

Installation Instructions/Hoist-a-Top™ 4-Door JK

The Hoist-a-Top is designed to help you remove your Jeep* quickly and easily by yourself. This kit requires a garage or carport with a minimum ceiling height of 7 feet and a maximum height of ten feet. This Hoist-a-Top mounts on a back or side wall and on a strong ceiling joist. Read the instructions carefully and follow all precautions and safety suggestions.

If you have any problems, question, or missing parts, do not call your supplier, call Lange directly toll free 866-284-7428

Parts Included		
Drawing #	Description	Qty.
1	Cable Puller <small>this item not supplied with optional power unit</small>	1
2	Hoist Frame T Section	1
3	Frame Arms 29.5"	3
4	Slide with Nut	1
5	Top Section Support Arm System	1
6	Eye Bolt 1/2" with Lag Screw End	2
7	Screws #4	6
8	End Caps	5
9	Nylon Capture Nuts 3/8"	1
10	Rubber Coated J Hooks	2
11	Rubber Coated L Hook	1
12	Foam Top Protectors	10
13	Eye Bolt 3/8" (shorty)	2
14	Eye Nuts and Rings	2
15	Stretch Cords	2
16	"T" Shaped Foam Standoffs	2

Tools Required

Electric drill with 3/8" bit,
Phillips screw driver,
adjustable wrench,
Measuring tape & pencil.
Hammer

Missing parts, damage or questions--How to get a hold of us:

If your box is damaged and because of the damage, you are missing parts or have damaged parts, call your selling dealer immediately for instructions.

If you are missing parts from a sound box, showing no damage or need technical help, call us directly for prompt attention. Monday thru Friday 8:30 to 4:30 Mountain Standard Time Call toll free 1-866-284-7428 Do not call your dealer!

Please be aware that any lifting device can be dangerous. Read and understand all warnings given at the back of these instructions and always use common sense with lifting or lowering your top!

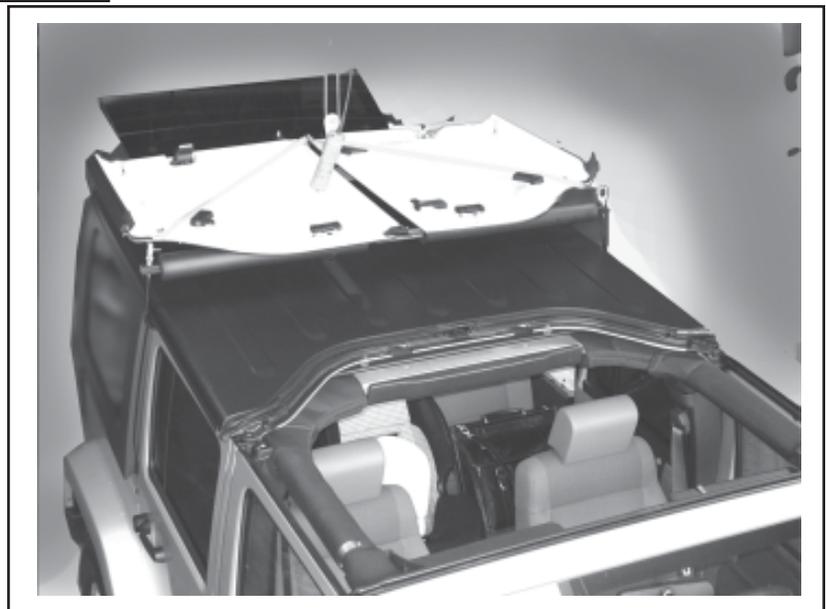


Figure 1, Hoist-A-Top™ Ready to Lift Top with Top Panels

Important Site Preparation

Please follow in order and read carefully before starting. Parts from the first page's Parts List are represented in the text by name and part number: example Hoist Frame T Section (2).

1 Prepare your site, measure and mark according to Figure 2. Use the following diagram and mount the 1/2" Eye Bolt (5) by drilling a 3/8" hole in the ceiling joist as shown in Figure 3.

