

Congratulations on your purchase of the AWE Tuning Exhaust System for 07-> 997 GT3 / GT3 RS. Exquisite hand built quality with industry leading performance distinguishes this exhaust system from all others.

# Estimated install time:

4.0 - 4.5 hrs for complete system

### Parts list for System:

- 2 header section (driver and passenger side specific)
- 2 catalytic converter section (driver and passenger side specific)
- 2 exhaust muffler can (driver and passenger side specific)
- 2 tailpipe section
- 2 tip (Diamond Black finish optional)
- 4 3.00" t-bolt band clamp
- 2 muffler strap with bolt
- 2 olive/clamp assembly with hardware
- 2 V-band clamp
- 1 vacuum cap
- 1 O2 sensor port cap

## Installation of this exhaust system is very straight forward.

Installation of this exhaust can be completed on jack stands or ramps. Never work under a vehicle only supported by a jack. If you do not feel comfortable installing this system yourself, contact a local professional for installation.

**Step 1:** Before removing factory parts, note the position of the primary and secondary O2 sensors. Soak the header cylinder head bolts with penetrating oil before removal.

**Step 2:** Remove factory rear muffler with tips, fender well mufflers, and header/cat sections. Disconnect vacuum lines from factory fender well muffler flap assemblies and **cap the exposed line still attached to the vehicle with the enclosed vacuum cap**.



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**Step 3:** Install AWE Tuning header sections (driver and passenger side specific), reusing factory cylinder head bolts. Loosely install an olive/clamp assembly on the outlet of each header (at Arrows A in Figure 1 below).

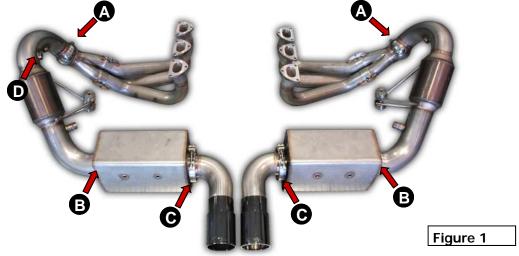
**Step 4:** Install AWE Tuning catalytic converter sections. Reinstall factory O2 sensors, making sure the primary O2 sensor installs before the catalytic converter on each side. Reuse the factory mounting bolts to attach AWE catalytic converter sections to factory the mounting points that were used for the fender well mufflers. Install the O2 sensor port cap into the additional O2 sensor port (At Arrow D in Figure 1 below). This additional port can be used for air/fuel monitoring via an additional on board gauge or on a chassis dynamometer.

**Step 5:** Install AWE Tuning muffler sections (without tailpipes or tips) on the factory rear muffler bracket still attached to the engine, using the supplied muffler straps. Use two of the 3.00" t-bolt band clamps to fasten the muffler cans to the catalytic converter sections (at Arrows B in Figure 1 below). Leave these clamps and the muffler straps loose at this time. Using the enclosed V-band clamps (at Arrows C in Figure 1 below), attach the tailpipes to the muffler cans.

**Step 6:** Adjust all sections so that there is no undue stress on any components, and so all slip joints are overlapping properly. Slide the muffler cans laterally to account for tip spacing in bumper cut-out. Once everything is properly aligned, test fit the tips for spacing between them (allow for at least 5/8") and then tighten down the olive/clamp assembly bolts, t-bolt clamps, V-band clamps, and exhaust muffler straps. Use the remaining two enclosed 3.00" t-bolt clamps to attach the tips to the tailpipes.

**Step 7:** After fully warming up the system, ensure that there are no leaks, and also ensure that the tips are not touching each other. If the tips are touching each other, loosen muffler clamps and slide laterally away from each other to provide clearance.

If the optional tailpipe turndowns were ordered for track use, install them by simply loosening the t-bolt clamps holding the tips to the tailpipes and substituting the turndowns in place of the tips. *Because sound volume measurement depends on the actual location where the sampling is conducted at the track, no guarantees are implied or made regarding compliance of this system with any track sound volume limits.* 



#### \*\*\*FOR OFF ROAD USE ONLY\*\*\*

Please note that due to the use of high flow catalytic converters, our exhaust section is legal only for racing vehicles which may never be used upon a highway.

