



## **INSTALLATION GUIDE: AWE EXHAUST SUITE FOR THE 3RD GEN FORD RAPTOR R**

For up-to-date fitment information, please visit the product page on [AWE-Tuning.com](https://www.awe-tuning.com).

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

3025-33852 AWE Switchpath Exhaust for Gen 3 Raptor R - Diamond Black Tips

3025-32852 AWE Switchpath Exhaust for Gen 3 Raptor R - Chrome Silver Tips

Welcome to the AWE family, and congratulations on your purchase of the AWE Exhaust System for the Ford Raptor R.

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

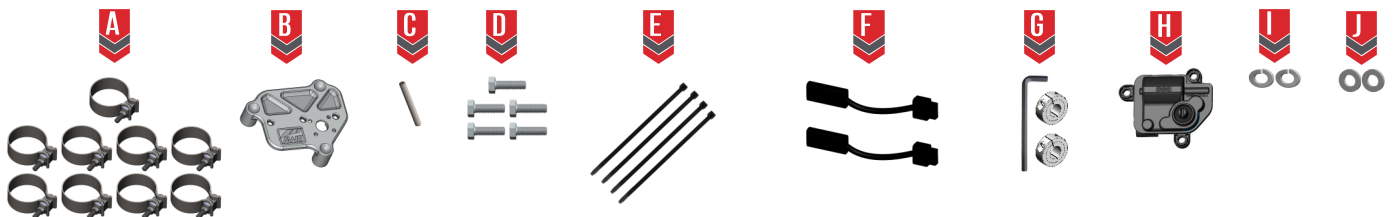
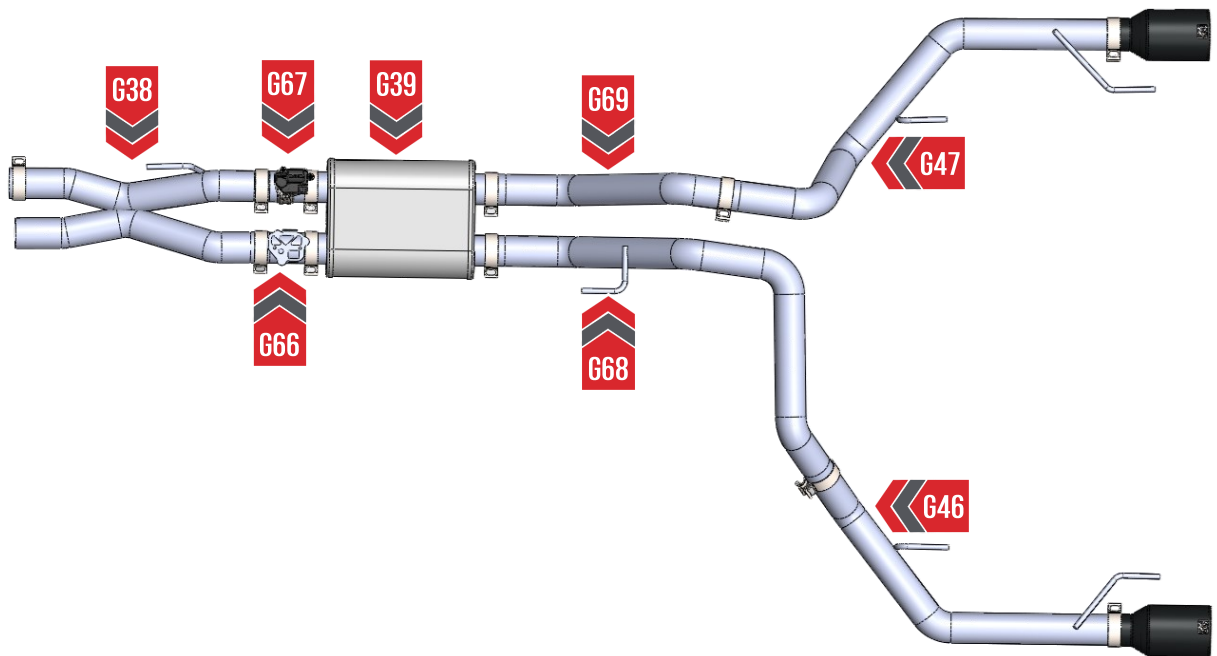
\*For up to the minute fitment information, be sure to visit the AWE website. As always, AWE Performance Specialists are standing by for any questions, [right here](#).

# PARTS LIST (SWITCHPATH SYSTEM)



Inspect **ALL** parts prior to disassembly of vehicle; If damaged or **MISSING**, please contact the place of purchase immediately.

Symbol	Part Number	Description	QTY
	G38	3rd Gen Raptor/R X-pipe	1
	G66	3rd Gen Raptor R DS Muffler Inlet Tube	1
	G67	3rd Gen Raptor R PS Valved Muffler inlet tube	1
	G39	3rd Gen Raptor R Muffler Section	1
	G68	3rd Gen Raptor R DS Axle Tube	1
	G69	3rd Gen Raptor R PS Axle Tube	1
	G46	3rd Gen Raptor R DS Tip Outlet	1
	G47	3rd Gen Raptor R PS Tip Outlet	1
<b>A</b> >>	180300	AWE 3.0" Band Clamp, Stainless	9
<b>B</b> >>	150016	SBS valve motor simulator	1
<b>C</b> >>	98380A457	416 Stainless Steel Dowel Pins, 7/64" Diameter, 1" Long	1
<b>D</b> >>	91287A136	M6X1X16SS HEX HEAD BOLTS	5
<b>E</b> >>	7130K59	7.5 INCH ZIP TIE	6
<b>F</b> >>	800001	2.0" Wiring Harness Extension	2
<b>G</b> >>	3910-11012	AWE 1/2" Split Collar Clamp Kit	1
<b>H</b> >>	840018	EV74532-M00-02 Valve Motor	1
<b>I</b> >>	92148A180	Metric 18-8 Stainless STL Split Lock Washer M6 Screw Size	2
<b>J</b> >>	91116A150	Metric 18-8 SS Large-Diameter Flat Washer M6 Screw Size	2
<b>K</b> >>	180003BC	5.00" OD x 3.00" ID, Straight Cut, Diamond Black, AWE logo	2
	180003CHROME	5.00" OD x 3.00" ID, Straight Cut, Chrome Silver, AWE logo	2





**NOTE:** Always refer to the manufacturer's 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.

## STEP 1



**Soak all bolts and rubber hangers in penetrating oil before starting any work.**

1. Remove the spare tire, shown at **(A)**.
2. Loosen the OE clamps, shown at **(B)**.
3. Remove the 4 OE Rubber hangers, shown at **(C)** from the vehicle. This will allow you to remove the OE tailpipe sections.
4. Unplug the OE valve harnesses, shown at **(D)**.
5. Loosen the OE clamps, shown at **(E)**.
6. Lastly remove the OE muffler section.

