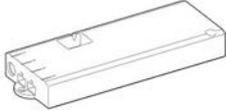
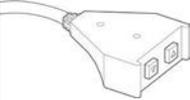
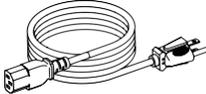
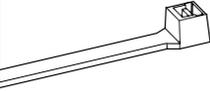
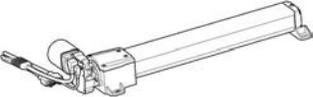
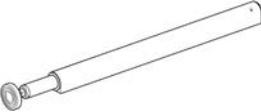
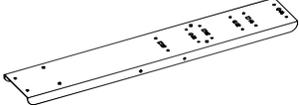
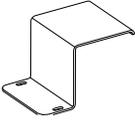
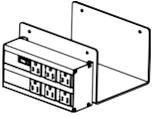
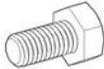
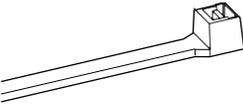


# Hydraulic Lift Assembly

Suspa Lift Parts		
Description	Part	Qty
Motor Controller		1
Low-Profile Switch		1
Power Cord		1
Suspa Instructions (Not required for installation)		1
Adhesive Clip		8
Small Wire Tie		8
Pump		1
Lift Cylinders		4

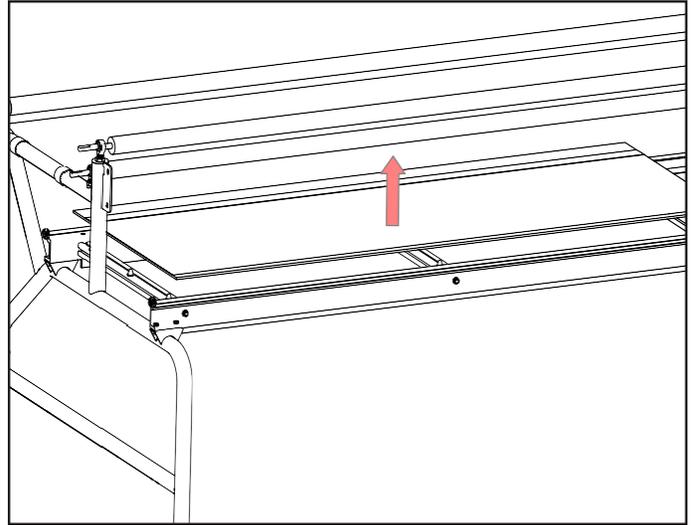
APQS Mounting Hardware		
Description	Part	Qty
Mounting Plate		1
Z Bracket		2
Surge Protector		1
Cylinder Mounting Bracket		4
U Clamp, Bracket and Nut x 2 each		8
5mm x 10mm Screw		16
5mm Silver Washer		16
10/32 x 5/8" Screw		12
Large Wire Tie		10
Velcro® Strip		2

## Additional Tools Needed

- Phillips Screwdriver
- Leg Wrench (included with your table)
- 9/16" Wrench
- 8mm Wrench
- Wire Cutters

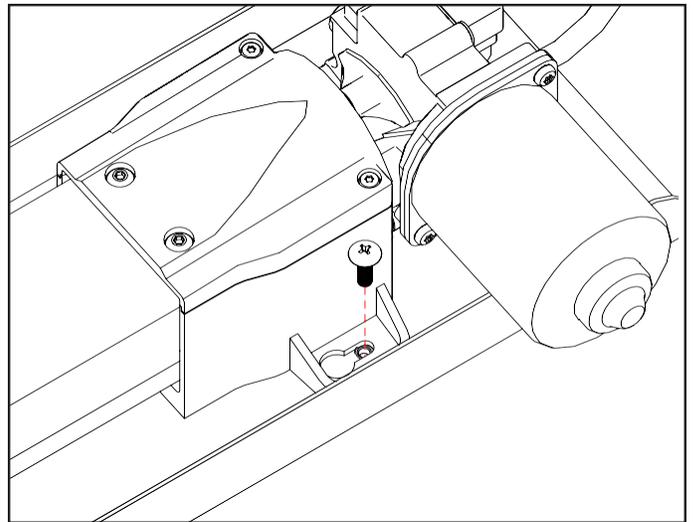
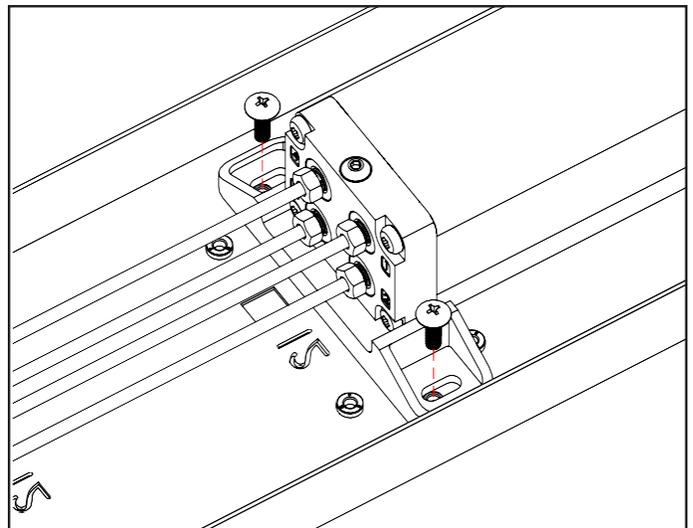
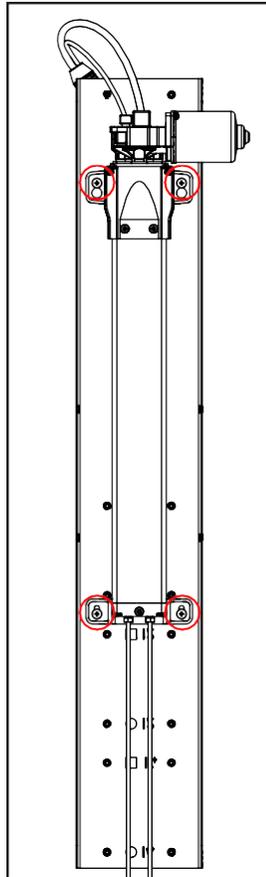
## Step 1

