HOSS HARDTOP HOIST



ASSEMBLY INSTRUCTIONS, USE & CARE GUIDE AND WARRANTY

RESIDENTIAL MOTORIZED LIFT SYSTEM

Vehicule application:

ALL JEEP® WRANGLER AND GLADIATOR HARDTOP



Watch our installation video at https://www.bestop.com/video-library

We're here to help! Go to: https://www.bestop.com and click on Need Help?

Questions, problems, missing parts? Before returning to the store, call Bestop customer service

1-800-845-3567 8 a.m. – 5 p.m., EST, Monday – Friday / info@bestop.com

BESTOP.COM



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Safety information HOSS HARDTOP HOIST

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WARNING: When you see the safety symbol **A** on the following pages this will alert you of the possibility of serious injury or death if you do not comply with the corresponding instructions. The hazard may come from something mechanical or the electrical shock. Read the instructions carefully!

INSTALLATION TIPS

BEFORE YOU BEGIN INSTALLING YOUR NEW RESIDENTIAL MOTORIZED LIFT SYSTEM, PLEASE READ ALL THE INSTRUCTIONS THOROUGHLY, AND WATCH THE BESTOP INSTALLATION VIDEO.



To reduce the risk of severe injury or death:

- 1. Do not use to lift people or animals.
- 2. Never operate while hand(s) are near moving parts.
- 3. Let the unit cool down after use.
- 4. Install on a flat level ceiling, or open rafters. Will not operate correctly if installed on an angle.
- 5. Visually inspect trusses for damage before installing your Hoss Hardtop Hoist.

WARNING: THIS IS A DO IT YOURSELF (DIY) PROJECT. DO NOT ATTEMPT THIS INSTALLATION WITHOUT A BASIC UNDERSTANDING OF THE CONTENTS IN THESE ASSEMBLY INSTRUCTIONS. IF YOU ARE NOT CONFIDENT WITH LOCATING AND ANCHORING THE HOSS HARDTOP HOIST TO THE CEILING JOISTS, DO NOT ATTEMPT THIS INSTALLATION WITHOUT SOMEONE WHO IS.

WARNING: DO NOT EXCEED THE RECOMMENDED WEIGHT LIMITS FOR THIS MODEL NUMBER.

WARNING: The hoist weight capacity is based on all lag bolts being secured in the center of the joists of a wood framed garage. The joists must have a minimum 2 x 6 in. (standard lumber) cross section, 24 in. (or less) apart, with at least 2 in. of penetration from each lag screw used. For truss framed garage ceiling structures, joists with a 2 x 4 in. (bottom truss cord) cross section is acceptable.

Do not climb on or hang from the jeep roof while operating the hoist.

BE CAREFUL, THESE INSTRUCTIONS, WARNINGS AND NOTES DO NOT REPLACE YOUR SOUND JUDGMENT AND DECISION MAKING. IF, FOR ANY REASON, YOU FEEL THE QUALITY OF YOUR CEILING STUCTURE IS IN QUESTION, DISCONTINUE THE INSTALLATION PROCESS IMMEDIATELY. USE THE HOSS HARDTOP HOIST WISELY AND ENJOY RECLAIMING YOUR GARAGE!



Hardware and required tools HOSS HARDTOP HOIST

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TOOLS REQUIRED



Power drill



Step ladder



Pliers



Safety glasses



3/8 in. Ratchet



Adjustable, open ended wrench



Phillips screwdriver



Tape measure



Pencil



Stud finder



Utility knife



NOTE: Drawings & photos for illustrative purposes only — actual parts may vary from pictures. Parts are not shown actual size.

HARDWARE INCLUDED





L x 4 5/16 in. nut



P x 4 Bumper Bolt



Q x 1 ¼ in. (6 mm) lock nut





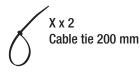
T x 1 $^{3}/_{8}$ in (10 mm) socket







W x 10 30 mm screw



Parts	Description	Quantity
K	4 in. Lag bolt	10
L	5∕ ₁₆ in. nut	4
Р	Bumper Bolt	4
Q	1/4 in. (6 mm) lock nut	1
R	15 mm hole saw drill bit	1

Parts	Description	Quantity
T	% in. (10 mm) socket	1
U	1/8 in. drill bit	1
V	Drywall screw & plug	2
W	30 mm screw	10
Χ	Cable tie 200 mm	2



Components HOSS HARDTOP HOIST

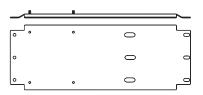
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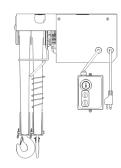
Carefully inspect your new motorized hoist unit for any possible damage and/or shortage of parts. Separate all major components and parts as detailed below. Do not attempt installation if parts are damaged or missing. If parts of your hoist are missing or appear damaged call Bestop customer service at 1 888 BESTOP, Monday through Friday, 8:00 AM to 5:00 PM Eastern Time. Before calling carefully check the box as parts may be in the packing material.

