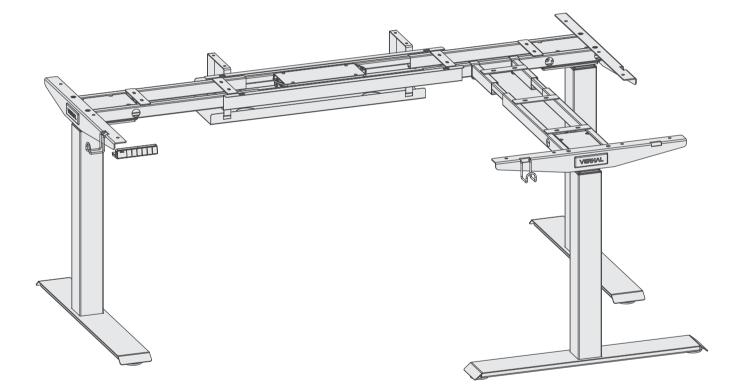
VERNAL Standing Desk



For assembly assistance,

- US: E-Mail: service-us@vernalspace.com Hotline: +1 213-429-4099 (Mon-Fri. 10am-12am;1pm-6pm CST)
- UK: E-Mail: service-uk@vernalspace.com Hotline: +44 7380 307916 (Mon.-Fri. 7am-10am; 11am-5pm UTC)

Installation Video

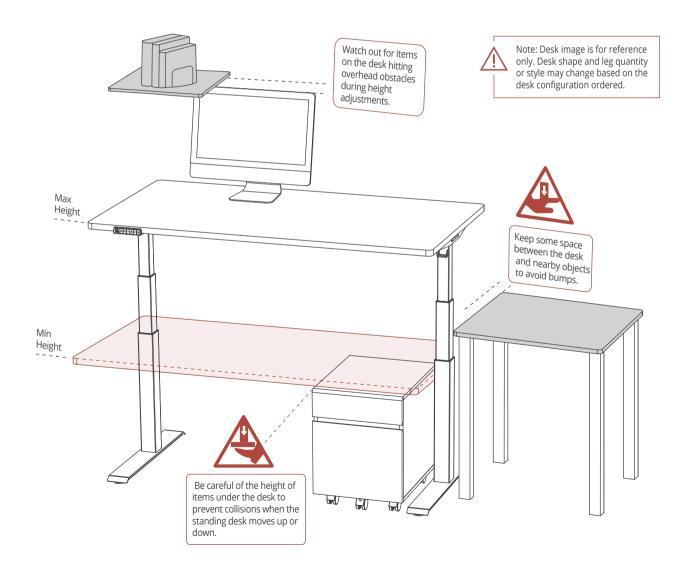




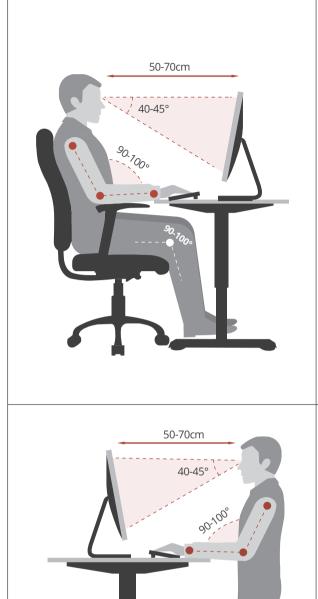
Caution

- Keep children and animals away from the desk during use. Ensure the desktop is not touching any walls.
- Remove obstacles taller than 20"/51cm from underneath the desk.
- Operate only in a working environment temperature of 32°F-104°F/0°C-40°C.
- Keep product away from corrosive gases, liquids and dusty objects.
- Keep hands, feet and other body parts in a safe position during operation. Anti-collision is not automatically enabled during all resets.
- It is necessary to perform a manual reset after the initial installation or power cycling the equipment.
- Lightly tighten each screw, but do not fully tighten it. Do not tighten the screws involved in each step until the end of that step.

Warnings for the Use Environment of the Height-Adjustable Desk



Healthy Working Habit



Sitting Reference

1. Desk Height

- The desk height should match the user's height, allowing the arms to rest naturally on the desk with a 90° bend at the elbows.
- Reference height (DIN standard, Germany): Generally recommended to be 70-75cm for regular desks, with adjustable desks covering a range of 65-125cm.
- Adjustment guidance: Utilize the height memory presets of the adjustable desk to save frequently used sitting desk heights.

2. Chair Height and Sitting Posture

- The chair height should enable the user to place both feet flat on the ground, with knees and hips forming an angle of 90° to 110°.
- The chair should have height adjustment capabilities and lumbar support, with the backrest providing adequate coverage for the lumbar region.
- German VBG guidelines: The backrest angle should be adjustable within a range of 90°-120° to promote dynamic sitting and alleviate pressure on the lower back.

3. Monitor Position

- The top of the monitor should be at or slightly below eye level, with the screen center positioned 15°-20° below the line of sight.
- The distance between the screen and the eyes should be 50-70cm (as recommended by NIOSH, USA).

4. Posture Recommendations

- The back should naturally align with the backrest, and the shoulders should remain relaxed.
- Wrists should be in a neutral position to avoid excessive flexion or extension.

Standing Reference

1. Desk Height

- The desk height should be slightly above the elbows, allowing the arms to bend at a 90° angle with the wrists resting naturally.
- Reference height: While standing, the desk height should be set to 50%-60% of the user's height (e.g., for a height of 170cm, the desk height should be approximately 85-105cm).

