



Installation Instructions for K10623 GM R4 AC compressor bracket for LS truck engines

Kit contents:

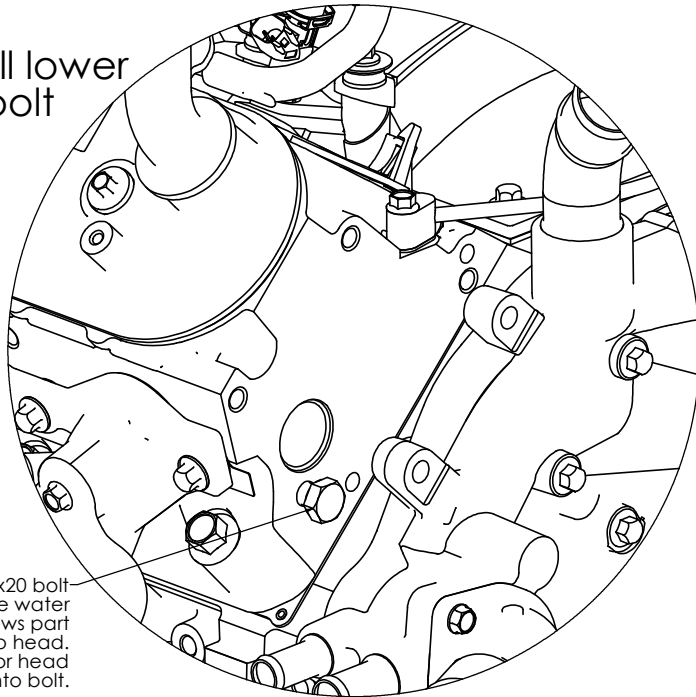
- Mounting plates
- Spacer tubes
- Fasteners
- Tensioner

Additional parts required:

- **Belt.** See chart at right.
- **GM R4 AC compressor.**
- When using a cast factory GM truck alternator and power steering bracket, a **90mm smooth pulley** (Gates 38006 or equivalent) is needed to replace the factory 76mm pulley. See step 8 on page 4.

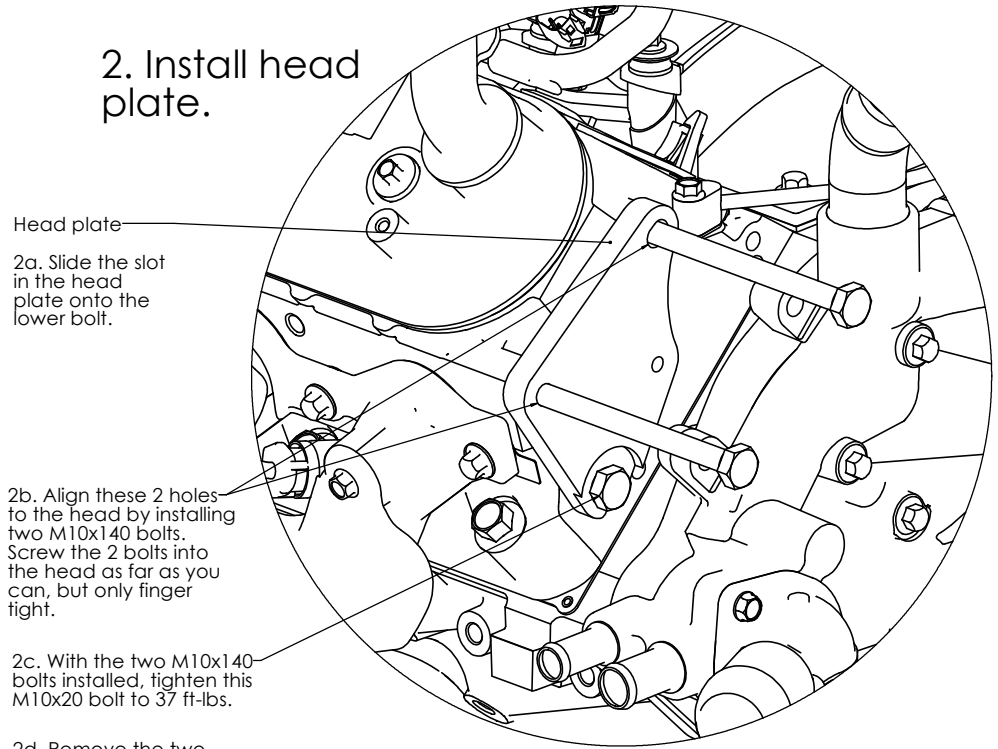
Suggested belt length and Gates PN - K10623 GM R4 AC bracket				
Alternator (see illustration on page 4)	Alternator and power steering bracket			
	Factory GM truck Alt/PS bracket and power steering pulley	Kwik Performance Alt/PS bracket K10168 with 10206-06 pump (5.5" pulley)	Kwik Performance Alt/PS bracket K10611 with P-series pump and pulley	Factory GM truck Alt/PS bracket and power steering pulley with K10618 idler relocater
"Small" alternator -GM 105 amp or PowerMaster	105.0" K061045	90.63" K060900	90.63" K060900	90.63" K060900
"Large" alternator -GM 130 amp or higher	106.38" K061058	90.88" K060905	91.75" K060911A	91.75" K060911A

