

# **HEIGHT ADJUSTABLE BENCHING SYSTEM**

**USER GUIDE**

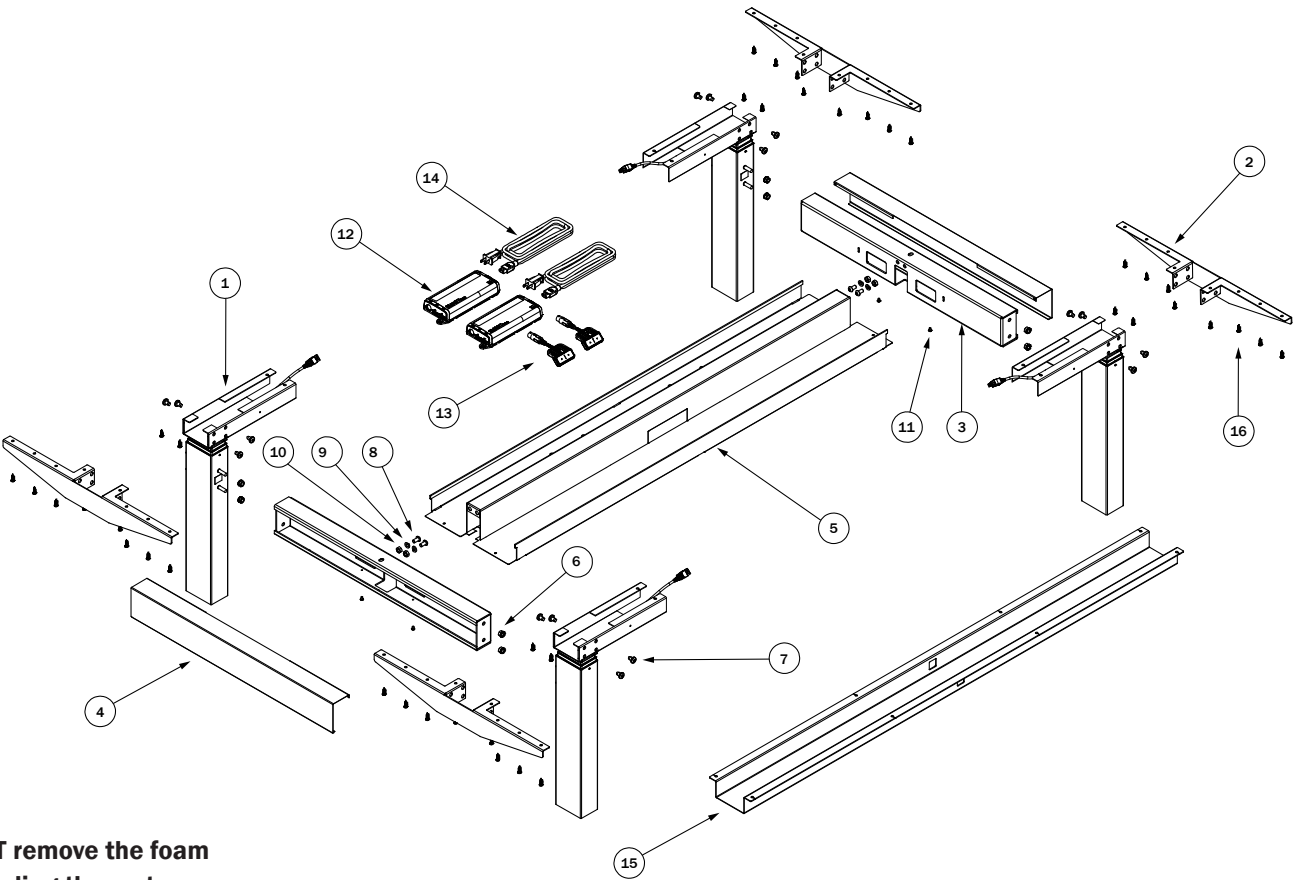
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This manual explains how this sit-stand desk is assembled, used, and maintained. All sit-stand tables are subjected to functional and quality tests before leaving our facility.

# PARTS DIAGRAM



**DO NOT** remove the foam  
surrounding the motor.

PARTS		Qty/Package	Qty/Package
1.	Column	4	9. M8 Split Washer 4
2.	Top Support	4	10. M8 Nut 4
3.	Ganging Bracket	2	11. M4-0.7x6mm Screw 4
4.	Cover	2	12. Control Box 2
5.	Cable Tray	1	13. Handswitch 2
6.	M8-1.25 Keps Nut	4	14. Power Cord 2
7.	M8-1.25x12mm Self Threading Screw	16	15. HAT Channel 2
8.	M8-1.25x16mm Screw	4	(for tables equal or greater than 72")
			16. #10 x ¾ Screw 48

# SAFETY INFORMATION

## IMPORTANT SAFETY INSTRUCTIONS *Save these instructions.*

### **DANGER** To reduce the risk of electric shock:

Always unplug the furnishing from the electrical outlet before cleaning or servicing.

**WARNING:** Risk of Electric Shock, Fire and Injury – Review the assembly instructions to confirm that the appropriate critical components and accessories are being used with the furnishing. Do not change or replace components and accessories provided by the manufacturer.

## INSTALL ONLY APPROVED WORK SURFACES

This table system does not include a work surface (desktop). Work surface must be at least  $\frac{3}{4}$ " thick and weigh no more than 5 lb. per square foot (For example, a 2'x6' desktop should weigh no more than 60 lb). Do not exceed a maximum weight for the desktop of 75 lb. To prevent table from tipping or collapsing, make sure the desk frame is not overloaded by the weight of tabletop and objects you plan to put on the table. If you are unsure, contact customer service.

