



VERTICAL TIRE MOUNT

2002+ RAM/2500/3500

2002–2018 RAM 1500

NEW PRODUCT

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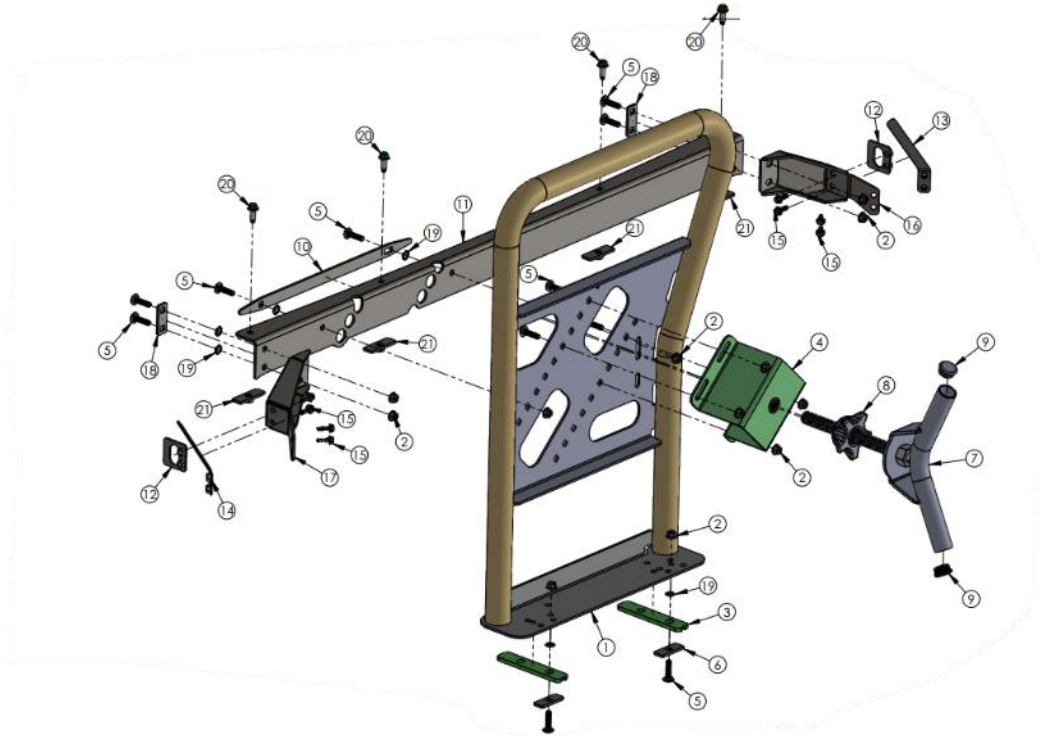
This is a new product and we want to make sure that you receive the latest and most accurate information based on customer feedback, product revisions, and/or model year updates. We value customer feedback, so we encourage you to contact our Technical Support department if you have any suggestions on how to make the installation of this product easier or if you have any questions regarding the installation of this product. AEV's Technical Support can be reached by email at tech@aev-conversions.com or by giving us a call at (248)-926-0256.



PLEASE READ BEFORE YOU START

To guarantee a quality installation, we recommend reading these instructions thoroughly before beginning any work. These instructions assume a certain amount of mechanical ability and are not written nor intended for someone not familiar with auto repair.

INCLUDED PARTS	QTY	REQUIRED TOOLS
Tire Mount Assembly	1	5/16" Drill Bit
Bulkhead Bracket	1	1/2" Drill Bit
Mounting Kit	1	Center Punch
		De-burring Tool
		Rust Preventative
		Common Hand Tools



