into the bell housing.
6. Remove the A/C compressor. Supporting it is recommended to prevent any damage to the hoses. Remove the OEM A/C bracket from the engine. It will not be reused. Install bracket (4) with hardware (5-8). First, tighten bolts (5). Then, torque all 8mm bolts to 22-24 ft/lbs. Finally, torque all 10mm bolts to 32-34 ft/lbs. Reference Image B if needed.
7. Install the OEM A/C compressor onto bracket (4) with bolts (12) in the bottom and rear of the A/C compressor and one bolt (11) in the top. With all three bolts installed torque bolts (12) to 20-24 ft/lbs. Then, remove bolt (11) from the A/C compressor for now. Install bracket (9) onto bracket (4) with bolts (11). Torque bolts (11) to 22-24 ft/lbs. It may be necessary to bend the low-pressure A/C line for clearance to bracket (9). Reference Image C if needed.
8. Remove the bolt from the OEM idler located just below the OEM alternator. Install bushing (24), clamp (23) around the heater hose and bolt (25) through the idler and torque to 18-20 ft/lbs. Install belt (31) onto the engine to its original routing. Remove the rear nut from the air filter bracket and install hose support (29) over the stud. Install clamp (27) over the A/C hose. Then, tighten the OEM nut and clamp bolt (28) and nut (29) securely.
9. Install tensioner (21) with bolt (22) and torque to 28-30 ft/lbs. Install idler assembly (13-16) and torque bolt to 32-34 ft/lbs. Install idler assembly (17-20) and torque bolt to 32-34 ft/lbs. Install the auxiliary alternator belt (32). Route it as shown in the illustration.

INSTALLATION NOTES

(MODIFIED LOWER RADIATOR HOSE ASSEMBLY)

10. Install rubber hose (33) marked with "ENG" onto the front of the engine and slide two of clamps (39) over the hose.
11. Install steel pipe (34) with the short end into hose (33). Then, the unmarked 90° hose (35) over pipe (34). Slide two of clamps (39) over hose (35).
12. If the quick-disconnect has not been removed from the radiator, remove it at this time. Install the 90° quick disconnect (38) onto the radiator with the opening pointing towards the left (driver's) side of the vehicle. Make certain the wire clip engages the flange on the radiator. Install rubber hose (37) marked with "RAD" onto quick-disconnect (38). Slide two of clamps (39) over the hose.
13. Install steel pipe (36) into hose (35) and (37) with the nipple pointing towards the left (driver's) side of the vehicle. Install clamp (41) over pipe (34) and attach it to bracket (9) with spacer (42) and bolt (43). With the hose completely installed and no clamps tightened, situate the hose for best fit and clearances to the exhaust and auxiliary alternator belt. Once this is completed, tighten all clamps securely. Be careful not to overtighten and break the plastic quick-disconnect (38).
14. Remove the radiator overflow hose from the fan shroud and discard the plastic clamp. Cut the hose for best fit. Install it onto the nipple using hose clamp (40).
15. Replace the engine coolant and check for any leaks. Repair if necessary.

CAUTION: Before starting the engine, check to make certain no wires, hoses, etc. that may have been disturbed during installation do not come in contact with any hot or moving parts. Properly refill any fluids that may have been drained during installation. Run the engine and check for proper belt tracking and clearance of any hoses, wires, etc. It is the installer's responsibility to correct/adjust any components, if necessary, before vehicle is put into service.

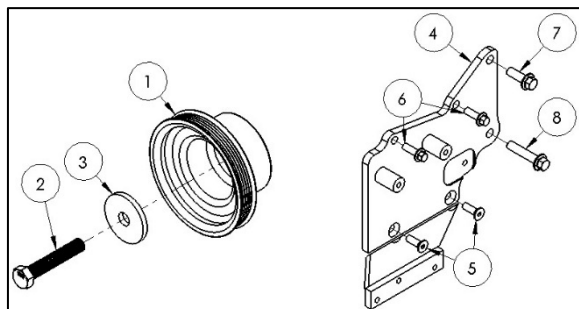


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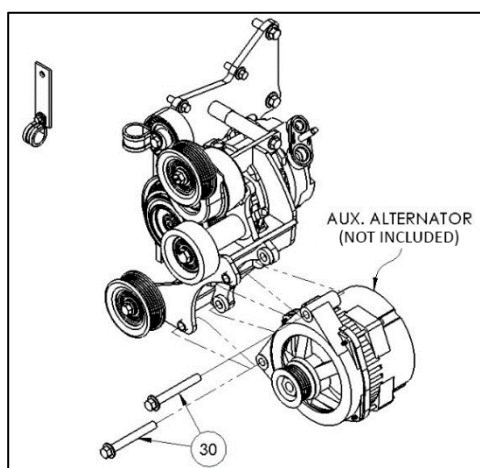
VDK3092V-6

