



CorkSport Power Series Mazdaspeed Protege Downpipe Install Instructions

Tools Required

- Phillips Head Screw Driver
- Flat Head Screw Driver
- 5mm Allen Head Wrench
- 6mm Allen Head Wrench
- 10mm Socket 1/4" or 3/8" Drive
- 12mm Socket 3/8" Drive
- 14mm Socket 3/8" Drive
- 17mm Socket 3/8" Drive
- 3/8" and/or 1/4" Drive Ratchet
- 12mm Wrench
- 13mm Wrench
- 14mm Wrench
- 17mm Wrench
- O-2 Sensor Socket
- 12" Adjustable Crescent Wrench
- Torque Wrench
- Coolant Catch Container
- Anti Freeze/Coolant
- Floor Jack
- Jack Stands
- Safety Glasses

Recommended Items

- New Down Pipe to Turbo Gasket
- New Exhaust Manifold Gasket

Contents

- 1 CorkSport Power Series Downpipe
- 1 Doughnut Exhaust Gasket
- O-2 Sensor Hole Plug
- 4 Allen Head bolts
- 14 Page Installation Instructions
- 4 Lock Washers

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WARNING: Make sure vehicle is completely cooled down prior to proceeding with this installation.

NOTE: These installation instructions are meant to be used as a guide, the use of a factory service manual is recommended. Please read these instructions thoroughly before proceeding. It is recommended that this installation be done by a professional mechanic. Installation of this part will take roughly 4 hours.

WARNING: Follow the instructions for your jack and jack stands or serious injury or death can result.

Step 1: Jack up vehicle and place securely on jack stands.

Step 2: Remove both under trays from vehicle and place coolant catch container under drain of radiator. Remove radiator drain plug to drain coolant.

NOTE: Please abide by your local laws for disposal of used coolant.

Step 3: After coolant is drained, disconnect lower radiator hose from radiator.

Step 4: Remove two 14mm head nuts and springs from exhaust to down pipe connection.

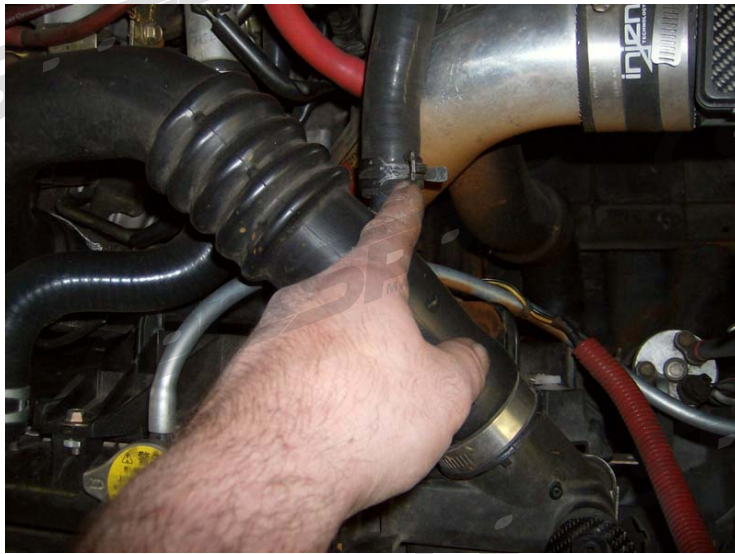


Step 5: With hood open, remove the plastic turbo charge pipe with a flat head screw driver.

