

Can be converted from a luggage carrier to a sunshade in minutes.

Dave's rack is designed to work on stock vehicles and vehicles with Genuine Olympic 4X4 accessories except 153-AT Slider rear bumper. Some aftermarket equipment may interfere with the installation of Dave's rack. OEM bumper plastic end caps must be removed or modified to allow installation of Dave's rack, or you can purchase one of Olympic 4X4's many different styles of bumpers. Vehicles with hard tops cannot open rear hatch when converted into sunshade. On some jeeps you can reuse end caps without modification. Olympic 4x4 Products are serviced by our factory. We provide answers to installation questions. We ship parts ASAP. Try us before the hassle of returning Olympic 4x4 Products to your retailer or mail order

specialist. **For assistance please call (800)777-0878.**
Please read ALL directions before starting on Dave's Rack.



Finished Dave's Rack



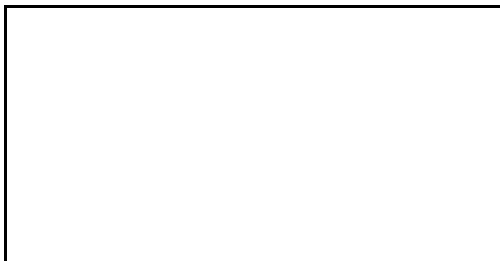
Easily transforms



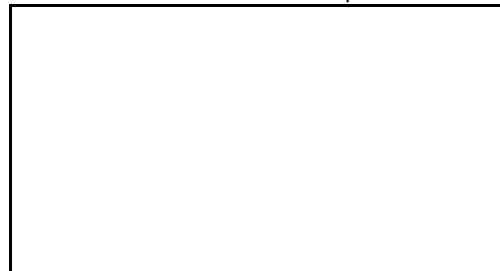
Converted to a Shade Canopy



Tilted back in locked position for Removal / installation of soft-top.



Converting to sunshade by folding down



Folding up to lock into place as a sunshade



Rack in most downward position for installation/ removal of hardtop

Tools needed

3/8" or 1/2" drive ratchet wrenches

Socket wrench sizes: 1/2", 9/16", 5/8", 11/16", 3/4"

Open end/ combination wrench sizes: 3/8", 7/16", 1/2", 9/16", 5/8", 11/16", and 3/4"

Socket wrench extension.

T-40 Torx drive socket

5/32" Allen wrench

Flat head screwdriver

Phillips head screwdriver

Optional tools and equipment

Light penetrating oil, such as WD-40

Lithium grease

Anti-seize lubricant (copper based)

Stepladder

Clear or black paint or fingernail polish

Note:

5/16" bolts use 1/2" wrench

5/16" nuts use 1/2" wrench

12-24 hex nut use 3/8" wrench

3/8" bolts use 9/16" wrench

3/8" nuts use 9/16" wrench

7/16" bolts use 5/8" wrench

7/16" nuts use 11/16" wrench

1/2" bolts use 3/4" wrench

1/2" nuts use 3/4" wrench

7/16" nuts use a different size than the 7/16" bolts

List of hardware

<u>Qty</u>	<u>Description</u>
2	Knobs with 1/4" threaded bolt
2	Plastic cap, rectangular, rear cross member
2	1/4" X 2 1/4" stainless steel pull pin
4	Plastic cap, round, windshield support tube
8	Spacer tubes 1/2" round X 3" long
1	5/16" X 1 1/2" Allen head set screw
6	5/16" X 1" Hex head bolt
16	5/16" Flat washer
6	5/16" Lock washer
2	5/16 x 1 3/4" hex head bolts
2	5/16" Nylock nut
2	3/8" X 3" Grade 8 hex head bolt
10	3/8" NyLock nut
36	3/8" Flat washer
8	3/8" Eye bolt
8	7/16" X 1 1/4" Hex head bolt
2	7/16" X 3 1/2" Hex head bolt
20	7/16" Flat washer
4	7/16" Lock washer
14	7/16" Flange nut
2	1/2" X 1 1/2" Hex head bolt
2	1/2" Flat washer
2	1/2" Lock washer
6	12-24 X 1" Slot screw
6	12-24 Hex nut
6	#12 Lock washer
12	Fender washer
2	Lanyards
4	Stainless steel buttons/bullet pins
6	5/16" x 1" countersunk head bolts

