

KARCEPTS

ENGINEERED SOLUTIONS



Installation Instructions for Part #: KPS04 K20A3/K24A1 A/C and P/S Removal Kit

This kit provides the SOLUTION for eliminating air conditioning and power steering on motors found in the 02-05 Civic Si and 02-06 CRV while:

- Relocating the alternator to avoid headlight material removal on 1988-1991 Civics & CRVs
- Eliminating pulley-to-hood interferences on 1988-1991 Civics and CRVs with a K20 engine
- Eliminating individual throttle body interference issues
- Offering a compact yet robust design for overall cleanliness and reliable operation

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Parts Included With A/C & P/S Removal Kit

DESCRIPTION	QTY
6061-T6 ALTERNATOR RELOCATION BRACKET	1
M10X40 FLANGE BOLT (HONDA PART #: 95701-10040-08)	2
ALUMINUM ALTERNATOR SPACER	1
M8X100 FLANGE BOLT (HONDA PART #: 95701-08100-08)	1
M8X50 FLANGE BOLT (HONDA PART #: 95701-08050-08)	2
6061-T6 TENSIONER BRACKET	1
STAINLESS STEEL M8X65 SOCKET HEAD CAP SCREW	1
STAINLESS STEEL M8X30 SOCKET HEAD CAP SCREW	1
6061-T6 TENSIONER BLOCK	1
STAINLESS STEEL M8X25 BUTTON HEAD CAP SCREW	2
M8 LOCK WASHER	2
M8 FLAT WASHER	2
STAINLESS STEEL M8X60 SOCKET HEAD CAP SCREW	1
GATES GLASS-REINFORCED BLACK COMPOSITE IDLER PULLEY	1
BEARING COVER (HONDA PART #: 31185-PCX-003)	1
M10X25 SPECIAL FLANGE BOLT (HONDA PART #: 90031-PRA-000)	1
485K6 V-BELT	1

Tools Required

12mm & 14mm Socket and/or Combination Wrenches
Torque Wrench Capable of 15 ft-lbs (180 in-lbs)
5mm & 6mm Hex Wrenches

Optional Tools

Krikit II V-Belt Tension Gauge

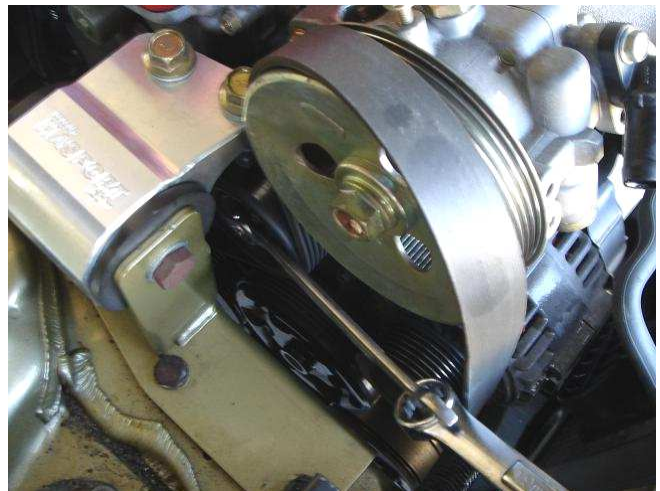
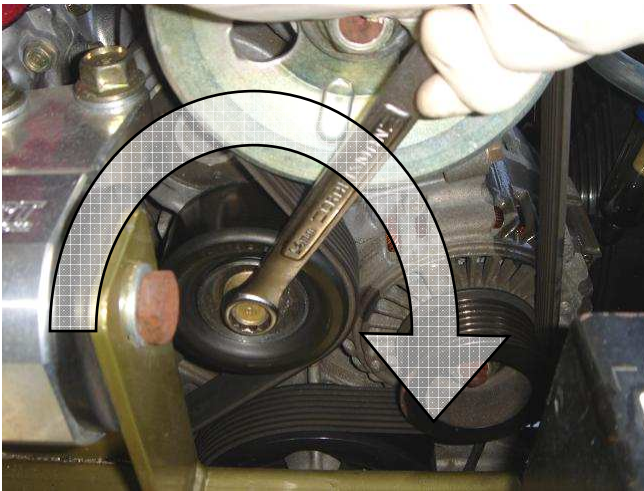
Note: Read all instructions before attempting installation. If you do not believe you are qualified in performing the necessary installation, please find an experienced professional who can.

