ELEVON
Assembly Instructions

TBC Consoles
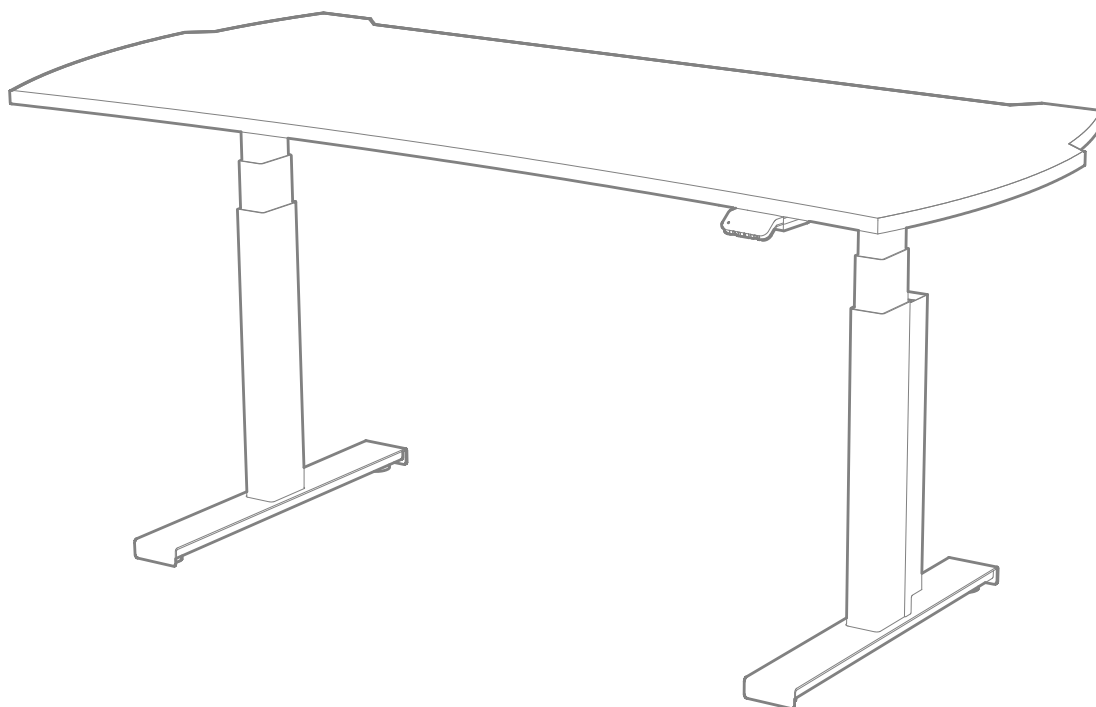
CONTENTS:

Important Information

Important information on TBC products can be found under the following headings:

Warning!

Failure to comply with these instructions may result in accidents involving serious personal injury.

Failing to follow these instructions can result in the product being damaged or being destroyed.

Important safety instruction

General

Safe use of the system is possible only when the operating instructions are read completely and the instructions contained are strictly observed.

Failure to comply with instructions marked with the "NOTE" symbol may result in serious damage to the system or one of its components.

Read all instructions before using this product.

DANGER - To reduce risk of electric shock:
• Always unplug this product from the electrical outlet before cleaning or servicing.

WARNING - To reduce the risk of burns, fire, electric shock, or injury to persons:
• Unplug from outlet before putting on or taking off parts.

It is important for everyone who is to connect, install, or use the systems to have the necessary information and access to this User Manual. Follow the instructions for mounting – there is a risk of injury if these instructions are not followed.

Close supervision is necessary when this product is used by or near children, invalids or disabled persons.

If there is visible damage to the product, do not install or use it.
Ensure that the cord and the plug are not damaged, and keep the cord away from heated surfaces.

Please note that during construction of applications in which the system is to be fitted, there must be no possibility of personal injury, for example squeezing of fingers or arms.

Never insert any object into any opening.

Assure free space for movement of the application in both directions to avoid blockage.

Intended use:

This product is intended for use indoors in household and commercial usage areas. Do not use outdoors.

Before installation, re-installation, cleaning, or troubleshooting:

• Stop the frame.
• Switch off the power supply and pull out the mains plug.
• Relieve the frame of any loads, which may be released during the work.
• Review the assembly instructions to confirm that the appropriate critical components and accessories are being used with this product.

Before start-up:

• Make sure that the system has been installed as instructed in this User Manual describing the motor system.
• Make sure that the voltage of the control box is correct before connecting the system to the mains.
• Always use the supplied mains cable.
• System connection. The individual parts must be connected before connecting the control box to the mains. See the User Manual for TBC actuators, if necessary.

During operation

• If the control box makes unusual noise or smells, switch off the mains voltage immediately.
• The maximum total load on the frame is 160 kg equally loaded, i.e. 80 kg on each column. The 160 kg include the tabletop.
• Duty Cycle: 5 %, Max. 1 min./19 min. pause
• Take care that the cables are not damaged.
• Unplug the mains cable on mobile equipment before moving it.
• The products must only be used in an environment, that corresponds to their IP protection.

