



CorkSport Bypass Valve

All Mazdaspeed MZR Turbo Engines

Thank you for purchasing the CorkSport Bypass Valve (BPV) for the Mazdaspeed MZR engine.

Our innovative BPV improves upon the primary purpose of the OEM valve; to increase turbo life. This is accomplished by means of an innovative patent pending wave spring design and larger piston vent area. Due to the 50% shorter length of the wave spring this valve is the smallest on the market. This means more room in your cramped engine bay!

Please let us know what you think by submitting a review at: <http://www.corksport.com/corksport-mazdaspeed-mzr-bypass-valve.html>



Pre-Installation Notes:



Make sure your vehicle is completely cooled down prior to starting installation. If you are going to work on your car within an hour or two of having driven it, use a fan to cool off the car.



These instructions were written for reference only and the use of a factory service manual is recommended. Please read these instructions thoroughly prior to starting installation



These installation instructions were written using a 2013 Mazdaspeed 3. Other year MZR Engines will be similar.

Materials and Time:



General Info.

Part #: Gen-6-457
Time Est: 30 Minutes
Wrench Rating: 2/5



Tooling List

Pliers
10mm socket and wrench
Optional:
3mm Hex Wrench



Parts List

One (1) CorkSport Bypass Valve

Need Help With Your Installation?

Call (360) 260-CORK

Detailed Instructions

1. Remove the Factory Bypass Valve

- a) Remove the plastic top mount intercooler shroud. This is held on with two 10mm bolts (Circled **Figure 1a**).
- b) With a pair of pliers, pull back the vacuum signal spring clamp, and remove the vacuum line (green circle **Figure 1b**).
- c) With pliers again, reach down and pull back the large spring clamp on the bypass to intake hose. Pull the hose off of the bypass valve (green oval **Figure 1c**).

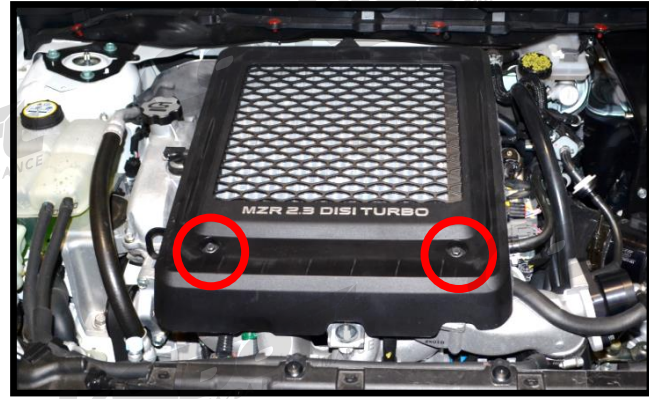


Figure 1a

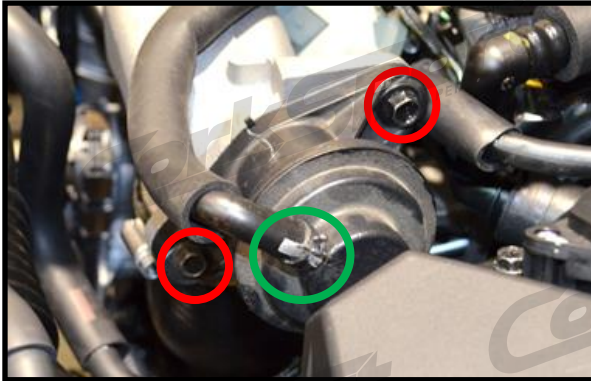


Figure 1b

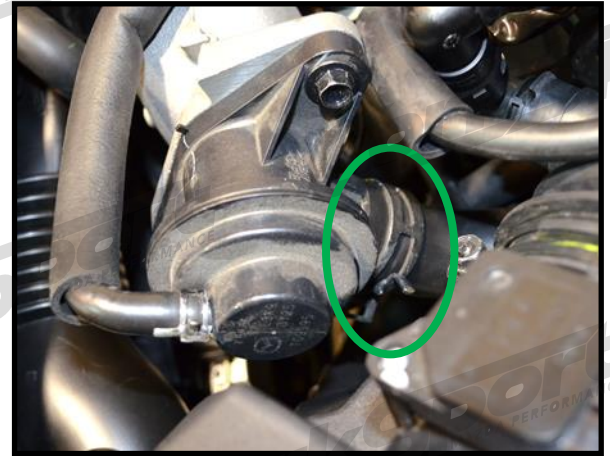


Figure 1c

- d) Using a 10mm socket wrench, remove the two 10mm bolts holding the bypass valve onto the intercooler inlet pipe (red circle **Figure 1b**).

2. Install the CorkSport Bypass Valve

- a) Transfer the bypass valve gasket from the factory valve to the CorkSport valve (**Figure 2a**).

