Installation Instructions – Table of Contents

Pre-Installation of Garage Storage Lift

Prior to receiving the Unique Lift garage lift you should consider where you are planning to place the lift within your garage.

A) If you are planning to install the lift above your garage door and mounting the basket under the garage door then than a minimum of 20" of clearance is required between the open garage door and the ceiling/joists for maximum storage.

B) If you are planning to install the garage lift above your garage door but mounting the drive unit remote from the basket then a minimum of 15" of clearance is required between the garage door and the ceiling/joists for maximum storage.

C) If you are NOT planning to install your lift above the garage door than a minimum of 8'6" of height is required between the garage floor to the ceiling. In addition, the storage basket must rise and park to at least 7' above the garage floor unless an obstruction such as a truck or car will prevent someone from walking into the basket.

Once you determine where you will mount the garage lift then the next step is to consider the spacing of your garage joists. The Unique Lift requires the lift to be mounted on joists spaced either on 24" or 16" centers. If your joists are spaced further than 24" apart then you will need to explore adding additional joists before installing the Unique Lift. The Unique Lift CANNOT be installed on joist with more than 24" centers. We advise you consult with a structural engineer before adding any additional joists.

The next step is to determine the direction the joists are running within your garage. This can be done by using a stud finder or a small finishing nail. Using the stud finder locate the joist by following the directions on the stud finder. Once you locate the joist then move the stud finder left and right as well as forward and backward of your location. This will identify which direction the joists are running. (Follow the same steps when using a small finishing nail. Pound the nail in all directions to determine the direction the joists are running. Please keep in mind the joist spacing while performing this test).

Once you determine the joist direction and the joist spacing then consider which way you will mount the garage lift. Please refer to the different types of installation detailed at the end of these instructions.

Laying out the Garage Storage Lift

The Unique Lift garage lift requires the installation to be spread out among 6 joists (for 16" spaced joist) or 5 joists (for 24" spaced joist) to properly support the weight. Once you determine where the lift is to be mounted then identify each joist by using a stud finder or nail method. Mark the end of each joist by putting a nail into the joist (you want these nails to extend beyond the actual placement of the lift). Strike a string line to mark each joist (5 lines for 24" centered joist and 6 lines for 16" center joists).

Refer to the types of installation (referenced at the end of this installation section) and identify yours. Using the charts provided measure and marks the locations of the strut channels on the garage joists. You should have either three of four (depending on installation type) strut channel marks on the garage joists. Using a string line snap a line perpendicular to the joist. At each of the outside four corners pound in a 16 penny (or similar size) nail. Once all nails are installed check to be sure the area is square by measuring with a tape measure diagonally across the nails. The measurements should be within ½". If not then make necessary adjustments to the nail positions and measure again.

Installing the Strut Channels

At the junction of the joist and the location of the strut channel is where you will mount each strut channel. (It is important to make sure you mark the center of the joist. Making your mark off center could compromise the installation of the Unique Lift). At each junction you will pound in a 16 penny (or similar size) nails. Each nail should pound into a joist. This verifies that you are mounting the Unique Lift on the joists.

Remove the nail at each location and drill a 3/16” pilot hole at least 3” deep into the joist for mounting the Unique Lift unit. You should have 6 pilot holes (for 16” centers) and 5 pilot holes (for 24” centers) for each strut channel.

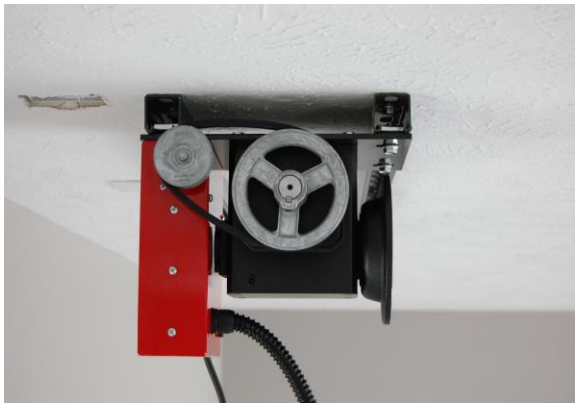
Position the strut channel with the open side away from the garage joist so the end of the channel extends past the joist equally on either end (3” on either side for 24” joist centers and 8” on either side for 16” joists). With a 3/8” washer placed under the head of the 3/8 x 3 ½” lag screws begin screwing the lag screw through the strut channel into the garage ceiling using the pilot holes as your guide. (Make sure the washer gets positioned between the strut channels and the lag screw and does not get between the strut channel and the garage ceiling joists) (You may wish to have help with this part) Install a lag screw on either end of the strut channel. Screw the lag screw in about ½ of the way leaving room between the strut channel and the garage ceiling. Complete the installation by installing the remainder lag screws into the garage joist through the strut channel. Once all lag screws are installed and the strut channel is a positioned then tightens all lag screws.