2. Monitor Position

- The top of the monitor should align with the user's eye level, with the screen center positioned at a 10°-15° downward viewing angle.
- Maintain a distance of 50-70cm between the screen and the eyes.

3. Standing Posture Adjustment

- Stand with feet naturally spaced shoulder-width apart, with knees slightly bent to avoid prolonged rigid standing.
- Use an anti-fatigue mat (recommended thickness: 1.5cm-2cm) to reduce pressure on the feet.

4. Dynamic Work Recommendations

- German Healthy Workplace Guidelines: Advocate for the "Sit-Stand-Walk" cycle during the workday: 50% sitting, 25% standing, and 25% walking.
- OSHA (USA): Alternate between sitting and standing every 30-60 minutes, ensuring regular body stretching and movement.

Additional Notes

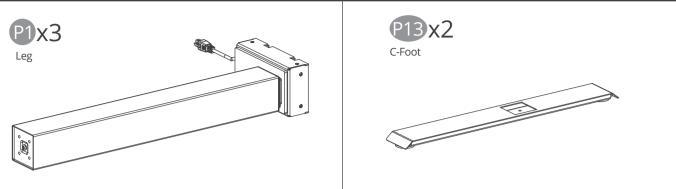
Lighting and Screen Glare

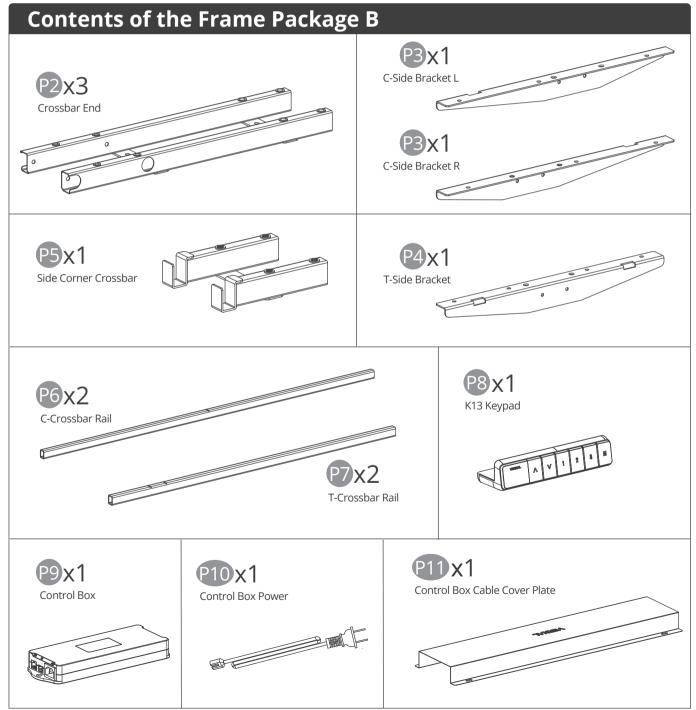
- German Standard DIN 5035: Workspace lighting should be 500-1000 lux to avoid screen glare and reduce eye strain.
- NIOSH Recommendation (USA): Use monitors or accessories with blue light filtering features.

Keyboard & Mouse Setup

- Keep the keyboard tilt between 0°-15° (per HFES 100 standards in the USA).
- · Position the mouse at the same height as the keyboard, with its range of motion within half your shoulder width.

Contents of the Frame Package A

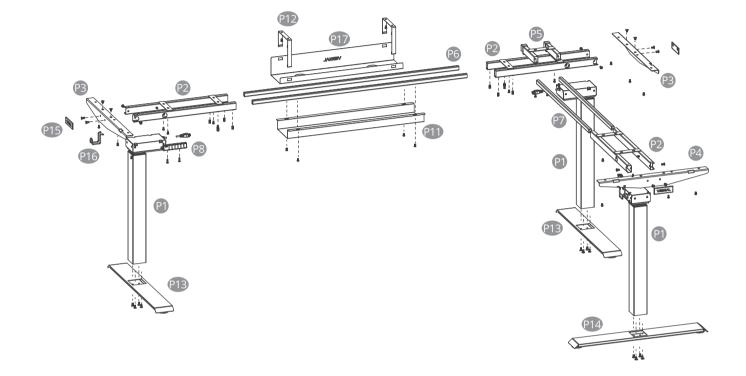




Contents of the Frame Package B



Product Exploded View



Left Installation and Right Installation Methods



Right Installation Method





Unbox and Identify Your Parts

Step 1 - Parts List

A. Pre-Assembly Preparation

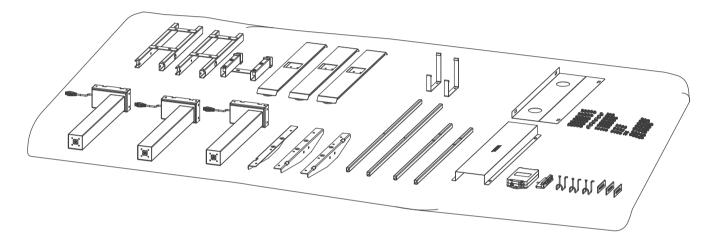
Hey there! To make things easier (and safer), we recommend having 2-3 people help out with the assembly. Before you start, think about where the desk will go and make sure there's enough room to set it up. Since the desk is pretty big and needs to be flipped over after assembly, double-check that the space is large enough. If not, you might need to move the desk somewhere else after putting it together. Because this is a height-adjustable desk, make sure it's got plenty of clearance from anything that could get in the way when it moves up or down – like shelves or cabinets on the wall. If you're using the P8 (K13 Keypad), you can set height limits to avoid bumping into stuff.