Parts list Box A

Rear bottom support, left
Rear bottom support, right
Rear top support, left
Rear top support, right
Rear pivot support
Front support, left
Front support, right
Rear cross bar
Front cross bar
Top load bar (5)
<u>Box B</u>
Rotating front cross bar end (2)
Basket leg (4)
Safari basket, front (2)
Safari basket, rear (2)
Taillight backing plate (2)
Telescoping leg, outer (2)
Telescoping leg, inner (2)
Rear mounting bracket, right
Rear mounting bracket, left

Technical Specifications:

Load capacity: 500 Pounds

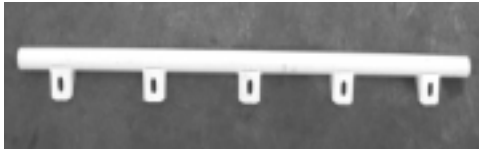
Outside dimensions of load bars: 69" X 71"

Sports Rail dimensions: 60" X 67"

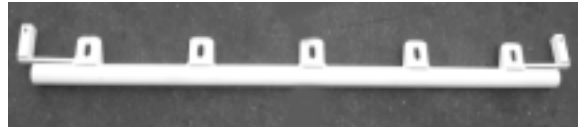
To figure out how high the top of the Sports rack will be on your vehicle, measure the distance from the floor to the top of your Jeep's body tub and add 38.5". Total height will differ from vehicle to vehicle depending on your vehicles tires and suspension system.

Contents photos

Box A 58 Lbs.



Front cross bar 1 1/2" tube 48 7/8" long



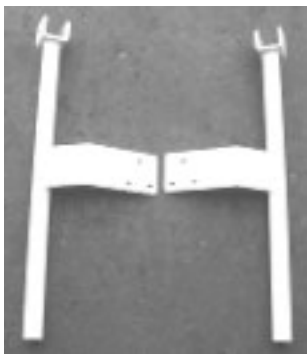
Rear 1 1/2" tube 54" long



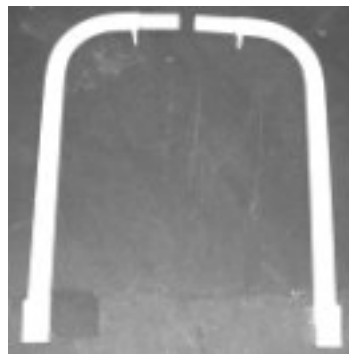
Top load bar (5) 1" tube 67" long



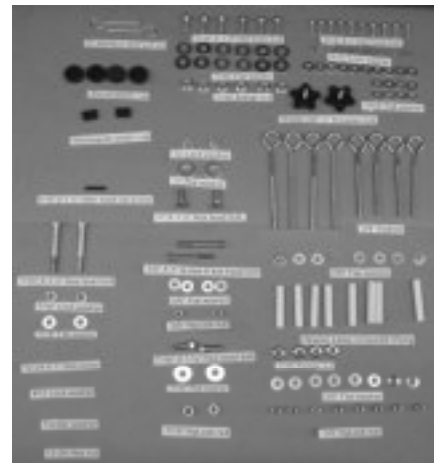
Rear pivot support 3/4" X 1 1/2" rectangular tube 51 3/8" long