2014-2021 RAM ProMaster 1500-3500
 3.6L V6 Pentastar Gas, w/ A/C

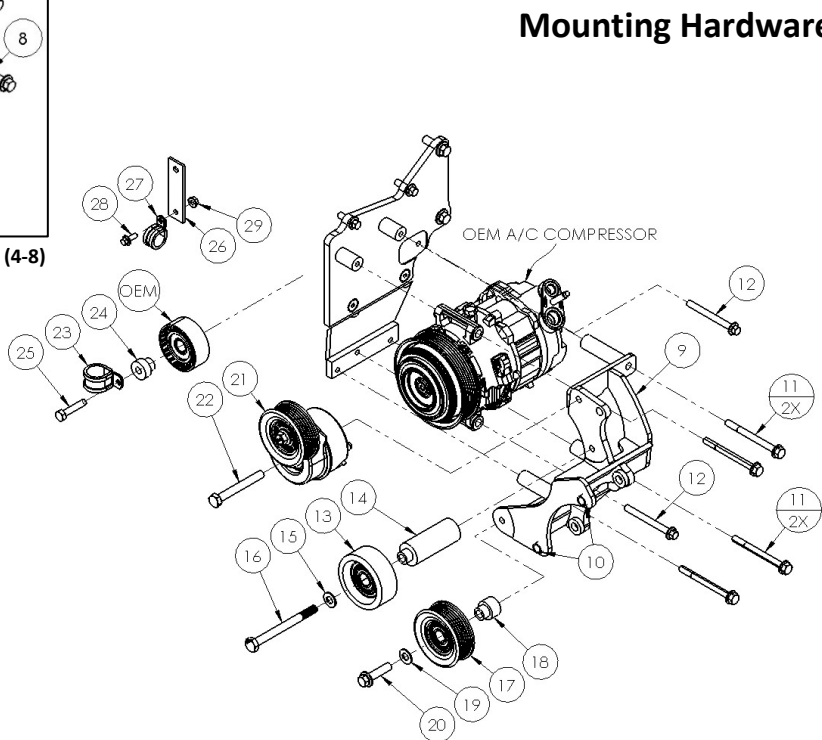
For use w/ Vortec 92V Style Alternator
 Requires 6-Groove Pulley
 240% Overdrive Ratio w/ 2.5" Pulley



Add-on Pulley Assembly (1-3), Base Plate Bracket Assembly (4-8)