B. Protecting the Floor and Desktop

To keep your floors or desktop from getting scratched, we recommend setting up the desk on a carpet or blanket – just something soft and free of debris.

C. Check Parts and Packaging

Before you toss out any packaging, make sure you've got all the parts and hardware. Lay everything out from the boxes and double-check that all the pieces and numbers match the "Packing List" in this manual.

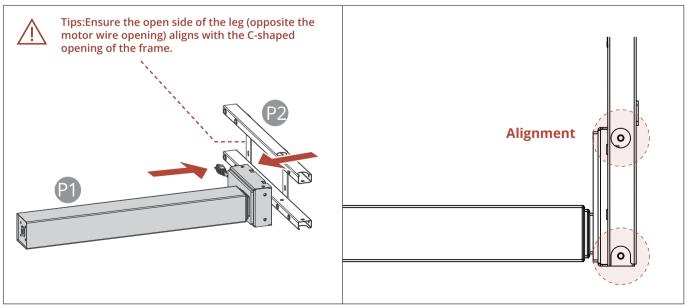


Instructions for Assembling the Frame and Legs

Step 2 - Install Crossbar End

A. Lay one of the P1 (Legs) and the P2 (Crossbar End) on their sides, as shown in the diagram.

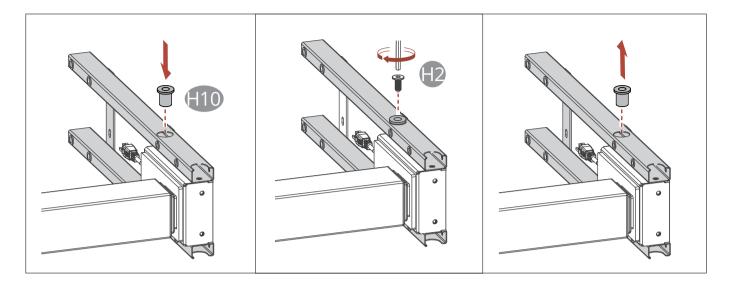
B. Align the motor box screw holes on one of the P1 (Legs) with the screw holes on the side of the frame. Make sure to use the correct alignment holes, as indicated in the diagram.



C. Using the Allen Wrench (H1), insert 4 M6x18 Flat Head Screws (H2) through the holes in the crossbar end and into the leg. Do not fully tighten the screws at this stae.

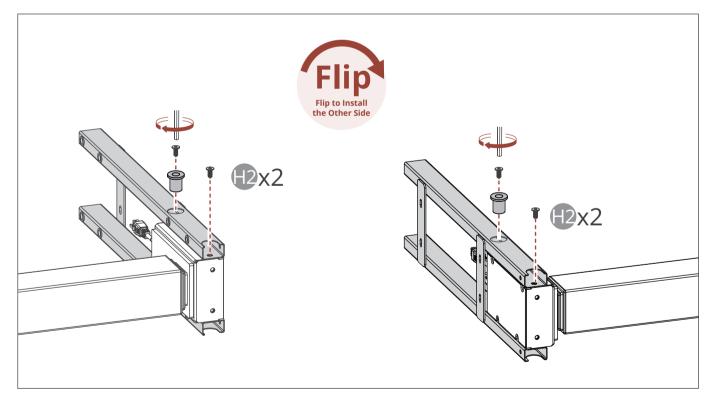


Tips: To prevent Screws from repeatedly falling into the P2 (Crossbar End) tube, use the H10 (Screw Guide Sleeve) during assembly. Insert the sleeve as shown, then remove it and reuse it on the opposite round opening.



D. Once all 4 screws are in place, fully tighten them using the H1 (M6 Allen Wrench).

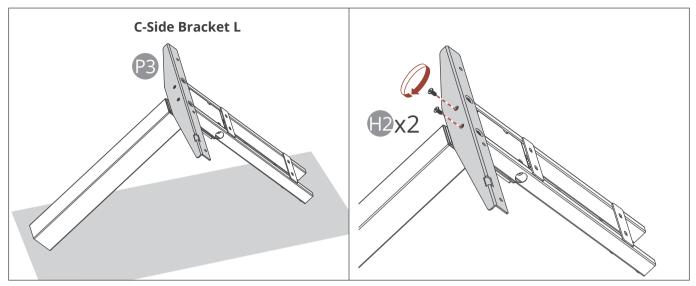
E. Repeat this process for the remaining 2 P1 (Legs).



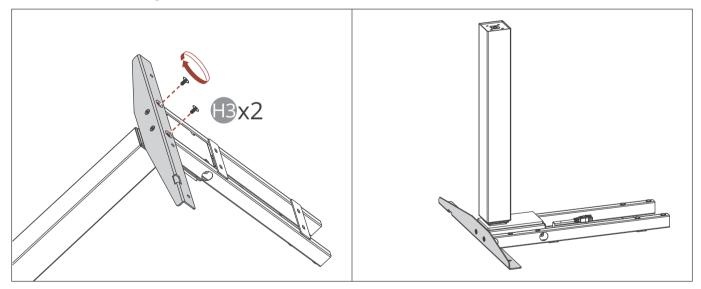
Step 3 - Install C-Side Bracket (Left)

Once all 4 screws from Step 3 are inserted, use the H1 (M6 Allen Wrench) to fully tighten them.

A. Align the side screw holes of the P3 (C-Side Bracket) with the holes on the side of the P1 (Leg) near the motor. Insert two H2 (M6 x 18mm Flat Head Screws) as shown in the diagram.



