

144 Side Step Installation Guide

This guide covers installation of the 144 Side Step system on both sides of the vehicle. Begin with the ****passenger side****, then repeat the applicable procedure on the driver side. Use the supplied photos throughout the guide to confirm bracket orientation and placement.

****CAUTION:**** Wear safety glasses when drilling. Treat all drilled metal surfaces with rust-preventive paint before installing rivet nuts or hardware.

Required Tools

- Drill
- 1/4-inch drill bit
- 13/32-inch drill bit
- Tape measure
- Center punch and hammer
- Rust-preventive paint, such as Rust-Oleum
- Pneumatic or manual rivet-nut installation tool
- Impact wrench or driver
- 1/4-inch-drive ratchet
- 3/8-inch-drive ratchet
- 5/32-inch Allen/hex bit
- 7/32-inch Allen/hex bit
- #8 Allen/hex bit
- 7/16-inch socket
- 9/16-inch socket

Torque Specifications

Fastener Size | Final Torque

1/4-20 hardware 75 in-lb OR 6.25 ft-lb
5/16-18 hardware 132 in-lb OR 11 ft-lb
3/8-16 hardware 236 in-lb OR 19.67 ft-lb

****NOTICE:**** Do not apply final torque until the side step has been positioned, leveled, and all brackets are correctly aligned.

Kit Components

| Part Number | Description | Quantity

| PC OV-STP-144-09 | Aluminum backing plate | **2**

| PC SSBR-2 | Large A-bracket | **7**

| PC SSBR-2-03 | Z-bracket | **7**

- | Z SSBR-2-06 | Zinc pinch-weld bracket | **7**
- | PC SSBR-2-04P | Passenger-side B-bracket | **3**
- | PC SSBR-2-04D | Driver-side B-bracket | **2**
- | PC SSBR-2-05D | Driver-side fork B-bracket | **1**
- | PC SSBR-2-05P | Passenger-side fork B-bracket | **1**
- | PC STP-TREADPLATE | Tread-gripper plate | **1**
- | 144 Side Step Hardware Kit | Complete hardware kit | **1**

Hardware Bags

A-Bracket Hardware

****Hardware Bag: SPR-GEN2-ABRKT-HK****

- 1/4-20 x 1-inch button-head hex bolts — **7**
- 1/4-inch flat washers — **7**
- 1/4-20 Nylock nuts — **7**
- 1/4-20 rivet nuts — **7**

B-Bracket Hardware

****Hardware Bag: SPR-GEN2-BBRKT-HW****

- 3/8-16 x 1-inch button-head hex bolts — **2**
- 3/8-16 Nylock nuts — **7**
- 3/8-inch flat washers — **7**

Extra Side Step Hardware

- 1/4-20 x 1-inch button-head hex bolts — **4**
- 1/4-20 flat washers — **4**
- 1/4-20 rivet nuts — **4**

Footpad Hardware

****Hardware Bag: SPR-FOOTPAD-HK****

- 5/16-18 x 1-inch button socket-head bolts — **2**
- 5/16-inch flat washers — **4**
- 5/16-18 Nylock nuts — **2**
- 10-32 x 3/8-inch flat socket-cap screws — **10**

Side Step Bracket Hardware

****Hardware Bag: SPR-SSBRKT-HK****

- 3/8-16 x 1-inch button socket-cap bolts — **4**
- 3/8-inch flat washers — **8**
- 3/8-16 Nylock nuts — **4**