**Note:** All of the OE Rubber hangers will be reused with your AWE exhaust.

Ensure you remember the original position, and orientation of the OE Rubber hangers.

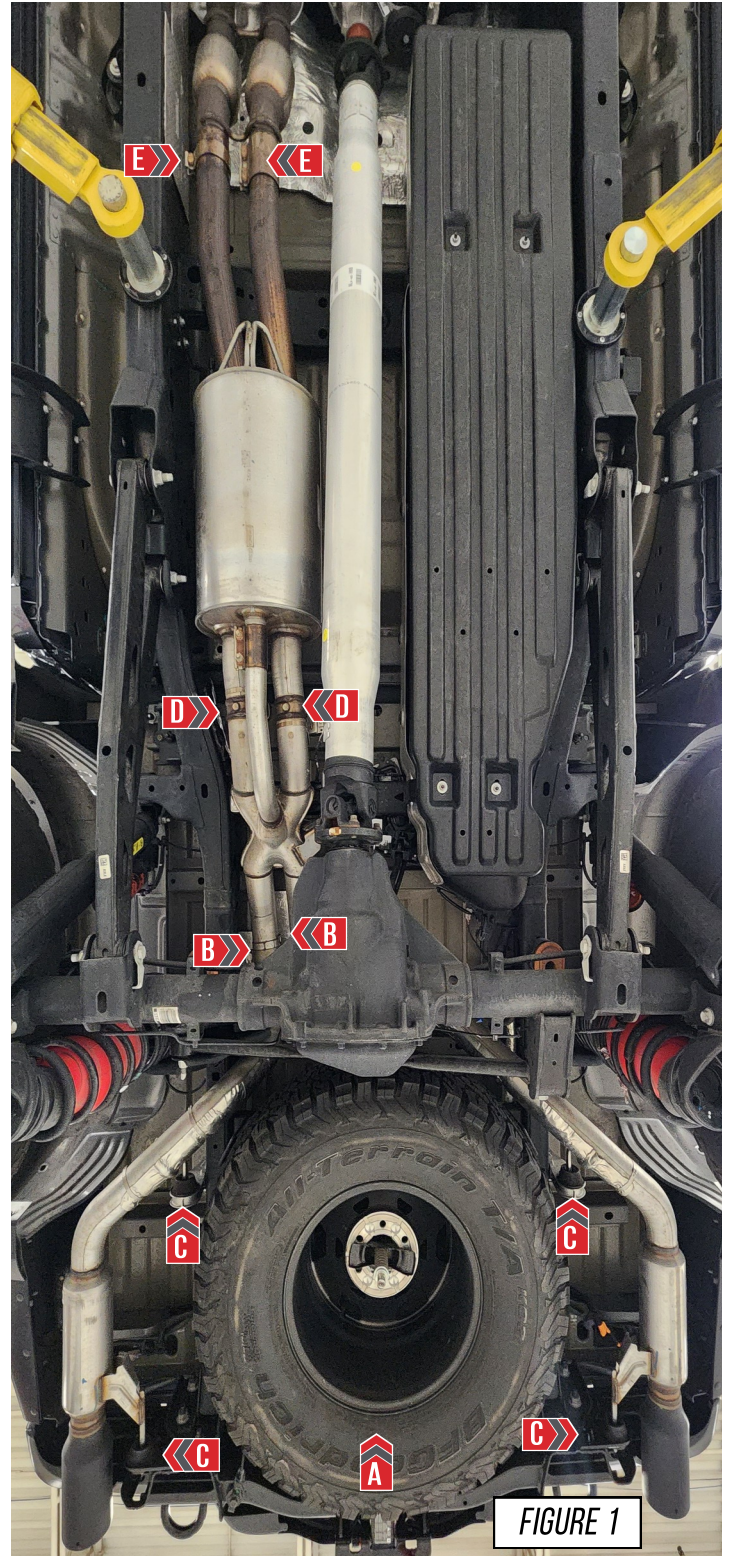


FIGURE 1

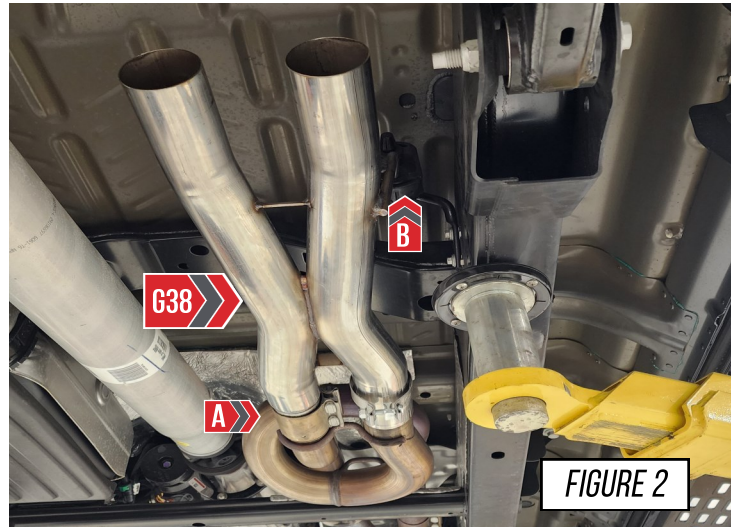
## STEP 2

Begin your AWE Switchpath install by sliding a provided 3" clamp over the passenger side inlet of your AWE X-pipe section (**G38**). The OE clamp will be used on the driver side inlet.

Next slide the driver side inlet section into the OE driver side front pipe outlet, and the passenger side over the OE passenger side front pipe outlet, as shown at **(A)** in **Figure 2**. Snug the clamps at this time.

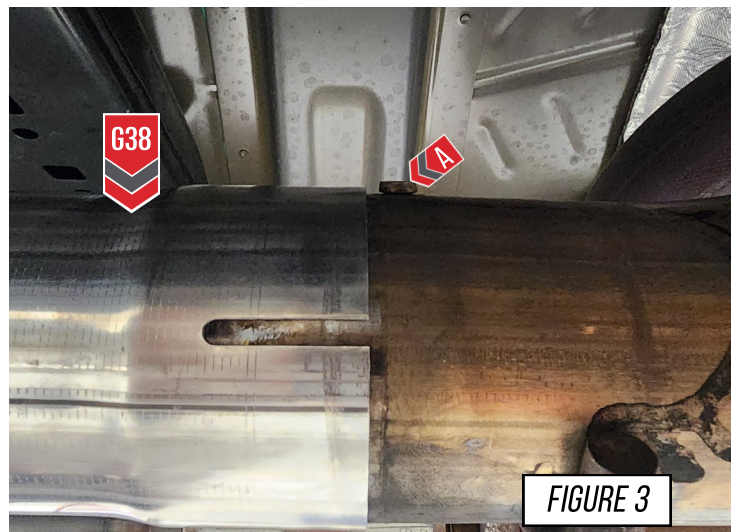
Lastly, slide the hanger bar into the OE hanger, as shown at **(B)** in **Figure 2**.