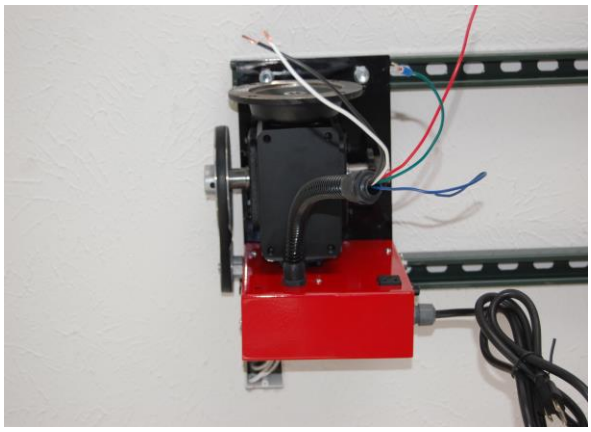
You can use power tools to assist the installation of the lag screws. Use the power tool to install the lag screws but **STOP** before tightening the strut channel tight to the garage ceiling/joists. We recommend you **DO NOT** use power tools to screw the lag screws tight against the garage ceiling. Use a hand ratchet to complete the installation of the lag screws. You will feel some resistance for the lag screw using this technique. Using a power tool may cause the lag screw to strip compromising the attachment point. If the screw strips in the hole then you must remove the lag screw and repair the hole using industry standard practices.

Mount the additional strut channels in the same manner as described above. Once you have all strut channels mounted you are now ready to install the drive plate assembly onto the strut channels.

Install the Drive Assembly

The drive assemble consist of the gearbox, electrical box, and the base plate. Remove the electrical box cover to access the two mounting bolts. Leave this cover off during the next few steps. Loosen but do not remove the strut channel nuts on all four mounting bolts. (The nuts are designed to work with the strut channels. The nuts will set itself square against the strut channel as you tighten the bolt. Check to make sure the nuts is set square with the strut channels when you tighten the bolts). **This drive assembly weighs about 40 lbs. You may want to have assistance installing this assembly.** Prepare to install the drive assembly by positioning a ladder to access the end of the strut channels measuring 10" apart. Hold the drive assembly so the belt drive will be toward the end of the strut channels. Install the drive plate assembly onto the strut channels. Make sure all four bolts and nuts are firmly seated on the strut channels. Once installed correctly the drive belt will have clearance at the end of the strut channels. The drive assembly has slotted holes so adjust the drive assembly to favor the electrical box side. Once you have the drive plate assembly in place snugs the bolts.





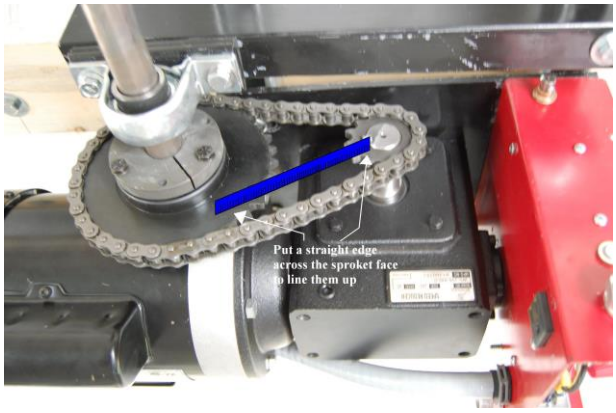
Install the Drive Shaft Assembly

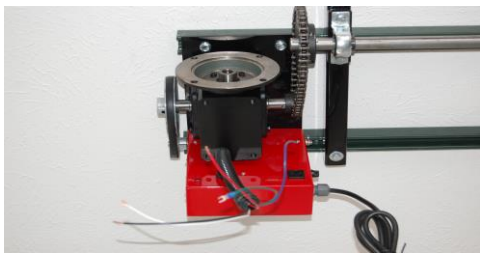
The drive shaft assembly consists of the drive shaft with drive gear, three bearing supports, and two sets of aluminum drums. You will need assistance installing the drive shaft assembly. Loosen but do not remove the strut channel nuts on

all three bearing mount supports. Loosen the set screws on each of the three bearings. (You can move the two sets of cable drums on the shaft if necessary by loosening the set screws on drums and removing the keys). The drive gear should be positioned near the drive plate assembly. Begin by installing the bearing support nearest the drive gear. Once this one is installed install the other two bearing support working your way to the end. The outer bearing support is set about 6" inside the end of the shaft. The middle bearing support should be about ½ ways between the two end supports (in some installations there will be 4 bearing supports). Square up the bearing supports with the strut channels and snug the mounting bolts. Rotate the drive shaft assembly by hand. It should turn freely without any resistance.