1. POWER STEERING PUMP REMOVAL

1. Remove the high pressure and return hoses from the power steering pump, and drain all fluids.



2. Relieve tension on the factory belt by rotating the bolt on the auto-tensioner pulley clockwise, and remove the belt.



3. Unbolt the power steering pump and auto-tensioner from the engine.



2. A/C COMPRESSOR REMOVAL

1. Remove all A/C lines and unbolt the compressor from the engine. Recover the refrigerant with a recovery/recycling/charging station.



2. Unbolt the A/C compressor mounting bracket from the engine.



3. ALTERNATOR RELOCATION

1. Secure the alternator relocation bracket with the two M10 x 40mm long flange bolts (Honda Part #: 95701-10040-08). Torque to 32 ft-lbs.



2. Locate the alternator spacer, the single M8 x 100mm long flange bolt (Honda Part #: 95701-08100-08), and the two M8 x 50mm long flange bolts (Honda Part #: 95701-08050-08).

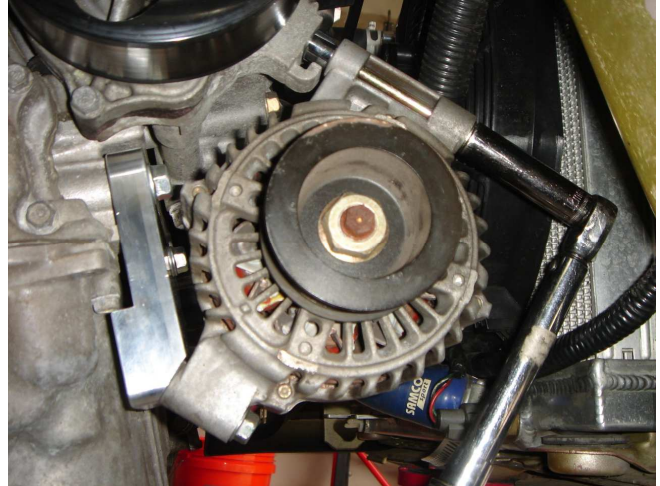


3. To prevent arcing, it is advised to first disconnect the negative and positive battery cables. Next, unbolt the alternator and discard the factory bolts.



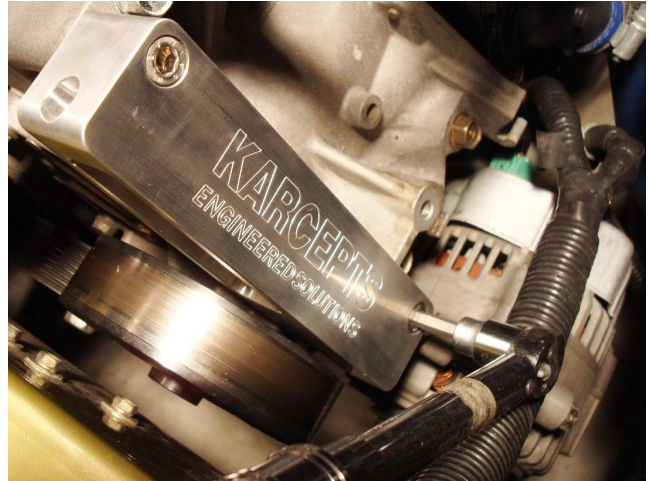
3. ALTERNATOR RELOCATION (continued...)

4. Insert the M8 x 100mm long flange bolt into the top hole of the alternator, then slide the alternator spacer onto the bolt and thread by hand into the upper left hole where the A/C compressor previously mounted. Thread this bolt approximately 2-3 full turns by hand to get started. Once you get the upper bolt started, it will be able to support the alternator such that you can now start the threads of the bottom M8 x 50mm bolts. It is important to start the threads of all 3 bolts before beginning to tighten any of them down. Once all bolts have been started, you may begin to torque them to 16 ft-lbs (192 in-lbs). Do not over tighten.

