

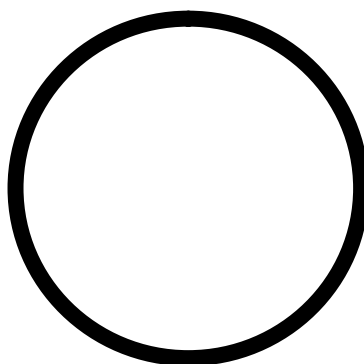


Jeep Wrangler Unlimited (JK Series) - J30 Hard Top version TB3.1

Installation Guide

Application: J30-080 to current

Guide Revision June 1 2017





Contents

Prepare the Jeep	2
Unpack Camper	2
Fasten Camper	3
Install Jeep Wire Harness	5
Final Details	9
Opening and Closing Camper	11
Relocating Sirius/XM GPS Antenna	12
Feedback	16
The Internet, Forums and Bulletin Boards	16



Prepare the Jeep

A number of steps must be done before installing the camper:

1. Remove existing top from Jeep completely, following the Jeep owner’s manual instructions
 - a. For soft top, remove all canvas, frame and door surrounds
 - b. For OEM hard top, disconnect wire harness and remove completely
 - i. Nuts for OEM Hardtop in rear tub can be reused for Ursa Minor top if desired
2. Relocate Sirius/GPS antenna (optional, see appendix)
3. If not previously installed on camper by Ursa Minor, place 2” wide foam tape on camper rear flange or Jeep tub flange

Note: Instructions are applicable to specific J30 units based on serial number. If you need alternate instructions for a unit not covered by these instructions, please email Ursa Minor.

Unpack Camper

1. Unpack camper from crate carefully, disassemble all packaging and framing around unit before trying to remove camper from skid.
 - a. Optional accessories such as racks will be packed or secured separately in crate.
 - b. Rear glass is packed and secured in a box with gas struts
 - c. A small parts box secured to pallet contains small parts, fasteners and similar parts.
 - d. Top is secured to pallet at rear flange and front mounts
2. Verify all loose parts and optional accessories (if ordered) are included in small parts boxes:

Small Box	
Item	Quantity
5/8” Drip Trim - 57.5” min	2 strips
Tension Bolt – M8 x 120 mm bolts	2 each
Tension Bolt Washers – 3/8” x 1.25 DIA washer	4 each
Hard Top Bolts, washers, & nuts – M8 x 35 mm	6 sets
2” x 4’ Foam Sealing Tape	2 strips
30” Wire Harness Pigtail, Fuse, connector leads, self tapping screws	2 pieces
Black Silicon Sealant	1 tube

Large Box	
Item	Quantity
MOPAR OEM Rear Glass (optional components may be mounted)	1 piece
Rear Glass Struts, packed with glass	2 pieces

Options (Check Invoice)

1. Unbolt camper from pallet
 - a. The rear is secured by wood screws into the pallet base.
 - b. The front is secured by 150 mm bolts with spacers between pallet and top. Remove and discard this hardware, these bolts and spacers are only used for packing the unit.
2. Lift camper and set onto Jeep
 - a. Camper weighs approximately 260 lbs
 - b. Use sufficient manpower or a hoist to ensure a safe lift – 3 people at a minimum, one lifting at the front and on each side
 - c. Ensure seals on B pillar and ends of tub are in position, lifting and resetting camper if needed.

Fasten Camper

The front edge of the camper is aligned and fastened through the roll bar using the included tension bolts. The rear flange is bolted through the factory holes

3. Open front doors to install tension bolts
 - a. Place 2 heavy washers on an M8 x 130 mm bolt and insert up through roll bar into camper on both left and right sides.
 - b. Shift camper front to back to ensure clean engagement of bolt if needed (1/16" or so, not a huge shift)
 - c. Tighten bolt a turns with 13 mm wrench into coupling nut to start to pull front of camper down. Do not fully tighten the bolt at this time.
4. Fasten to rear tub
 - a. Carpet on flange is intentionally loose on flange and has extra material; do not pinch carpet between camper and tub flange.
 - b. Pull OEM carpet away from tub during fastening.
 - c. Lift up carpet on camper interior flange and install bolts, washers and nuts to secure camper onto tub. M8 bolts included are longer than OEM bolting to ensure solid engagement. If Jeep had OEM hard top, you can use existing OEM metric nuts within tub. For soft top jeeps, use M8 nuts with fender washer.
 - d. Once fasteners are secure, tuck excess camper carpet around flange and then push OEM carpeting into place.
 - e. Once rear is fully tightened, return and fully tighten front bolts. Close front doors to check for an even gap while tightening.