## KEEP AWAY FROM CHILDREN

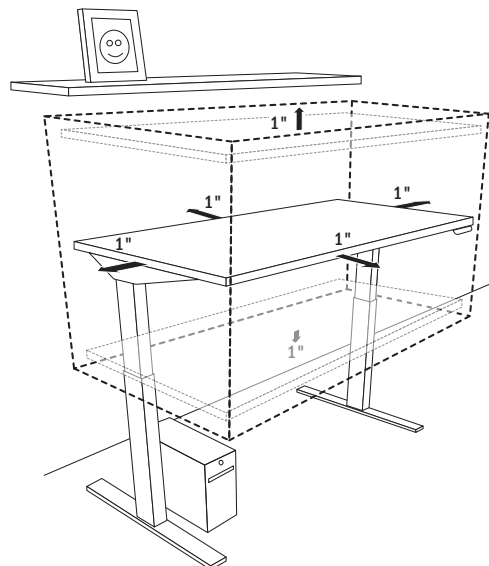
This table system is not designed for use in homes or other areas accessible by small children. For indoor commercial office use only.

## BE CAREFUL WHEN ADJUSTING DESK HEIGHT

Body parts and property can be caught between the moving work surface and an immobile obstacle (such as shelves, furniture, window sills, or walls). Keep at least one inch of clearance around desk and make sure nothing is in table's path for its entire range of motion.

### **Before raising or lowering:**

- Check surroundings on all sides of desk are clear
- Make sure corded objects will not be pulled off table or cause other objects to fall
- Make sure desk power cord moves freely as desk moves up and down



## DO NOT OVERLOAD DESK

- Do not exceed maximum load (including weight of desktop) of 200 lb. (91Kg) for two-leg configuration.
- Do not exceed edge load of 25 lb. when positioning monitors or mounting accessories.
- Do not sit or stand on table

## USE CARE WHEN MOVING DESK

- Clear objects and equipment from table before moving to reduce the risk of tipping over.
- Adjust the desk to its lowest height before moving
- To disconnect, remove plug from outlet
- Do not move a loaded desk

## DO NOT OPEN ELECTRICAL COMPONENTS

Do not attempt to service table components. There are no user-serviceable parts inside the motor control units or table legs. If your table needs service, contact customer service. Never operate this workstation if it has a damaged cord or plug.

## KEEP TABLE FRAME DRY

Keep all electrical components away from water and high humidity. Clean only with a dry or slightly damp cloth. Do not spray cleaning solutions directly onto table system.

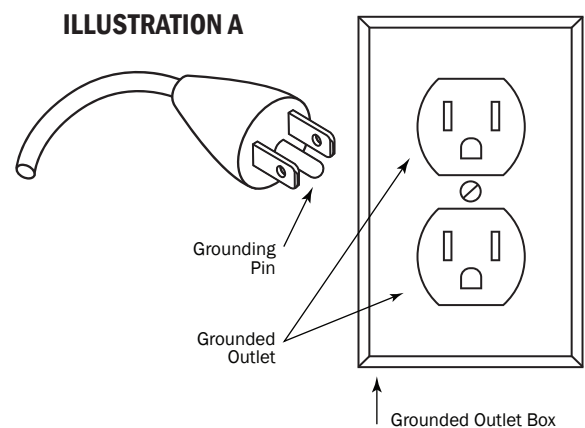
## GROUNDING INSTRUCTIONS

This product may be equipped with a cord having an equipment-grounding conductor and a grounding plug.

**Use only the cord provided.** Make sure that the product is connected to an outlet having the same configuration as the plug (as shown in Illustration A) that is properly installed and grounded in accordance with all local codes and ordinances.

Do not modify the plug provided with the product – if it will not fit the outlet, have a proper outlet installed by a qualified electrician.

**No adapters are to be used with this product.**  
**Keep cord away from heated surfaces.**



# ASSEMBLY INSTRUCTIONS

Assemble the table frame in accordance with this manual.

Changes to the table frame or improper use may affect the safety, function, and life of your product.

*This manual is for all sit-stand tables from the series.  
Due to different models or types, pictures may vary.*

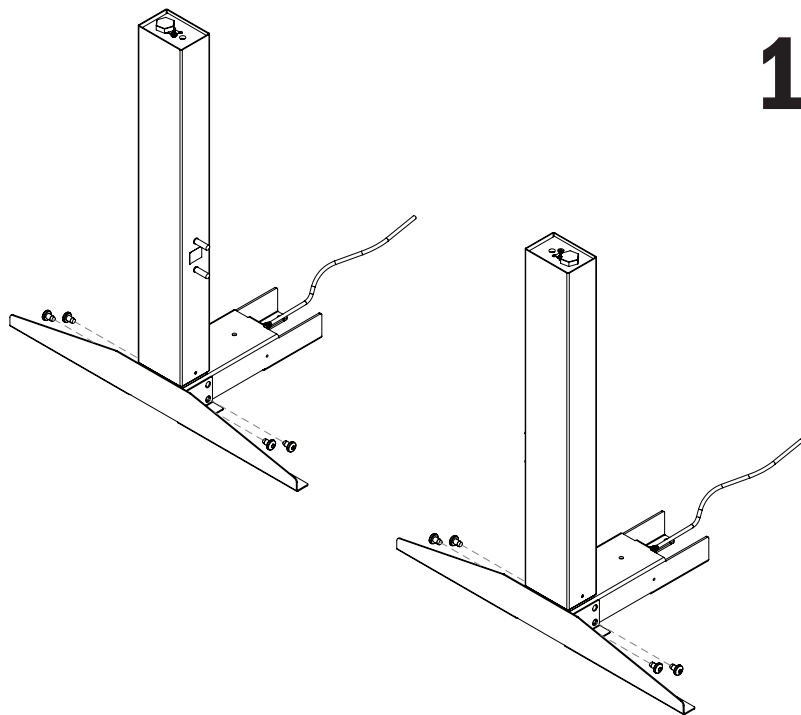
## ASSEMBLY OVERVIEW

1. Attach top supports and rails to columns
2. Attach ganging tubes to columns
3. Assemble the electrical (*if applicable*)  
Assemble to cable tray
4. Attach work surface to column assemblies
5. Fasten cable tray assembly onto the ganging brackets
6. Attach the HAT channel (*for tables equal to or greater than 66"*)
7. Fasten the control box and handswitch to the table top
8. Connect the motor cables to the control box
9. Connect the handswitch (HS) cable to the control box
10. Connect the supplied power cord (AC) to the control box
11. Attach all cables to the table frame or the underside of the table top
12. Connect side-by-side benches