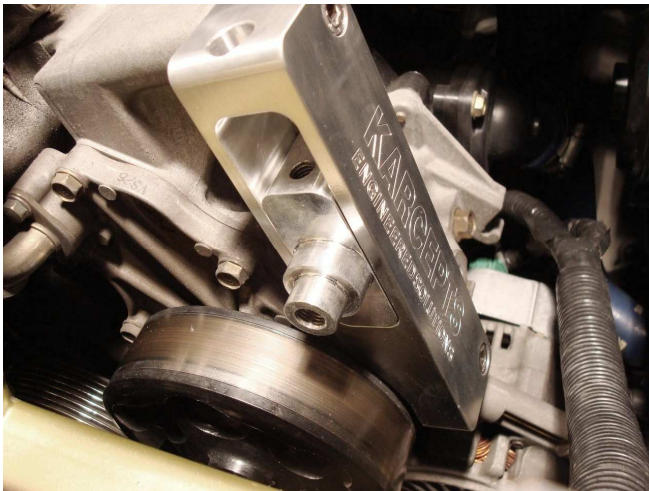


4. TENSIONER INSTALLATION

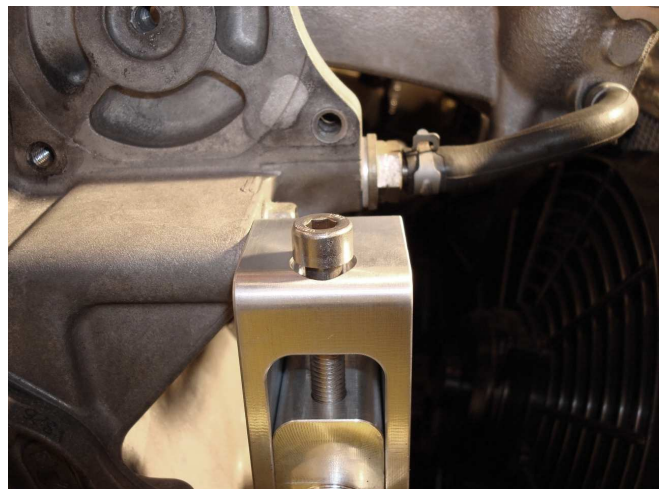
1. Affix the tensioner bracket to where the alternator previously mounted on the water pump with one M8 x 65mm long socket head cap screw (top hole) and one M8 x 30mm long socket head cap screw (bottom hole). Torque both bolts down to no more than 16 ft-lbs (192 in-lbs).



2. Insert the tensioner block into the tensioner bracket with the tapped hole in the tensioner block facing upwards. Temporarily snug the M8 x 25mm button head cap screws, lock washers, and flat washers into place with the tensioner block resting in the bottom of the tensioner bracket.

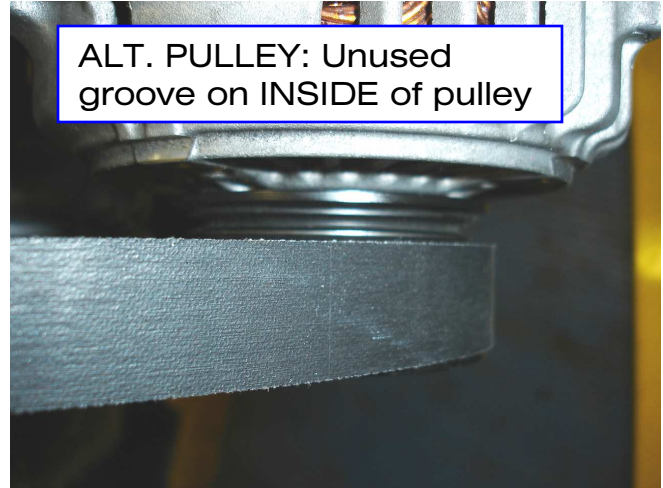
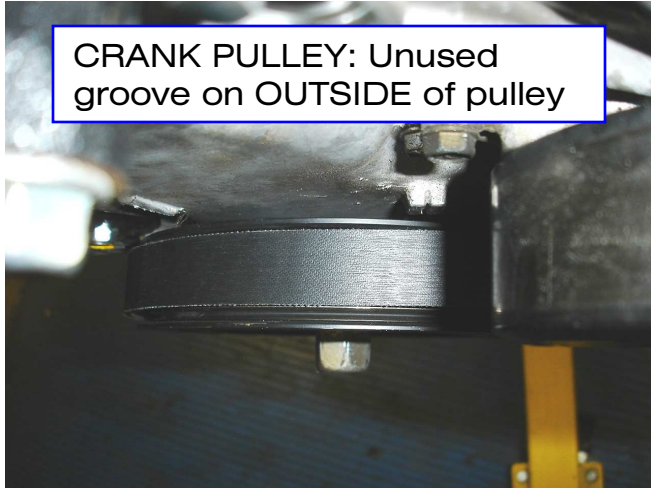