Rear support bottoms 1 1/2" tube 28 1/4" long



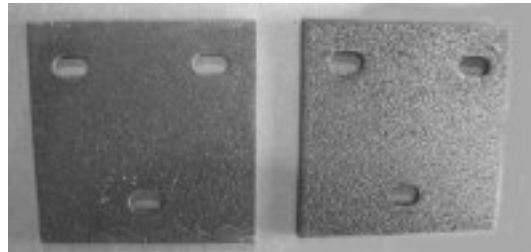
Rear support top 1 1/2" tube 27" long



Hardware

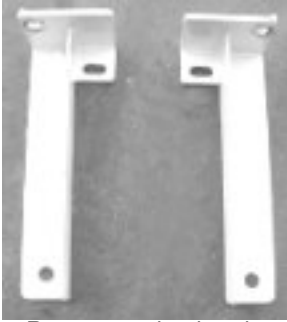


Right and left front support 1 1/2" tube 25 3/4" long

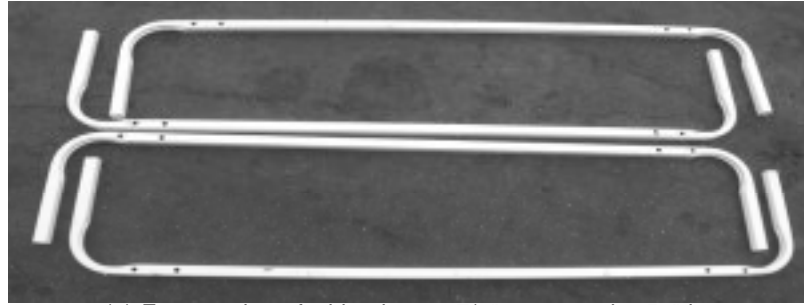


Taillight backing plates 3 1/4" X 3 1/4"

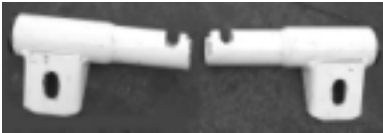
Box B 58 Lbs.



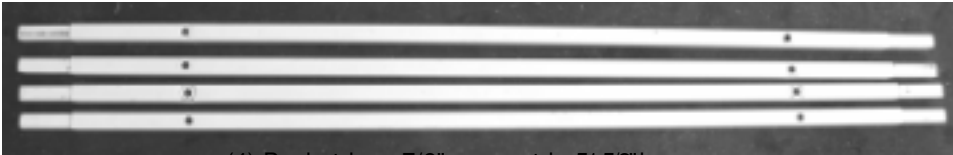
Rear mounting bracket
11 1/4" long



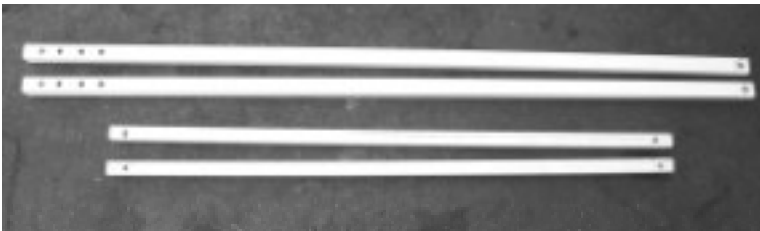
(2) Front ends safari basket. 7/8" square tube 50" long
(2) Rear ends safari basket 7/8" square tube 50" long



Rotating front cross bar ends
1 1/2" tube 6 3/4" long



(4) Basket legs 7/8" square tube 51 5/8" long



Telescoping legs: (2) 1" square tube outer legs 48" long,
(2) 7/8" square tube inner legs 36" long



Photo 1



Photo 2



Photo 3

Step 1. Remove your taillight cover and taillight housing from vehicle body. Using Phillips head screwdriver and flat head screwdriver, some models require a 3/8" socket. See Photos 1 & 2.

Step 2. Remove rear body mount bolt on both sides using 9/16" sized wrench. See Photo 3.

Step 3. Using 7/16" x 1 1/4" hex head bolts, flat washer, and flange nuts, attach rear mounting bracket to frame. **Leave bolts loose till later.**

Note: Top of hex head bolt goes inside of frame. There is an oval access hole that will allow you to gain access to the inside of frame. See photos 4 & 5

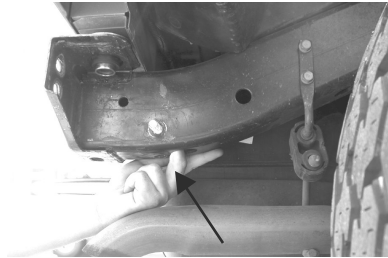


Photo 4



Photo 5



Photo 6

Step 4. Install rear mounting bracket using 7/16"x 3 1/2" hex head bolt, lock washer, and flat washer. The lock washer goes on the bolt first, followed by the flat washer. Then insert bolt through the rear mounting bracket and through the body mount bushings. **Loosely finger tighten body mount bolt.** See photo 6.

