

Product Name: BOV Kompact Shortie Ford Focus
 RS 2016 2.3L Ecoboost
 Product Description: Ford Focus RS 2016 2.3L Ecoboost
 Product Number: TS-0203-1X64



IMPORTANT NOTES:

- Please thoroughly read and understand these instructions before commencing this installation.
- The thread on the cap for the vacuum source is AN-3. The standard swivel nipple can be changed to an AN-3 fitting if desired.
- Ensure that the engine is cold before installing this product.

RECOMMENDATIONS

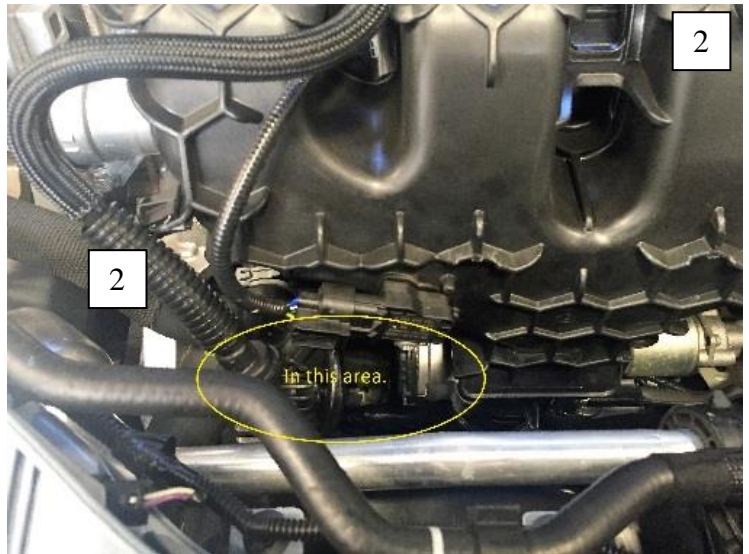
- **Turbosmart recommends that your Blow off valve (BOV) is fitted by an appropriately qualified technician**

Please check that the following items have been provided in your kit

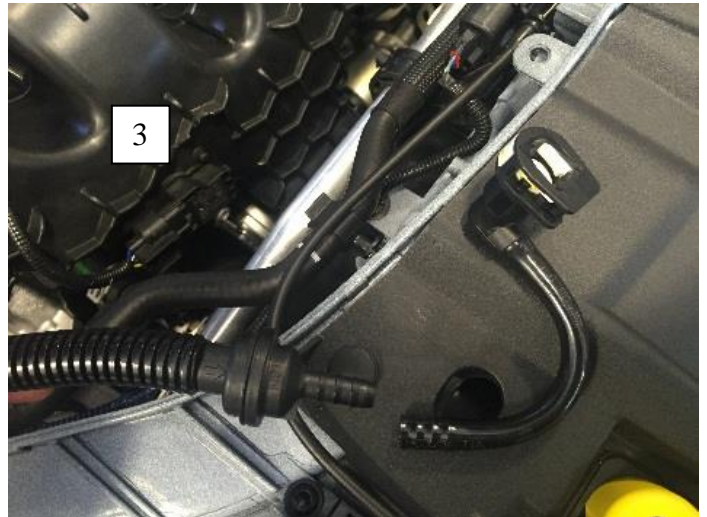
Quantity	Description	Use
1	Model specific BOV	Replace standard BOV
1	Model specific BRA and clip	Manifold pressure adaptor
3	M6x16 bolts	BOV mounting
1	1/4" straight connector	Join vacuum hose
1	6mm blank	Block OEM BOV controller valve
1	1/16 NPT blank	Blank extra BRA port
2	6.5mm 1/16NPT nipple	Nipples for BRA
1	5mm Black vacuum hose	Splice into manifold signal prior BRA for PCV valve / Signal to BOV
1	130mm PCV hose	Connect PCV to check valve
2	6mm spring clamps	Secure 6mm vacuum hose on fittings
1	Slotted hose clamp	Secure PCV hose to BRA
2	250mm cable ties	Fixing pressure lines in position
2	100mm cable ties	Fixing pressure lines in position
1	Swivel nipple assembly	Optional use on BOV

HOW TO INSTALL YOUR BOV

1. Remove the engine cover by gently pulling up on it by the corners.
2. Next you will want to remove the PCV line that is connected to the intake manifold, by lifting the coloured tabs. Ensure the coloured tabs are completely lifted prior to removal of the lines or they will not move



