

# Lenco Hatch Lift Installation/Operation

Due to the many different variables involved with the numerous applications for Lenco hatch lifts, installation is never the same. Here are some general guidelines that can be of assistance:

- The actuator is most powerful when it is installed vertically at 90 degrees.
- Lifting capabilities decrease (due to the fact that the force pounds increase) the closer the upper or lower mount is located to the hinge.
- The further from a vertical position the less lifting capability. When retracted, **DO NOT** position hatch lift at an angle less than 45 degrees.
- Dual hatch lift systems are recommended for hatches over 500 pounds (226.79 kg) of force.
- Lenco hatch lifts are designed around a ball screw that spins freely when hatch is fully open or closed.
- **The hatch lift must be allowed to free spin at both ends of its stroke or it will continue to push or pull against any resistance potentially damaging the hatch lift or the hatch itself.**
- Failure to make accurate measurements could cause damage to hatch lift or the hatch itself.
- Lenco hatch lifts are waterproof and will not drift.
- Lenco hatch lifts are offered in both 12 and 24 volts.

S = Short. All part numbers ending in S have the same stroke but in a 4" (10.16 cm) shorter length.

12V Part Number	L. O. A. Retracted	Approx. Stroke	L. O. A. Extended
20760-001	15"	4"	19"
20764-001	20"	8"	28"
20766-001	24"	8"	32"
20768-001	24"	12"	36"
20770-001	29"	12"	41"
20774-001	29"	16"	45"
20776-001	33"	16"	49"
20778-001	33"	20"	53"
20780-001	37"	20"	57"
20782-001	37"	24"	61"
20784-001	41"	24"	65"



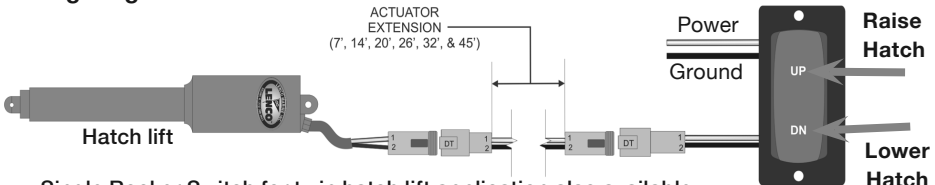
## OPERATION

The function of the Lenco Hatch Lift System is simple. Since the hatch lift is based around a ball screw it is able to push a heavy load and remain at a constant position.

To raise a load, extend the hatch lift by pressing on the upper part of the switch. To lower a load, retract the hatch lift by pressing the lower part of the switch.

In case of power failure, Lenco hatch lifts are supplied with two clevis pins at the mounting brackets. To pull this pin out while the hatch is closed, you can: A) Rig a cable to pin and rig to a point outside of the hatch. B) Install an inspection plate where the pin will be accessible. C) Install Lenco's hatch lift slide bracket (Part # 70381-001). This will allow you to pull the hatch open 4" (10.16 cm) in order to remove the bolt.

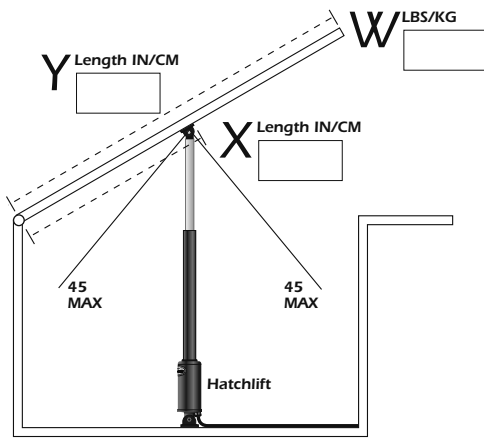
## Wiring Single Rocker Switch #15096-001



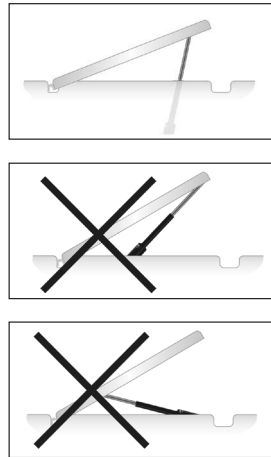
Single Rocker Switch for twin hatch lift application also available. See page 18 for part #.



# Lenco Hatch Lift Mounting



$$Y \times W \div X = \text{Force}$$



- Follow the chart above to figure out load on the hatch lift. Maximum load is 500 lbs. (226.79 kg)  
 Y = Total length of hatch  
 X = Length from the hinge to the hatch lift mounting point  
 W = Weight of the hatch to be lifted
- Determine the angle of the hatch lift mount. Do not exceed 45 degrees from center.
- Mount the hatch lift on the desired location as per the above instructions.  
**Important:** It may be necessary to

- shim the upper or lower mounting bracket up or down so the hatch does not bind when fully closed. The hatch lift does not stop pulling until it has reached its fully closed position. If the hatch fully closes before the hatch lift is fully retracted, it will cause damage to the lift or the mounting hardware. Shim the hatch lift with stainless washers for small amounts of length. Use Lenco shim part #50015-002D for lengths greater than 1/8" (3.2 mm).
- Wire to switch according to the hatch lift wiring diagram on page 17.

## SYSTEM PARTS

1 Upper Mounting brackets	#50014-001D (119)
2 Lower Mounting bracket	#50014-001D (119)
3 Clevis pins	#60101-001D (121SS)
4 Single rocker switch for single HL application	#15096-001 (optional)
5 Single rocker switch for twin HL application	#15098-001 (optional)
6 Shim - 7°	#50015-002D (118S) (optional)
7 Slide bracket	#70381-001 (HLSB) (optional)