Servicing of double-insulated products

In a double-insulated product, two systems of insulation are provided instead of grounding. No grounding means is provided on a double-insulated product, nor is a means for grounding to be added to the product. Servicing a double-insulated product requires extreme care and knowledge of the system, and is to be done only by qualified service personnel. Replacement parts for a double-insulated product must be identical to the parts they replace. A double-insulated product is marked with the words "Double insulation" or "Double insulated." The symbol (square within a square) ▣ is also able to be marked on the product.

Caution:
Do not stand or sit on console.

A level and sturdy foundation is required before console construction can begin. Incorrect installation could void your warranty. Have peace of mind by contacting a TBC certified technician. To locate one close to you, email support@tbcconsoles.com.

Desktop Care:

Clean the desktop by wiping it down with a microfiber cloth moistened with a standard household cleaning solution. Never use solvents or abrasive or corrosive compounds.
Reference our complete Desktop Care guide online.

Misc.
For further information, installation guidelines etc. for the motor system, please see the relevant user manual: www.tbcconsoles.com/Elevon

Repairs
In order to avoid the risk of malfunction, all Elevon® repairs must only be carried out by authorized TBC workshops or repairers, as special tools must be used and special gaskets must be fitted. Lifting units under warranty must also be returned to authorized TBC workshops.

⚠️ **Warning!**

If any of the Elevon products are opened, there will be a risk of subsequent malfunction.

⚠️ **Warning!**

The Elevon systems do not withstand cutting oil.

Save these instructions

Verify that you have all the parts required to assemble the console. Exact hardware and parts required are listed on the same page as the step where they are needed.

Assistance is required during some parts of the assembly; look for this symbol:

This system is a Elevon system developed for desks and for indoor use in offices. Do not use it in industrial kitchens or in other environments that have to be cleaned with aggressive detergents.
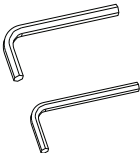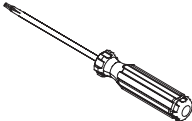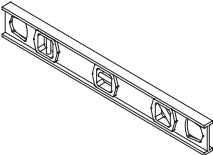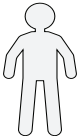
Warranty - 60 months on Elevon®

Products used in Elevon applications: If these products are used in another application, they will be covered by 18 months warranty.

If there is any doubt that returned products are within the warranty period, this must be treated as if they are covered by the warranty. We recommend that you use the date of the control box or actuator as reference, if possible. We will have our purchase no. printed on the label.

Read more about the warranty period of the motor-systems in the standard user manuals found on www.tbcconsoles.com/Elevon.

Maintenance
Clean dust and dirt off the outside of the system at appropriate intervals and inspect them for damage and breaks.
Inspect the connections, cables, and plugs and check for correct functioning as well as fixing points.
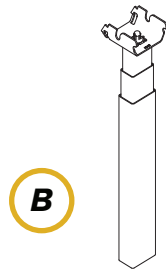
Tools Needed for Installation:

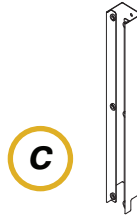| Tools Supplied	Tools Required for installation		
3/16" Hex Wrench 4mm Hex Wrench	Phillips Screwdriver	Level	Helper

For TBC replacement parts or to learn about other TBC products visit us online at tbcconsoles.com or call us at 1.888.CONSOLE
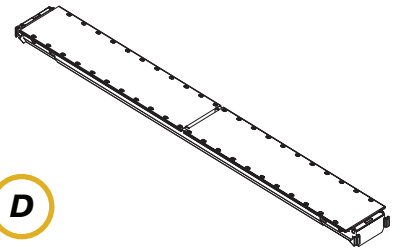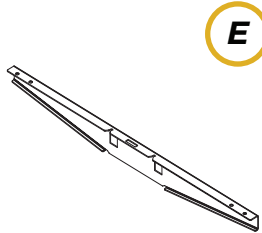
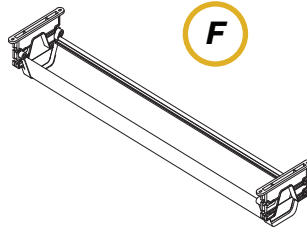**A**

Foot - Qty (2)

B
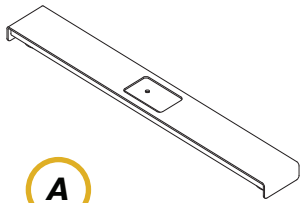
Column - Qty (2)
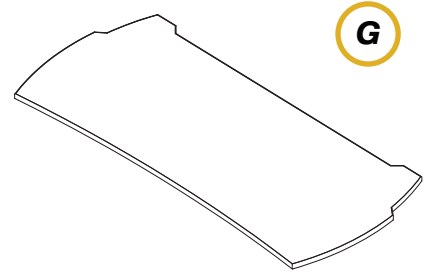Left & Right

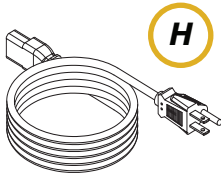**C**

Vertical cable
trough - Qty (1)