Drive Assembly Adjustment

Position the drive shaft assembly so the drive gear aligns with the drive sprocket on the drive gearbox. The bearing support near the drive gear should be about 3" from the drive gear when positioned correctly. By loosening the set screws on the drive shaft bearings you can slide the drive shaft to line up the dive shaft sprocket with the driven sprocket on the gear box. Using a straight edge align the driven sprocket on the gearbox with the drive sprocket on the drive shaft assembly. Adjust the mounting plate and/or the drive shaft until the sprockets align. (Make sure the drive belt is clear of the strut channel). Install the drive chain by wrapping the chain around the drive sprocket and the sprocket on the gearbox. You should be able to position the chain on the drive sprocket with the two ends next to each other with some slack in the chain. If the chain is to tight then loosen the drive plate mounting nuts and adjust the drive assembly to loosen the chain. Install the master link in the chain making sure the retaining clip is securely seated.





Using a straight edge check the alignment between the drive gear and the gear on the gearbox. Adjust the drive assembly until

you have about 1/8” play in the chain. Tighten the two bolts on the drive plate opposite of the electrical box. Once the bolts are tight verify the alignment between the two gears. Adjust the drive plate again if necessary. The drive plate should about line up with the strut channel. (Make sure the drive belt is clear of the strut channel) (Make sure there is clearance between the chain and the drive plate).

Drive Belt Adjustment

To adjust the drive belt square up the electrical box with the drive assembly plate. Tighten the two bolts in the electrical box with a 9/16” open end wrench (Do Not allow the wrench to slip off the bolts striking the electrical components).

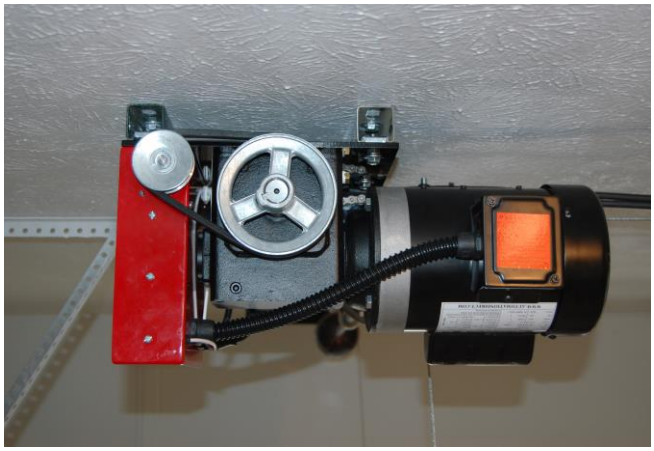
Install Electric Motor

Position a ladder to install the electrical motor. Before you install the motor you will need to install the vent for the gearbox. The vent in a plastic bag is attached to the electrical motor. The vent plug is located on the same side of the gearbox where the electrical motor mounts. The vent plug is center and near the mounting plate the gearbox is attached to. Using a 6mm allen wrench remove the vent plug. Put Teflon tape (not provided) around the vent threads and screw the vent plug in. Tighten the vent plug with a 9/16” socket.

Remove the four (4) mounting bolts from the electrical motor. Remove the two (2) bolts and cover from the electrical motor box. Remove the plastic bag which contains the Scotch locks (2 orange and 2 yellow) for joining the wires. Position the electrical motor so the electrical box is at 9 o’ clock. Hold the electrical motor with the shaft key at 6 o’clock. Rotate the gearbox input shaft so the key way is at 6 o’clock. Position the electrical motor shaft into the gearbox input

shaft. Push the electrical motor in until the face matches up with the gearbox. Install and tighten the four (4) mounting bolts.

Take the conduit from the electrical box and remove the nut from the conduit fitting and feed the wires (5) and conduit fitting into the electrical box on the motor. Install the conduit nut on the fitting and tighten.



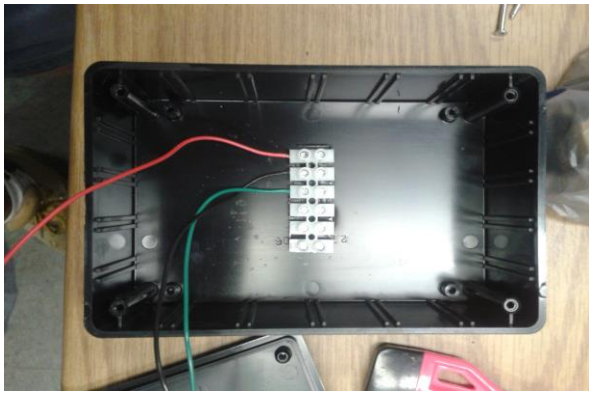
Loosen the screw inside the electrical motor box and position the green wire from the conduit under the screw and tighten. Take the red wire from the motor and the red wire from the conduit and tie them together using an orange twist lock. Take the black wire from the motor and the black wire from the conduit and tie them together using an orange twist lock. Take the blue and orange wire from the motor (they are taped together) and the blue wire from the conduit and tie the three wires together with a yellow twist lock. Take the white and yellow wire from the motor (they are taped together) and the white wire from the conduit and tie the three together using a yellow twist lock. Tape all connections. Roll up the gang of wires and position them inside the motor electrical box. Install the cover and the two screws on the motor electrical box.

