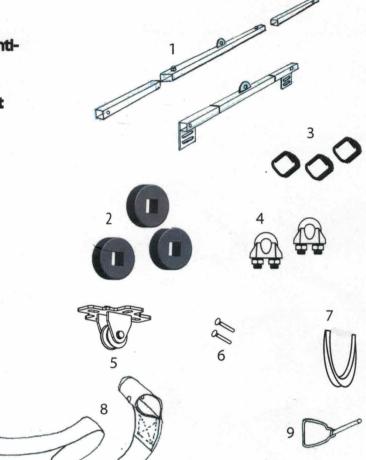
# HOIST A TOP

# **Parts List**

Parts are listed by part number, description, and quantity.

Part Nu	mber Description	Qt
Commo	on Parts (All systems have these	parts)
1	Support Arms	2
2	Black Foam Holes	8
3	Plastic End Caps	4
4	Wire Cable Clamps	8
5	Ceiling Pulley	2
6	Wood Screws	
	3.5"	13
	2"	9
7	Cable Strain Relief	2
8	Lifting Straps	2
9	Safety pins	2
10	Strap sleeves	4
11	3/8" allen lock screws	4

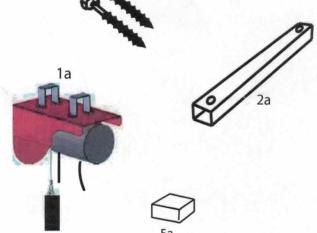


3a

10

	Winch/Power Unit Additional Parts	
1a	110V Winch/Power Unit 2 Line	1
2a	Mounting Bar	1
3a	4" Lag Screws	2
4a	3/8" Washer	2
5a	Foam Safety Stop	1







Scan with Android QR scanner or Apple QR. Don't have a qr scanner? Search Google Play or Apple Store for QR Code Scanner. Scan the code and follow the URL to play the video instructions.

# Lange Power Unit Installation Instructions

Tools needed: Safety glasses, gloves, screwdrivers, socket wrench set with driver and sockets, drill, standard drill bits, stud-finder, screw gum bit, and a wood saw.

Installation Time: 1-3 hours depending on experience

Installation Difficulty: 3 out of 5. Person should have a basic knowledge of common household tools and be able to find a wall stud without difficulty. Specialized tools not required. Note that text <u>underlined</u> in the installation guide are found in a glossary of terms in the back of the guide.

#### **Lifting Cautions**

Never lift your top so it is tight against the ceiling. This puts undue stress on the top and the Hoist. Keep your body, especially your hands away from edges of the top. We recommend you push or pull the top from the side and not use the bottom edge. There is a natural tendency to align the top with your fingers under the edge.

Periodically check nuts and bolts on the Hoist-a-Top® system for tightness. Also, inspect the ceiling mounting points for damage, or bent parts. Tighten power unit motor bolt to prevent oil leaks.

All Garages are different. Carefully read and watch the video and written instructions before installing. If you are unsure or uncomfortable with installing this product contact a structural professional. Always test this mechanism using a static and live load. Never stand, allow children, or pets under a lifted object on this mechanism. Misuse or improper installation of this product can result in serious injury or death. Follow all safety rules and regulations of tools and ladders while installing this product. Wear safety glasses, gloves, and boots while installing this product. Never walk under or allow others to either play, stand, or work under the top.

If you need help or are missing a part **DO NOT CALL YOUR DEALER. You will receive faster support though the factory 1-866-284-7428** We offer technical support Monday through Friday 9:00 AM to 4:30 PM Mountain Standard Time. Send us an inquiry via our website *hoistatop.com* anytime, or *contact1@langeoriginals.com*. 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. Lange Originals® is not responsible for damage or personal injury due to improper installation, custom installation that doesn't follow the instructions, or neglect.

There is an online video that is extremely helpful for this product. Most questions are answered visually by watching us do it in the video, by scanning the QR codes, for that specific section, with your phone. You can also browse to langeinstructions.com, or search You Tube for *Lange Power Hoist A Top Install*. We also have a section in the video for removing the hard top latches and wiring etc., which can be tricky the first couple of times.

**Warranty:** This product has a 1 year limited warranty from the invoice date of purchase for defective parts only. Lange will repair or replace parts at their discression. For full warranty information please see langeoriginals.com and click on warranty, and find your specific ordered part number. Valid invoice/reciept required.

#### **Site Preparation**

Determine whether to do either a *side wall mount*, or a *directly-over-ceiling mount*. The determining factor of this is ceiling height. Garages with a 7-9 ft ceiling require a side wall installation. Garages 10 ft or over should use an overhead ceiling mount configuration. If your ceiling is vaulted, or abnormal (anything other than parallel to the floor) consult a contractor/professional, you may need to build additional supports for your power unit.