D

Beam - Qty (1)
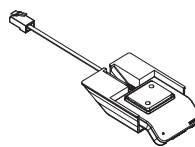
E

Cantilever Arm
Qty (2) Left & Right

F

Cable Core
Qty (1)

G

Countertop - Qty (1)

H

Power Cord - Qty (1)

I

Control Panel - Qty (1)
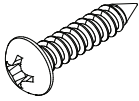
J
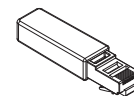
Anti-Collision Dongle -
Qty (1)

K
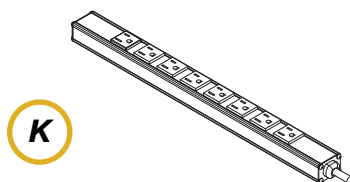
*Optional Power Strip
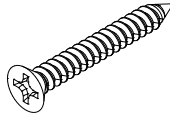Qty (1)

L
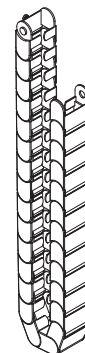
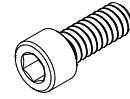*Optional Energy Chain
Qty (1)

AA

#8 X 3/4" Screw
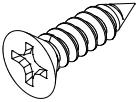2 Bay - Qty (16)

BB

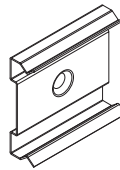#8 x 1 -1/4" Flathead Screw
Qty (2)

CC

M4 X 16mm Screw
Qty (8)

DD

#8 x 1/2" Wood Screw
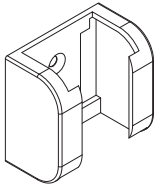Qty (2)

EE

*Optional
PS-815ET Mounting Plate
Qty (2)

FF

#8 X 5/8" Screw
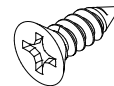Qty (8)
*Optional Qty (+2)

GG

*Optional
Chain Link Mounting Clips
Qty (2)
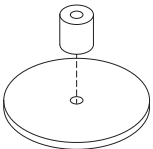
HH

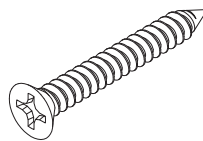*Optional
8-32 x 3/16" Machine Screw
Qty (4)

JJ

*Optional
#8 x 1/2" Wood Screw
Qty (2)

KK

Wire Collector (2 pieces)
Qty (1)

LL

#8 x 1-1/2" Flat Head Screw
Qty (1)

MM

Plastic Cable Clamp
Qty (1)

Building the Frame

Check the packaging and the delivered items for visible damage and ensure that the drive shaft is mounted correctly and not pulled apart.

Step 1

Place the beam (D) upside down on a level surface with all parts, hardware, and necessary tools nearby.

The beam must <u>not</u> be pulled completely apart in order not to pull the drive shaft apart.

Minimum adjustment in the connection end is 100 mm (4") (to keep the power and RJ45 sockets accessible), otherwise adjustable in 50 mm (2") steps.

Step 2

Mount the cantilevers (EE) by placing a cantilever slightly tilted at the end of the beam. Press the cantilever into place until a click is heard and the snap joint locks the cantilever in the correct position. Mount the other cantilever in the other end of the beam.

Check that the cantilever is placed correctly and cannot be twisted off the beam.

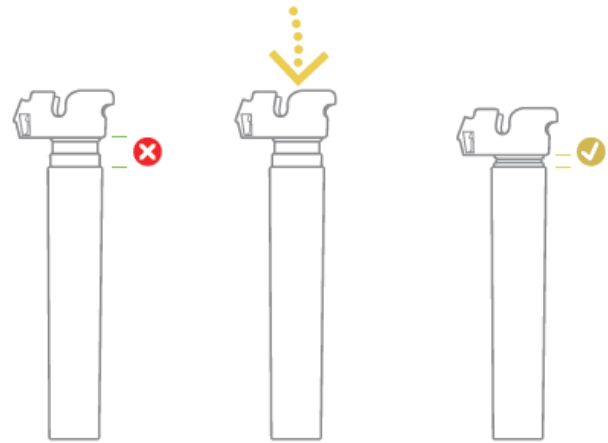Do not extract the beam using the cantilevers as handles.

Click!
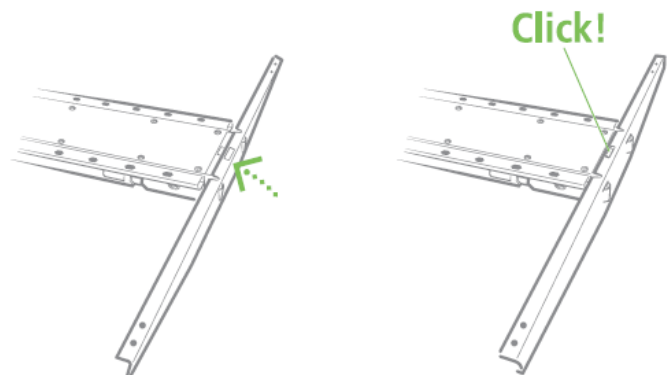
Step 3

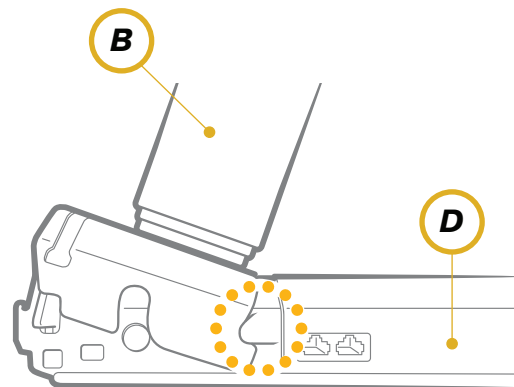Ensure that the columns (B) are completely retracted.