Install Master Switch

The master switch should be mounted where the operator can see the operation of the garage lift and not be interfered with the movement of the basket. Position the master switch so the hole for the cable is on top. Remove the cover of the master switch and using the predrilled holes mark the garage wall. Use either wood screws or anchors (not included) to mount the master switch.

The control cable is coiled up with the electrical box. Uncoil the control cable and route the cable to the switch box. Take into

consideration the route to be sure the cable does not come in contact with moving parts from the garage door, the garage door operator, or other possible interference points. Feed the control cable through the hole and into the master switch (about 6”). Fasten the control cable to the garage wall and along the length of the cable using staples to restrain and direct the control cable making sure that the control cable will not get caught within the operation of the garage lift or the garage door. Make sure the cable will clear the drive chain and drive belt on the drive assembly.



The control cable has three wires (red, green, and black) stripped back. You will install these wires in the terminal strip matching then up with the three wires (red, green and black) in the switch box. Using a small screwdriver tighten the set screw on the terminal strip for each wire.

Test Garage Lift Operation

Plug the power cord from the electrical box on the drive assembly into an electrical outlet (you can use an extension cord here). At the master switch turn the key to the raise position. Press the raise button and observe the motion of the drive shaft assembly. The drive shaft should rotate freely and rotate to raise the garage lift. Observe the operation of the drive chain and drive belt making sure they are turning freely and running true. Make any adjustments necessary.

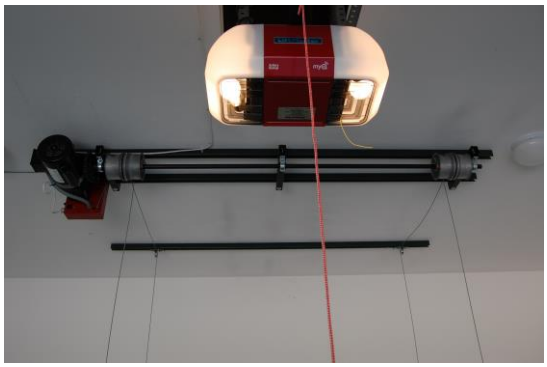
At the master switch turn the key to lower position. Press the lower button and observe the motion of the drive shaft assembly. The drive shaft should rotate freely and rotate to lower the garage lift. Observe the drive chain and drive belt making sure they are turning freely and running true. Make any adjustments necessary.

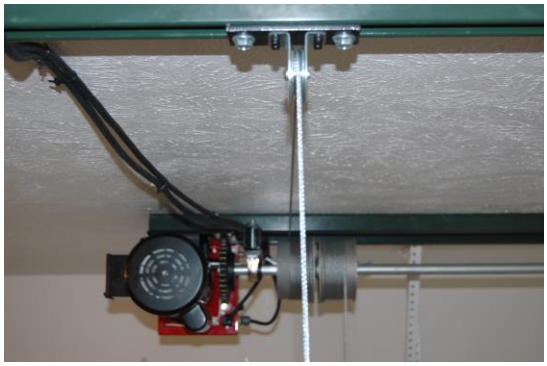
Install Basket and Cables

Bring the basket in and position it under the strut channels. Locate the basket so “A” attachments point lines up with “A” cable drum. Refer to

your installation type (referenced at the end of this installation section) for clarification.

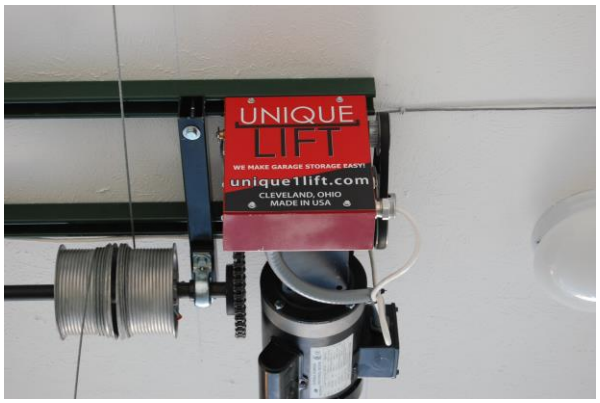
There are two lengths of cables provided with the garage lift. One set is longer than the other and has the cable sheaves included. (In some installations where a second strut channel is mounted all cables will route through the cable sheaves.) **Be careful not to kink the cables as you uncoil them.** Take one of the long cables (marked "A") and starting at the drive assembly attach the cable to the basket (marked "A") using one of the shackles provided. Remove the pin and install the shackle onto the basket lifting eye and put the pin through the cable eye. (Position the pin to the outside edge of the basket) Reinstall the pin and tighten.