COMPONENTS

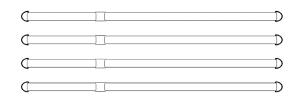
(A) Motor mounting plate







(C) Straps



(D) Spacer channel pulley ba



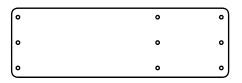
(E) Height adjustment bracket x2



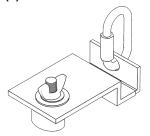
(F) Power cord cable clamps x 10



(G) Paper motor mounting plate template x 1



(H) Brackets x 4



(I) Stopper plate x 1



(J) Pin x 4



(K) Spring x 1



(L) Cotter pin x 4



(M) Guide pin x 2 (N) Hook x 1



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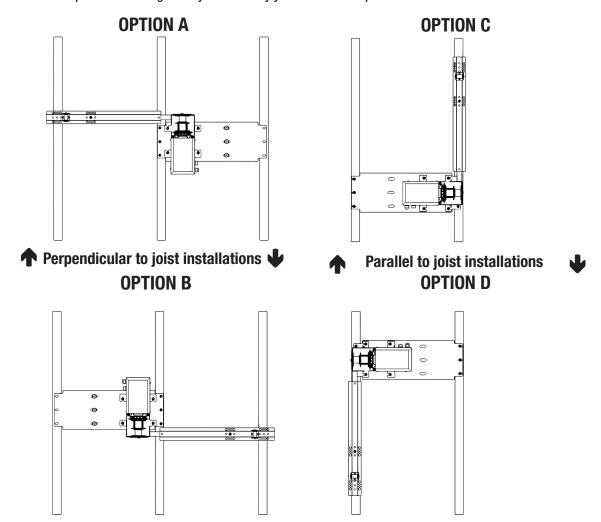
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Watch our installation video at bestop.com

This is the best way to follow and understand the installation process.

Determine motor mounting location on the ceiling

- □ Choose a location in your garage where you would like to install your Hoss Hardtop Hoist an unobstructed operating space of at least 3 feet by 4 feet is required. The motor mounting plate (A) should be installed at least 3 feet away from walls or any other obstructions and close to a power supply (preferably a ceiling outlet).
- The motorized hoist is designed to be installed either perpendicular or parallel to the ceiling joists and can be installed on joists with 16 in. or 24 in. spacing.
- In the chosen installation area determine the direction of the ceiling joists and the exact location of the ceiling joists by visually checking or using a joist finder or a very fine drill bit.
- □ Four installation options are illustrated below. Note how the motor mounting plate (A) and motor hoist (B) are positioned for your installation in particular the location of the 4 fixed threaded bolts on the motor mounting plate and the 4 ½ in. spacer channel bar attachment tab on the motor hoist. Determine how the motor mounting plate should be rotated where the fixed, threaded bolts should be located prior to fastening to the joists. Identify your installation option.

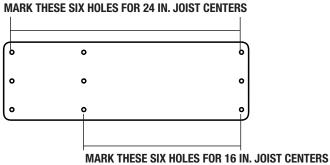


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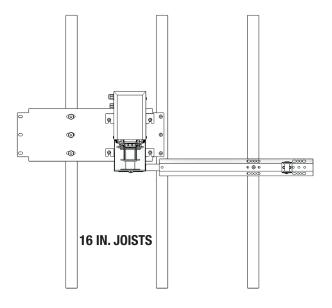
Prepare ceiling

Position the paper motor mounting template in the installation location and mark with a pencil the six spots where the lags bolts will be fastened.

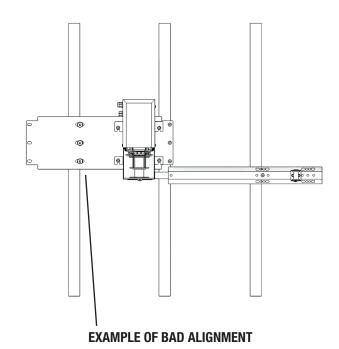


It is very important that the wood screws are fastened to the center of the joists. Use the hole saw drill bit (R) or cut away the drywall with a utility knife to obtain an unobstructed view of the width of the joists so the exact center can easily be determined (covered ceilings only). It may be necessary to again use the motor mounting template and a pencil to mark where the wood screws are to be fastened.