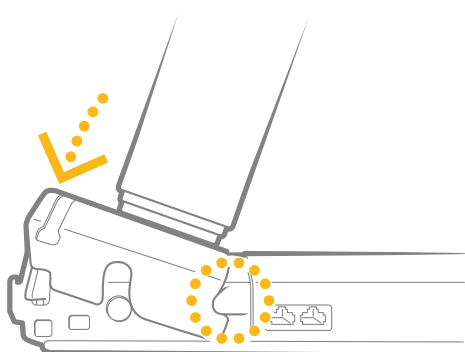👆 If the column extracts when turned upside down, press by hand to completely retracted position.

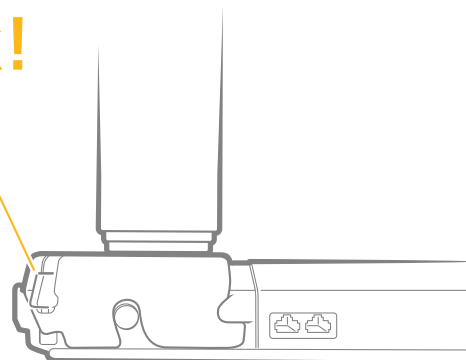## Step 4

Tilt the columns (B) and place them correctly on the beam (D) using the guiding notches.

B

D

Fix the column to the beam by pressing down until a "click" is heard and <u>both</u> pawls lock the column in the correct position.
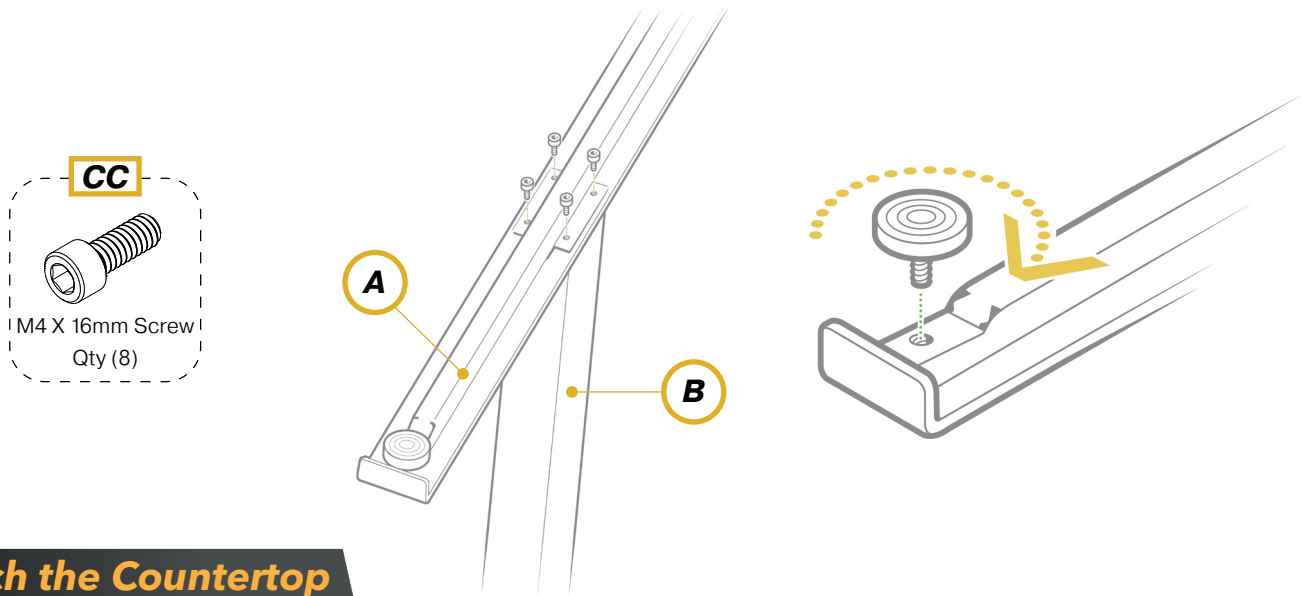
Click!

Check that both pawls are visible after mounting of the columns. Otherwise, remove the column and try again (see Disassembly, steps 4 and 5).

Step 5

Mount the feet (A) on the columns using eight M4 [CC] mounting screws. Install (4) leveler feet.