1. Install lower head bolt



M10x20 bolt
Goes in behind the water pump, and screws part way into head.
Leave room for head plate slot to go onto bolt.

2. Install head plate.



Head plate

2a. Slide the slot in the head plate onto the lower bolt.

2b. Align these 2 holes to the head by installing two M10x140 bolts. Screw the 2 bolts into the head as far as you can, but only finger tight.

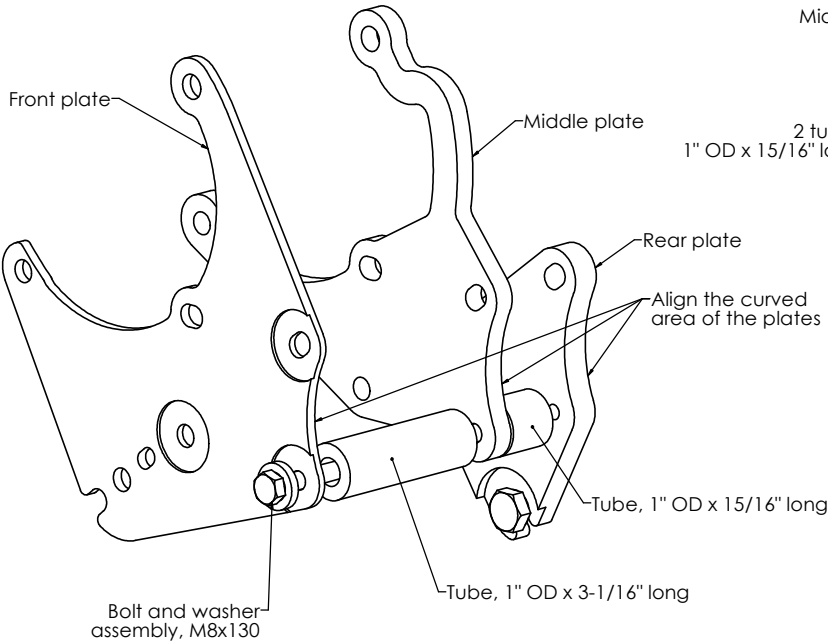
2c. With the two M10x140 bolts installed, tighten this M10x20 bolt to 37 ft-lbs.

2d. Remove the two M10x140 bolts.

