



IMPORTANT! WARRANTY AND INSTALLATION INSTRUCTIONS

Please Forward All Information to Consumer

Be sure to review the enclosed instructions prior to beginning the installation process. If you have any questions about the enclosed parts or instructions, or if you encounter a problem during installation:

CALL TECHNICAL SUPPORT: 440.891.0999 or 800.486.0999

TO ACTIVATE YOUR WARRANTY GO TO: CORSAPERFORMANCE.COM/WARRANTY

COLOR INSTRUCTIONS ARE AVAILABLE BY PART NUMBER ON: CORSAPERFORMANCE.COM



NEVER work on a hot exhaust system.Allow time for the vehicle to cool.



Always wear eye protection when working under a vehicle.

INSTALL DIFFICULTY

RECOMMENDED TOOLS & SUPPLIES

- 3/8" Drive Ratchet
- 3/8" Drive 13mm Socket
- 3/8" Drive Swivel Joint Extension (U-Joint)
- 3/8" Drive Long Extension (10")
- Chain Style Pipe Cutter
- Grommet Pullers
- Soap and Water Solution
- Small Flat Head Screwdriver

- 3/8" Drive 10mm Socket
- 3/8" Drive 15mm Deep Socket
- 3/8" Drive 15mm Shallow Socket
- Tape Measure and Permanent Marker
- File (De-burring Cut Pipe)
- Torque Wrench Capable of 45ft-lbs (61Nm)
- ½" Wrench
- 1/4" Drive Ratchet and 10mm socket

3.0" Axle Back Exhaust, Dual Exit w/ Twin 4.5" S.S. Tips/4.5" Carbon Tips (Box 2 of Cat Back) Part #: 21322(Incl. CF, BLK, CFBLK) (Box 2 of Cat Back Part #: 21320 (Incl. CF, BLK, CFBLK)



Please take time to read and understand these installation instructions.

CORSA recommends that the installation of this system be performed by a qualified service center or professional installer who has the necessary equipment, tools, and experienced personnel. However, if you decide to perform this installation yourself, the use of an additional person may be required.

WARNING: Never work on a hot exhaust system. Allow time for the vehicle to cool. Always wear eye protection when working under a vehicle.

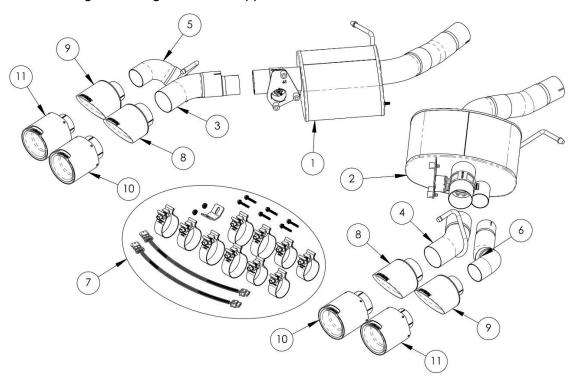
CORSA Performance makes no representation or warranty, expressed or implied that its downpipe or header products and or components there-in comply with federal, state or local emission levels, noise levels, or safety standards or that any of their parts conform with the racing vehicles exemption, unless otherwise noted. The purchaser assumes all responsibility for such use and compliance.

This warranty does not extend to damaged or defect in the finish of a product or to any product, that in the opinion of CORSA Performance, has been misused, damaged by accident or negligence, altered or modified in any way, faulty installation or installed contrary to CORSA installation instructions, or repaired by an unauthorized service facility.

Full warranty available on www.corsaperformance.com

Please confirm that all parts are present according to the bill of materials before beginning the installation.