Any questions or comments, please do not hesitate to contact us:

#### 1-888-565-2257

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# **Dyno Testing Notes:**

A good cooling fan system is one that produces air **velocity**, not just air volume. Typically, dyno shops use large diameter fans that tend to move a lot of air, but at a slow velocity. These large fans do not produce the immediate cooling effect that the engine needs for optimal power.

To quickly gauge the air velocity of the fans being used, feel the air coming out of them. It should begin to push your hand away. If it does not, your results will not be valid due to how sensitive the fuel injection computer is to coolant and intake air temperature. improper cooling can cause intake air and coolant temperatures to rise, and only a few degrees difference can cause the computer to jump to a more conservative ignition timing map, skewing results artificially.

Proper fan placement includes several fans across and in close proximity to the front of the vehicle to cool the coolant radiators, as well as a high velocity fan pointing into the open engine bay. Be sure not to point the engine fan directly at the inlet of the airbox, or turbulence will be created at the Mass Air Flow (MAF) sensor, skewing results artificially.

Be sure that the actual test time is realistic to the gear that the car is in and the start and stop speeds. For example, a 15-20 second test from 35 to 120 mph simulates a realistic condition found in street or track driving. A 30-40 second test from 35 to 120 mph is never something that you would find during street or track driving, and is unnecessarily abusive to the engine, skewing results artificially.

If the dyno shop you choose to use has a poor fan setup, we recommend using 3rd gear in which to do your testing. Dyno testing in 3rd gear will lessen the strain on the engine, and will reduce the excessive intake temperatures seen from a less than sufficient cooling fan system.

At least a 2 minute cool down between dyno runs is recommended to allow heat trapped in the coolant system to be dissipated. It is recommended to run the vehicle at part throttle between runs to allow the water pump to circulate coolant to the radiators quickly.

Typically it takes at least 8 runs per test session for power to stabilize on the GT3/GT3 RS. This is due to warmup programming in the fuel injection ECU and adaptation to the dyno loads. Unless power has peaked and remains constant for at least 3 runs, your results may not be valid. Establishing that power remains constant from run to run is the only way to ensure that the fuel injection computer is not in warmup or adaptation mode. This same control must be applied to both stock and modified testing of the vehicle.

If power **drops** from run to run, the vehicle needs to be cooled down as the heat in the intake and coolant systems is causing the fuel injection computer to reduce ignition timing in response.

The above steps **must** be taken in order to obtain valid dyno test results from the 997 GT3/ GT3 RS.



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Thank you for choosing A.W.E. Tuning as your performance automotive parts supplier. Please remember that a performance car is only as strong as its weakest link. Therefore, it is vital that you maintain your vehicle to factory specifications.

# By installing or using the purchased product, the Consumer accepts this warranty and any specific Manufacturer warranties enclosed.

# Limited Warranty

The following warranty is valid only in the United States.

The Manufacturer's full warranty applies to all products sold.

Secor Ltd. (A.W.E. Tuning) warrants to the original retail purchaser (Consumer) the following:

997 GT3 / GT3 RS Exhaust System Catalytic Converters against defects for 1 YEAR. 997 GT3 / GT3 RS Exhaust System balance of components against defects for LIFETIME.

Upon verification of warranty coverage, A.W.E. Tuning will repair or replace the defective product at their discretion, without charge. This is the only remedy the Consumer has for any loss or damage, however arising, due to nonconformity in or defect of the product. This warranty does not cover consequential damage, loss of time or revenues, inconvenience, loss of use of vehicle, damage to the vehicle or components, or other incidental or indirect damage.

All warranties are void if the product was not installed by a certified auto mechanic, improperly serviced, modified, or used in a way not intended by the Manufacturer. Use of product in Motorsports or Racing conditions is grounds for warranty denial. Motorsports and Racing is an inherently abusive operational condition, and it is impossible to warranty for this type of usage.

The Consumer is responsible for ensuring that the product is installed in a safe and proper manner, and should cease usage of the product immediately if an unsafe or improper condition is noted. If an unsafe or improper condition is noted, the Consumer should then immediately contact the facility where the product was installed or A.W.E. Tuning directly.

Please contact the original place of purchase for any warranty claims or explanations of this document.