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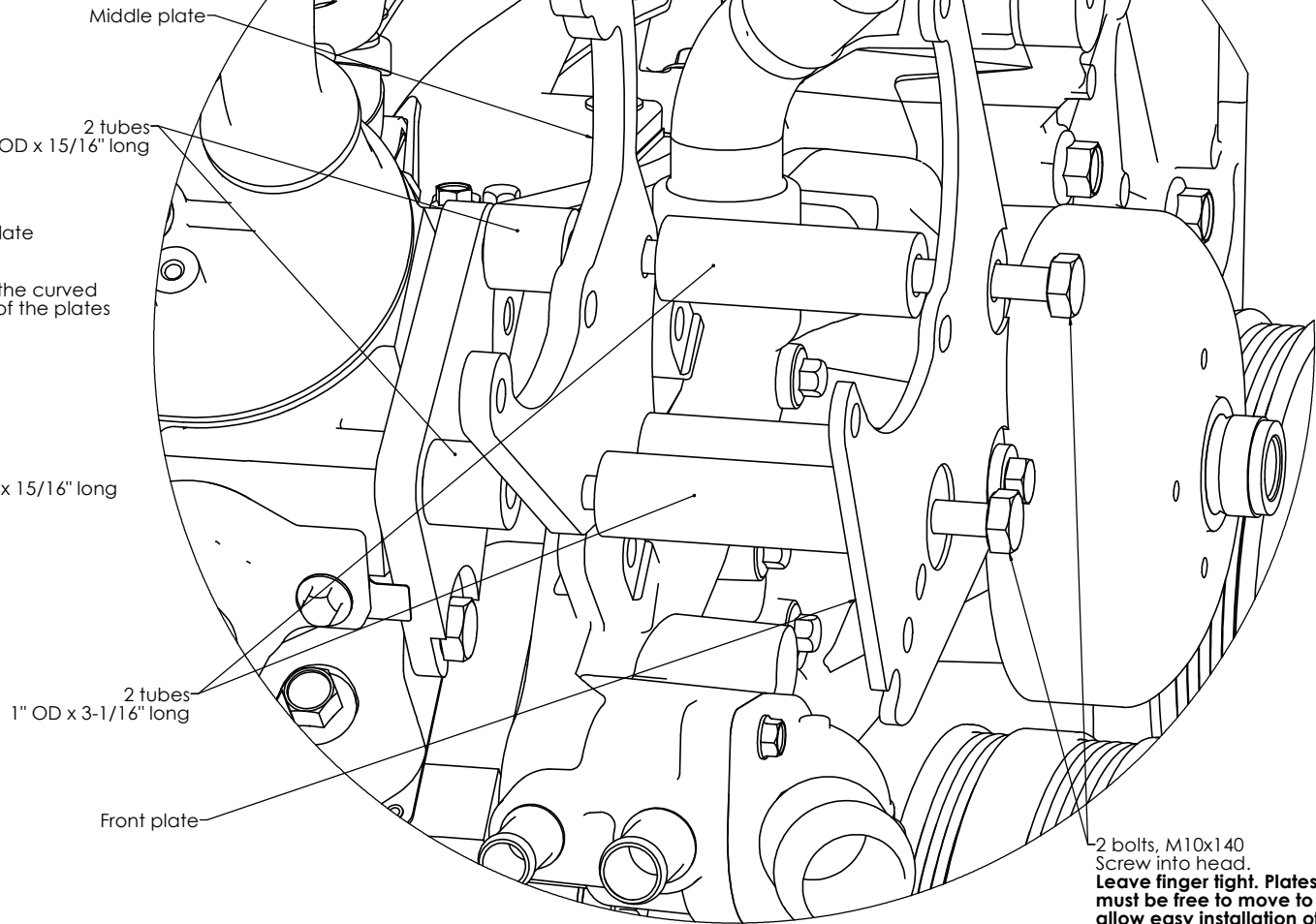
3. Install plates and lower tubes onto rear plate



Screws into rear plate
Leave finger tight. Plates must be free to move to allow easy installation of the AC compressor in step 5.

4. Install upper tubes.

Install bolts loosely at this time to allow installation of the AC compressor



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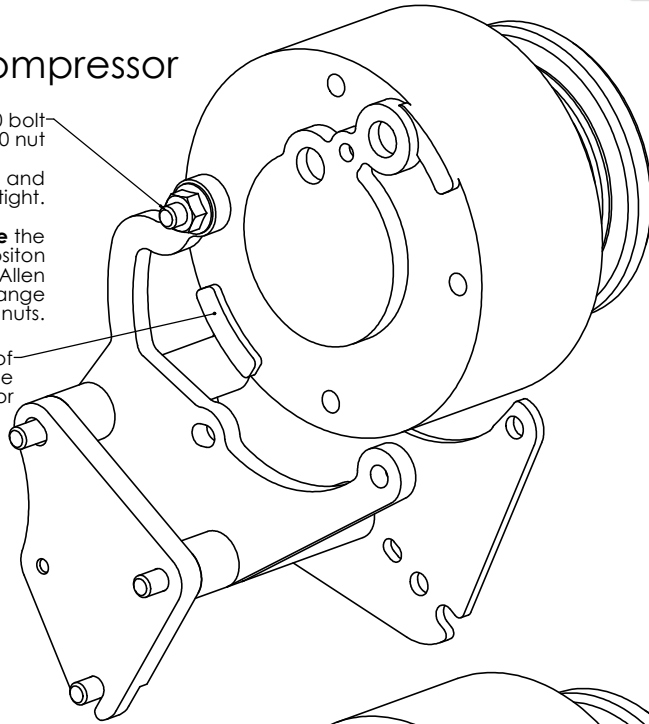
5. Install compressor