MAKE SURE YOU MOUNT TO THE CENTER OF EACH JOIST TO SECURE YOUR HOSS HARDTOP HOIST PROPERLY



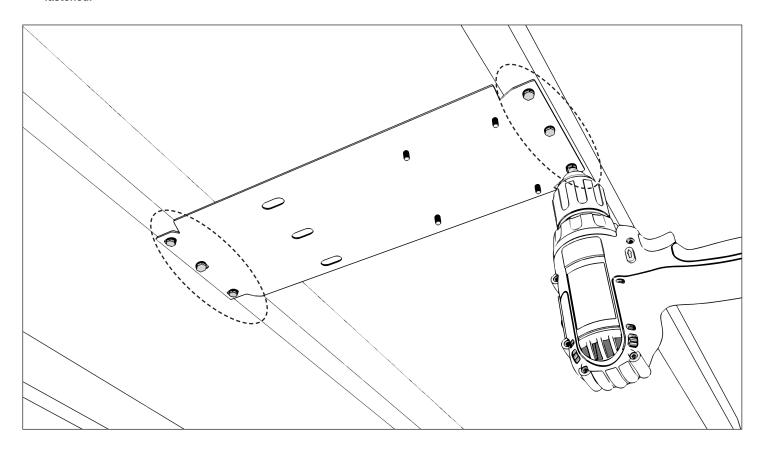
FAILURE TO PROPERLY INSTALL YOUR MOUNTING PLATE TO THE CENTER OF YOUR JOISTS WILL CAUSE YOUR SPACER BAR TO BE OFFSET FROM CENTER OF JOISTS AND MAY CAUSE YOUR HOSS HARDTOP HOIST TO FALL FROM CEILING.



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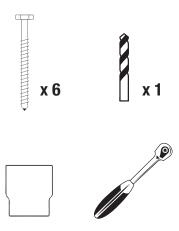
2 Install the motor mounting plate to the ceiling

- □ Using a power drill with a 1/8 in. drill bit attached, drill six pilot holes into the center of the joists.
- □ Using the ratchet and ¾ in. socket (T) fasten 6 of the 4 in. lag bolts (K) into the joists until the motor mounting plate is securely fastened.





WARNING: Motor mounting plate must be fastened to wooden joists in the building framing. Do not fasten to drywall, particle board, plaster or other such materials. Failure to do this may result in injury or death.

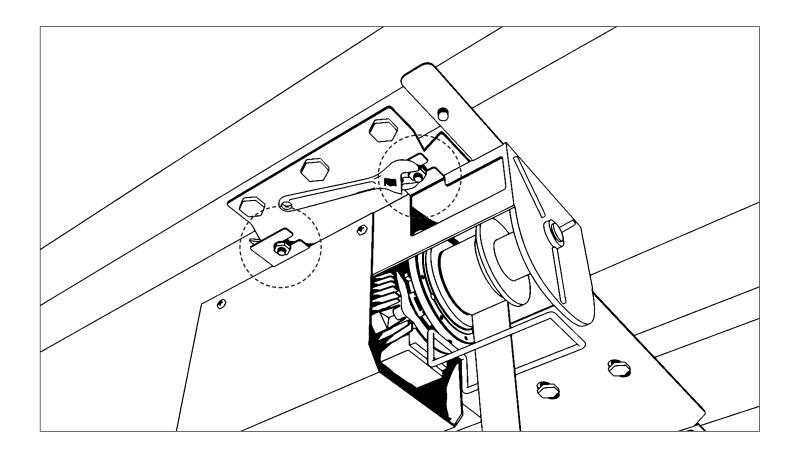


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3 Attach the motor hoist to the motor mounting plate

- □ Install the motor over the top of the 4 fixed, threaded bolts on the motor mounting plate (A) and tighten nuts. (It is easier if you install the nuts loosely on the treads and slide motor on top.)
- once the motor hoist is properly positioned on the motor mounting plate, tighten the nut with the ratchet or the adjustable wrench until the motor hoist is securely attached to the motor mounting plate.





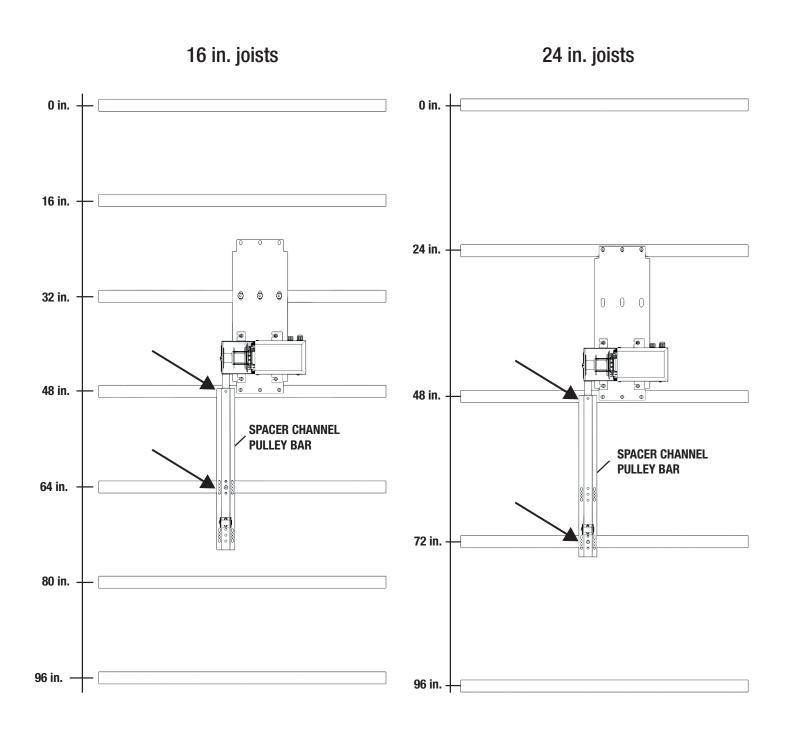
WARNING: Slide the motor hoist until the tabs are firmly against the threaded bolts. Do not leave any space between the bolts and the enclosed end of the mounting tabs.



