



Thank you for being selective enough to choose a Dinan Performance Exhaust System. The Dinan Engineering Team has spent many hours developing this product to assure that you will receive increased performance, durability and an aesthetic design that you as a customer will be able to enjoy for many years. Ease of installation and maintenance is important to us and has been highly considered throughout the design process.

Prior to performing the installation, familiarize yourself with these instructions as it should help you with the process. If you feel that you do not have the required skills or tools, please arrange for a qualified repair facility to perform the installation.

If you have any difficulties during the installation, or if these instructions are not clear to you, please call Dinan's Technical Support Staff at (800) 341-5480.

Again, thank you for choosing Dinan. Enjoy.

## **Installation Instructions**

D660-0084 and D660-0084-BLK

#### **EXHAUST SYSTEM**

Vehicle Application List:

2017-2021 F54 MINI Clubman S ALL4

2017-2021 F60 MINI Countryman S ALL4

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## **Parts List**

Quantity	Part#	Description
	I	1
1	D663-0360	Muffler Assembly; F60
1	D662-0653	Inlet Tube; F60 AWD
1	D663-0366	Hardware Kit
1	D662-0433	Exhaust Valve Mount
1	D662-0665	D76 Limiter
3	D671-0189	M6 Locknut
3	D671-0193	M6x20 Socket Head Bolts
2	D671-0377	M6x12 Socket Head Bolts
1	D671-0378	M6x16 Socket Head Bolts
9	M6 Flat	Washer
3	M6 Wave	Washer
3	D662-9228	Single Bolt Clamp, 69.9mm
1	D662-9241	Double Bolt Clamp, 69.9mm
1		
	D663-0353	Exhaust Valve Controller Kit
1	<b>D663-0353</b> ELO-501	Red Scotchlok Con
1	ELO-501	Red Scotchlok Con
1 4	ELO-501 DT441-0022	Red Scotchlok Con Velcro Strip
1 4 6	ELO-501 DT441-0022 D502121	Red Scotchlok Con Velcro Strip 5" Tie Strap
1 4 6 1	ELO-501 DT441-0022 D502121 D661-0031	Red Scotchlok Con  Velcro Strip  5" Tie Strap  Exhaust Valve Spring
1 4 6 1	ELO-501 DT441-0022 D502121 D661-0031 D661-0032	Red Scotchlok Con Velcro Strip 5" Tie Strap Exhaust Valve Spring Heat Shield, Valve Motor
1 4 6 1 1	DT441-0022 D502121 D661-0031 D661-0032 D661-0033	Red Scotchlok Con Velcro Strip 5" Tie Strap Exhaust Valve Spring Heat Shield, Valve Motor Exhaust Valve Motor
1 4 6 1 1 1	ELO-501 DT441-0022 D502121 D661-0031 D661-0032 D661-0033 D662-0643	Red Scotchlok Con Velcro Strip 5" Tie Strap Exhaust Valve Spring Heat Shield, Valve Motor Exhaust Valve Motor Valve Motor Fob + Controller
1 4 6 1 1 1 1	ELO-501 DT441-0022 D502121 D661-0031 D661-0032 D661-0033 D662-0643	Red Scotchlok Con Velcro Strip 5" Tie Strap Exhaust Valve Spring Heat Shield, Valve Motor Exhaust Valve Motor Valve Motor Fob + Controller Exhaust Valve Harness; Main
1 4 6 1 1 1 1 1	ELO-501 DT441-0022 D502121 D661-0031 D661-0032 D661-0033 D662-0643 D662-0644 D662-0645	Red Scotchlok Con Velcro Strip 5" Tie Strap Exhaust Valve Spring Heat Shield, Valve Motor Exhaust Valve Motor Valve Motor Fob + Controller Exhaust Valve Harness; Main Exhaust Valve Harness; PWR
1 4 6 1 1 1 1 1	ELO-501 DT441-0022 D502121 D661-0031 D661-0032 D661-0033 D662-0643 D662-0644 D662-0645	Red Scotchlok Con Velcro Strip 5" Tie Strap Exhaust Valve Spring Heat Shield, Valve Motor Exhaust Valve Motor Valve Motor Fob + Controller Exhaust Valve Harness; Main Exhaust Valve Harness; PWR
1 4 6 1 1 1 1 1 1	ELO-501 DT441-0022 D502121 D661-0031 D661-0032 D661-0033 D662-0643 D662-0644 D662-0645 D662-0646	Red Scotchlok Con Velcro Strip 5" Tie Strap Exhaust Valve Spring Heat Shield, Valve Motor Exhaust Valve Motor Valve Motor Fob + Controller Exhaust Valve Harness; Main Exhaust Valve Harness; PWR Exhaust Valve Harness; GND



