

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

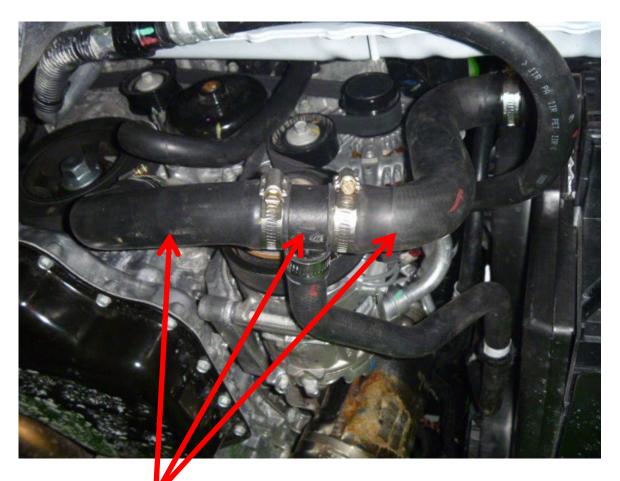
Requires 6 Groove Clutch For use w/ TM13 TM15 or TM16 Ear Mount Compressor

INSTALLATION NOTES

Remove the splash shield from underneath the van.

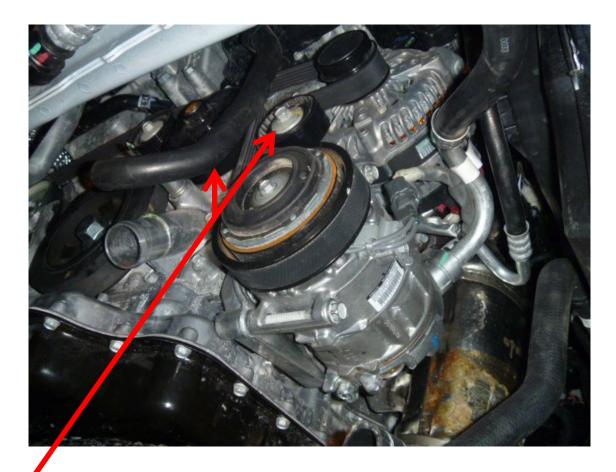
Allow engine to cool before installing this kit. Drain engine coolant (can be done by removing hoses).

Disconnect negative battery cable (battery is located under driver floor board).



Remove these hoses and the plastic "T". Discard clamps. The hose with two 90 Deg.bends will be reused.

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Remove the OEM belt.

Remove this bolt and replace with bolt(45), lock washer(44), clamp(42) and bushing(43), securing this hose away from belts.

Unplug the wire harness from the factory AC compressor and remove the harness from the stud on the back of the compressor.

Remove the three bolts from the factory compressor and let hang.

Remove the factory bracket from behind the compressor.

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Install first bracket(4) as shown above using bolts(5,6,7,8). Start all bolts before tightening.



Install second bracket(9) using bolts(11) and lock washers(12), and OEM compressor bolt (13) as shown above bolting through the factory compressor making sure to start all bolts before tightening. NOTE: AC line location in photo above needs to be achieved.

Reinstall the wiring harness to the factory compressor making sure to route away from the exhaust.

Remove the harmonic balancer bolt. There is an access point to the flywheel on the bottom of the bell housing. Remove the rubber plug and use a pry bar to keep the engine from turning over while removing the bolt.

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Install new drive pulley(1) using bolt(2) and flat washer(3). Make sure the pulley pilots into the harmonic balancer. Rotate the pulley counter clockwise until the pins on the back of the pulley make contact wih the balancer and torque bolt to 30 ft./lbs. plus 105 deg.. Replace the plug for the bell housing.

Install the new multiple accessory belt(23)



Install the tensioner(21) using bolt(22).

Install the idler(15) using bushing(14), bolt(17) and flat washer(16).

Install the auxiliary compressor using hardware (38-41).

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Install new hose(25) onto the water pump using clamp(30) putting the short end of the elbow on the water pump outlet. Roughly install the rest of the radiator hose line kit (26-33) as shown in the pictures and drawings.

Install the coolant tank hose to the new radiator line using clamp(31). Once positioning of the radiator lines are achieved tighten all clamps. Remove the rear nut from the air filter bracket and install brace (34) over the stud. Install adel clamp (37) over the A/C hose. Then, tighten the OEM nut and the clamp bolt (35) and nut (36) securely. This is to prevent the A/C line from impacting the add-on drive pulley and other moving components. It is the installer's responsibility to make certain the hoses are tightened correctly, and have adequate clearance to belts, and any other obstacles that may cause hose failure.

The factory air conditioner line will need to be bent to clear the bracket and not pinch the lower radiator hose. It may be necessary to use a zip tie to hold the upper portion of the radiator hose to the OEM AC line to prevent chafing. Also check the clearance of the other air conditioner line to the exhaust and bend if needed. It is very important that all hoses and lines have proper clearances to prevent damage to the lines or other components.



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Install idler(19) using bolt(20) and bushing(18).

Install the new auxiliary compressor drive belt(24).

Replace the engine coolant.

Connect negative battery terminal.



Trim the splash shield and reinstall using OEM hardware.