3. Insert the M8 x 45mm long socket head cap screw into the top of the tensioner bracket (leave loose temporarily; as shown).

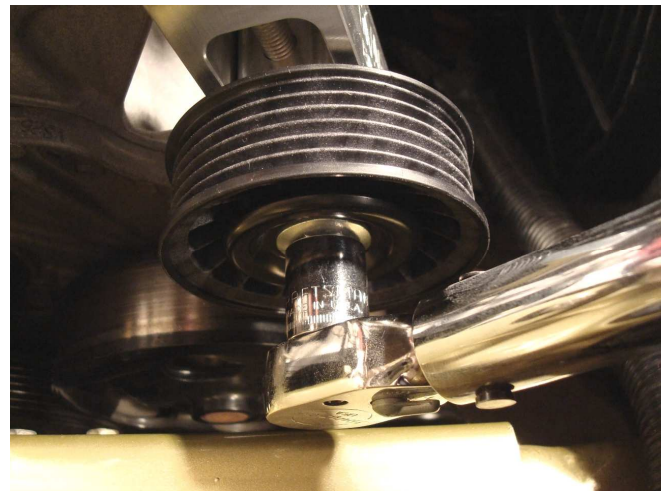
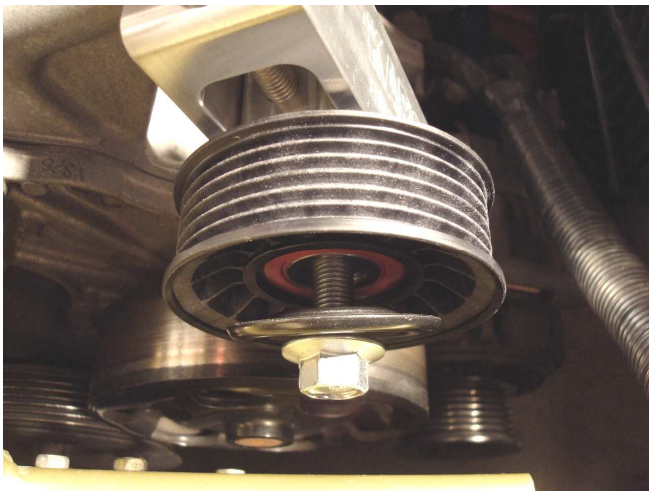


4. TENSIONER INSTALLATION (continued...)

4. Wrap the 6 rib belt around the pulleys as shown while sliding the idler pulley onto the tensioner block. PLEASE NOTE THE ORIENTATION OF THE BELT ONTO THE CRANK AND ALTERNATOR PULLEYS. The orientation is NOT intuitive. There will be one groove not used on each of those pulleys. Make certain the groove not used matches that of the images shown.



5. Install the bearing cover (Honda Part #: 31185-PCX-003) and M10 x 25mm special flange bolt (Honda Part #: 90031-PRA-000). Torque to 32 ft-lbs.

