



INSTALLATION GUIDE: AWE F90 M5 TRACK OR SWITCHPATH EXHAUST

THIS PRODUCT IS INTENDED FOR THE FOLLOWING VEHICLES*:

YEAR	MAKE	MODEL	SUBMODEL	ENGINE
2018-19	BMW	M5	Sedan	4.4L V8 Twin Turbo
2018-19	BMW	M5 Competition	Sedan	4.4L V8 Twin Turbo

THIS GUIDE IS INTENDED FOR THE FOLLOWING PART NUMBERS:

3020-11024 AWE Non-Resonated Performance Midpipe for BMW F90 M5
3020-42069 AWE Track Edition Axle-Back Exhaust for BMW F90 M5 - Chrome Silver Tips
3020-43077 AWE Track Edition Axle-Back Exhaust for BMW F90 M5 - Diamond Black Tips
3020-42070 AWE Track Edition Cat-Back Exhaust for BMW F90 M5 - Chrome Silver Tips
3020-43078 AWE Track Edition Cat-Back Exhaust for BMW F90 M5 - Diamond Black Tips
3025-42061 AWE SwitchPath Axle-Back Exhaust for BMW F90 M5 - Diamond Black Tips
3025-43065 AWE SwitchPath Axle-Back Exhaust for BMW F90 M5 - Diamond Black Tips
3025-43066 AWE SwitchPath Cat-Back Exhaust for BMW F90 M5 - Chrome Silver Tips
3025-43066 AWE SwitchPath Cat-Back Exhaust for BMW F90 M5 - Diamond Black Tips

Welcome to the AWE family, and congratulations on your purchase of the **AWE Track Edition or Switchpath Edition Exhaust** system for the F90 M5.

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

PARTS LIST

INSPECT ALL PARTS PRIOR TO DISASSEMBLY OF VEHICLE; IF DAMAGED OR MISSING, PLEASE CONTACT THE PLACE OF PURCHASE IMMEDIATELY.

Performance Mid-Pipe (3020-11024) QTY Description Part Number 2 F90 M5 Inlet Tubes B77 F90 M5 Performance X-Pipe 1 B67 10-0798 6 85mm Accu-Seal clamps 2 **TAS300** 3.00" Accu-Seal clamps 2 80mm Coupler B96 Axle-Back Exhaust QTY Description Part Number 10-0798 4 85mm Accu-Seal clamps 1 B68 F90 M5 driver side axle tube 1 F90 M5 passenger side axle tube B69 2 80mm Coupler B96 2 3.00" Accu-Seal clamps **TAS300** 4 Exhaust tip barrel clamps BHM8X079SS00C 4 102mm Exhaust Tips 61000024(Chrome) or 61000024-BLK (Black) Switchpath System Only F90 M5 driver side Switchpath rear section B72 1 1 F90 M5 passenger side Switchpath rear section B83 2 Wiring Harness Extension for F90 M5 1325-11029 **Track System Only** 1 Driver side track rear section **B70** 1 B71 passenger side track rear section 2 SBS valve simulator 150004 2 98380A457 Valve motor pins 4 7130K59 Medium zip tie 3/8" Hanger Clamp Kit (3910-11034) 3/8" exhaust hanger split collar 2 1C-037-A

7/64" Allen key 1

7122A17





STEP 1

Installation of the AWE exhaust system is the reverse of the removal OEM exhaust.



Always refer to the manufacturer service manual for precise torque 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.

Start by removing the rear OEM underbody shield shown in **Figure 1** and place it out of the way. These will be reinstalled after the AWE Exhaust is in place.





IF INSTALLING THE FULL CAT-BACK EXHAUST SYSTEM, SKIP TO STEP 3



The factory exhaust must be **CUT** from the car to install the AWE axle-back exhaust system. Reinstalling the factory exhaust will require the use of a sleeve clamp.

If installing the axle-back exhaust, locate the factory cut points marked by the dimples show in **Figure 2.** Using pole jacks or jack stands, support the exhaust system and cut off the rear section.



When cutting the factory exhaust, make sure that the cut line is straight and remains perpendicular with the exhaust tube.

Deburr the cut ends of the factory midsection to ensure a clean joint.





AXLE-BACK INSTALLATION INSTRUCTIONS RESUME ON STEP 5





Remove the two central chassis braces starting with the lower "X brace" as labeled by **Arrow A** in **Figure 3-1**.

The cross brace denoted by **Arrow B** in **Figure 3-1** should be removed as well leaving the exhaust system completely accessible as shown in **Figure 3-2**.



STEP 4

NOTE: The OEM exhaust system should be safely supported before disassembly

Moving toward the front of the vehicle, loosen the two OEM exhaust clamps noted by the arrows in **Figure 4**.