If your table is already completely assembled it may be easier to install the hydraulic lift if you remove the sewing head, Lexan table top and rollers to give you more work space. However, it is possible to add the lift without removing the sewing head or rollers. If you install the hydraulic lift with the head still on the table, make sure to move the quilting head all the way to one end of the table and lock it in place with the channel locks or pony clamps. Make sure the table is level before installing the hydraulic pump.



## Step 2

Place the mounting plate on the floor with the flanges facing up. Place the pump on the mounting plate as shown in the following images. Attach pump to mounting plate with (4) 10/32" x 5/8" screws.

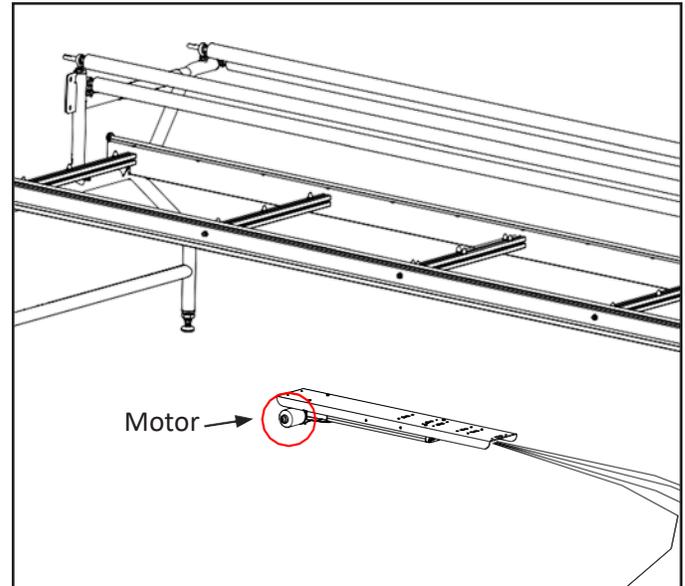


### Step 3

Place the pump with the attached mounting bracket on the floor near the middle of the table as shown. (Place the pump so that the motor on the pump is toward the left leg when standing on the pantograph side of the table.)

### Step 4

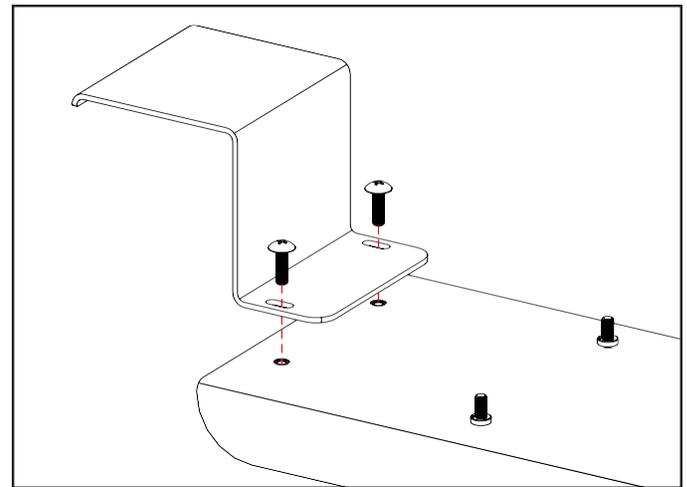
You will notice that the hydraulic lines between the pump and the lift cylinders are two different lengths. The longer lines on two of the cylinders are needed to reach the front (needle) side of the table. Position a lift cylinder at each table leg location, keeping the cylinders with the longer hydraulic lines toward the needle side of the table. Take care to keep the hydraulic lines untwisted.



### Step 5

Loosely attach one of the “Z brackets” to the mounting plate in the location shown with (2) 10/32” x 5/8” screws.