**DO NOT remove the foam surrounding the motor.**

**To avoid product damage, steps 4-13 should be done with the column assemblies in the upright position.**

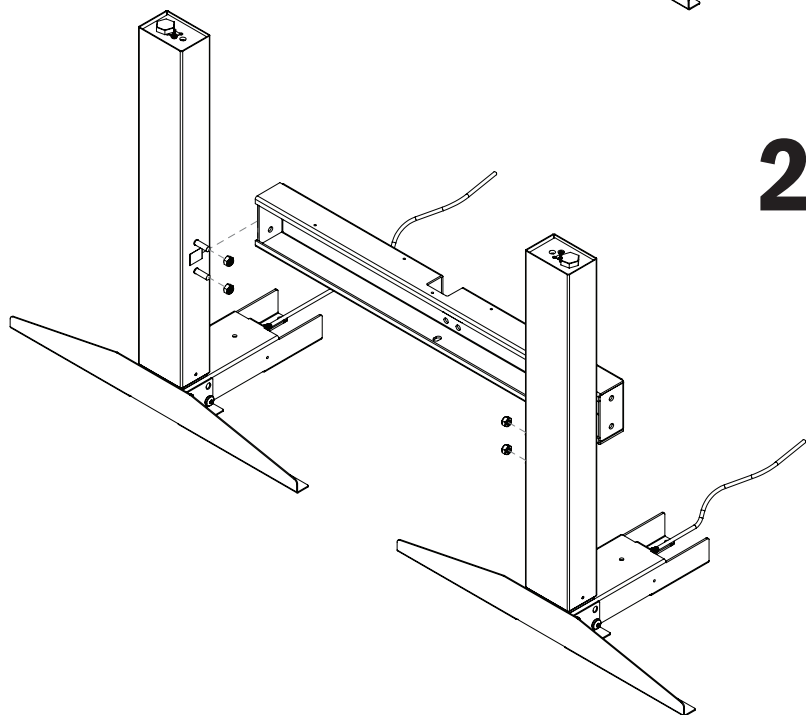
If you have any difficulty assembling this unit, or need to order replacement parts, please contact our Customer Service department. Use the parts diagram on page 4 as a reference.



## 1 ATTACH TOP SUPPORTS AND RAILS TO COLUMNS

Ensure the mounting holes in the column remain aligned with the corresponding holes in the beam or independent beam.

Align the beam or independent beam to the top support. Assemble using the M8x1.25 x 12mm length screws (4 per column) and a T40 Torx driver. Be aware that the mounting holes may not be tapped. As they are inserted, the provided M8x1.25 x 12mm length screws will form their own fastening threads if none are already present. An average fastening torque of 8Nm (6 lbs-ft) will be required to initially engage the screw in the hole. The maximum tightening torque for these screws is 15Nm (11 lbs-ft). Repeat as necessary for remaining columns.



## 2 ATTACH GANGING TUBE TO COLUMNS

Assemble using the M8-1.25 Lock Washer Nut (2 per column). The maximum tightening torque for these nuts is 15.8Nm (10 ft-lbs).

Repeat steps 1 and 2 for second set of columns, top supports and ganging tube.

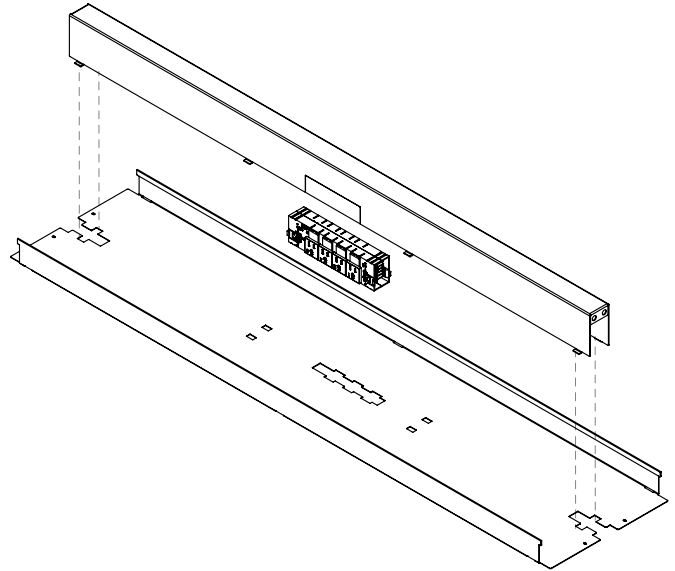


### 3A (FOR ELECTRICAL SYSTEM UPGRADE ONLY) ASSEMBLE ELECTRICAL

See page 14

### 3B ASSEMBLE THE CABLE TRAY

Align and insert the tabs on the u-channel into the tray. Squeeze the u-channel so that all tabs are secured into the tray.