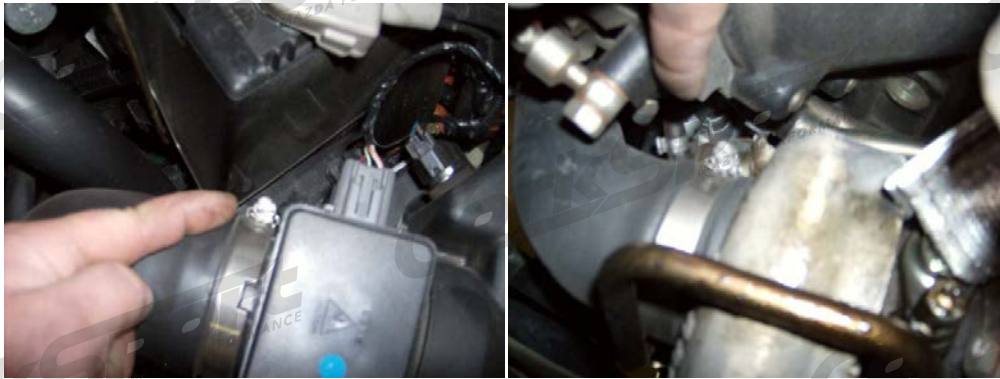


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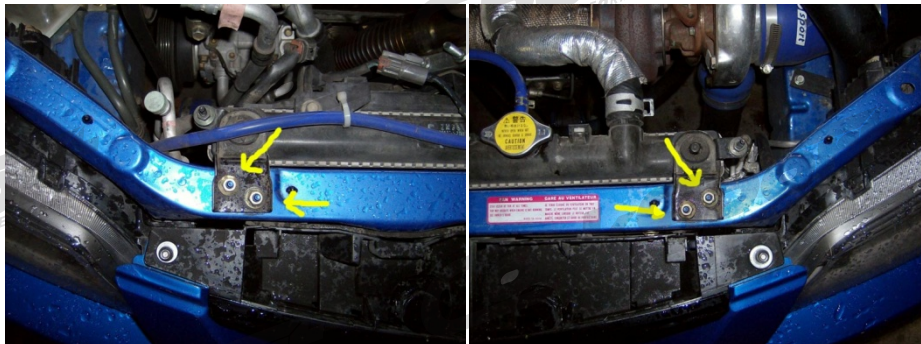
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Step 6: Remove turbo inlet pipe from turbo charger.



Step 7: Remove four (4) 10mm head nuts from radiator hold down brackets.



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Step 8: Disconnect upper radiator hose from radiator.



Step 9: Disconnect both fans and remove radiator from vehicle.



Step 10: Disconnect O-2 sensor plug for upper O-2 sensor. With an O-2 sensor socket remove O-2 sensor from exhaust manifold.

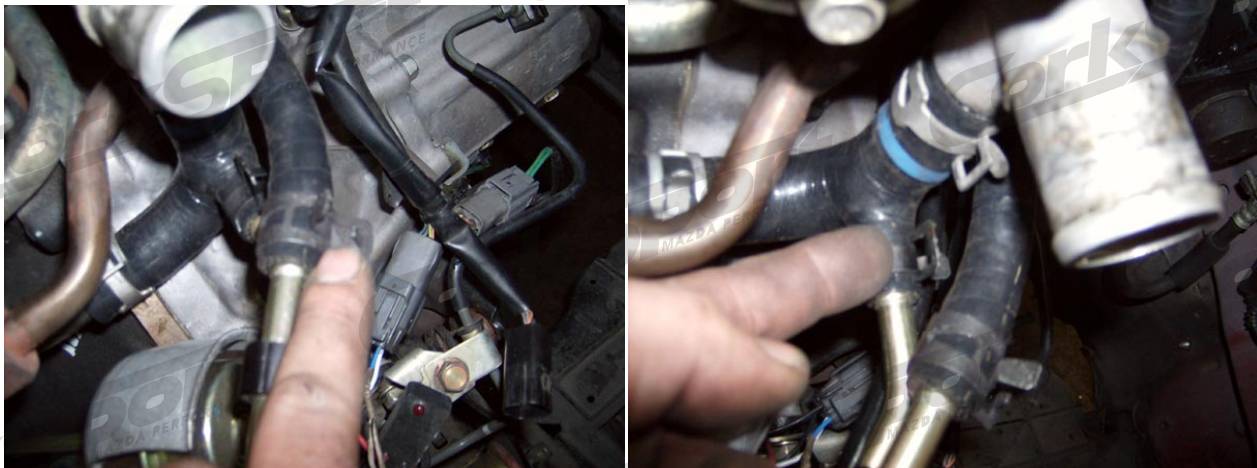


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Step 11: Remove four (4) 10mm head bolts from heat shield and remove heat shield.