NOTE: The OEM exhaust system should be safely supported before disassembly

Remove the ground cable above the rear section on the driver side shown in **Figure 5** and tuck it out of the way.





Disconnect the factory valve motors from the harness by pinching and pulling out the plug. Do this for both the driver and passenger sides





NOTE: When removing hanger assemblies, we recommend unbolting the hanger bar bracket from the chassis as this make it a bit easier uninstall. This is shown in **Figure 7-1**.

Detach the four (4) OEM hangers shown by the arrows in **Figure 7-2** and remove the exhaust.

Install the hanger assemblies into the corresponding locations on the AWE exhaust.







AXLE-BACK INSTALLATION INSTRUCTIONS RESUME ON STEP 12





While the parts are still off the vehicle, assemble the performance mid-pipe by installing the AWE exhaust inlet tubes (*B77*) onto the X-pipe (*B67*). Two (2) of the included 3" Accu-Seal clamps will be used.

NOTE: The X-Pipe (**B67**) has a slight arc to it. When orienting the parts, this arc should point upward as shown in the side view in **Figure 8-2**. This will allow the system to have adequate clearance around the chassis braces.





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

Arrow A in **Figure 9** shows the expanded pipe and the preinstalled Accu-Seal clamp being brought up to the corresponding pipe.

Arrow B in **Figure 9** shows the overlapping pipe installed correctly over the corresponding pipe.

Arrow C in **Figure 9** 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





Attach the mid-pipe assembly constructed in step 8 to the factory catalytic converters using the included 85mm Accu-Seal clamps shown in **Figure 10**.



NOTE: Remember to orient the mid-pipe so it matched the image in **Figure 8-2**.





Reinstall the two chassis braces and the two underbody shields that cover them.

Installing the chassis brace at this point can help support the front of the exhaust system while the rear is being installed. We still advise keeping the exhaust supported with a jack.





Slide two (2) 85mm Accu-seal clamps over the 80mm sleeve adapters **(B96)** shown in **Figure 12.** Place this assembly over the outlet end of the midpipes.

Next, slide the axle-tubes **(B68)** and **(B69)** into the other ends of the sleeve adapters.

Make sure to fully bottom out the tubes in the sleeve adapters and tighten the Accu-seal clamps only enough to hold the parts. We want to keep some room for final adjustments.





Optional: loosen heat shield to tuck valve wire harnesses away.

For Switchpath installation, you may need to install the included harness extension shown by **Arrow A** in **Figure 13**.





Switchpath intructions continue on step 15



Valve Simulator Bracket Installation For Track Edition:

Remove each factory valve motor from the factory mounting location on the OE exhaust system.

NOTE: The pin shown in Figure 14-1 is critical to the function of the valve simulator bracket. Make sure this is installed correctly.



Using the factory hardware, install the driver side valve motor onto one of the included valve motor brackets and pins, as shown in Figure 14-1.

Use a few cable-ties to secure the assembly up and away from the exhaust, as shown by Arrow A in Figure 14-2.

Reconnect the factory harnesses to the valve control motors, as shown by Arrow B in Figure 14-2. Repeat the valve simulator bracket installation for the passenger side.





WARNING: Do not power up the vehicle e motor is disco or re-indexing will be required. Consult your vehicle manufacturer for reindexing instructions





Place one of the 3in Accu-seal clamps shown by Arrow A onto the ends of each axle tube before connecting the rear sections.

TIP: We like to attach the rubber hanger and hanger bracket (Arrow B) onto the exhaust tube before installation since it is easier to access while the part is off the vehicle.





When installing the Switchpath system, rotate the rear sections into place so that there is at least 1/4" between the the valve motor and the heat shield as shown in **Figure 16**.

Plug the male end of the valve wiring harness into the valve motor until it clicks. Push the locking tab (Arrow A) in to secure the connection.





Using four (4) exhaust tip barrel clamps, attach the exhaust tips to the ends of the rear sections. The recommended torque settings for these barrel clamps are 18ft-lbs



NOTE: Applying anti-seize to the bolt threads is required when loosening or tightening the barrel clamps.





Go back across the exhaust system to check for contact and tighten the Accu-seal clamps. Accu-seal clamps should be tightened to 60 ft-lbs and the tubes should be adjusted so that the tips sit evenly in the rear bumper. Reinstall the lower shroud and the installation is complete!









Issue	Solution		
Exhaust is not fitting correctly	Most fitment issues are due to improperly adjusted exhaust. This includes tip fitments and rattling due to chassis contact. Check out 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.		
Valves are not operating correctly	Take a look at out Electronic Valve Troubleshooting Guide		



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 199 Precision Drive Horsham, PA 19044

215-658-1670 CONTACT FORM



Up-to-date warranty information is found <u>HERE</u>.