## Removal: Stock System

- 1) Cut the exhaust pipe 2  $\frac{3}{4}$ ", measured from the rear edge of the brace.
- 2) Ensure the exhaust system is supported and unbolt the hanger assembly from the car.
- 3) Remove the cut stock system from the car.
- 4) Remove rubber grommets from stock system. The stock hangers will be re-used.

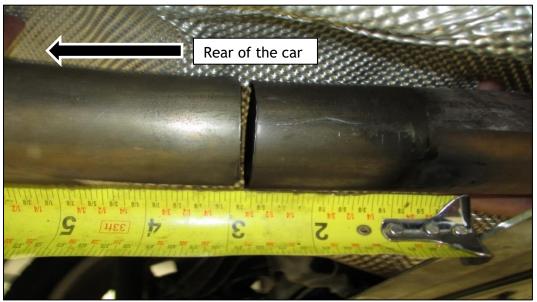


Figure 1: Cut Point

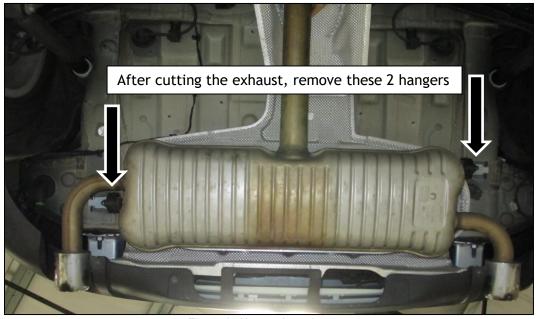


Figure 2: Hanger Location



## Assembly: Valve Brackets/Motor

- 1) Assemble the exhaust valve mount (blue) and D76 limiter (orange) to the valve as shown in Figure 3.
- 2) Ensure all bolts are tight.

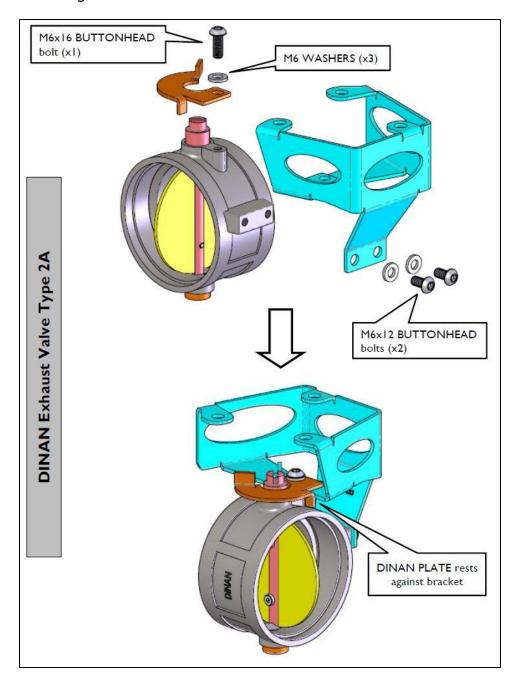


Figure 3: Assembly- Valve Bracket



3) Using supplied hardware, install motor and spring as shown in Figure 4.

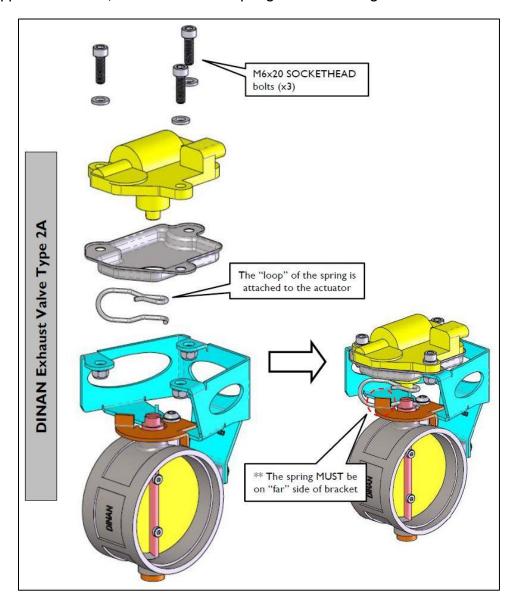


Figure 4: Assembly: Valve Motor



#### Installation:

#### **Inlet Tube**

Refer to Figure 5 below for installation.

