

# Fitting Instructions

Revo IS38 ETR V2 Turbo VAG 2.0 TSI/TFSI MQB

Fitting Difficulty



Dealer Fit Only

## Contents

Description	
ETR V2 Turbocharger Unit	1
Manifold Studs	4
Manifold Nuts	4
Manifold Gasket	1
Oil Feed Pipe	1
Oil Return Pipe	1
Oil Feed Pipe O-ring	2
Oil Return Top O-ring	1
Oil Return Bottom O-ring	1
Oil Filter	1

**DEALER FIT ONLY!**



Before starting, please ensure that the battery is disconnected and the engine is cool. Engine temperatures can remain high for a substantial amount of time after use.



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**THIS IS A DEALER FITMENT ONLY PRODUCT AND MUST BE INSTALLED AND SET-UP AT A REVO AUTHORISED DEALER.**

**MODIFICATIONS, ALTERATIONS OR COMPONENT CHANGES TO THE ETR WILL RESULT IN THE WARRANTY BEING NULL AND VOID.**

**The below fitting instructions are mandatory for covering your ETR V2 turbocharger against any claim from a potential failure.**

If you are fitting the ETR V2 as a replacement for a failed unit it is CRITICAL to identify the cause of the previous turbocharger failure and rectify the cause before installing the new ETR V2, or else the new turbocharger could fail as well.

Equally it is recommended and good practice to check the points below, even if the turbocharger appears to be running fault free.

Common turbocharger failure causes to look for are:

**OIL STARVATION** - Can be caused by:

Broken or restricted oil feed pipes.

Long periods of no use.

Blockages (carbon deposits, kinked oil pipe).

Turbo not primed with oil correctly when fitted – **See fitting guide point 10.**

**CONTAMINATED OIL** - Can be due to:

Poor quality oil/vehicle maintenance.

Dirt introduced during service.

Carbon deposits, water, fuel or engine debris present in the oil feed.

**FOREIGN OBJECT DAMAGE** - Can be a result of:

Dirt or particles in the air filtration system.

Debris left in the air intake system from a previous turbo failure.

Broken valves/spark plugs etc.

Even the smallest objects can cause serious damage to your turbocharger.

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- 1 Always find out why the previous turbocharger failed first, as above, and perform corrective maintenance.
- 2 Check the ETR V2 turbo for any damage which may have occurred during transit. If damaged, do not fit, contact your account manager or support. Make sure the rotor assembly rotates freely.
- 3 The wastegate actuator is pre-set to a specific setting, do not adjust (call our technical department for assistance if needed +44 (0) 1327 301901).
- 4 New oil feed/return pipes with O-rings are supplied and **MUST** be fitted. LIQUID SEALANT MUST NOT BE USED IN OIL FEED CONNECTIONS, if used it will invalidate the warranty. Be sure the oil return pipe flange is clean, also make sure the area in which you are fitting the turbocharger is free from dirt and other particles which could cause damage to the turbocharger.
- 5 Check the exhaust and manifold flanges for any cracks or damage. Make sure the surfaces are free from any old pieces of gasket or debris.
- 6 Make sure the intercooler is clean and free from debris which could be present from a failed turbocharger fitting.
- 7 Make sure the whole air intake system is clean and free from any debris before connecting.
- 8 Drain engine oil and replace the oil filter (supplied), the oil filter must be primed, and the correct grade oil used.
- 9 Mount the turbocharger on the exhaust manifold using the correct gasket (supplied). Tighten the nuts (supplied) to the manufacturer's specified torque.
- 10 **Fill the turbocharger's oil feed hole with oil and rotate the rotor by hand.** This will help prime the turbocharger. Use of a syringe at this point can be helpful and avoid excess oil spillages.
- 11 Install the new oil supply pipe with O-rings (supplied). The new oil return pipe (supplied) can be installed, but only install onto the turbo at this stage, using the O-ring (supplied), leave the other end free.
- 12 Replace the engine oil ensuring only the correct, manufacturer specified, oil grade is used.
- 13 Disconnect the ignition system or fuel supply so the engine will crank without starting.

