



## INSTALLATION GUIDE: AWE GR Toyota Supra Track and Touring Exhaust

For up-to-date fitment information, please visit the product page on <u>AWE-Tuning.com</u>.

#### THIS GUIDE IS INTENDED FOR THE FOLLOWING PART NUMBERS:

3015-32116	AWE Track Edition Exhaust for A90 Supra - 5" Chrome Silver Tips
3015-33130	AWE Track Edition Exhaust for A90 Supra - 5" Diamond Black Tips
3020-32058	AWE Non-Resonated Touring Edition Exhaust for A90 Supra - 5" Chrome Silver Tips
3020-33072	AWE Non-Resonated Touring Edition Exhaust for A90 Supra - 5" Diamond Black Tips
3015-32118	AWE Resonated Touring Edition Exhaust for A90 Supra - 5" Chrome Silver Tips
3015-33132	AWE Resonated Touring Edition Exhaust for A90 Supra - 5" Diamond Black Tips
3815-11052	AWE Touring-to-Track Conversion Kit for A90 Supra
3820-11044	AWE Track-to-Touring Conversion Kit for A90 Supra
3815-11054	AWE Touring Edition Rear Section Conversion for A90 Supra

Welcome to the AWE family, and congratulations on your purchase of the AWE Exhaust system for the A90 Toyota GR Supra.

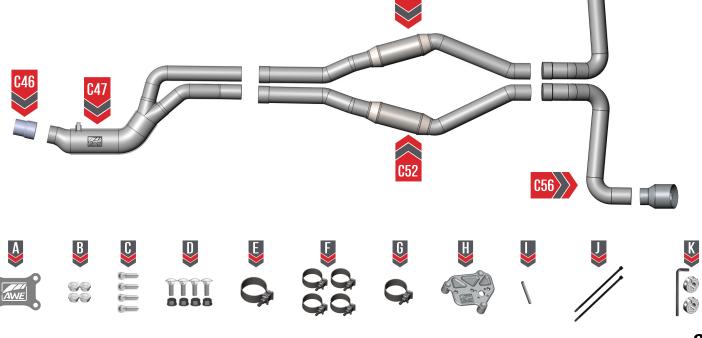
Exquisite build quality and craftsmanship, coupled with industry leading performance, distinguish this exhaust system from all others.

\*For up to the minute fitment information, be sure to visit the AWE website. As always, AWE Performance Specialists are standing by for any questions, <u>right here</u>.



#### INSPECT ALL PARTS PRIOR TO DISASSEMBLY OF VEHICLE; IF DAMAGED OR MISSING, PLEASE CONTACT The place of purchase immediately.

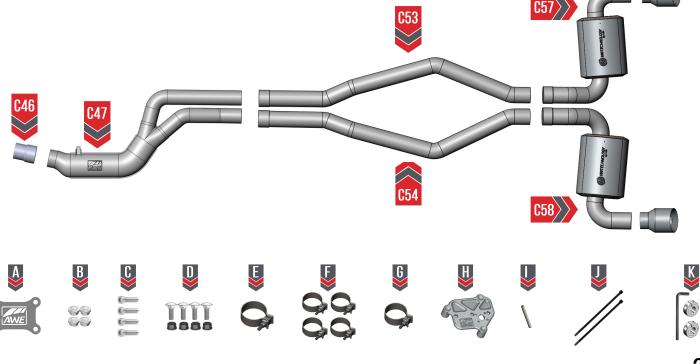
Part Number	Description	Qty
C46	OEM downpipe adapter	1
C47	Stamped inlet section	1
110032	Rear section badge	1
94920A500	Serrated flange locknut	4
91292A145	M8x1.25 –25mm socket head bolt	4
180006 (chrome) or 180007 (black)	5" Slash cut exhaust tips	2
3910-41010	Hardware kit of integrated tip clamps	1
1010-1003-4	1/4-20 x 3/4" Bolt	4
90949A016	1/4-20 locknut	4
03711020093	3.5 inch band clamp	1
180300	3 inch band clamp	4
10-0798	85mm band clamp	1
150004	SBS valve motor simulator	1
98380A457	7/64" x 1" dowel	1
7130K59	Medium zip tie	2
3910-11034	3/8" clamp kit	1
SRC1-037	3/8" collar clamp	2
7122A17	7/64" Allen key	1
Resonated systems only		
C51	Resonated axle tube driver side	1
C52	Resonated axle tube passenger side	1
Track systems only		
055	Track rear section driver side	1
C55		
	C47 110032 94920A500 91292A145 180006 (chrome) or 180007 (black) 3910-41010 1010-1003-4 90949A016 03711020093 180300 10-0798 150004 98380A457 7130K59 3910-11034 SRC1-037 7122A17 <b>Resonated systems only</b> C51 C52	C47Stamped inlet section110032Rear section badge24920A500Serrated flange locknut21292A145M8x1.25 –25mm socket head bolt180006 (chrome) or 180007 (black)5" Slash cut exhaust tips3910-41010Hardware kit of integrated tip clamps1010-1003-41/4-20 x 3/4" Bolt90949A0161/4-20 locknut037110200933.5 inch band clamp1803003 inch band clamp1803003 inch band clamp150004SBS valve motor simulator28380A4577/64" x 1" dowel7130K59Medium zip tie3910-110343/8" collar clamp38* collar clamp3/8" collar clamp7122A177/64" Allen keyResonated systems onlyC51Resonated axle tube driver sideC52Resonated axle tube passenger side