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DEPENDING ON YOUR JOIST SPACING, YOU WILL USE DIFFERENT HOLES ON THE SPACER BARS FOR INSTALLATION.

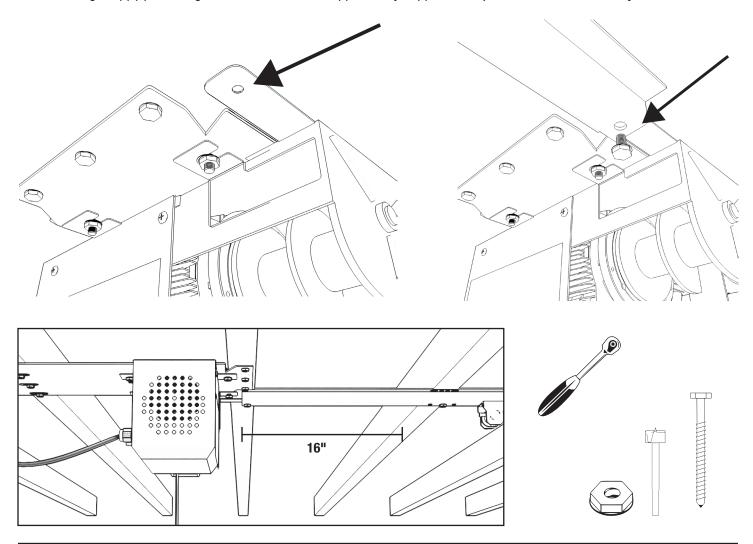


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4 Connect and install the spacer channel pulley bar

- Press the spacer channel bar flush with the ceiling and mark ceiling with a pencil where a lag bolt will be used to attach the bar to the
 joist.
 - Perpendicular joist installation (option A or B on page 6). Make a mark at either the 16 in. hole or 24 in. hole depending on your joist spacing. Remove the spacer channel bar.
 - Parallel joist installation. You can install a lag bolt before and after the pulley for extra support (option C or D on page 6). Remove the spacer channel bar.
- It is very important that the lag bolt is fastened to the center of the joist. Use the hole saw drill bit (R) or cut away the drywall with a utility knife to obtain an unobstructed view of the width of the joist so the exact center can easily be determined. It may be necessary to reposition the spacer channel bar and mark with a pencil where the lag bolt is to be fastened.
- Using a power drill with a 1/8 in. drill (U) bit attached, drill a pilot hole into the center of the joist.
- Place the spacer channel bar over the motor plate tab and screw together using supplied bolt.
- □ Tighten with a ratchet or adjustable wrench until the spacer channel bar is securely fastened to the motor hoist.
- Place a lag bolt(s) (K) and using the ratchet fasten the bolt(s) into the joist(s) until the spacer channel bar is securely fastened.



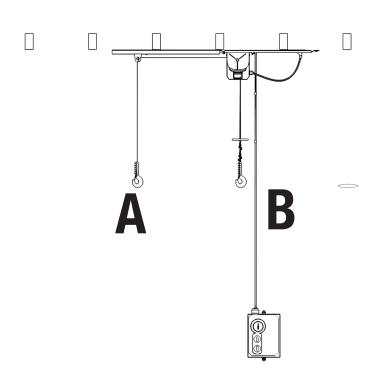


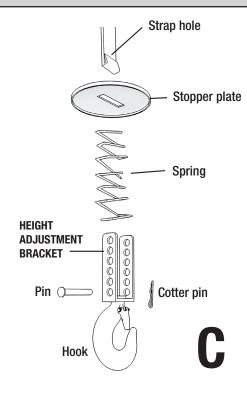
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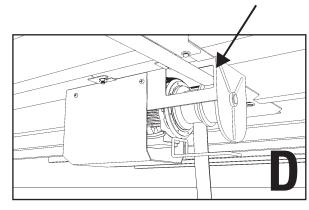
5 Install straps