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- 14 Crank the engine over and until a strong flow of oil can be seen flowing freely out of the open oil return pipe, using a suitable container to collect the oil. This ensures there is good supply of oil to the turbo and that all air-pockets are removed from the turbocharger oil supply.
- 15 Once a good oil supply has been confirmed the return pipe can be fitted to the engine using the O-ring (supplied).
- 16 Connect the air intake hose and discharge intercooler hose to the turbocharger. Check that all boost hoses are connected and secure; failure to do this can lead to over-speeding of the turbo and voiding of your warranty.
- 17 Crank the engine until the oil pressure warning light goes out.
- 18 Reconnect the ignition system or fuel supply.
- 19 Connect VCDS system to allow logging of the specific blocks as detailed in the data sheet for the software. The vehicle data must be logged the first time the vehicle is driven/put under load, so read through the data sheet PRIOR TO STARTING the engine to ensure you have everything set up correctly for the road test.  
  
**Failure to provide logs from first drive of the car will void any warranty on the turbo.**  
  
\*\*\*The vehicle is now ready to be started\*\*\*
- 20 Once started, idle for 5 minutes checking the turbocharger for any oil or air/exhaust leaks (soapy water can be sprayed over any air connections to look for air leaks).
- 21 Monitor/log the vehicle from start-up after installation; this will enable you to see any potential issues before you put the vehicle under full load. Ensure data logs are taken on every road test. Initially run in the lowest mode and monitor the required/actual boost control along with the actuator values to make sure the turbo is not working too hard and is actually making boost (driving with an air leak will cause the turbo to overspeed and cause damage), then check that the fuel pressures and ignition timing are within tolerance, use the data sheet as a reference. Continue to log all the necessary data-blocks (this may need several runs) and go through the different tuning modes, whilst checking everything is still okay. The car will adapt within the first drive anyway and of course specific data values will change dependant on the conditions.
- 22 Give the "Assembly Build Sheet" to the customer along with the "Customer Pack".

Please refer to the next page for the full fitting kit with a breakdown and description of each part in the kit. You should have received the full kit, as detailed, and all parts must be fitted.

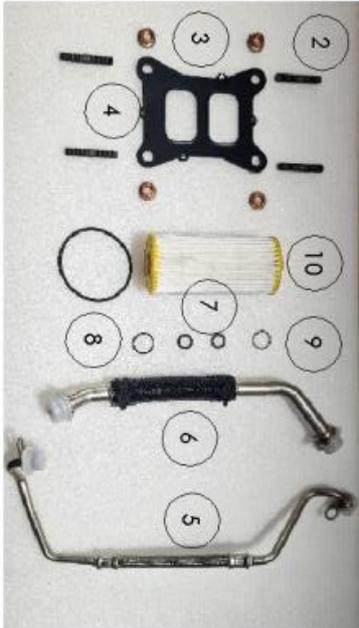
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No.	Description	Qty.
1	Revo IS38 ETRV2 Turbo	1
2	IS38 Manifold stud	4
3	IS38 Manifold nut	4
4	IS38 Manifold gasket	1
5	06K145778AS Oil feed pipe	1
6	06K145735F Oil return pipe	1
7	WHT006123 Oil Feed O-ring	2
8	WHT006112 Oil return O-ring bottom	1
9	WHT0016113 Oil return O-ring top (green)	1
10	06L115562B Oil filter MQB (inc. O-ring)	1
11	Turbo box foam kit	1
12	Packaging - Turbo box	1

**revo**

TITLE: **RV581 M100102 Working Instructions**

SIZE: **A** DWG. NO.: **00** REV: **00**

SCALE: 1:1 SHEET 1 OF 1