Allen head M10x110 bolt and flange head M10 nut

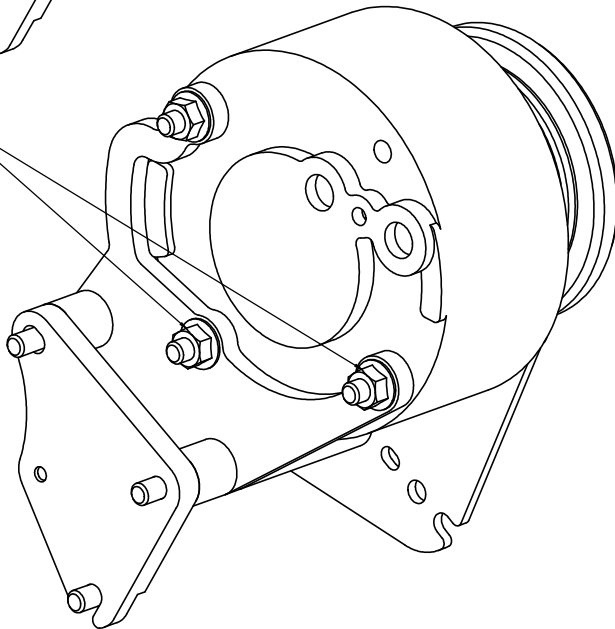
Install in this hole and leave finger tight.

Then **rotate** the compressor into position to install the other 2 Allen head bolts and flange nuts.

Note the orientation of the raised boss on the back of the compressor



2 more Allen head M10x110 bolts and flange head M10 nuts



6. Tighten bolts

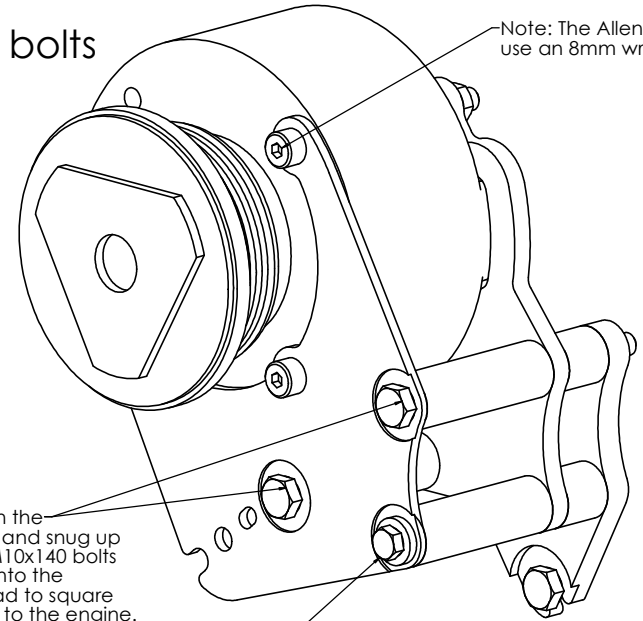
Note: The Allen head bolts use an 8mm wrench.

6a. **Lift up** on the compressor and snug up these two M10x140 bolts that screw into the cylinder head to square the bracket to the engine.

6b. Snug up the three 10mm Allen head bolts and the one 8mm bolt.

6c. Torque M10 bolts to 37 ft-lbs.

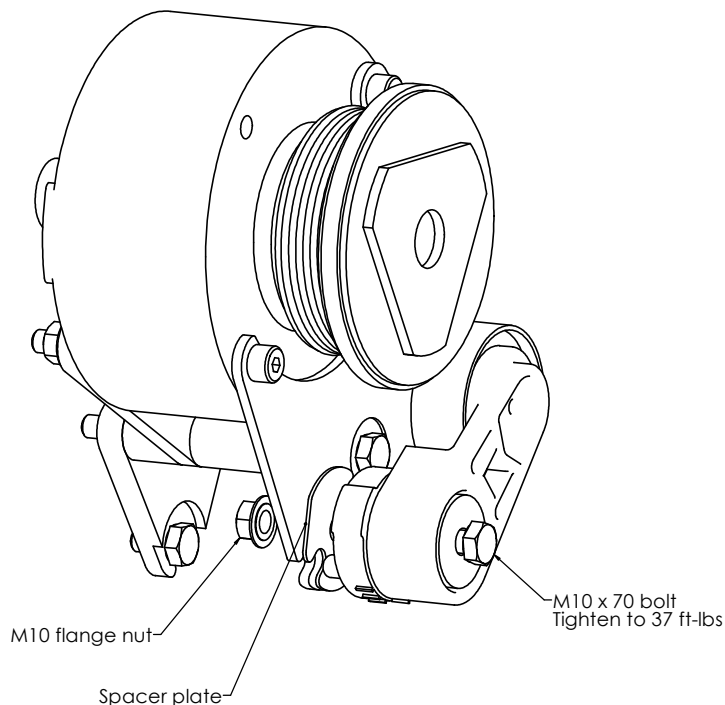
6d. Torque M8 bolt to 15 ft-lbs. **Note: The first time the M8 bolt and washer assembly is tightened, it will take extra rotation to crush the thin retainer washer.**