If something is missing call Tech Support at 440.891.099 or Toll Free: 1.800.486.0999



BILL OF MATERIALS – AXLE BACK EXHAUST SECTION			
1.	Driver Muffler Assembly (Valved) (15CV2109)	2.	Passenger Muffler Assembly (Valved) (15CV2110)
3.	Driver Inner Tip Pipe Assembly (15CV4095)	4.	Passenger Inner Tip Pipe Assembly (15CV4096)
5.	Driver Outer Tip Pipe Assembly (15CV4101)	6.	Passenger Outer Tip Pipe Assembly (15CV4102)
7.	Hardware Kit (15CV7048)	8.	4.5" Stainless Inner Tip Assembly (16CG3004/BLK) (2)
9.	4.5" Stainless Outer Tip Assembly (16CG3005/BLK) (2)	10.	4.5" Carbon Inner Tip Assembly (99TK3025/BLK) (2)
11.	4.5" Carbon Outer Tip Assembly (99TK3026/BLK) (2)		

3.0" Axle Back Exhaust, Dual Exit w/ Twin 4.5" S.S. Tips/4.5" Carbon Tips (Box 2 of Cat Back) Part #: 21322(Incl. CF, BLK, CFBLK) (Box 2 of Cat Back Part #: 21320 (Incl. CF, BLK, CFBLK)



CAUTION: Never work on a hot exhaust system. Allow the vehicle to cool for at least an hour and a half. Always wear eye protection when working under a vehicle. It is recommended to use cotton gloves to protect stainless steel surfaces from permanent grease and oil stains.

REMOVAL INSTRUCTIONS

FACTORY EXHAUST



1. To access the center Cross Member, remove the 8 bolts (4 per side) securing the plastic underside panels over the ends of the Cross Member with a 3/8" drive ratchet and 10mm socket. Note the two inner bolts have a large integrated washer, and the remaining 6 outer bolts have a small integrated washer.



2. Remove the 8 bolts (4 per side) securing the Cross Member to the chassis using a 3/8" drive ratchet and 13mm socket.



3. Move the plastic underside panels down and slide the center Cross Member out from above the paneling, to allow the Cross Member to be removed from the vehicle.

Set aside the Cross Member and all fasteners from REMOVAL STEPS 1 & 2 in a protected location to be reused in INSTALL STEP 31.

3.0" Axle Back Exhaust, Dual Exit w/ Twin 4.5" S.S. Tips/4.5" Carbon Tips (Box 2 of Cat Back) Part #: 21322(Incl. CF, BLK, CFBLK) (Box 2 of Cat Back Part #: 21320 (Incl. CF, BLK, CFBLK)



REMOVAL INSTRUCTIONS

FACTORY EXHAUST



4. Unplug the wiring harness from the exhaust valve actuators located on the inner most driver and passenger tip pipes. To release the plug, slide the white locking clip away from the actuator, press down on the clip and slide the plug away from the actuator.



6. Use a flat head screwdriver to pry open the locking tab on the driver sleeve clamp, located just behind the driver side exhaust catalyst. Next, use a 3/8" drive ratchet and 15mm deep socket to loosen both nuts on the sleeve clamp as shown.

NOTE: Both nuts must be loosened for the sleeve clamp to fully disengage.



 Both the driver and passenger side valve wiring harness connections should now be disconnected and hanging clear of the stock rear mufflers.



 Remove both nuts at the passenger side flange connection, located just behind the passenger side exhaust catalyst, using a 3/8" drive ratchet and 15mm deep socket.

Set aside the nuts in a protected location to be reused in REMOVAL STEP 16 (Axle Back Section Only) or during the full cat back exhaust installation (INS5395).

3.0" Axle Back Exhaust, Dual Exit w/ Twin 4.5" S.S. Tips/4.5" Carbon Tips (Box 2 of Cat Back) Part #: 21322(Incl. CF, BLK, CFBLK) (Box 2 of Cat Back Part #: 21320 (Incl. CF, BLK, CFBLK)



REMOVAL INSTRUCTIONS

FACTORY EXHAUST



8. Remove the driver and passenger side axle pipe hangers (located in front of the rear suspension) from the factory grommets using grommet pullers or a similar device.

NOTE: The use of a soap and water solution may aid in the removal of hangers from the grommets.



NOTE: An additional helper (or two) is highly recommended for **REMOVAL STEPS 10-11**. The rear fascia must be pulled away from the exhaust for the valve actuators to clear during exhaust removal.