Note: Stock OEM bumper end caps must be removed if using OEM bumper. OEM bumper caps may be trimmed so they can be reinstalled on the bumper. A sawzall can be used or other cutting device to trim the OEM bumper end caps. Trimming and re-installation of OEM bumper end caps is optional. **Olympic 4x4 Products** has a wide selection of bumpers that allow for the installation of the Dave's Rack and provide extra protection for your jeep. On some Wranglers with a tow hitch or a tow hook, you must remove them to allow Dave's rack to be mounted properly, depending on application they might be able to be remounted.



OEM bumper with end caps removed.



Photo 7

Step 5. Using a 1/2" x 1 1/2" hex head bolt, lock washer and flat washer, bolt rear bottom support tube to rear mounting bracket. A 3/4" socket wrench will aid in tightening these bolts. **Leave bolts loose.** See photo 7.

Step 6. Place taillight-backing plate inside body tub and replace taillight housing over tab on rear bottom support and attach to vehicle body using 12-24x 1" slot screw, 12-24 hex nut, and a #12 lock washer, fender washer. Slot screws will pass through rear taillight housing, rear bottom support, jeep body, and through the taillight backing plate. **Tighten ALL bolts now**, including rear bottom support bolt to rear mounting bracket, as assembled in step 5, rear mounting bracket, and rear body mount. Reinstall taillight cover.

Note: On 2003 and newer Wrangler TJ's you must remove the passenger side rear tire, rear splash guard that covers the wheel well, and a canister that is inside the rear quarter panel. You must do this in

order to gain access to install the rear taillight-backing plate. Remove the 5/16" bolts (4) and the 5/16" nut that holds the canister mounts in place. Slide the canister out far enough so you can access the area behind the rear taillight, then complete step 6. Next reinstall the canister, splashguard, and rear tire. See supplemental photos for 2003 and newer Wranglers.



Rear splashguard pulled back



Canister that needs to be moved



Canister slid back to allow access to back side of rear taillight.



Rear splash guard folded back, installing taillight backing plate

Note: Stock OEM plastic splashguard will need to be undone to allow access to the backside of the taillights. You may fold back the plastic splashguard once it is undone from rear of the jeep body.



Photo 8



Photo 9



Photo 10

Step 7. Connect one rear top support to rear bottom support using 3/8" x 3" hex head gold grade 8 bolts with flat washer and NyLock nut using a 9/16" socket wrench, also install the lanyard between the 3/8" NyLock nut and one of the flat washers. Leave in downward position. **Tighten these bolts now.** Then insert rear cross bar into one end of rear top support See Photos 8, 9, 10, & 11.



Photo 11



Photo 12



Photo 13

Step 8. Install the second rear top support to the rear cross bar, then swing rear top support upwards and connect to rear bottom support using 3/8" x 3" hex head gold grade 8 bolts with flat washers,

and NyLock nut using a 9/16" socket wrench, also install the lanyard between the 3/8" NyLock nut and one of the flat washers. See Photos 12 & 13.



Photo 14

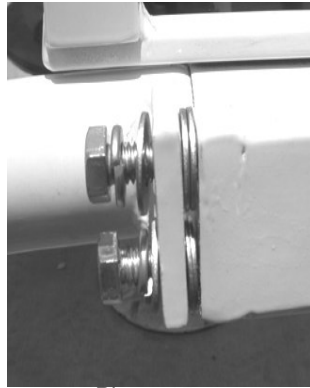


Photo 15



Photo 16

Step 9. Bolt rear rectangular pivot support in place using 5/16" bolts, lock washer and flat washer. Install rear cross bar and rear rectangular pivot support onto the rear support top. See Photos 14, 15

Note: Two 5/16" flat washers will need to be placed between rear top support and rear rectangular pivot support in order for the rear rectangular pivot support to be centered **ONLY** if you have enough gap to fit the washers in on both sides. The rear rectangular pivot support "S" shaped support legs will face toward front of vehicle. Finger tighten all bolts until all 4 bolts are finger tight, then **securely tighten all bolts** with a 1/2" wrench or socket. See Photos 14 & 15.