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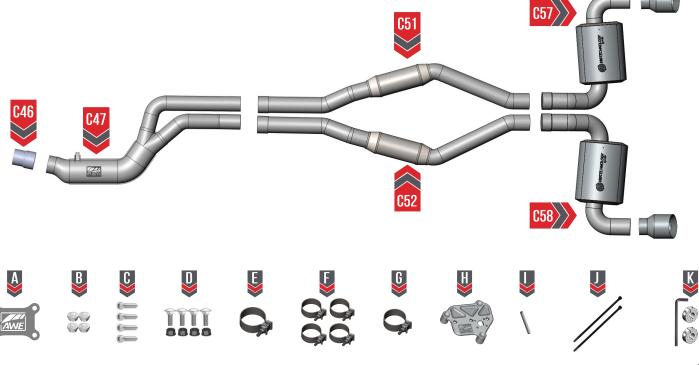
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C53	Non-resonated axle tube driver side	1
C54	Non-resonated axle tube passenger side	1
Touring systems only		
C57	Touring rear section driver side	1
C58	Touring rear section passenger side	1



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**NOTE:** Always refer to the manufacturer's service manual for precise torgue specifications on all OEM fasteners.



CAUTION: The exhaust may be VERY HOT — allow adequate time for the system to cool down before disassembly. Severe burns and injury will occur if skin comes into contact with a hot exhaust system.

**NOTE:** Installation of the AWE exhaust system with an aftermarket downpipe may require custom fabrication of a new downpipe adapter. As a general rule of thumb, if the downpipe was made to mate exactly with the OEM exhaust system, the provided adapter can be used.



### STEP 1

To begin, we will need to get the OEM exhaust valves in the open position before disconnecting them. To do this:

1) Put the vehicle into sport mode and confirm the valves are open (Figure 1.1) 2) Disconnect the valve motor (Figure 1.2) 3) Turn the vehicle off

4) Remove the OEM valve motor from the factory exhaust system. The three bolts, motor, and heat shield will be re-used upon installation

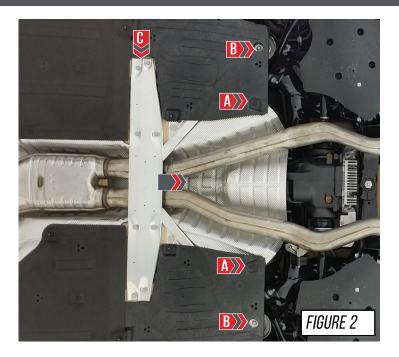


**CAUTION:** avoid starting or revving the vehicle with the valve motors unplugged. This may cause calibration issues or throw a CEL.





- A Remove the 8mm screws connecting the middle underbody trays to the vehicle so the chassis brace can be accessed
- B>> Using an E-14 socket remove the bolts holding the cross brace beams to the vehicle
- Use a 13mm socket to remove the remaining eight bolts and remove the cross brace by sliding it toward the rear of the vehicle past the underbody trays.
  - All hardware removed in this step will be re-used during reinstallation.



### STEP 3

- A>>> Loosen the factory clamp connecting the downpipe to the exhaust.
- B>>> Undo the nut holding the middle hanger to the hanger bracket.
- Detach the remaining three exhaust hangers from the rear of the vehicle and remove the OEM exhaust system from the vehicle.