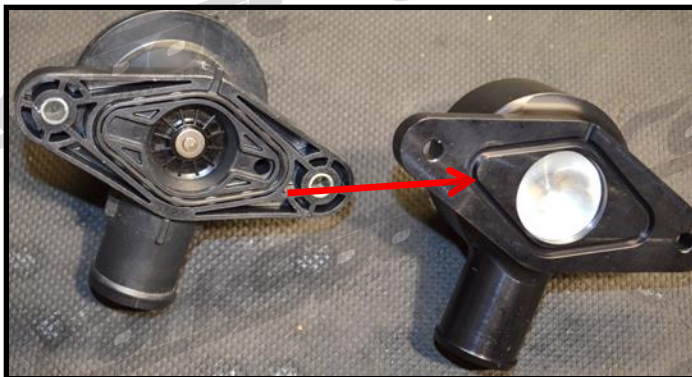


Figure 2a

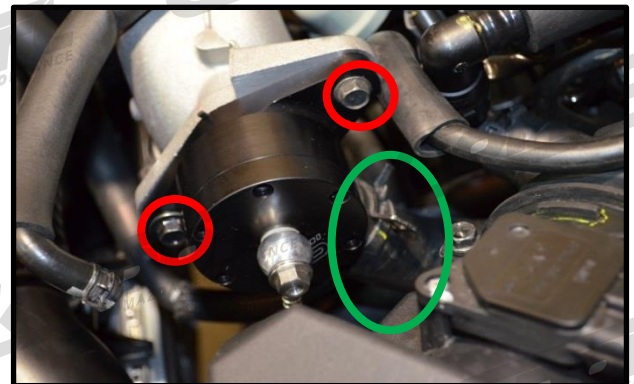


Figure 2b

- b) Insert the bypass valve back into the large bypass to intake hose and move the large spring clamp back into place (green oval **Figure 2b**).

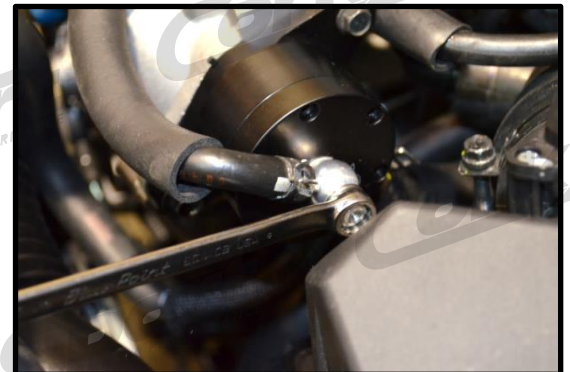


Figure 2c

2. Install the CorkSport Bypass Valve Continued...

- c) Reinstall the two 10mm bolts removed previously (red circles Figure 2b). Take care not to disturb, or accidentally fold over the gasket. Fasten the 10mm bolts to 7ft lbs.
- d) Re attach the vacuum signal line to the vacuum banjo fitting on the CorkSport Bypass Valve (Figure 2c).
- e) Rotate the banjo fitting on the CorkSport bypass valve so the vacuum line does not crimp or hit anything. Then, tighten the fitting with a 10mm wrench to 7ft-lbs.
- f) Lastly, re-install the intercooler shroud and Enjoy!

3. Periodic Maintenance and Adjustment of Your CorkSport Bypass Valve



It is recommended that you inspect the Bypass Valve every 6 months to make sure that it stays clean and is in good working condition.

- a) Disassemble the BPV by removing the 6 screws in the top of the cap with a 3mm hex wrench. Location of 3mm Hex shown in Figure 3a.
- b) Remove the wave spring and piston (Shown Figure 3a). Piston edge is visible as pointed to in Figure 3a.
- c) With a clean dry cloth, wipe the inside of the valve body, piston, and top.
- d) Re-lubricate the body, piston and spring with a light zinc based grease such as Lubriplate 105.
- e) Re-assemble the valve taking great care not to bind the piston inside the valve. Damage to the body, piston, and/or o-rings and sealing surfaces could affect the valve's performance.



Figure 3a



This completes the installation of your CorkSport BOV. Start your car and make sure it runs normally. Check out our [knowledgebase](#) for additional install information

What's Next:

[CorkSport Aluminum Oil Catch Can](#)



Enhance the reliability of your engine and improve performance and fuel economy with the CorkSport Oil Catch Can. By adding an oil catch can, you will increase the longevity of your engine by helping keep unclean crankcase vapors and oil out of the engines intake. Made of billet aluminum for strength, the Oil Catch Can has no welds to reduce failure points, and includes everything you need for a complete install. Don't let your Mazda get contaminated by sediment, crankcase vapors, or unclean oil. With the CorkSport Oil Catch Can you will remove unwanted debris that would normally contaminate the intake tract.



Need Help With Your Installation?

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