

VERUS ENGINEERING

ND Mazda Miata Underbody Panel

Install Manual



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Document Revisions

Rev	Date	Author	Description
01	2017/05/24	P. Lucas	Initial release of install manual
02	2017/08/08	P. Lucas	Company name change from Velox to Verus

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1. Introduction

1.1. Overview: Detailed instructions on installing the Underbody Panels for ND Mazda Miata

1.2. Difficulty: Easy

1.3. Time Required: 1-2 hours

1.4. Tools Needed:

- 1.4.1. Drill
- 1.4.2. Marking Device (Permanent Marker)
- 1.4.3. 3/8" drill bit
- 1.4.4. 1/4" drill bit
- 1.4.5. Cent Punch
- 1.4.6. Ratchet
- 1.4.7. 10mm Socket
- 1.4.8. 17mm Socket
- 1.4.9. 9/16 Wrench
- 1.4.10. 4mm Allen Wrench or Socket
- 1.4.11. Electric Impact (Not necessary but makes faster)



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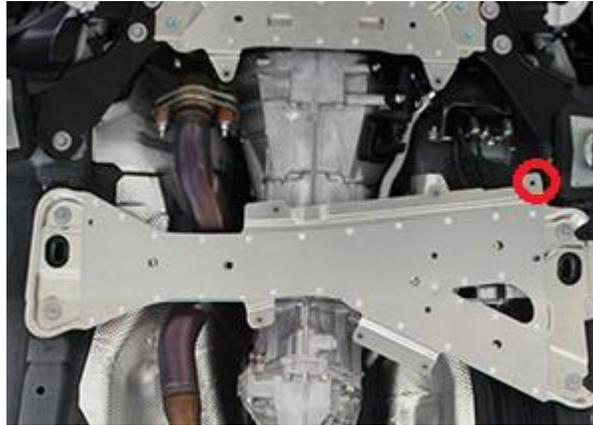
1.5. Underpanel Components**1.5.1. Front Panel****1.5.2. Rear Panel****1.5.3. Hardware Bag****1.5.3.1.** (11) M6 x 1.0 Stainless BHCS (Button Head Cap Screw) x 25mm Long**1.5.3.2.** (3) M6 x 1.0 Stainless BHCS x 16mm Long**1.5.3.3.** (14) M6 Large Stainless Washer**1.5.3.4.** (10) M6 Nylon Spacer, 7.5mm Long**1.5.3.5.** (10) M6 Nylon Spacer, 10mm Long**1.5.3.6.** (4) Rivet Nuts**1.5.3.7.** (1) Installer Tool**2. Underbody Panel Install**

- 2.1.** Velox is not responsible for damage to you or your vehicle by following this manual and/or installing Verus Engineering products.
- 2.2.** We begin by jacking up the car or lifting the car on a lift. Use of jack stands is necessary if working on the ground.
- 2.3.** With the car in the air, we can get access to the center of the car.

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- 2.4. We start by working on the front of the two panels. Locate the hole (shown below) that does not have a threaded insert installed.



- 2.5. To install the rivet nut, we first have to drill the hole out to 3/8".
- 2.6. Utilizing the supplied rivet nut tool, place the rivet nut on the serrated side of the nut, as shown below. Using the 10mm socket and socket wrench, with the 9/16" wrench to steady the nut, install the rivet nut fully.



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2.7. Remove the large sub frame bolt with 17mm socket.



2.8. We can now install the front panel. First bolt the 17mm bolt with the panel now on top of it. Tighten this to 48 ft-lbs.

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- 2.9.** Depending on the exhaust, you can install either the 7.5mm or 10mm spacers. We recommend starting with the 7.5mm spacers. Install these spacers above the panel between the under panel and car. Use the M6 x 1.0 BHCS that are 25mm long with washers to bolt the panel to the car to approximately 90 in-lbs.



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3. Rear Underbody Panel Install

3.1. We begin by installing the rear panel's center (5) holes into the factory locations. Utilizing spacers above the panel and below the Miata, and the BHCS/washers, tighten these temporarily.



3.2. Using a sharpie or paint marker, mark the center of the (3) slots on the rear panel, located below in blue.



3.3. With the body marked, we remove the rear panel.

3.4. Using the center punch, center punch these (3) marked locations on the body.

3.5. Using the 1/4" drill bit, drill these (3) locations through the bottom most skin of the vehicle.
There is material above this bottom skin, so do not press too hard.

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- 3.6.** Using the 3/8" drill bit, open these (3) locations up to a 3/8" hole for installing the rivet nut.
- 3.7.** Follow step 2.6 to install the rivet nuts in these locations.
- 3.8.** We can now install the rear panel. Start with the **outside bolts** that go into the rivet nuts you just installed. Keep these BHCS and washers loose for right now to allow some adjustment for the other (5) holes.
- 3.9.** Similar to the front panel, install spacers between the panel and underbody, with a washer and bolt on the bottom side of the panel. Depending on the exhaust used, you may need to use the 5mm or 10mm spacers.
- 3.10.** Tighten all hardware on the rear panel to approximately 8 ft-lbs.



- 3.11.** At this time we verify that all the hardware installed is tight and not loose. We also verify that the panel is not hitting the exhaust or it will cause a rattle.
- 3.12.** Congratulations, you have successfully installed the Verus Engineering ND Mazda Miata Underbody Panels. The car now benefits from increased clean flow to the diffuser and a reduction in drag. Please contact Verus Engineering with any questions, comments, concerns, and feedback via sales@verus-engineering.com.

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