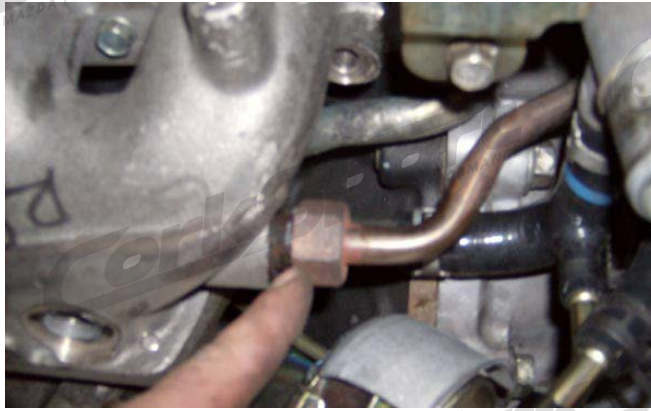


Step 12: Disconnect water feed and return lines from turbo.

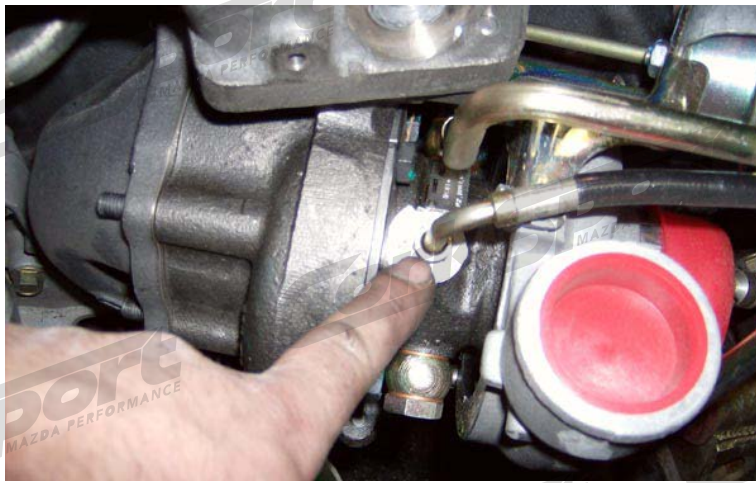


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Step 13: Using an adjustable wrench, loosen nut on EGR pipe to manifold.



Step 14: With a 12mm wrench loosen oil feed line and remove from turbo.



Step 15: Remove eight (8) 12mm head bolts and two (2) 12mm head nuts from exhaust manifold to head.



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Step 16: Remove two (2) 5mm allen head bolts from oil return line flange and remove turbo and manifold from car.