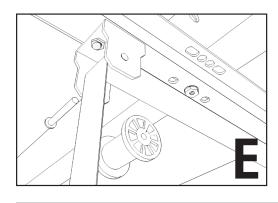
- Place the straps coming out of the rectangular opening closest to the spacer channel bar (fig. D) over the top of the pulley at the end of the spacer channel pulley bar. (fig. E)
- Once the strap has been placed over the pulley reinstall the pulley to its original position, insert the pin and refasten the cotter pin. (fig. F)
- Place strap from motor side (fig. C) through stopper plate and attach height adjustment bracket using the supplied cotter pin (fig. B).
- □ Repeat step for pulley side without the stopper plate (fig. A).
- Plug in the motor hoist (B) to the nearest 110 volt power outlet.
- □ Use the hand control switch and safely lower the straps until approximately 9 feet of cable is hanging down.

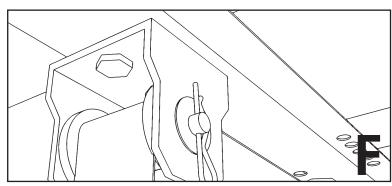




THE STRAP THAT GOES ACROSS TO THE SPACER BAR NEEDS TO PASS THROUGH THE CUT OUT SECTION OF THE MOUNTING PLATE.







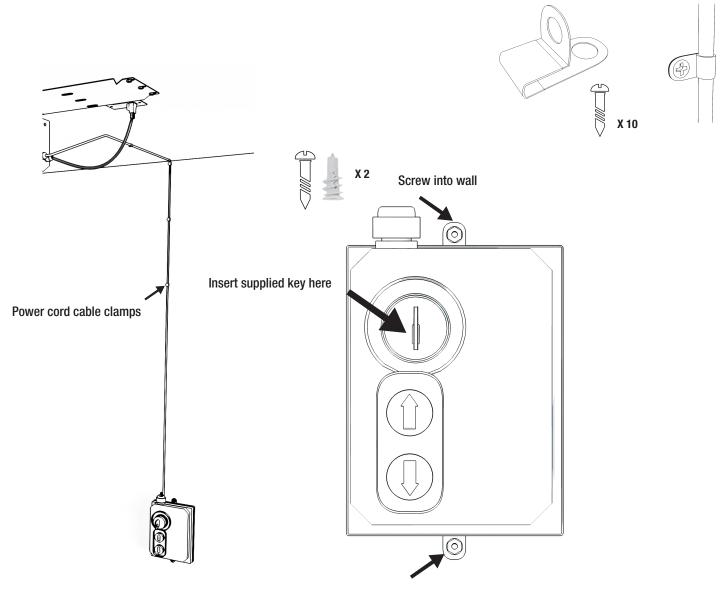
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6 Install the hand control switch holder

- □ Secure the hand control switch to a convenient location on the closest appropriate wall using the power cord cable clamps (F) and screws (V and W).
- If your cables are too long, use the supplied cable ties to coil them close to the motor for a clean finish.
- To prevent unauthorized use, the Hoss Hardtop Hoist is equipped with a key lock feature. When the key is turned to the "OFF" position or removed from the hand control switch the unit will not function until the key is reinserted and turned to the "ON" position.

TIP: WE SUGGESTED YOU INSTALL YOUR CONTROLLER HOLDER FIRST AND RUN YOUR WIRE BACK TO THE MOTOR. THIS WAY YOUR EXCESS CABLE WILL BE UP AT THE MOTOR. USE THE SUPPLIED CLIPS TO ATTACH TO THE WALL.

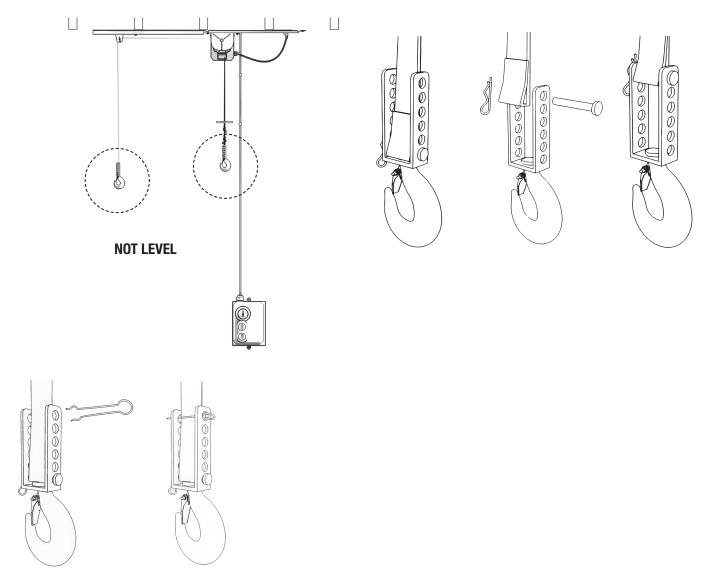


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7 Level

□ The height adjustment bracket (E) is adjustable to make your hooks perfectly level. Lower your straps to eye level and adjust the pin in the height adjustment bracket (E) to the desired hole to make your straps level.