- 1) Slide the single bolt clamp over the inlet tube end with the slots.
- 2) Ensure the bolt is facing down as shown in Figure 5.
- 3) Slide the inlet tube over the stock exhaust at the cut point.
  - a. Snug fit clamp.

69.9 mm clamp, double bolt

- b. Do not tighten as adjustment of pipe will be needed.
- 4) Slide the double bolt clamp onto the inlet tube as shown.



Figure 5: Inlet Tube



#### **Axle Back**

- 1) Install stock hangers onto Dinan muffler system, Figure 6.
- 2) Lift muffler assembly up in to place.
- 3) Install the 2 nuts for the hanger mounts and tighten, Figure 7.



Figure 6: Hanger Installation



Figure 7: Exhaust Hanger Installation



- 4) Slide the wide coupler clamp over the muffler pipe, splitting the difference between the cut.
- 5) From the rear of the vehicle:
  - a. Push the exhaust system from the rear of the vehicle up and towards the front of the car and lightly tighten the coupler clamp.
  - b. Final adjustment and tightening of clamps will be conducted after installation of tips.

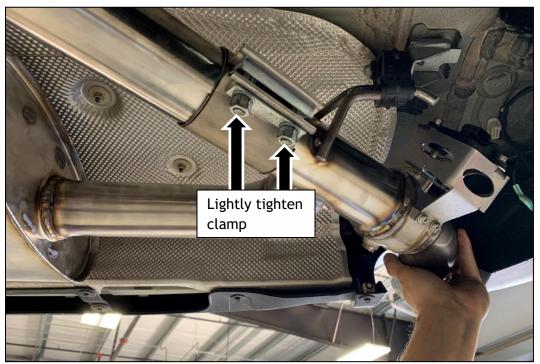


Figure 8: Setting Muffler

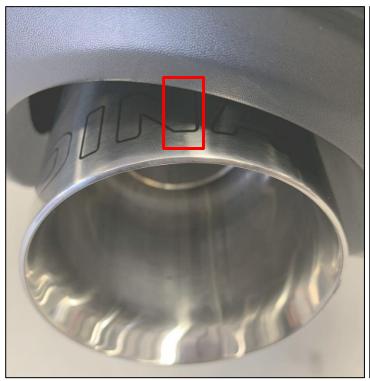


## **Exhaust Tips**

- 1) Slide the 69.9mm clamp onto the tip flange.
  - a. Bolt shall be aligned with the DINAN logo (top side).
  - b. The bolts should face towards the outside of the car. Figure 9 shows the passenger's side tip. The driver's side tip should have the bolt end facing the opposite direction.
- 2) The tips should be clocked where the middle of the first N is centered.
  - a. Line up the tips where the bumper is aligned to the tip edge.
  - b. Once the tips are aligned, tighten the tip clamps until tips are secure and do not move.



Figure 9: Tip Clamp Location



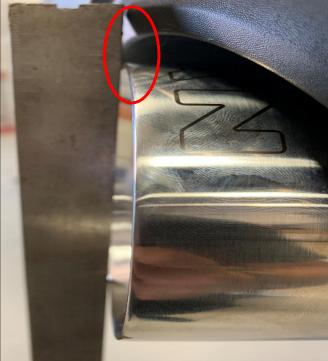


Figure 10: Clamp Position on Vehicle



### **Exhaust Adjustment**

Small adjustments may be needed on the Inlet Tube in order to center the tips appropriately. The following is recommended.

- 1) Push the tips up and towards the front of the car.
- 2) Snug fit all clamps and check tip alignment.
- 3) Once the tips are even on both sides and spaced between the bumper to your liking, tighten the coupler clamps.

