



Convenient & Reliable

The Aladdin Storage Lift is a motorized lift system that easily and safely lifts your storage items into the attic or lowers them down to floor level. It eliminates the difficult, time consuming and dangerous task of lifting or pushing items up and down a pull down stairway.

The Storage Lift turns a difficult task into a simple and economical solution for all of your storage needs.

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WARNINGS AND SAFETY PRECAUTIONS

The following statements are warnings and safety precautions for the installation, operation, and maintenance of the Aladdin Storage Lift. Failure to understand and follow each of the warnings and safety precautions below could cause death, personal injury, and/or property damage. Closely follow the installation guide when installing the Aladdin Storage Lift. Please contact technical support (877) 287-4601 with any questions or concerns regarding the following:

1. The Aladdin Storage Lift should never be used to transport humans in any way.
2. Do not install a storage lift where there is no human access to the attic such as an attic pull down or staircase.
3. The ceiling height must be specified when ordering the Aladdin Storage Lift.
4. Never allow the cart cable counter weights to touch the floor. If the counter weights touch the floor, the cables will not wind properly. Contact Aladdin Storage Lift technical support for assistance. (877) 287-4601
5. Avoid damage to the ceiling, storage lift, and load by making sure the load placed inside the cart assembly does not extend outside the inner frame.
6. Do not load the cart assembly with more than 500lbs.
7. Do not install the storage lift outdoors.
8. The storage lift must be framed in on a level plane.
9. Never sit or stand under the cart assembly while operating the storage lift.
10. Never operate the Aladdin storage lift without the cart assembly attached to the cart cables. This can cause the cart cables to jump off the Drive Shaft, causing a safety hazard. If this situation occurs, contact Aladdin Storage Lift technical support immediately. (877) 287-4601
11. Never fully extend the cart cables from the Aladdin Storage Lift. This could cause the cable to become reversed on the Drive Shaft. See owner's manual for supplied cable length.
12. Disconnect the power source from the storage lift when servicing or performing maintenance.
13. Never cut or adjust the length of the cart cables.

WARNINGS AND SAFETY PRECAUTIONS

14. Make sure the height of your load does not exceed the attic ceiling height.
15. Never install an Aladdin Storage Lift where the ceiling height exceeds the cart cable lengths. This can cause the cart cables to become reversed on the Drive Shaft, causing a safety hazard. If this situation occurs, contact Aladdin Storage Lift technical support immediately. (877) 287-4601
16. Do not operate the storage lift unless the cart cables are in the Drive Shaft spool grooves.
17. Periodically inspect the cart cables for frays or kinks. If a fray or kink is detected, contact Aladdin Storage Lift technical immediately. (877) 287-4601
18. Periodically inspect the worm gear drive and replace the axel grease if necessary.
19. Periodically inspect the Motor Shutoff Switch. Make sure the Motor Shutoff Switch Bar is not damaged and the screws are tight.
20. Do not install a storage lift where the load height will exceed the attic ceiling height.
21. Never alter the Aladdin Storage Lift from its original state.

FEATURES AND BENEFITS

Easy to Install

The Aladdin Storage Lift is neatly tucked away in the area above the ceiling. The only visible indication of the system is the neatly trimmed out box in the ceiling. Installation by your trim carpenter/framer and electrician is simple, in both new construction and existing homes. Once in place, you can raise your storage items into the attic from floor level safely, without having to carry them up the attic stairs. You **MUST** specify the ceiling height when ordering your Aladdin Storage Lift.

Designed for Years of Trouble-Free Operation

The Aladdin Storage lift is designed for years of trouble-free operation. The system has been rigorously tested and uses the latest technology for electrical components and safety systems. Loads up to 500lbs are no problem for the Aladdin Storage Lift.

Warranty

The Aladdin Storage Lift is backed by a full 5-year limited warranty on all parts and components.

Keyswitch Controller

The Keyswitch Controller is used to operate the Aladdin Storage Lift. This simple to use keyswitch puts the storage lift's controls at your fingertips.

OPERATING GUIDE

Quick Notes:

- a. Never allow the cart cable counter weights to touch the floor.
- b. The ceiling height must be specified when ordering the Aladdin Storage Lift.
- c. Never allow a child to operate the storage lift.
- d. While operating the storage lift, keep the Cart Assembly in sight to make sure it shuts down properly.
- e. The Aladdin Storage Lift should never be used for the movement of humans.
- f. If the storage lift is not operating properly, contact Aladdin's Storage Lift's technical support at (877) 287-4601.

Perform the following for operation:

1. Insert key into keyswitch.
2. Turn and hold the keyswitch to the right to run your storage lift down to the FLOOR POSITION.
3. Release the keyswitch once the cart touches the floor. Do not allow cable counter-weights to touch the floor. Load the items that you want to transport to the attic inside the cart assembly. Do not allow any items to hang over the inner frame of the cart.
4. Turn and hold the keyswitch to the left to run your storage lift up to the CEILING POSITION, then release.

To stop the storage lift from lowering at any time, release the keyswitch. To stop the storage lift from raising at any time, release the keyswitch.

Enjoy using the Aladdin Storage Lift to make all of your attic storage needs much easier!

INSTALLATION GUIDE

Disconnect the power when servicing or performing maintenance to the Aladdin Storage Lift. Electricity can kill!

GETTING STARTED:

1. This installation guide is for the Aladdin Storage Lift which is rated to handle up to a 500lb load. Do not exceed a 500lb load.
2. Only install this lift system where there is ample space between the roof rafters and attic floor joists. Do not lift loads into the attic that are taller than the attic. This will cause damage to the loads, the storage lift, the roof, and the ceiling.
3. Study the 'Warnings and Safety Precautions' section in the owner's manual.
4. Read the 'Installation Guide', studying the drawings carefully, and learn each part and step before installing the Aladdin Storage Lift.
5. The Aladdin Storage Lift frames, chassis, and supports should be installed by a licensed framer or trim carpenter. All line and low voltage electrical work should be performed by a licensed electrician.
6. Open the boxes and examine the parts received. Included should be the following: Motor drive assembly, drive shaft, end plates, cart cables, cart assembly, support straps, limit switches, hardware, wiring, ceiling support frame, cart springs, and a Keyswitch Controller.

INSTALLATION TIPS:

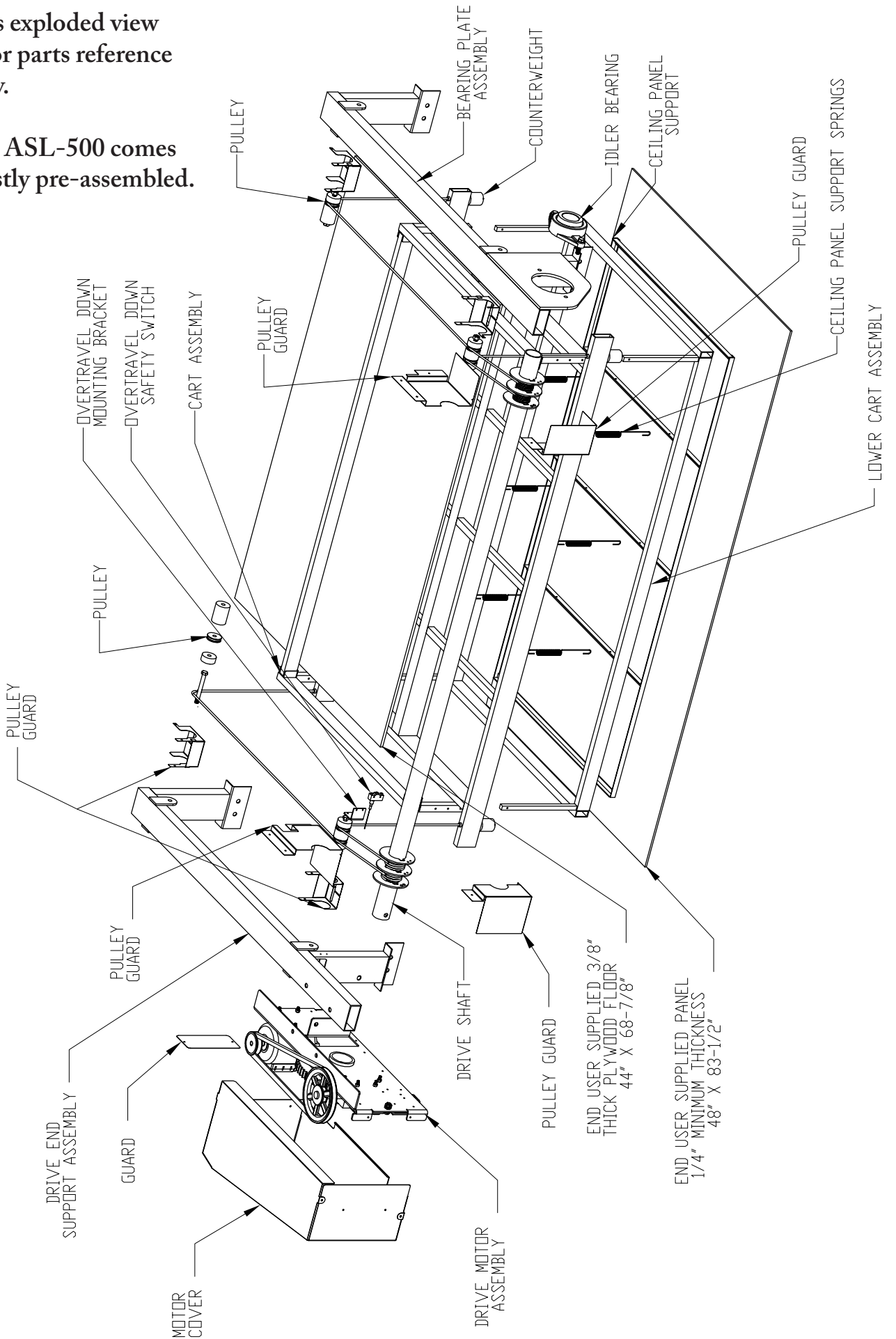
1. When installing the Motor Drive Assembly and the Bearing Plate Assembly, the measurement of 74 $\frac{3}{4}$ inches center to center between the frames is crucial for Drive Shaft alignment. See **STEP 8**.
2. When reinstalling pulley wheels and spacers after feeding cart cables, DO NOT over tighten $\frac{1}{2}$ inch bolt. See **STEP 10**.
3. On Motor Drive Assembly side, make sure the cables are feeding over the top of the Cable Safety Switch Bar. See **STEP 10**.
4. Alignment of the cart cables on the helical grooving of the Drive Shaft is essential for smooth operation of the Storage Lift. See **STEP 18**.
5. Make sure the cables are rolling off the top of the spools. See **STEP 10 & 15**.
6. Make sure the cable is inserted in the Motor Shutoff Switch Bar. See **STEP 14**.

MATERIALS NEEDED:

1. One sheet of 3/8 plywood cut to 68 $\frac{1}{2}$ " x 44".
2. One sheet 1/4 finished plywood cut to 83 $\frac{1}{2}$ " x 48" (not to exceed 20 lbs).

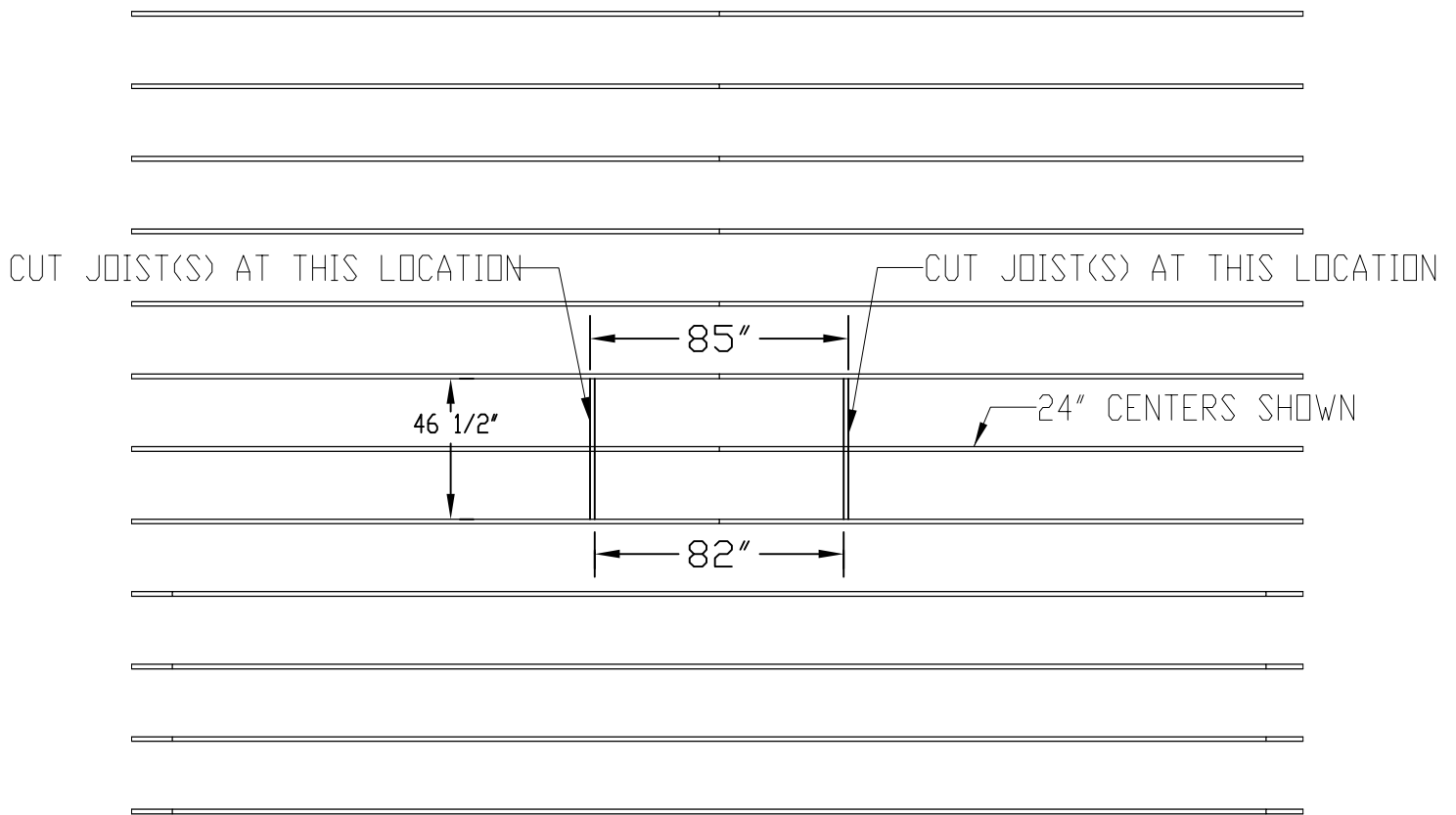
This exploded view is for parts reference only.