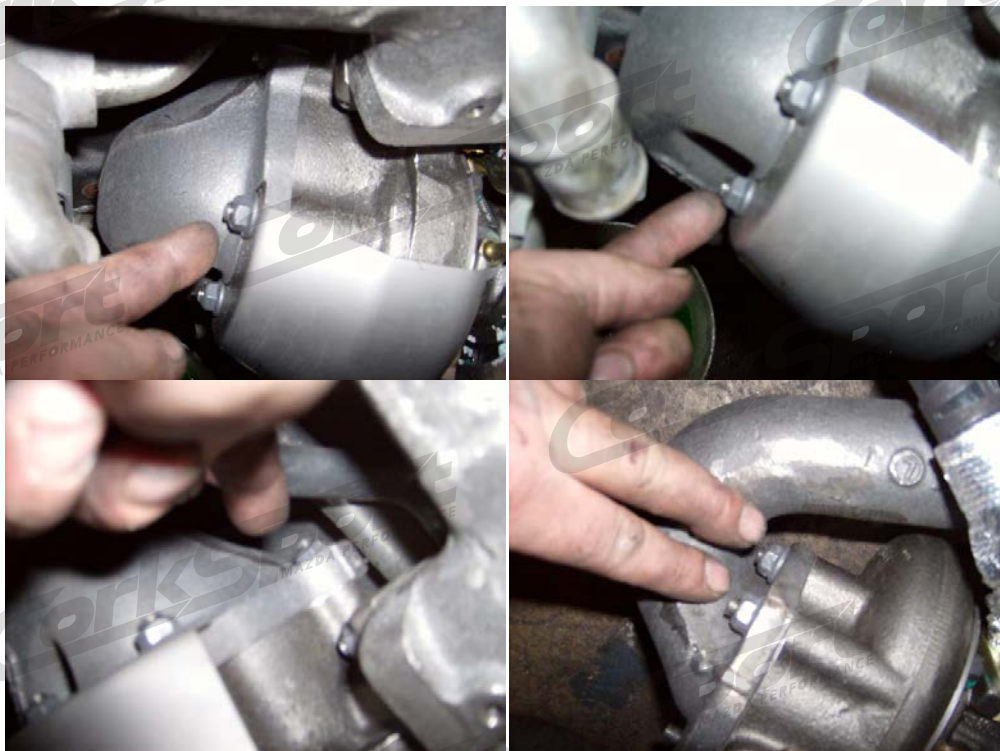


Step 17: Loosen 2 13mm bolts holding the heat shield to the turbo.



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Step 18: Remove five (5) 12mm head nuts from down pipe flange to turbo. Remove Heat shield then down pipe.



Step 19: You will need to remove the factory studs from the turbo exhaust housing. To do this you will need to thread on two of the nuts you remove onto one of the studs. Do not tighten the lower nut all the way down.



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Step 20: Tighten the top nut down onto the lower one. You then put a wrench onto the bottom nut to remove the studs from the turbo. Remove the 4 outer studs, leaving the bottom center stud. You will not be installing a bolt or nut on this stud.



Step 21: Install factory heat shield back into original position and install the four (4) Allen head bolts and tighten in a crisscross pattern. Note: Allen head bolts not shown in image below

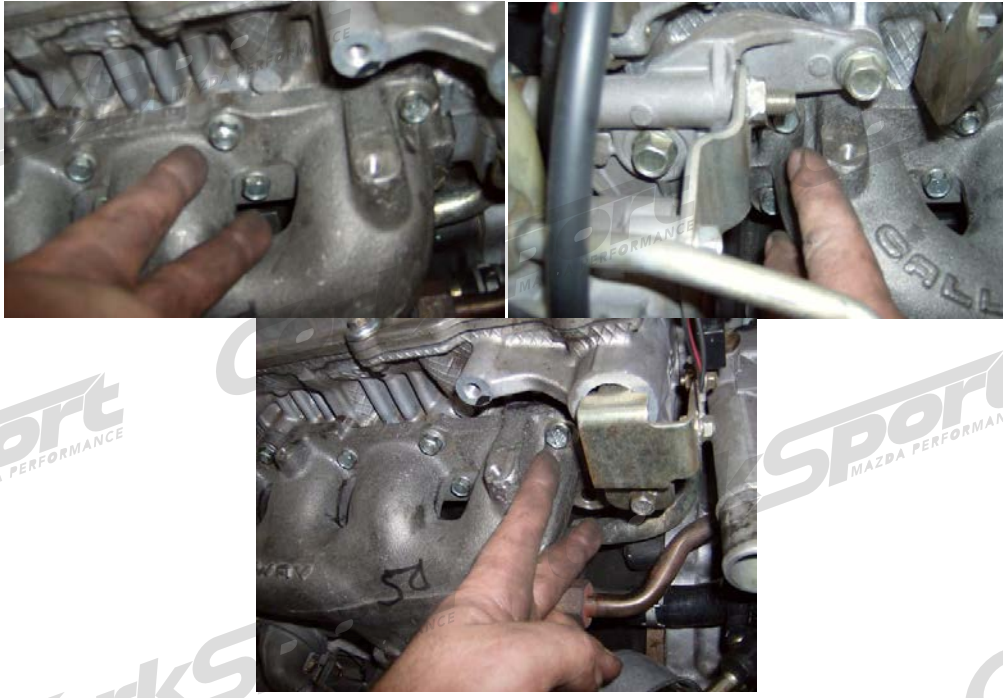


Step 22: Install new exhaust manifold gasket and reinstall exhaust manifold back onto engine with original eight (8) 12mm head bolts and 2 12mm head nuts. Tighten to 48-65ft/lbs.