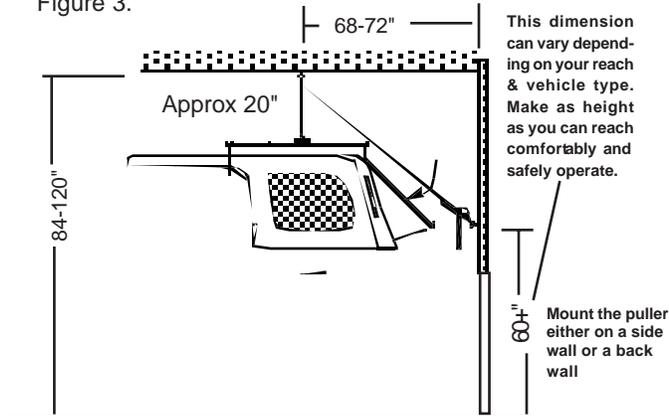


Figure 2, Typical Layout Measurement

Caution: This is a critical step. Make sure the hole you drill into the rafter is the right size. It is important that this hole be 3/8" for the screw eye to hold properly. Too large and the bolt could come out and too small and the joist could be damaged. Make sure you drill the hole directly in the center of the joist. Make sure there are no knots, splits, or deformities in the rafter. Follow the recommendations in Figure 4 and make sure your ceiling joist can carry the load!

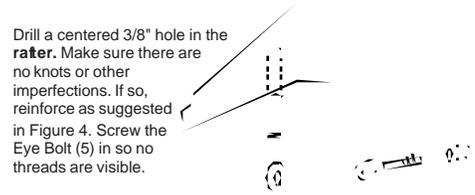
Thread the Eye Bolt (6) as far as it will go into the joist leaving only the circular eye-portion showing. Use a 2" x 6" rafter if available. A 2" x 4" rafter should only be used if necessary or should be reinforced as in Figure 4. Again, make sure the Eye Bolt (6) goes into the center of a joist and that it doesn't contain knots or other imperfections (cracks or splits).

If uncertain about load or other considerations, contact a professional for advise or help.

At a wall (*side wall or back wall*) as shown in Figure 2, about 60" or higher (better) from the floor, drill a 3/8" hole in the stud and mount the second Eye Bolt (6).

If the ceiling height is nine-to-ten feet, the wall mounting of the cable puller must be higher than 60 inches.

If your ceiling is higher than ten feet or you require longer cable than the 13 feet supplied in the manual unit, we recommend using Lange's Power Unit. The power unit has forty feet of cable and can lift from just about anywhere.

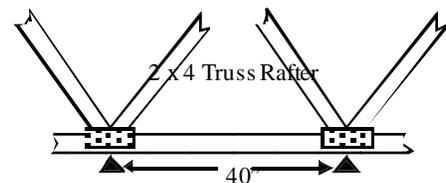


Mount the Eye Bolt (5) in the wall stud as shown. Drill the hole carefully in the center of the stud. If you have a concrete or block wall, use an appropriate concrete anchor rated for at least 500 pounds.

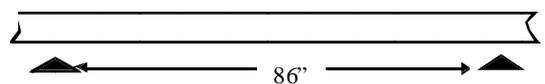
Mount the cable puller or power hoist parallel with the ceiling rafters as shown with the diagram to the right. This is the strongest method to mount and pull from. If you must mount the puller at a right angle to the rafter, you should reinforce this rafter with 2x4" bracing between the two adjacent rafters at the point of the eyebolt. This prevents pulling the eyebolt directly from the side of the rafter.

Figure 3, Eye Bolt Mounting In Rafter & Wall

Mount the puller either on a side wall or a back wall



If your span between supports uses a 2 x 4 truss-type rafter and is more than 40", nail or screw more support as shown below. If the rafters in your garage run in the opposite direction, use a 2 x 6 as a support between rafters (24" to 16" between centers). Use a metal joist hanger on each end of this support and extra nails or screws.



If your garage uses 2 x 6 boards as rafters, allow up to 84" between supports. Use good judgement when attaching to any wood rafter. Check for knots or imperfections in the wood that might weaken with lifting and lowering of your top. If any support deflects or bows, add extra support to be safe. If unsure, please contact a professional for help.