**Note:** Proper installation of your AWE X-pipe section will have the outlet side of your X-pipe pointing slightly, up towards the floor of your vehicle.



## STEP 3

To ensure your AWE X-pipe (**G38**) is seated appropriately your passenger side inlet should be bottomed out at or just short of the nipple, as shown at **(A)** in **Figure 3**.



## STEP 4

It is crucial to install each section and exhaust band clamps correctly to prevent loose joints, exhaust leaks and rattles.

**Arrow A** shows the expanded pipe and the preinstalled exhaust clamp being brought up to the corresponding pipe.

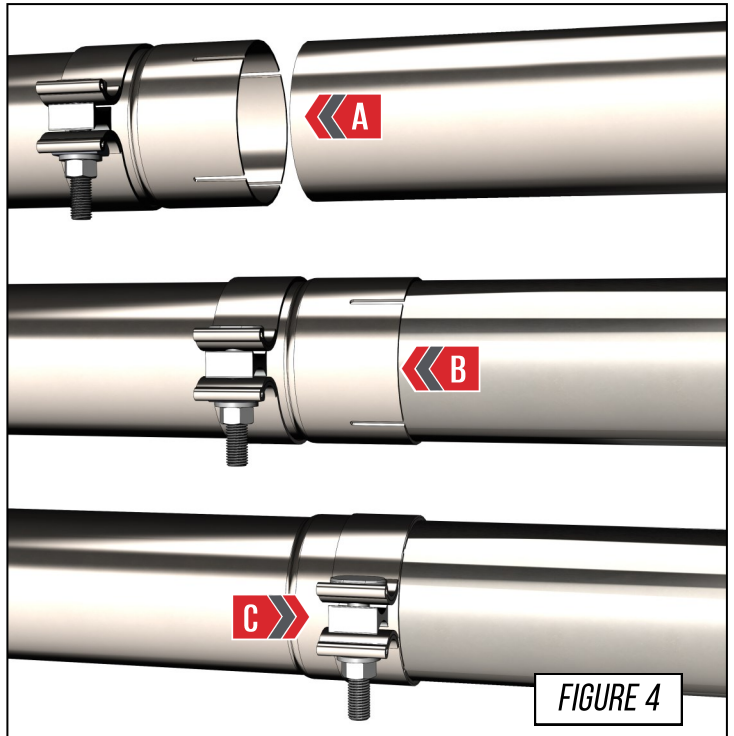
**Arrow B** shows the overlapping pipe installed correctly over the corresponding pipe.

**Arrow C** shows the exhaust band clamp being brought to the edge of the expanded pipe.



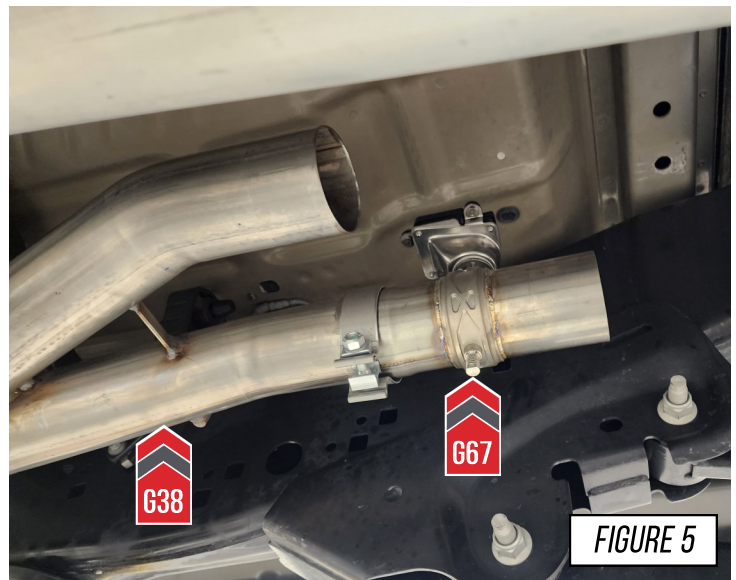
### NOTES:

- **Do not** fully torque any exhaust clamp until the entire exhaust has been installed and adjusted.
- Torque specification is a **minimum** of 60 ft/lbs



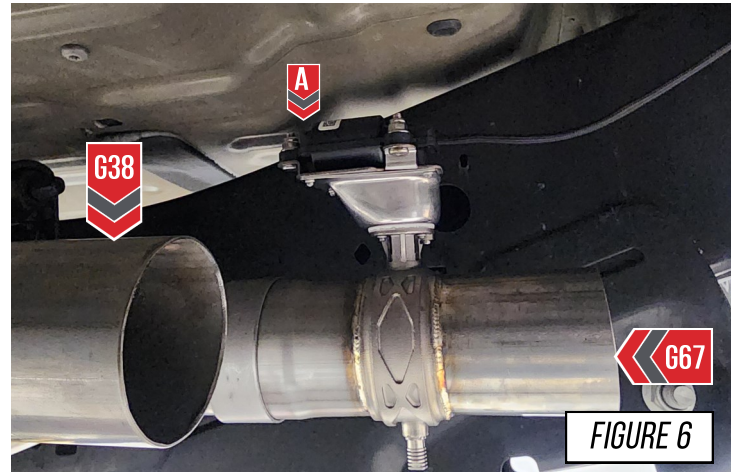
## STEP 5

Gather your passenger side valved muffler inlet tube (**G67**), slide a clamp over the passenger side outlet of your AWE x-pipe (**G38**), and bottom out the slip fit as shown in **Figure 5**. Snug down the clamp, but do not fully tighten at this time.



## STEP 6

Plug your provided 2.0' wiring harness extension into the passenger side OE plug, and then plug the other end into the valve motor, as shown at (A), in **Figure 6**.