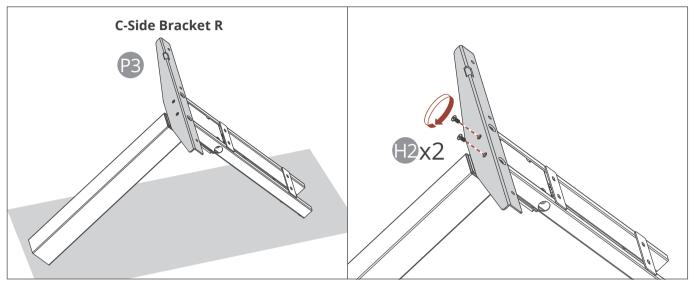
B. Align the top screw holes of the P3 (C-Side Bracket) with the holes on top of the P2 (Crossbar End). Insert two H3 (M6 x 18mm Flat Head Screws) as shown in the diagram.



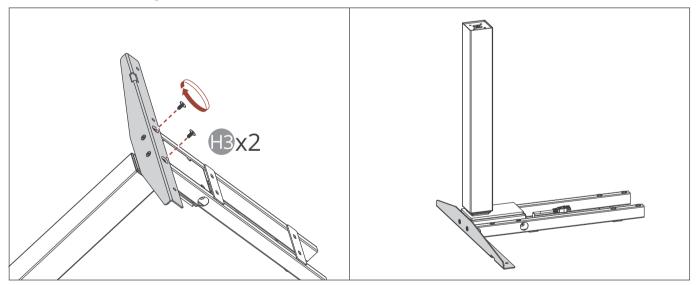
Step 4 - Install C-Side Bracket (Right)

Once all 4 screws from Step 4 are inserted, use the H1 (M6 Allen Wrench) to fully tighten them.

A. Align the side screw holes of the P3 (C-Side Bracket) with the holes on the side of the P1 (Leg) near the motor. Insert two H2 (M6 x 18mm Flat Head Screws) as shown in the diagram.



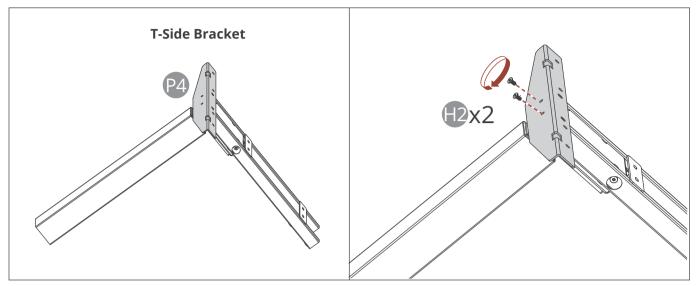
B. Align the top screw holes of the P3 (C-Side Bracket) with the holes on top of the P2 (Crossbar End). Insert two H3 (M6 x 18mm Flat Head Screws) as shown in the diagram.



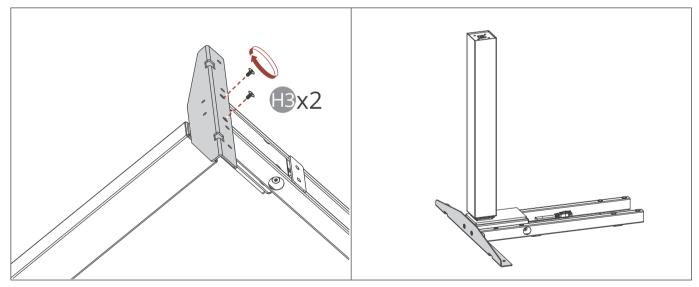
Step 5 - Install T-Side Bracket

Once all 4 screws from Step 4 are inserted, use the H1 (M6 Allen Wrench) to fully tighten them.

A. Align the side screw holes of the P4 (T-Side Bracket) with the holes on the side of the P1 (Leg) near the motor. Insert two H2 (M6 x 18mm Flat Head Screws) as shown in the diagram.



B. Align the top screw holes of the P4 (T-Side Bracket) with the holes on top of the P2 (Crossbar End). Insert two H3 (M6 x 18mm Flat Head Screws) as shown in the diagram.



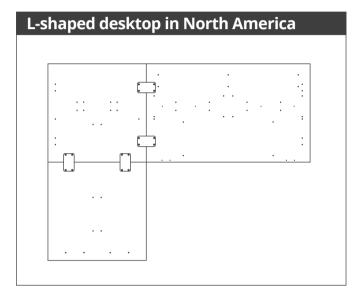
Side Corner Crossbar Mounting Holes and Identifying the Desktop

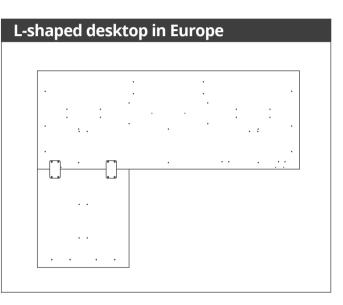
Step 6 - Identify Desktop Configuration

hank you for purchasing the Vernal L-Standing desk.

- A. If you chose a desktop from Vernal, place the side with the exposed embedded nuts facing up this will be the surface you use to assemble the desk.
- B. If you purchased an L-Standing desk with an L-shaped desktop in North America, your desktop will consist of three parts: Main desktop (T1), Extension desktop (T2), and Return (T3).
- C. If you purchased an L-Standing desk with an L-shaped desktop in Europe, your desktop will consist of two parts:
- In the UK, you will receive the Main desktop (T1) and Return (T2).
- In Germany, you will receive the Haupttischplatte (T1) and Erweiterungsplatte (T2).