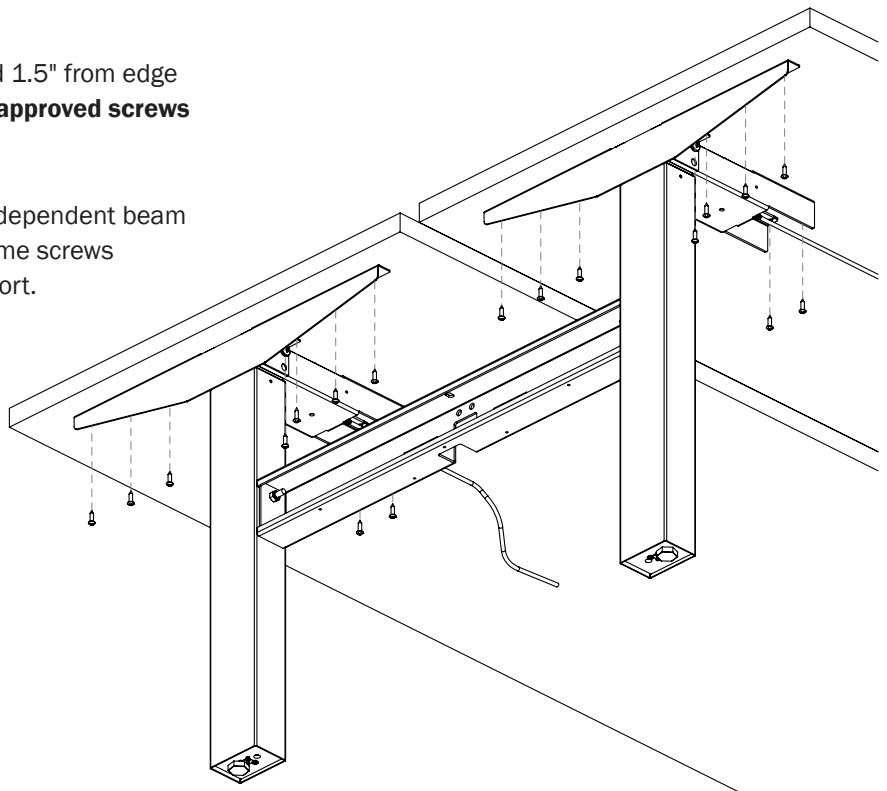


## 4 ATTACH WORK SURFACE TO COLUMN ASSEMBLIES

Flip table into upright position.

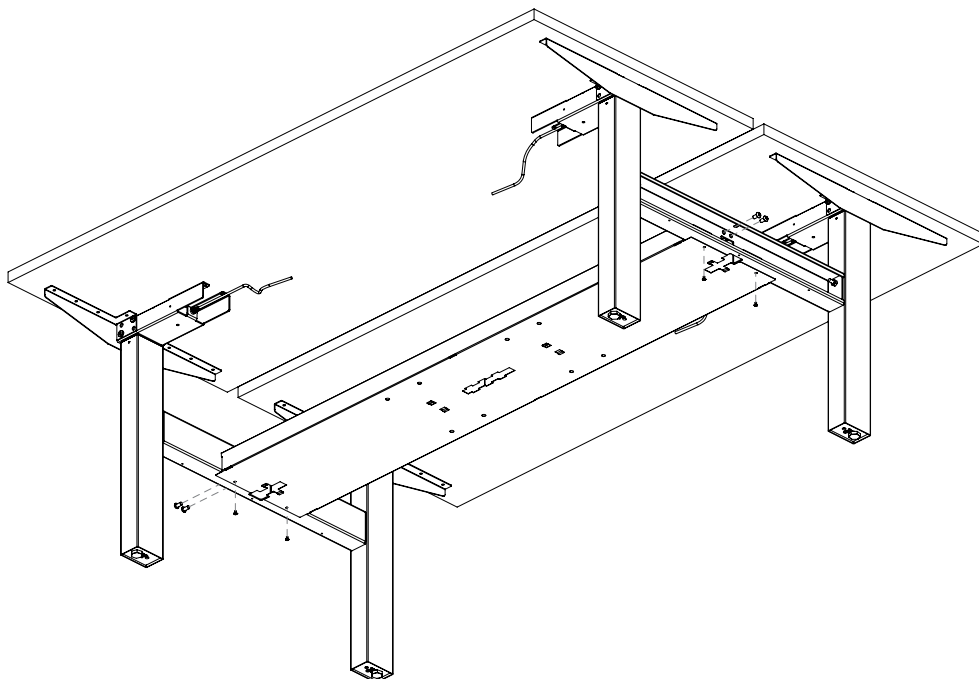
Top supports should be mounted 1.5" from edge of work surface. **Be sure to use approved screws per the table top supplier.**

Finish by directly securing the independent beam to the work surface using the same screws employed to mount the top support.



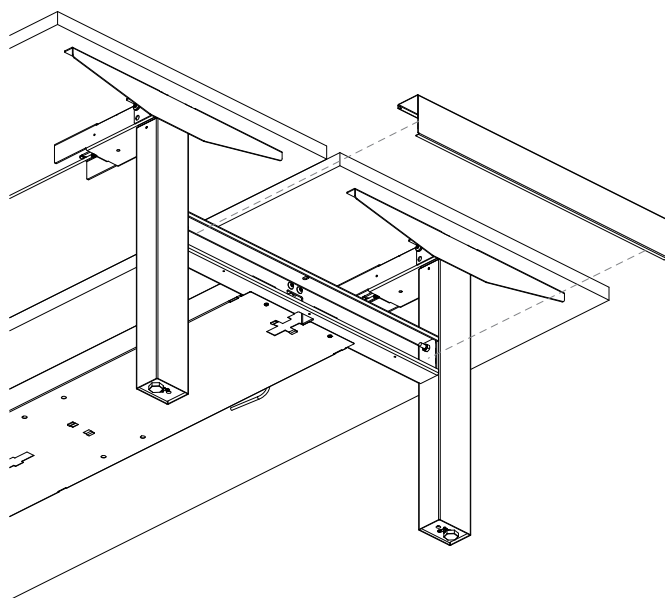
## 5 FASTEN THE CABLE TRAY ASSEMBLY ONTO THE GANGING BRACKETS

Attach the tray to the ganging brackets using the M4-0.7x6mm length screws. The maximum tightening torque for these screws is 4Nm (35 in-lbs). Attach the u-channel to the ganging bracket using the M8 1.25x16mm length screws, M8-1.25 nut, and M8 lock washer (2 per ganging bracket). The maximum tightening torque for these screws is 20Nm (14.8 ft-lbs). A socket wrench is recommended for this step to hold the nut in place. Repeat for both sides.