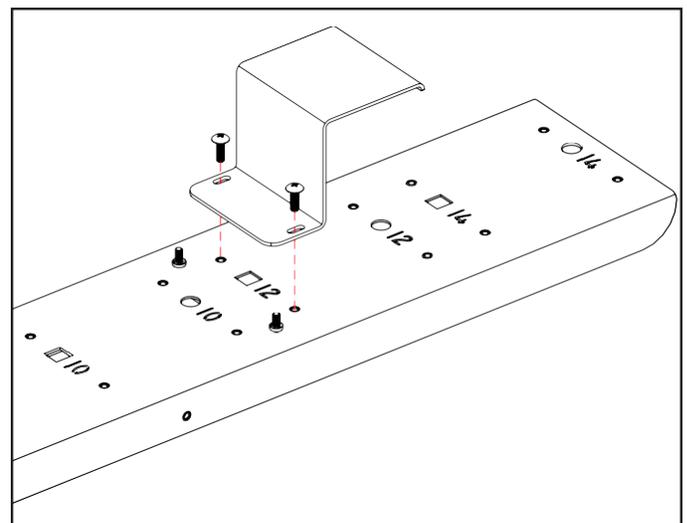
**If you have a table that has round cross tubes skip Step 6 for now. You will return to it later. If you have a table with square cross tubes proceed to Step 6.**



### Step 6

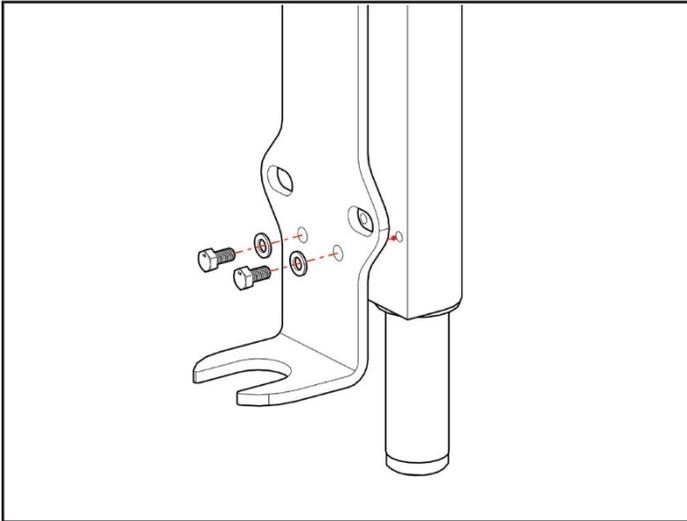
The second “Z bracket” needs to be attached to the mounting plate in a specific location depending on the style and length of your table. If you own an older style table with round cross tubes – use the location marked with the circle and the appropriate table length. Similarly, if you have a newer style of table with square cross tubes (2019–Present) use the location marked with a square and the appropriate table length.

(The location shown to the right is for a 12’ table with square cross tubes.)



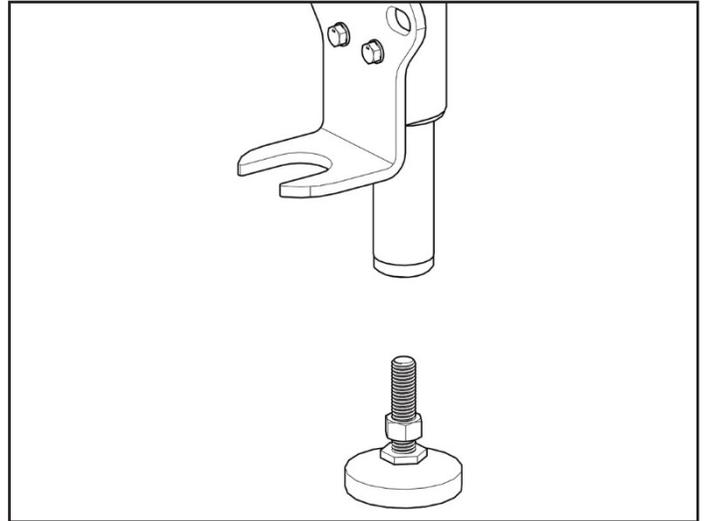
## Step 7

Bolt the cylinder mounting brackets to the four lift cylinders. Use (4) 5mm x 10mm screws and (4) 5mm washers on each mounting bracket as shown. Position the bracket so that the “fork” points away from the lift cylinder.



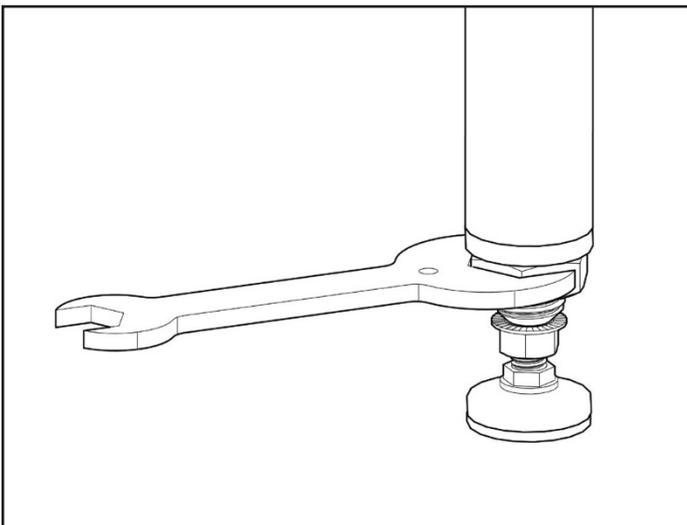
## Step 8

Screw the cylinder lift leveler pad completely into the lift cylinder. You may need to use these pads later to adjust the level of your table.