□ If you are using a lower hole on your adjustment bracket, use the guide pin to keep the hook straight.

R Test the unit

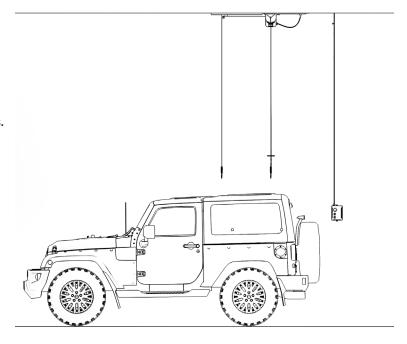
□ Press and hold the rocker switch on the hand control to raise and lower the hook bar. When the hook bar reaches the uppermost travel point, the stopper plate above the cable hook will trigger the limit switch ceasing upward movement.

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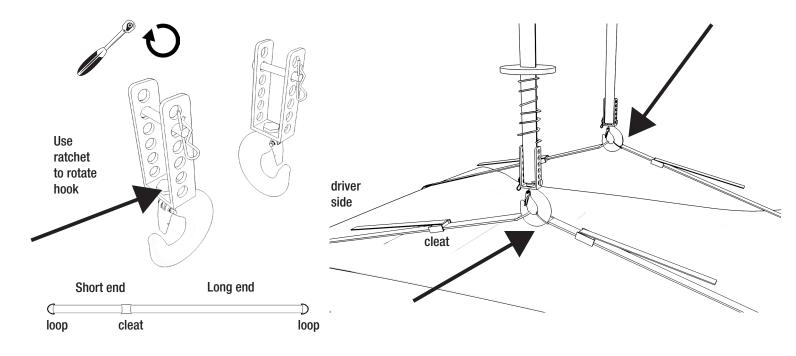
9 Position Jeep under the hoist

- If you are removing the roof, center the Jeep under the hoist and lower the hooks.
- Remove all fasteners and connections according to the manufacturer's instructions.
- □ If your roof is removed, position your roof under the hooks.



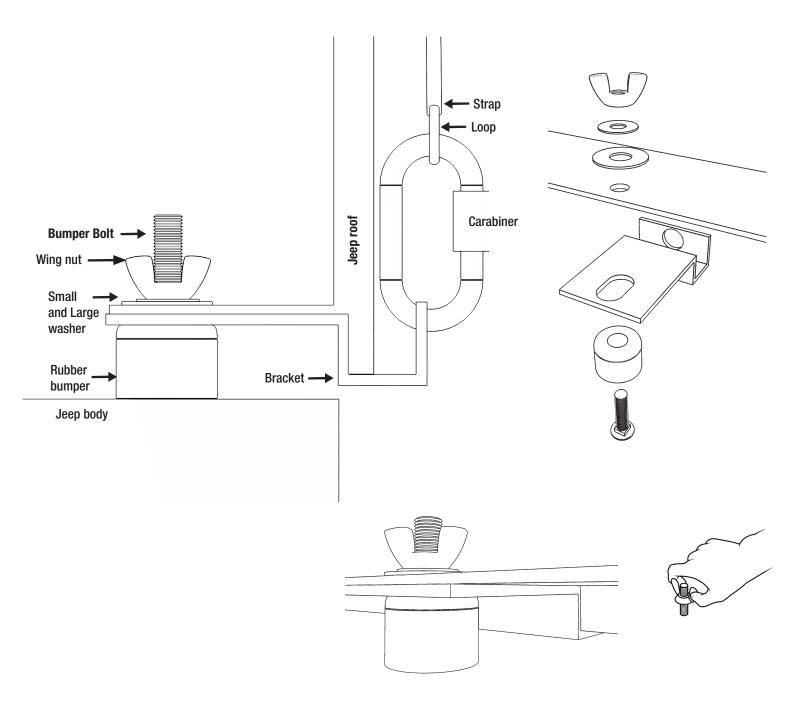
1 Ajust hooks and attach straps

Make sure your hooks are perpendicular to your Jeep with the opening of the hook facing the driver side. Attach the shortest loop from the cleat of your passenger strap to the hook first followed by the driver side. Repeat for rear strap.



1 1 Attach straps to roof

- □ Lift your roof and insert the bolt through the rubber spacer, through the bracket and through the Jeep roof hole. Attach the large and small washer with a wing nut and tighten.
- □ Attach each strap (C) to the carabiners with the loops on the straps and attach the carabiner to the bracket.