Step 10. Secure rear support top in upward position with 1/4" pull pin. The pull pin assembly consists of the 1/4" pull pin connected to the key ring that is then connected to the lanyard set. See Photo 16.



Photo 17



Photo 18

Step 11. Remove top bolt from upper part of windshield hinge, using #40 Torx bit and install a 5/16" x 1 1/2" Allen set screw with a 5/32" Allen wrench, to keep threaded plate inside windshield in place. Then remove all other bolts and attach front support with 5/16" x 1" countersunk head bolts, and 5/16" hex head bolts on the front of the windshield hinge also use a flat washer and lock washer. Once front support is tightened in place, remove Allen set screw and replace with countersunk head bolt. Leave these bolts loose till later. See Photos 17 & 18.

Note: It is advised that you use loc-tite on the windshield hinge bolts, and paint them with a clear spray paint or fingernail polish on the heads of the bolts. For a cleaner look you may wish to reuse the OE button head bolt in place of the hex head bolt.



Photo 19



Photo 20

Step 12. Install rotating front cross bar ends into the front cross member, making sure the tabs line up with the tabs on the front cross member. Install front cross member and rotating front cross bar ends to front support. See Photos 19 & 20.

Note: You may want to lubricate the holes on the front cross member where the rotating front cross bar ends are inserted with lithium grease, to ensure ease of installation and effortless future use of the sunshade.

Step 13. Finger tighten front cross bar to front support with supplied knobs with 1/4" threaded bolt. You may want to apply anti-seize lubricant to the threads. See Photo 22. **Tighten the countersunk bolts that secure the front supports to the windshield hinge now.**



Photo 21

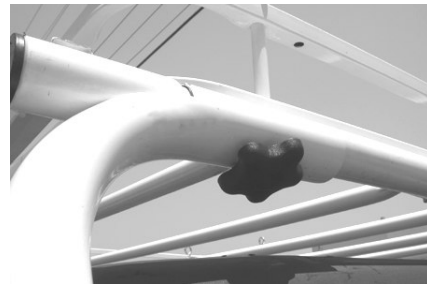


Photo 22

Step 14. Assemble the middle three (3) top load bars to front cross bar and rear cross bar using 7/16" x 1 1/4" hex head bolts along with flat washers, and 7/16" flange nuts. Finger tighten bolts at this time. Once all bolts are finger tight you may then **securely tighten all bolts**. Place the outer 2 top load bars in place. See photo 21.

Step 15. Beside your jeep, connect front end and rear end to the safari basket legs. Do this step twice, since there are going to be two completed safari basket rings.

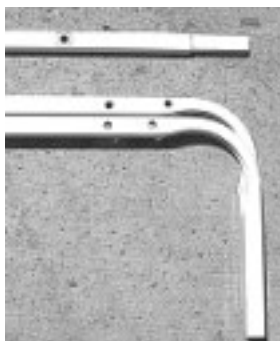


Photo 23

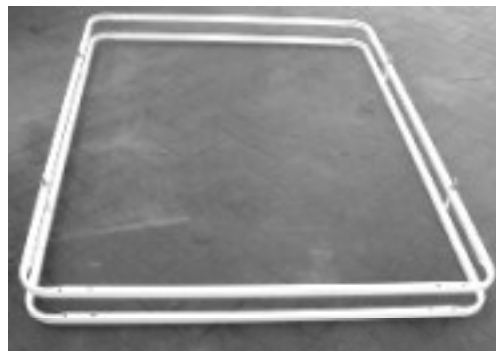


Photo 24

Note: Safari basket has different hole spacing on the front and rear ends of the safari basket. The front ends have 2" centerline spaced holes and the rear ends have 2 3/4" centerline spaced holes. See Photo 23.