Install Camper Wire Harness

1. Place plug for wire harness near passenger side B pillar at top and feed wire bundle down rear of B pillar to the bottom.
2. Connect power (Red Wire (+))
 - a. At base of B pillar, remove front passenger door sill and run red (+) wire forward along sill to firewall.
 - b. Remove side panel from dash, and push wire through foam filled hole into engine bay



- c. In engine bay, run harness to battery, crimp fuse holder on end of wire and secure to AUX power post.
3. Ground Black Wire (-)
 - a. At base of B pillar, pull black (-) wire toward rear and under sill.
 - b. Pull up carpet to reveal body sheet metal
 - c. Secure wire to body using self-tapping screw, ensure a good ground.



Figure 1: Black Wire run down sill

4. Connect 3rd Brake Light Wire (White)

Notes: The 3rd Brake light (Also known as Center High Mounted Stop Lamp or CHMSL) is typically connected to the OEM rear brake light circuit in the tailgate. The J30 brake light can be connected in addition to the OEM light, or the OEM light can be disconnected and/or completely removed as preferred if no longer used (due to larger tires being fitted or other equipment installed in this location)

In the tailgate, the wire color for the brake light changes at the connector:

Circuit	OEM Light Harness	OEM Tailgate Harness	UMV Harness
Brake signal (+)	Orange Line on White	Black Line on White	White

- a. Feed wire from pigtail along interior edge of vehicle body to rear tailgate.
- b. Remove any accessories mounted to tailgate, including tables, bags etc.
- c. Remove 2 plastic panels on tailgate
 - i. For vented panel, pry on side toward tailgate hinge first to pop loose



- d. For wide panel across tailgate, pry on bottom edge first to pop loose



- e. Loosen rear quarter interior plastic cladding
 - i. For Jeeps with Subwoofer, remove 2 small luggage loops in rear deck, then open the rear floor cover. This will allow cladding to pop loose toward center of Jeep enough to reach wire harness.
 - ii. For jeeps without subwoofer, pull cladding at tailgate edge toward center of Jeep
- f. Once loose, pry out 2 pop-tabs with wire ties holding rear tailgate harness
 - i. Carefully snip pop-tab wire ties
 - ii. Carefully slice open black tape holding wire sleeve to wiring harness
- g. Slide J30 brake light wire (white) from camper through sleeve onto tailgate panel, following OEM harness into cavity where brake light connector is.
- h. Modify OEM harness
 - i. Clip OEM tailgate harness wire just before plug connecting to brake harness
 - ii. Strip cut ends, wrap together and crimp on female connector.



- i. Slip on heat shrink tubing
- j. Heat shrink tubing on connector with hot air gun
- k. Replace all panels
- l. Connect wire harness connector to camper connector, and place fuse in the fuse holder previously connected to battery.
- m. Check to see if electronics are working.
 - i. Check Camper interior lights. To turn power on in camper, press switch above the windshield. A Red LED shows that power is on the camper. Each light has a switch as well.
 - ii. The 12V outlet or USB (if ordered) is powered up as soon as the camper is connected.
 - iii. Test brake light by applying brakes (ignition does not need to be on)

Final Details

1. Install drip-trim above doors once top is mounted. Note that trim is approximately 1" longer than final length to allow it to be cut to size.
 - a. Leaving trim in sun to warm up makes it easier to apply
 - b. Remove backing and stick to shell above door, do not overlap door opening. Start from front of car and then trim to size at rear.
 - c. The drip trim is essential to keep water from overloading door seal in rainy conditions, leaving it off will likely cause leakage around door seal at top.



2. Install racks (Optional)
 - a. Racks are pre-set for front or back of the camper, and marked with stickers accordingly.



- b. Racks need to be unlocked to clip into place, once on mounts, turn cylinder to lock on roof.
- c. Verify rack is solid by pushing up to check engagement

Opening and Closing Camper

Opening and closing the camper requires the mechanical latches be released AND a path for air to get into or out of the tent. Leaving a door, rear glass or window open will ease this, and one or both hatch panels should also be either removed or slid up into the camper before attempting to open or close.

1. Opening

- a. Verify there is clearance above the camper before opening, especially if racks are mounted.
- b. Release the front latches, and rotate the hook to face out. This will keep the latch from catching during opening and closing.
- c. Push one hatch cover up into the camper onto the mattress pad, or remove. Ensure a window, door or the rear hatch is open to allow air to flow into the camper (the tent acts like a bellows)
- d. Pull the red release strap, located by the rear roll bar.
- e. Push the top up gently. The gas struts will assist in opening.
- f. Swing the safety pole into position and adjust to size. Twisting the end will tighten and loosen the friction fitting.

2. Closing

- a. Swing safety pole up and secure
- b. Place one hatch board in access way, while leaving the other in reach of the hatchway, but do not put in place. The air in the camper needs a way to escape while it is being closed.
- c. Pull down on black webbing loops at edge of headliner. When camper is about half closed (open about a foot) pull all canvas in.
 - i. Ideally, folding is done from the outside, but can also be done from the inside by pulling on the black folding cord at edge of doors. This cord helps fold the front and front sides of the camper.
 - ii. Take extra care to ensure canvas is not caught in hinges
 - iii. For new campers, taking extra care in folding will crease the material so it folds easier in the future
- d. Once top is closed, pull down on rear corners from outside to engage latch.
 - i. When latch snaps closed, the top will no longer move
 - ii. Occasionally, the red release strap can hold the latches open. If the latch is not locking in, ensure the red strap is not pulling on the cable
- e. When rear corners are latched, engage front latches
 - i. Flip hook to line up with striker
 - ii. Engage latches
- f. Drop remaining panel back into access way or secure in vehicle. Turn power off in camper. If LED lights are left on and engine is off, it will take about 48 hours to drain battery .