Removal of the rear hangers can be done by removing the bracket or detaching the hanger from the rubber grommet. The OEM bracket and grommets will be re-used.

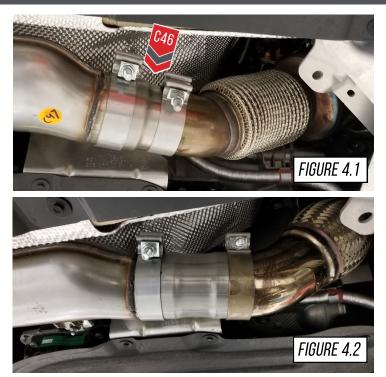




To install your AWE exhaust system, start by attaching the OEM downpipe adapter, **C46** by placing the 85mm clamp onto the smaller end of the adapter and slipping that end over the OEM downpipe as shown in **Figure 4.1**.

Next, slide the 3.5" clamp over the larger end of the adapter in preparation for the installation of the mid section.

Installation of the AWE exhaust system with an aftermarket downpipe may require custom fabrication of a new downpipe adapter. As a general rule of thumb, if the downpipe was made to mate exactly with the OEM exhaust system, the provided adapter can be used. An example of installation with a custom adapter is shown in **Figure 4.2**.





It is crucial to install each section and Accu-Seal clamp correctly to prevent loose joints, exhaust leaks between the tubing connections or rattles.

**Arrow A** in **Figure 5** shows the expanded pipe and the preinstalled Accu-Seal clamp being brought up to the corresponding pipe.

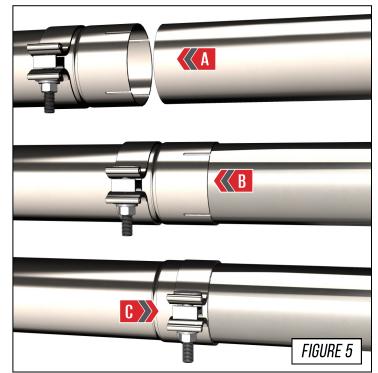
**Arrow B** in **Figure 5** shows the overlapping pipe installed correctly over the corresponding pipe.

**Arrow C** in **Figure 5** shows the Accu-Seal clamp being brought to the edge of the expanded pipe.



#### NOTES:

- <u>Do not</u> torque any Accu-Seal clamp until the entire exhaust has been installed and adjusted.
- Torque specification is a minimum of 60 ft/lbs





Install the AWE mid section **C47** by connecting the bracket to the OEM hanger mount and reusing the OEM nut to fasten the part.



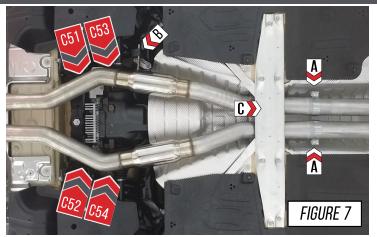


Slide a 3" exhaust band clamp over the ends of each of the axle tubes before installing them onto the vehicle. Make sure the tubes are pushed up as high as possible to help clear the cross member.

B When differentiating between the two axle-tubes, the passenger side axle tube has a hanger while the driver side does not. Install this hanger into OEM hanger bar grommet.

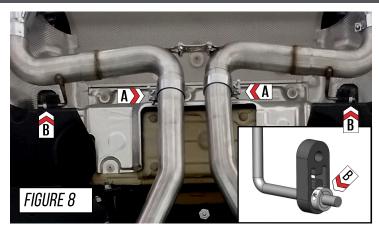
At this point, the chassis brace may be reinstalled with the factory hardware removed earlier in step 2.

When installing the passenger side tube, do your best to keep the hanger bar as flat as possible. This will help keep the part adjusted properly for the remaining installation.





- Slide a 3" exhaust band clamp over the ends of each of the rear sections before joining them to the axle tubes.
- For the rear sections, hanger bar collar clamps are provided to prevent side to side movement of the exhaust system. After sliding the exhaust hanger bar through the OEM grommet, install the collar clamp on the outside end of the bar as shown in Figure 8.2.





Install the rear section badge (110032) using the four socket head bolts (91292A145) and the four serrated flange locknuts (94920A500).