## STEP 7

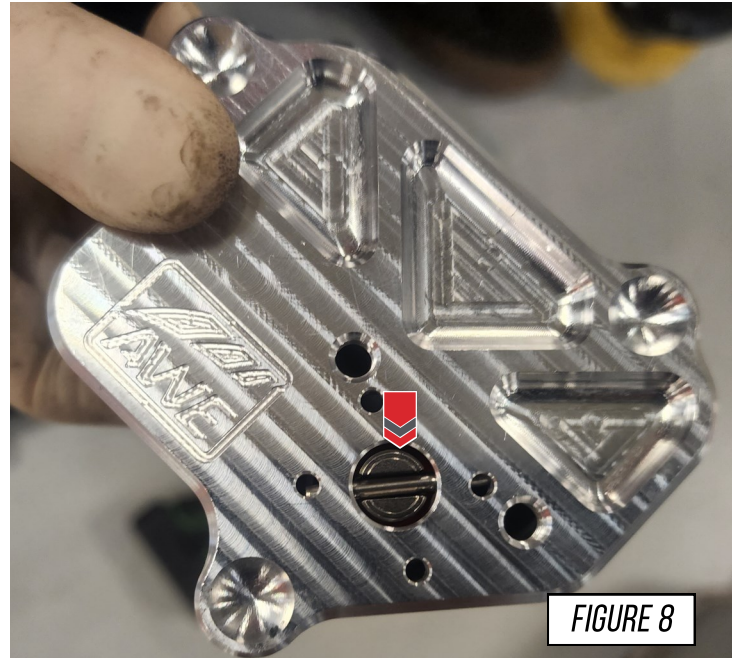
Gather your valve motor simulator (A) and your dowel pins (B). Place the dowel pin in the cut out on the bucket shown in **Figure 7**.

Using three of the provided M6 bolts, secure your provided valve motor (C) to the simulator plate, as shown in **Figure 7**.



## STEP 8

To ensure you have the valve simulator aligned correctly, flip it over and verify that the dowel is resting in the cut out of the valve motor pin, as shown in **Figure 8**.

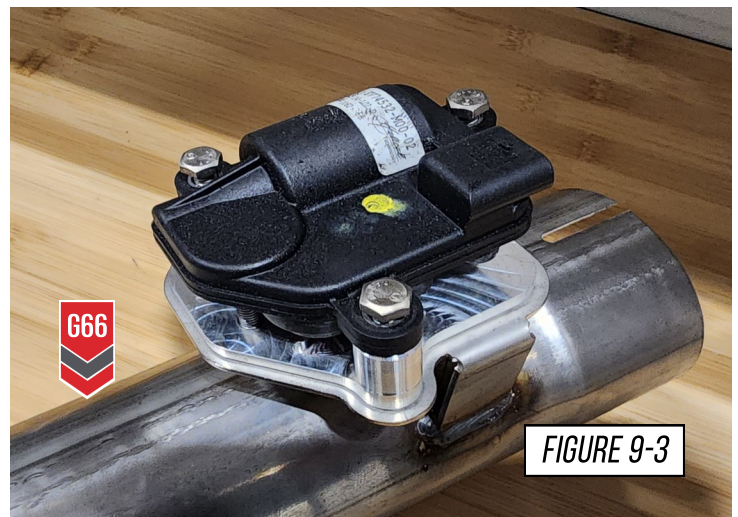
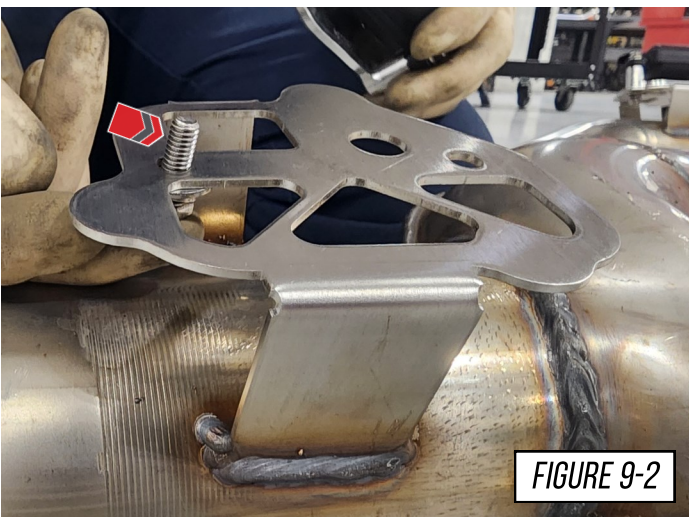
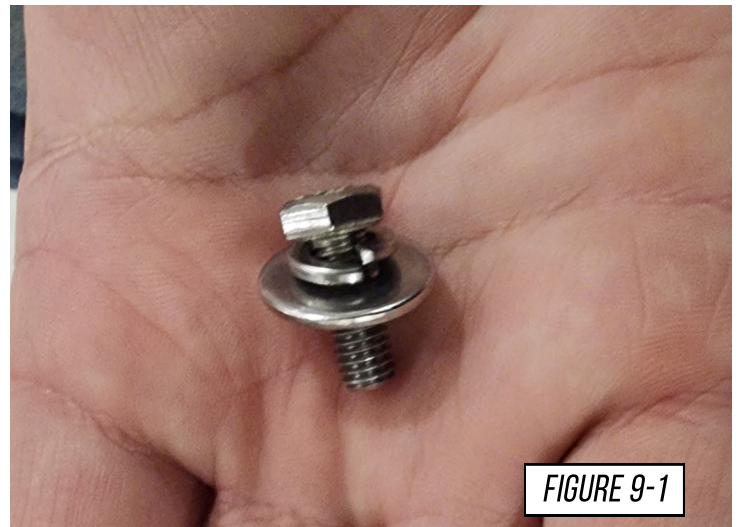


## STEP 9

Gather your provided M6 hardware, assemble both bolts, and washers in the order; lock washer, flat washer as shown in **Figure 9-1**.

Slide the bolt, and washer combo (2 per side) up through the bottom side of the valve bracket on your AWE driver side axle tube, as shown in **Figure 9-2**.

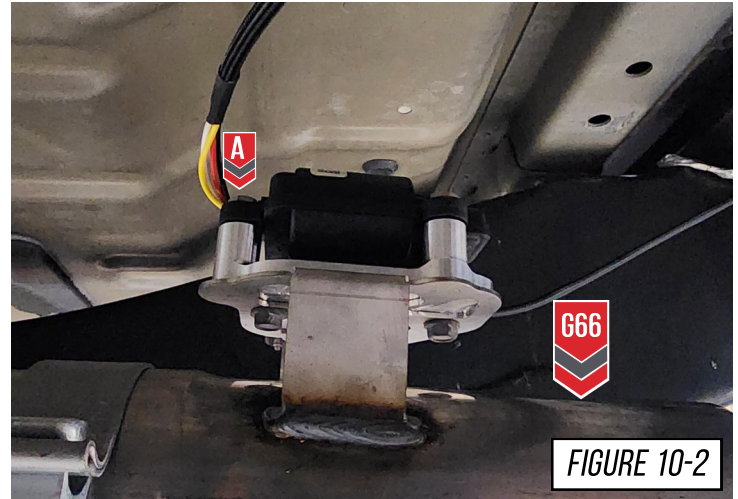
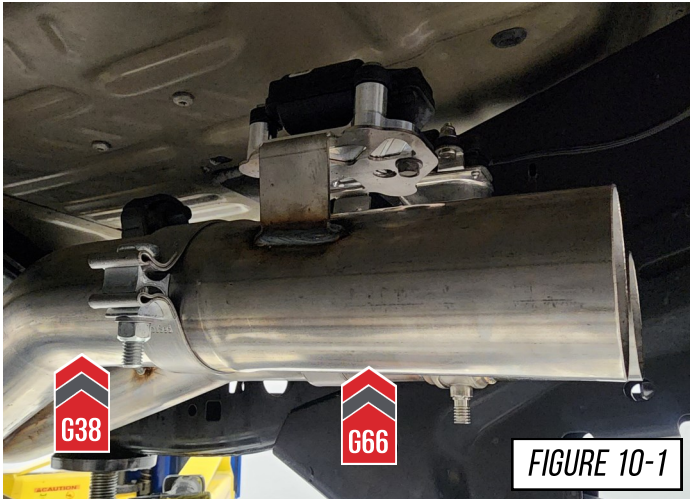
Fully tighten down the valve simulator assembly on the muffler inlet tube bracket, as shown in **Figure 9-3**.



