

Off Highway Van

RAM PROMASTER LIFT

2014-2021 MODELS 1500/2500/3500



PACKING LIST:

- 1 - Right Strut Lift Plate
- 1 - Left Strut Lift Plate
- 1 - Right Rear Spindle Plate
- 1 - Left Rear Spindle Plate
- 6 - M16x1.5x160 Bolts
- 6 - M16 washers
- 6 - 32mm spacers
- 4 - 13mm spacers
- 8 - M14x1.5x30 Socket Head Cap Screws
- 8 - M14x1.5x40 Socket Head Cap Screws
- 6 - M10x1.5 Flange Nuts
- 1 - spring compressor tool
- 2 - Rear Sway Bar Relocation Brackets (2022+)

RECOMMENDED TOOLS:

- ½" drive breaker-bar
- ½" drive torque wrench
- ½" drive impact gun
- 1/4, 3/8, and 1/2 drive ratchets
- 15mm, 16mm and 47mm shallow sockets
- 5/8", 12mm, 15mm, 16mm, 21mm, 24mm deep sockets
- 19mm, 21mm, 24mm wrenches
- 5/8" ratchet wrench
- 6mm Allen socket
- Pry bar
- Floor jack & jack stands, transmission jack

PREPARATION:

- Lift Vehicle and support properly
- Large jack stands under front jack points rear of front tires
- Jack Stands under rear axle
- Remove all 4 wheels
- Disconnect battery

FRONT INSTALLATION:

WARNING: THE OHV ENGINEERING TEAM STRONGLY RECOMMENDS THAT WHEN INSTALLING THIS LIFT KIT, ANY FRONT SUMO SPRING TYPE SPACER OR OTHER FORM OF SPACER BE REMOVED. FAILURE TO DO SO CAN CAUSE DAMAGE TO THE STEERING RACK, AXLES, AND STRUTS. REAR SUMO SPRINGS ARE OK TO REMAIN ON THE VEHICLE WITH THE LIFT KIT.

Remove interior trim to expose top of struts

Driver Side

Remove fuse cover

Remove lower trim panel

Remove storage cubby to left of steering column

Detach fuse panel with 3- 10mm fasteners and tip forward

Remove body controller connector on rear of fuse panel (grey /w blue bail) to allow the panel to move out of the way.

Loosen all 3 strut bolts (16mm socket) but leave at least one bolt in place for now

Pass Side

Open glove box and by releasing latches inside, tip it fully down.

Remove screw on left side rear of glove box trim

Remove 3 screws under rubber mat on storage shelf

Remove screw on right side of storage shelf near air vent

Remove trim panel exposing the upper strut

Loosen all 3 strut bolts (16mm socket) but leave at least one bolt in place for now

Under vehicle

Support front subframe with transmission jack or equivalent

Loosen all 6 front subframe bolts (19mm socket) but don't remove yet

Remove pinch bolts that hold struts to uprights

Remove all ABS and brake hoses from their guides on strut – note metal clip on brake line grommet

Remove nut (21mm) and pop tie rod ends from uprights

Loosen but don't remove all 4 steering rack bolts (from bottom of subframe)

Remove transmission to subframe mount bolt (the horizontal one that goes laterally across vehicle)

Remove 15mm bolt on pass side that retains front trim to subframe

Replace all 6 subframe bolts (one at a time) with the longer 16mm bolts and washers provided in the kit – starting each a couple of turns

Lower transmission jack until the subframe hangs on the longer bolts

Remove and replace struts this is done one side at a time, passenger side first

By tapping on the upright with a large hammer, the upright will come off the strut.

When the strut is free, remove the remaining upper bolt(s) and remove strut from vehicle

Using the OEM upper strut bolts, attach appropriate strut spacer to the top of the strut

Torque appropriately (I use Loctite also)

NOTE: small notch in spacer is toward rear of vehicle, flats are toward the outside of vehicle

Attach provided

compressor tool to the strut and compress the strut until the lower bar is within about .5 inch of welded nuts on the threaded rod (about 11 inches from plate to plate)

Re-install strut in vehicle and loosely attach to the body with the provided M10 flange nuts

With some careful prying, re-insert the strut into the upright and replace the pinch bolt



NOTE: it may require complete removal of the subframe bolts on the side you are working on. Don't remove any more than necessary because they are difficult to re-align and complete freedom of the subframe can allow the driver's side half shaft to pop free from the transmission.

Remove the compressor tool and repeat procedure on the driver's side

When installing the strut on the driver's side, it may help to jack under the lower ball joint on the pass side to compress the strut some and tip the subframe.