Passenger-Side Installation

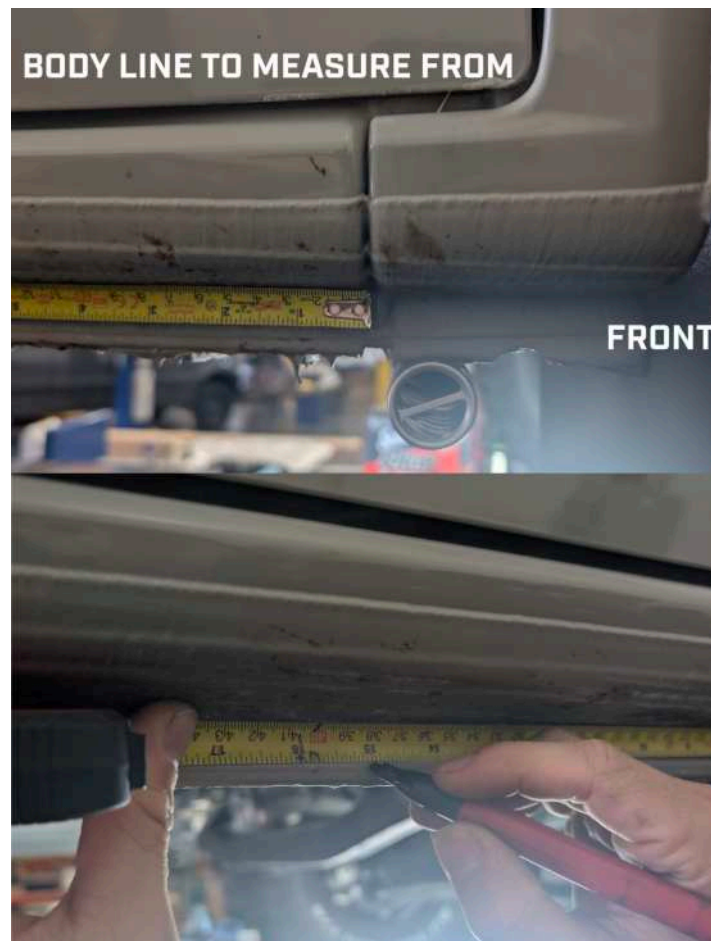
Prepare the Vehicle

1. Park the vehicle on a flat, level surface. Apply the parking brake and confirm there is adequate clearance below the passenger side.
2. Remove all components from the packaging.
3. Separate the brackets and hardware by type, then verify that all kit components are present before starting installation.
4. Remove any existing side steps, running boards, brackets, or related mounting hardware from the passenger side of the vehicle.

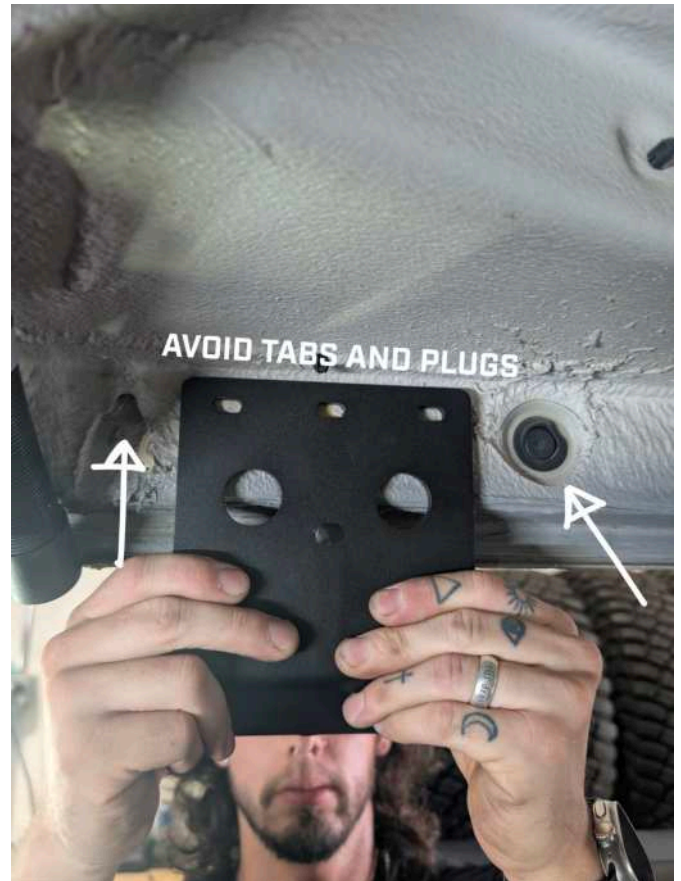
****NOTICE:**** Clean the pinch weld and surrounding mounting surfaces before installing the brackets. Remove dirt, loose undercoating, or debris that could prevent the brackets from seating flat.

Locate the Front Bracket

5. Locate the seam at the bottom-front area of the passenger-side door opening.
6. Measure 15 inches rearward along the pinch weld from this seam.