Assemble the left or right L-Standing desk according to your needs before proceeding with the next steps to connect the frame to the desktop. Follow the corresponding installation method based on the desktop configuration you have.

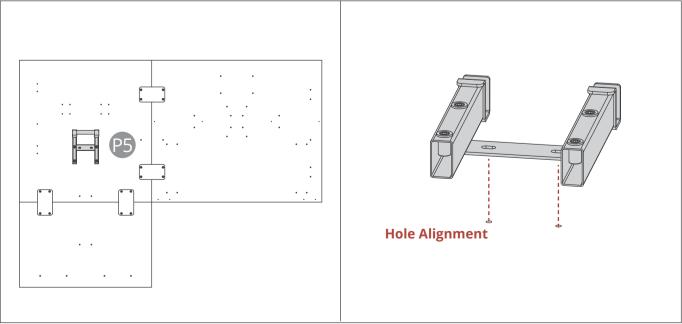




Step 7 - Align Side Corner Crossbar Mounting Holes

US: A. Align the P5 (Side Corner Crossbar) with the holes on the T2 (Extension desktop).

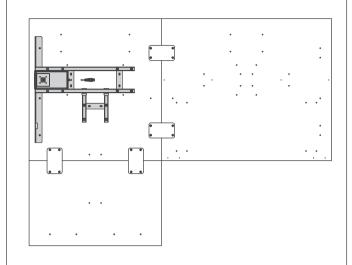
UK: A. Align the P5 (Side Corner Crossbar) with the holes on the T1 (Main desktop).

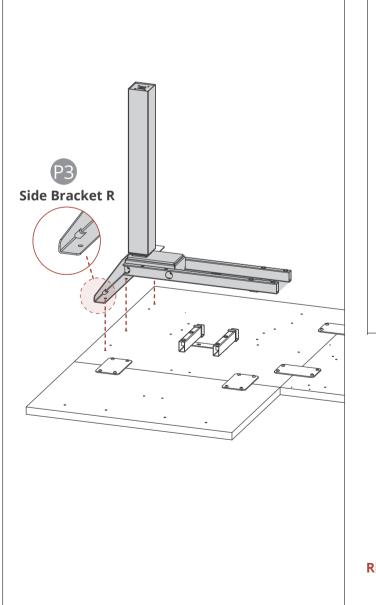


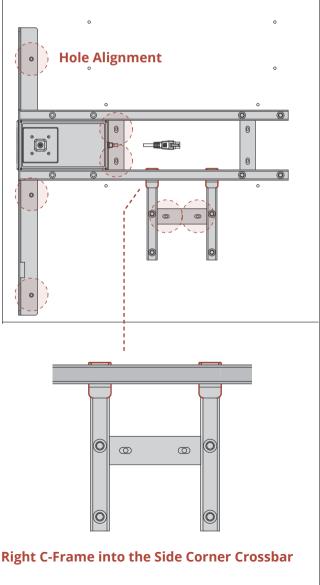
Step 8 - Press the Right C-Frame into the Side Corner Crossbar

For Right L-Standing Desk Desktop Configuration:

- A. Press the assembled right frame's P2 (Crossbar End) into the hooks of the P5 (Side Corner Crossbar).
- B. Ensure that the P5 (Side Corner Crossbar) aligns with the corresponding holes on the desktop.



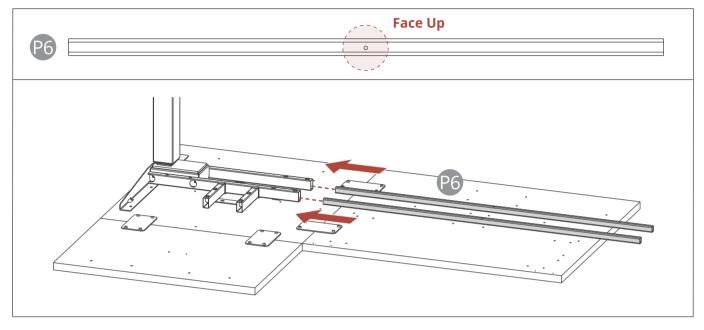




Step 9 - Insert C-Crossbar Rail

A. Slide the P6 (C-Crossbar Rail) into the P2 (Crossbar End) of the right C-frame leg assembly, as shown in the diagram.

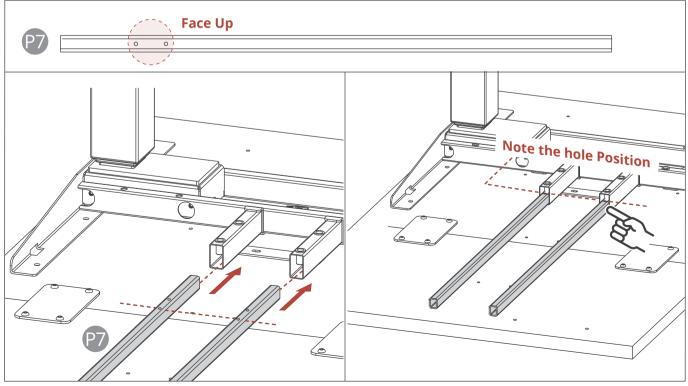
Important Note: The P6 (C-Crossbar Rail) is the longer rail designed for use with the C-frame on the T1 (Main desktop). Using the wrong rail will prevent further assembly of the desk.