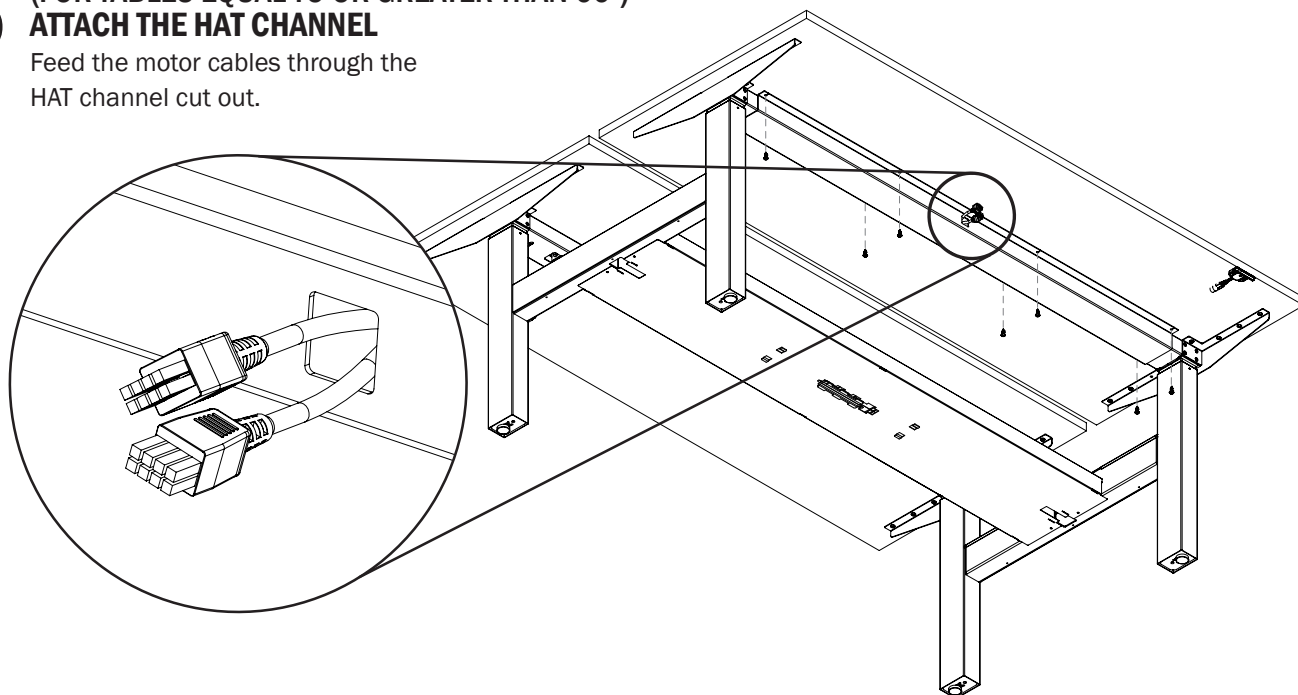
### SNAP ON THE GANGING BRACKET COVERS

The covers will self-secure when snapped on to the ganging brackets.



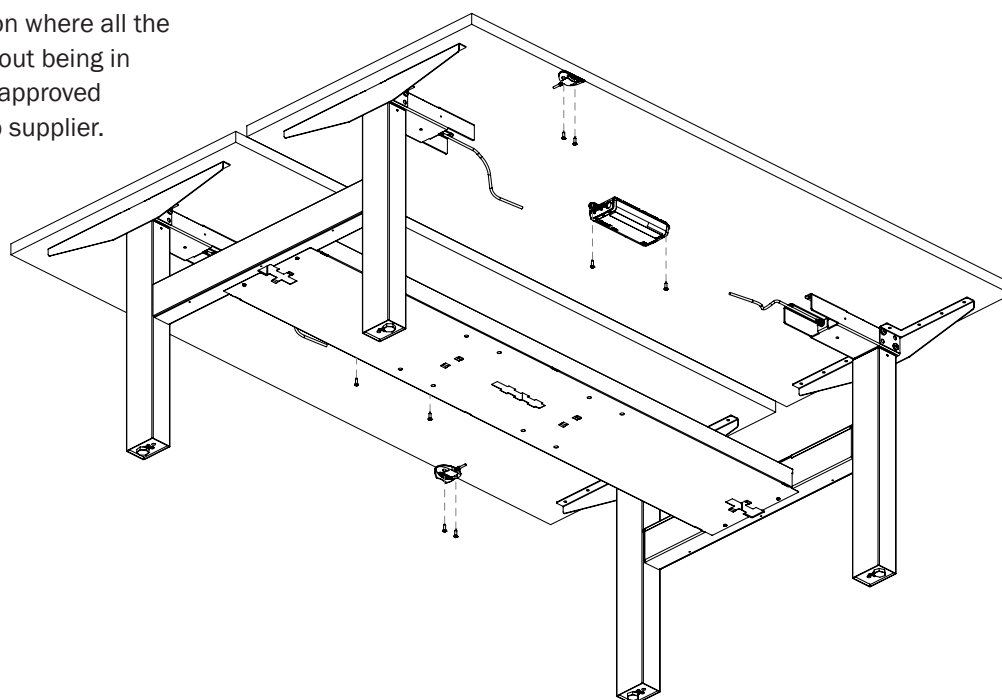
## 6 (FOR TABLES EQUAL TO OR GREATER THAN 66") ATTACH THE HAT CHANNEL

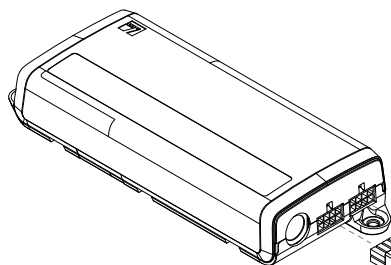
Feed the motor cables through the HAT channel cut out.



## 7 FASTEN THE CONTROL BOX AND HANDSWITCH TO THE TABLE TOP

Make sure the control box and handswitch are fastened in a location where all the cables will connect without being in tension. Be sure to use approved screws per the table top supplier.





## 8 CONNECT THE MOTOR CABLES TO THE CONTROL BOX

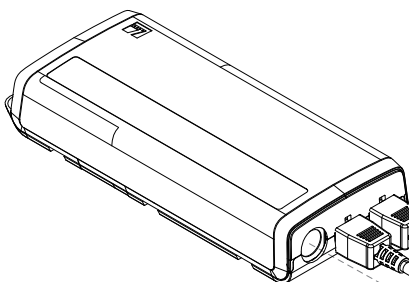
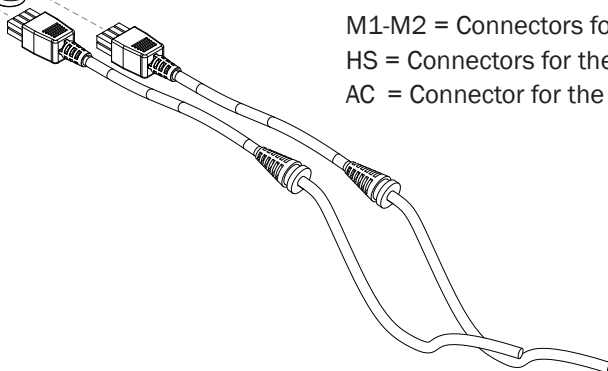
The motor cable plug-connection has to click into place.

