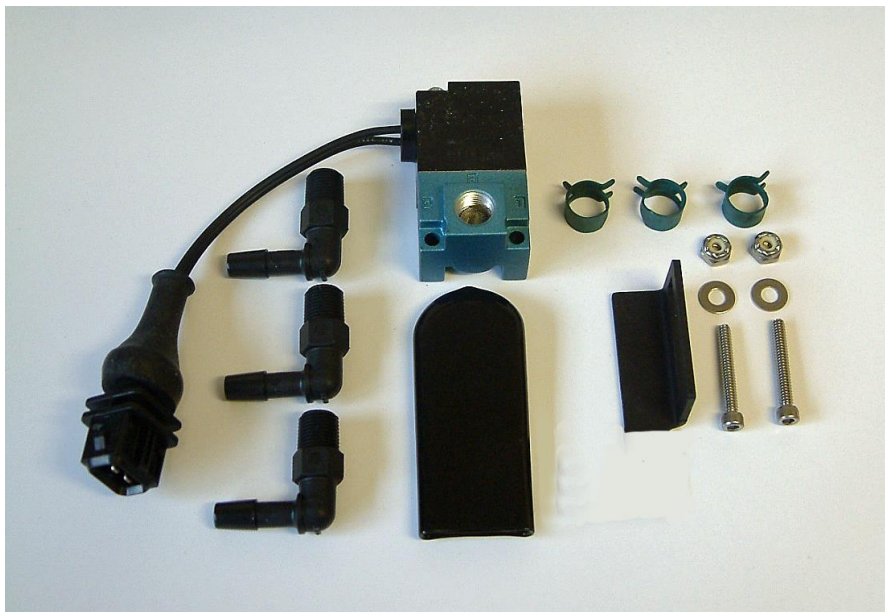
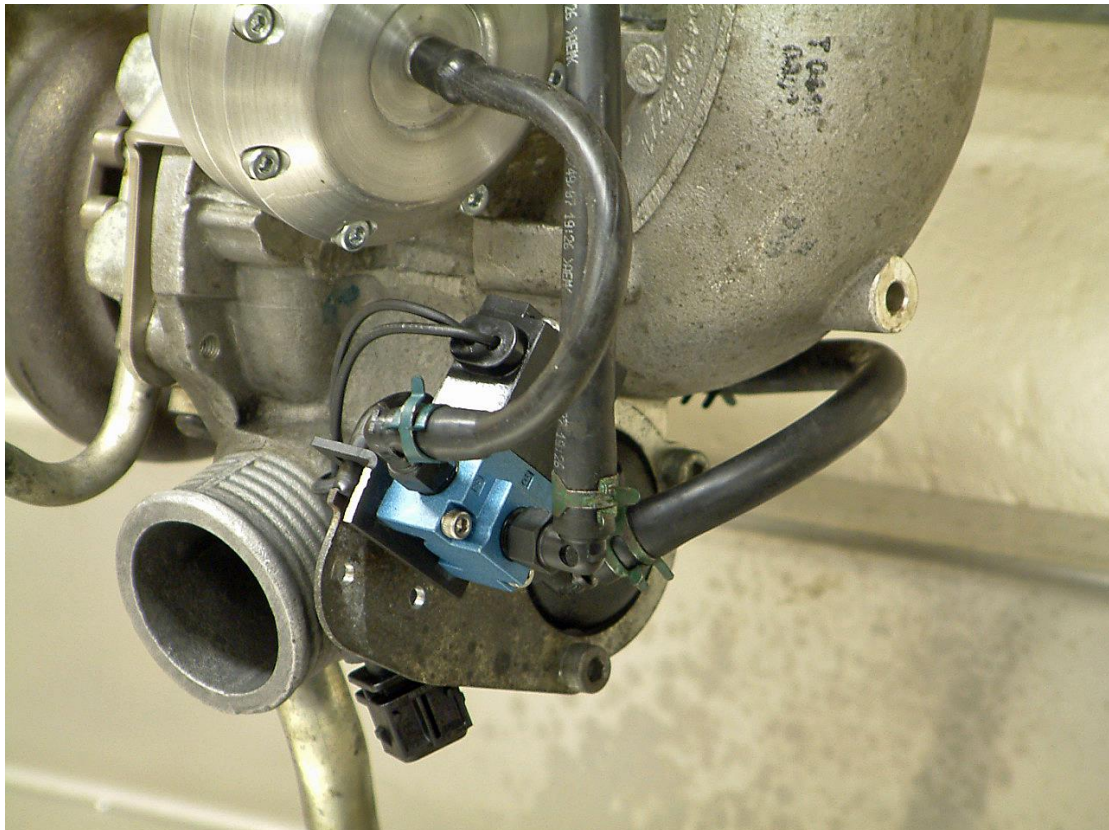