Step 10 - Insert T-Crossbar Rail into the Side Corner Crossbar

A. Slide the P7 (T-Crossbar Rail) into the P5 (Side Corner Crossbar) of the leg assembly, as shown in the diagram.

Important Note: The P7 (T-Crossbar Rail) is the shorter rail designed for use with the T-frame on the T2 (Extension desktop) and desktop extensions. Using the wrong rail will prevent further assembly of the desk.



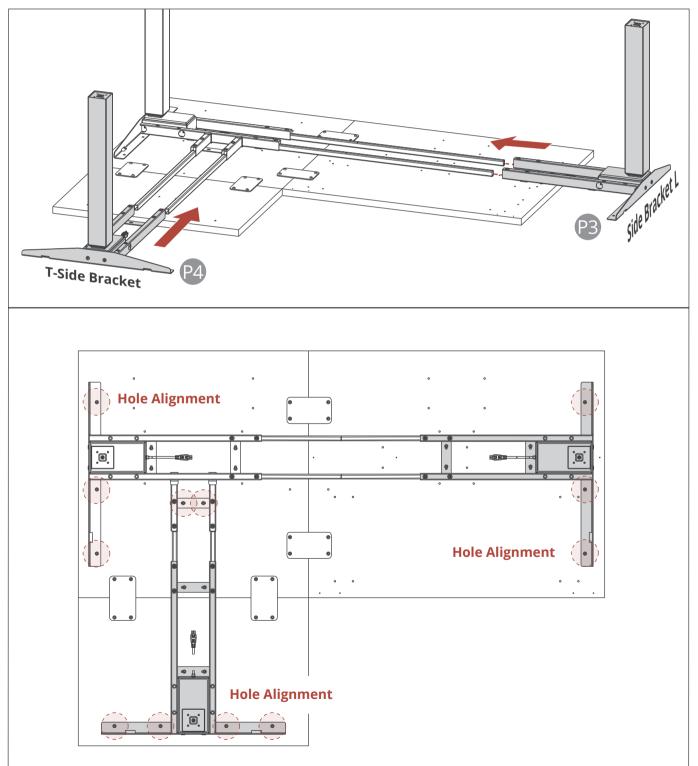
Step 11 - Place the T-Frame and Left C-Frame onto the Desktop and Insert the Crossbar Rail

A. Insert the P2 (Crossbar End) of the T-frame assembly into the P7 (T-Crossbar Rail) on the desktop, as shown in the diagram.

B. Align the P4 (T-Side Bracket) of the T-frame with the corresponding holes on the Return(T3-US)(T2-DE/UK).

C. For Right L-Standing Desk Desktop Configuration:

Place the left C-frame assembly on the desktop and insert the P2 (Crossbar End) into the P6 (C-Crossbar Rail) on the desktop, as shown in the diagram.

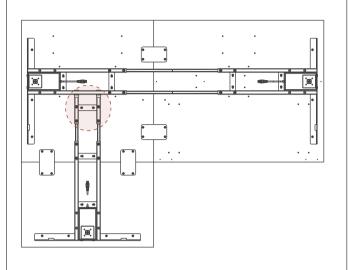


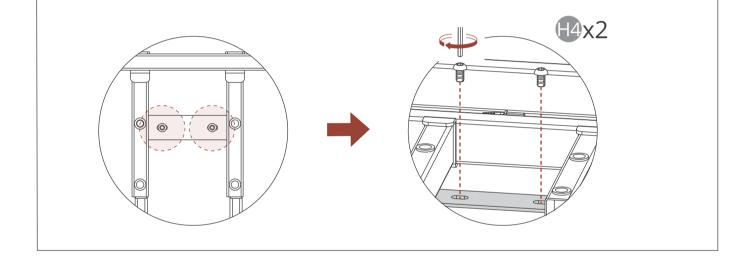
Step12 - Install Side Corner Crossbar

- A. Align the P4 (T-Side Bracket) of the T-frame with the corresponding holes on the T3 (Return) in the US or T2 (Return) in Germany/UK. Align the P5 (Side Corner Crossbar) with the corresponding holes, ensuring the T-frame remains perpendicular to the P5 (Side Corner Crossbar).
- B. Align the P5 (Side Corner Crossbar) with the corresponding holes and secure it by inserting two H4 (M6 x 10mm Machine Screws), as shown in the diagram.



When using a Vernal brand desktop: H4-M6x10 When using a non-Vernal brand desktop without pre-installed nut holes for alignment: H9-ST4.8x13.5





Step 13-Secure C/T Frame

Tip: Choose the correct screws for installation based on the threaded metal inserts (embedded nuts) or pre-drilled holes in the desktop.

When using a Vernal desktop

- A. Align the screw holes on the P3 (C-Side Bracket) and P2 (Crossbar End) with the embedded nuts on the desktop, as shown in the diagram.
- B. In the next steps, use H4 (M6 x 10mm Machine Screws) to secure the side bracket to the desktop. Do not fully tighten the screws yet - wait until all screws from this step are inserted before tightening them completely.

