



Intercooler Installation

For 1999 - 2003 Ford 7.3L Powerstroke trucks

-- Installation Instructions --

1042700

7.3L Ford Powerstroke

PLEASE READ ALL INSTRUCTIONS BEFORE INSTALLATION

BD Engine Brake Inc.

Plant Address: 33541 MacLure Rd. Abbotsford, BC, Canada V2S 7W2

U.S. Shipping Address: 88-446 Harrison St, Sumas, WA 98295 U.S. Mailing Address: P.O. Box 231, Sumas, WA 98295

Phone: 604-853-6096 | Fax: 604-853-8749 | Internet: www.bd-power.com

Tools Required

		
<p>Sockets 8,10,11,13,21mm & 5/16", 1/2"</p>	<p>Air Wrench</p>	<p>Clip Remover</p>
		
<p>Drill with 1/4" drill bit</p>	<p>Pry Bar</p>	<p>Combination wrench 8,13mm & 1/2", 5/8", 7/8"</p>
		
<p>Drain Pan</p>	<p>Torque Wrench</p>	<p>Pliers</p>

Kit Contents

1402700	1407008	1407030	1405211
			
<i>Charge Air Cooler</i>	<i>Step Ribbed Boot</i>	<i>3.50" Clamps</i>	<i>3.25" Clamps</i>
Qty: 1	Qty: 2	Qty: 2	Qty: 2
1100113	1100111	1100110	1505001
			
<i>1/4" Nut</i>	<i>1/4" Washer</i>	<i>1/4" Bolt</i>	<i>3/8" Hose Clamp</i>
Qty: 6	Qty: 12	Qty: 6	Qty: 4
1604053	1400130	1402705	1300131
			
<i>3/8" Hose</i>	<i>5/8" to 90° Barb</i>	<i>Mounting Bracket</i>	<i>Cable Ties</i>
Qty: 78"	Qty: 2	Qty: 2	Qty: 8

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Procedure

1. Start by disconnecting the negative leads on both batteries and remove the driver side positive lead, then remove the battery and airbox assembly.
 - 5/16" or 8mm for the intake hose.
 - 1/2" for the battery connections.
 - 13mm socket for the four bolts in the Air Box/Battery Tray



2. Using the plug puller remove the four plugs that hold down the rubber cover.



3. And continue to remove the clips that hold down the positive battery cable to the radiator support.



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4. With the cover out of the way you can now access the side flaps and remove the plugs from the front of the radiator support.



5. Then remove the three bolts from the coolant overflow tank (8mm).



6. Using the same (8mm) socket remove the radiator support brackets and A/C condenser brackets.



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7. Switch to your 10mm socket and remove the intercooler top mounting bolts.



8. With your (13mm) wrench extract the eight mounting bolts for the radiator support and gently pry out the radiator support from the passenger side.



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9. Loosen the intercooler boot clamp's and take out the intercooler pipes with the boots attached (11mm)



10. Now you can pull out the stock intercooler being careful not to damage the A/C lines.



11. With the intercooler out of the way remove the two top mounting bolts for the automatic transmission cooler (8 mm) (if equipped)



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12. Raise the truck and remove the six bolts (21mm Deep Socket) that hold the bumper cross bar (if equipped).



13. With the truck raised, pop out the plugs for the bottom rock deflector.



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14. Disconnect the two bolts for the power steering cooler and temporarily secure the cooler out of the way.



15. Remove driver's side lower A/C condenser mount to allow the removal of the transmission cooler (8 mm).



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16. Squeeze the hose clamp and disconnect the transmission cooler lines.



17. Remove the two lower transmission cooler bolts and remove the cooler from the truck (8mm). If the truck is a 1999-2000 disassemble the hard lines from the cooler using a 5/8" & 7/8" wrench to allow for the routing of the new lines.

Note: you do not need to remove the lines if the truck is a late model with fixed hard lines.