**CC**

M4 X 16mm Screw
Qty (8)

A

B

Attach the Countertop

Step 1

Place the assembly right side up. With a helper, position the counter top upon the assembly and ensure placement by aligning the pre-drilled holes. Fasten the assembly to the countertop using 20 mounting screws as follows:

- 8 [AA] screws at the ends of the beam.
- 4 [AA] screws at the extension points.
- 8 [FF] screws in the cantilevers.
- Use one of these to fix the mains cable to the beam with a cable clamp creating a cable relief, see Electrical System Step 4.
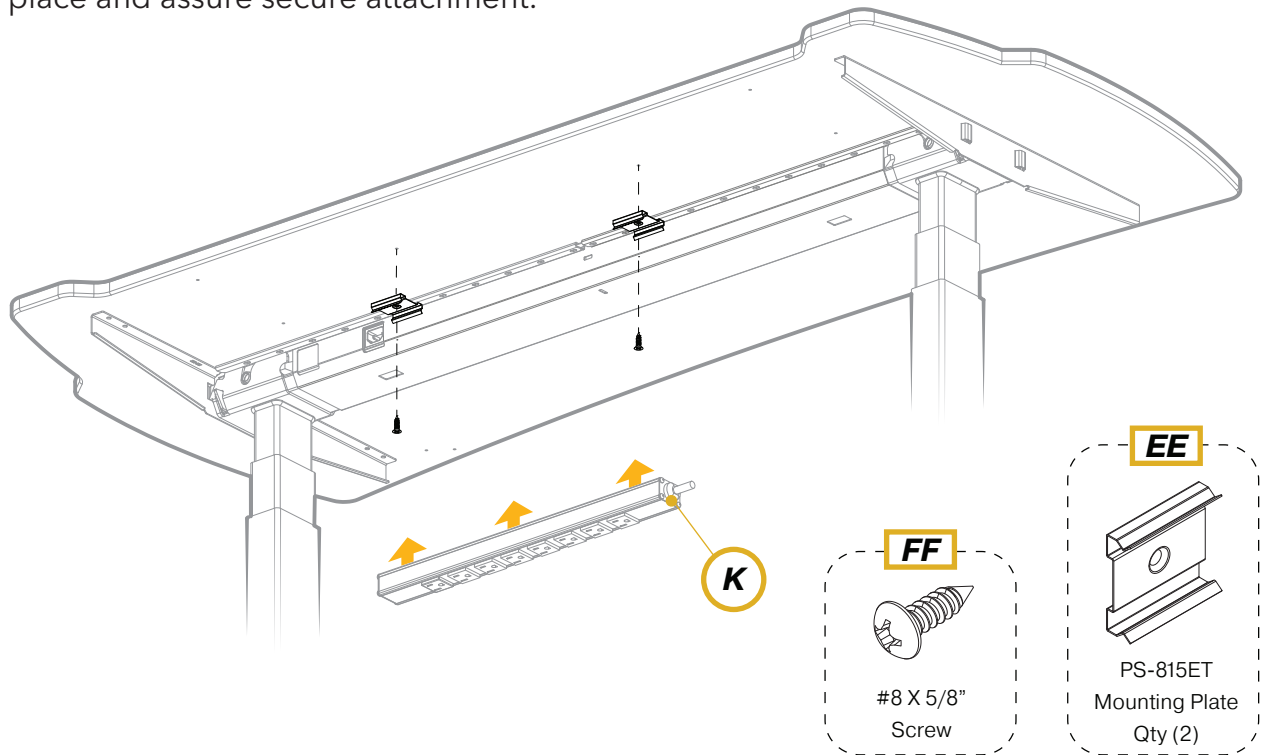
AA

#8 X 3/4" Screw
Qty (12)

FF
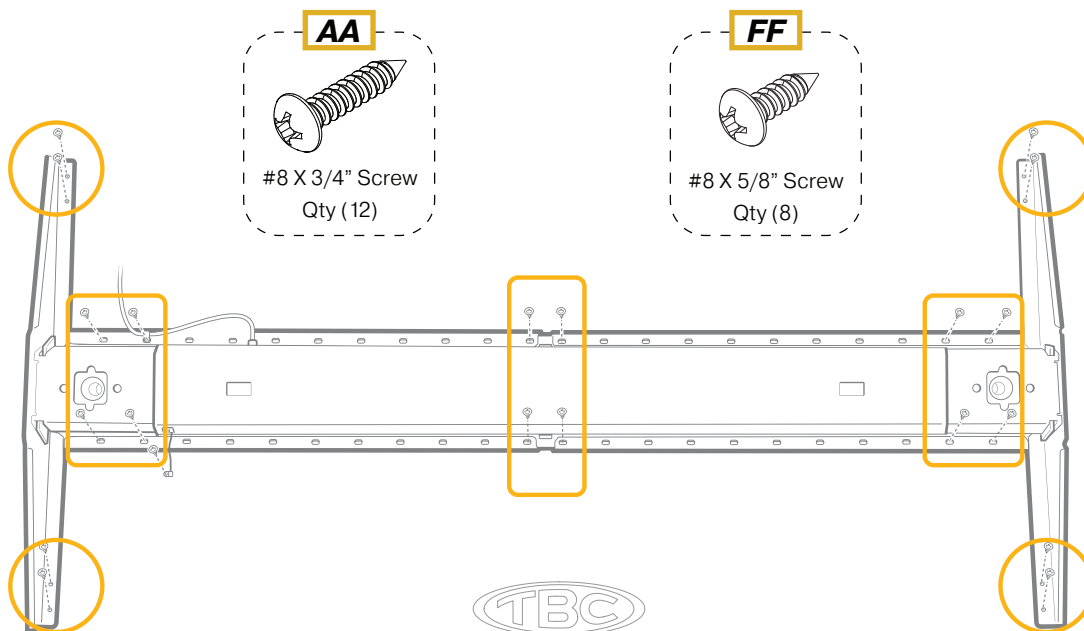
#8 X 5/8" Screw
Qty (8)