When using a non-Vernal desktop without aligned embedded nut holes

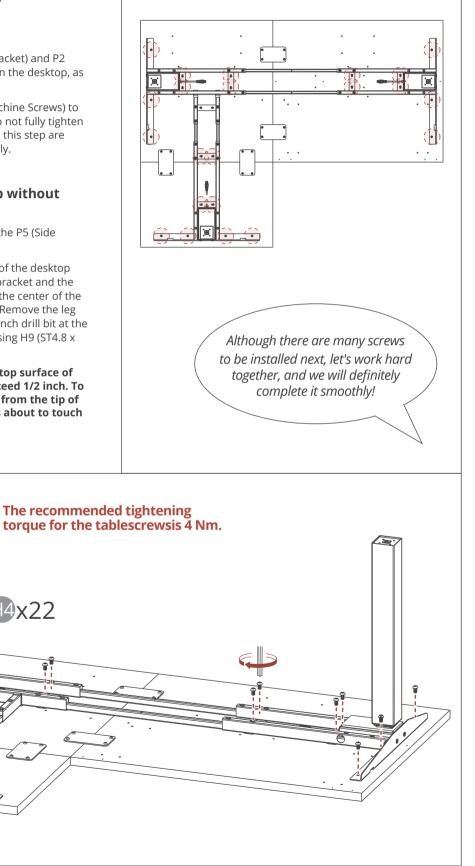
- A. Press the right C-frame into the hooks of the P5 (Side Corner Crossbar) and push it down firmly.
- B. Keep the side bracket level with the edge of the desktop and find a distance you like between the bracket and the desk edge. Once the position is set, mark the center of the screw holes on the desktop with a pencil. Remove the leg assembly and drill pilot holes using a 1/8-inch drill bit at the marked pencil points. Secure the frame using H9 (ST4.8 x 13.5mm Wood Screws).

Important Note: Do not drill through the top surface of the desktop. The hole depth must not exceed 1/2 inch. To ensure this, wrap a piece of tape 1/2 inch from the tip of the drill bit. Stop drilling when the tape is about to touch the desktop.

ĩ

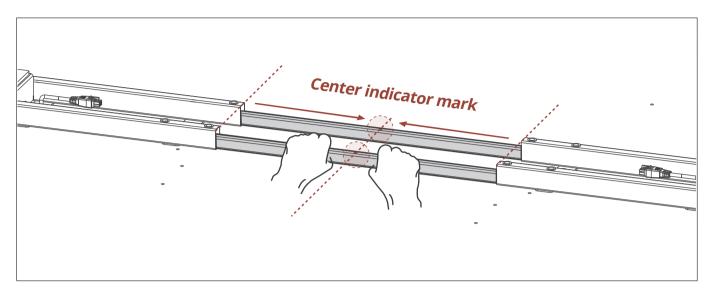
14x22



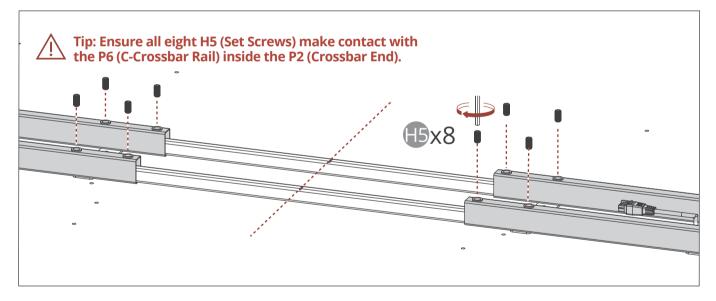


Step 14- Position C-Center Rail

A. Slide the P6 (C-Crossbar Rail) left or right until the center indicator mark is roughly positioned between the two P2 (Crossbar Ends).

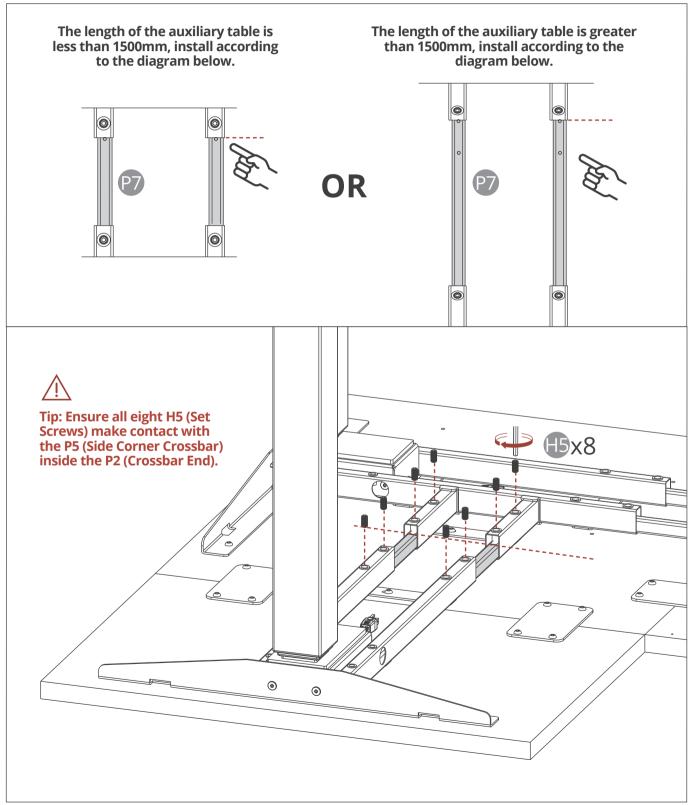


B. Insert four H5 (M8 x 16mm Set Screws) into each P2 (Crossbar End) and tighten them.



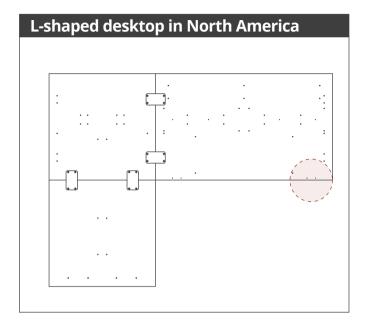
Step 15 - Position T-Center Rail

- A. Slide each P7 (Side Corner Crossbar) left or right within the T-frame until the indicator mark is roughly positioned between the P2 (Crossbar End) and the side of the P5 (Side Corner Crossbar).
- B. Insert four H5 (M8 x 16mm Set Screws) into each P2 (Crossbar End) and tighten them.