Relocating Sirius/XM GPS Antenna.

The Jeep Wrangler Unlimited JK featured Sirius/XM Satellite Radio depending on the model, year and options selected. Some models also have a GPS navigation system. The antenna for this system is mounted under the roll bar padding at the top of the B-pillar passenger side roll bar mount.

Mounting of a J30 hard top may cause some reduction or blanketing of the signal due to the electrically conductive properties of the carbon fiber in the (J30) top acting as a shield.

To ensure best signal reception, the OEM Jeep antenna can be relocated from the top of the B-Pillar roll cage to the valence, the small panel just behind the hood that is in front of the windshield.

On Jeeps with GPS in this antenna, the OEM antenna must be relocated.

Ideally the antenna will be relocated with the top off the Jeep, but there is clearance to allow removal of the antenna even when the J30 is mounted, though it will require a dose of patience and perhaps small hands in order to unzip the roll bar cover and get access.



Tools Required:

- 10 mm wrench, open end or socket
- Panel puller, or large flat head screwdriver (to remove panel retaining pins)
- Wire puller
- Drills & bits as needed to remount OEM antenna
- Colleague, buddy, spouse or significant other

Remove OEM Antenna

1. Move front passenger seats all the way forward to allow access to interior bolts and cladding
2. Loosen Rear Speaker sound bar from roll cage to reach back of antenna housing
 - a. 6 screws with 10mm socket
 - b. The entire sound bar does not need to be removed, leaving the driver's side bolts very loose will allow the sound bar to hang down enough to reach the antenna connection.
3. Unzip roll cage cover at passenger side B pillar to expose antenna
4. Remove antenna nut from under roll cage
 - a. 10mm box-end wrench to loosen nut and cage
5. Press tabs around antenna mount while pushing up to pop antenna loose
6. Follow lead from antenna to connector located at the upper front corner of rear passenger side door under roll bar padding
 - a. disconnect by pushing tab and pulling
7. Replace sound bar and roll cage cover
 - a. Leave connector visible

**OEM Antenna Relocation**

1. Remove B-pillar interior covers as needed while carefully removing OEM connector and wire holders,
2. Remove Front Passenger side door sill covers and continue removing OEM connector until you reach the underside of the dash, replace covers once wire is clear

3. Remove Pass Side dash end cover
4. Push through foam seal into engine bay with screwdriver or similar long object
5. Feed wire puller into engine bay, then carefully pull OEM antenna connector through into engine compartment.





6. Drill valence to 5/8" to allow mounting of OEM antenna. Treat any exposed metal edges to prevent corrosion
 - a. The hole is centered on valence, measuring 4.25" back from front edge and 4" from side
7. Connect OEM antenna and mount
 - a. Prep antenna by removing the plastic cage and grinding off alignment pin.
 - b. Loosen valence with T27 Torx and apply tape along joint by windshield. This allows the valence to be pried open slightly to allow you to reach nut and tighten when installing antenna, with the paint protected by the tape. Alternately, removing wipers and all screws allows removal of valence panel completely.
8. Verify function of GPS and Antenna

Feedback

Please let us know how we can improve our documentation and our products. Let us know your opinion on this set of instructions, and where they need improvements, corrections or additional detail by emailing comments or complaints to info@ursaminorvehicles.com

Please let us know which revision you used (at top of page)

If you have questions during installation, please send an email – emails will be reviewed ASAP even on the weekend/off hours to see if we can help, though we may need to be in the shop to provide certain technical answers.

The Internet, Forums and Bulletin Boards

If you should experience any issues or have questions about the installation or your camper, please first contact us directly via phone or email.

1. As a company, we sponsor several forums, and participate on various websites as able. Our official company account/alias is always **Ursa Minor** on any internet forums and bulletin boards we are involved with.
2. Even though we surf the internet, subscribe to threads, and try to keep up to date, posts with questions, or requesting service, on any forum or in a thread will not necessarily be read and responded to in a timely manner. Please do not assume we are ignoring such requests, we may not know they are there.
3. Should your forum alias or user name not be your real name, we will not know which customer you are and this may impair the applicability and accuracy of any information we can provide.
4. In making a public request on a forum or bulletin board, you authorize us to release your customer information, including unit number, photos of your camper/vehicle, your name, location, and any other data that might be communicated intentionally or unintentionally in responding to your request.

Thanks!

John Gish, designer, and all the crew at

Ursa Minor Vehicles