Power Strip Attachment *(Optional)*

Using the pre-drilled holes attach PS-815ET mounting plates [EE] to underside of countertop with (1) #8 x 5/8" screw [FF] on each side as shown. Clip the power strip in place and assure secure attachment.

K

FF

#8 X 5/8"
Screw

EE

PS-815ET
Mounting Plate
Qty (2)

Cable Core Attachment

With a helper, position the cable core (F) under the counter top and ensure placement by aligning with the pre-drilled holes. Fasten the assembly to the countertop using 4 [AA] mounting screws as shown.

AA

#8 X 3/4" Screw
Qty (4)

F

Electrical System
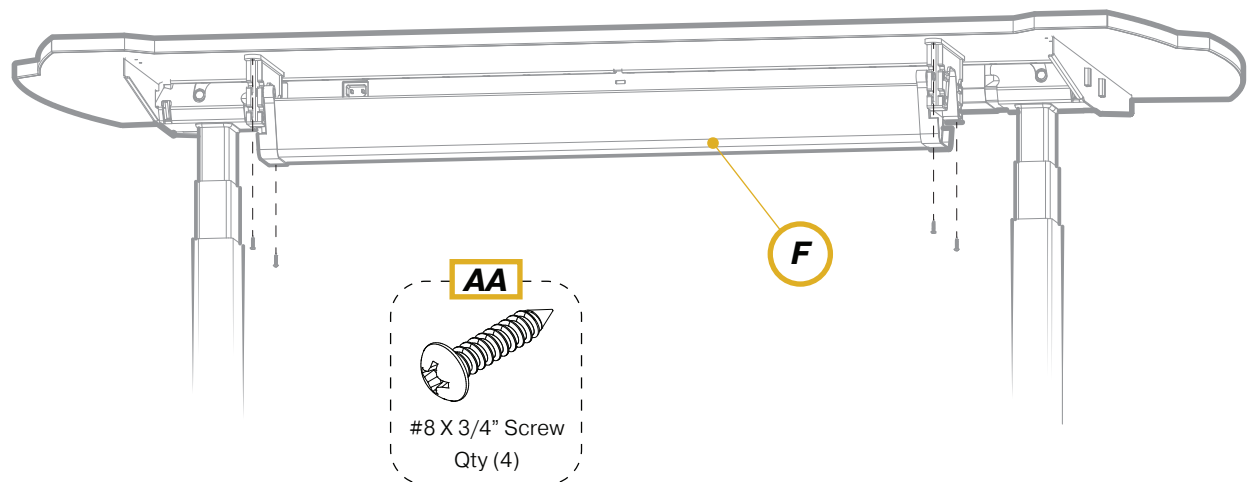
Step 1

Line up wire collector with backing plate (2 pieces) [KK] and fasten to countertop using a [LL] screw in position shown. Align height control panel (I) with pre-drilled holes and affix to bottom of the counter top using (2) [BB] screwns.

BB

#8 x 1 - 1/4"

I

Control Panel

LL

#10 x 1 - 3/4"