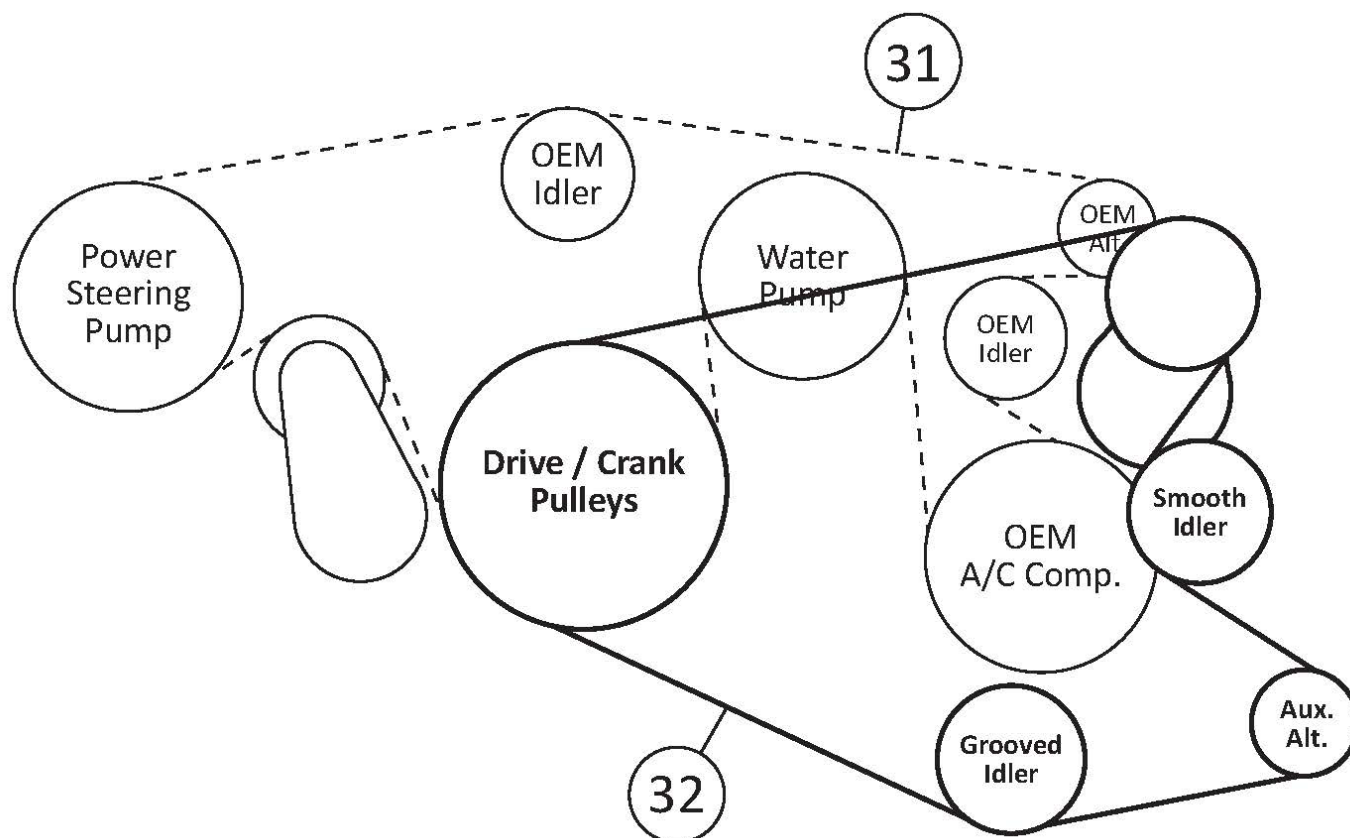
Auxiliary Alternator Mounting Hardware (30)



Mounting Hardware

PARTS LIST							
Item	Part Number	Description	Qty.	Item	Part Number	Description	Qty.
Add-on Pulley Assembly				Grooved Idler Pulley Assembly			
1	VDPC306	Add-on Pulley (6" Diameter)	1	17	89051	Dayco Grooved Idler Pulley	1
2	1022530	M16-1.5 x 90mm 10.9Gr Hex Bolt	1	18	VDMB312	Machined Idler Pulley Bushing (1" Dia.)	1
3	1011687	M16 Thick Flat Washer	1	19	1007644	3/8" Flat Washer	1
Base Plate Bracket				20	1006933	M10-1.5 x 40mm 10.9Gr Hex Flg. Bolt	1
4	VDMB301	Base Plate Bracket	1	Tensioner Assembly			
Base Plate Bracket Mounting Hardware				21	89260-051M	Custom Assembled Tensioner	1
5	1016362	M8-1.25 x 25mm 10.9Gr FHSCS	2	22	1003980	M10-1.5 x 80mm 10.9Gr Hex Bolt	1
6	1011887	M8-1.25 x 25mm 10.9Gr Hex Flg. Bolt	2	Hose Clamp Assembly			
7	1006927	M10-1.5 x 30mm 10.9Gr Hex Flg. Bolt	1	23	1018287	#16 Heavy Duty Adel Clamp (3/4" Wide)	1
8	1006934	M10-1.5 x 50mm 10.9Gr Hex Flg. Bolt	1	24	VDMB307	Machined Clamp Bushing	1
Auxiliary Alternator Bracket				25	1012414	M8-1.25 x 40mm 10.9Gr Hex Bolt	1
9	VDMP3092V-6B	Auxiliary Alternator Bracket	1	A/C Line Hose Clamp Assembly			
10	1011888A	M14 Slide Bushing (Installed)	2	26	VDMB3013	A/C Line Brace	1
Auxiliary Alternator Bracket Mounting Hardware				27	1005111	#14 Adel Clamp	1
11	1011688	M8-1.25 x 90mm 10.9Gr Hex Flg. Bolt	4	28	1016329	M6-1.0 x 16mm 10.9Gr Hex Flg. Bolt	1
12	1018207	M8-1.25 x 80mm 10.9Gr Hex Flg. Bolt	2	29	1016331	M6-1.0 10.9Gr Hex Flg. Nut	1
Smooth Idler Pulley Assembly				Auxiliary Alternator Mounting Hardware			
13	89007	Dayco Smooth Idler Pulley	1	30	1006928	M10-1.5 x 80mm 10.9Gr Hex Flange Bolt	2
14	VDMB305	Machined Idler Pulley Bushing (1.25" Dia.)	1				
15	1007644	3/8" Flat Washer	1				
16	1005539	M10-1.5 x 110mm 10.9Gr Hex Bolt	1				