Connections to the control box:

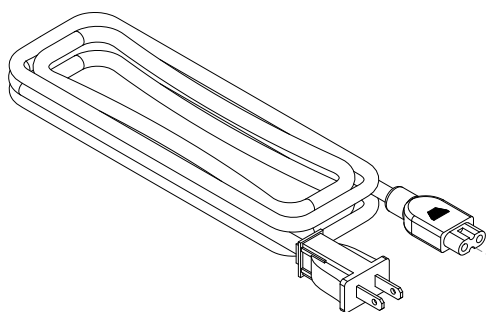
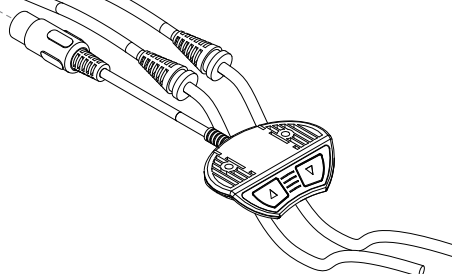
M1-M2 = Connectors for the columns

HS = Connectors for the handset

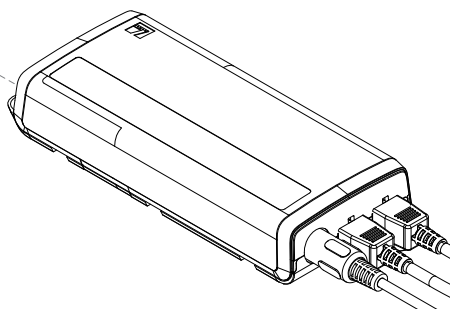
AC = Connector for the power cord (3-pin)



## 9 CONNECT THE HANDSWITCH (HS) CABLE TO THE CONTROL BOX



## 10 CONNECT THE SUPPLIED POWER CORD (AC) TO THE CONTROL BOX

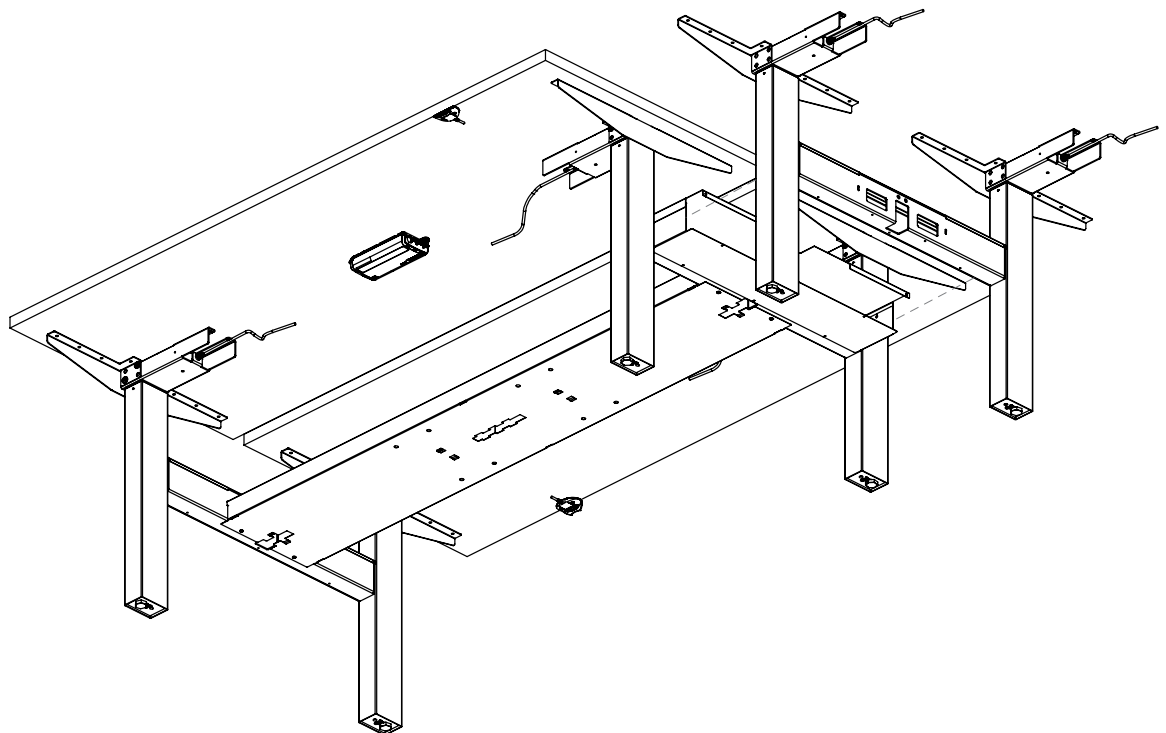


## 11 ATTACH ALL CABLES TO THE THE TABLE TOP

Attach cables in order to avoid any damage during operation. Be sure to leave enough slack in the cables to allow for the table to move into it's highest position. **Never wrap cables and/or cords around the columns.**

## 12 CONNECT SIDE-BY-SIDE TABLES\*

\*For units specified to use a side-to-side connector, attach lower tray to the bottom of the ganging bracket of each bench using the M4-0.7x6mm length screws. The maximum tightening torque for these screws is 4Nm (35in-lbs). Once installed, the upper tray can be slid on to fit.



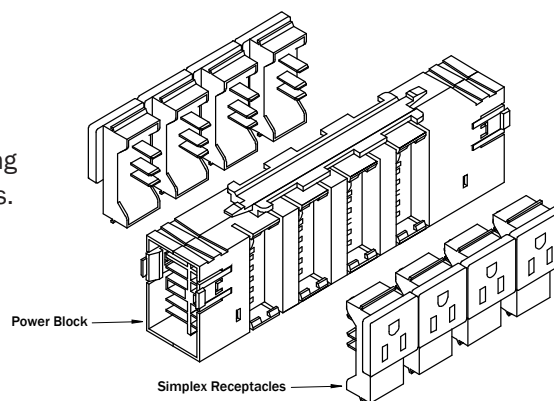
# ELECTRICAL INSTALLATION

(FOR TABLES ORDERED WITH THE ELECTRICAL SYSTEM UPGRADE)

## INSTALL SIMPLEX RECEPTACLES INTO POWER BLOCK

Insert terminals into corresponding slots in block and seating receptacle until catches engage on both sides of receptacles.