ITEM NO.	SW SERIAL #	PART #	DESCRIPTION	QTY.
1	D025467	ACPR1032AD	WELDMENT, TRUCK BED TIRE CARRIER, TUBE, FULL SIZE	1
2	95003A103	AEV93036AA	Nut, Flng, M10-1.5 - 10.9 - PS-Black	12
3	D025188	ACPR1025AB	SPACER, TRUCK BED TIRE CARRIER, BOTTOM RAM	2
4	D026239	ACPR1033AB	WELDMENT, TRUCK BED TIRE CARRIER, CENTER BRACKET	1
5	98930A219	B-98930A219	Bolt, Carriage, M10-1.5x40 - 8.8	12
6	D026680	ACPR1037AA	PLATE, TRUCK BED TIRE CARRIER, BACK	2
7	D025656	ACPR1035AA	WELDMENT, TRUCK BED TIRE CARRIER, RETAINER HANDLE	1
8	D025658	ACPR1029AA	BUSHING, TRUCK BED TIRE CARRIER, CENTER	1
9	D026979	CCF-1 1/2-8-12	PLUG, TUBING ROUND, CCF 1-1.5-8-12	2
10	D039102	ACPR1047AA	BACKING PLATE, UNIVERSAL ONE PIECE, TRUCK BED TIRE CARRIER	1
11	D073618	ACPR1060AA	C/C BULKHEAD BRKT, RAM VTM	1
12	D073671	ACPR0115AA	WELDMENT STAKE POCKET NUT PLATE, RAM VTM	2
13	D073677	ACPR0116AA	WELDMENT STAKE POCKET FLAG NUT BRKT RH, RAM VTM	1
14	D073681	ACPR0117AA	WELDMENT STAKE POCKET FLAG NUT BRKT LH, RAM VTM	1
15	DEFAULT	AEV91153AA	Bolt, HFing, M8-1.25x25 - PS11036-Black	8
16	D083068	ACPR0122AB	GUSSET WELDMENT RH, RAM VTM	1
17	D083071	ACPR0123AB	GUSSET WELDMENT LH, RAM VTM	1
18	D083083	ACPR1084AA	BACKING PLATE, RAM VTM	2
19	94813A600	94813A600	M10 ROUND PUSH NUT	8
20	D006578	11588738	M10 X 1.5 X 25 HEX FLANGE BOLT	4
21	D095445	ACPR0124AA	WELDMENT BULKHEAD NUT PLATE, RAM VTM	4



I. SETTING UP VERTICAL TIRE MOUNT

1. Physically measure the diameter of the tire you are using. DO NOT go off the advertised size listed on the sidewall (fig. 1) *ex: 37 x 12.50 Tire measures 36"*.
 - A. Divide the diameter measurement in half to calculate the radius *ex: 36"/2 = 18"*.
 - B. Subtract 1/4" from the radius to account for material thickness of the Tire Carrier *ex: 18" - 1/4" = 17 3/4"*

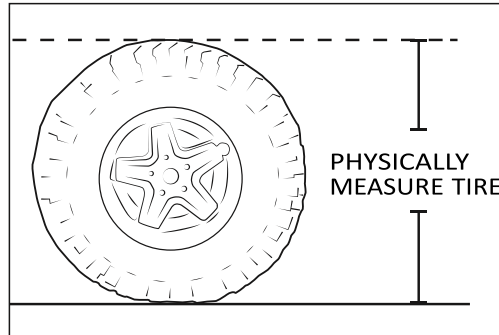


Figure 1

2. Use the final dimension from 1-B to position the Tire Mount on the Tire Carrier (fig. 2).

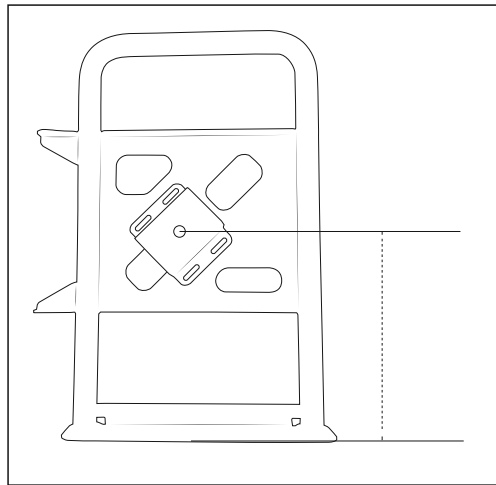


Figure 2

3. Install four M10x35 carriage bolts through the back side of the Tire Carrier. Secure with M10 nuts and tighten until snug. Some adjustment may be required, nuts will be torqued later in the process.



II. INSTALLATION

1. Place the Bulkhead Cross Bracket on the truck bulkhead (Fig. 3). Center the bracket on the bulkhead using a tape measure. Try and keep the bracket equal distance from each bed sidewall.



Figure 3

2. When centered to the bulkhead, mark all ten holes on the bulkhead (Fig. 4). Remove bracket and center punch and drill all ten holes to 1/2".