KK

2 part
Wire Collector
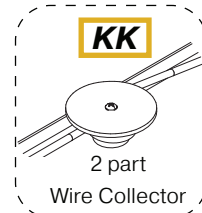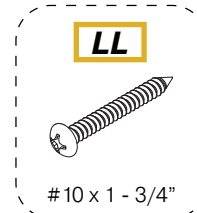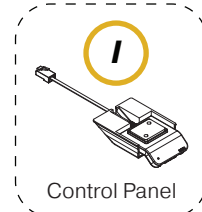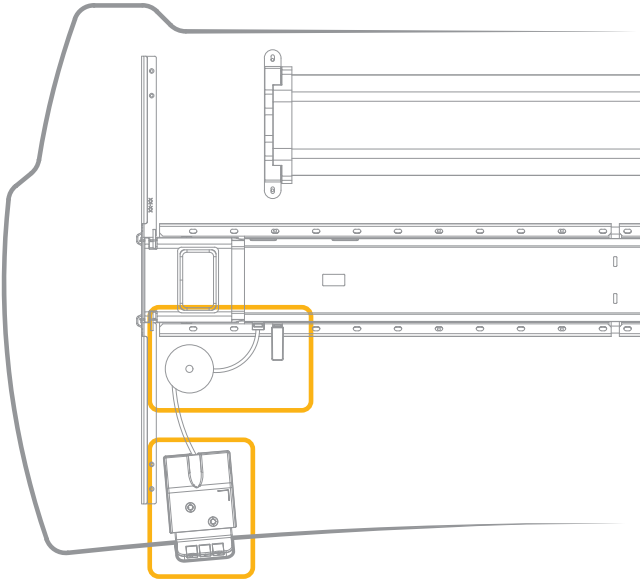
Step 2
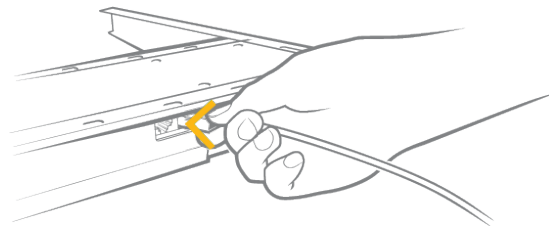
After wrapping excess wire around the wire collector on the underside of the countertop, connect the desk panel in one of the RJ45 sockets and the anti-collision controller into the other.
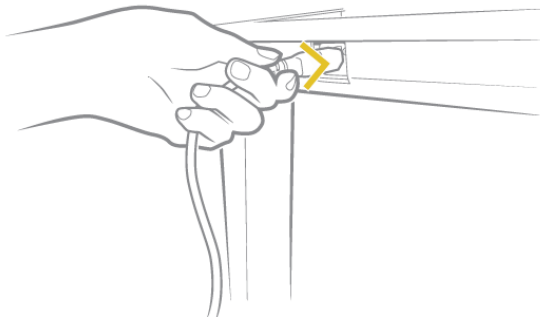
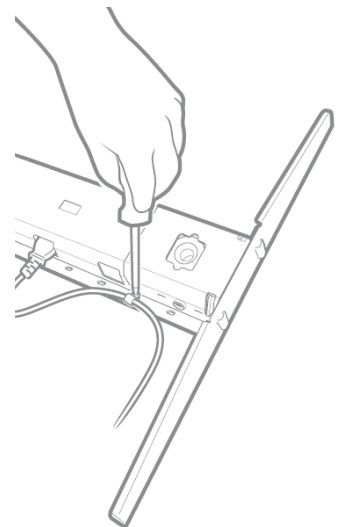Ensure that only one desk panel at the time is connected

Step 3

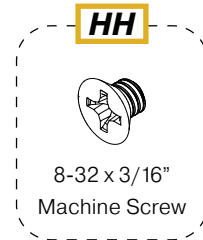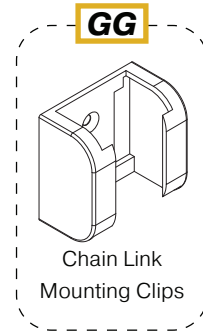Connect the power cable.

Step 4

Ensure to make a cable relief using the cable clamp when fastening the cable to the tabletop.

(Optional)

Step 1

Affix one of the chain link mounting clips [GG] on to the vertical cable trough (C) using (2) 8-32 x 3/16" [HH] machine screws.

GG

Chain Link
Mounting Clips

HH

8-32 x 3/16"
Machine Screw

C

GG
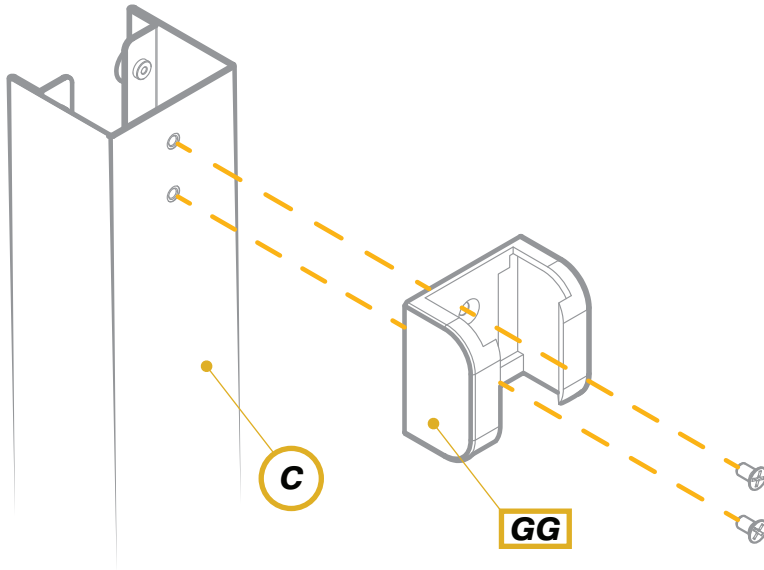
Step 2
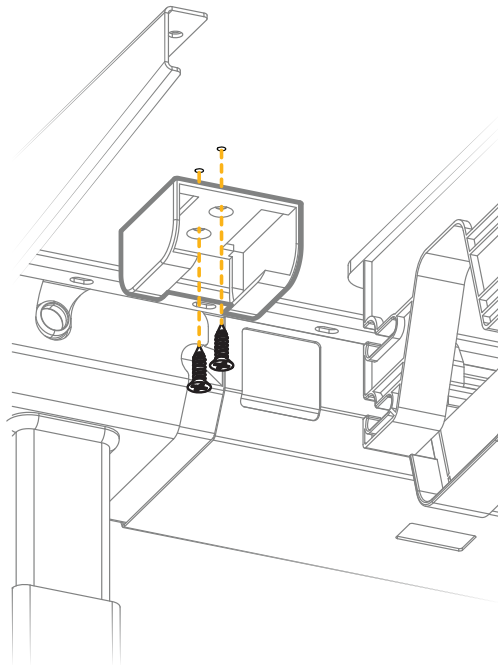
Locate the pre-drilled holes (behind either the left or right column) on the underside of the countertop and fasten the other chain link mounting clip using (2) 8 x 1/2" [JJ] wood screws.