The ASL-500 comes mostly pre-assembled.



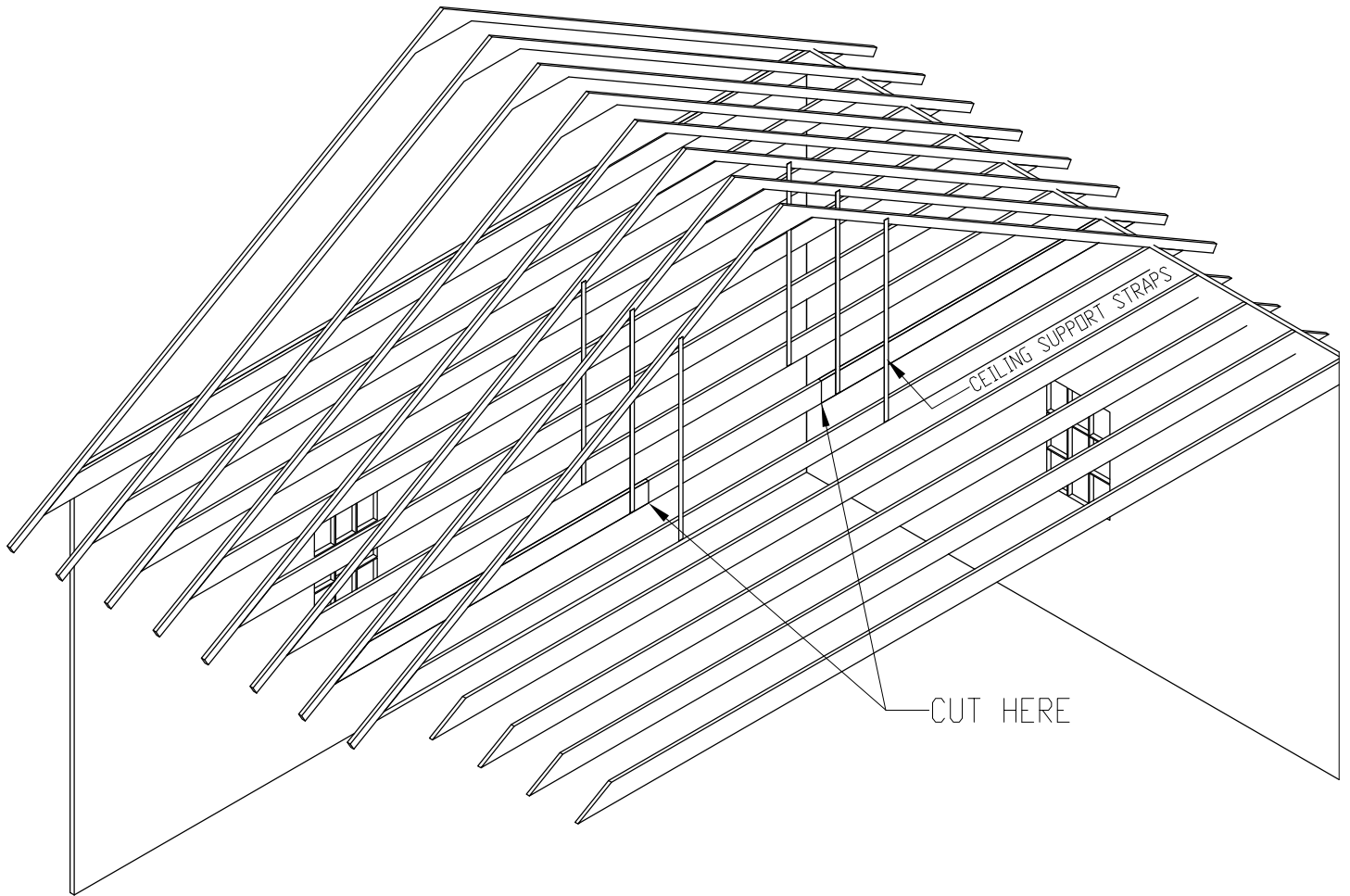
STEP 1-Framer or Trim Carpenter

Determine where the storage lift will be installed. The storage lift should be in a place where there is ample ceiling height in the attic. Have a licensed electrician or plumber reroute any wiring or pipes that may be in or around the area where the storage lift will be installed. Measure an area of 85" x 46 1/2". If your attic floor has joists that are 24" on center, you'll need to remove one partial joist. If your attic floor has joists that are 16" on center, you'll need to remove two partial joists. **DO NOT** cut them until step #2 is completed. Remember, the inside measurements should be 82" x 46 1/2" after the short side support joist are installed.



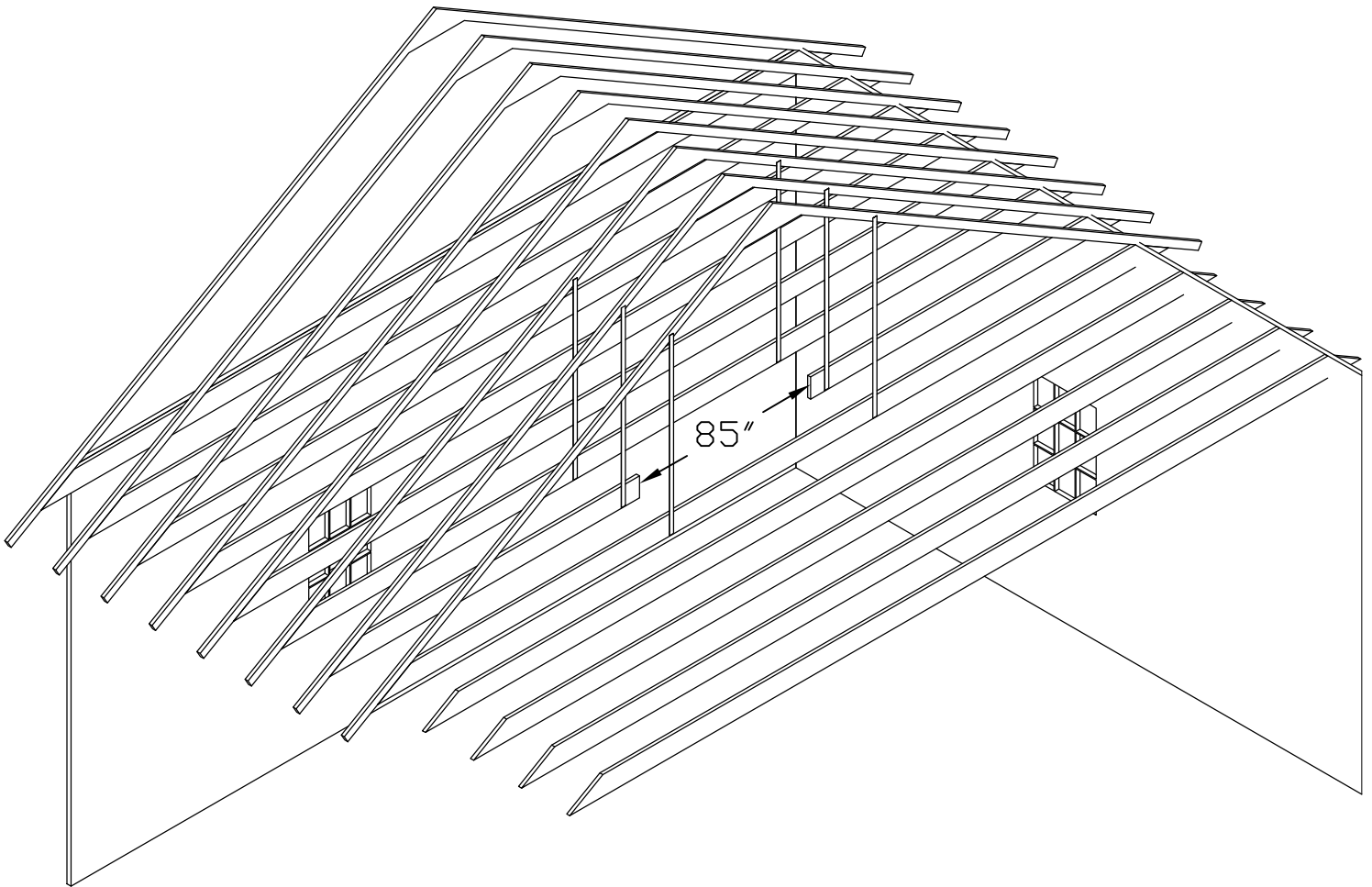
STEP 2-Framer or Trim Carpenter

Install the ceiling support straps as shown below. Use eight straps for joist that are 16" on center and six straps for joists that are 24" on center. Use the supplied 1/4"x 1 1/2" hex lag screws and 1/4" fender washers for mounting.



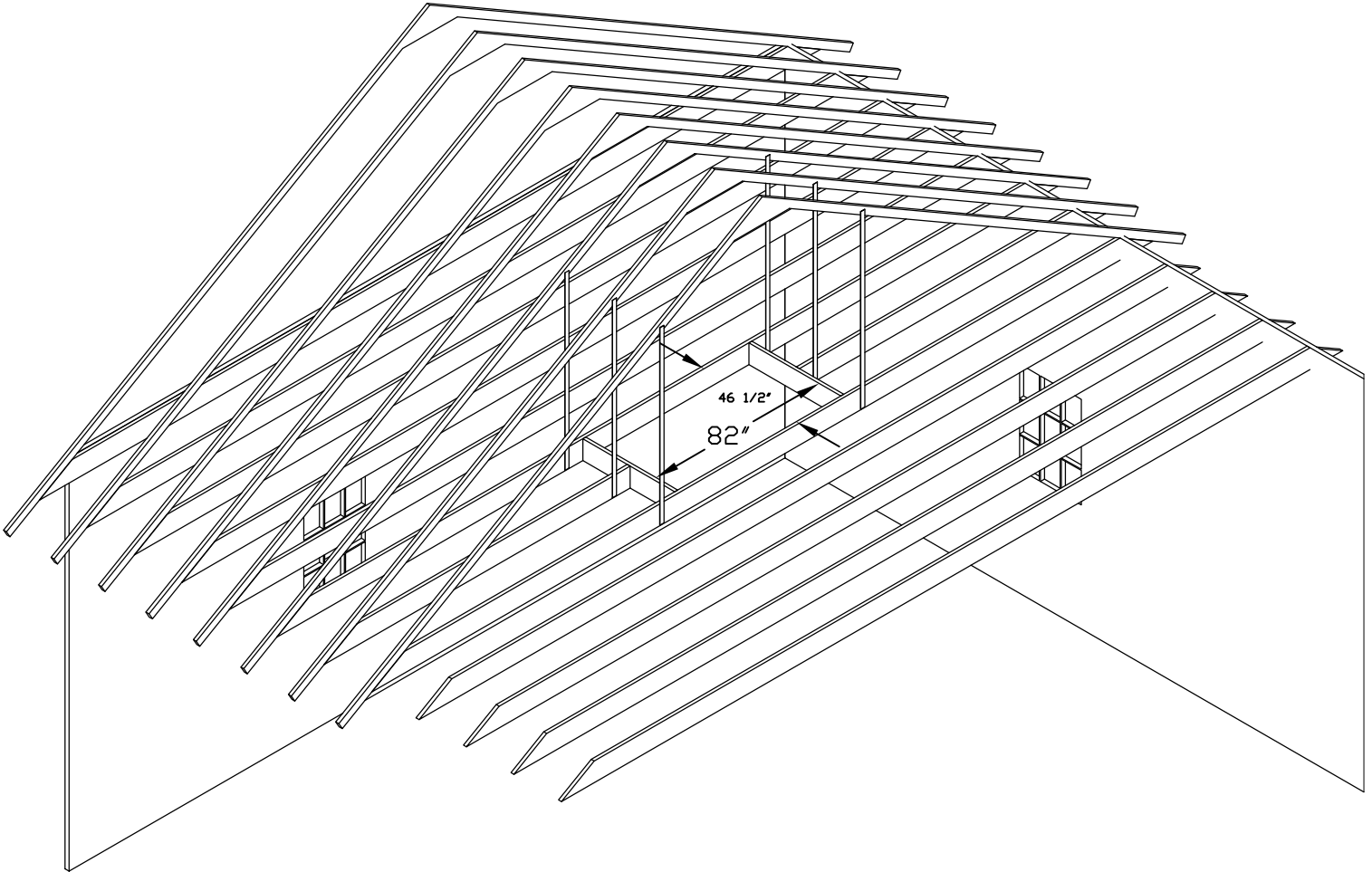
STEP 3-Framer or Trim Carpenter

After remeasuring the joists and installing the ceiling support straps, remove the ceiling joists. Cut out any sheetrock if present and remove any insulation. Remember, the inside measurements should be 82"x 46 ½" after the short side support joist are installed.



STEP 4-Framer or Trim Carpenter

Install short side support joists on the 46 ½” ends. Material not supplied. Assure the opening is perfectly square. The inside dimensions of the opening should be 82”x 46 ½”.