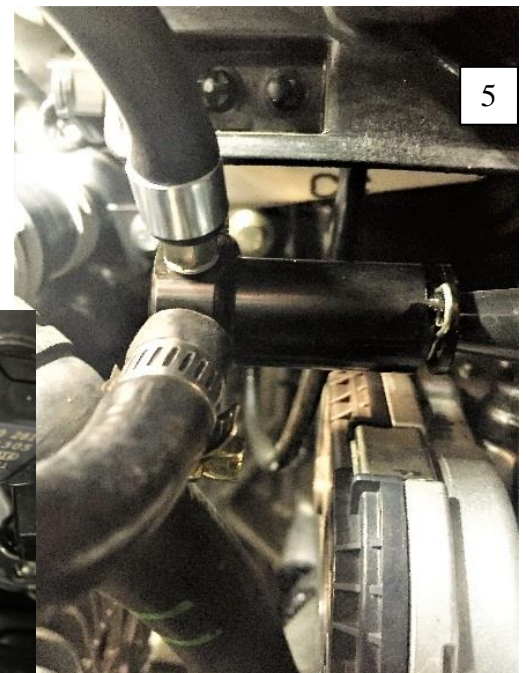
- Cut the OEM hard line tubing off the quick connect fitting by slicing down the tube in various positions and the fitting should fall out. Take care not to cause personal injury. Repeat for the PCV end of this line.



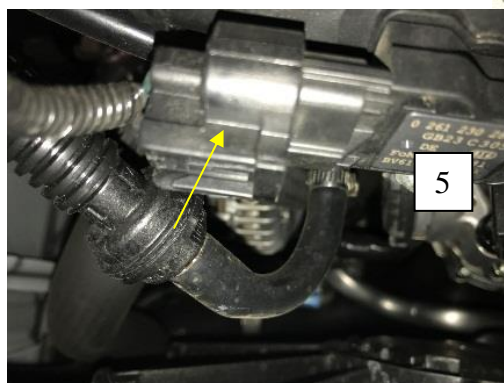
- Prep the Boost Reference Adapter by installing the included plug on the unused port of the boost reference adapter and install two vacuum/boost fittings as shown. Apply thread sealant on threads before install.



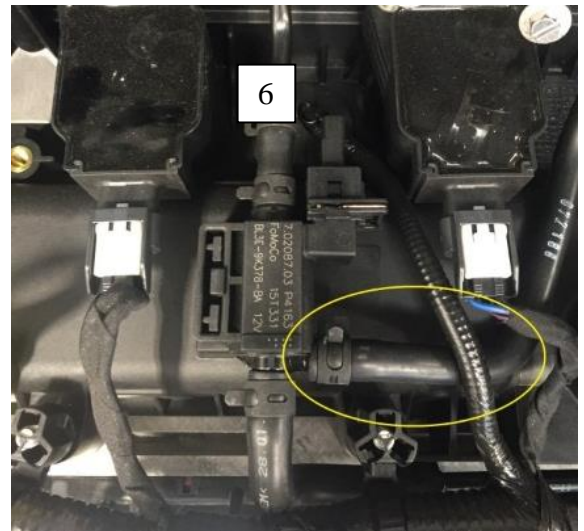
- Install Boost Reference Adapter on to the PCV fitting on the intake manifold and install the retaining clip. Hook up the PCV with the supplied 130mm PCV hose to the lower fitting, also install the supplied 5mm vacuum hose to the other post as shown below. Use slotted hose clamp and spring clamp to secure each hose in place respectively.



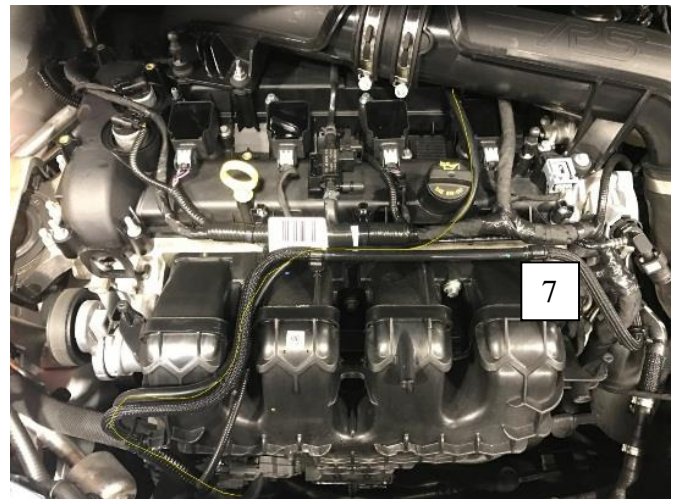
Supplied 130mm PCV hose attaches to the PCV check valve as shown.



6. On the BOV control valve, remove the following line marked in the photo from the valve and the hard line under the intake. Cap the BOV control valve with the supplied vacuum cap.