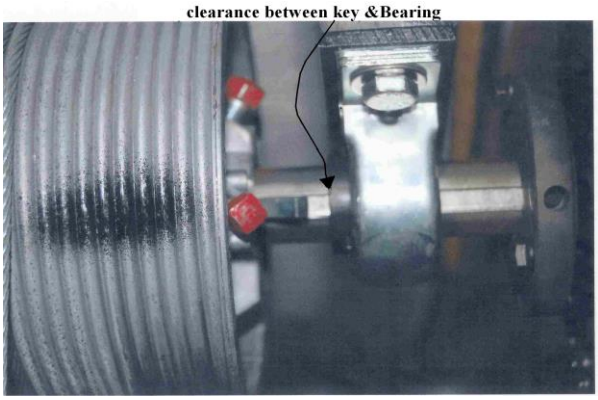




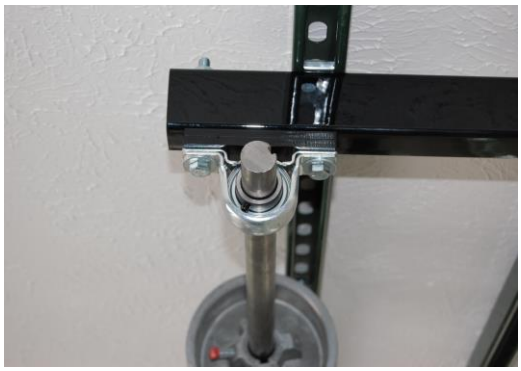
Route the cable up and slide the cable sheave onto the strut channel (mounted to the garage joists) making sure not to kink the cable. Snug the bolts on the cable sheave. The cable sheave should line up with the cable drum on the drive assembly (this is a rough alignment as the final alignment will be made later). Complete the installation by routing the cable to the drum (marked "A") (nearest the drive plate) (**loosen and remove the drum key**). Take the cable end with the stops and fit the stops into the side of the cable drum (there is a slot that the cable will fit through and the stop will be to the inside of the drum). Route the cable in the direction of the drum grooves and begin spooling the cable onto the drum by rotating the drum. Rotate the drum spooling the cable

onto the drum grooves. Make sure the cable follows the drum grooves and winds tight on the drum. Continue spooling the cable onto the drum until the cable length is used up. Check to be sure the shackle on the basket is clear and the cable is free of obstructions. With some tension on the drum rotate the drum until you can put the key into the shaft keyway and drum keyway (You may need to rotate the shaft by pushing either the up or down button on the master switch to get the drum and the drum key to line up initially). Slide the drum close to the bearing near the drive assembly. Check to see there is clearance between the drum key and the bearing.





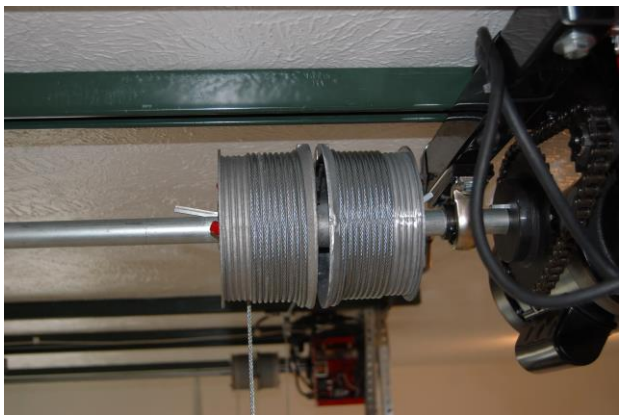
Continue this sequence with the remaining three cables. (Each cable, basket, and drum is marked “B”, “C”, and “D”) Your installation may require all cables to be routed through cable sheaves or just two cables routed through cables sheaves. If your installation has two cables that Do NOT go through cable sheaves then route the cable (marked “B” and “C”) directly from the basket to the drive assembly cable drum. Follow the remaining cable installation directions.



Position the next cable drum **(marked “B”)** tight up against the first cable drum **(marked “A”)** installed. Position the cable drum **(marked “D”)** at a position close to the outer bearing support (away from the drive assembly) about 6” (refer to the photo above to insure clearance between the bearing and the cable drum key). Position the cable drum **(marked “C”)** tight up against the cable drum **(marked “D”)**.