## **Clamp Torque Settings**

All clamps shall be torqued to 45 ft-lbs.

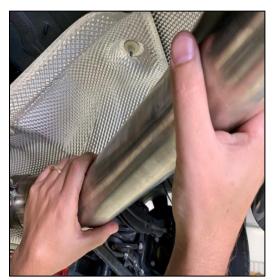




Figure 11: Aligning the Exhaust System



Figure 12: Rear View- Installed System



# F60 Countryman MINI Chassis go to Appendix: Wiring Valve for F60 F54 Clubman MINI Chassis go to Appendix: Wiring Valve for F54

## Appendix:

#### Wiring Valve for F60

- 1) On the driver's side wheel well, remove the screw as shown in Figure 13.
- 2) Pull back the shield, locate and remove the grommet.
- 3) Feed the connector plugs into the grommet hole and re-install grommet.







Figure 13: Accessing wire routing

4) In the trunk location, remove the panel on the driver side and then raise the floor panel.

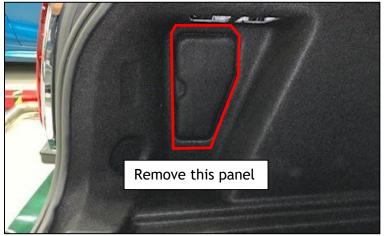




Figure 14: Trunk Panels



5) Remove all the marked pins in Figure 15 and Figure 16. Remove the trunk trim.



Figure 15: Trim Removal



Figure 16: Panel Removal



6) Pull back the drivers side panel, locate the connector plug wires that were fed through the grommet in step (3). Pull wires up.



Figure 17: Connector Plug Routing

- 7) Locate the control box and attach the wires you've just pulled through. Red-Red. White-White.
- 8) Attach the control box to the driver's side trunk wall with the supplied Velcro or Zip Tie as shown in Figure 18.

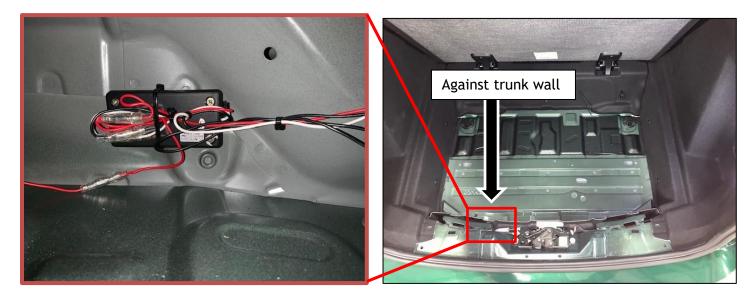


Figure 18: Control Box Mounting



9) On the second set of wires, there is a black wire and a red wire with a small fuse attached. Plug the red wire into the second red plug on the control box. Run the wire from the control box to the passenger's side panel, running the wires behind any paneling using zip ties to secure the wires.



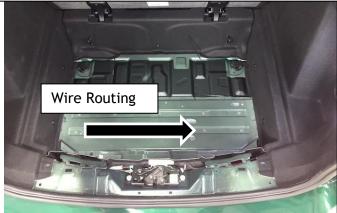


Figure 19: Routing Wires

**10)**On the passenger's side, locate and remove the dome light from its housing. Run the red wire into the dome light hole.





Figure 20: Routing Red through Dome Light



- 11) Attaching to power: Figure 21.
  - a) Locate red and yellow wire attached to the dome light
  - b) Lay this wire into the Scotchlok connector as shown. It will feed through.
  - c) Insert the red Dinan Power Wire into the other side of the connector.
  - d) Crimp the metal tab onto both wires and close the hinge until it is latched.
- 12) Re-install dome light.

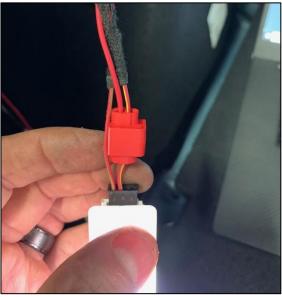


Figure 21: Power Connection

- 13)On the driver's side, behind the removed panel from step 3, locate the ground lug.
  - a) Attach the longer ground wire with an eyelet on one end and a bullet connector on the other end to the lug and plug the wire into the control box.
  - b) Make sure you have a good contact on the lug and secure the wire.