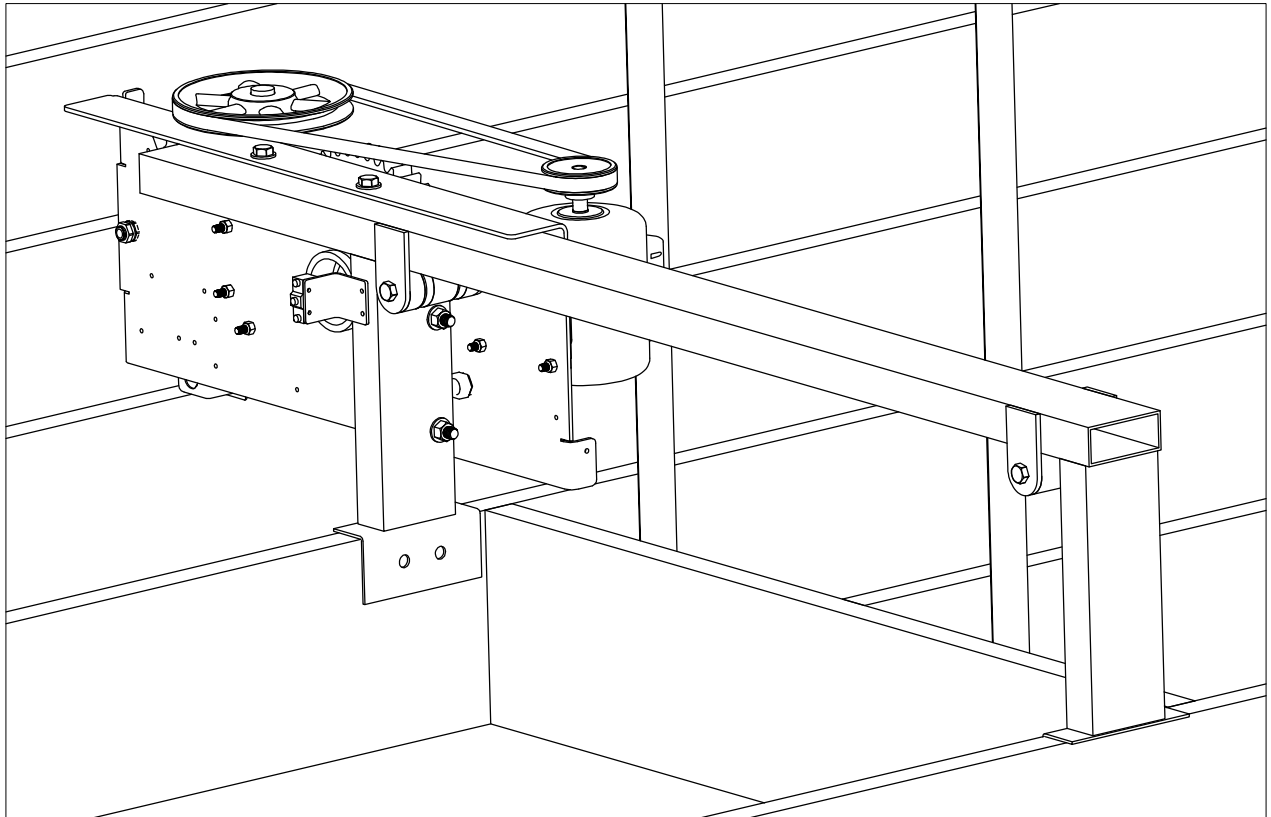


STEP 5-Framer or Trim Carpenter

Trim out the opening in the ceiling to match the style of the room using 3/4” thick trim. Material not supplied. The trim should be mounted flush with the edge of the joist and sheetrock. Make sure trim does not hang over inside of opening so it will not interfere with the operation of the Storage Lift.

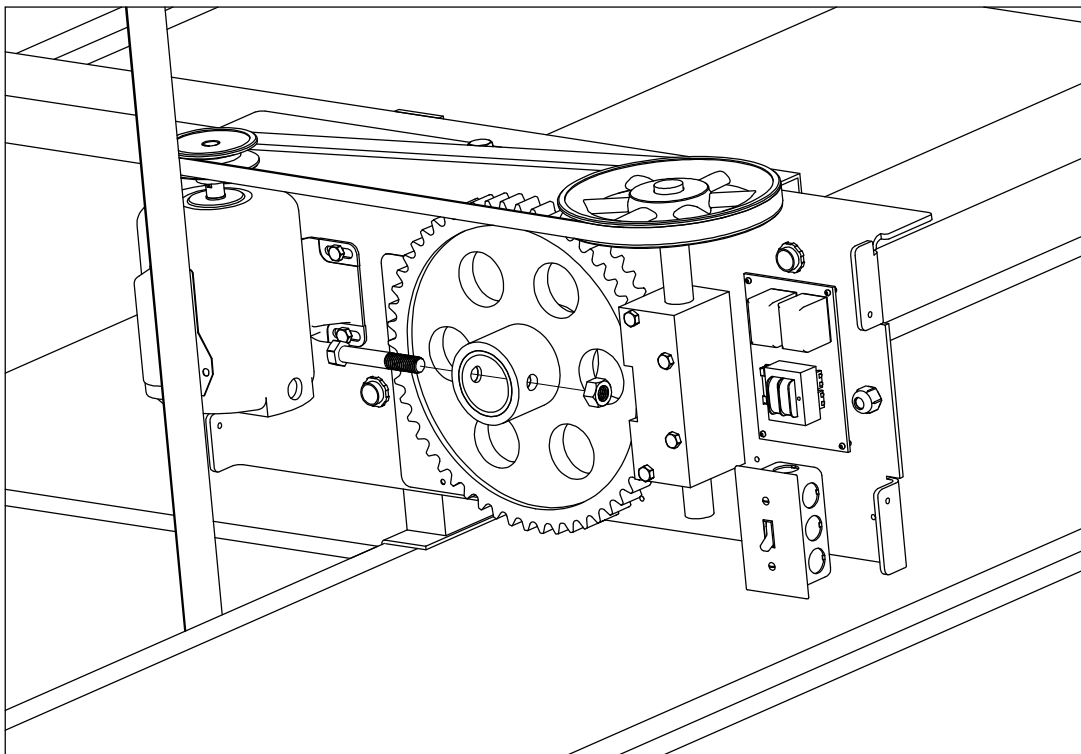
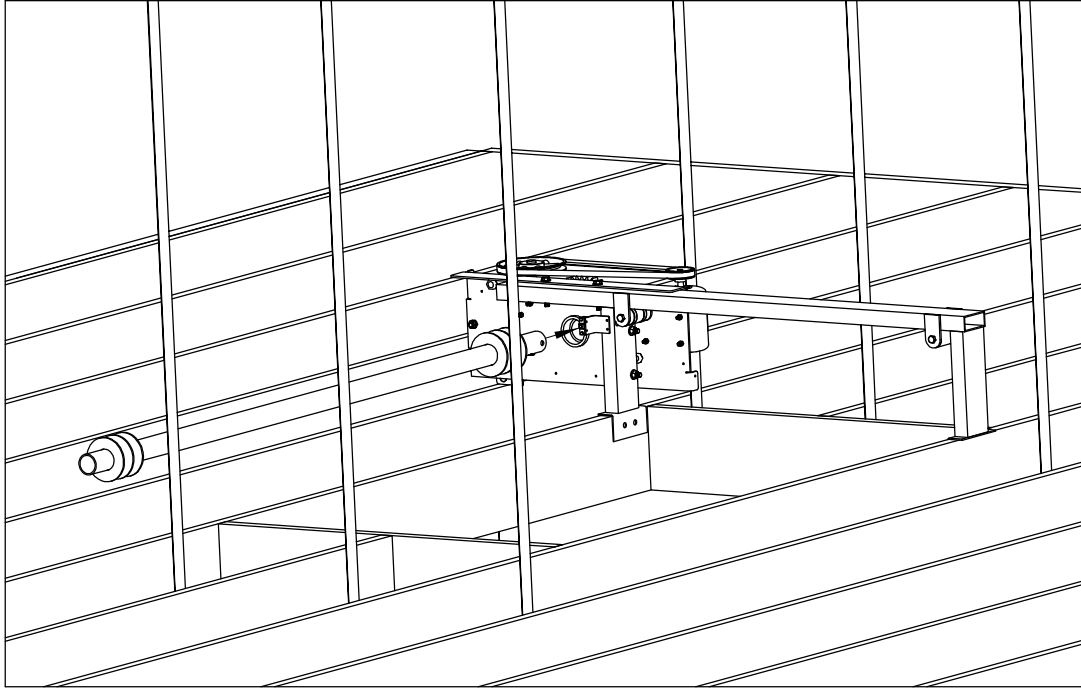
STEP 6-Electrician

Install Motor Drive Assembly. The assembly should be installed on the opposite side of the load retrieval side. The Motor Drive Assembly **MUST** remain to the outside of the opening. The assembly should be installed directly on top of joist, not on top of attic flooring. **TIP**-The use of Quick Clamps is helpful to temporarily secure frame to joist.



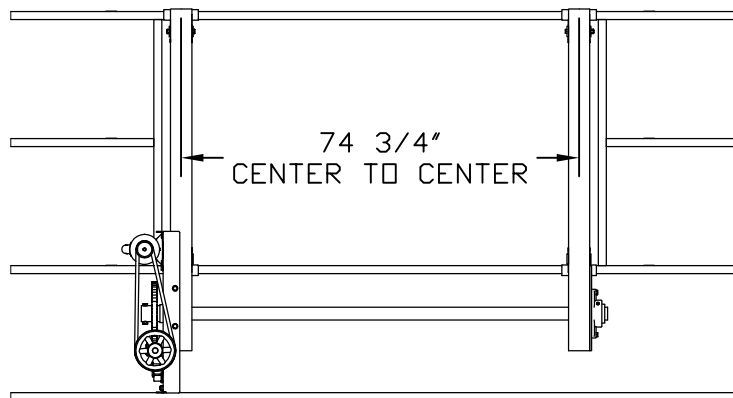
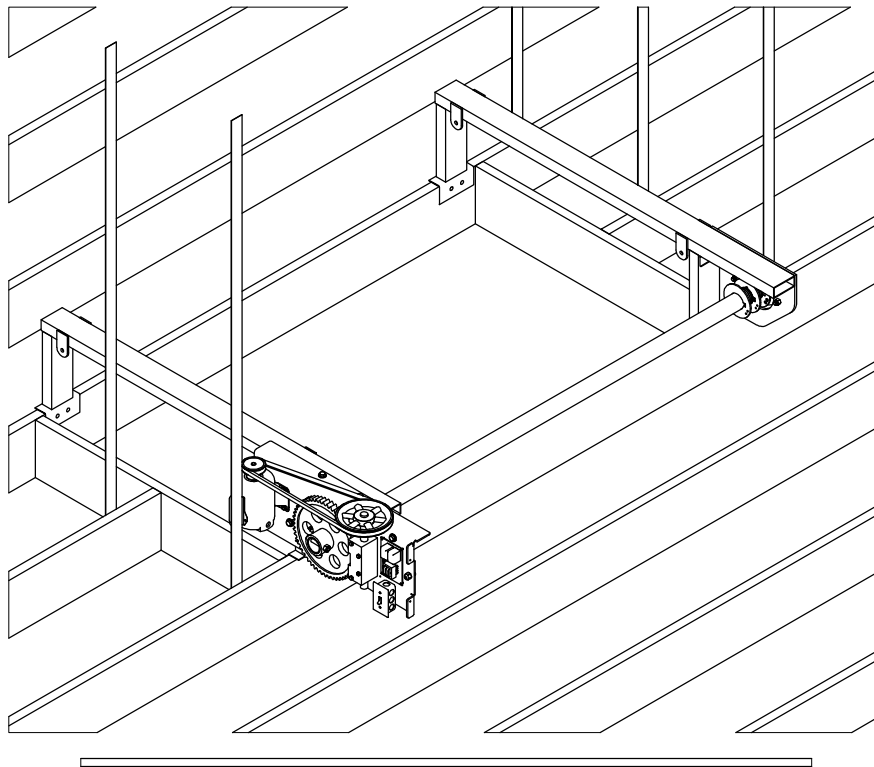
STEP 7-Electrician

Install the Drive Shaft in the Motor Drive Assembly. Secure the Drive Shaft with the supplied $3\frac{1}{2}$ "x $\frac{1}{2}$ " bolt and nylon insert locknut.