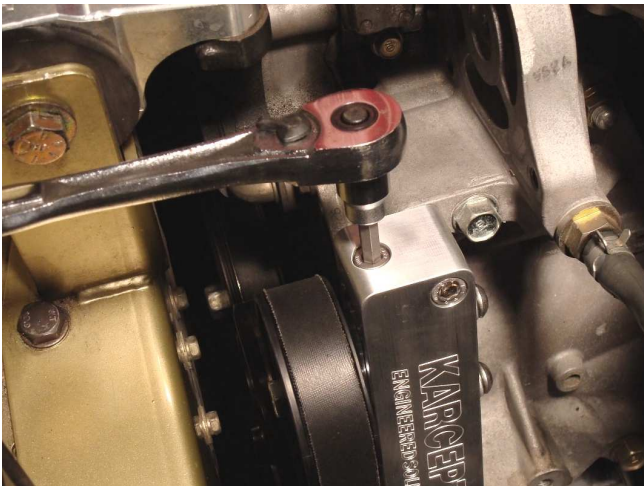


5. TENSIONING THE BELT

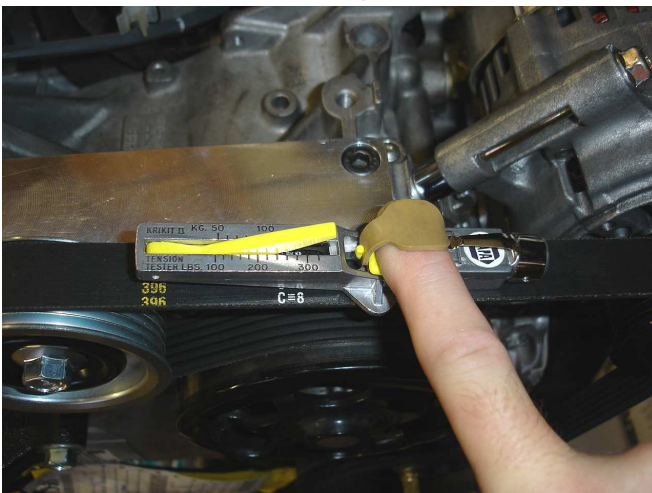
1. Loosen the button heads which were previously snugged such that the tensioner block will move up and down freely within the tensioner bracket.



2. Tighten on the adjusting bolt to set proper tension. Tensioning may be performed with a Kriket II V-Belt Tension Gauge which can be ordered through any NAPA auto parts store. It's a very inexpensive yet handy tool!

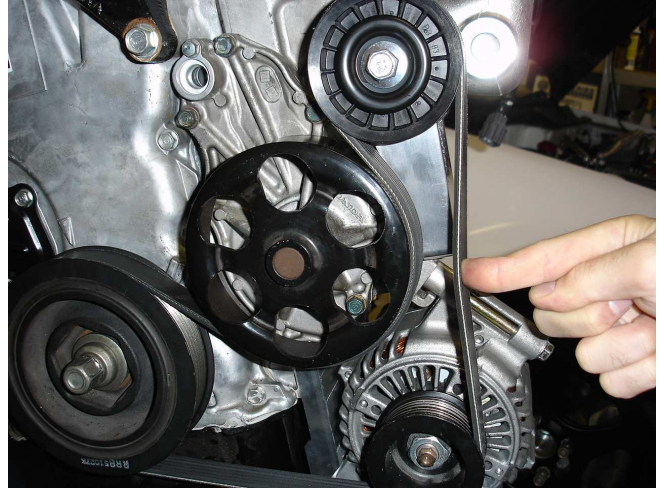
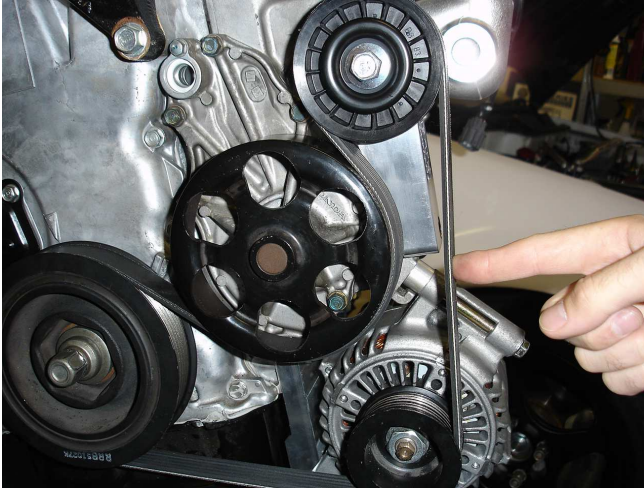


3. On a new belt, you want to set the initial static belt tension such that the Kriket II reads 140lbs. NOTE: This setting is higher than desired for normal operation, but is necessary for proper break-in. Run the engine for 3-5 minutes at this setting. After break-in is complete, re-tension to 100 lbs. Re-tension every 5,000 miles.