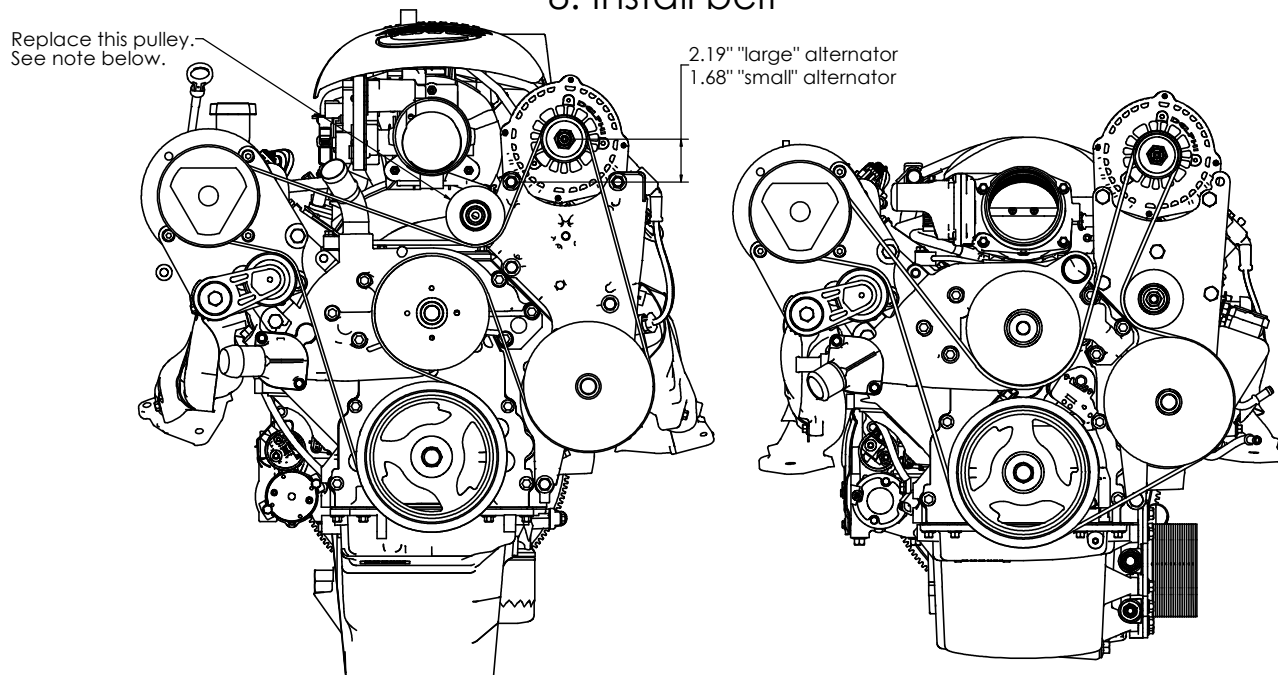
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7. Install tensioner



8. Install belt



Example of belt path with standard cast truck bracket

Example of belt path with car intake manifold, LS3 Camaro water pump, and Kwik Performance alt PS bracket K10611.

See page 1 for belt length recommendations

Note: For best performance and longest life, the belt lengths suggested by Kwik Performance are the shortest belt that can be reasonably installed.

Note: When using the factory cast alternator bracket (above, left), the smooth 90mm diameter idler pulley assembly that is next to the alternator must be removed, and the mounting pedestal removed from this idler pulley assembly. The pedestal is then mounted on a Gates 38006 (or equivalent) 76mm smooth pulley. This new idler pulley is not included with this bracket, and should be purchased along with the proper belt.

We recommend the following procedure:

1. When installing the serpentine belt, place the belt around all pulleys as shown in the diagram except for the smooth idler pulley (like the truck engine, above left), or the water pump pulley (like LS3 Camaro, above right).
2. Check to make sure that the belt is seated all the way in the grooves of each grooved pulley.
3. Retract the tensioner all the way and slip the belt onto the water pump pulley or the smooth idler pulley.
4. Release the tensioner.