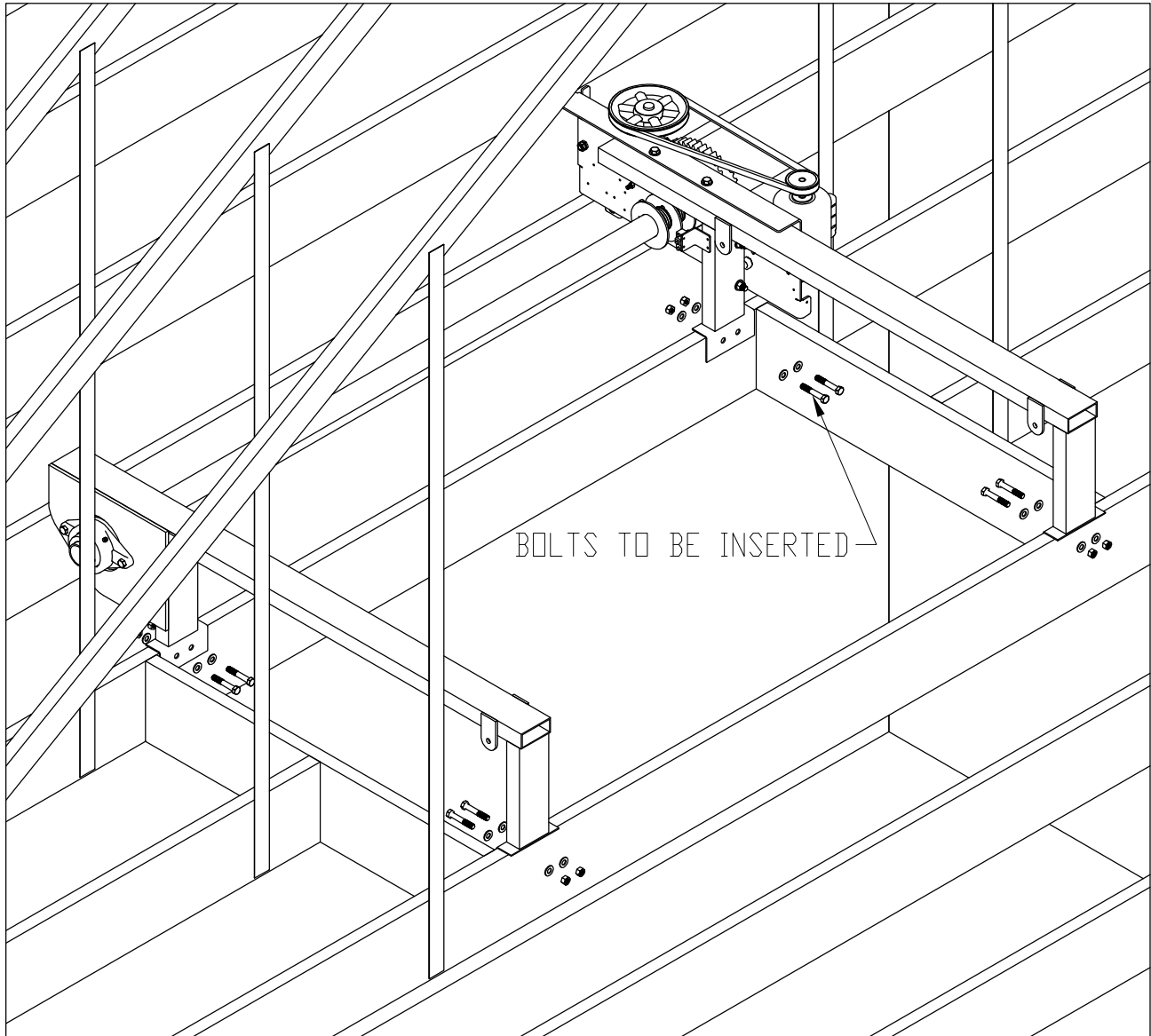
STEP 8-Electrician

Install the Bearing Plate Assembly after inserting the Bearing end of the Drive Shaft into the Bearing Plate. The assembly should be installed directly on top of joist, not on top of attic flooring. Assure both the Drive end and Bearing end are perfectly square with the ceiling joists. The overall dimension center to center should be $74 \frac{3}{4}$ ". Measure this dimension from all four corners of the assembly. This measurement is crucial to keep the cable spools on the Drive Shaft in line with the pulleys on the Motor Drive and Bearing Plate Assembly's.



STEP 9-Electrician

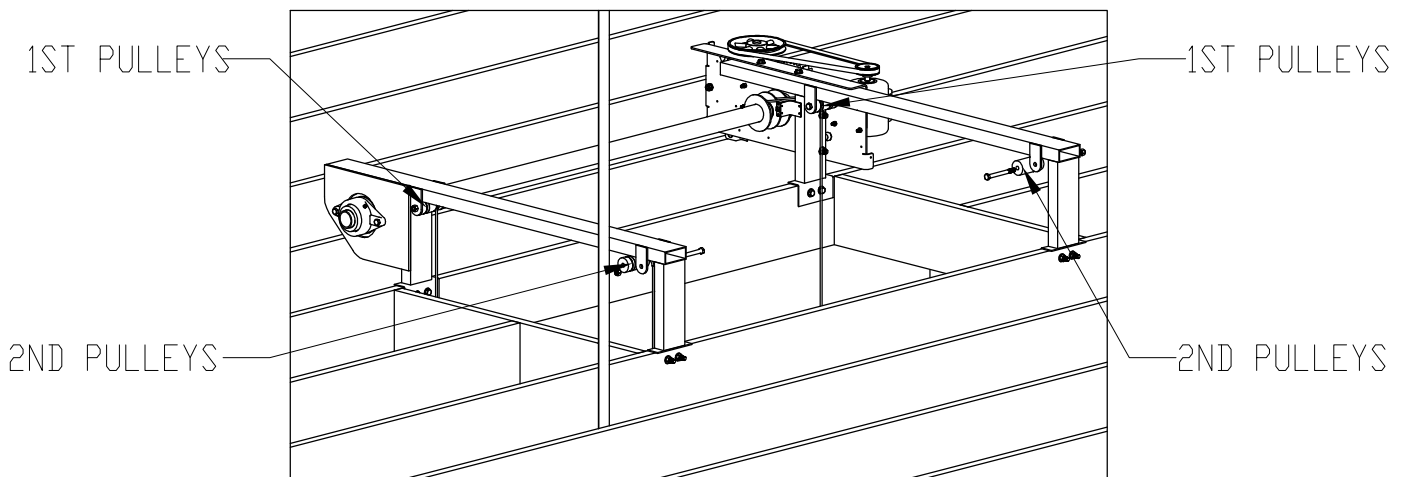
Before mounting to the joists, make sure Storage Lift Assembly is centered in the opening. Drill 5/8" holes in the ceiling joists using the angle bracket holes as guides. Using the supplied 1/2" x 4" bolts, 1/2" fender washers, and 1/2" nylon insert lock nuts, mount the Motor Drive Assembly and Bearing Plate Assembly to the ceiling joists.



STEP 10-Electrician

Feed the cart cables through the pulleys. The outboard cart cables will feed through the 1st pulleys and across the opening to the 2nd pulleys, then down. The inboard cart cables will feed over the 1st pulleys, then down. To feed the outboard cart cables, the 2nd pulleys and spacers will need to be removed. To remove, take the 1/2" x 5 1/2" bolts loose to release the pulleys and spacers from the Motor Drive and Bearing Plate Assembly. Feed cables then reinstall pulleys and spacers making sure that they are in the correct order to align the 2nd pulleys with the 1st pulleys. **When reinstalling 1/2" bolts, DO NOT over tighten the bolts as it will squeeze the pulley mounting brackets into the pulleys and spacers. This will bind the pulleys causing them not to rotate properly.** Tighten the bolt so that it has minimal side to side play and it can be rotated by hand. **Note: On Motor Drive Assembly side, make sure the cables are feeding over the top of the Cable Safety Switch Bar installed on Step 15. Make sure the cables are rolling off the top of the spools. (See picture below)**

*****Cables should roll off the top on the spools*****



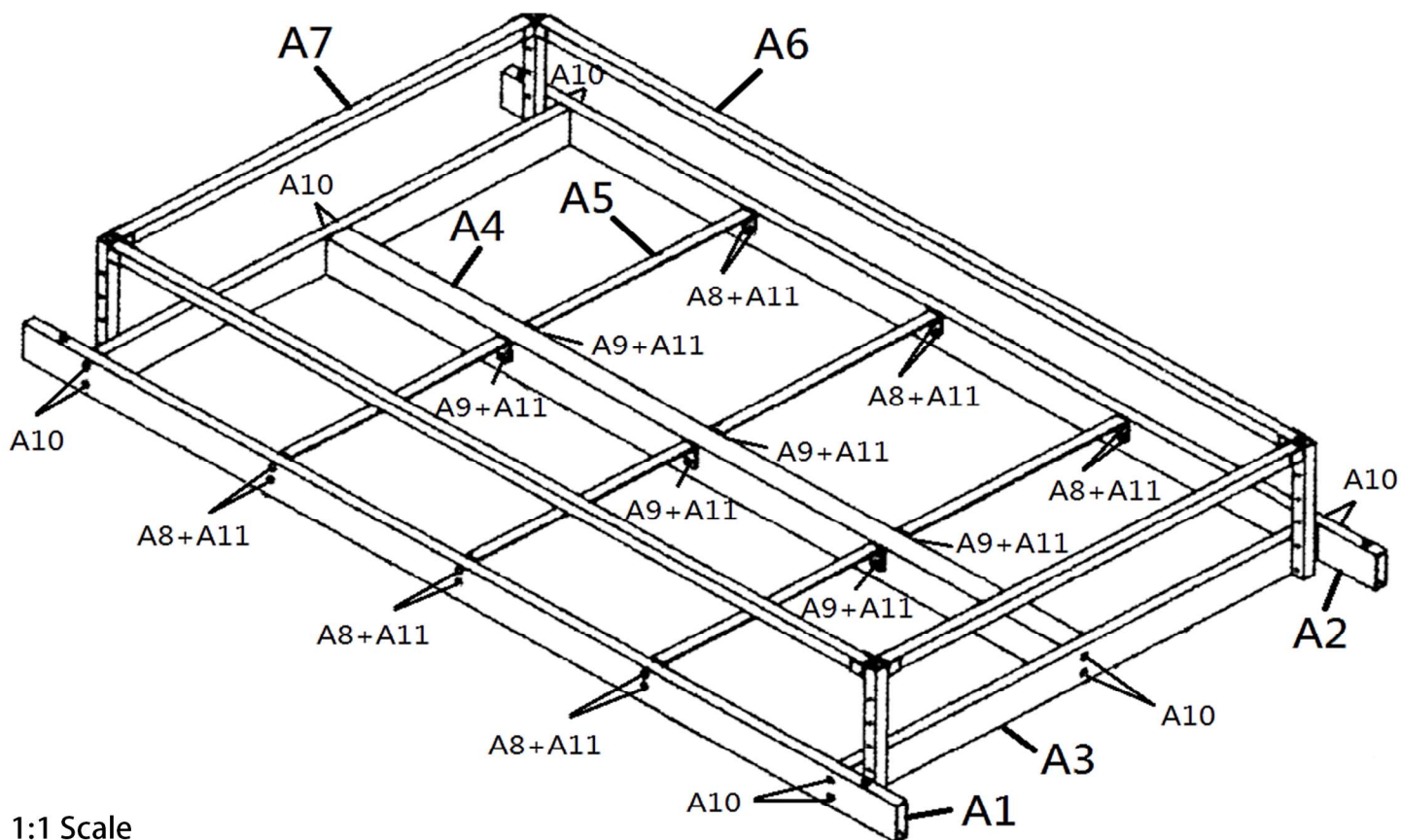
STEP 11-Electrician

Assemble cart, lower cart and ceiling panel support

CART ASSEMBLY INSTRUCTIONS

A. Cart Assembly

A1 (LOWER SIDE) LEFT LONG ALUMINUM BAR	1 PCS
A2 (LOWER SIDE) RIGHT LONG ALUMINUM BAR	1 PCS
A3 (LOWER SIDE) U-FRAME ALUMINUM BAR	2 PCS
A4 (LOWER SIDE) MIDDLE LONG ALUMINUM BAR	1 PCS
A5 (LOWER SIDE) MIDDLE SHORT ALUMINUM BAR	6 PCS
A6 (UPPER SIDE) LONG ALUMINUM BAR	2 PCS
A7 (UPPER SIDE) SHORT ALUMINUM BAR	2 PCS
A8 M6x40 HEX SOCKET TRUSS HEAD SCREW	12 PCS
A9 M6x70 HEX SOCKET TRUSS HEAD SCREW	6 PCS
A10 M6x55 HEX SOCKET TRUSS HEAD SCREW	12 PCS
A11 M6 NYLON LOCK NUT	18 PCS



1:1 Scale



A11- M6 Nylon Lock Nut

A8- M6x40

A10- M6x55

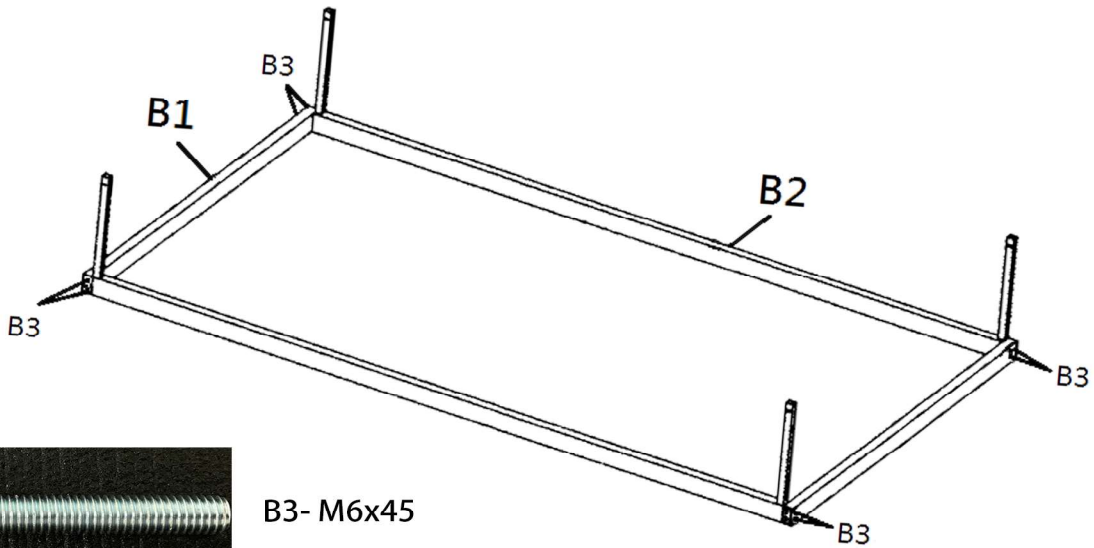
A9- M6x70

NOTICE
A 4mm Allen wrench
and 10mm wrench/socket
will be needed for assembly.