Step 16. Using 3/8" eye bolts and 1/2" round x 3" long spacer tubes, flat washer, and 3/8" NyLock nuts, bolt together the upper and lower basket rings. Do this by installing a flat washer on the eye bolt, slide the eye bolt through the upper basket, through 3/8" flat washer, through the 3" long spacer tubes, through 3/8" flat washer, through the lower basket, and install a second flat washer, then fasten with the 3/8" NyLock nut. Install the two left and right eye bolts only and not the two front and rear eye bolts at this time. Finger tighten eye bolts at this time. See photo 24.

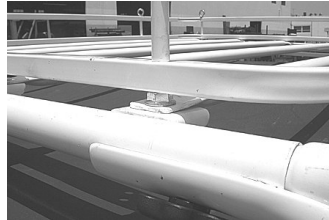


Photo 25.

Step 17. Place the safari basket on top of your Dave's rack, making sure you have the front 2" centerline spaced holes above the front crossbar. Secure safari basket with 3/8" eye bolts, 3" spacer tubes, flat washers, and 3/8" NyLock nuts. Place a 7/16" flange nut as a spacer between safari rack and front and rear cross member. Tighten 3/8" nuts with 9/16" socket or combination wrench. When you place the safari basket on top of Dave's Rack, the eye bolts at the front and rear will bolt through the safari rack, outer top load bars and into the front and rear cross member. Eye bolts assemble in the following order, place a flat washer on eye bolt, install eye bolt through the upper basket, through 3/8" flat washer, through the 3" long spacer tubes, through 3/8" flat washer, through the lower basket, install 7/16" nut as a spacer, then eye bolt goes through the top load bar and rear cross member, then install a 3/8" flat washer and a 3/8" NyLock nut. **Tighten all eye bolts at this time.** See photos 25

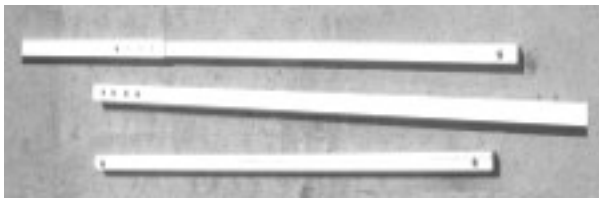


Photo 26



Photo 27

Step 18. Install two (2) stainless steel buttons in each of the inner telescoping legs, shown in photo 26 at the very bottom. Slide the inner telescoping legs into the outer telescoping legs. Bolt outer telescoping legs to the front rotating cross member ends using 5/16" x 1 3/4" bolts, flat washers, and 5/16" NyLock nut. Telescoping legs will be installed in the U-shaped channel on the front cross bar ends. Extend telescoping legs into the rear cross member. See Photos 26&27.

Note: A light penetrating oil may be applied to the telescoping legs for ease of operation.

Step 19. Insert plastic caps in front support, cross bar ends, and rear pivot support.

Note: You may want to wrap the plastic end caps with masking tape where they are inserted into the front support, cross bar ends, and rear pivot support, for a more permanent installation of the end caps. When the masking tape heats up from your jeep being in the sun, the adhesive in the tape will melt and seal the plastic end caps in place.

Step 20. Re-check tightness on ALL nuts and bolts.

Step 21. After 500 miles or first off-road trip, whichever comes first, re-check tightness on ALL nuts and bolts.

Note: To transform the luggage rack into the sunshade, you must remove the front knobs, 1/4" pull pin from the rear support bottom, and the telescoping legs from the rear cross member. The Dave's rack will then pivot on the rear cross member and the rear support bottom. The telescoping legs will pivot downward to a vertical position. Extend the telescoping legs to desired length to support the sunshade. Dave's Rack also pivots on the rear support bottom to allow the installation/ removal of a soft top. To do this remove the front knobs and the 1/4" pull pins from the rear support bottom, the rack will then pivot backwards allowing removal/installation of your soft top. To remove/install a hard top, disconnect 1/4" pull pins, swing rack backwards with the telescoping legs attached to the rear cross member. Lay the rack in its most downward position. Then a hard top may be lifted over the top of the jeep. See Photos on the first page.