Plug your power unit into a wall and test its operation\_before beginning installation. Don't unravel the cable at this time.



Site Prep video walk-through. Scan or enter this URL to watch on your phone or computer. https://youtu.be/QiTCFGyVK5Q?t=2m56s

## **Ceiling Mounting the Power Unit**

Mounting the power unit overhead: Back your vehicle into your garage in a suitable location to lift your shell, tent or other device. To determine a suitable lifting point from the ceiling, run a <u>plumb-bob</u> from the center of your shell, tent, or other device to the ceiling and make a mark with a pencil. Using either a stud-finder or your preferred method, determine the closest stud or manufactured lumber (TJI) and set a ceiling mark.

Cribbing is the only method on all ceiling installations. After you've found a rafter near the determined center, use a <u>plumb-bob</u> to find the closest parallel stud to it. <u>Crib</u> a suitable 2x6 between the two rafters. Use the 3.5" deck screws (three per side) and screw the 2x6 crib into the rafters.

Install "U" brackets that came in the power unit box, on the back of the power unit using the provided bolts and lock washers.. Hold the Power Unit Support Bar up to the position against the ceiling mounted 2x6 crib and mark the two holes in the appropriate position, Using a 15/64" drill bit, drill pilot holes into your <u>cribbed</u> 2x6.

Then, install one side of the mounting bar fairly loosely with the lag bolt (3a). See Figure e. (With a helper) slide power/winch unit onto the open side of the mounting bar.

Thread the other lag bolt with washer through the mounting bracket hole, and into the pre-drilled wood cross brace. Alternate tightening bolts until they are snug. Do not over-tighten lag bolts. See Figure e.



A typical ceiling installation with a 2x6 cribbed cross section securely fastened with 6, 3.5" framing screws.



Scan here to show video of us doing a ceiling mount. https://you-tu.be/QiTCFGyVK5Q?t=2m56s

## **Ceiling mount Ceiling Mounting Layout** with perpendicular studs Continued Determine if your studs run Back wall or garage door perpendicular or Parallel with your garage door. If your studs run perpendic-Power Unit ular to (or the opposite direction as your Drop cable garage door) you will need to use two 2x6 cribs at the width of the Power Unit 2x6 mounting bar. Not shown. Cribbina Installing an additional Center point 2x6 for the Pulley. On the installameasured with tion shown in Fig. b, center the Devicé Measure Pulley cable plumb bob two 2x6's between the the rafters Shown as if as shown A plumb bob should be looking up at used to determine a center point the ceiling with so the device is lifted in the area bare studs/joists you want. (center of your devicemeasured from the ceiling down) Offset Pulley This distance will vary depending on the length of the top, device, tent you are lifting. With the mounting lag screws provided, mount the mounting bar (3a) to one 2x6 and one of the single pulleys in the center of another 2x6. Note: Mount the pulley offset so it lines up with the Fig. b drop cable otherwise the frame will not center properly. Drop cable Drop cable Safety Stop 3x clamps x clamps 3 x clamps

Fig. c

Page 4

#### Sidewall mounting

Back your vehicle into your garage and determine a suitable lifting point from the ceiling. Run a plumb-bob from the center of your device to the ceiling and make a mark with a pencil. Next, crib the ceiling with a 2x6 at each edge of the device to be lifted. Locate the pulleys (9) into the 2x6 with four screws at least 2" long. Next mount the winch. Position the winch on the back wall of your garage in a line parallel from the pulley. This is important because any missalignment will cause the cable to wind on the winch drum incorrectly. See Figure d for clarification.

Using either a stud finder or your prefered method determine the closest studs from your ceiling mark. Wall-mounting requires cribbing or cross bracing with a 2x6 or wider, and then lag screwing the winch mounting bar as follows: Install "U" brackets that came in the power unit box, on the back of the power unit using the provided bolts and lock washers.. Hold the Power Unit Support Bar up to the position against the wall mounted 2x6 crib and mark the two holes in the appropriate position. Slide the power unit onto the open side of the mounting bar. See Figure e. Thread the other lag bolt(3a) with washer through the mounting bracket hole, and into the pre-drilled wood cross brace. Alternate tightening bolts until they are snug. Do not over-tighten lagbolts. Make sure the mounting location of the winch line is parallel with the ceiling mounted pulley!!! See Figure d for clarification.

Plug in and test your power unit, making sure you guide the cables out through the center of the fair-head. Your power unit should be mounted as close to the ceiling as possible, in our video we install the Mounting Bar (2a) 3 1/2 inches from the ceiling.

Make sure the safety stop (the red hockey puck or foam piece) is on the same side of the cable as the winch (closest to the power unit). See Figure d.

Slide the cables from the winch through the pulleys and then down to the Bridge Suport Arms and atach as shown in the section Frame Bridge Assembly.