Belt Routing

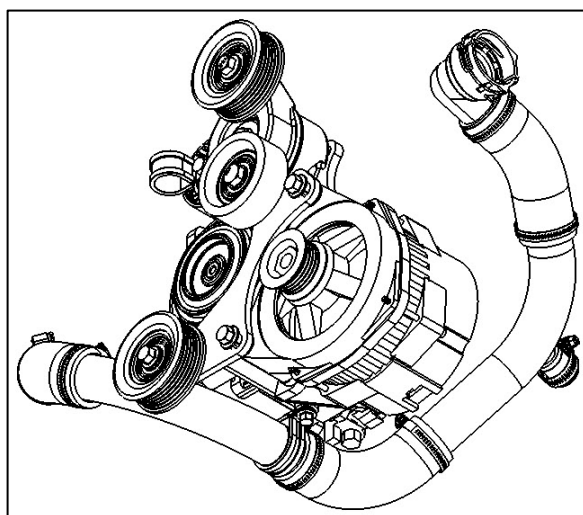
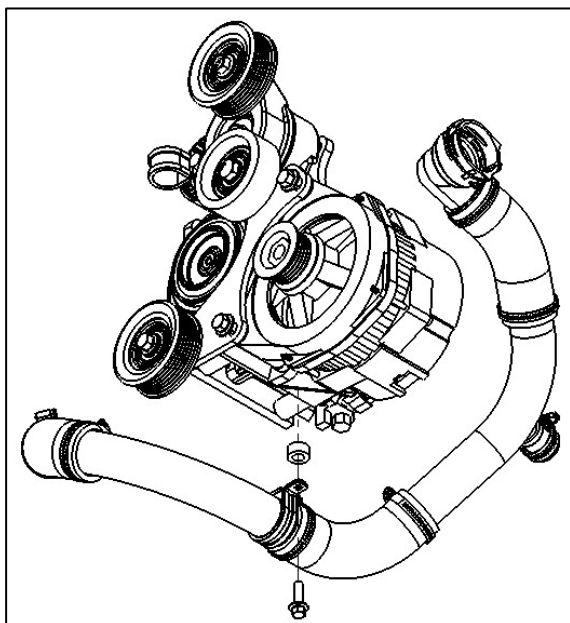


PARTS LIST							
Item	Part Number	Description	Qty.	Item	Part Number	Description	Qty.
Accessory Components Drive Belt (Only One is Supplied)				Auxiliary Alternator Drive Belt (Only One is Supplied)			
31	5060860	Dayco 6-Groove, 86.0" Belt	1	32	5060535	Dayco 6-Groove, 53.5" Belt	1
31	K060860	Gates 6-Groove, 86.0" Belt	1	32	K060535	Gates 6-Groove, 53.5" Belt	1
31	860K6	D&D Global 6-Groove, 86.0" Belt	1	32	535K6	D&D Global 6-Groove, 53.5" Belt	1
31	6PK2185	Bando 6-Groove, 2185mm Belt	1	32	6PK1360	Bando 6-Groove, 1360mm Belt	1

VDK3092V-6

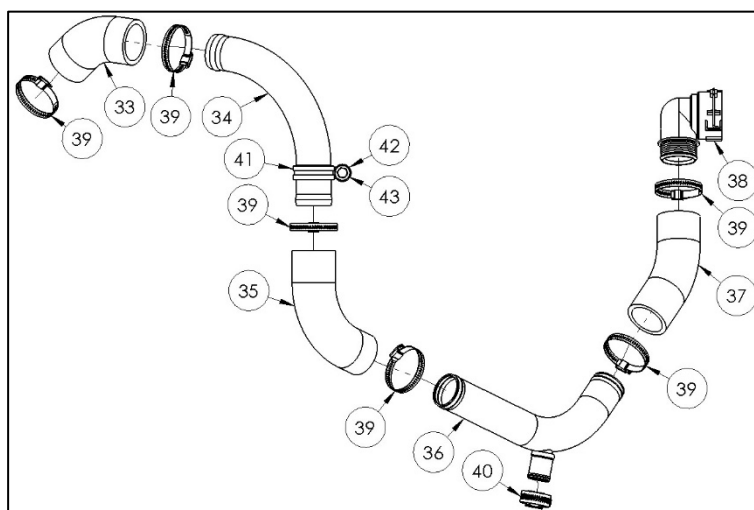
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Radiator Hose Line Assembly Bracket Mounting Location
 (Reference Only)