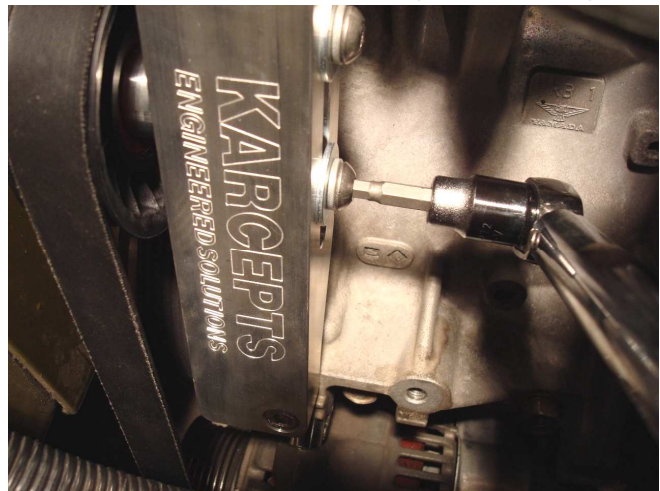


5. TENSIONING THE BELT (continued...)

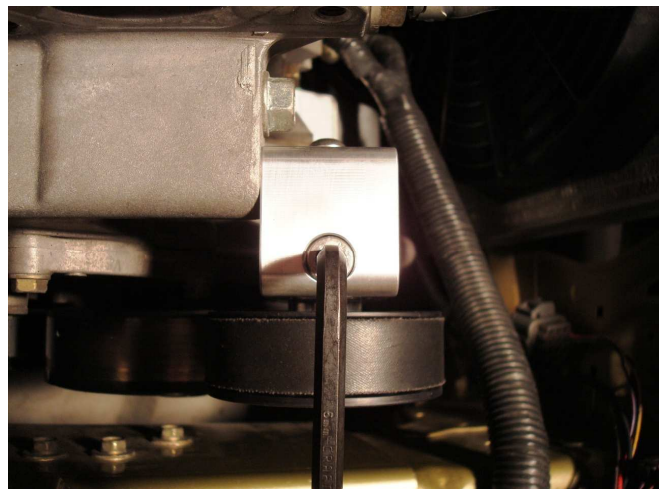
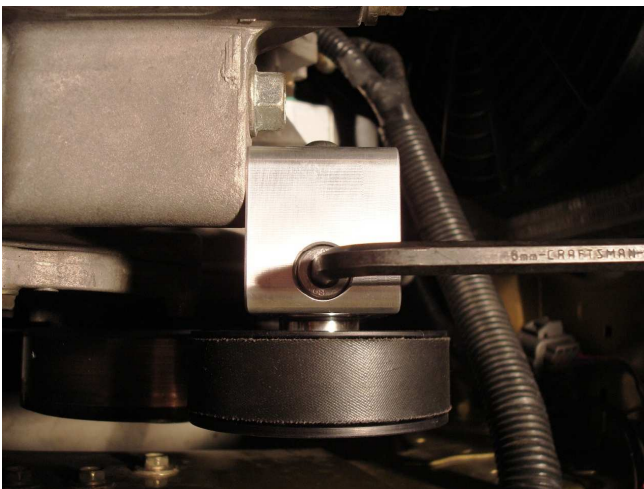
4. If not using a belt tension gauge, a good rule of thumb is to apply 20lbs. of force in between the idler and alternator pulley. In doing so, the measured horizontal deflection of the belt should be approximately $\frac{1}{4}$ ".



5. After belt tension is set appropriately, you may now torque down the button head socket cap screws. Torque both bolts to no more than 15 ft-lbs (180 in-lbs).



6. Once the tensioner block has been locked into place, the adjustment bolt will now be relieved of its tension. Because of this, you will want to tighten the adjustment bolt $\frac{1}{4}$ turn (90 deg) more in order to secure it in place.



CONGRATULATIONS! YOUR A/C AND P/S
REMOVAL IS NOW COMPLETE!!!



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