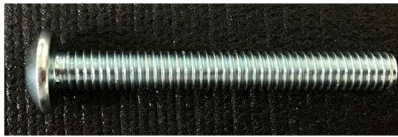
LOWER CART AND CEILING PANEL SUPPORT ASSEMBLY INSTRUCTIONS

B. Lower Cart Assembly

- | | | |
|----|-----------------------------------|-------|
| B1 | SHORT ALUMINUM BAR | 2 PCS |
| B2 | U-FRAME ALUMINUM BAR | 2 PCS |
| B3 | M6x45 HEX SOCKET TRUSS HEAD SCREW | 8 PCS |



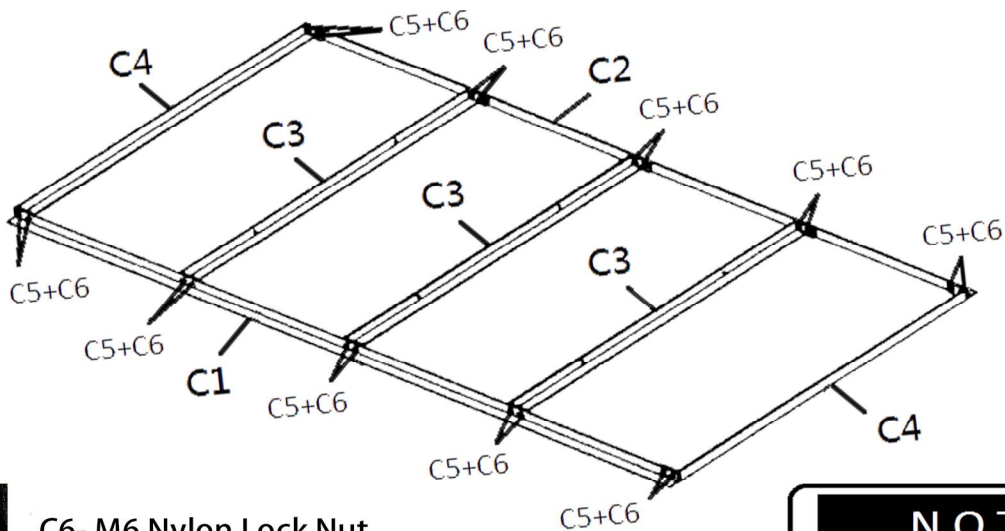
1:1 Scale



B3- M6x45

C. Ceiling Panel Support

- | | | |
|----|---|--------|
| C1 | LEFT LONG L-SHAPE ALUMINUM BAR | 1 PCS |
| C2 | RIGHT LONG L-SHAPE ALUMINUM BAR | 1 PCS |
| C3 | SHORT L-SHAPE ALUMINUM BAR (WITH HOLES) | 3 PCS |
| C4 | SHORT L-SHAPE ALUMINUM BAR (NO HOLES) | 2 PCS |
| C5 | M6x15 HEX SOCKET TRUSS HEAD SCREW | 20 PCS |
| C6 | M6 NYLON LOCK NUT | 20 PCS |



1:1 Scale



C6- M6 Nylon Lock Nut

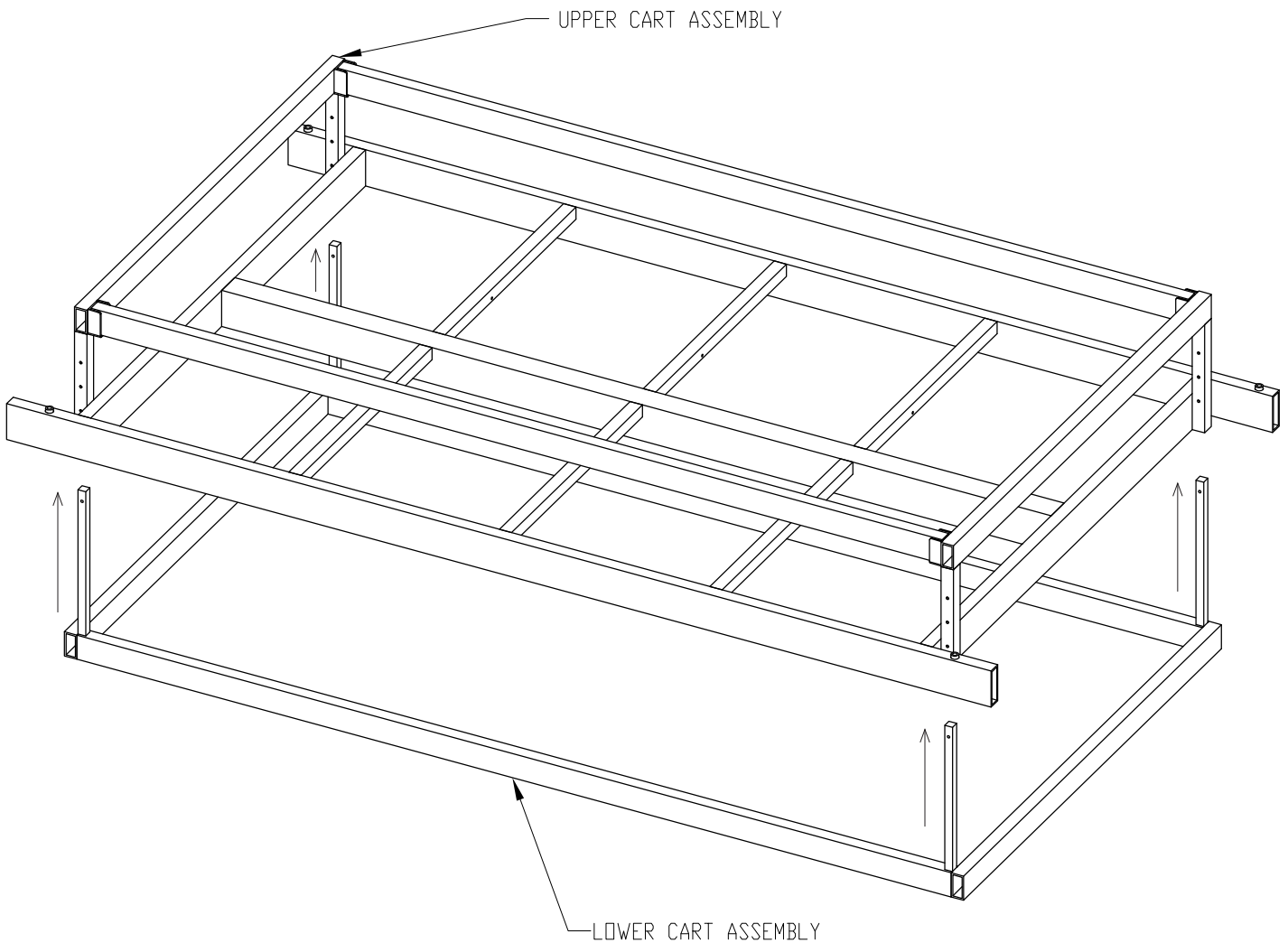
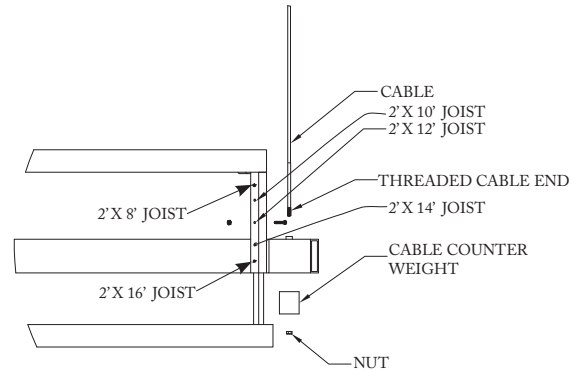
C5- M6x15

NOTICE

A 4mm Allen wrench and 10mm wrench/socket will be needed for assembly.

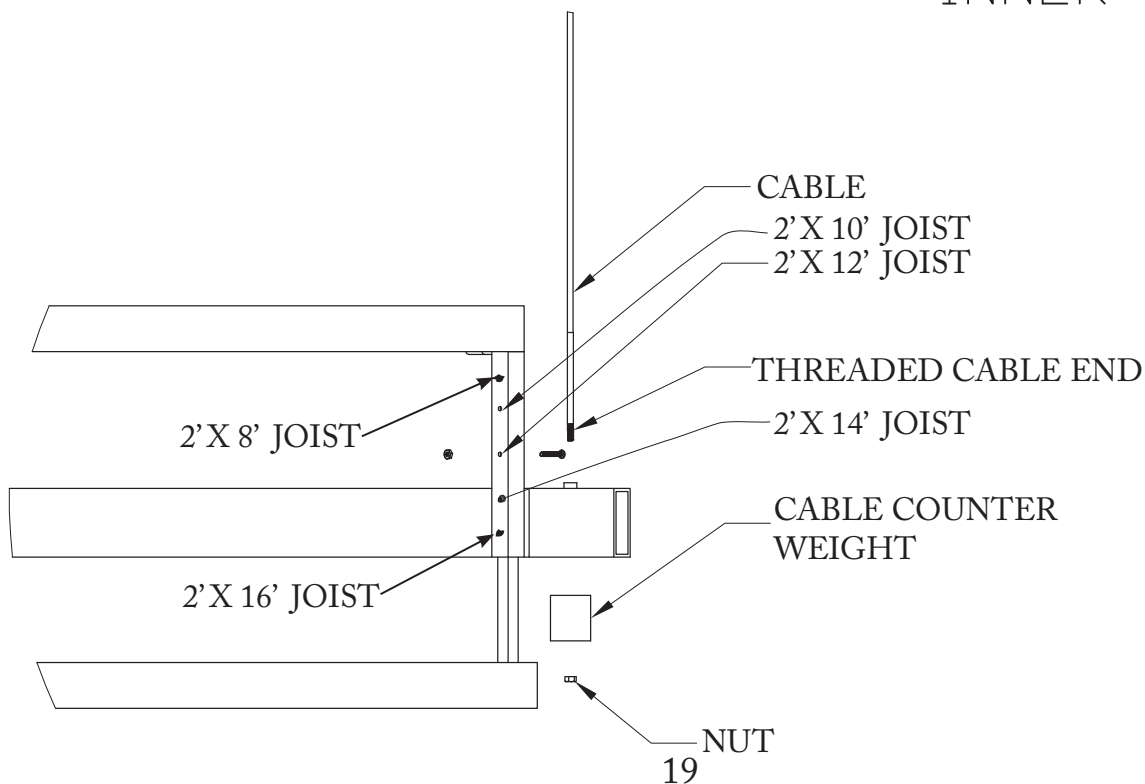
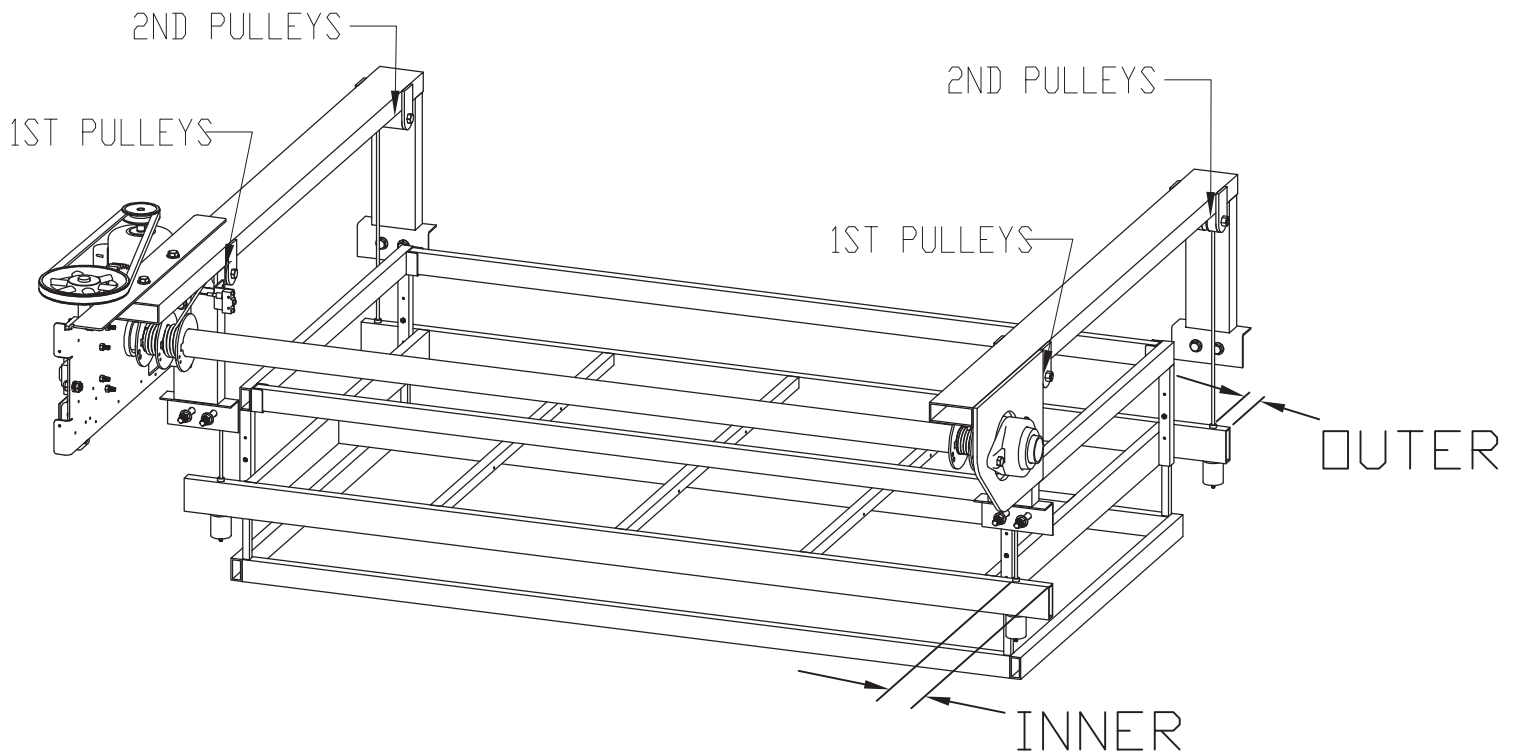
STEP 12-Electrician

Attach the Lower Cart Assembly to the Upper Cart Assembly using the supplied #10 x 1 1/2" screws and nuts. The Cart Assembly is adjustable for different joist and truss sizes. Attach the Lower Cart Assembly to the Upper Cart Assembly in the proper adjustment holes per your joist or truss size. The adjustment holes are as follows from top to bottom: 2 x 8, 2 x 10, 2 x 12, 2 x 14, and 2 x 16.