## STEP 10

Gather your driver side muffler inlet tube (**G66**), slide a clamp over the driver side outlet of your AWE x-pipe (**G38**), and bottom out the slip fit as shown in **Figure 10-1**. Snug down the clamp, but do not fully tighten at this time.

Plug your provided 2.0' wiring harness extension into the driver side OE plug, and then plug the other end into the valve motor simulator, as shown at (**A**), in **Figure 10-2**.



## STEP 11

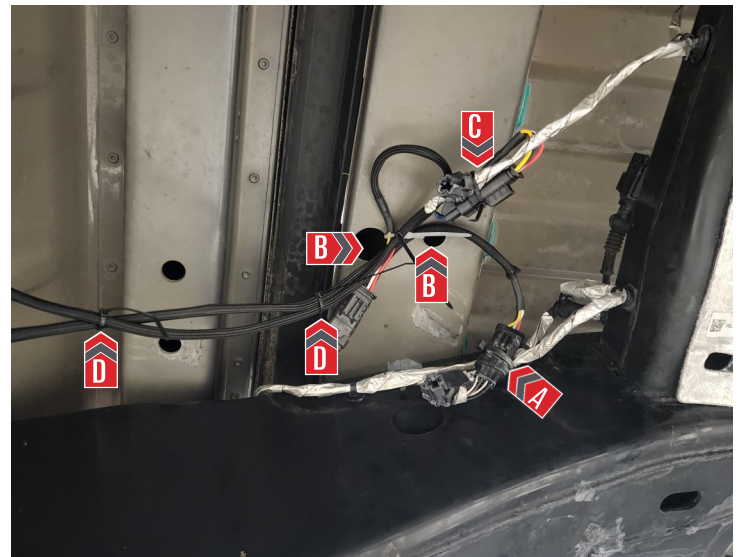
Gather the provided cable ties, and use them to secure the wiring harnesses up and out of the way of the exhaust tube path, as shown in **Figure 11**.

First create a loop on the passenger side harness, then secure the OE harness to your AWE harness, as shown at (**A**).

Next, secure the passenger side AWE harness to the underbody of the vehicle by sliding a cable tie through the holes in vehicle, as shown at (**B**).

Now, create a loop on the driver side harness and secure the OE, and AWE harnesses together like you have previously done with the passenger side harnesses, as shown at (**C**).

Lastly secure the slack of the driver side harness to the passenger side harness to pull it out of the way, as shown at (**D**).



## STEP 12

Now install your AWE muffler section (**G39**) as shown in **Figure 12**.

Do this by first sliding a clamp over the outlet ends of your muffler inlet sections (**G66/G67**). Next bottom out both slip fits on the muffler section (**G39**) onto the outlets of your muffler inlet sections, snug the clamps but do not fully tighten them at this time.

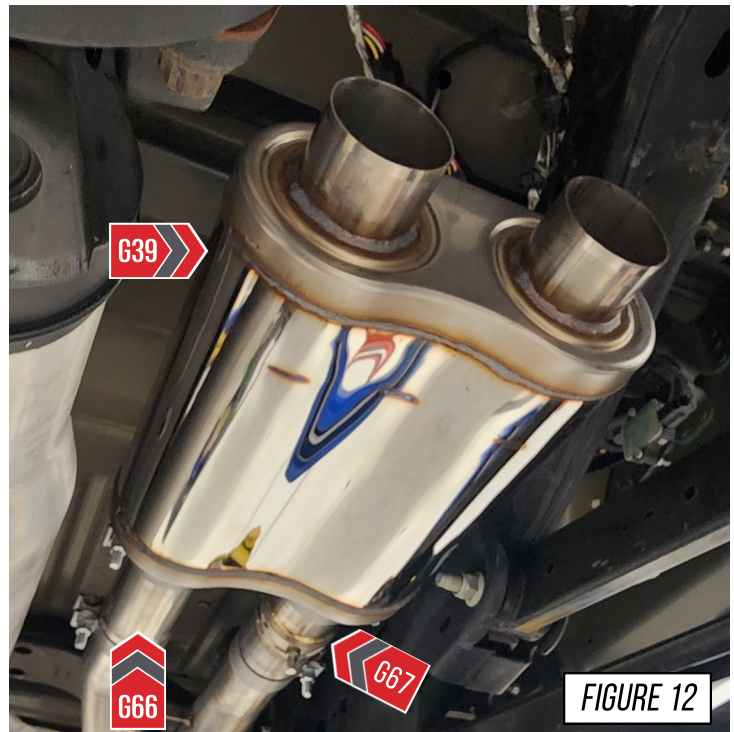


FIGURE 12

## STEP 13

Install your AWE driver side axle tube (**G68**).

Do this by first sliding your axle tube over the chassis brace, as shown in **Figure 13-1**.

Next slide a clamp over the inlet of the over axle tube, then bottom out the slip fit, shown at (**A**) on the driver side outlet of your muffler section (**G39**), while simultaneously sliding the hanger bar into the OE hanger as shown at (**B**) in **Figure 13-2**.

Snug the clamp down over the slip fit, but do not fully tighten this at this time.