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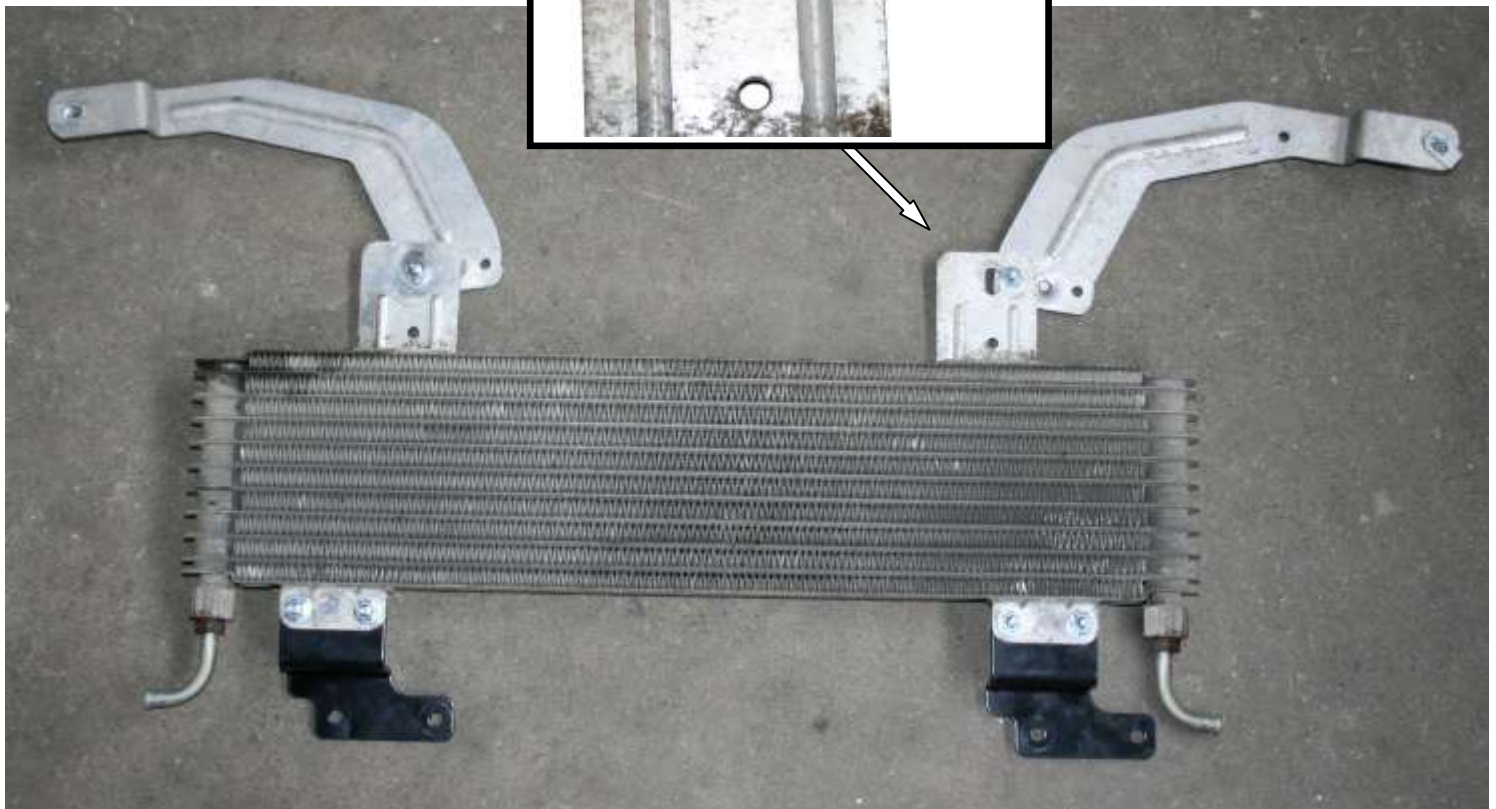
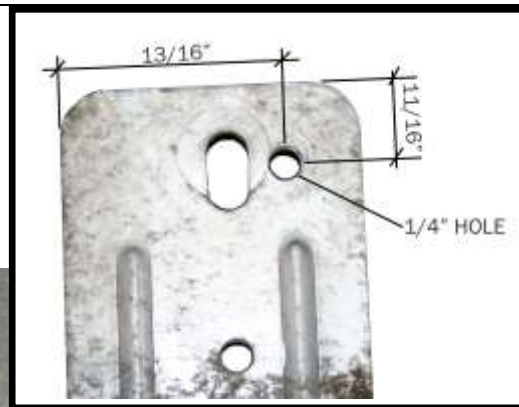
18. Drill out the four rivets on the transmission cooler brackets and drill the existing holes to 1/4".



