

Product Name: BRA Ford F150 2013+ Ecoboost
 Product Description: Boost Reference Adapter
 Product Number: TS-0720-1005



IMPORTANT NOTES:

- Please thoroughly read and understand these instructions before commencing this installation.
- The thread on the BRA ports for the vacuum source is 1/8" NPT 28 TPI. The supplied fittings can be changed to an AN#4 fitting with the necessary adapters if desired.
- Make sure that the engine is cold before installing this product.

RECOMMENDATIONS

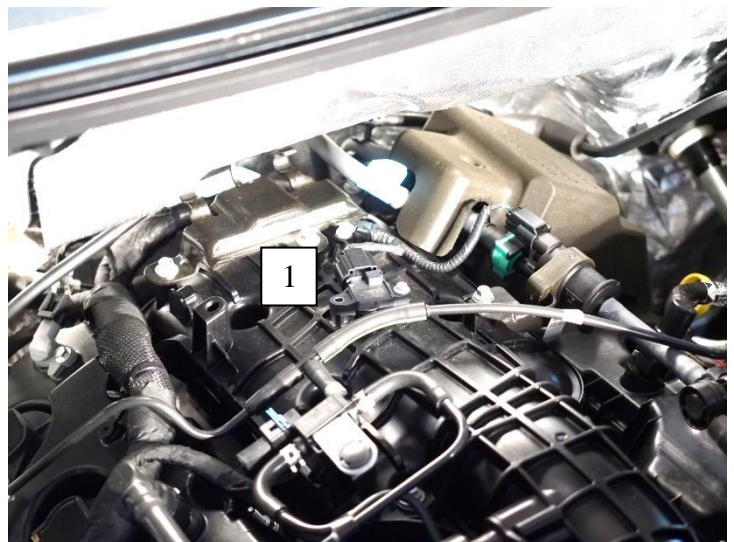
- **Turbosmart recommends that your Boost Reference Adapter (BRA) is fitted by an appropriately qualified technician**

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

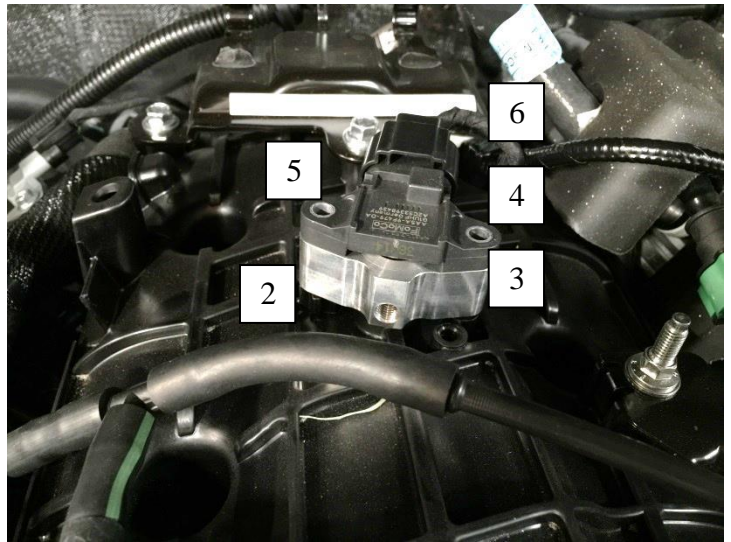
Quantity	Description	Use
1	12.00 X 2.00 O-Ring	Sealing O-Ring (MAP adapter)
1	1/8th NPT Blank	Port blank for boost reference adapter
2	1/8th NPT nipples	Provides BOV and other devices such as boost gauges with vacuum/pressure source
1	Boost reference adapter	Adapter between MAP sensor and manifold for boost/vacuum source.
1	M5x20 button head bolt	Secures OEM MAP sensor on MAP adapter
2	6mm spring clamps	Secures pressure lines
2	250mm cable ties	Fixing pressure lines in position
2	100mm cable ties	Fixing pressure lines in position

HOW TO INSTALL YOUR BOOST REFERENCE ADAPTER

1. Locate the OEM MAP sensor on the top of the intake plenum. Remove the OEM bolt holding the MAP sensor in position, note that the sensor is only secured by using **one bolt only** from factory. Unplug the MAP sensor plug off of the MAP sensor. Remove the MAP sensor by gently pulling straight up.



2. Install the supplied 1/8" NPT nipple on the MAP adapter. Blank off the second port on the MAP adapter if it is not in use. **Use thread sealant. Route the vacuum hose from the nipple towards your accessory. Use one of the supplied spring clamps to secure the vacuum hose onto the nipple.**
3. Mount the MAP adapter into the intake plenum. Ensure that the O-ring on the MAP adapter is not kinked or damaged during installation.
4. Use the OEM bolt to secure the MAP adapter onto the intake plenum. Please note that the OEM bolt will only fit into one of the screw holes on the MAP adapter.
5. Use the supplied M5 button head screw to secure the OEM MAP sensor onto the MAP adapter.
Ensure that the O-ring is not kinked or damaged during installation.
6. Re-plug the MAP sensor with the OEM plug.



TROUBLE SHOOTING

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

- Check the vacuum hose for splits, cracks, loose connection, kinking or any obstruction – old or fatigued hose may collapse under vacuum causing an obstruction.
- Check to see if the BRA is blocked or contaminated with dirt or debris.
- Ensure the spring clamps are secured on silicon hoses and fittings.
- Ensure that the internal O-ring is installed and is not kinked or torn.