When both strut spacers are installed, remove one subframe bolt at a time and install one of the large aluminum spacers on each bolt between the chassis and subframe.

Tighten the subframe – torque bolts to 120 ft-lb

Remove the bolts on the steering rack one at a time and place a small aluminum spacer between the subframe and the rack on each bolt.

Torque the steering rack bolts

Re-install the transmission mount bolt and tie rods.

Torque flange nuts attaching the strut spacers into the body and replace the interior trim

Re-attach all the ABS and brake lines

Install and torque both front wheels

REAR REMOVAL:

Remove Brake Caliper – carefully rotate and place on leaf spring out of the way

Remove rotor retaining bolts/alignment pins (12mm deep socket)

Remove rotor and set aside

With a drift remove dust cap over spindle nut

Remove spindle nut - 47 mm (or 1 – 7/8")

Slide off hub assembly and set aside



Remove drum brake shoes – carefully note position and orientation of springs and actuator mechanism for re-assembly

Remove dust shield – 3 bolts (6mm allen driver)

Unbolt spindle assembly from axle.

Clean debris and rust proofing from faces of axle and spindle with a putty knife and wire brush

REAR INSTALLATION:

For all models 2022 and after, you are going to need to relocate the sway bar. Remove the sway bar and cut the mounting ears so the spindle can rotate. (2022+)

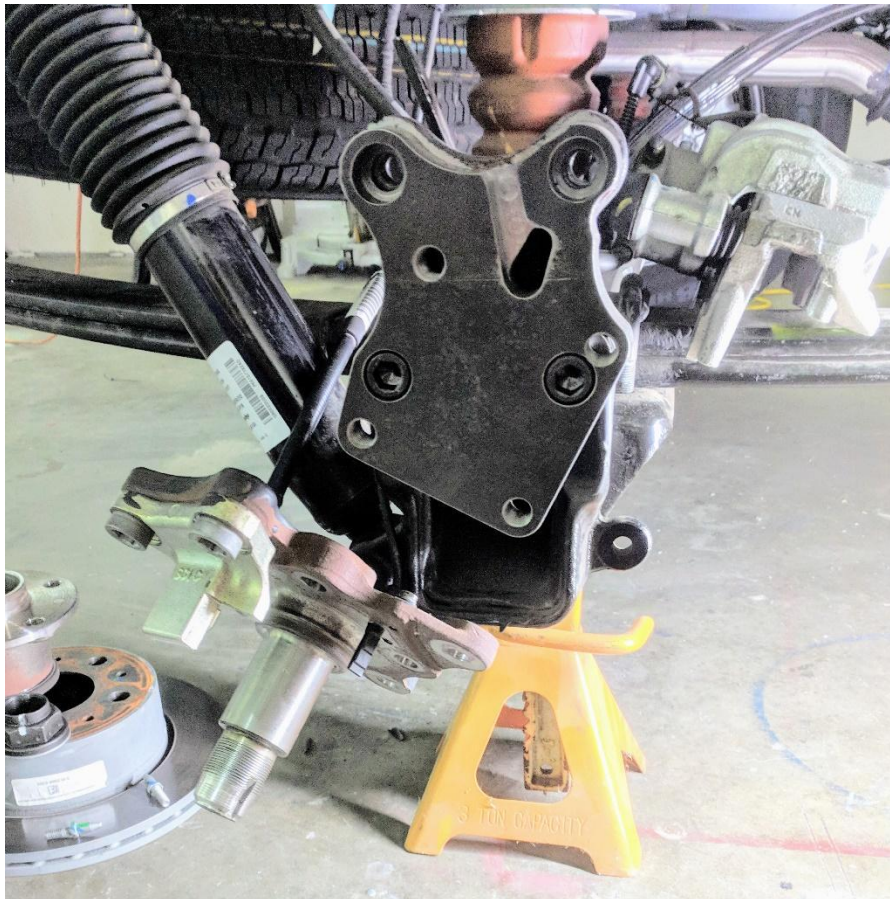
Use the included 2 sway bar link brackets that mount to the U bolts of the leaf springs. (2022+)

Flip the sway bar links and mount to these brackets. (2022+)

Place appropriate side spindle lift plate on axle and attach

Use 3 provided M14 x 1.5 x 30mm socket head cap screws and re-use one OEM spindle bolt in the non-countersunk hole

NOTE: Right Hand side shown (older design shown utilizing 4 SHCS, new design uses 3 and one OEM bolt)



NOTE: Left hand side shown with older design using all SHCS

Install bolts with red Loctite and torque to 120 ft-lb

NOTE: Use caution positioning the speed sensor wire in the lift plate to avoid damage

Position spindle on lift plate and attach using the four provided M14 x 1.5 x 40mm SHCS

Install bolts with red Loctite and torque to 120 ft-lb



Slide emergency brake cable in its retainers along the leaf spring and axle to provide length to engage fully in spindle assembly.