10. Use a 3/8" drive ratchet,15mm shallow socket, swivel joint, and long extension to remove both nuts securing each of the driver and passenger side rear hanger grommet assemblies. Set aside the fasteners in a protected location to be reused during INSTALL STEP 16.



9. Remove the driver and passenger side front muffler hangers (located behind the rear suspension) from the factory grommets using grommet pullers or a similar device.



11. Push up slightly on the exhaust tip pipes, then slide the rear hanger grommet assemblies rearward to free them from the studs in the chassis. Next, slide the entire stock exhaust assembly rearward until the stock flange and sleeve clamp are free from the exhaust catalyst pipes. Lower the front of the exhaust, then slide it forwards to allow the rear muffler, tips, and valve actuators to move forward and down to clear the rear fascia; then CAREFULLY remove the exhaust from the vehicle.

3.0" Axle Back Exhaust, Dual Exit w/ Twin 4.5" S.S. Tips/4.5" Carbon Tips (Box 2 of Cat Back) Part #: 21322(Incl. CF, BLK, CFBLK) (Box 2 of Cat Back Part #: 21320 (Incl. CF, BLK, CFBLK)



REMOVAL INSTRUCTIONS

FACTORY EXHAUST

NOTE:

1) Continue with INSTALL STEPS 12-16 if installing only the Axle Back section of the CORSA exhaust system with the FACTORY TUNNEL section.

OR

2) Continue with STEP 1 OF THE INSTALLATION SECTION OF THE CORSA DOUBLE X-PIPE TUNNEL INSTRUCTIONS (INS5395) if installing the full CORSA Cat Back exhaust system for the CT5-V Blackwing.



12. On the factory exhaust, measure 12" rearwards (towards the factory muffler) from the rearward edge of the passenger side axle pipe hanger bracket as shown, following the outside profile of the exhaust pipe, to mark the CUT LINE.



14. Using a chain cutter or similar device, cut both the driver and passenger side exhaust pipes at the marked locations.



13. Measure 13.5" rearwards (towards the factory muffler) from the rearward edge of the driver side axle pipe hanger bracket as shown, following the outside profile of the exhaust pipe, to mark the CUT LINE.



15. Thoroughly deburr both cut edges of the FACTORY TUNNEL section of the factory exhaust.

3.0" Axle Back Exhaust, Dual Exit w/ Twin 4.5" S.S. Tips/4.5" Carbon Tips (Box 2 of Cat Back) Part #: 21322(Incl. CF, BLK, CFBLK) (Box 2 of Cat Back Part #: 21320 (Incl. CF, BLK, CFBLK)



REMOVAL INSTRUCTIONS

FACTORY EXHAUST



16. Reinstall the **FACTORY TUNNEL** section of the factory exhaust into the vehicle. Installation is the reverse of **REMOVAL STEPS 6-8**.

Step 16 concludes the removal of the factory exhaust.

3.0" Axle Back Exhaust, Dual Exit w/ Twin 4.5" S.S. Tips/4.5" Carbon Tips (Box 2 of Cat Back) Part #: 21322(Incl. CF, BLK, CFBLK) (Box 2 of Cat Back Part #: 21320 (Incl. CF, BLK, CFBLK)

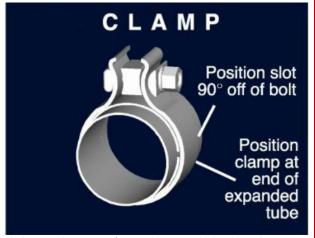


WARNING! DO NOT SKIP THIS STEP!

It is recommended to apply anti-seize lubricant to the threads **ONLY** of all the clamps and flange bolts. Failure to follow this procedure can cause nuts to seize on clamps and potentially destroy threads.

After applying anti-seize lubricant, be sure to **thoroughly** clean your hands, as lubricant will tarnish stainless steel.

All clamps should be tightened using a properly calibrated Torque Wrench. Using an air impact gun will damage the clamp and reduce its ability to effectively seal the joint. It may also cause the joint to separate, thereby causing damage to your exhaust system and to your vehicle.