1999-2000

19. If the truck is a 1999-2000 measure over 13/16" and measure down 11/16" and drill a 1/4" diameter hole only thru the driver's side cooler bracket. Then connect all the bracket's as shown, using the supplied bolts, nuts and washers (Note: 6 connections leaving the top brackets a little loose to allow for movement).

Also: Install the new supplied cooler fittings onto Inverted flare to JIC #8 & JIC #8 90° to 3/8" Barb



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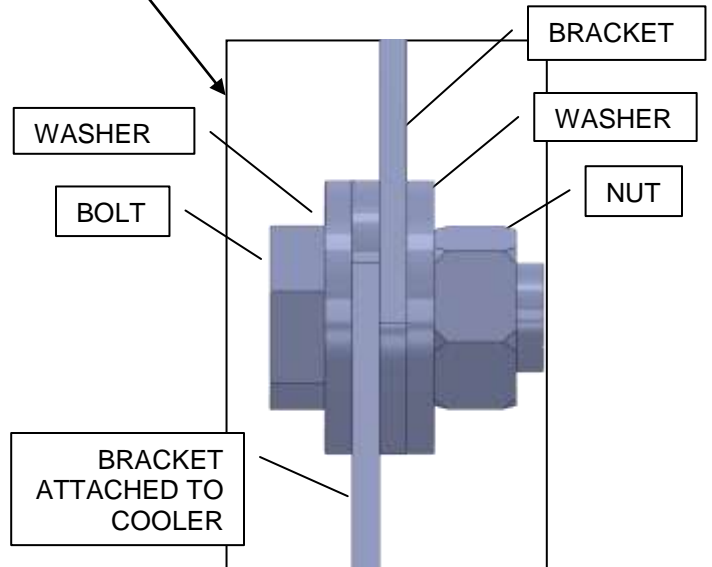
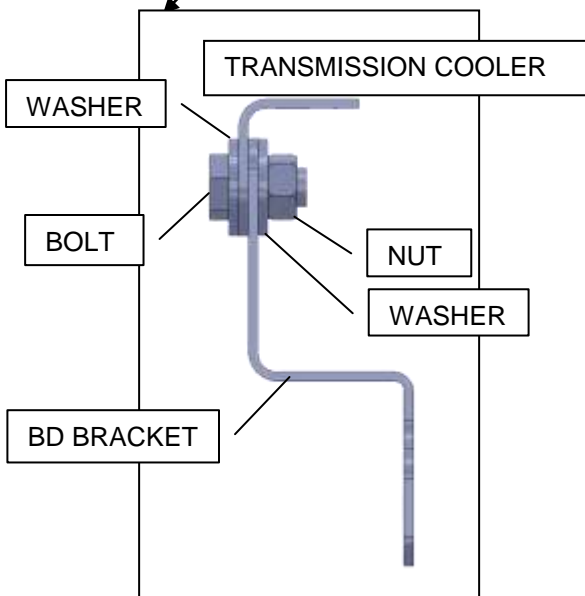
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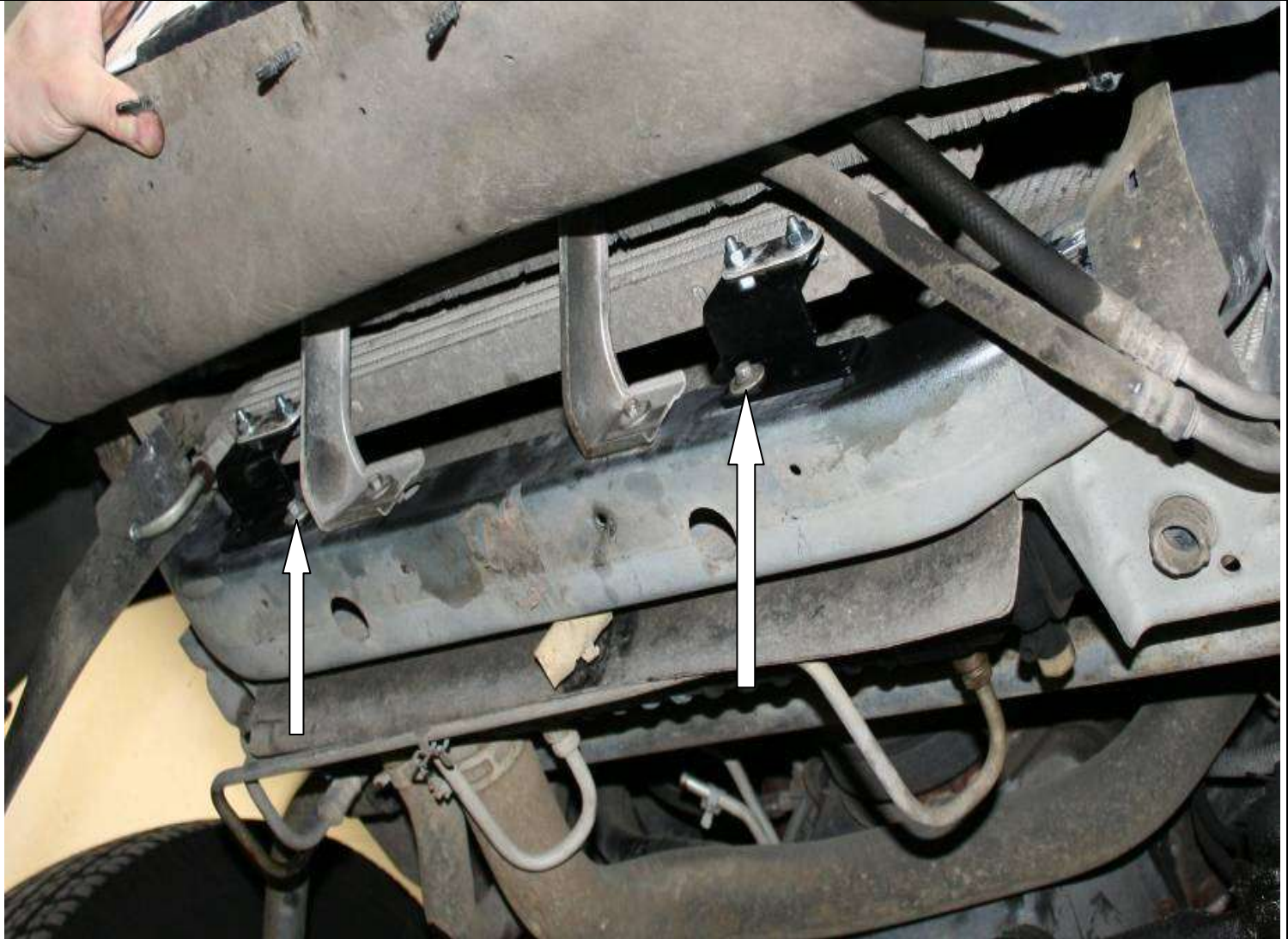
2001-2003

20. If the truck is a 2001-2003 you do not have to drill a hole just simply bolt the bracket's to the cooler as shown using the supplied bolts, nuts and washers (6 connections).