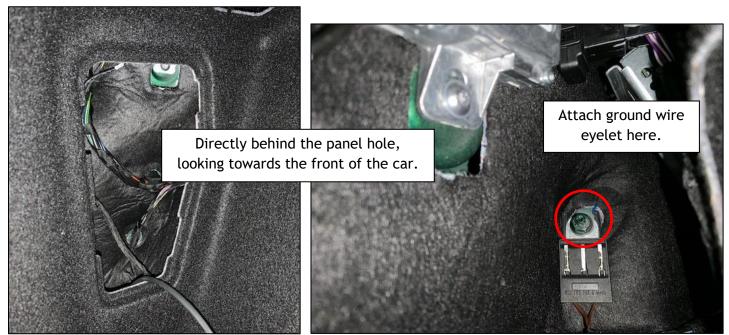


Figure 22: Attaching Ground Wire



14) Check all wiring connections, attach zip ties where needed, and reinstall the trunk interior.



Figure 23: Re-assembly of trunk interior

15) Continue installation process at Final Installation on page 20.



### Wiring Valve for F54

- 1) On the driver's side wheel well, remove the screw as shown in Figure 24.
- 2) Pulling back the shield and locate and remove the grommet.
- 3) Feed the connector plugs into the grommet hole and re-install the grommet.







Figure 24: Wire Routing

- 4) Open the trunk and remove the driver's side paneling on the trunk wall.
- 5) Pull the wiring up and through the grommet hole into the cavity below the dome light.



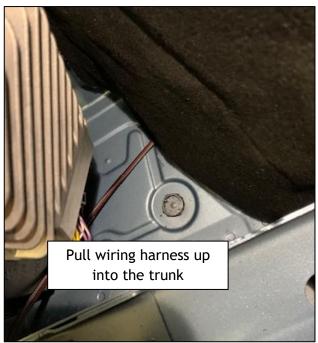


Figure 25: Feeding Wire



6) Attach the control box to the driver's side trunk wall with the supplied Velcro or Zip Tie as shown in Figure 26.



Figure 26: Control box mounting position

7) Make sure all surfaces are clean and attach the ground wire to the wheel well lug.



Figure 27: Ground Wire



- 8) Attaching to power: Figure 28
  - a) Locate red and yellow wire attached to the dome light.
  - b) Lay this wire into the Scotchlok connector as shown. It will feed through.
  - c) Insert the red Dinan Power Wire into the other side of the connector.
  - d) Crimp the metal tab onto both wires and close the hinge until it is latched.

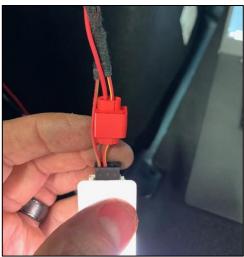


Figure 28: Dome Light Connection

9) Using the provided zip-ties, cable manage excess wiring. Reinstall the trunk panel and dome light.

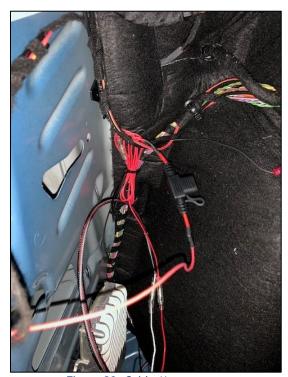


Figure 29: Cable Management



#### Final Installation

This section applies to both the F60 and F54 platforms. It is the final electrical install needed for the system to work properly.

1) Underneath the car, remove the nut for the hanger mount on the driver side, marked below.



Figure 30: Hanger Ground Location

2) Ensure the hanger mount surface is clean and free of contaminants. This is important as it is a grounding surface. Light sanding may be needed. Attach black ground cable. Tighten nut.



Figure 31: Ground Prep and Install



3) Plug the exhaust valve motor in, leaving at least 1 inch of slack in the cable. Adjust cable entering grommet to allow for slack. Ensure the cable is not touching the exhaust system or anything sharp.



Figure 32: Final Motor Connection

- 4) Reinstall the screw in the wheel well from the initial step.
- 5) Power the car on and test the key fob remote to ensure both the remote and the valve work properly.

Installation is complete. Thank you for choosing a Dinan Exhaust. Enjoy!