7. Mark the pinch weld at the 15-inch location. This mark establishes the centerline for the front Z-bracket and A-bracket assembly.
8. Position one Z-bracket at the marked location, centered over the measurement mark.
9. Use the Z-bracket as a template to mark the pinch-weld mounting holes.



10. Remove the Z-bracket and center-punch each marked hole location.

Drill and Protect the Front Mount

11. Drill the marked Z-bracket mounting holes using a **1/4-inch drill bit**.

12. Apply **rust-preventive paint** to both sides of every drilled hole.

13. Allow the paint to dry before installing the bracket hardware.

****CAUTION:**** Avoid drilling into wiring, brake lines, fuel lines, or other components located behind the mounting area. Inspect the area before drilling.



Install the Front Z-Bracket and A-Bracket

14. Position the zinc pinch-weld bracket and Z-bracket on opposite sides of the pinch weld, sandwiching the pinch weld between them.



15. Install the supplied 1/4-20 x 1-inch button-head bolt, washers, and 1/4-20 Nylock nut from hardware bag ****SPR-GEN2-ABRKT-HK****.

16. Tighten the Z-bracket hardware enough to secure the bracket against the pinch weld.

17. Install the corresponding A-bracket onto the Z-bracket using the supplied 1/4-20 hardware.



18. Leave the A-bracket-to-Z-bracket hardware finger-tight at this time. The A-bracket must remain adjustable for final alignment.

Install the Remaining Bracket Sets

19. Measure approximately 23 to 25 inches rearward from the center of the front bracket assembly.
20. Install the second Z-bracket and A-bracket assembly using the same process used for the front bracket.
21. Secure the Z-bracket hardware to the pinch weld, but leave the A-bracket hardware loose enough for adjustment.
22. Locate the rear end of the pinch weld.
23. Measure approximately 18 inches forward from the end of the pinch weld and mark the center location for the fourth bracket assembly.



- 24.** Install the fourth Z-bracket and A-bracket assembly at this location.
- 25.** Secure the Z-bracket hardware to the pinch weld, but leave the A-bracket hardware loose enough for adjustment.
- 26.** Position the third bracket assembly between the second and fourth bracket assemblies.



- 27.** Space the third bracket evenly between the adjacent brackets while confirming that the bracket will support the side step correctly.
- 28.** Install the third Z-bracket and A-bracket assembly using the same procedure.
- 29.** Confirm that all four passenger-side A-brackets are installed and that each A-bracket remains adjustable.

Align the A-Brackets

- 30. Move each A-bracket to the top of its adjustment range.
- 31. Adjust the brackets until their mounting surfaces are level with one another.
- 32. Bracket heights may vary slightly due to vehicle construction; prioritize a level and straight mounting surface across all A-brackets.
- 33. Snug the A-bracket hardware using a **7/16-inch socket** and a **5/32-inch Allen bit**.
- 34. Do not apply final torque at this stage. The A-brackets must be removed after the rivet-nut holes are drilled.

Drill the A-Bracket Rivet-Nut Holes

- 35. With the A-brackets held in their aligned positions, use each A-bracket as a drilling template.



36. Drill two of the three rear mounting holes in each A-bracket using a **1/4-inch drill bit**.



37. After all A-bracket pilot holes have been drilled, remove the A-brackets from the vehicle.

38. Leave all Z-brackets installed on the pinch weld.

39. Enlarge each 1/4-inch pilot hole using a **13/32-inch drill bit**.

40. Apply **rust-preventive paint** to all freshly drilled metal surfaces.

41. Allow the paint to dry completely before installing rivet nuts.

****NOTICE:**** Do not enlarge holes until the A-bracket locations have been verified. Rivet-nut placement determines the final A-bracket position.

Install the Rivet Nuts

- 42. Install a 1/4-20 rivet nut into each enlarged A-bracket mounting hole.
- 43. Use a **pneumatic rivet-nut tool** or an approved **hand rivet-nut tool**.
- 44. Verify that every rivet nut is fully collapsed, firmly seated, and does not spin in the vehicle body.