Lower Radiator Hose Assembly



View: Bottom

PARTS LIST

Item	Part Number	Description	Qty.	Item	Part Number	Description	Qty.
Radiator Hose Line Assembly				39	1016325	#24 Hose Clamp	6
33	VDMB304	Custom Rubber Elbow (Engine)	1	40	1011673	#12 Hose Clamp	1
34	VDMB309	Custom Fabricated Hardline	1	Radiator Hose Line Clamp Assembly			
35	VDMB3015	Custom Rubber Elbow	1	41	1007886	#24 Adel Clamp (3/4" Wide)	1
36	VDMB3014	Custom Fabricated Hardline	1	42	1004969	3/8" Spacer	1
37	VDMB3016	Custom Rubber Elbow	1	43	1011887	M8-1.25 x 25mm 10.9Gr Hex Flg. Bolt	1
38	1022510	90° Quick-Release Connector	1				

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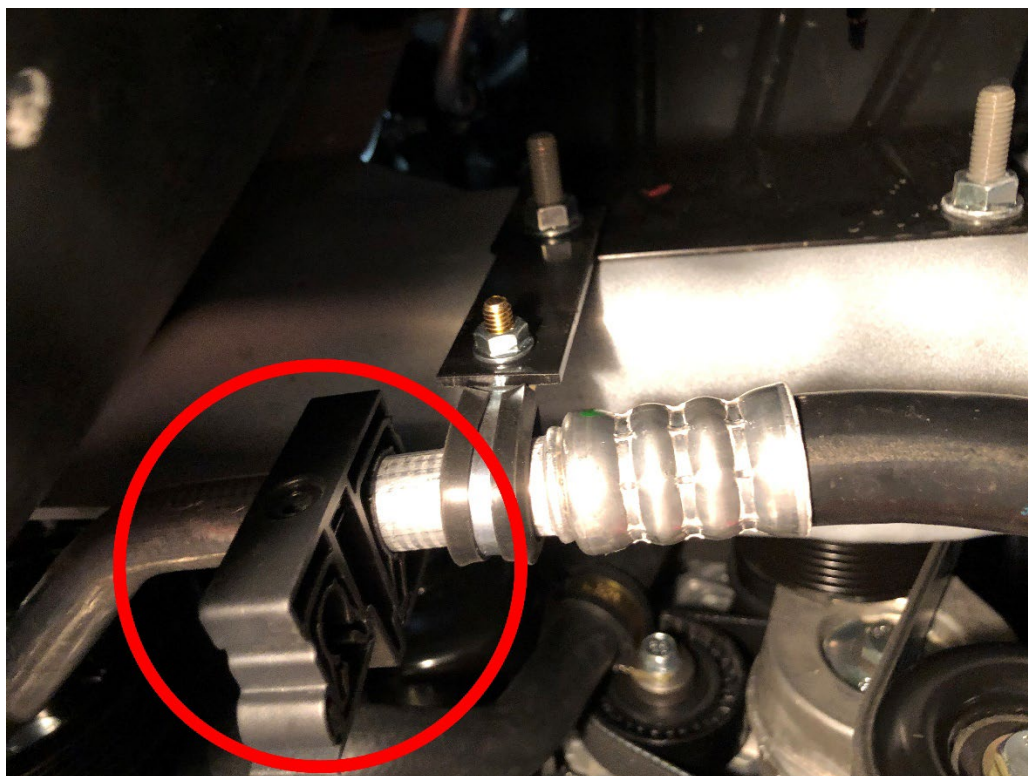