(Note: leaving the top brackets a little loose to allow for movement).



21. Reinstall the transmission cooler assembly using the existing hardware. Then mount the power steering cooler and lower A/C condenser mounting bracket.



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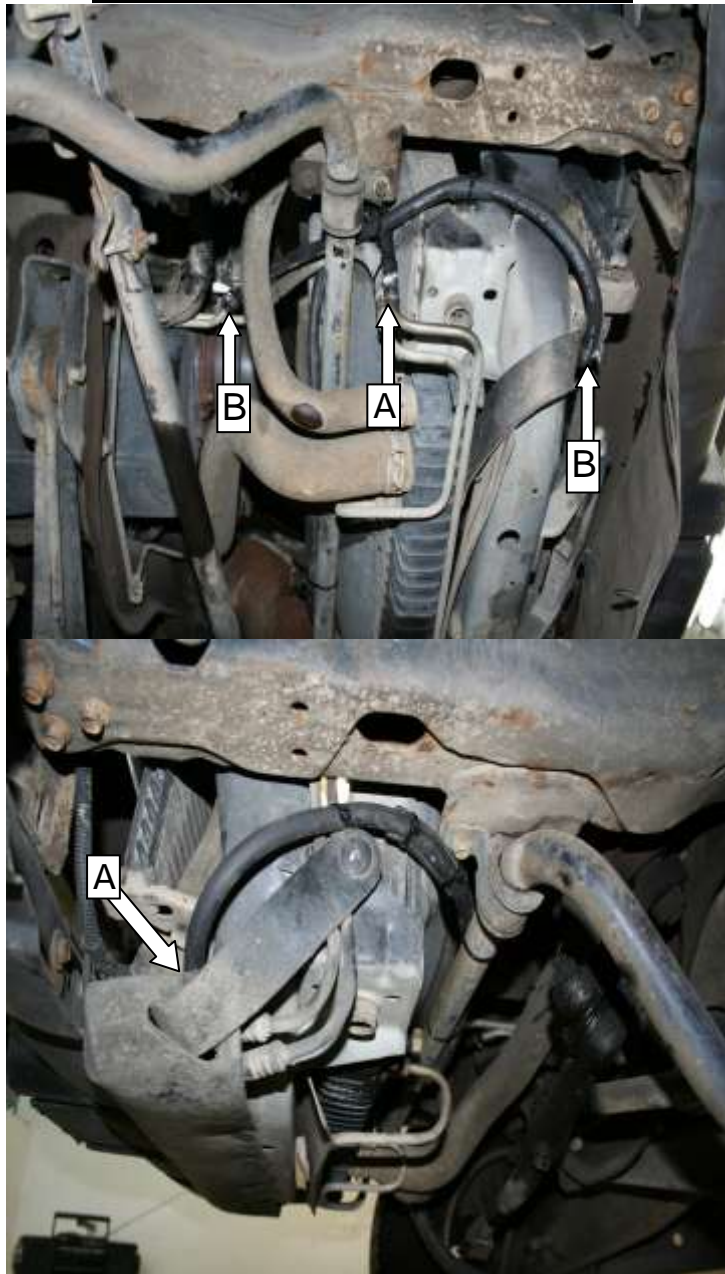
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1999-2000	2001-2003
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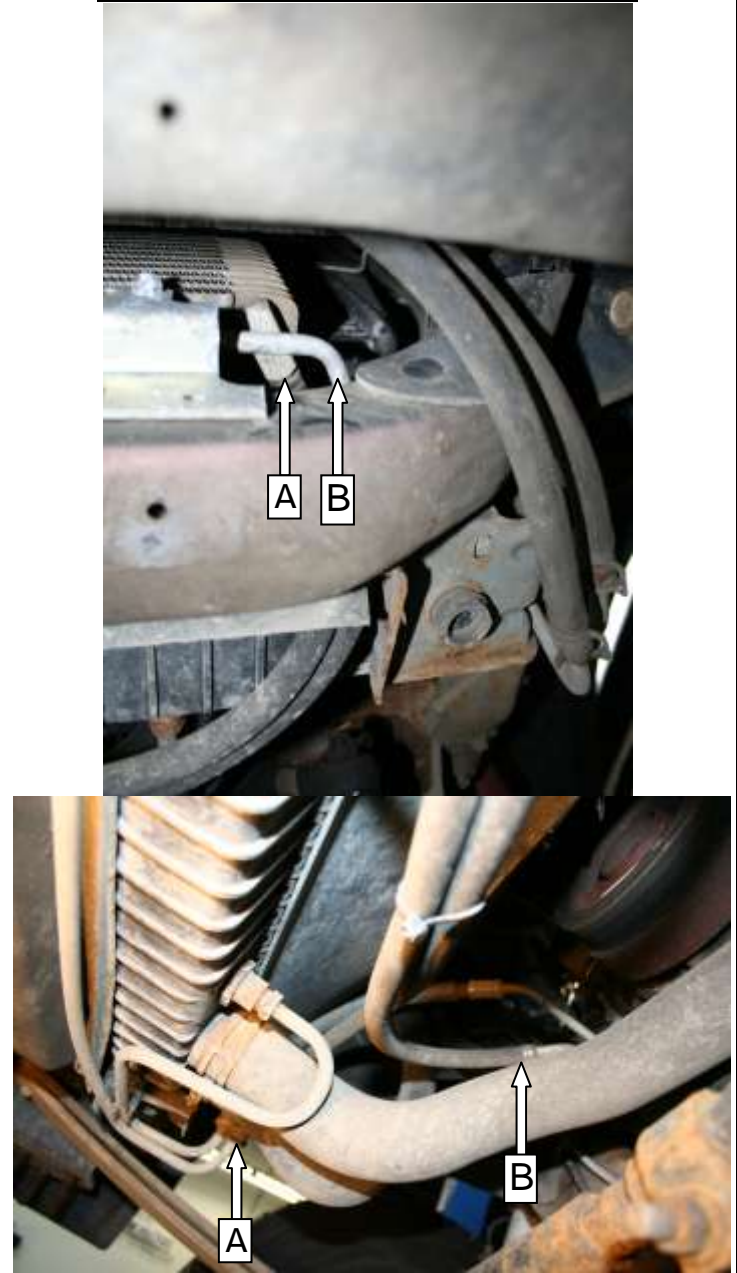
Using the hose provided run the cooler lines and clamp to all connections. Tuck and zap strap lines in place to avoid chafing. Refasten the rock deflector in place and reinstall the bumper cross bar. (If equipped).