NOTE: Align all clamps so that the center of the clamp bolt is 90 degrees from the notch in the pipe.

INSTALLATION INSTRUCTIONS

CORSA EXHAUST





On the FACTORY REAR MUFFLER section, remove the three nuts on each valve actuator using a 1/4" drive ratchet and 10mm socket. Remove both FACTORY VALVE ACTUATORS from the valve assemblies on the muffler.

3.0" Axle Back Exhaust, Dual Exit w/ Twin 4.5" S.S. Tips/4.5" Carbon Tips (Box 2 of Cat Back) Part #: 21322(Incl. CF, BLK, CFBLK) (Box 2 of Cat Back Part #: 21320 (Incl. CF, BLK, CFBLK)



INSTALLATION INSTRUCTIONS

CORSA EXHAUST



 Locate the passenger muffler assembly and three of the supplied M6 bolts from the hardware kit. Rotate the valve actuator bracket on the CORSA muffler until the valve plate is in the fully open position as shown.



3. Locate the actuator engagement spring from the passenger FACTORY VALVE ACTUATOR. Position the actuator spring onto the top of the valve as shown.





- **4.** Position the passenger **FACTORY VALVE ACTUATOR** onto the actuator spring, while aligning the actuator mounting holes with the bolt pattern on the CORSA valve as shown, and secure with the three M6 bolts, using a 1/4" drive ratchet and 10mm socket. Torque bolts to **89 IN-LBS**.
- 5. Locate the driver muffler assembly and three supplied M6 bolts from the hardware kit. Repeat INSTALL STEPS 2-4 to install the driver FACTORY VALVE ACTUATOR onto the driver muffler assembly.

3.0" Axle Back Exhaust, Dual Exit w/ Twin 4.5" S.S. Tips/4.5" Carbon Tips (Box 2 of Cat Back) Part #: 21322(Incl. CF, BLK, CFBLK) (Box 2 of Cat Back Part #: 21320 (Incl. CF, BLK, CFBLK)



INSTALLATION INSTRUCTIONS

CORSA EXHAUST



6. Locate a 2.75" clamp. Slide the clamp over the inlet of the passenger muffler assembly, so that the nut will be located on the inside of the muffler inlet and facing downwards.



8. Slide the front muffler hanger into the corresponding grommet as shown. Rotate the passenger muffler until the hanger is horizontal as it runs through the stock grommet.

NOTE: The use of a soap and water solution may aid in the installation of hanger grommets.



 Slide the passenger muffler assembly onto the passenger axle pipe outlet (or passenger outlet of the FACTORY TUNNEL section), with a recommended pipe overlap of 1.75 inches.



9. Secure the passenger muffler using a ratchet and 15mm deep socket, until the muffler inlet pipe is snug on the axle pipe outlet. Leave the clamp connection loose enough for adjustment.

10. Locate a 2.75" clamp. Repeat **INSTALL STEPS 6-9** to install the driver muffler assembly onto the driver axle pipe (or driver outlet of the **FACTORY TUNNEL** section).

3.0" Axle Back Exhaust, Dual Exit w/ Twin 4.5" S.S. Tips/4.5" Carbon Tips (Box 2 of Cat Back) Part #: 21322(Incl. CF, BLK, CFBLK) (Box 2 of Cat Back Part #: 21320 (Incl. CF, BLK, CFBLK)



INSTALLATION INSTRUCTIONS

CORSA EXHAUST



 Locate the supplied 5/16" nuts and muffler tie bracket from the hardware kit. Slide the muffler tie bracket over the studs from both mufflers as shown.



12. Secure the muffler tie bracket using a ½" wrench. Leave the nuts loose enough for adjustment.



13. Remove both rear exhaust grommets from the exhaust hangers on the FACTORY REAR MUFFLER using grommet pullers or a similar device. Note the orientation of the grommets for the following installation step.

NOTE: The flats near the outer mounting hole locations must be facing upwards as shown (see arrow locations in above image).

