

Sourcefy GRT-TBO-P32

Garrett PowerMax Turbocharger Stage 2 Upgrade

MODEL: GRT-TBO-P32

Manufactured by Sourcefy

1. Introduction

This manual provides essential information for the installation, operation, and maintenance of your Sourcefy Garrett PowerMax Turbocharger Stage 2 Upgrade, model GRT-TBO-P32. Designed for 2014-2018 VW/Audi 2.0L TSI MK7 engines, this turbocharger is engineered to enhance vehicle performance and efficiency. Please read this manual thoroughly before installation and operation to ensure proper function and longevity of the unit.

2. Product Features

- **High-Quality Construction:** Made with the highest quality components available to ensure durability and performance.
- **Performance Tested:** Each unit undergoes rigorous pressure and computer testing for consistent quality and unsurpassed reliability.
- **Stage 2 Upgrade:** Engineered to provide significant performance enhancement for compatible VW/Audi 2.0L TSI MK7 engines.

3. What's in the Box

Upon opening the packaging, please verify that all components are present and undamaged. The package for the GRT-TBO-P32 Turbocharger includes:

- 1 x Garrett PowerMax Turbocharger Unit



Figure 3.1: Front view of the Garrett PowerMax Turbocharger unit.



Figure 3.2: Angled view of the Garrett PowerMax Turbocharger, highlighting the exhaust housing and actuator.



Figure 3.3: Side view of the Garrett PowerMax Turbocharger, showing the compressor housing and electrical connections.

4. Setup and Installation

WARNING: Installation of this turbocharger requires specialized tools, knowledge, and experience. Improper installation can lead to severe engine damage, personal injury, or void the product warranty. It is highly recommended that installation be performed by a certified automotive technician or a reputable performance shop.

Before beginning installation, ensure the vehicle's engine is cool and disconnected from its power source. Refer to your vehicle's service manual for specific instructions regarding turbocharger removal and installation procedures for your VW/Audi 2.0L TSI MK7 engine.

Key Considerations for Installation:

- **Oil and Coolant Lines:** Ensure all oil feed and return lines, as well as coolant lines, are clean, free of debris, and properly sealed to prevent leaks.
- **Gaskets and Seals:** Always use new gaskets and seals during installation to ensure a proper, leak-free fit.
- **Torque Specifications:** Adhere strictly to the manufacturer's torque specifications for all fasteners.
- **Pre-Lubrication:** Before starting the engine, pre-lubricate the turbocharger by filling the oil inlet with clean engine oil and manually rotating the compressor wheel to distribute oil.

- **ECU Tuning:** A Stage 2 turbocharger upgrade typically requires a corresponding Engine Control Unit (ECU) recalibration or tune to optimize performance and ensure engine safety. Consult with a professional tuner.

5. Operating Principles

A turbocharger is a forced induction device that increases an internal combustion engine's efficiency and power output by forcing extra air into the combustion chamber. It consists of a turbine and a compressor connected by a shaft.

1. **Exhaust Gas Utilization:** Hot exhaust gases from the engine are directed through the turbine housing, causing the turbine wheel to spin at very high speeds (up to 250,000 RPM).
2. **Compressor Action:** The spinning turbine drives the compressor wheel, which is located on the same shaft. The compressor draws in ambient air, compresses it, and then forces this denser, pressurized air into the engine's intake manifold.
3. **Increased Power:** By supplying more air to the engine, more fuel can be burned, resulting in a significant increase in power and torque compared to a naturally aspirated engine of the same displacement.

The Garrett PowerMax Stage 2 Turbocharger is designed to optimize this process for enhanced performance in compatible vehicles.

6. Maintenance

Proper maintenance is crucial for the longevity and optimal performance of your turbocharger. Neglecting maintenance can lead to premature failure.

- **Regular Oil Changes:** The turbocharger's bearings are lubricated by engine oil. Use high-quality synthetic engine oil and adhere to or exceed the manufacturer's recommended oil change intervals. Dirty or low-quality oil is a primary cause of turbocharger failure.
- **Oil Filter Replacement:** Always replace the oil filter with each oil change to ensure clean oil circulation.
- **Air Filter Inspection:** Regularly inspect and replace the engine air filter. A clogged air filter can restrict airflow, causing the turbocharger to work harder and potentially leading to damage.
- **Cool-Down Period:** After spirited driving or long journeys, allow the engine to idle for a minute or two before shutting it off. This allows the turbocharger to cool down and ensures proper oil circulation to the bearings, preventing oil coking.
- **Check for Leaks:** Periodically inspect all oil and coolant lines connected to the turbocharger for any signs of leaks or damage.
- **Listen for Unusual Noises:** Pay attention to any new or unusual sounds coming from the turbocharger area, such as whining, grinding, or whistling, which could indicate a problem.

7. Troubleshooting

If you experience issues with your turbocharger, consider the following common problems and potential causes. For complex issues, always consult a qualified automotive technician.

Symptom	Possible Cause	Action
Loss of Power / Reduced Boost	Boost leak, clogged air filter, faulty wastegate/actuator, ECU issue.	Check hoses and clamps for leaks. Inspect air filter. Consult technician for diagnostics.

Symptom	Possible Cause	Action
Excessive Smoke from Exhaust	Oil leaking into exhaust (blue smoke) or intake (black smoke). Worn turbo seals.	Immediately consult a technician. Continued operation can damage catalytic converter.
Unusual Whining/Grinding Noise	Bearing wear, foreign object ingestion, compressor/turbine wheel contact with housing.	Stop driving the vehicle. Seek professional inspection immediately.
Oil Leaks Around Turbocharger	Loose oil lines, damaged seals, excessive crankcase pressure.	Inspect connections. Check PCV system. Consult technician.

8. Specifications

Attribute	Detail
Manufacturer	Sourcefy
Brand	Sourcefy
Product Model	Turbocharger
Item Model Number	600
Manufacturer Part Number	GRT-TBO-P32
ASIN	B0D2Y21Y83
Exterior Finish	Machined
First Available Date	April 29, 2024
Compatibility	14-18 VW/Audi 2.0L TSI MK7

9. Warranty and Support

Your Sourcefy Garrett PowerMax Turbocharger Stage 2 Upgrade (GRT-TBO-P32) is backed by a **6 Months Unlimited Warranty** from the date of purchase. This warranty covers defects in materials and workmanship under normal use and service.

Warranty Exclusions:

- Damage due to improper installation, abuse, neglect, or accident.
- Damage caused by foreign object ingestion, lack of lubrication, or contaminated oil.
- Modifications or repairs performed by unauthorized personnel.
- Normal wear and tear.

For warranty claims or technical support, please contact Sourcefy customer service. Please have your purchase receipt and product model number (GRT-TBO-P32) ready when contacting support.

Contact Information:

Please refer to the contact details provided with your purchase or visit the official Sourcefy website for the most current support information.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question