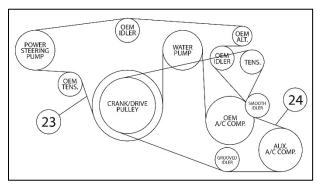
2014-2021 RAM ProMaster 3.6L Pentastar V6 Gas w/ A/C, w/o Dual Alternators

Requires 6 or 8-Groove, 119mm Diameter Clutch For use w/ TM13 TM15 or TM16 Ear Mount Compressor

Aux. A/C Compressor Mounting Assembly

2 3 6 8 8

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



Belt Routings (24-25)

OEM A/C COMPRESSOR 13 12 5x 11 5x 17 16

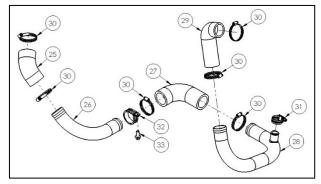
PARTS LIST												
Item	Part Number	Description	Qty.	Item	Part Number	Description	Qty.					
Add-on Pulley Assembly					Smooth Idler Pulley Assembly							
1	VDPC306	Add-on Pulley	1	14	VDMB305	Machined Idler Bushing	1					
2	1022530	M16-1.5 x 90mm Bolt	1	15	89007	Dayco Smooth Idler Pulley	1					
3	1011687	M16 Thick Flat Washer	1	16	1007644	3/8" Flat Washer	1					
Base Plate Bracket Assembly				17	1005539	M10-1.5 x 110mm Bolt	1					
4	VDMB301	Base Plate Bracket	1	Grooved Idler Pulley Assembly								
5	1016362	M8-1.25 x 25mm FHSCS	2	18	VDMB306	Machined Idler Bushing	1					
6	1011887	M8-1.25 x 25mm Flange Bolt	2	19	89051	Dayco Grooved Idler Pulley	1					
7	1006927	M10-1.5 x 30mm Flange Bolt	1	20	1006933	M10-1.5 x 40mm Flange Bolt	1					
8	1006934	M10-1.5 x 50mm Flange Bolt	1	Tensioner Assembly								
Auxiliary A/C Bracket Assembly				21	89260-051M	Custom Tensioner	1					
9	VDMB302	Auxiliary A/C Bracket	1	22	1003980	M10-1.5 x 80mm Bolt	1					
10	1011888A	M14 Slide Bushing (Installed)	2	Belts								
11	1013343	M8-1.25 x 90mm Bolt	5	23	5060860	Dayco 6-Groove 86.0" Belt	1					
12	1006174	M8 Lock Washer	5	24	5060555	Dayco 6-Groove 55.5" Belt	1					
13	N/A	OEM OEM A/C Compressor Bolt	1									



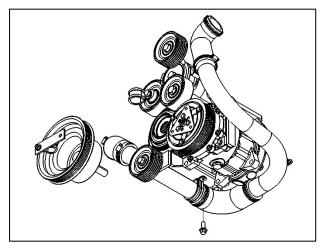
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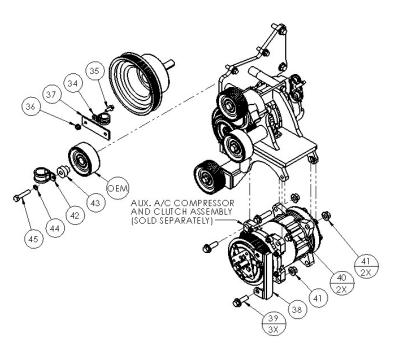
Hose Line Kit (VD30ACHK)



Radiator Hose Line Assembly (26-34)



Radiator Hose Line Assembly Bracket Mounting Location



PARTS LIST (VD30ACHK)											
Item	Part Number	Description	Qty.	Item	Part Number	Description	Qty.				
Radiator Hose Line Assembly				36	1016331	M6-1.0 Flange Nut	1				
25	VDMB304	45° Rubber Hose (Engine)	1	37	VDMB3013	Brace (Two-Holes)	1				
26	VDMB309	90° Hardline (One Bend)	1	Auxiliary A/C Compressor Mounting Hardware							
27	VDMB3010	90° Rubber Hose (b/w Hardlines)	1	38	VDMB308	Foam Brace	1				
28	VDMB3011	90° Hardline (Two Bends)	1	39	1006927	M10-1.5 x 30mm Flange Bolt	3				
29	VDMB3012	90° Silicone Hose (Radiator)	1	40	1006933	M10-1.5 x 40mm Flange Bolt	2				
30	1016325	#24 Hose Clamp	6	41	1018204	M10-1.5 Flange Nut	3				
31	1011673	#12 Hose Clamp	1	Hose Clamp Assembly (Items 43-45 NOT INCLUDED in VD30ACHK)							
32	1007886	#24 Adel Clamp	1	42	1018287	#16 Adel Clamp (3/4" Wide)	1				
33	1013329	M8-1.25 x 20mm Flange Bolt	1	43	VDMB307	Machined Clamp Bushing	1				
A/C Line Clamp Assembly				44	1006174	M8 Lock Washer	1				
34	1005112	#12 Adel Clamp	1	45	1012414	M8-1.25 x 40mm Bolt	1				
35	1016329	M6-1.0 x 16mm Flange Bolt	1								