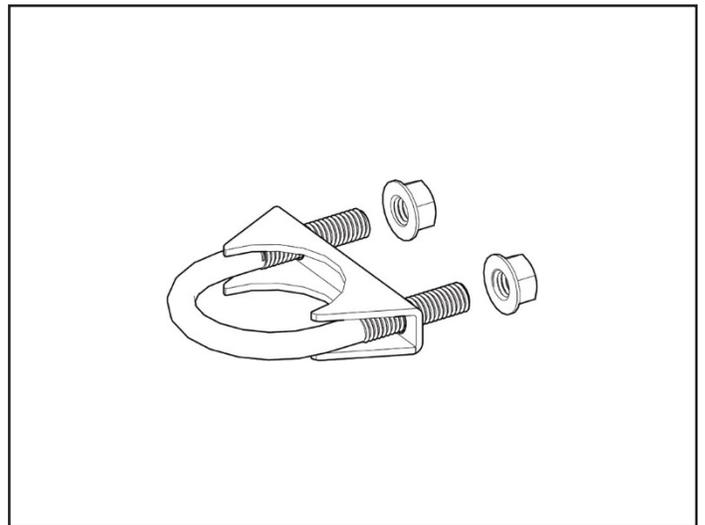
## Step 9

Loosen the large nut on the bottom of the table leg as shown below. Use the table leg wrench that is supplied with your table. (You may need to hold the nut right above the table leg’s foot with a second wrench so that you don’t affect the level of the table.)



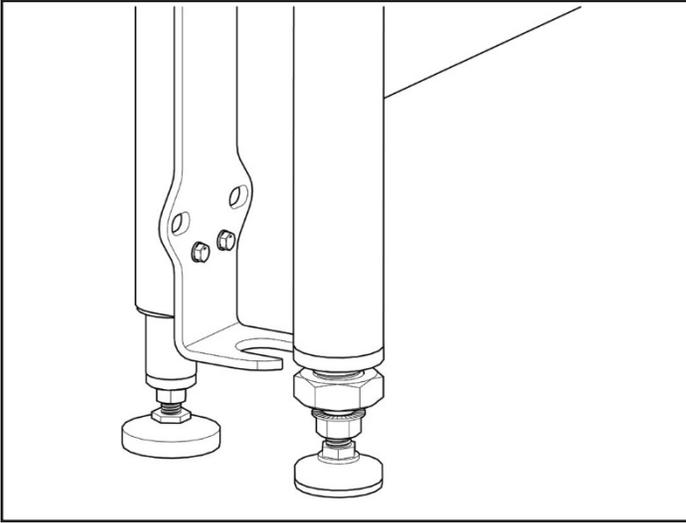
## Step 10

Remove the locking nuts and inner support from each of the (8) cylinder mounting U-clamps.



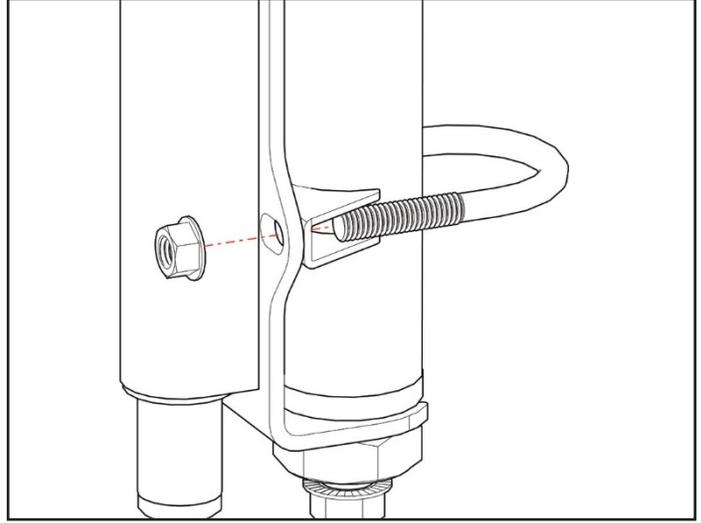
## Step 11

Slip the “fork” on the lift cylinder mounting bracket between the large nut and the bottom of the leg as shown below. Place each mounting bracket so that the “fork” points away from the center of the table. The hydraulic cylinders will be inside the table legs when you are done.



## Step 12

Place an inner support from the U-clamp between the table leg and the lift cylinder mounting bracket. Slip the U-clamp over the table leg, through the inner support, and finally into the mounting screw holes on each bracket. You will use (2) U-clamps for each leg. Be sure to start threading the nut on the end of the U-clamps before tightening any down. Mount all four lift cylinders.