Extra 2 x 4s nailed together



Extra 2 x 6 nailed or screwed along rafter



Figure 4, Ceiling Support Requirements

Assembly

2 Assemble the hoist frame as shown in the following Figures.

Layout the parts on the floor as shown in Figure 5 and proceed with the following steps in order.

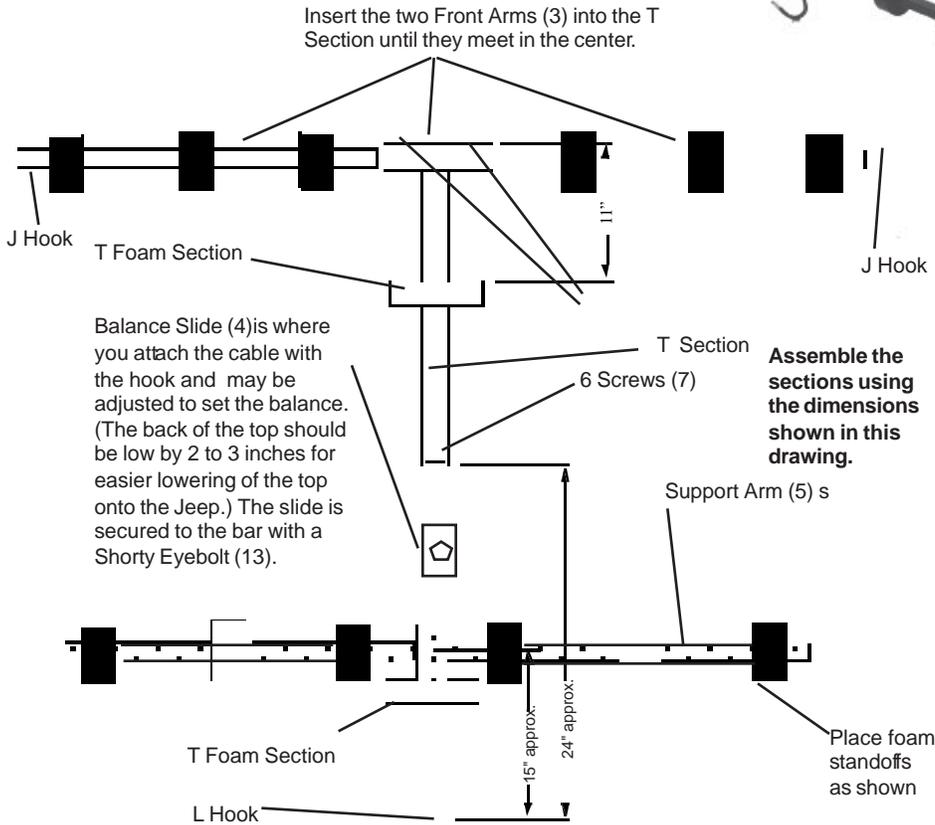


Figure 5, General Assembly Overview of Hoist Frame

Slide Foam Protectors (12) on each of the Frame Arms (3) and on the Top Section Support Arms (5) as shown in Figure 5. Use soapy water to ease the installation of these foam parts and orient each as shown in Figure 5.

Use a hammer and install the End Caps (8) in all exposed tube ends.

Install the front "T" Shaped Foam Standoff (16) as shown in Figure 6 and locate as in Figure 5. Be careful to orient the parts as shown, they are not symmetrical and must be installed correctly. The Foam "T" installed on the Hoist Frame T Section (1) is a tight fit and must be forced onto the bar or use a sharp knife and trim.