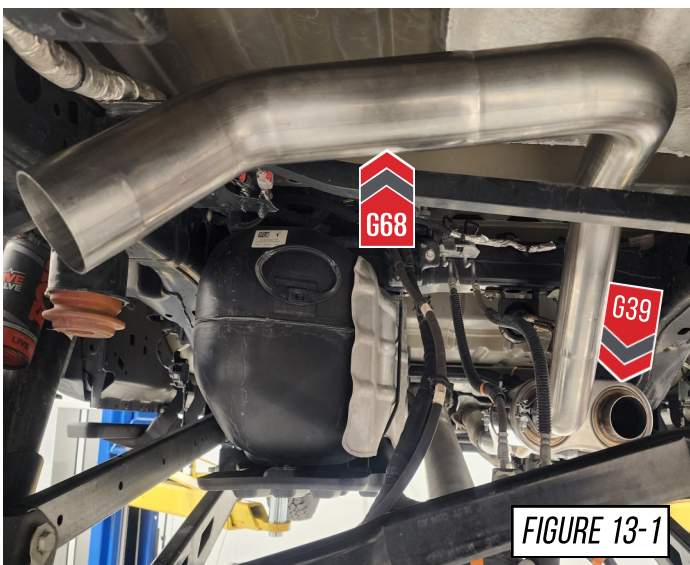


FIGURE 13-1

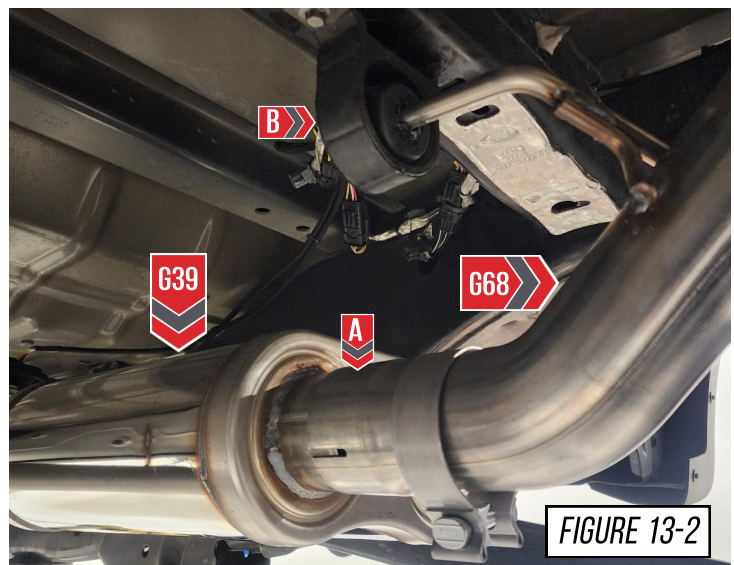
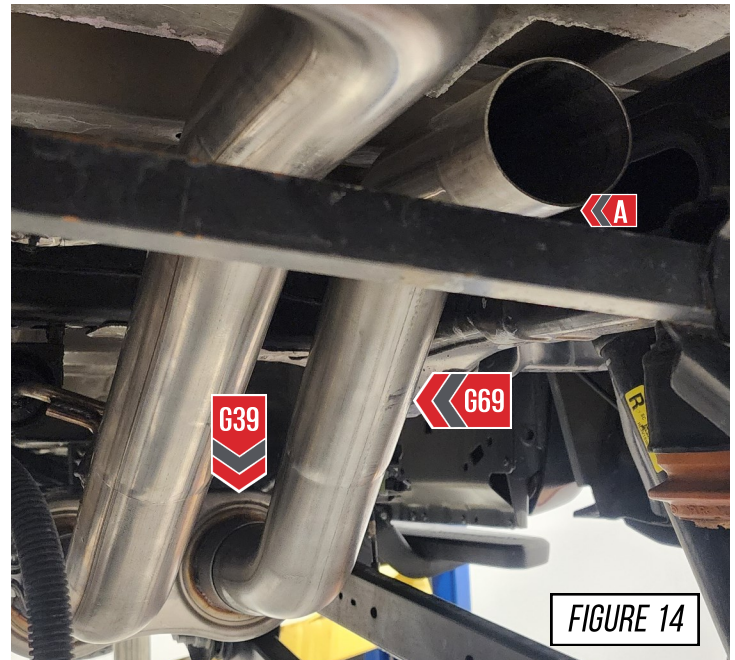


FIGURE 13-2

## STEP 14

Install your AWE passenger side axle tube (**G69**), as shown in **Figure 14**.

Do this by sliding a provided clamp over the slip fit on the axle tube, and bottom out the slip fit on the outlet of your muffler section, (**G39**), and align the outlet side of the axle tube over the chassis brace, shown at (**A**).



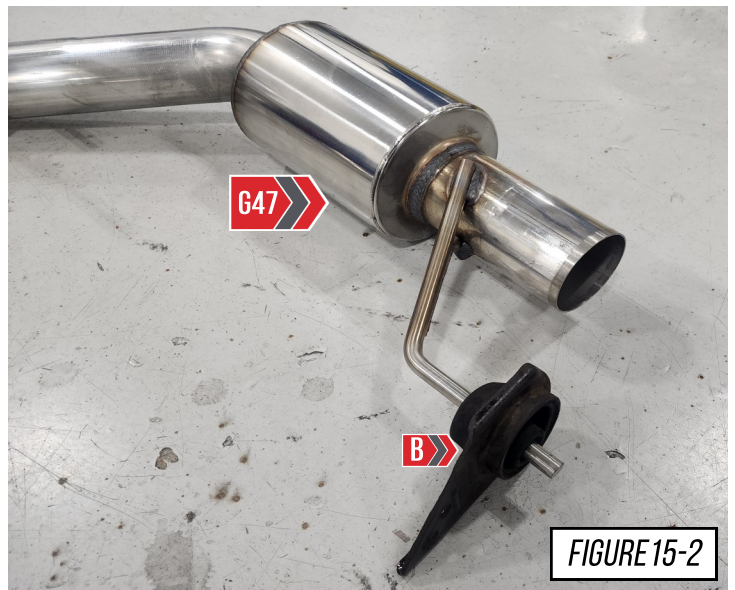
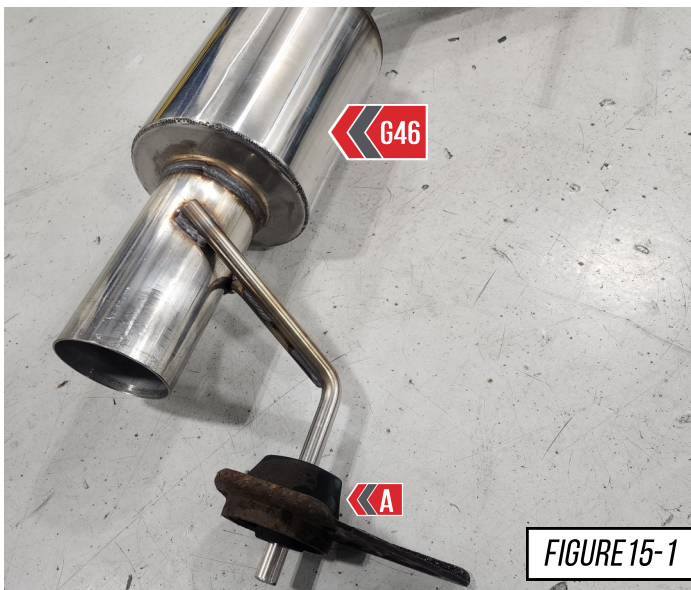
## STEP 15

Gather the rear most OE hangers that were removed in **Step 1**.