Reinstall the A-Brackets

45. Reinstall each A-bracket onto its corresponding Z-bracket and pinch-weld assembly.
46. Install the A-bracket mounting bolts into the newly installed rivet nuts.



47. Tighten the pinch-weld, Z-bracket, and rivet-nut hardware.
48. Torque all **1/4-20** A-bracket hardware to ****75 in-lb OR 6.25 ft-lb****.

Install the B-Brackets

Identify Bracket Locations

49. Separate the passenger-side B-brackets before installation.

50. Identify the front passenger-side B-bracket and compare it with the rear B-brackets. The front bracket has a different shape and must be installed in its designated front location.



51. Confirm that all B-brackets are installed on the ****front side**** of the A-brackets, as shown in the installation photos.



52. Do not interchange **driver-side** and **passenger-side** brackets. The B-brackets are **side-specific**.

Attach the B-Brackets

53. Position each B-bracket against its corresponding A-bracket.

54. Install the supplied B-bracket hardware through the A-bracket and B-bracket mounting holes.

55. Use a **7/32-inch Allen bit** with a **3/8-inch-drive ratchet** and a **9/16-inch socket** with a **1/4-inch-drive ratchet**.

56. Snug the B-bracket hardware, but do not fully tighten it. Final adjustment is required after the side step is installed.

Prepare the Side Step

Install Backing Plates

57. Place the side step on a protected work surface.

58. Position the aluminum backing plates in the designated locations on the side step.

59. Install the backing-plate hardware using a **#8 Allen bit**.

60. Tighten the backing-plate fasteners securely



Mount the Side Step

Set the Side Step in Place

61. With assistance, carefully lift the side step onto the installed B-brackets.



62. Align the front and rear side-step mounting points with the corresponding B-bracket mounting holes.





63. Install the supplied 3/8-inch bolts, washers, and Nylock nuts at the front and rear side-step mounting locations.

64. Leave all side-step-to-B-bracket hardware loose enough to allow adjustment.

Install Tread-Gripper Plate

65. Position the tread-gripper plate on the side step as shown in the installation photos.

66. Install the supplied 10-32 x 3/8-inch flat socket-cap screws.

67. Tighten the tread-gripper plate hardware securely.

****CAUTION:**** Support the side step throughout installation. Do not allow the side step to hang on partially installed hardware.



Align and Torque Hardware

- 68. Adjust the side step until it is flat, level, and evenly spaced from the vehicle body.
- 69. Confirm that the step is straight when viewed from the side of the vehicle.
- 70. Check that the door operation is unobstructed and that the side step does not contact the body, door, or pinch weld.
- 71. Tighten the upper side-step-to-B-bracket hardware.
- 72. Tighten the B-bracket-to-A-bracket hardware.
- 73. Torque all 3/8-16 side-step bracket hardware to ****236 in-lb OR 19.67 ft-lb****.
- 74. Torque all 5/16-18 footpad hardware to ****132 in-lb OR 11 ft-lb****.
- 75. Recheck every installed fastener after final torque has been applied.

Driver-Side Installation

- 76. Repeat the installation procedure on the driver side, including removal of any existing side-step hardware, pinch-weld bracket installation, drilling, rivet-nut installation, B-bracket installation, and final side-step alignment.
- 77. Install ****three**** A-bracket, Z-bracket, and pinch-weld bracket assemblies on the driver side.
- 78. The driver side uses three bracket assemblies rather than the four used on the passenger side.
- 79. Position the third driver-side bracket near the rear end of the side step.
- 80. Maintain approximately 39 inches of spacing between the second and third driver-side bracket assemblies.
- 81. Confirm that the driver-side B-brackets are installed in their correct side-specific locations before mounting the side step.
- 82. Level the driver-side step, verify door clearance, and torque all applicable hardware to the listed specifications.

Final Inspection

83. Verify that both side steps are level, straight, and evenly positioned relative to the vehicle body.

84. Confirm that all Nylock nuts have adequate thread engagement and that the bolt threads extend through the locking portion of the nut.

85. Confirm that every drilled hole has been treated with **rust-preventive paint**.

86. Open and close all doors to verify there is no interference with the side steps or brackets.

87. Recheck all hardware after the first drive and again after approximately 100 miles of use.