Install Arms (3), Balance Slide (4) Center Frame Arm (4), Top Section Support (5) into the Hoist Frame T (2) following the dimensions as shown in Figure 5. Use the six Screws (7) to secure the frame arms to the T Frame. Do not overtighten and strip the threads. Secure the Top Section Support Arm (5) with a Shorty Eye Bolt. Tighten the eyebolt after aligning the

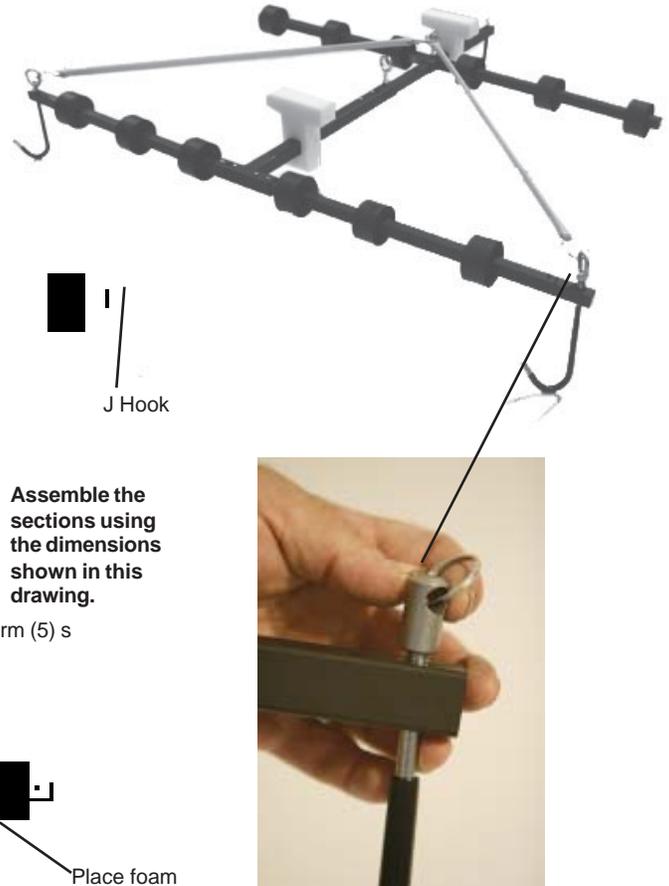
part from the measurements shown in Figure 5. Install the rear Foam "T" Standoff (16) and orient as in Figure 6. Slip the Balance Slide (4) into place as shown in Figure 5 and tighten with the second Shorty Eye bolt. This Slide will be adjusted when you balance the top in a future operation.

Now, install the J Hooks (10) to the front arms with the eye nuts and rings as shown in the sidebar in Figure 5. Install the L Hook (11) with the Nyloc Nut (9) to the rear bar,

Before hooking up the Cable Puller (1) to the hoist frame, remove the pin holding the cable to the puller and make the puller a *single line unit*, see Figure 9. Attach the "U" clamp on the end of the cable to the Shorty Eye Bolt (13).

The rear hook on the Cable Puller (1) attaches to the wall mounted eye lag. The pulley and hook attach to the ceiling eye lag, and the Shorty Eye Bolt attaches to the Balance Slide (4). SEE Figure 7.

This completes the assembly.



Thread the eye bolt to the two front J Hooks attached to the front Bars.. Then, attach the slip ring to the eye bolt to hold the bungee cord

Note, that the foam is shaped slightly differently in the profile below. The highest side of the "T" goes on the passenger side as show below.