STEP 13-Electrician

Attach the Cart Cables to the Cart Assembly. Position the Cart Assembly on the floor underneath the storage lift so that the 1st pulleys use the inner Cart Cable attachment holes and the 2nd pulleys use the outer Cart Cable attachment holes. Attach the Cart Cables to the Cart Assembly by sliding the threaded ferrell that is attached to the end of the Cart Cables through the holes in the Cart Assembly and then through the Cable Counter Weights and fasten with the supplied 1/4" nylon insert lock nuts.

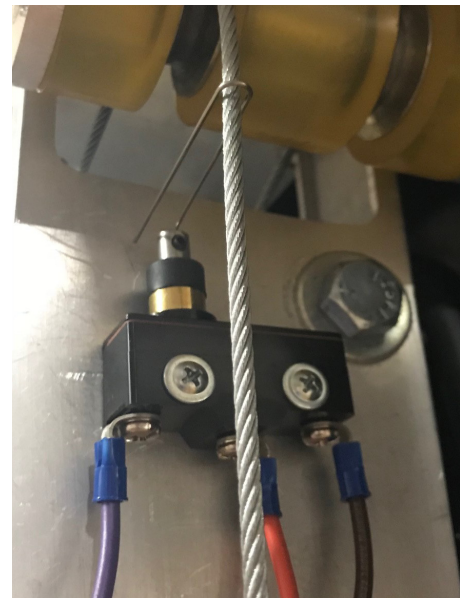
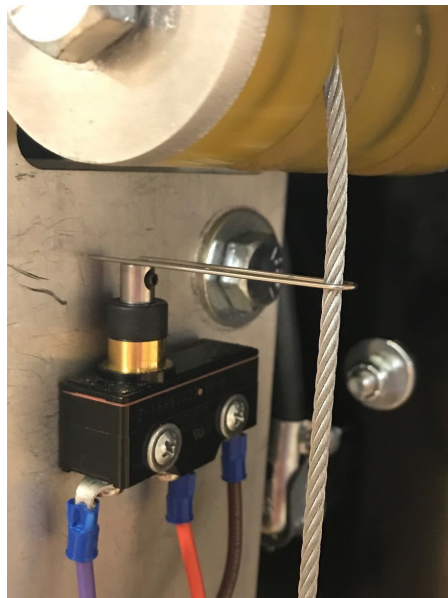
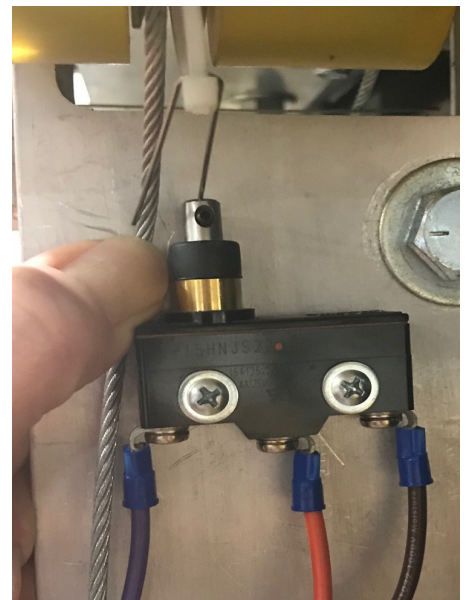


STEP 14-Electrician - **Important Safety Step**

Following the pictures below, insert the Cart Cable into the Motor Shutoff Switch Bar.

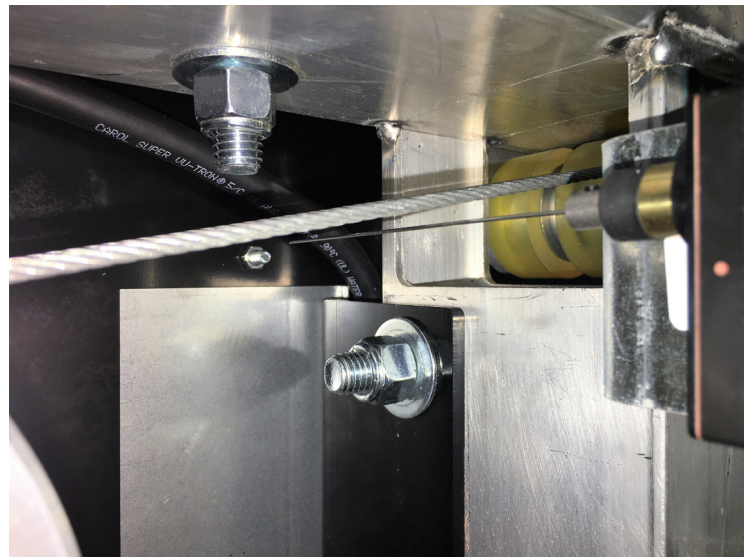
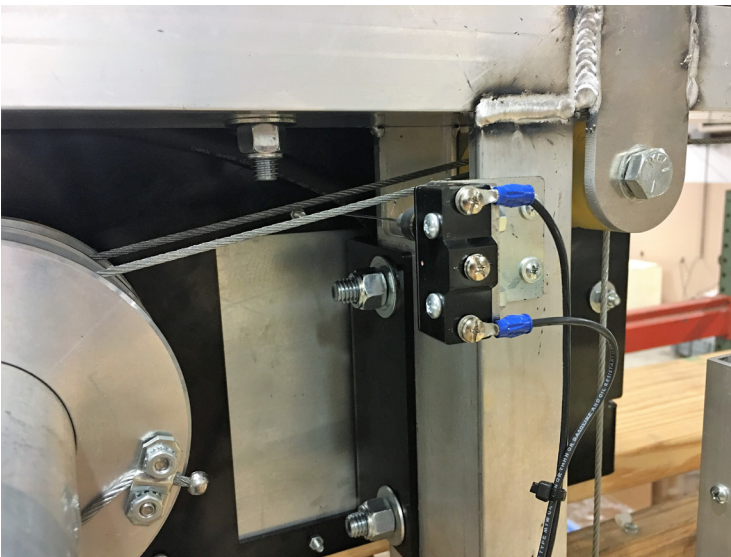
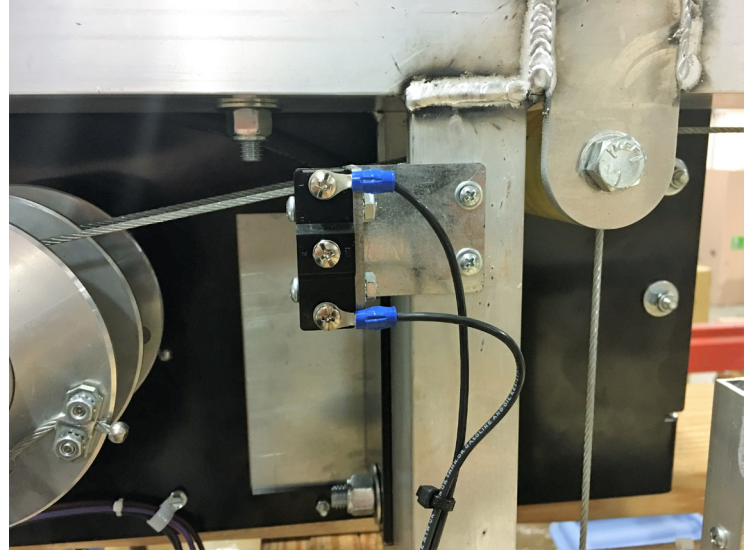
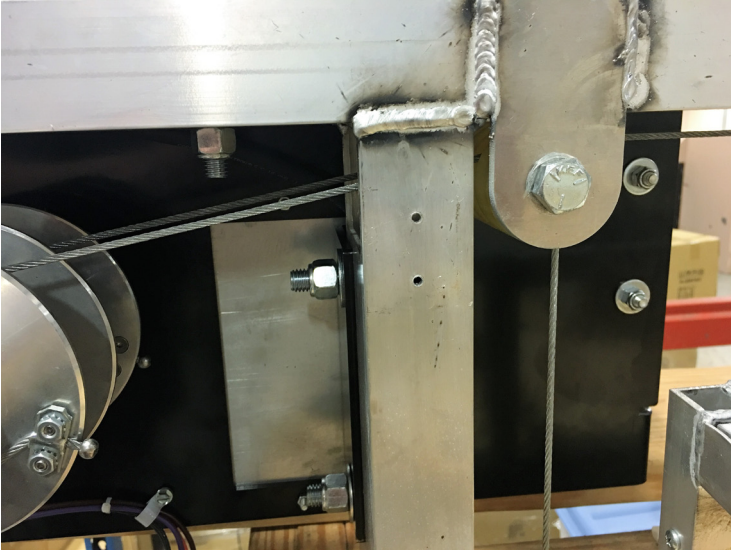
After inserting the Cart cable into the Motor Shutoff Switch Bar, cut the ziptie holding the Bar. Remove and discard ziptie.

Note: Take care cutting the ziptie as to not damage Motor Shutoff Switch Bar or Cart Cable.



STEP 15-Electrician

Mount safety switch to drive side frame with supplied #8 x 1" self tapping screws. There are two pilot holes showing location. **Note: Make sure the cables are feeding over the top of the Cable Safety Switch Bar.**



STEP 16-Electrician

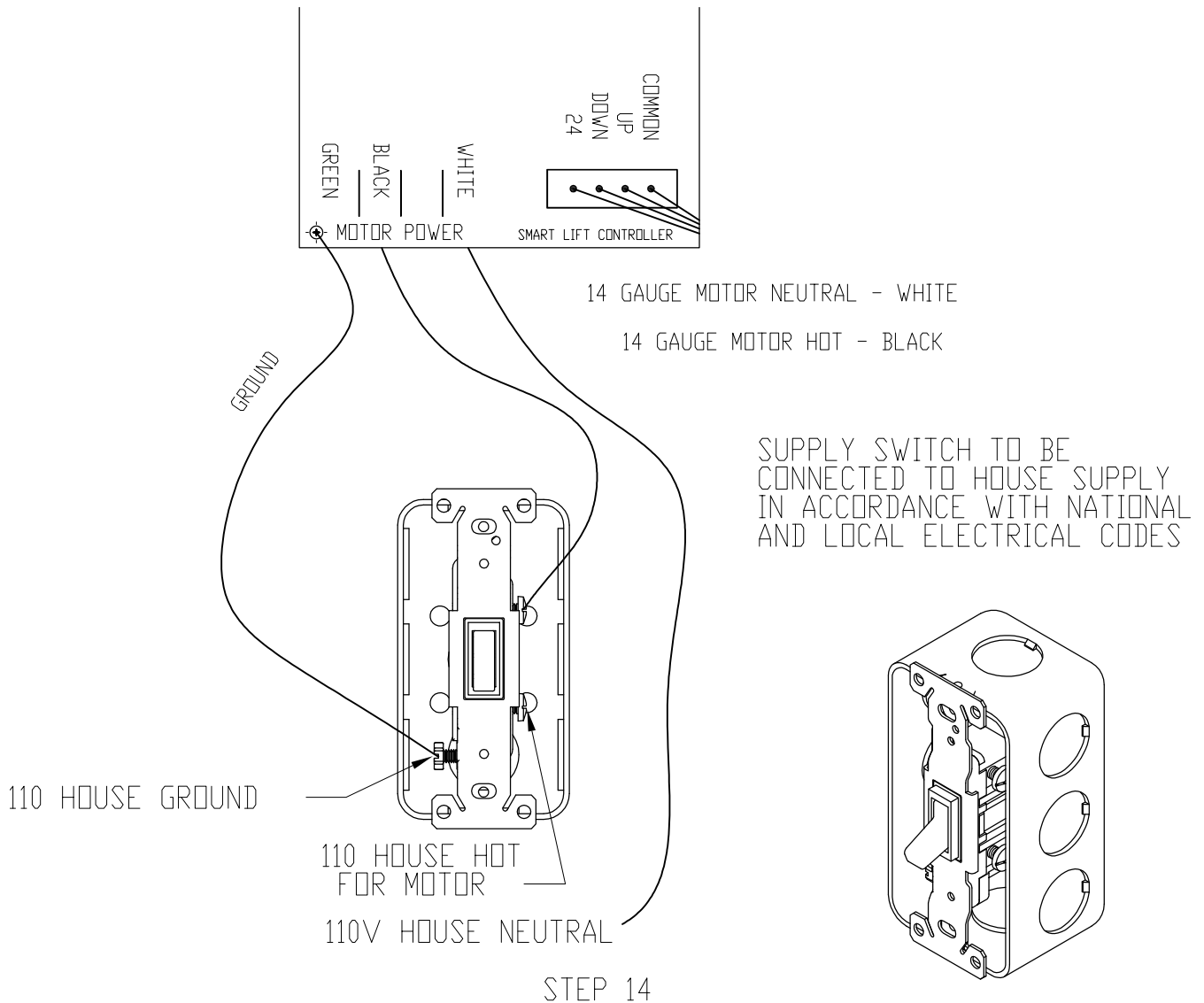
Mount the Keyswitch Controller in a single gang box. It should be mounted in an area that will be visible from the lowered Cart Assembly.

Run the supplied low voltage control wire from the control board to the Keyswitch Controller.



STEP 17-Electrician

Apply a dedicated 110 volt hot and neutral to the power supply box on the Motor Drive Assembly. There is a three foot long 14/2 Romex already prewired to the service switch from the factory.