Installation Instructions HD Performance Turbo Control Valve

2005-2011 Focus ST225 model

2008-2011 Focus RS model



SUGGESTED TOOLS

10mm Spanner
Flat bladed screw driver
Pliers
3mm Allen key
8mm spanner

REMOVAL

1. Place car on ramp or jack up car and support using axle stands
2. Remove the main engine under guard
3. Remove the Turbo to intercooler hard pipe
4. Locate the turbo solenoid valve



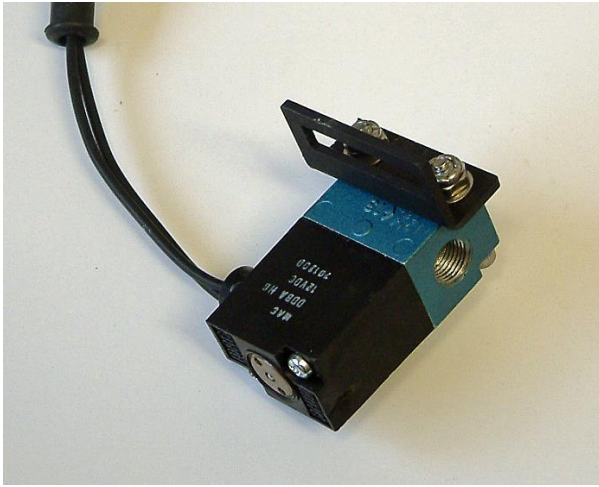
5. Remove the turbo solenoid valve from its locating bracket



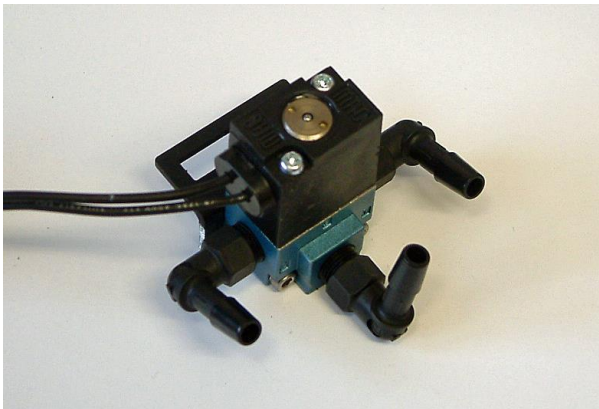
6. Disconnect the electrical connector turbo solenoid valve
7. Disconnect the three pipes from the turbo solenoid valve and remove