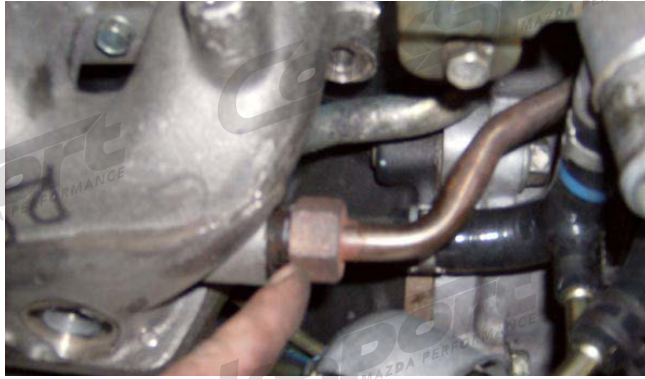


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Step 23: Reinstall EGR tube to exhaust manifold and tighten with adjustable wrench.

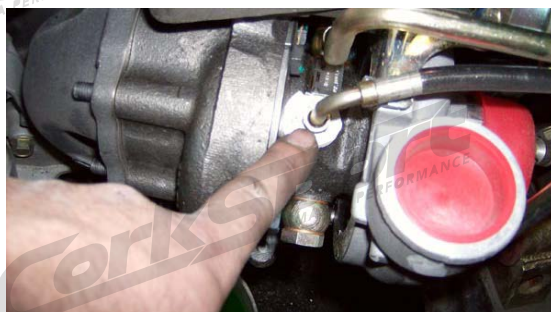


Step 24: Reconnect water feed and return hoses to turbo.



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Step 25: Reconnect oil feed line and tighten with a 12mm wrench.



Step 26: Reinstall exhaust manifold heat shield with original four (4) 10mm head bolts. Reinstall O-2 sensor into manifold.



Step 27: Reconnect turbo oil drain line with original two 5mm allen head bolts.



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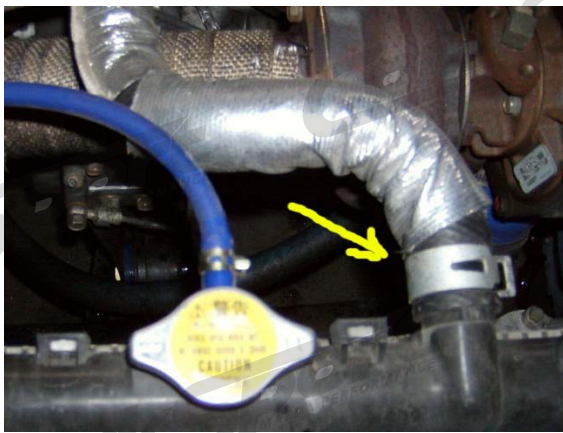
Step 28: Reconnect exhaust to down pipe with original 14mm head nuts and springs.



Step 29: Reinstall radiator with factory brackets. Reconnect fans, upper radiator hose, and lower radiator hose.



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Step 30: Reinstall turbo inlet pipe between turbo and AFM.



Step 32: Reinstall turbo charge pipe between turbo and I/C. Reconnect BOV hose to pipe.



Step 33: Reinstall under trays back on vehicle.

Step 34: Fill radiator with a fresh 50/50 mixture of antifreeze and water.

Step 35: Start up vehicle and listen for exhaust leaks, if none present, remove vehicle from jack stands and test drive. If leaks are present, double check tightness of all exhaust bolts and nuts.

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