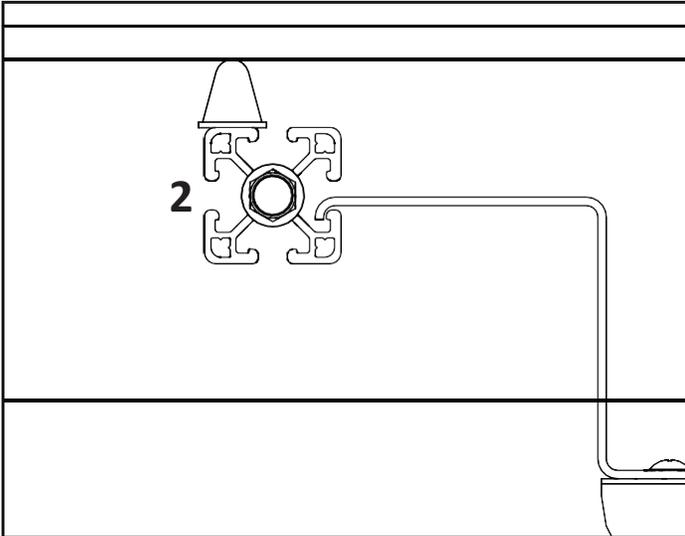


## Step 13 (Square Cross Tubes)

In order for all of the hydraulic lines to reach their appropriate legs, the mounting plate must be mounted to the correct cross tubes.

Looking from the rear of the table (pantograph side) and counting left to right, the “Z brackets” need to mount to cross tubes number 2 and 3.

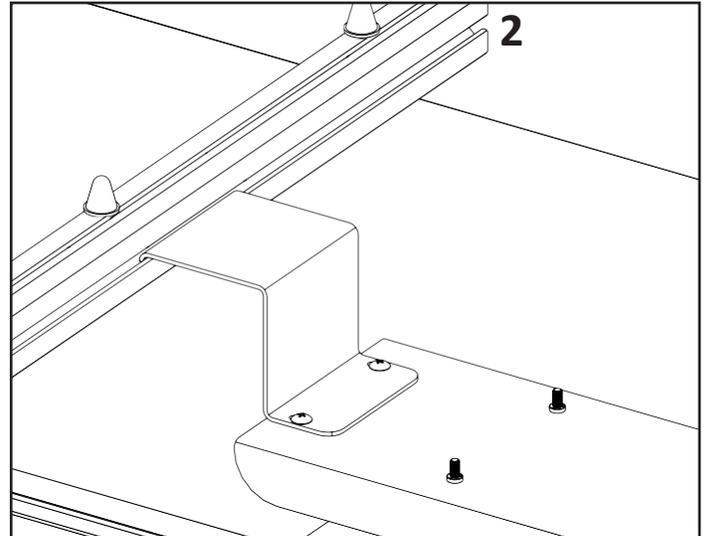
The hydraulic lines coming from the pump should be close to the center of the table when mounted properly.



### Step 13.1

Lift the mounting plate with the pump and “Z brackets” attached. Below you can see that the “Z brackets” fit inside a square cross tube channel.

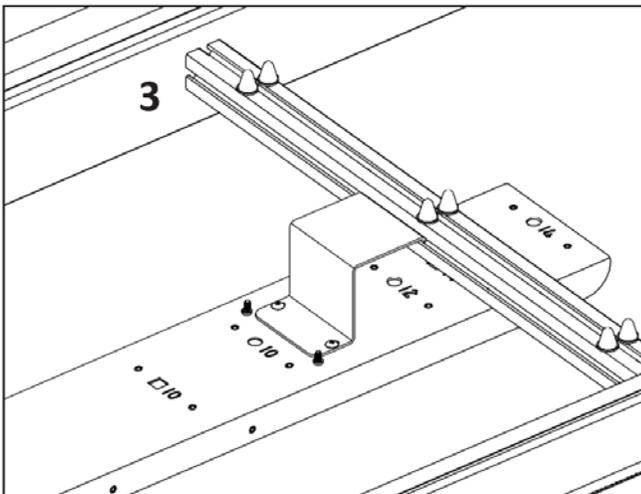
Place the “Z bracket” mounted to the motor side of the pump in the #2 cross tube channel.



### Step 13.2

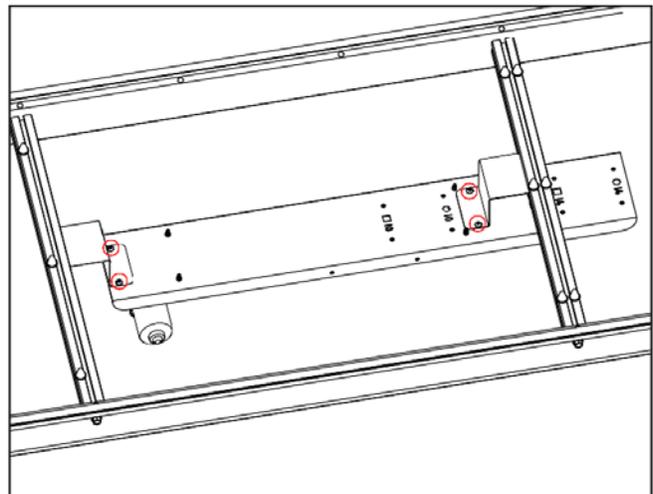
Slip the “Z bracket” mounted to the other side of the mounting plate in the #3 cross tube channel.

You may need to loosen the screws holding the “Z brackets” in order to get them into the channel.



### Step 13.3

Tighten the 4 screws holding the “Z brackets” to the mounting plate.