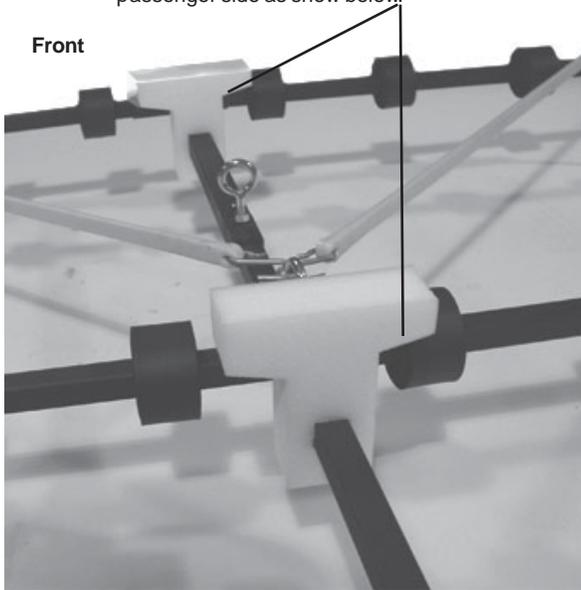


Figure 6 Foam "T" Installation

Using the Hoist-a-Top

3 Follow these instructions very carefully for safe operation.

Test the whole system with 200 pounds or more of dead load before attaching your top. Attach a weight or have a heavy person hang from the hoist frame while you operate the hoist. **Do this a minimum of ten times--very important. Report any problems immediately to Lange 801-262-7322 for technical help.** This tests the mechanism, the screw eyes in the wall and ceiling, and lets you become familiar with the operation of the Cable Pulling Mechanism. Try this several times, work it hard both up and down to test everything, especially the ceiling mounting. For instructions on operating the Cable Puller (1) see the pamphlet inside the puller's shipping box .

Lifting Your Top

Helpful Hint: Fill an empty one-gallon milk carton about 3/4 full of water. Slip the handle of the carton through the rear hook on the empty hoist frame. This will balance your hoist so you can raise it to the ceiling leveled (without top).

Lift the hoist to the ceiling and back your vehicle directly under the hoist. (It may pay to mark a line on your garage floor to aid in aligning your vehicle under the hoist). Open both doors.

Remove all attaching hardware holding your top and the light plug/washer tube (if any). The hoist is not designed to lift your Jeep, just the top. Position the frame as shown in Figure 8.

For all years of Jeep, an "L" rear hook is provided as standard equipment at the back of the frame. **Open the rear window and slip the hook between the glass and the top.** Turn the hook under and position in the center of top.

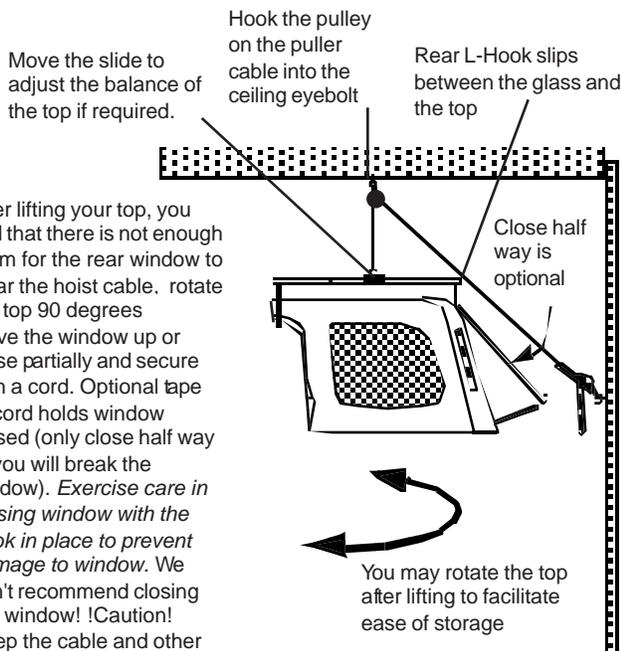
Position the J Hooks under the edge at the front of the top (see Figure 8). Remove and flip the two front sections of the top and place on the frame of the hoist as shown in Figure 8. Note that the sections are upside down with the "S" shape to the front. Slide the top so that in back edge is nestled against the foam "T" supports. Install the Stretch cords (15) as shown in Figure 8.

!!Caution!! Wear eye protection when using cords.

Crimping the back hook on the Stretch Cords will make securing the top sections easier. Stretch the cords diagonally across the top sections to the Eye Nuts (14) as shown in Figure 8. This secures the top sections to the hoist. **Having a friend help you with the next operation will be helpful!!**

Make sure the hoist is set to *lift*. See instructions in the Cable Puller Box for lifting and lowering settings for the wire cable puller. Lift your top off slowly a few inches. Use one hand on the side to balance the top until it clears the vehicle body. Make sure the top balances so that it remains fairly level when in the stored position (Hanging slightly lower at the back will aid in installation). To change the balance, move the Balance Slide, see Figure 5 (either to the front of the jeep to lower the rear or to the rear of the jeep to lower the front). **Make sure you replace the top back on the vehicle before moving the slide.** When the balance point is found, tighten the eyebolt until it presses hard into the rear support bar, then tighten the safety lock nut to additionally secure the eyebolt. Lift your top slowly a few inches and recheck everything.