3.0" Axle Back Exhaust, Dual Exit w/ Twin 4.5" S.S. Tips/4.5" Carbon Tips (Box 2 of Cat Back) Part #: 21322(Incl. CF, BLK, CFBLK) (Box 2 of Cat Back Part #: 21320 (Incl. CF, BLK, CFBLK)



INSTALLATION INSTRUCTIONS

CORSA EXHAUST



14. Locate a 3.0" clamp and the passenger inner tip pipe assembly. Slide the clamp over the inlet of the inner tip pipe, so that the nut will be located on the inside of the tip pipe inlet and facing downwards. Install the rear exhaust grommet onto the rear hanger position with the flat facing upwards as shown.



15. Slide the passenger inner tip pipe assembly onto the passenger muffler outlet, with a recommended pipe overlap of 1.625 inches.



16. Locate two of the nuts set aside in **REMOVAL STEP 10**. Slide the passenger rear hanger grommet onto the studs in the chassis as shown. Secure the grommet to the chassis using a 3/8" drive ratchet and 15mm socket.



17. Secure the passenger inner tip pipe using a ratchet and 15mm deep socket, until the inner tip pipe inlet is snug on the muffler outlet. Leave the clamp connection loose enough for adjustment.

18. Locate a 3.0" clamp and the driver inner tip pipe assembly. Repeat **INSTALL STEPS 14-17** to install the driver inner tip pipe assembly onto the driver muffler assembly.

3.0" Axle Back Exhaust, Dual Exit w/ Twin 4.5" S.S. Tips/4.5" Carbon Tips (Box 2 of Cat Back) Part #: 21322(Incl. CF, BLK, CFBLK) (Box 2 of Cat Back Part #: 21320 (Incl. CF, BLK, CFBLK)



INSTALLATION INSTRUCTIONS

CORSA EXHAUST



19. Locate both valve wiring extensions from the hardware kit. Connect both wiring extensions to the chassis side of the valve wiring connectors. Push in the grey locking tabs on the wiring connectors to secure the connections. Connect the opposite end of the wiring extensions to the valve actuators (installed on the mufflers) on both sides of the vehicle. Push in the grey locking tabs on the wiring connectors to secure the connections. Move the valve wiring extensions to the center of the vehicle as much as possible to keep clearance to the rest of the exhaust system components (passenger side shown).



20. Locate a 3.0" clamp and one of the CORSA stainless (or Carbon) inner tip assemblies. Slide the clamp over the tip inlet, so that the nut will be located on top of the tip inlet and facing outwards. Slide the inner tip assembly onto the passenger inner tip pipe with approximately 1.75" of overlap.



21. Adjust the rotation of the CORSA inner tip assembly until the CORSA logo is centered on the top of the tip, then secure the exhaust clamp at the tip inlet using a 15mm socket and 3/8" ratchet, until the tip is snug on the inner tip pipe. Leave the clamp connection loose enough for adjustment.

22. Locate a 3.0" clamp and the other CORSA stainless (or Carbon) inner tip assembly. Repeat **INSTALL STEPS 20-21** to install the driver inner tip assembly onto the driver inner tip pipe assembly.

3.0" Axle Back Exhaust, Dual Exit w/ Twin 4.5" S.S. Tips/4.5" Carbon Tips (Box 2 of Cat Back) Part #: 21322(Incl. CF, BLK, CFBLK) (Box 2 of Cat Back Part #: 21320 (Incl. CF, BLK, CFBLK)



INSTALLATION INSTRUCTIONS

CORSA EXHAUST



23. Locate a 2.25" clamp and the passenger outer tip pipe assembly. Slide the clamp over the inlet of the inner tip pipe, so that the nut will be located on the outside of the tip pipe inlet and facing downwards.



24. Slide the passenger outer tip pipe assembly onto the passenger muffler outlet, with a recommended pipe overlap of 1.625 inches.



25. Secure the passenger outer tip pipe using a ratchet and 15mm deep socket, until the outer tip pipe inlet is snug on the muffler outlet. Leave the clamp connection loose enough for adjustment.