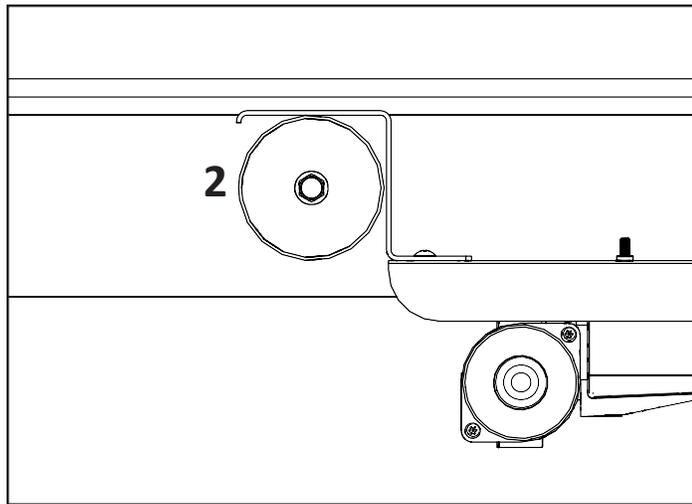


## Step 13 (Round Cross Tubes)

In order for all of the hydraulic lines to reach their appropriate legs, the mounting plate must be mounted to the correct cross tubes.

Looking from the rear of the table (pantograph side) and counting left to right, the “Z brackets” need to mount to cross tubes number 2 and 3.

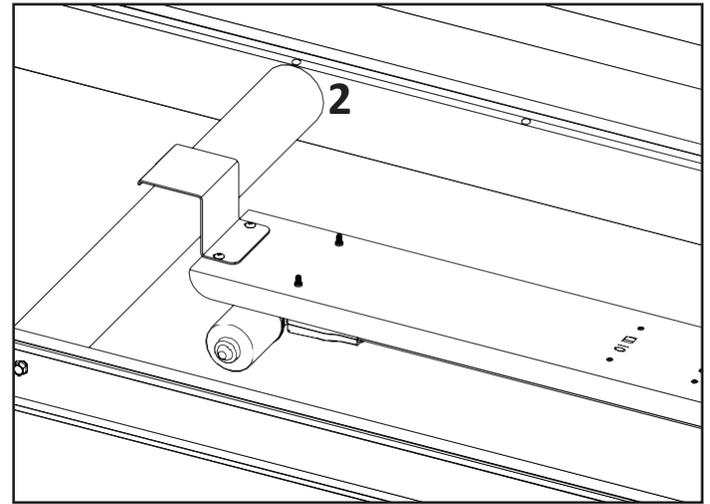
The hydraulic lines coming from the pump should be close to the center of the table when mounted properly.



## Step 13.1

Lift the mounting plate with the pump and “Z brackets” attached. Below you can see that the “Z brackets” fit inside on top of the round cross tubes.

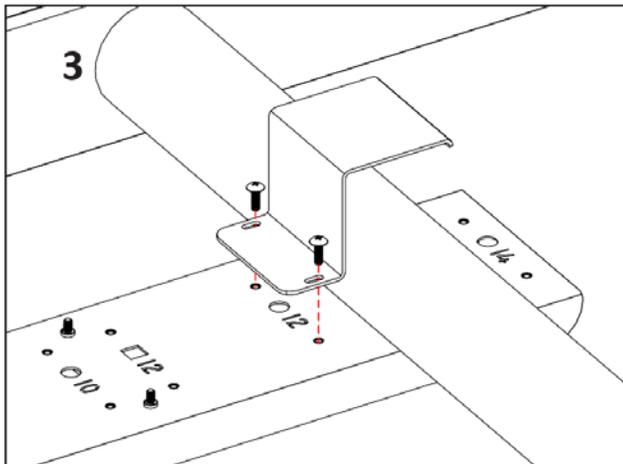
Place the “Z bracket” mounted to the motor side of the pump on top of the #2 cross tube.



## Step 13.2

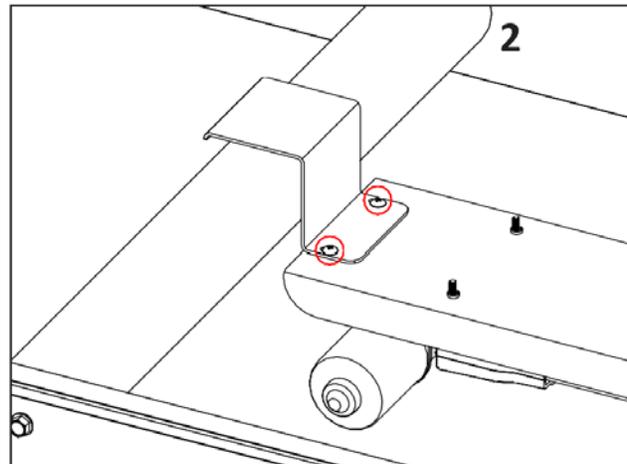
Have a helper hold up the pump and mounting plate. Using (2) 10/32 x 5/8” screws, attach the other “Z bracket” in the appropriate holes so that it sits on top of the #3 cross tube. (Below image shows the appropriate holes to use for a 12’ table with round cross tubes.)

If need be, return to Step 6 for further clarification.