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 Note: It may be easier to tighten the cooler clamps from the engine compartment.

Run hose connections A to A & B to B



Run hose connections A to A & B to B



22. Lower the truck and bolt the transmission cooler top brackets in place reusing the existing hardware and tighten all four connections.



23. Switch over the top and side rubber mounting isolators from the old cooler to the new BD Charge Air Cooler (1402700).



24. Slide the new BD intercooler into the truck being sure to clear the A/C lines while seating the side isolators firmly in place.



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25. Remove the stock C.A.C. boots from the cooler end of the pipes using the (11mm) socket. Then clean the stock boots and connections with a brake parts cleaner and reconnect the intercooler pipes with the new BD boots and clamps (13mm) for the intercooler attachments.



26. Tighten BD clamps (13mm) until spring is bound, and tighten all other clamps to 95 in/lbs.



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27. Install by reversing the removal procedure starting with the top radiator support and continue to reconnect the
- Intercooler top two isolators
 - Positive battery cable clips
 - Radiator support brackets
 - A/C condenser brackets
 - Side flaps
 - Coolant overflow tank
 - Top up Transmission fluid
- Ensuring that all connections are tight and secure.

Reinstall the battery cables (positive lead first then the negative lead) on the driver side and the negative lead on the passenger side and the rubber cover to complete the installation.

Congratulations you have completed the installation.



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