Installation

1. Bolt the mounting bracket onto the new Boost valve



2. Install the three port connectors – note position as illustrated – do not over tighten

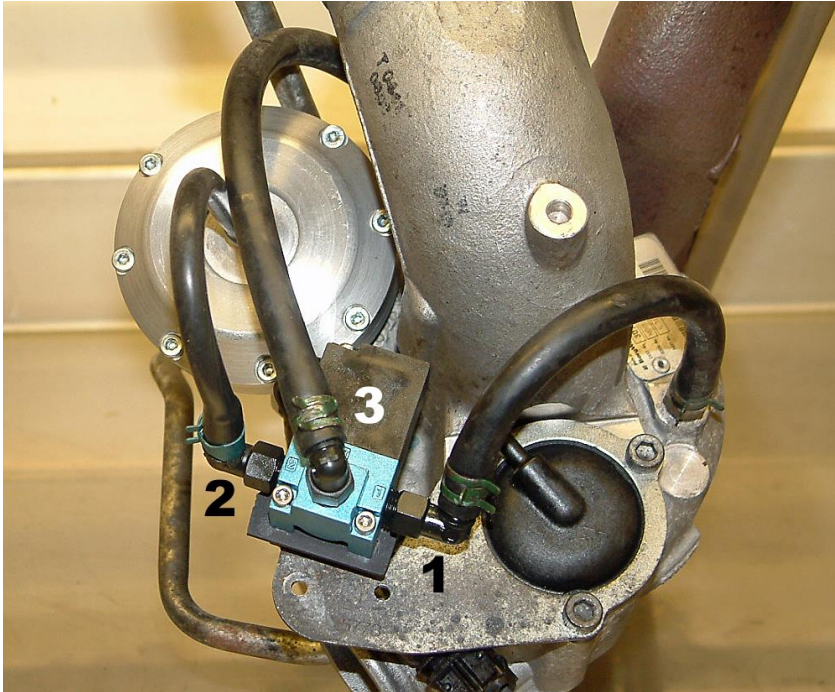


3. Trim the PVC sleeve to the correct length and install onto turbo bracket

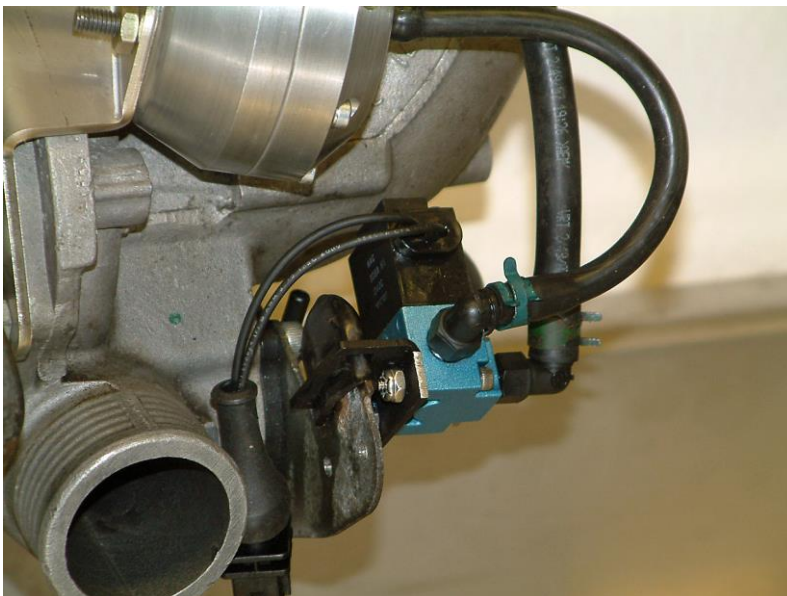


4. Position the new Boost valve and connect the three hoses **taking care to ensure that they are in the correct ports**

Port 1 – Turbo compressor cover
Port 2 - Wastegate Actuator
Port 3 – Turbo Air inlet



5. Locate the Valve assembly back onto the turbo mounting bracket or on Focus RS Mk2 cable tie the valve to the sub-frame leg



6. Reconnect the electrical connector to the valve
7. Reinstall the Turbo to intercooler hardpipe and hoses
8. Reinstall the engine under guard

INSTALLATION

Initial Drive Procedure and Warnings:

Collins Performance recommends the use of a boost gauge for proper boost monitoring when installing any aftermarket parts that affect boost or power levels in a turbo charged vehicle. The HD TCV is a high speed, high accuracy control solenoid intended for boost control and as such will expose any inconsistencies in the factory boost development system. This means that boost and power development issues you may not have been aware of may now come to your attention as they were previously masked by the factory TCV and its slower, less precise actuation. While a boost gauge is recommended, it is not required for this product. The ipd TCV operates in the same manner as the stock valve so it is well suited to stock cars as well as tuned cars. All the factory engine safety features such as knock control and boost limit are retained so the operation of the HD TCV is seamless.

Ford ST225/RS engine control units feature 'learning' software, this means the on board programmed logic in the ECU can adapt to changing conditions in certain engine parameters. Boost development is one of the parameters that the ECU monitors and can adapt to a certain degree. It is possible to drive the vehicle in a specific manner to allow the ECU to adapt to the new TCV and its characteristics. Adaptation of the TCV is not as critical in stock cars as it is for tuned cars, however both will benefit from following the adaptation sequence.

After the installation of the HD TCV drive the vehicle for 5 minutes without developing any boost pressure to allow the engine to warm up. In a safe and appropriate place, accelerate the vehicle to approx half of its maximum boost level and hold there for 5-7 seconds, then decelerate to below 30mph. Proper accelerator modulation will be necessary to control the boost level. Repeat this 4 times. Turn the engine off and wait for 12 minutes. For optimum results the above procedure should be performed twice.

Once completed be sure to closely monitor boost pressure when reaching the maximum boost target. If any inconsistencies or improper boost levels are reached, stop immediately and have a qualified technician inspect the vehicle for any of the following potential issues.

- 1. Compressor bypass valve leakage**
- 2. Boost tubing leaks**
- 3. Vacuum line leaks, vacuum elbow leaks**
- 4. Incorrect waste gate setting**
- 5. Stored codes in the engine control module**
- 6. Proper installation of the TCV**

Correct any problems and/or diagnose any on board trouble codes before continuing. If you experience any inconsistencies or improper boost levels, re-install the factory valve and call our customer service line at **01260 279604** for assistance.



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