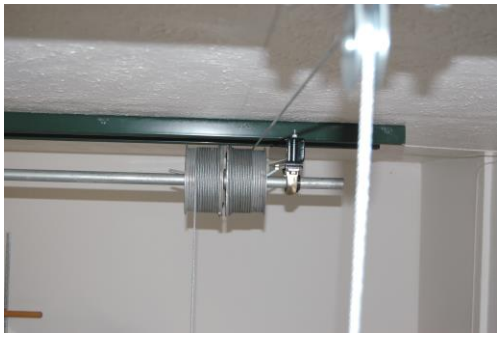
Cable Alignments / Adjustments

Once all four cables are connected to the basket and routed around the cable drums and the cable drums are properly positioned on the drive shaft then using the master switch raise the basket. Observe the movement of the basket and cables making sure the cables are wrapping on the drums following the drum grooves. Raise the basket about two feet (2') stop and check the cables on the drums. Each cable should be tight within the grooves of the drums. Make sure the shackles on the basket are free and are standing straight up being pulled by the cables.



Once you are sure the cables are wrapping on the drums in the grooves then continue to raise the basket. Continue to observe the basket and the cables as they wrap up on the drums. Stop the basket when it reaches about 6' from the floor.

Look now at the two cables that are routed around the cable sheaves (Marked "A" and "D"). The cable should be feeding onto the drum freely from the cable sheave. In other words, the cable should not be crossing the other cables on the drum as it winds up. Adjust the location of the cable sheaves by loosening the bolts and sliding the cable sheave along the strut channel.

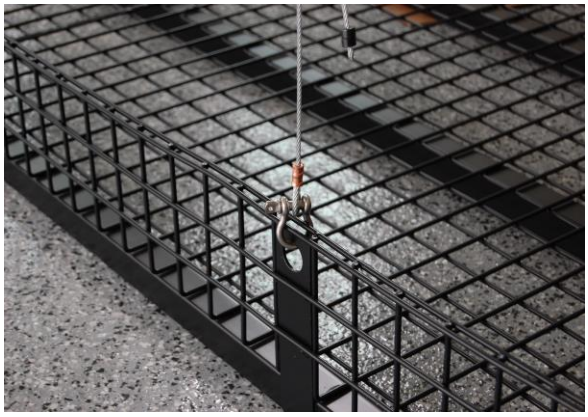


You want the cable to come off the cable sheave and be directed to about the outer edge of the wrapped cable on the drum. Too far to the right will cause the cable to be pulled across the drum as the basket is lowered. Too far to the left and the cable will try to cross over the wrapped cable as the basket is raised. Once you have the cable sheaves adjusted then tighten the bolts on the cable sheaves.

Lower the basket until one edge of the basket is sitting on the garage floor. You want some tension in the cable that is resting on the floor. You may have to raise and lower the basket several times to get this result. Once you

have this one edge sitting on the floor then find the cable that has is most slack.

To shorten this cable begins by taking up the slack into the drum. Do this by forcing the slack cable over the drum in the direction of the wraps. You will notice as the cable slack is taken up the cable end will get longer. Using a magic marker mark where the cable comes thru the edge of the drum. Now remove the key from the drum and allow the cable to unwind from the drum. Remove the cable end from the drum and using an allen wrench (5/64) loosen the stop away from the cable end and move it where your mark is. Tighten the stop at this new location and move the second stop from the end of the cable to butt up against the new stop location. Position this second stop so the set screws are opposite each other and tighten.



Place the end of the cable in the drum groove and begin spooling the cable up on the drum by rotating the drum. Once all the cable length is used up make sure the shackle on the basket is free and being pulled by the cable. The key way should line up now between the drum and the shaft. Install the key in the key way and check the tension on the cable. This cable length should now be equal to the first cable that was used to determine the initial cable length. If the two cables are not about the same length then readjust the cable by using the described method.

As you adjust the cable length make sure the cable is tightly wrapped around the drum. Push the slack into the grooves of the drum by using the weight of the basket. The photo shows slack in the cable.

Continue this process until all four cables are about the same length and the basket is touching the floor equally at all four corners.

The two cable drums located close to the bearing supports (Marked “A” & “D”) will require the adjoining cable drums to be moved so you can access the key under the drum. Make cable length adjustments to these drums before making adjustments to the cable drums adjoining (marked “B” & “C”).