You may have to back off the e-brake adjuster under the center of the van to allow more cable play for assembly of drum mechanism.

Re-install dust shield and drum brake components.

Re-install rotor and retaining bolts

NOTE: rotate brake rotor to ensure the parking brake is not dragging excessively to confirm proper installation

Install brake caliper. The lower uses the OEM caliper bolt, the upper uses the remaining M14 x 1.5 x 30mm SHCS for clearance. Use red Loctite and torque to 120 ft-lb

Re-attach all brake lines and sensor cables in appropriate safe places and re-install wheel. Test and adjust emergency brake if necessary.

NOTE: Do not spin wheels after lift installation while the van is hoisted into the air. Tires must be back on the ground before the van can be run or driven. Hanging wheels can stress the axles at a critical angle. Failure to comply with this can result in premature axle damage.

RELEASE OF LIABILITY

I, the customer, do hereby release and forever discharge Off Highway Van, their agents, employees, successors and assigns, and their respective heirs, personal representatives, affiliates, successors and assigns, and any and all persons, firms or corporations liable or who might be claimed to be liable, whether or not herein named, from any and all claims, demands, damages, actions, causes of action or suits of any kind or nature whatsoever, whether known or unknown, fixed or contingent, which I now have or may hereafter have or claim to have, as a result of or in any way relating to the following: Parts sold & installed by Off Highway Van or parts sold & installed by end-user; any parts sold online, any parts sold online or installed by a reseller, any parts installed by an installation shop. It is understood and agreed that this payment is made and received in full and complete settlement and satisfaction of the aforesaid actions, causes of action, claims and demands; that this Release contains the entire agreement between the parties; and that the terms of this Agreement are contractual and not merely a recital. Furthermore, this Release shall be binding upon the undersigned, and his respective heirs, executors, administrators, personal representatives, successors and assigns. This Release shall be subject to and governed by the laws of the State of Utah.

PRODUCT SAFETY WARNING:

Off Highway Van strongly recommends the installation of products be done by a certified mechanic. If this does not occur, be certain the person(s) installing the product read, understand and follow all instructions and warnings pertaining to the application before installation. Do not add, alter, or fabricate any factory or aftermarket parts to increase vehicle height over the intended height of the Off Highway Van product purchased. Mixing component brands is not recommended. Installation of suspension lift kits or any other lifting kits or devices will raise the center of gravity. For this reason, Off Highway Van urges that extreme caution be used when encountering driving conditions which may cause vehicle imbalance. Furthermore, the driver's field of vision and judgment will not be as good due to the height of the vehicle. Due to the installation of larger tires, the speedometer will read slower than the actual speed being traveled and more distance will be required to stop the vehicle. It is the owner's responsibility to caution and warn any potential driver of the vehicle about these driving and handling conditions. Off Highway Van will not be held liable or responsible for damages or personal injuries resulting from the use of lifting devices and or related products. The tires and rims should be changed to sufficiently increase the vehicle's total overall width and stability to help accommodate lifting devices. Off Highway Van aftermarket suspension products and accessories modify a vehicle for uses which exceed conditions anticipated by the vehicle manufacturer. The uses include the high performance demands required during off-road. These conditions vary in the degree of extremity and cannot be controlled by the vehicle or product manufacturer. If the components within the suspension system or accessories become worn due to frequent and/or extreme use, the safety and reliability of the vehicle is at risk. The maintenance of aftermarket equipment to ensure the vehicle occupants safety is entirely your responsibility. Do not purchase Off Highway Van products unless you are willing to accept this responsibility. Do not install any Off Highway Van suspension products or accessories unless you feel competent at installing the product without causing present or future injury to yourself or other vehicle occupants; seek an authorized installation center. Most states have some type of law limiting vehicle height. The amount of lift allowed, and how the lift can be achieved, varies greatly. Several states offer exemptions for farm and commercial registered vehicles. It is the vehicle owner's responsibility to check state and local laws to ensure that their vehicle will be in compliance. Off Highway Van reserves the right to make changes in design, materials and specifications as deemed necessary without prior notice and without assuming obligation to modify any product previously manufactured. Obligation or liabilities will not be assumed with respect to similar products previously advertised. This Release of Liability and Product Safety Warning has been read and fully understood by the undersigned and has been explained to me.