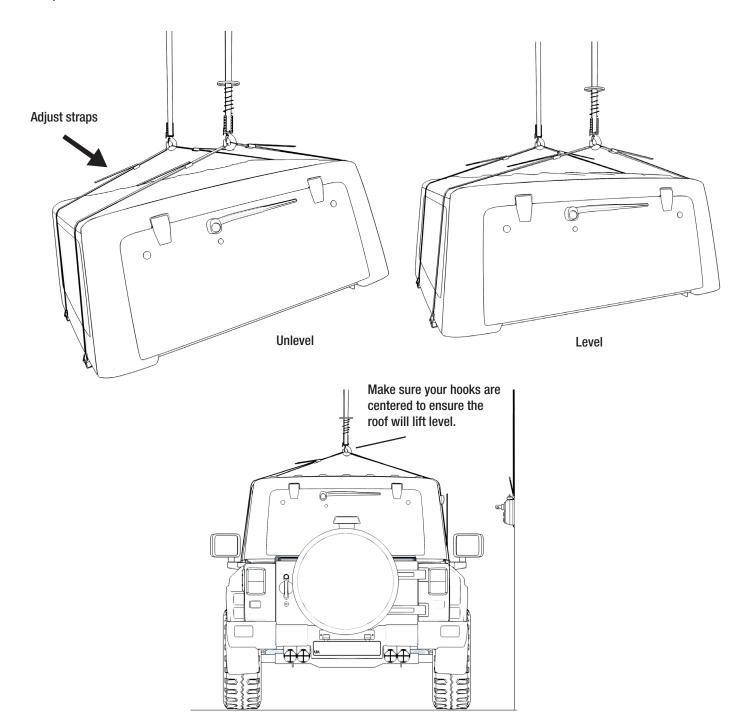


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12 Adjust straps and lift roof

□ Tighten each strap while keeping the hooks as centered as possible above the roof. Raise the roof to verify that it is level. If needed, adjust straps to level roof.

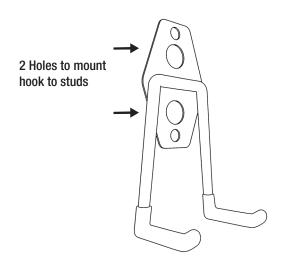


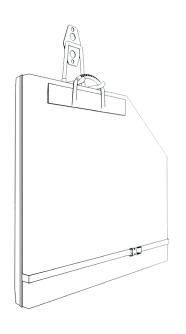
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Install the freedom hook to the wall

Locate studs and mount to wall using bolt (K).







Operating instructions

TO RAISE OR LOWER THE HOIST:

- Do not stand under the hoist
- Press and hold the rocker switch in the direction you want the hook bar to travel.
- Release the switch when the desired location is reached.
- Operator must let the motor stop for 8 minutes after continuously working for 2 minutes cool after raising or lowering the lift.

Maintenance

- Check to be sure the motor is properly attached to its mounting plate. Make sure the bolts are tight.
- Periodically check the condition of the electrical cords, plugs and controls.
- Periodically check straps for slippage or excessive wear.

Specifications

Model: 42820-01

Load capacity: 220 lb

Lifting Height: 120 in.

□ Lifting speed: 22 ft./min

Strap width: 1.25 in.

Voltage: 120 V/60 HZ/2.35 amps

Motor: 280 W 3/5 HP

Capacitor: 35uF

Duty cycle: 2.5 min On, 7.5min Off

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WHAT BESTOP WARRANTS

Subject to the terms and conditions of sale, including any terms and conditions set forth by Bestop, Inc. ("Bestop" or "us" or "we") in our then-current terms of sale on our website (collectively, the "Terms"), Bestop represents and warrants that: the covered products listed in the "Covered Products and Warranty Periods" section (a "Product") will substantially be free from defects in materials and workmanship for the specified warranty periods set forth in that section.

THE WARRANTY IS LIMITED AND CONDITIONAL

This warranty applies to the original purchaser of the Product only. The warranty is valid only as long as the original retail purchaser owns the vehicle upon which the Product is installed. The warranty expires should the Product be removed from the original vehicle or if the original vehicle is transferred to another owner. This warranty is not transferable or assignable. The warranty does not apply to Product bought from auction-style or price-bid websites.

THE LIMITED WARRANTY AND STATED REMEDIES ARE SOLE AND EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES AND REMEDIES, AND COMPANY EXPRESS DISCLAIMS ALL IMPLIED OR STATUTORY OR OTHER WARRANTIES, INCLUDING WITHOUT LIMITATIONS WARRANTIES OF MERCHANTABILITY, NON-INFRINGEMENTOR FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT WILL COMPANY BE LIABLE FOR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL, PUNITIVE, INDIRECT OR EXEMPLARY DAMAGES OF ANY KIND, INCLUDING LOST PROFITS OR REVENUE, HOWEVER CAUSED, WHETHER FOR BREACH OR REPUDIATION OF CONTRACT, TORT, BREACH OF WARRANTY, NEGLIGENCE, OR OTHERWISE, WHETHER OR NOT COMPANY WAS ADVISED OF THE POSSIBILITY OF SUCH LOSS OR DAMAGES.