## Step 13.3

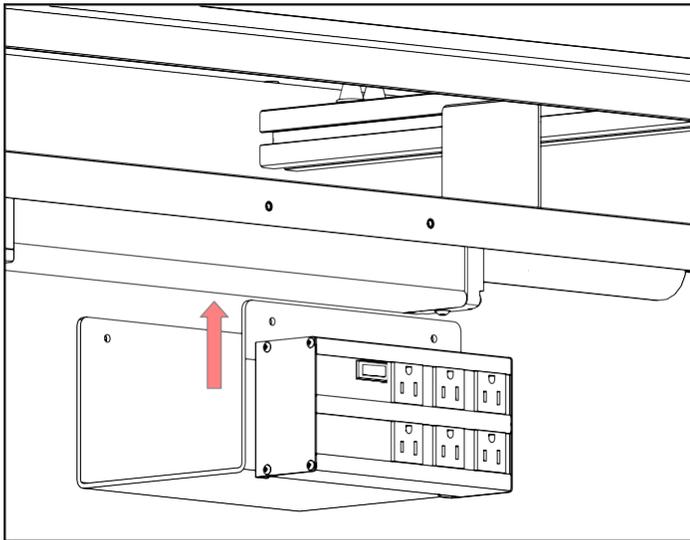
Return to the “Z bracket” sitting on cross tube #2 and tighten the screws.



## Step 14

Locate the surge protector with bracket attached and lift into place. There are holes on both flanges of the hydraulic lift mounting plate which correspond to holes on the surge protector bracket.

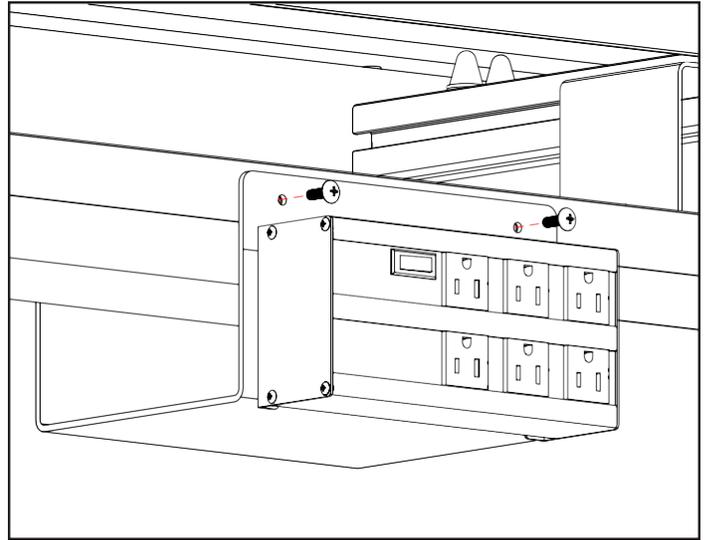
(The orientation or look of your surge protector may differ from the one shown below.)



## Step 15

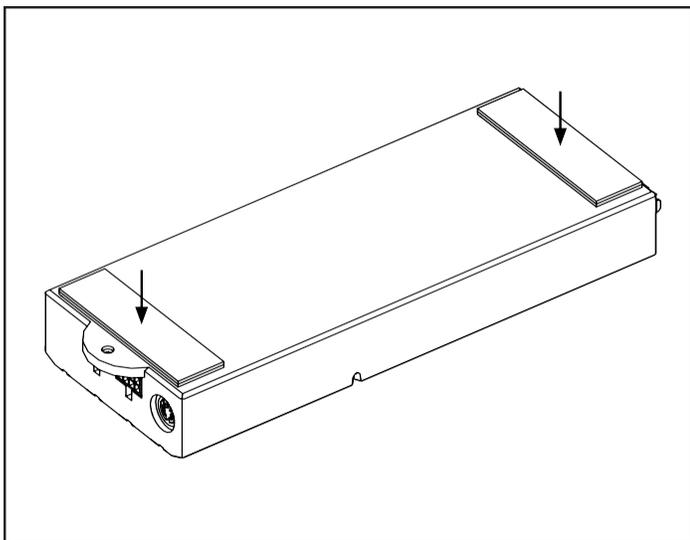
Using (4) 10/32 x 5/8" screws, attach the surge protector as shown below.

Remember that there are 2 screws per side.



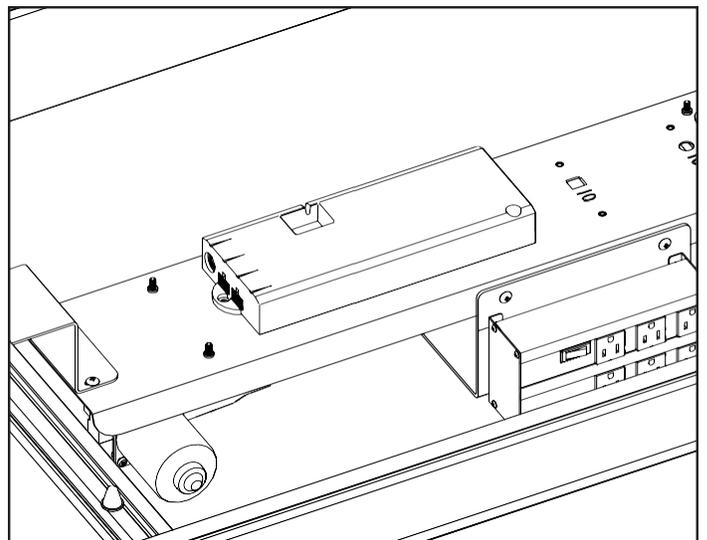
## Step 16

Locate the Velcro strips and motor controller. The two halves of the Velcro strips should be placed together already. Peel off the adhesive backing on one side of the Velcro strips and place on the bottom side of the motor controller in the locations shown below.