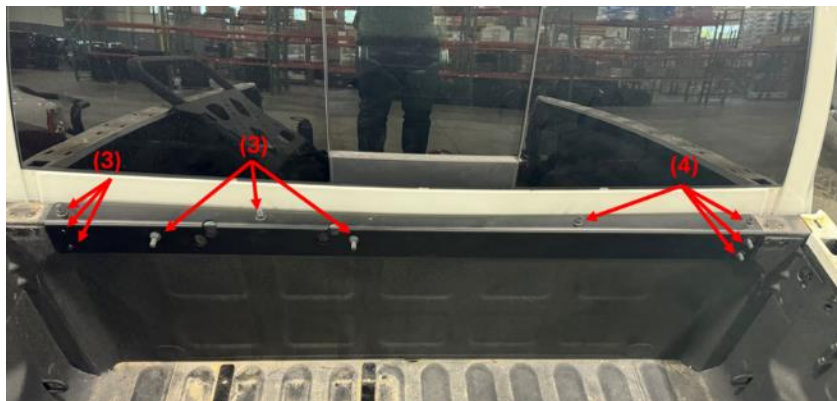


Figure 4

3. Deburr and prep bare metal with rust preventative.
4. Reach behind the bulkhead and align the one-piece backing plate to the two center face holes. Hold in place and insert two M10x40 bolts through the holes behind the bulkhead (Fig. 6). Loosely secure with M10



nuts to hold bracket in place for now. Note: M10 Retaining washers can be used to hold the bracket and carriage bolts in place during installation (Fig. 5).



Figure 5



Figure 6



5. Install two M10 x 40 carriage bolts and a two-hole backing plate through the drilled corner holes from behind the bulkhead. Retaining washers can be used to keep bracket and carriage bolts together to ease installation (Fig. 7). Do this on each end of the bulkhead bracket. Secure loosely with M10 nut.



Figure 7

6. Install 4 M10 x 25mm hex flange bolts into the top side of the bulkhead bracket using the provided bulkhead nut plates to secure the bolts (Fig. 8). Torque bolts to required spec.



Figure 8



7. Place the Corner Gusset Brackets through the two bolts coming out of the bulkhead bracket ends (Fig. 9). Secure this down with two M10 nuts, but do not torque down completely. Make sure the gusset bracket is sitting flush to the bed sidewall and mark the 4 hole locations on the opposite end of the bracket to the bed sidewall. Remove the corner gusset bracket and center punch and drill to ½" hole. Deburr and treat with rust preventative. Do this for both RH and LH sides of the bed. (Note that the corner gussets are handed RH & LH)



Figure 9

8. Remove the Bedside Top Cap on both sides of the vehicle. Be careful removing this plastic side rail cap as the retaining clips can break if not done properly. Access to the front stake pocket is necessary for installation. Another option is to trim out the scribed stake pocket rectangular hole in the side rail cap to gain access to the stake pocket in the bed.
9. Place the corner gusset bracket back onto the cross-car bulkhead bracket and loose install with M10 nuts. Use the stake pocket access in the bedside wall to align the stake pocket nut plate to the two corner gusset holes that were drilled in the bed (Fig. 10). Secure with two M8 x 25 flanged hex cap screws through the gusset bracket. Next, insert the flag nut bracket into the stake pocket hole and align this with the two drilled holes further rearward in the bed (Fig. 11). Secure with two M8 x 25mm flanged hex cap screws through the gusset bracket (Fig. 12). Proceed to the other side of the vehicle and follow these same steps. Torque bolts and nuts down to spec. Reinstall bedside top caps.



Figure 10



Figure 11



Figure 12

10. Place the two provided Spacers on the bed floor as shown; the flat end of the spacer should be inserted toward the bulkhead (fig. 13). Make sure these spacers are pushed all the way to the bulkhead.



Figure 13

11. Place the tire carrier main assembly into position on the bulkhead (Fig. 14). Remove the nuts that were loosely installed on the two center bolts on the face of the bulkhead bracket and place the tire carrier onto these bolts using the two vertical slots in the assembly to locate the part. Loosely install two M10 nuts onto this assembly.



Figure 14

12. Make sure the spacer and tire carrier base plate holes are aligned. Mark the two hole locations on the bed floor. Remove the tire carrier and spacer plates from the bed. Center punch and drill the two marked holes in the bed floor to $\frac{1}{2}$ ". Debur and treat with rust preventative.
13. Place the Tire Carrier Assembly back onto the bulkhead. Install two M10x40 carriage bolts and backer plates (with shank) up through the bed floor from underneath the vehicle; secure in place with M10 nut (Fig. 15).