STEP 18-Electrician

Assure cart cables are riding in the pulley grooves before testing the storage lift. At this time it will also be necessary to align the cart cables on the helical grooving of the Drive Shaft. Test the operation of the storage lift and align the cart cables using the following steps:

- a. Unplug the low voltage control wire from the control board terminal. See **Diagram A** below
- b. Using a jumper wire, jumper between the COM and UP pins on the control board terminal. The motor should start to raise the cart cables. Continue to raise the cables until the cart cable counter weights leave the floor and put tension on the cables. Stop raising before the cart cables 'pick up' the Cart Assembly off the floor.
- c. Align the cart cables on the helical grooving of the Drive Shaft. All four cables must be aligned the same way. Start by placing the first wind of each cable in the first helical groove, second wind in second helical groove and so on. Keep in mind on each end of the Drive Shaft the first layer of each cable winds towards the center cable divider. If the cables are not aligned properly the Storage Lift will not operate smoothly. See **Diagram B** below
- d. Using a jumper wire, jumper between the COM and UP pins on the control board terminal and raise the Cart Assembly off the floor, manually press the Motor Shutoff Switch Bar to ensure the automatic shutoff system will work.
- e. Using a jumper wire, jumper between the COM and DOWN pins on the control board terminal. The motor should lower the Cart Assembly.
- f. If the motor properly raises and lowers the Cart Assembly, plug the low voltage control wire back on to the control board terminal.
- g. Test the storage lift by testing the Keyswitch Controller. Wait 2 seconds between each command.
- h. Contact Aladdin Storage Lift's technical support if any of these steps do not work. (877) 287-4601

TIP-After the cart cables have been aligned on the Drive Shaft, never allow the cart cable counter weights to touch the floor while operating the Storage Lift or the cart cables will have to be realigned.

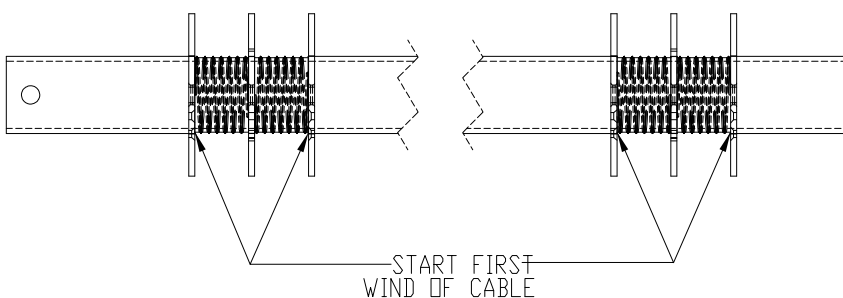


Diagram B

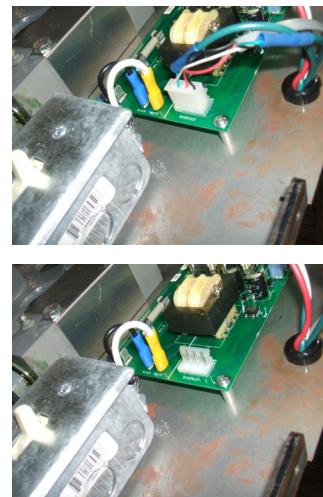


Diagram A

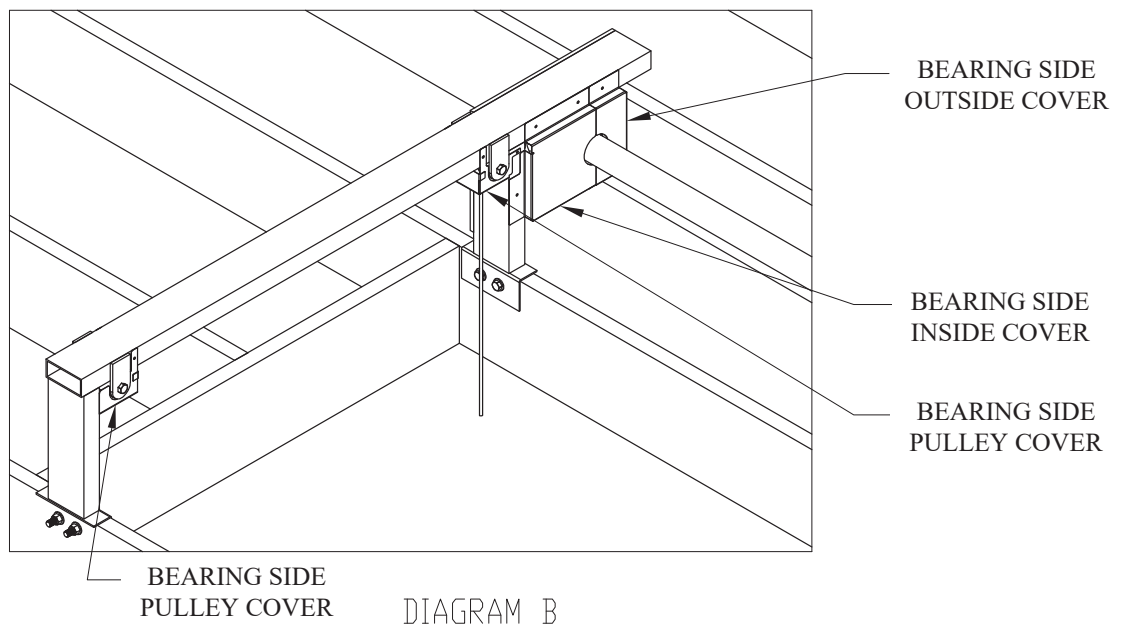
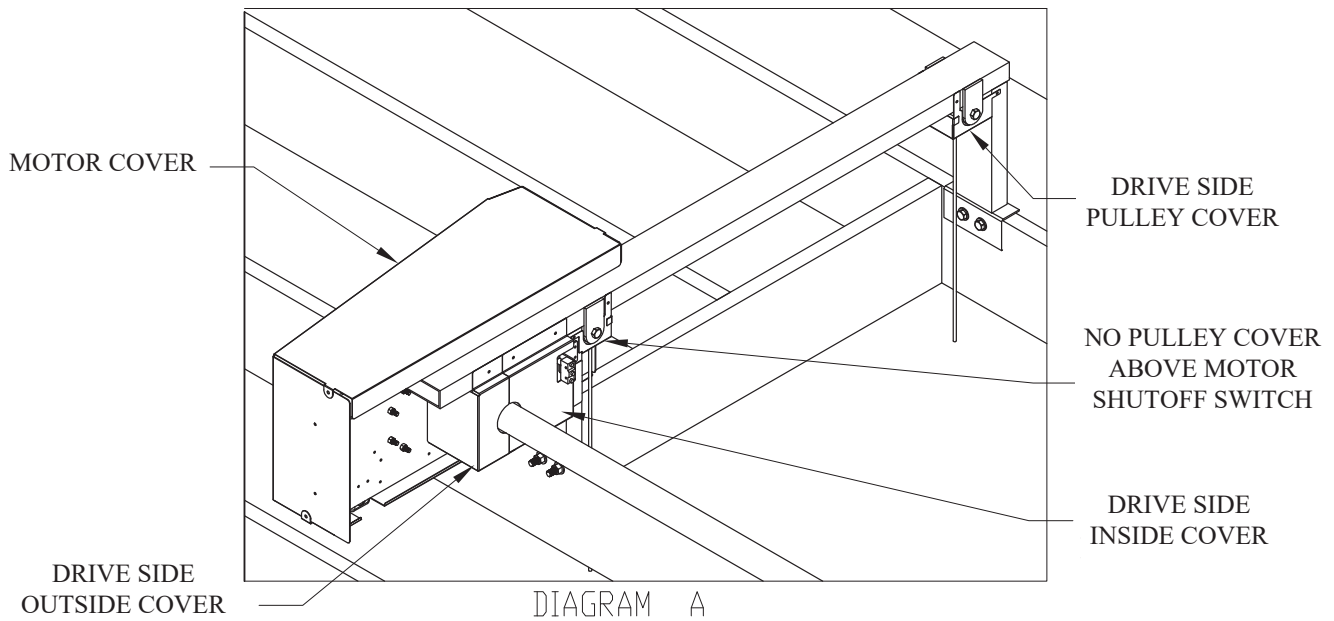
STEP 19-Electrician

For safety, install the sheet metal covers as shown in Diagram A and B.

For the motor cover use the supplied 1/4" x 1/2" hex bolts (see Diagram A).

For the drive side inside, outside, and pulley cover use the supplied #8 x 1/2" truss washer, self tapping screws (see Diagram A).

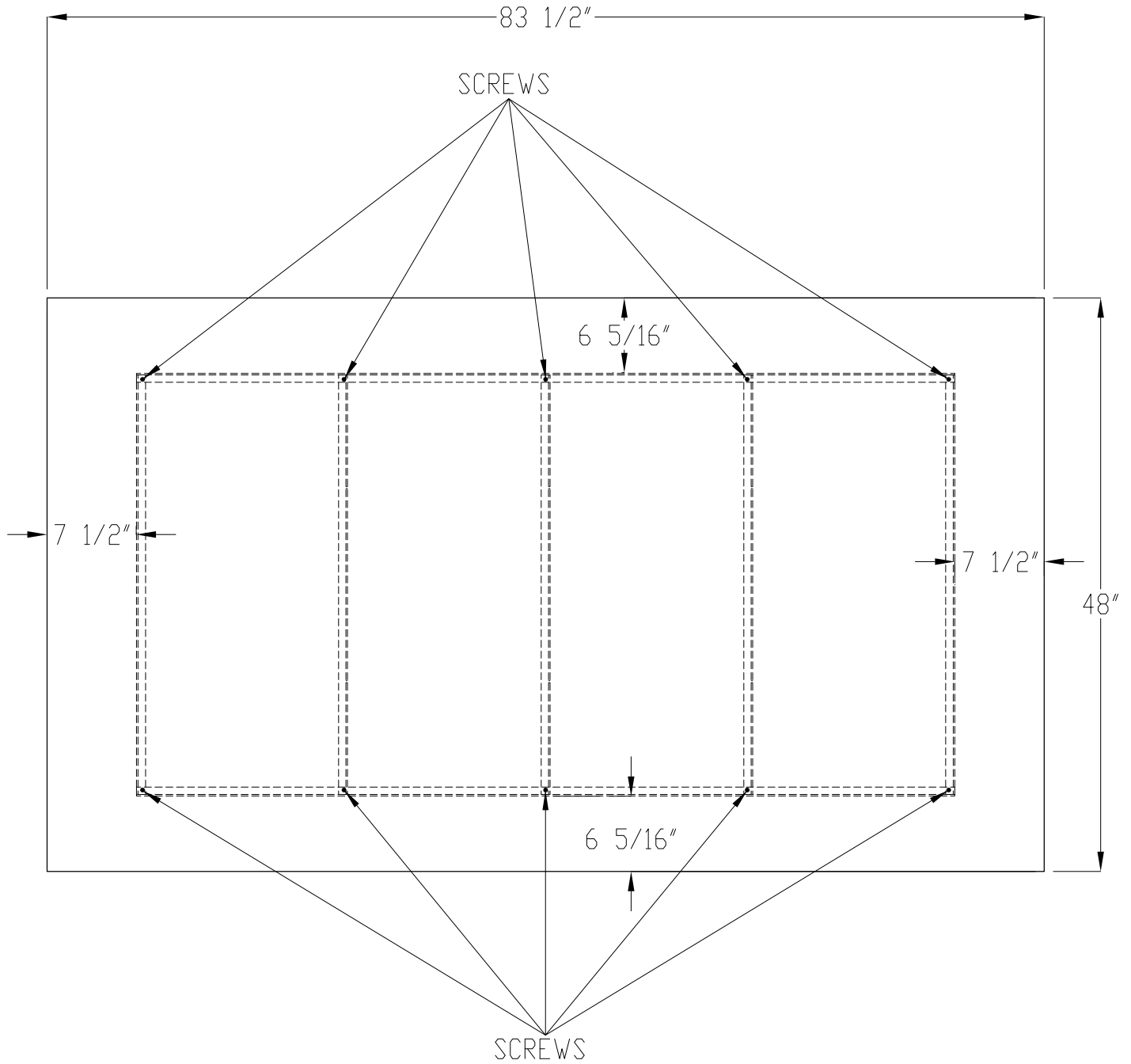
For the bearing side inside, outside, and pulley covers use the supplied #8 x 1/2" truss washer, self tapping screws (see Diagram B).



STEP 20-Framer or Trim Carpenter

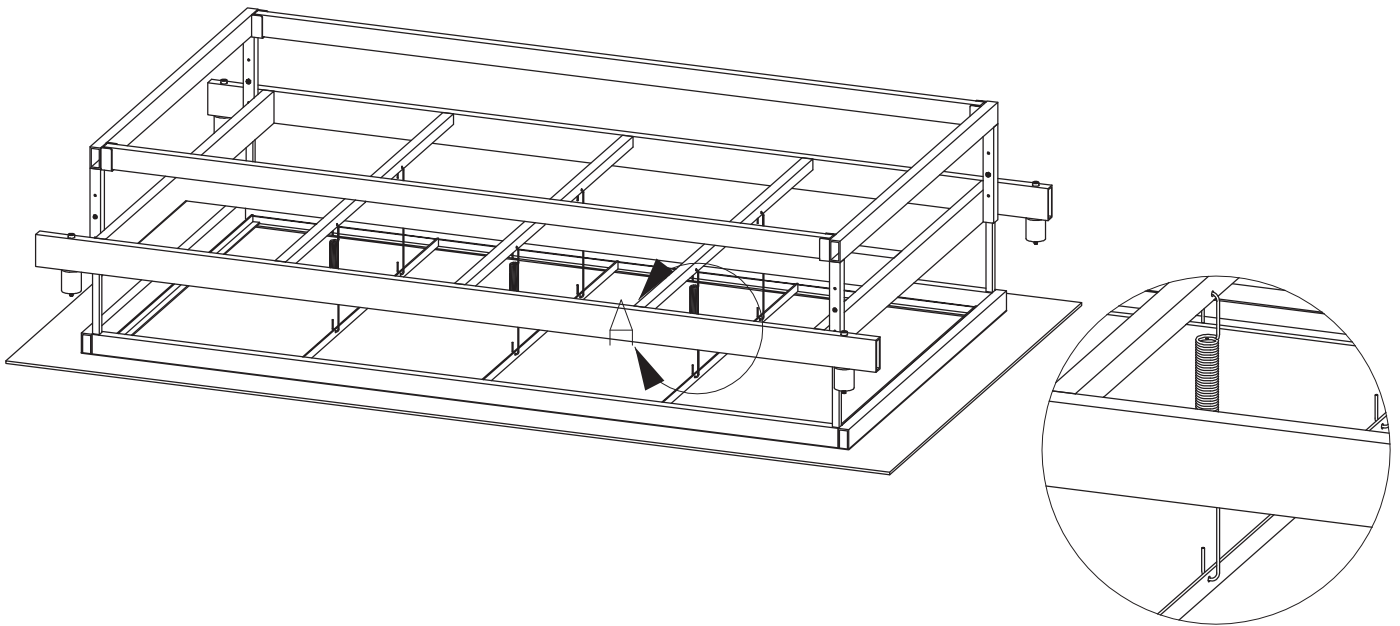
Make a Ceiling Panel using a sheet of 1/4" finished plywood. Cut it to a dimension of 83 1/2" x 48". Use the supplied #8 x 1/2" self tapping screws to attach the Ceiling Panel to the Ceiling Panel Support. Install a screw at each point as shown in the picture below.