## Step 17

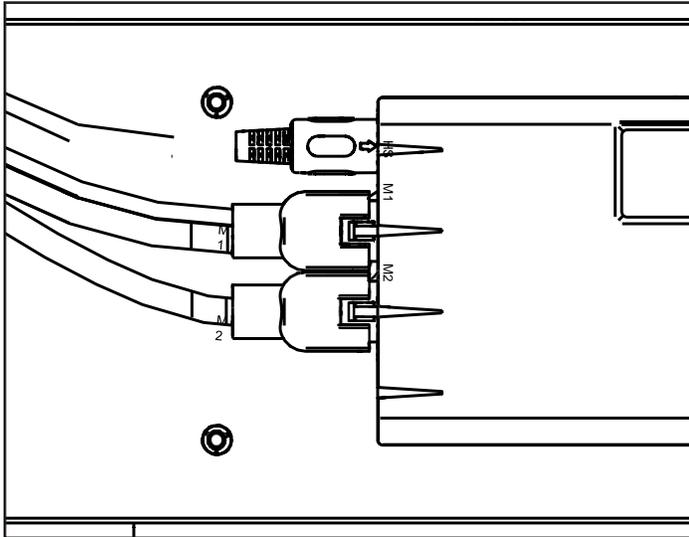
Remove the adhesive backing on the other side of the Velcro strips. Place the motor controller in the position shown below. Be sure the motor connectors are facing the left and the power connector is facing the right when viewed from the rear (pantograph) side of the table.



## Step 18

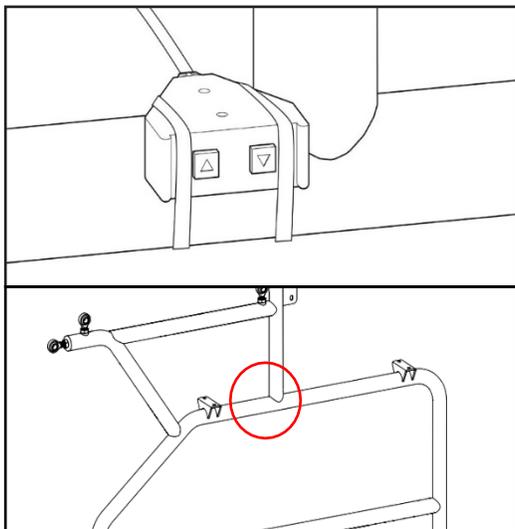
Grab the cables already attached to the pump motor. Match the plugs to the corresponding connectors on the motor controller (M1 to M1, M2 to M2) as shown below. Make sure the plugs are fully engaged with the connectors (you should hear a “click”).

Locate the low-profile switch and attach the cable to the “HS” connector as shown below.



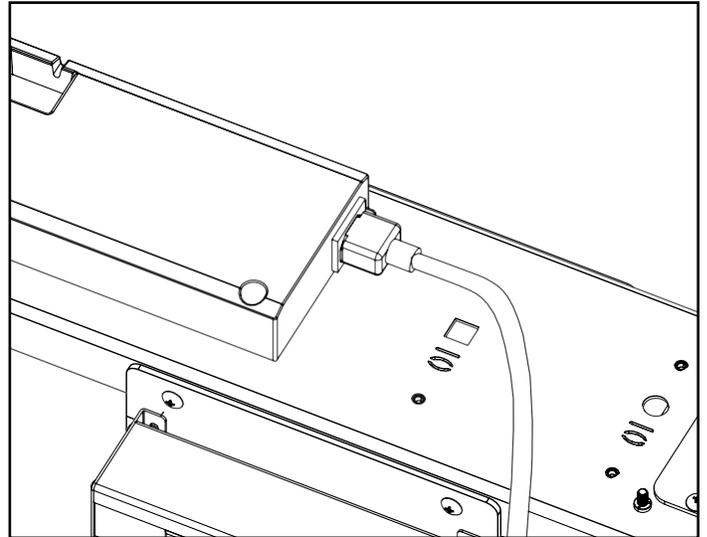
## Step 20

Mount the low-profile switch to the table frame using the large wire ties. The switch is typically mounted on the right table leg when viewed from the front (needle) side. However, the switch can be mounted in different places to suit your specific needs.



## Step 19

Locate the power cord and insert it into the motor controller as shown below. Plug the other end of the power cord into the surge protector.



## Step 21

Mount and secure the hydraulic lines to the table frame using the small wire ties and adhesive mounting clips. You can secure the lines to the cross tubes of the table.

Be careful not to over-tighten the wire ties as this can cause crimping of the hydraulic lines.

## Step 22

When you test the lift, if one of the legs doesn't raise at the same rate or time as the others do, raise the lift to its highest point and lower it to its lower point a few times to help remove any air bubbles in the hydraulic lines.

If you need to make a small adjustment to the level of the table, it can be made using the feet on the hydraulic cylinders attached to the legs. There is only about 1" of adjustment available, so this should only be used for making small adjustments.

Consult the included instructions from Suspa for troubleshooting tips.