26. Locate a 2.25" clamp and the driver outer tip pipe assembly. Repeat **INSTALL STEPS 23-25** to install the driver outer tip pipe assembly onto the driver muffler assembly.

3.0" Axle Back Exhaust, Dual Exit w/ Twin 4.5" S.S. Tips/4.5" Carbon Tips (Box 2 of Cat Back) Part #: 21322(Incl. CF, BLK, CFBLK) (Box 2 of Cat Back Part #: 21320 (Incl. CF, BLK, CFBLK)



INSTALLATION INSTRUCTIONS

CORSA EXHAUST



27. Locate a 3.0" clamp and one of the CORSA stainless (or Carbon) outer tip assemblies. Slide the clamp over the tip inlet, so that the nut will be located on the outside top of the tip inlet and facing diagonally downwards. Slide the outer tip assembly onto the passenger outer tip pipe with approximately 1.75" of overlap.



28. Adjust the rotation of the CORSA outer tip assembly until the CORSA logo is centered on the top of the tip, then secure the exhaust clamp at the tip inlet using a 15mm socket and 3/8" ratchet, until the tip is snug on the outer tip pipe. Leave the clamp connection loose enough for adjustment.

29. Locate a 3.0" clamp and the other CORSA stainless (or Carbon) outer tip assembly. Repeat **INSTALL STEPS 27-28** to install the driver outer tip assembly onto the driver outer tip pipe assembly.

3.0" Axle Back Exhaust, Dual Exit w/ Twin 4.5" S.S. Tips/4.5" Carbon Tips (Box 2 of Cat Back) Part #: 21322(Incl. CF, BLK, CFBLK) (Box 2 of Cat Back Part #: 21320 (Incl. CF, BLK, CFBLK)



INSTALLATION INSTRUCTIONS

CORSA EXHAUST









30. Adjust the system, including the FACTORY TUNNEL SECTION position, (or the head pipe connections, and the x-pipe and axle pipe depth and rotation if installing the full CORSA cat back system) and the rear muffler, inner tip pipe, and outer tip pipe depth and rotation, so that the CORSA tips are centered in the tip cutouts in the bumper valence. The rear mufflers should be rotated upwards in the center (muffler tie bracket location) to allow all the exhaust tips to have the same vertical clearances on top to the cutouts in the rear valence. Check the position of all hangers to make sure they are properly seated within their corresponding grommets. Check clearances between the system components and chassis and verify that the outer tip pipes are not in contact with the heat shielding or the vehicle under paneling. If necessary, the heat shielding above the exhaust can be shaped to create additional clearances to the head pipes just behind the transmission cradle (cat back only). At this time, start at the front of the vehicle, and tighten all flange hardware (cat back only) and clamps to 45 FT-LBS using the torque wrench and 15mm socket. Tighten the 5/16" nuts on the muffler tie bracket to 11 FT-LBS.

3.0" Axle Back Exhaust, Dual Exit w/ Twin 4.5" S.S. Tips/4.5" Carbon Tips (Box 2 of Cat Back) Part #: 21322(Incl. CF, BLK, CFBLK) (Box 2 of Cat Back Part #: 21320 (Incl. CF, BLK, CFBLK)



INSTALLATION INSTRUCTIONS

CORSA EXHAUST



31. Locate the cross member and all fasteners set aside in **REMOVAL STEPS 1-3** of the stock exhaust removal process. Reinstall the cross member and plastic underside paneling. Installation is reverse of removal. Installation Complete. This concludes the installation of your CORSA Performance exhaust system.

NOTE: During cold weather start-ups, you may experience an exhaust sound that is deeper and louder in tone than usual. This is temporary and will diminish to normal levels once your engine has reached its normal operating temperature.

NOTE: Immediately following the installation of your exhaust system, you may experience a trace of smoke after initial start-up. DO NOT be alarmed. The smoke is caused by the burning of a small amount of forming oil residue used in the manufacturing process.

NOTE: It is strongly suggested that all clamps be checked and tightened after road testing the vehicle once the system has cooled.