Note: a noticeable “snap” will be heard when receptacle is fully engaged into block. Ensure terminals go directly into slots and do not get inserted into an adjacent slot.

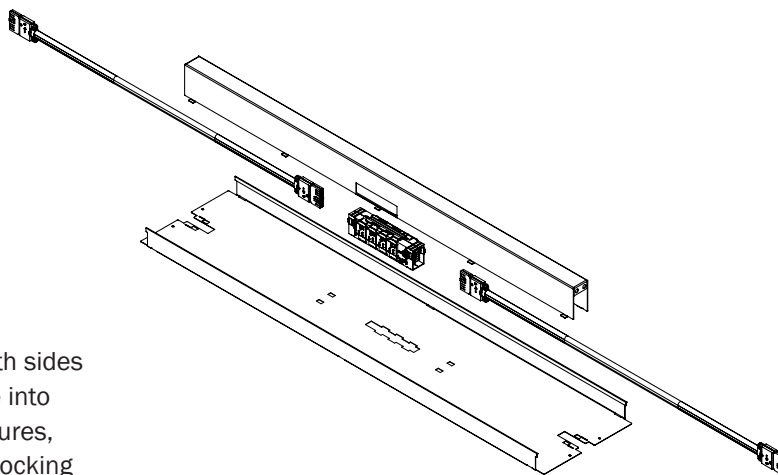


## CONNECT CABLES TO BLOCK

Connect as required (not shown). Ensure cables are completely seated under cable latches and into block. Power disruption may occur if cables are not fully seated into block.

## INSTALL POWER BLOCK INTO TRAY

Place the power block into the provided cut-out in the tray and slide the block to lock it into place.

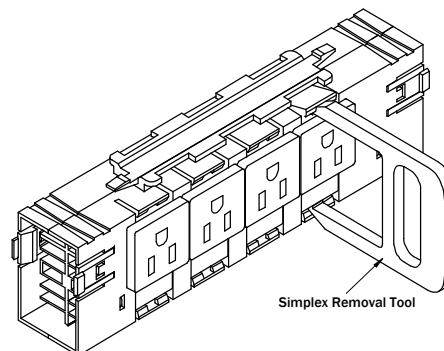


## INSTALL U-CHANNEL TO TRAY

Remove the punch-out features from both sides of the u-channel. Power block will wedge into the channel between the punch out features, secure by squeezing the u-channel and locking the tabs into the tray.

## For Simplex Receptacle Removal

Insert ends of Simplex removal tool into slots above and below receptacle (shown) and push firmly into block until it catches on tool, snap over receptacle edges. Pull receptacle tool and receptacle straight out of the block. Note: Simplex removal tool sold separately.



# OPERATION INFORMATION

## INITIALIZATION/RESET

The desk must be initialized/reset after any of the following:

- After assembly
- After disconnection from the power supply
- After any impact on the table top.

To initialize/reset, move the table to the lowest position by pressing the DOWN button on the handswitch until the columns reach the lowest position. Press the DOWN button again until the table moves slightly down to the machine zero point and back up to the operation zero point. Release the DOWN button. If the button is released too soon, the table legs will not move up. Repeat the reset process.

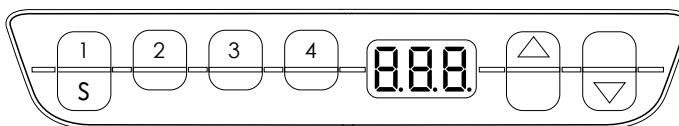
The control box is programmed with a parameter file which controls the table legs' lower and upper travel limits. **Under no circumstance should a control box from one table be moved to another.**

## NORMAL HANDSWITCH OPERATION (for all handswitch types)

By pressing the UP or DOWN buttons, the table will move up or down to the desired position. Once the desired position is reached, let go of the UP or DOWN button. The table legs will stop once they reach the lower or upper height limits.

## PROGRAMMABLE HANDSWITCH OPERATION (optional)

This programmable handswitch is equipped with a display for showing the current table height in centimeters or inches.



The handswitch also will display an error code if an error is detected by the control box. When an error is detected, the display will show an error code "EXX," instead of the current table height. To resolve the error, see the Troubleshooting Section (p. 17-18 of this guide).

The programmable handswitch also has the ability to save up to four different height positions.

## **PROGRAMMABLE HANDSWITCH OPERATION** (continued)

### **CHANGE THE HEIGHT UNIT OF MEASURE** (inches or centimeters)

The handswitch can display the table height in either centimeters or inches. With the help of the S5-menus, the unit of measure can be changed.

To change the unit of measure, follow these steps:

1. Press and hold the 1, 2, and UP buttons until the display shows "S 5".
2. Confirm by pressing and releasing the "S" button. Now the display will have changed. The control box will click twice indicating that the unit of measure was changed.

To exit the menu without making a selection, wait until the height display appears again.

### **CHANGE THE HEIGHT DISPLAY**

If the displayed value does not match the actual height of the table top, the display can be corrected as follows:

1. Press and release the "S" button.
2. Press and hold the DOWN button until the display starts to flash.
3. Change the height shown on the handswitch by pressing the UP or DOWN button to the desired height. Confirm by pressing and releasing the "S" button. The control box will click twice indicating that the unit of measure was changed.

To exit the menu without making a selection, wait until the height display appears again.

### **SAVE MEMORY POSITION**

1. Move the table up or down to the desired height.
2. Press the "S" button (in the display "S -" is shown.)
3. Select a position by pressing one of the four number buttons, 1-4, (if 1 is selected, the display will show the setting as "S1").
4. The saved position is confirmed by a double click sound from the control box. The display shows the current table height. Repeat steps to save a maximum of four different positions.