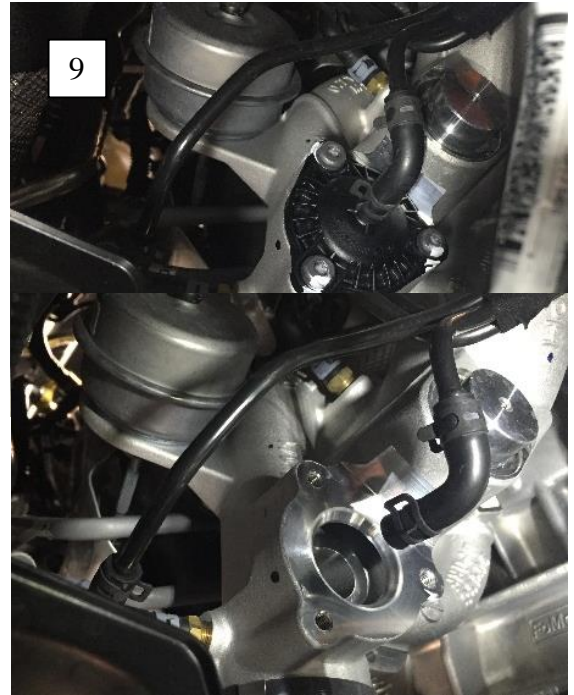
7. Now route the new 5mm ID boost/vac hose alongside of the factory PCV line attaching it with zip ties to hold it in place. You will attach the end of the hose to the hard line under the intake. See photo follow yellow line.



8. You can now reinstall the engine cover on the engine and prep the car to install the BOV.



9. Next you must gain access to the factory BOV that is located on the turbocharger. There are a few different ways to do this. If you have a lift to put the car on it will make things easier if not jack the car up “make sure you use a jack stand” and removed the right front wheel. Unhook the factory boost/vac line from the stock BOV. Next remove the 3 bolts holding the stock BOV on the turbocharger using an T30 torx bit .



10. Install your new Turbosmart BOV in the factory location. Please note that the BOV can only be fitted in one orientation. NOTE: Ensure that the BOV flange has both O-rings in place prior to installation. Use the supplied M5 bolts to secure BOV. **Torque to 6 Nm (4.23 ft.lbs)**. Install hose onto BOV fitting



11. Reinstall the wheel, safely bring the car back down onto all four tires, and enjoy your new Turbosmart BOV.
12. Start the vehicle once it is safe to do so. Check for leaks. *Consult adjusting your BOV sections for tuning.*

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ADJUSTING YOUR BOV

INSTALL THE BOV WITH THE FACTORY SETTING FIRST BEFORE PERFORMING ANY ADJUSTMENT.

Adjustment to the BOV is made by rotating the cap. To increase the spring force on the piston, rotate the cap clockwise in the direction of hard as marked on the top of the cap. To decrease the spring force on the piston, rotate the cap anticlockwise in the direction of soft as marked on the top of the cap - **CAUTION** - Do not rotate the cap beyond the O-Ring groove.

- Start with the BOV cap at the maximum soft position (The indicator O-Ring should be completely covered by the edge of the cap)
- With the engine at idle the exhaust port should be closed off by the piston – the piston should be hard against the seat and not floating or moving
- Free rev the engine and back off quickly, the engine should return to normal idle speed – if the engine drops below idle or stalls increase the spring tension by one turn
- Repeat this process until the engine free revs and returns to normal idle speed
- Test drive the car and ensure that when decelerating or changing gears that the engine has minimal backfiring and no stalling. If backfiring is excessive or stalling is noticed then check all connections made during the installation, otherwise increase the spring tension

MAINTENANCE

Turbosmart recommends that the following maintenance procedure is carried out at six monthly intervals or at higher intervals if the environment is very dusty or wet. Regular maintenance will ensure that your BOV is operating at its peak performance and will extend the working life of the product.

- Remove the cap of the BOV by rotating in an anti-clockwise direction – **CAUTION**, the cap is under spring force, remove with care!
- Carefully remove the piston and thoroughly clean the piston and the bore of the BOV
- Inspect the surface of the piston and the bore of the BOV for scoring or excessive wear, silver coloured marks on the bore are an indication of excessive wear
- Check the Base O-ring and the Cap O-ring for any damage – replace if necessary
- Lubricate the bore and the piston with Uni-Glide™, hydraulic oil or sewing machine oil – DO NOT use grease or viscous oils
- Re-assemble the BOV in the reverse order

TROUBLE SHOOTING

The following points should be checked if you find that your engine is dipping below normal idle, stalling or if the BOV is functioning poorly. Please note: the following checks will cure 99% of problems experienced with a BOV.

- Check the vacuum hose for splits, cracks, loose connection, kinking or any obstruction – old or fatigued hose may collapse under vacuum causing an obstruction.
- With the engine running remove the vacuum / boost hose from the nipple in the cap of the BOV, there should a loud hissing sound. The engine should idle poorly, double check by covering the end of the hose with your finger – otherwise the hose is blocked.
- Check to see if the BOV is blocked or contaminated with dirt or debris.
- Ensure that the vacuum / boost source is not shared and that the vacuum source is directly from the inlet manifold.
- Check the seal between the compressor cover flange and the BOV. Make sure the supplied O-Rings are installed properly and the BOV Flange is secured on the compressor cover flange with the 3 supplied screws.
- Ensure the spring clamps are secured on silicon hoses and fittings.
- If the valve does not open properly or is slow to react, it could be due to the mapping of the drive by wire system from such things as aftermarket chips and engine tunes. Check with the tuner that the mapping of the throttle is the same as OEM.
- The valve may not open if the engine is just free revved. This is due to the drive by wire system. Check that the valve operates by driving the vehicle.