Install them onto their corresponding tip sections.

Install your driver side hanger onto your AWE driver side tip outlet (**G46**), as shown at (**A**) in **Figure 15-1**.

Install your passenger side hanger onto your AWE passenger side tip outlet (**G47**), as shown at (**B**) in **Figure 15-2**.

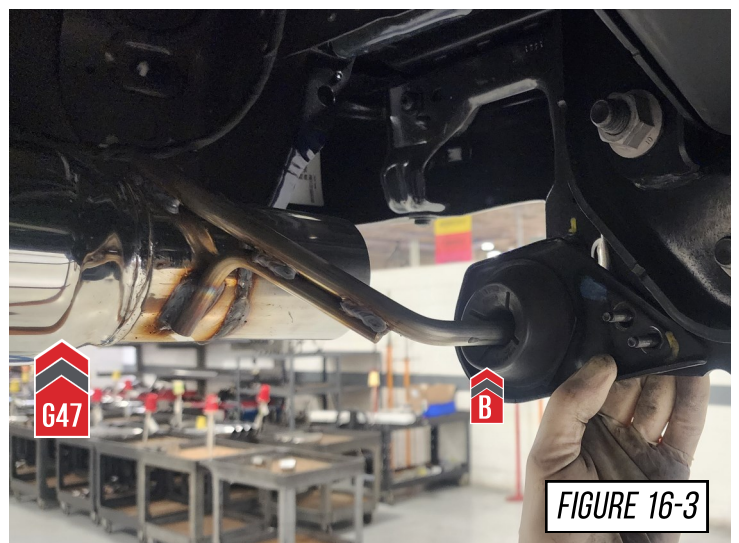
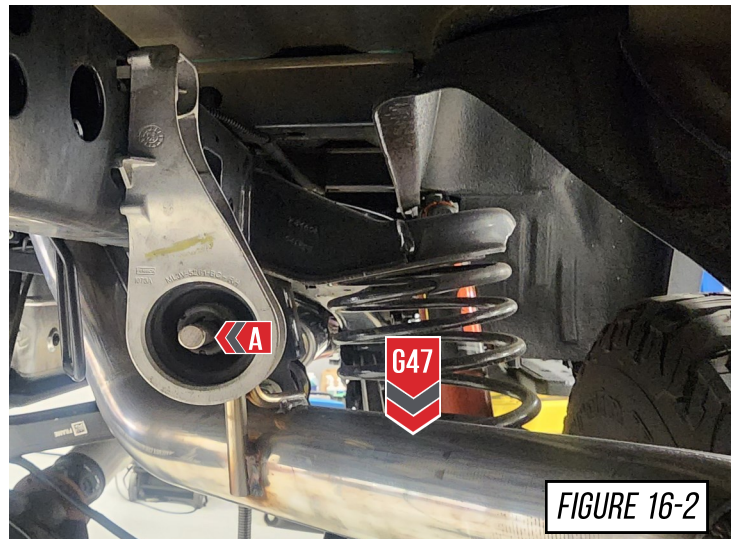
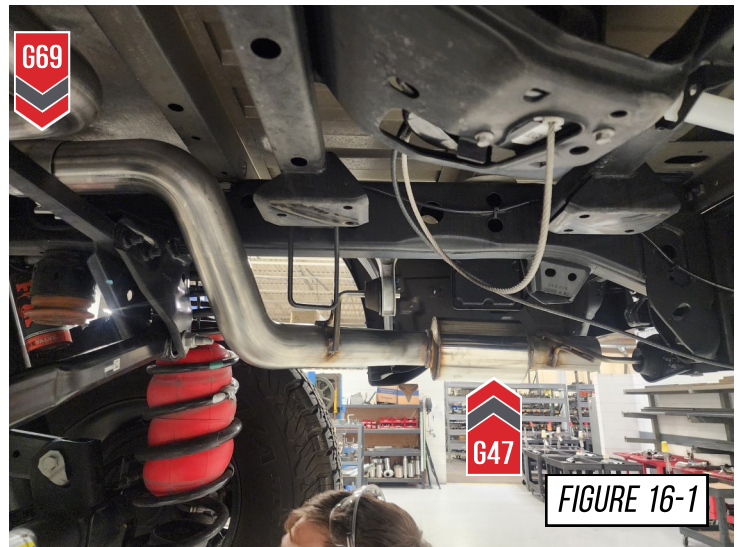


## STEP 16

Slide a provided clamp over the expanded slotted end of your AWE passenger side tip outlet tube (**G47**). Bottom out the slip fit onto the outlet side of your AWE passenger side axle tube (**G69**), as shown in **Figure 16-1**.

Next reinstall the silver OE passenger side tail pipe hanger, using the OE hardware, and slide the hanger bar into the hanger, as shown at (**A**) in **Figure 16-2**.

Lastly reinstall the black OE passenger side tail pipe hanger, using the OE hardware, and slide the hanger bar into the hanger, as shown at (**B**) in **Figure 16-3**.

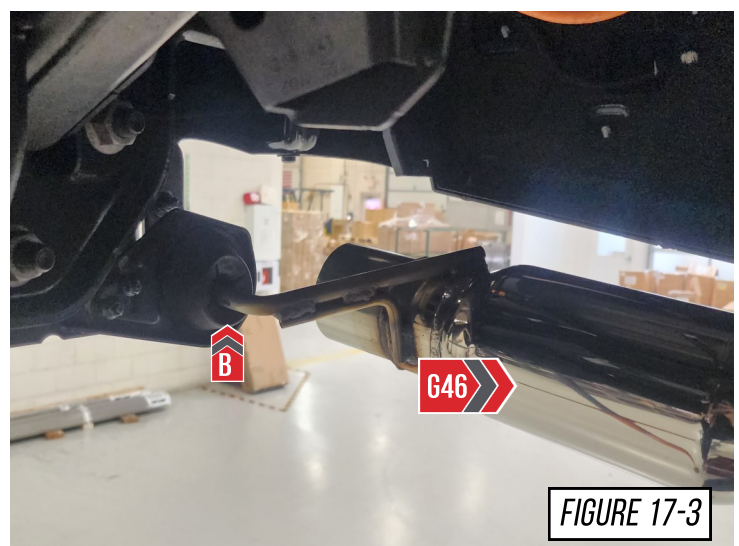
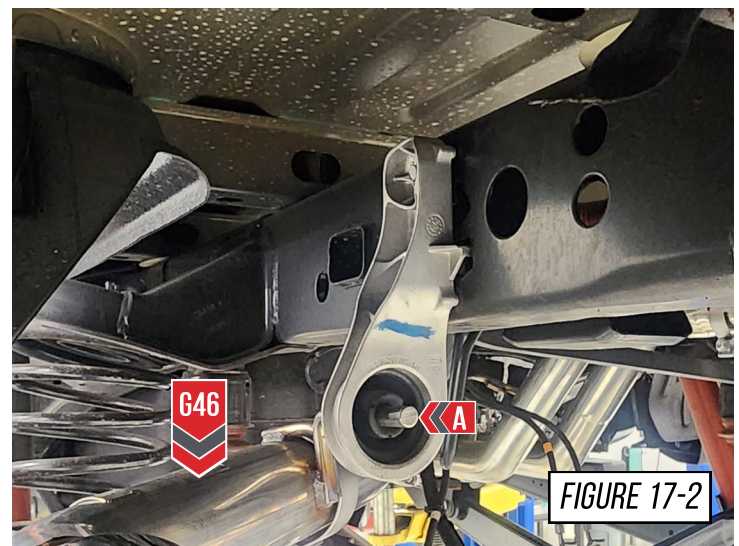