### **RECALL MEMORY POSITION**

Press and hold the desired memory button (1, 2, 3 or 4) the table moves from the current position into the saved position\*. The button must be pressed until the position is reached. If the button is released, the table will stop short of the desired height.

*\*unless the double click feature is programmed into the control box*



# TROUBLESHOOTING

## UNIT

ERROR CODE	SOURCE	SOLUTION
<b>Table does not move</b>	No power supply	Plug in the power cord or check the connection on the control box
	No connection or a loose connection to the drives	Verify the plug connections of the motor cable to the control box
	No connection or a loose connection to the handswitch	Verify the plug connections of the motor cable to the control box
	Max lifting capacity is exceeded	Reduce the weight or load on the desktop
	Max time limit is exceeded	Control is activated automatically after approx. 9 minutes
	Defective drive	<b>Contact customer service</b>
	Defective control box	<b>Contact customer service</b>
	Defective handswitch	Replace the handswitch
<b>Table moves down at a slow rate</b>	Control box expects new reset	Reset control box. (See page 15)
<b>During operation, tables moves at a slow rate</b>	Max lifting capacity is exceeded	Reduce weight
<b>Table moves on one side only briefly and then stops</b>	No connection or a loose connection to the drives	Verify the plug connections of the motor cable to the control box and reset the control box
	Defective drive	<b>Contact customer service</b>

## HANDSWITCH DISPLAY

ERROR CODE	SOURCE	SOLUTION
<b>HOT</b>	The control box monitors the duty cycle (time-controlled) and its max temperature. A value has been exceeded.	Wait until the "HOT" display goes out - the table is working properly again
<b>E00</b>	M1 – Internal Fault	Unplug and <b>contact customer service</b>
<b>E01</b>	M2 – Internal Fault	
<b>E02</b>	M3 – Internal Fault	
<b>E12</b>	M1 – Defect	Unplug. Correct the external short circuit and/or verify the cable to the drives. Plug cables into the control box and re-run table.
<b>E13</b>	M2 – Defect	
<b>E14</b>	M3 – Defect	
<b>E24</b>	M1 – Overcurrent	Collision → resolve if necessary
<b>E25</b>	M2 – Overcurrent	Max load exceeded → remove excess load from the table
<b>E26</b>	M3 – Overcurrent	If the problem still exists, please <b>contact customer service</b>
<b>E36</b>	M1 – Not connected	Motor not connected. Check cable / connector to the drive. Reset the table (see page 15).
<b>E37</b>	M2 – Not connected	
<b>E38</b>	M3 – Not connected	
<b>E48</b>	Overcurrent drive 1	Collision → resolve if necessary
<b>E49</b>	Overcurrent drive 2	Max load exceeded → remove excess load from the table
<b>E55</b>	Drive 1 - Synchronization is lost	If necessary, reduce the load on the table
<b>E56</b>	Drive 2 - Synchronization is lost	Reset the table (see page 15).
<b>E60</b>	Collision identified	Option ISP function. Remove source.
<b>E61</b>	Drive replaced	The connection to the drive is interrupted or a new drive is connected. Reset the table (see page 15).

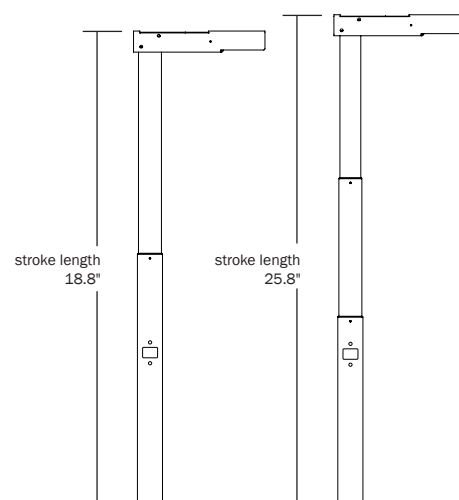
If it is not possible to resolve an error as described, disconnect the power cord, wait a few minutes and reset the table again.  
If the error still occurs, remove the table from the power source and contact customer service.

(Error Code list is valid from firmware 1.7.5 and higher)

# TECHNICAL DATA

GENERAL CONTROL BOX	
<b>Power supply</b>	120 VAC $\pm 10\%$ / 60 Hz
<b>Standby power consumption, primarily</b>	<0.3 W
<b>Operating temperature</b>	0-35 °C
<b>Protection class</b>	IP 20
<b>Maximum power output</b>	216VA/24V
TWO-COLUMN FRAME WITH CONTROL BOX	
<b>Maximum lift capacity</b>	200 lb ( $\approx 90$ kg / 890N)
<b>Adj. range, depending on version</b>	View Illustration B
<b>Maximum input current</b>	5 A
<b>Maximum duty cycle</b>	10% (2 min. on / 18 min. off)

**ILLUSTRATION B**



## STANDARDS & CERTIFICATIONS

The drive system is tested according to the following standards:

UL 962

Issued: 2014/11/07

Ed: 4 Household and Commercial Furnishings

CSA C22.2#68

Issued: 2009/09/01 Ed: 7 (R2014)

Motor-Operated Appliances (Household and Commercial)

Meets BIFMA X5.5 2014.

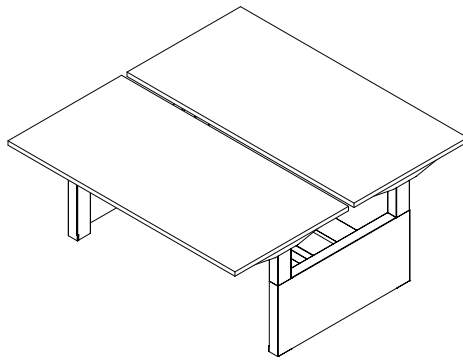
## WARRANTY

### CONTACT YOUR SALES REPRESENTATIVE FOR WARRANTY INFORMATION

**INTERTEK LISTING BELONGS TO:** System: Clever Bench  
OMT-Veyhl USA  
11511 James Street  
Holland, MI 49424



End of life cycle: Once product is disassembled, all steel components can be recycled at your local metal collector.  
For products with electronic components, see Disassembly Guide.



# USER GUIDE