JJ

8 x 1/2"
Wood Screw

Step 3

After installing the vertical cable trough on the back of the coulmn using the magnetic connection points, attach the Energy chain to both chain link mounting clips by compressing the chain end and fitting it into the clip.

Disassembly

For disassembling the Elevon, use a disassembly tool (included).

1. Drive the desk to its minimum height so the columns are completely retracted.
2. Disconnect from the mains supply.
3. Turn the table upside down.
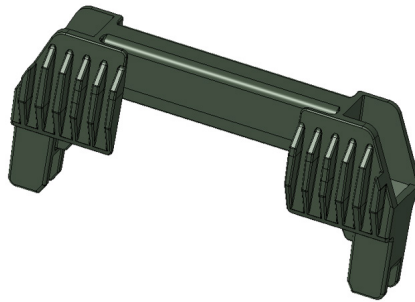4. Disconnect, unscrew and remove the desk panel.
5. Unscrew and remove the feet.
6. Place the disassembly tool on the beam with the ridges facing towards the cantilever.
7. Press straight down to loosen the cantilever and make pawl release the column.

8. At the same time press the disassembly tool down and tilt the column to remove it from the beam.
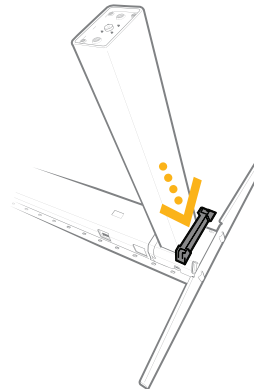
9. Unscrew the beam from the tabletop.
10. Twist the cantilever slightly to release it from the beam.
11. Disassemble the rest of the system.

Operation Tips
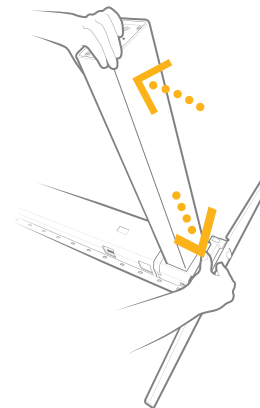
Initialization:
Push the arrow downward button, keep the pressure on the button for at least 6 seconds after all legs have reached the bottom position. If there is an error then this may need to be done twice in succession to properly initialize your Elevon desk.

Desk Speed Optimization:
Raise the desk upwards until it reaches its max position, next lower the desk 3 to 4 inches then raise the desk until it reaches its max height again, At this point the desk is ready for usage at maximum speed.

Important:
Elevon has a great feature which prevents overheating of the system. The temperature of the motor and the electronics is calculated by the SW during use and it depends on load, run time, etc. The Elevon duty cycle is 5 % ≈ 1 minute continuous use at full load, followed by 19 minutes pause. If the Elevon is being used beyond the duty cycle, the system gets hot and stops, and the DPG will show error code E90. After a few minutes break, the Elevon will be able to run for another stroke. However, to cool down the system to factory settings, the Elevon must cool for at least 2 hours with the mains plugged in.

Please note:
If you disconnect mains, the Elevon SW cannot work and thus not calculate the temperature. When the system is powered on again, the SW will continue to calculate using the data from when the mains was disconnected.

Most Common Error Codes

Error States	Name	Description	Error States	Error States
E01	Position lost	The desk has an unknown position and needs to be initialized.	Position Error	Perform Initialization (See Operation Tips)
E02	Overload up	Overload upwards has occurred	Ht. Obstruction / Excessive weight	Remove weight from desk
E03	Overload down	Overload downwards has occurred	Ht. Obstruction / Excessive weight	Remove weight from desk
E017	Channel 1 missing	Channel 1 is detected missing	Disconnection	Check Channel 1 cable connections
E018	Channel 2 missing	Channel 2 is detected missing	Disconnection	Check Channel 2 cable connections

The Error Codes listed above are the most common. If the Action is performed and does not clear the Error Code, **Contact Technical Support 1-888-266-7653 (support@tbcconsoles.com)**

Notes

- TBC Consoles provides a robust warranty on all our products, however, incorrect installation could void this warranty. Save time by engaging with our expert installation team, contact support@tbcconsoles.com

- All patterns, designs, and specifications are the intellectual property of TBC Consoles and may not be reproduced without prior written consent.

- These assembly instructions are meant as a guide. As we provide custom consoles based on a modular standard design, it is not possible to cover all possible customizations. In the event that a customization applies for your project beyond this guide then a detailed drawing or additional instructions will be provided.