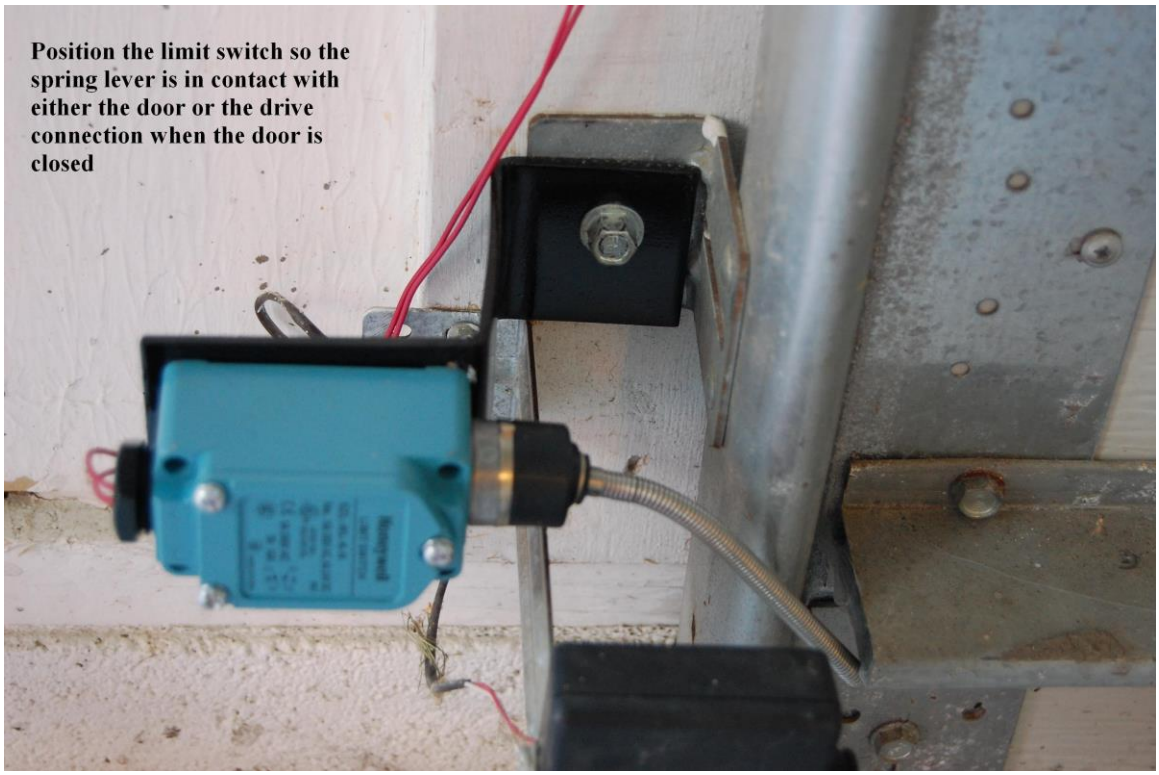
Garage Lift Operation

Using the control box, operate the lift using the raise and lower buttons. Observe the movement of the lift as the cables wrap around the drums. Watch that cables wrap evenly around the drums. Stop the basket about 2’ from the floor. Step back and look at the lift. Do the cables look straight? Is the basket hanging level? Are the cables pulling at an angle to the drums or cable sheaves? Adjust as needed.

Now raise the basket up until head height. Watch the cables as they wrap the drums. Are the cables leading straight from the drums? As the basket raises and more cable is wrapped on the drums the cable should feed onto the drums with no interference. Adjust as needed.

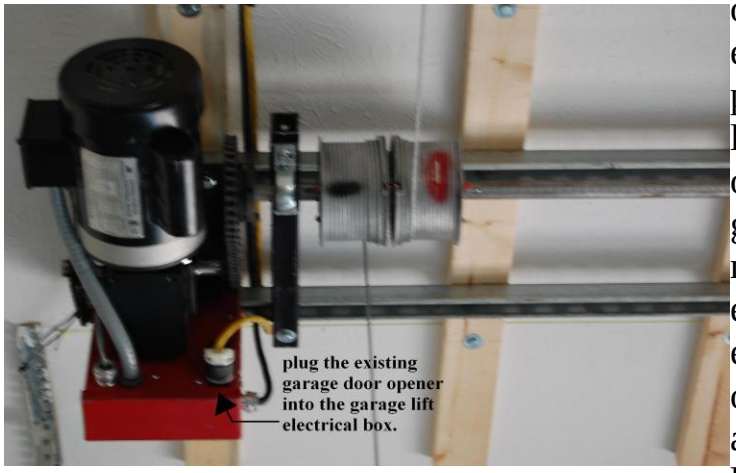
Garage Door Limit Switch

If you are installing the Unique Lift garage lift over a garage door then locate and mount the garage door limit switch at the base of the door. Position the limit switch so the lever is in contact with the door when the door is closed. You want to install the limit switch so the level makes contact with the garage door at the closest point when the door is closed (refer to the photo). Install the cable provided and route the cable back to the electrical box. Attach the cable via wire ties to the garage door structure so they are away from the movement of the garage door and the drive and timing chains. Again following the wiring diagram attach the wire ends inside the electrical box. **(If you are not installing the lift over a garage door then this switch is not required)**