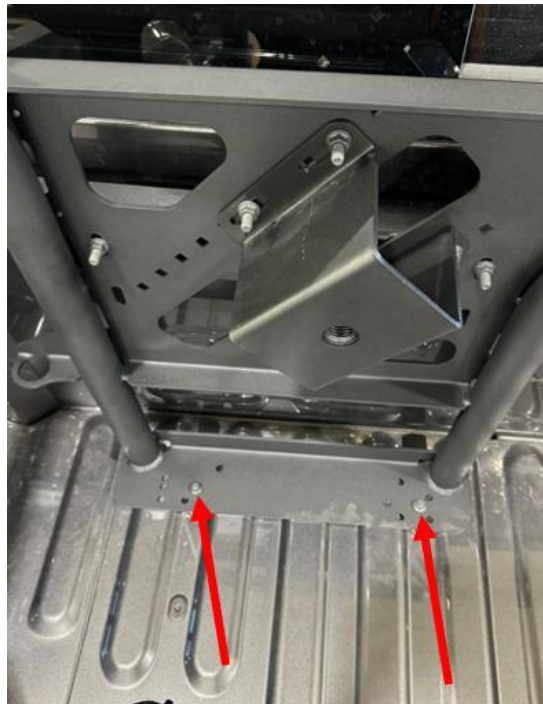


Figure 15

14. Torque all nuts/bolts that were previously loose installed to specs below.

Bolt Size	Torque Specification
M4.2	2.5 NM / 1.8 lb-ft
M6	10.5 NM / 7.7 lb-ft
M8	25 NM / 18.4 lb-ft
M10	67 NM / 50 lb-ft
M12	115 NM / 85 lb-ft
M14	185 NM / 136 lb-ft

III. MOUNTING TIRE

- Slide molded spacer onto threaded portion of handle (fig. 16).
- Install 1 1/2" end caps on to handle (fig. 16).

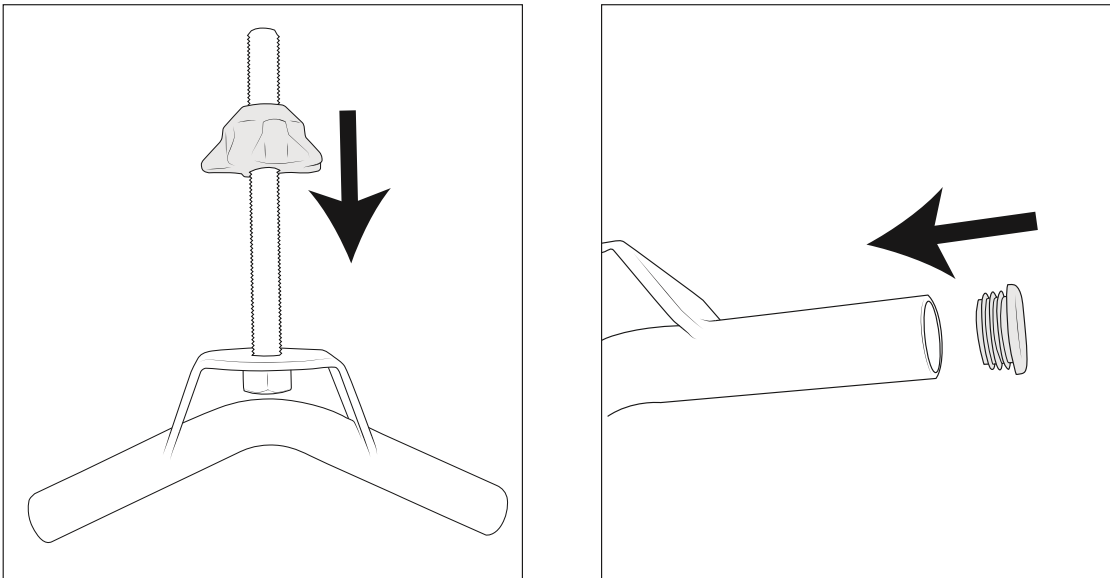


Figure 16

- Insert handle with molded spacer through spare tire and thread into the Center Bracket until tight. NOTE: DO NOT HOLD TIRE IN AIR. If the spare tire is not resting on the bed of the truck, adjust the Center Bracket to sit lower on the Tire Carrier (See Section I).



***NOTE:** If you have an AEV Bed Rack installed on your vehicle, you will need to remove the bed rack prior to installation of the tire carrier. You will proceed with installing the Tire Carrier per the instructions, however, when installing the corner gusset brackets, leave the bracket loose installed until the bed rack is back assembled onto the vehicle. To have tool access to the Bed Rack button head bolts in the front corner of the bed, the corner gussets will need to be loose. Once the bed rack is secured, proceed to torque down the corner gusset bolts.