## STEP 17

Slide a provided clamp over the expanded slotted end of your AWE driver side tip outlet tube (**G46**). Bottom out the slip fit onto the outlet side of your AWE passenger side axle tube (**G68**), as shown in **Figure 17-1**.

Next reinstall the silver OE driver side tail pipe hanger, using the OE hardware, and slide the hanger bar into the hanger, as shown at **(A)** in **Figure 17-2**.

Lastly reinstall the black OE driver side tail pipe hanger, using the OE hardware, and slide the hanger bar into the hanger, as shown at **(B)** in **Figure 17-3**.



## STEP 18

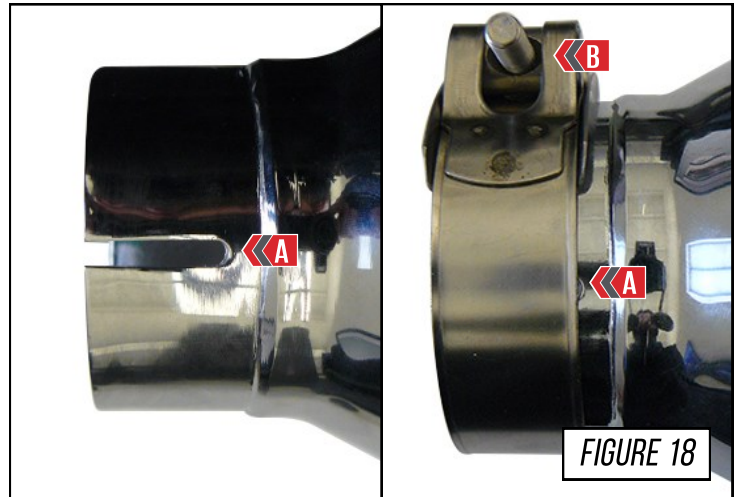
For the best tip fitment, align the barrel style tip clamp to cover *only* the slot, shown by **Arrow A**

Torque the tip clamp to 18 ft./lbs.



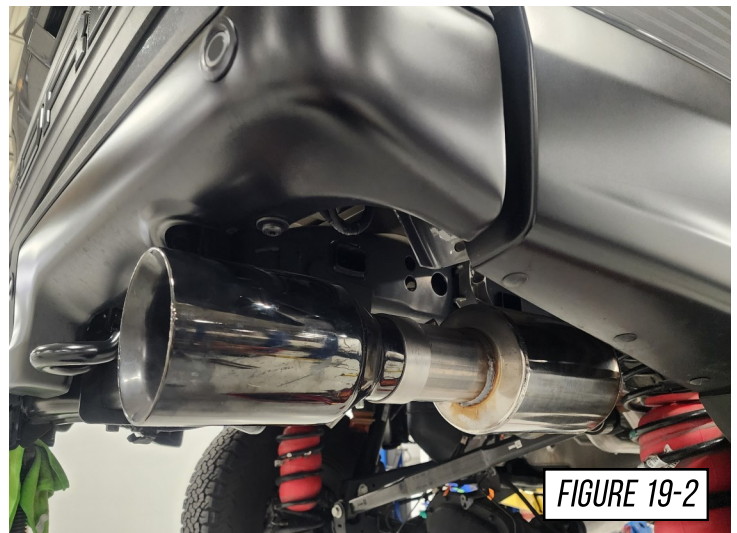
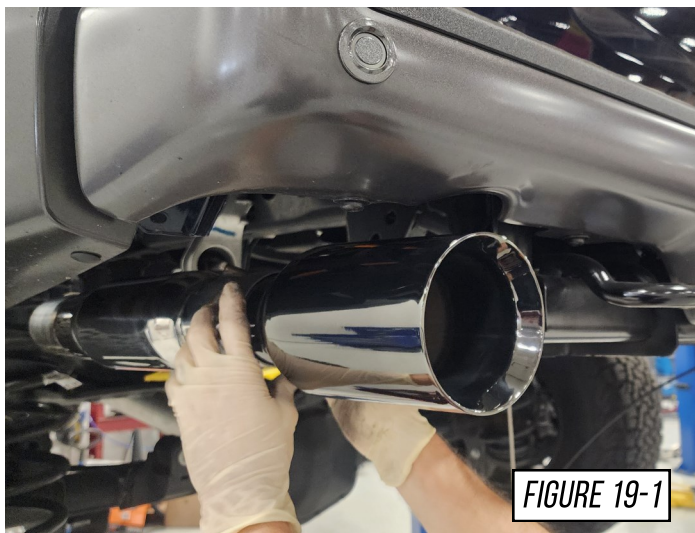
### NOTES:

- It is required to apply anti-seize to the threads to prevent thread binding, shown by **Arrow B**
- It is okay to have the clamp extend beyond the edge of the tip inlet.



## STEP 19

Use 2 of the provided 3" clamps to install both of your AWE tips as shown in **Figure 19-1** and **Figure 19-2**.



## STEP 20

Make your final adjustments to the tips to ensure they are in a position you like. Once the desired positioning is achieved work from the front of the car to the back, tightening all the clamps fully and ensuring there is proper clearance of the chassis, and braces.

It is now recommended to drive the car to allow the exhaust to heat cycle after all clamps and tips are fully tightened.



At this point the exhaust will be **very hot**, allow to cool before work continues.

Check the tips for correct alignment, adjust as needed.



Don't forget to see the next page for any troubleshooting needs!



## ENJOY!



# TROUBLESHOOTING

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 FAQ/ <a href="#">fitment guide</a> for more installation tips.
Incorrect 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.

# CARE

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. For best results, we recommend [AWE's Fantastic Tip Tonic](#).

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

**AWE**  
[CONTACT FORM](#)

# WARRANTY

Up-to-date warranty information is found [HERE](#).