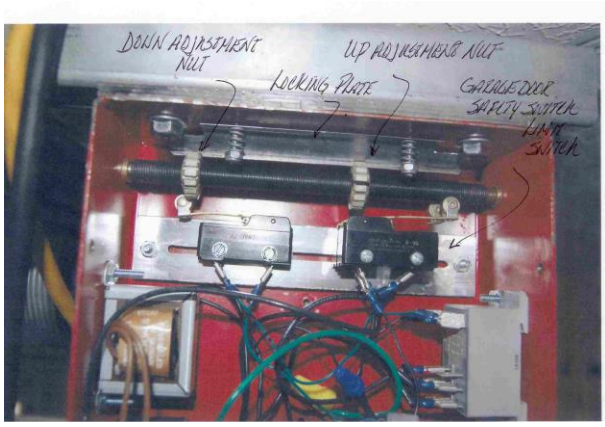
Power up Garage Lift

If you are installing the Unique Lift garage lift over a garage door then unplug the existing garage door opener and plug the existing garage door opener into the garage lift electrical box. Route the power cord from the garage lift electrical box to the outlet used for the existing garage door opener. You may need to extend either electrical cord to reach the electrical outlet depending on your installation. If you are not installing the garage lift over a garage door then just plug the power cord into an 110v electrical outlet.



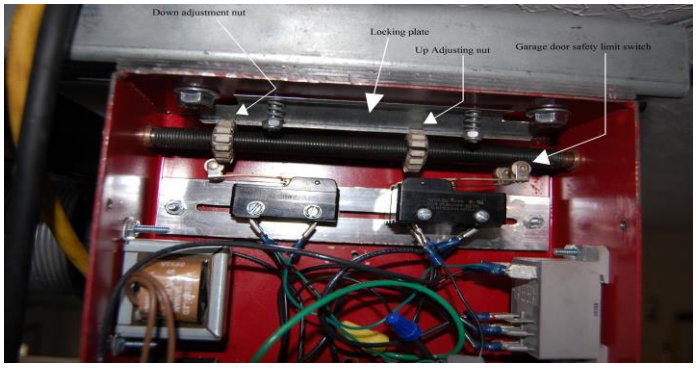
(If you are NOT installing the lift over a garage door then you do not need to plug the existing garage door opener into the garage lift)

Adjusting the Raise and Lower Limit Switches



To adjust the raise and lower limit switch operate the unit until the basket is resting on the floor. One of the white serrated nuts will be near a limit switch. This is the lower limit switch. Before making any adjustments remove the electrical cord from the outlet.

To adjust the limit, press down on the spring loaded locking plate and turn the nut with your hand. Turn the nut toward the limit switch until you hear the limit switch click. Release the spring loaded locking plate assuring one of the slots in the serrated nut engages the plate. You should hear a snap when the locking plate clicks in. Plug the electrical cord in and raise the basket about 12”. Then lower the basket to test the stop position. If the basket stops on the floor with a slight slack in cable then the limit is adjusted properly. If excess slack in cable or basket does not reach floor then readjust limit using the above procedure.



To adjust the raise limit switch, operate the unit until the basket reaches the height you want. (If mounted above your garage door then this height must clear the garage door when in the open position) Remove the electrical cord from the outlet. One of the white serrated nuts will be near the double limit switch. This is the upper limit switch. Press down on the spring loaded locking plate and turn the serrated nut toward the limit switch until you hear the limit switch click. Release the spring loaded locking plate assuring one of the slots in the serrated nut engages the plate. You should hear a snap when the locking plate clicks in. Plug the electrical cord in and lower the basket about

12”. Raise the basket to test the upper stop position. If the basket does not stop where you want then adjust the upper limit switch using the above procedure.

If installing your lift above a garage door then the raise position should clear the garage door when the door is raised. Complete the installation by installing the cover on the electrical box.

Garage Door Safety Features (Safety features only if installing above a garage door)

Once the garage lift is in the up position you should be able to operate the existing garage door opener. If you find that the garage door does not open with the basket in the up position or the garage door operates when the basket is NOT in the up position then you will have to gently bend down the tip on the micro-switch labeled “Garage door safety switch or 2B” until both micro-switches (the up limit and the garage door safety switch) trip at the same time.

Test this once you have the adjustment set. With the garage door closed lower the basket a few feet then raise the basket until it stops. Now the garage door should open. Check also that the garage door does not rise if the basket is not in the up position.

To test the operation of the garage door limit switch mounted to the base of the door try to lower the garage lift with the garage door slightly raised. The garage lift should NOT operate. If the garage lift does operate then adjust the limit switch until the spring lever contacts the garage door or the garage door drive connection.

Once all the safety switches are checked then operate the basket at least three (3) times checking the up and down limits. The basket should just reach the floor and when raised should clear the garage door. Complete the installation by installing the cover on the electrical box.

Check List

- Tighten all mounting hardware on the bearing supports
- Tighten the two set screws on each bearing
- Tighten the cable sheaves mounting hardware on the strut channels
- Tighten the set screws on the cable drums on the drum keys
- Tighten the screws on the cable shackles
- Make sure all the cables are wrapped tight on the drums – check by lifting the basket and pushing the cable in their direction to remove slack

Customer Specific Installation Instructions

Two Lifts over Garage Door

Wiring Drawing

Customer Lift Layout Drawings