Image A



Image B



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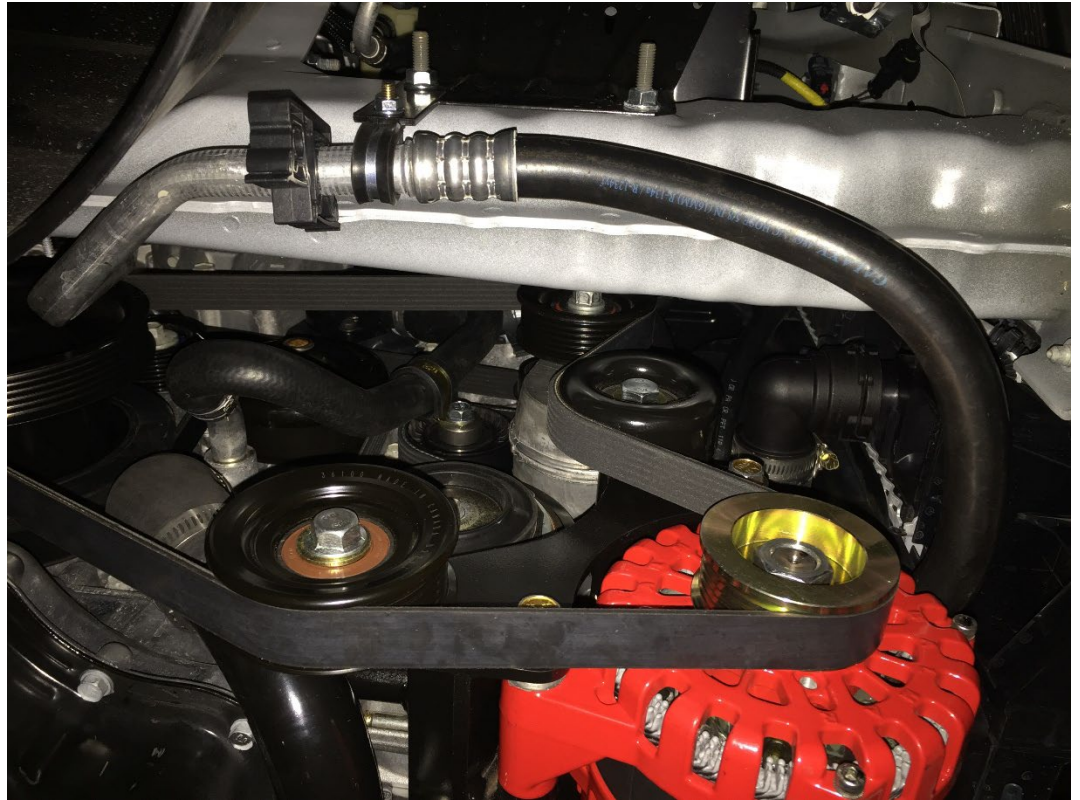


Image C

CW Mill Equipment Co., Inc. Mounting Kit and Mounting Kit Component Disclaimer: (1.) Due to the custom nature and variation of all add-on systems of this type, no complete system kits are offered by the manufacturer, and any group of parts marketed as a kit is limited to only the individually defined parts in that specific kit. The system designer's rotating accessory components are not included, offered, or fully known by the manufacturer. In addition to the absence of the rotating accessory system, other potential components such as additional clamps, brackets, wear liners, hardware, or other items that may be required by the system designer must be identified and supplied by the actual system designer. (2.) Due to vehicle manufacturer's assembly tolerances, production changes, and installation variances, it is the buyer's responsibility to ensure adequate clearance for all components including space for and safe location of the fan, radiator, all lines, and wires. Check for possible movement, vibration, friction points, heat exposure and/or shifting of any and all components such as hoses, wires, and all other components including those that may otherwise be considered non-moving and/or unaffected by the installation (3.) The buyer is responsible for the entire installation of a mounting kit as the mounting kit is part of a custom process controlled by the buyer through their whole system design and directed installer as the installer evaluates, locates, routes, aligns, and tightens all components while determining if additional clamps, brackets, wear-liners, or other components may be required, beyond those included in the kit. Any additional items required, beyond those included in the kit, are to be provided at the expense of the buyer. (4.) The buyer is responsible for the development and communication of their whole system installation procedures, safety precautions, application, and use of the engine accessory mounting kit in their system, including efforts to maintain vehicle control and prevent pinch, wear, impact, and/or burn exposure on all hoses, wires, and other parts. (5.) The buyer is responsible for providing trained and experienced installation decision making with technical know-how to apply professional judgment that specifically applies to each individual installation. The buyer's chosen installers must be qualified and experienced technicians that are familiar with the vehicle and accessory being mounted as well as the buyer's whole system design and installation procedures associated with the kit. (6.) The buyer is responsible for determining and achieving compliance to all regulatory issues that apply to the use of all products. (7.) The manufacturer reserves the right to make changes and/or improvements to any product at any time with or without notice.