Some states do not allow exclusion or limitation, so this may not apply to you. This warranty gives you specific legal rights, and you may have other rights which vary from state to state.

EXCLUSIONS TO THE WARRANTY

The Limited Warranty excludes, and Bestop is not liable in any way for any warranty claims, damages, or defects related to:

- Misuse, abuse, accidents, vandalism, negligence, fire, or improper installation or modification, or improper or inadequate maintenance;
- □ Failure to comply with any Product documentation, Bestop instructions, or applicable law or regulations; use in extreme conditions
- Force Majeure including but not limited to, earthquake, hurricane, tornado, flooding, or other disasters natural or man-made, civil unrest, strikes, declared or undeclared war, or lack of performance by, or discontinued product of, supply chain partners whose products, software, operations or management is beyond the control of Bestop;
- Damage resulting in breakage (including without limitation, spontaneous breakage, accidental breakage or breakage by any other means) of a Product or any component part;
- Damage to vinyl windows due to misuse, or cracking due to varying weather conditions.

YOUR SOLE REMEDY

During the applicable warranty period, Bestop shall, at its option, either repair or replace any Product that it confirms, in its discretion, is non-compliant with the warranties herein. Bestop will not pay for labor charges associated with installation or removal of the Product. Should a specific Product be discontinued, Bestop may, at its option, replace the discontinued Product with a current product or like product.

Please retain your proof of purchase. Original proof of purchase for the Product must accompany any warranty claim. If you have a warranty claim, first you must email Bestop Customer Service at csbestop@bestop.com for instructions. All claims must be emailed to csbestop@ bestop.com within 30 days of discovery of a defective Product, but in no event later than thirty days after the end of the applicable Warranty Period (the "Warranty Notice Period"). Warranty claims made after the Warranty Notice Period are null and void and Bestop shall have no responsibility with respect to such claims. THIS SECTION SETS FORTH BESTOP'S SOLE OBLIGATION & YOUR SOLE REMEDY WITH RESPECT TO ANY DEFECTS OR OTHER PRODUCT ISSUE. ANY PRODUCTS REPLACED UNDER TERMS OF THIS WARRANTY WILL BE COVERED UNDER TERMS & BALANCE OF THE DURATION OF THE ORIGINAL LIMITED WARRANTY FOR SUCH PRODUCT.

COVERED PRODUCTS AND WARRANTY PERIODS: The warranty time periods are as follows for Products manufactured by Bestop:

BESTOP® LIMITED LIFETIME WARRANTY

Trektop® Pro Twill Fabric Top Sunrider® for Hardtop Twill Fabric Top

Trektop® NX Glide Twill Fabric Top Replace-a-Top™ Twill Fabric Top

Trektop® NX Twill Fabric Top Supertop® NX Twill Fabric Top

EZFold™ Soft Tonneaus Floor & Cargo Liners

ZipRail™ Soft Tonneaus Pet Barriers

EZRoII™ Soft Tonneaus

BESTOP® 5-YEAR LIMITED WARRANTY

Trektop® NX Glide™ Top (non-Twill) Sunrider® for Hardtop (non-Twill) Replace-a-Top™ Top (non-Twill) Trektop® NX Top (non-Twill)

Sailcloth Replace-a-Top™ Supertop® NX Top (non-Twill)

Tigertop™ and Halftop™ Supertop® Classic Soft Top Sunrider® Complete Soft Top Supertop® for Truck

EZ Fold Hard Tonneau

BESTOP® 3-YEAR/100K MILES LIMITED WARRANTY

Powerboard® & Powerboard® NX

Trekstep®, Side Mount

Trekstep®, Rear Mount

BESTOP® 3-YEAR LIMITED WARRANTY

Pavement Ends Sprint Top

BESTOP® 2-YEAR LIMITED WARRANTY

Trektop® Classic Soft Top

RoughRider™ Soft Storage

BESTOP® 1-YEAR LIMITED WARRANTY

All other Bestop® & Pavement Ends™ products not specified above.

FOR FURTHER INFORMATION OR REQUEST FOR WARRANTY WORK, PLEASE CONTACT:

BESTOP INC. CUSTOMER SERVICE

TOLL-FREE: (800)845-3567

MAIN: (303)465-1755

E-MAIL: CSBESTOP@BESTOP.COM WEBSITE: WWW.BESTOP.COM