!CAUTION!: When lifting, keep fingers and arms away from the underside of your top. Remember that all lift mechanisms can fail without warning! Keep children and pets away from the mechanism and out from under the top when stored on the lift.



Move the slide to adjust the balance of the top if required.

After lifting your top, you find that there is not enough room for the rear window to clear the hoist cable. rotate the top 90 degrees leave the window up or close partially and secure with a cord. Optional tape or cord holds window closed (only close half way or you will break the window). *Exercise care in closing window with the hook in place to prevent damage to window.* We don't recommend closing the window! **!Caution!** Keep the cable and other objects clear of the window glass or it may break.

Figure 7. Mounting Connections

Note Stretch Cord position across the Roof Panels. Use eye protection when stretching cords.



Slide top section into the foam stand offs and center top section. Stretch cord over top section on the diagonal and hook to front eye bolt.

Top sections are unlatched and rolled back onto the hoist foam painted side down



Move the bungee cord to the back as shown to avoid getting in the way of the top section being placed on the hoist frame.

Note the hooks are placed at the corner of the top.

Figure 8. Using the Hoist-a-Top

Eyebolt Installation Figure 9

Find the 3/8" shorty eyebolt in your parts bag and using a pair of pliers, follow these directions below:

1. Locate the "u" bracket, cotter key and pin on the cable attached to the hoist mechanism. With a pleyer squeeze the cotter key and remove.

2. Pull the pin and separate the cable from the hoist mechanism.

3. Insert the eyebolt as shown. Reinstall the cotter key and bend one arm of the key to prevent separation of components. Check all connections.



Safety !Cautions!--Please Read Carefully

Caution-When lowering the top, ratchet the handle on the wire cable puller slowly to avoid bouncing the top. Bouncing adds tremendous stress and won't do your top any good either.

Caution-never sit and under the top when in the stored ceiling position. Keep children and pets from playing under the top. Keep the puller out of their reach or lock.

Caution-never lower or raise the top with your hand under the edge. Always push or pull from the side.

Caution-make sure all fasteners attaching your top are removed before lifting. Lift the top by hand slightly to check that it will release easily. Trying to lift your top with the Jeep still attached will damage your top or the hoist mechanism. Rubber seals can stick. Break them loose before lifting. Do not lift the top so high that you pull the top against the upper eye bolt. Damage to the ceiling or top will occur. Stop before the hoist frame reaches the pulley.

Caution-make sure the back tailgate door is latched before lifting or '92 or earlier jeeps. Watch the rear glass if open on newer jeeps to avoid damaging the glass.

Caution-occasionally check the tightness of all bolts and fasteners. Always check the wire cable puller for loose bolts before each cycle.

Caution-align your Jeep carefully before lifting off the top. This will avoid damage to the vehicle top when the top swings to its lift center. Tape on the floor of your garage will help align the vehicle each time.

Caution- When lowering your top, always have at least three wraps of steel cable on the drum at all time. In most cases, the Hoist-a-Top™ is not designed with enough cable to lower your top to the floor.

Warranty...Questions...Returns...Parts

Warranty

We give a one year warranty from the date of purchase on this product if installed and operated according to these instructions. This warranty covers parts if found defective and does not include a provision for adjustment if abused or damaged due to neglect or misuse. Liability for any application of this product is limited to the replacement or repair of said product and does not include consequential damages. Please call customer service (801-262-7322) for return instructions and warranty verification. Proof of purchase date required.

Questions

If you have questions or gripes, please call, we listen. We offer technical support Monday through Friday 9:00 AM to 4:00 PM Mountain Standard Time. No question or problem is trivial so we'll try and help any way we can. We use these products ourselves and like them, we hope you will too.

Returns

We accept returns within a 30-day period if you are not satisfied. We ask only that the product be returned in complete, as-new condition in its original package. Items that do not meet this condition may be charged a refurbishing or restocking charge. Contact the factory for a Return Authorization number which must be on the address of the package.

Parts

We stock parts. If you need a replacement, just call for pricing and shipping information.



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