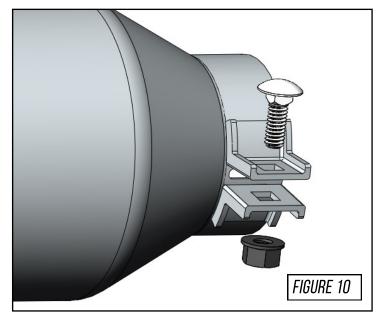


To install the exhaust tips with integrated clamps, first, attach the exhaust tip in the proper orientation onto the exhaust outlet tube.

Insert one of the carriage bolts from the hardware kit **(3910-41010)** through the tab on the exhaust tip and thread on one of the corresponding nuts.

Using anti-seize on the bolt threads will help installation and prevent breakage of hardware.

This exhaust system only has 2 exhaust tips while the integrated clamp kit has enough hardware for our 4 tip exhaust systems. You will have 2 sets of hardware left over that will not be used.





Put together the valve simulator assembly using the OEM valve motor components and parts **98380A457** and **150004**.

Make sure to reuse the factory valve motor heat shield as well as the 3 bolts that were removed from the OEM system.

If you did not make sure the valves were in the open position before uninstalling the exhaust as outlined in step 1, you will need to have another person hold the valve motor on the simulator while the valves are cycled to get the motor to attach to the simulator properly.

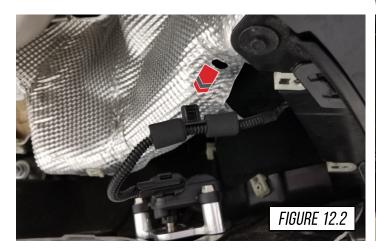


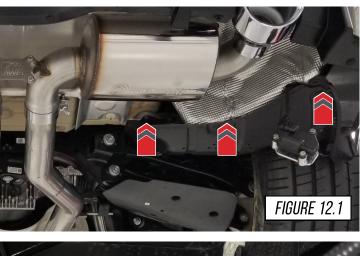
### STEP 12

Remove the rearmost three screws holding the rear splashguard in place so the cavity can be accessed.

Pull down on the clip holding the valve motor harness up to the heat shield

Using the two supplied cable ties, attach the simulator assembly to the under tray and reinstall the screws.



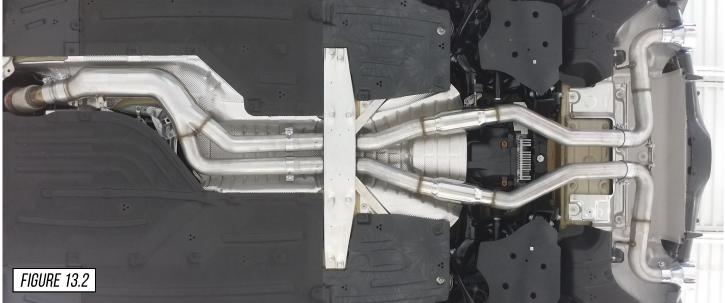






Return the under tray to its original position and the installation is complete.











## TROUBLESHOOTING

Issue	Solution
Exhaust is not fitting correctly	Most fitment issues are due to improperly adjusted mid pipes. Rotating these pipes will help set proper preload on the rear section hangers and help to properly adjust the system. If you are having issues with aligning your tips try loosening the clamp bolt and then while holding the tip in the correct location, retighten the bolt. This will shift the tip into the proper location. Any other questions head over to our <u>fitment guide</u> for more installation tips.
Wrong or missing parts	Double check the parts list for your system and compare them with what you received. Fill out our contact form, found below and let us know what parts you need.
Valve motor and pin will not fit in the simulator bracket.	Confirm that the valves were placed in the open position before removal. If not, you will need another person to hold the OEM valve motor onto the simulator plate firmly and cycle the valves until the motor and dowel pin are aligned.



Once installed properly, your AWE exhaust will provide years of trouble-free performance.

The exhaust volume and sound will settle with usage; 800-1000 miles is required to break-in new exhaust systems.

Also, please note that the rear **180Technology®** resonator has a small drain hole to allow condensation to escape. Water drops from this area are normal.

Periodic cleaning of exhaust tips is necessary to maintain proper finish, especially in areas prone to road salt and caustic deicing solutions. Use a mild soap and water solution or car wax to clean the finish. Avoid using abrasive polishes, as they can scratch the finish.

Any questions or comments, please do not hesitate to contact us: AWE **CONTACT FORM** 



Up-to-date warranty information is found HERE.