After mounting the Hoist (see Section Hoist Frame Assembly) it's also a good idea to set the length of the safety stop (foam square). Lift the frame (after you've assembled it) as high as you want your top to hang and install the safety stop at the base of the power unit <u>fair-head</u> and secure it in place by fastening the cable clamps tightly on either side of the safety stop. The safety stop hits the fair-head and stops the winch before it damages anything.



Scan here to show a video of the wall mount procedure for the power unit.



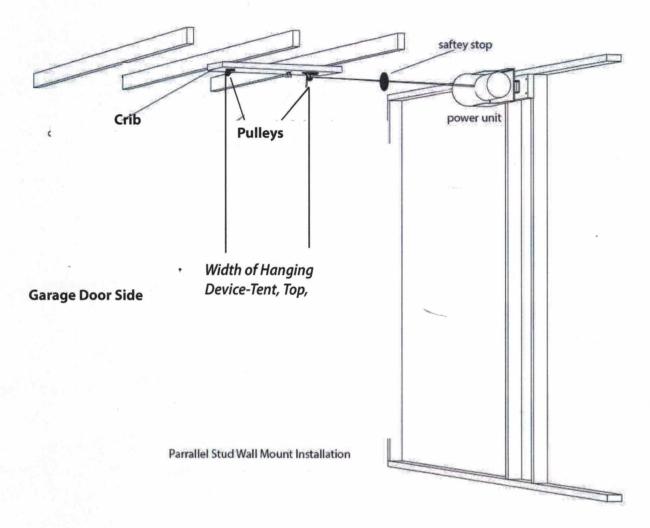


Figure d



Figure e



## Frame Bridge Assembly

There are four frame pieces. Assemble into the formate shown in Figure f.

Use the two allen set screws to secure the three-piece front bridge
Figure f-1. This bridge should be two inches wider than the object you are lifting.
For tops or any vehicle use the Figure g as a guide for setting the bridge and the straps.

Back of top



Door corner.

Strap goes under this corner and back to the rear bridge.

Pace the Rubber Cushions as shown on each Bridge.

Front of top

Figure f

Lock Allen Set Screw to secure Bridge extension



Figure f-1



Slide the looped end of each Straps on the end of the Bridge and align the holes in the strap with the hole in the Bridge. Pin the straps to the Bridge through these holes with the Safety Pins.

Close the clip on the Safety Pins so the strap is secured.

# Figure g

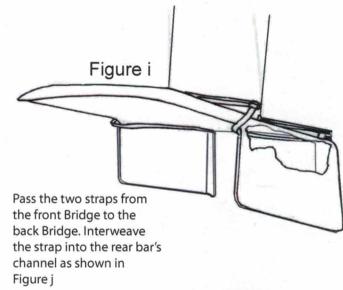
Lay each Bridge bar on your top/tent when the vehicle is in the correct position under the cables. Check the alignment so the cables are correctly in line with the Bridge bars for a proper lift. Then attach the cables using the cable clamps and the strain relief as shown in Figure h. Connect the straps as show in Figure g and Figure i.

Take the cable from the pulley on the ceiling and loop in through the center eye lug on the front Bridge. Insert the "U" shapped strain relief strain relief and attach the three clamps as shown (keep the clamps loose). Bring enough cable through to loop over the top clamp and then thread through the bottom two clamps so a pig tail shows. This is the safety wrap. Now tighten each nut on each clamp tightly using a socket. No crescent or lock plyers. Tighten enough to squeeze the cables.

Now do the same for the rear Bridge and Cable.

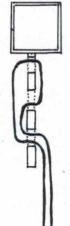






# Figure j

Side view. Follow this example carefully. Tighten the strap so there is no slack front Bridge to back Bridge.



#### Removing Your Top, Shell, Camper etc.

Position your vehicle under the Hoist-a-Top and route and attach the straps as previously described. The easiest way to do this is to disconnect the front Bridge by pulling the Pin and and pull the straps off the ends of the Front Bridge. Then route the straps under and back to the front and re-attach the straps to the front Bridge and seat the safety Pins.

#### Safety First

If this is the first time lifting please check the following:

- Check the ceiling mounts and that the Winch, pulleys, and cribs are screwed into solid wood rafters. Experience says that problems occur when screws miss the wood and instead are held by just sheet rock.
- 2. Test the Hoist-a-Top with several up and down cycles to make sure you know how to operate the winch.
- 3. Make sure that the safety stop is working at the top of the lift cycle, and that the Winch stops automatically.
- 4. Never allow children or others to operate the Winch. Make sure it is out of reach of children or turn the power off when not in use.
- 5. Do not stand or walk under a lifted object for your own safety.
- 6. When lowering a Top etc., use caution and stand away from the object being lowered.