ATTN: The Ceiling Panel should not exceed 20 lbs.



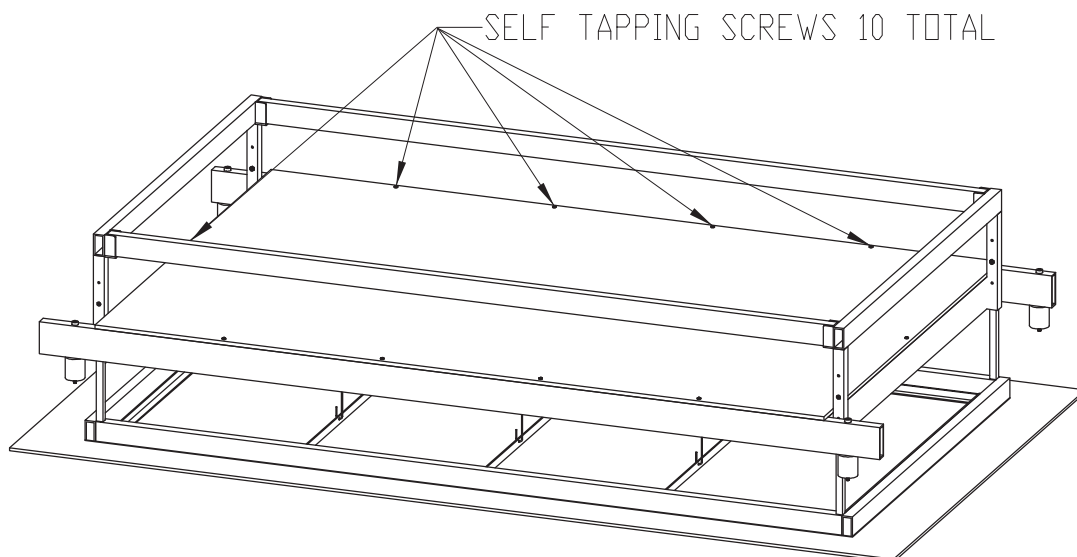
STEP 21-Framer or Trim Carpenter

Using the supplied Ceiling Panel Support Springs, attach the Ceiling Panel Support to the bottom of the Cart Assembly. The springs hook through the holes provided in the bottom of the Cart Assembly and Ceiling Panel Support. Install all springs with the hooks facing the same way.



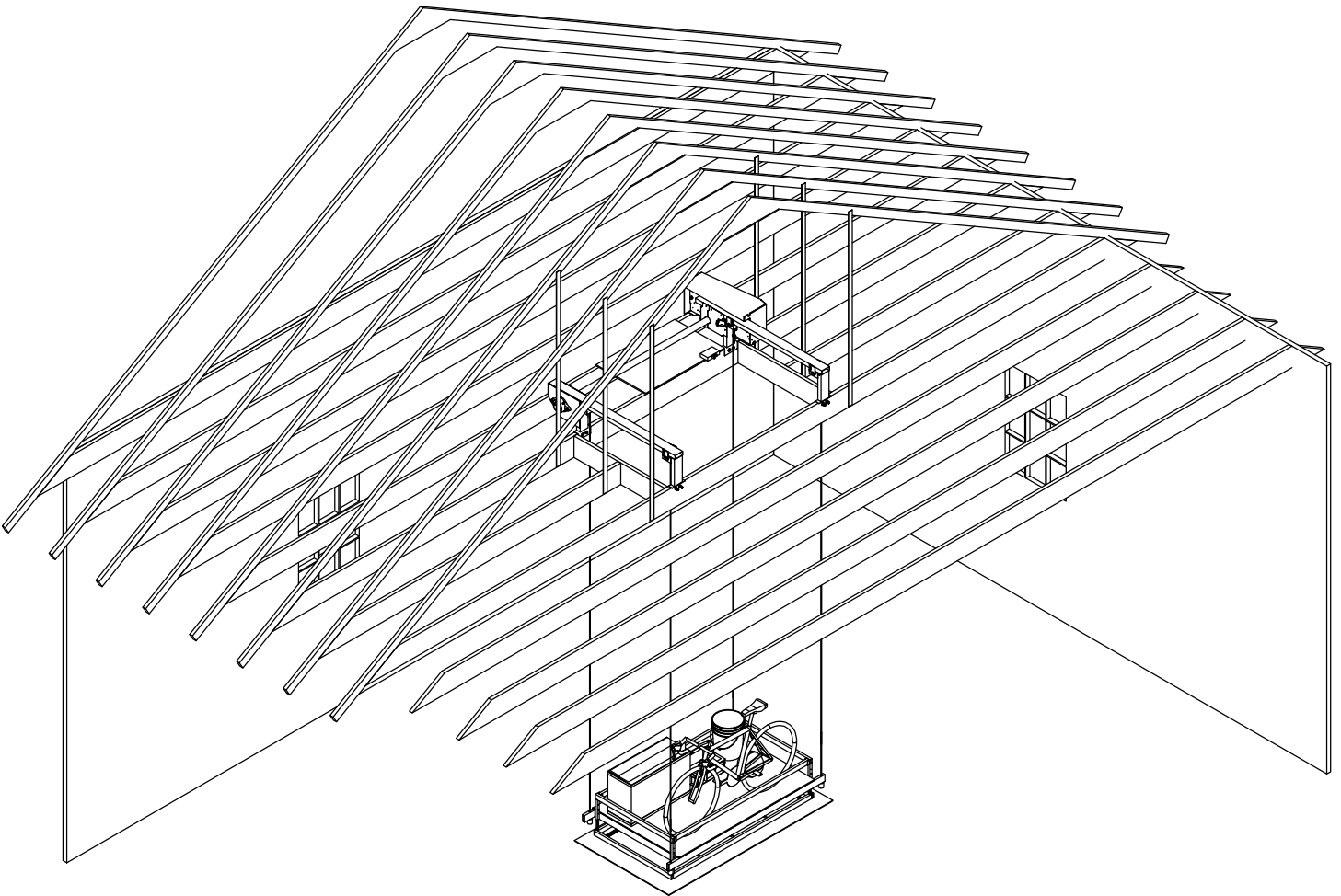
STEP 22-Framer or Trim Carpenter

Attach a 68 ½" x 44" sheet of 3/8" plywood to the Cart Assembly. Screw it to the Cart Assembly using the supplied #8 x 1" self tapping screws.



STEP 23-Framer or Trim Carpenter

Operate the storage lift and observe how level it pulls into the attic. If necessary, adjust the individual Cart Cables by tightening or loosening the 1/4" nylon insert lock nuts on the threaded cable ends to adjust the levelness of the Cart Assembly. Enjoy the ease of lifting your storage items into your attic.



TROUBLESHOOTING GUIDE

The Aladdin Storage Lift was built and adjusted at the factory to operate safely without maintenance for many years. To perform properly, the storage lift **MUST** be installed exactly according to the installation guide. Should a problem arise, simply follow this troubleshooting guide to determine the fix. If the situation can not be remedied, contact Aladdin's Storage Lift's technical support at:

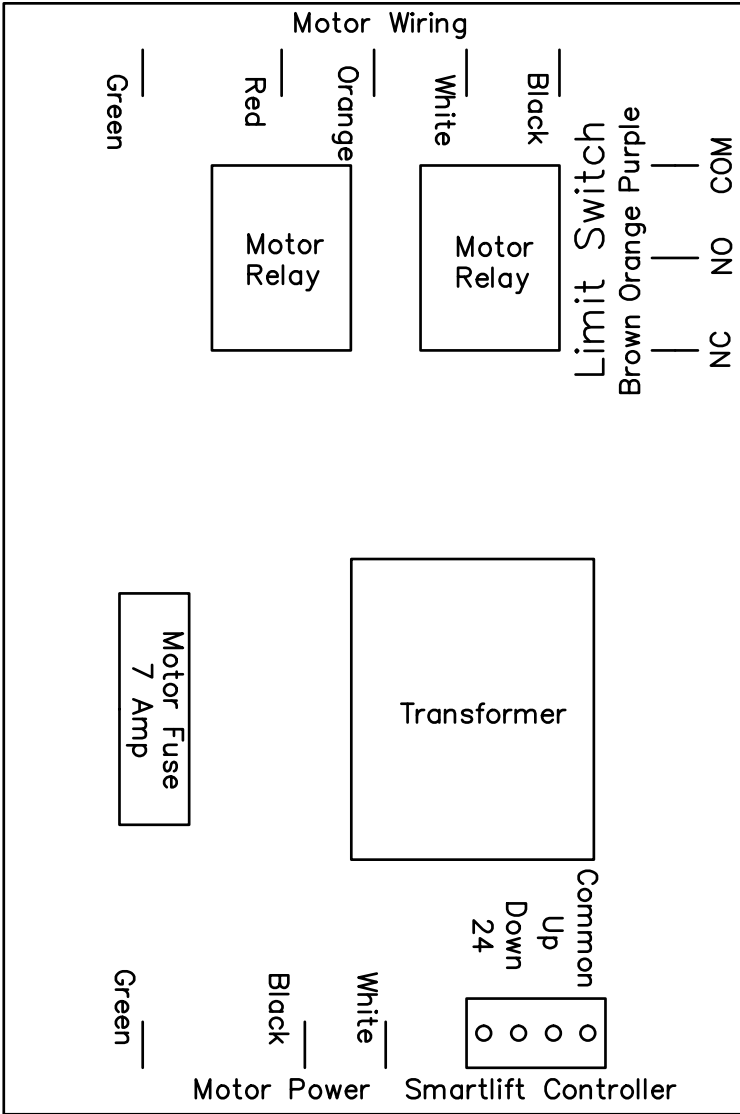
(877) 287-4601

Warning: Line voltage is exposed when the toggle switch in the power supply box is turned on. Electricity can kill!

If the storage lift is not running properly:

1. Make sure the switch in the power supply box is turned on. The switch is on the Motor Drive Assembly. If not on, turn it to the on position and retry the storage lift. Proceed to #2 if still not working.
2. Turn power off, remove fuse and do a continuity test on the fuse on the control board. The control board is located on the Motor Drive Assembly. If the fuse is blown, replace with a 10 amp, 250 volt fast act fuse. Proceed to #3 if fuse is good and still not working.
3. Remove the low voltage control wire from the control board. Using a jumper wire, jumper between the COM and DOWN pins. If the Cart Assembly starts to lower, jumper between the COM and UP pins. If the lift works, proceed to #4. If the lift does not work, proceed to #5.
4. Plug the low voltage control wire back on to the control board. Locate the SmartLift Controller and remove it from the wall. Unplug the low voltage control wire from the back of the SmartLift Controller. Using a jumper wire, jumper between the BLACK and GREEN wires in the control wire to lower the Cart Assembly. Jumper between the BLACK and RED wires to raise the Cart Assembly. If the lift operates properly, familiarize yourself with the SmartLift Controller Guide or replace the SmartLift Controller. If not, replace the low voltage control wire. Call Aladdin for parts.
(877) 287-4601
5. Perform a Limit Switch bypass by unplugging the purple, orange, and brown Limit Switch wires from the control board. Fix a temporary jumper wire between the COM and NC limit switch terminals. Using a jumper wire, jumper between the COM and DOWN pins. If the Cart Assembly starts to lower, jumper between the COM and UP pins. If the lift works, replace the Motor Shutoff Switch. Call Aladdin for parts or if your storage lift is still not working. (877) 287-4601

ILLUSTRATION "A" CONTROL BOARD



WARRANTY AGREEMENT

Aladdin Storage Lift, LLC warrants its storage lift for five years from the date of purchase. The warranty includes all parts provided the lift is installed properly by a licensed carpenter and electrician. Labor charges will be the responsibility of the purchaser.

If the storage lift does not operate properly, the purchaser must contact a factory authorized service technician approved by Aladdin Storage Lift, LLC to determine if the storage lift was installed properly. The technician will furnish a written report to the purchaser and Aladdin concerning any problem with the lift system which will be binding on all parties concerned.

All defective parts must be returned to Aladdin Storage Lift, LLC for the warranty to apply. Any alteration or by-passing of the electrical or mechanical system will void the warranty and can result in a safety hazard.

The warranty agreement showing the date of purchase and distributor must be returned to Aladdin Storage Lift, LLC within 30 days of purchase to validate the warranty. Call your distributor to obtain the name of a factory authorized technician in your area.

Distributor _____

Installer _____

Home Owner _____

Address _____

Telephone _____

Date of Purchase _____