Instructions for Installing the K13 Keypad and Control Box

Step 16 - Install Keypad



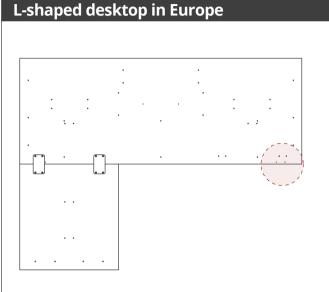
The desktop has two sets of pre-drilled holes on each side to allow for left or right placement of the P8 (K13 Keypad).

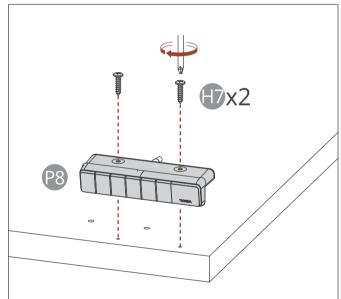
If your desktop does not have pre-drilled holes for installing the P8 (K13 Keypad), place the keypad in the approximate position shown in the diagram.

Refer to Step 5 to drill pilot holes for the keypad, but be careful not to drill through the top surface of the desktop.

- A. Choose the side of the desktop where you want to install the keypad. Keep in mind that the desk is currently upside down during assembly, so once flipped upright, the keypad will be on the opposite side.
- B. Align the keypad with the pre-drilled holes that best match the keypad mounting holes.
- C. Use a Phillips screwdriver to secure the keypad to the desktop with two H7 (ST3.5 x 15mm Wood Screws).

Avoid overtightening to prevent the screws from stripping.

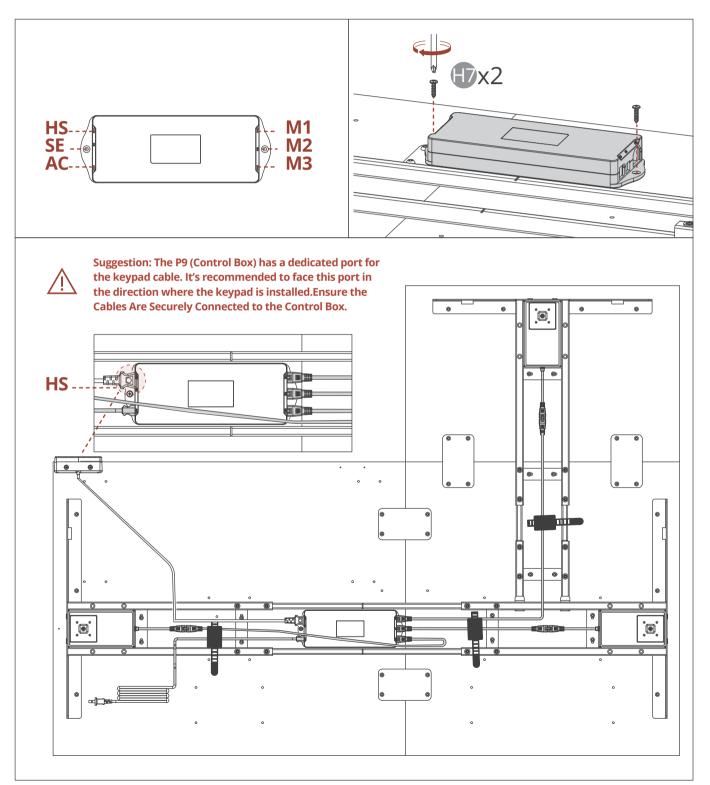




Instructions for Installing the K13 Keypad and Control Box

Step 17 - Install Control Box

- A. The desktop has pre-drilled holes at the center of the adjustable frame for installing the P9 (Control Box). Use a Phillips screwdriver and secure the control box to the desktop with two H7 (ST3.5 x 15mm Wood Screws).
- B. Plug the P10 (Control Box Power Cable) into the port labeled "AC" on the P9 (Control Box).
- C. Connect both ends of the control box cable to the motor wires and the P9 (Control Box). (The cables connect the left and right legs to the control box, allowing the desk to function once powered.)
- D. Plug the keypad cable into the appropriate port on the P9 (Control Box).



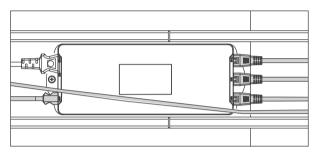
Accessory Installation Instructions

Tip: Use H8 (Cable Mounts) or other cable management solutions to organize any excess cables at this point.

Step 18 - Install Control Box Cable Cover Plate

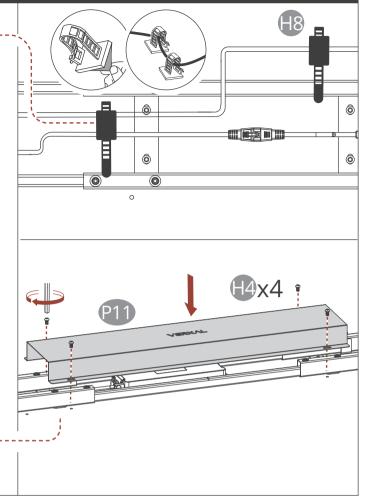
Before proceeding with installation, ensure the following connections are secure:

- Both motor cables are firmly connected to the P9 (Control Box).
- The keypad cable is securely plugged into the P9 (Control Box).
- The P10 (Control Box Power Cable) is properly connected to the P9 (Control Box).



A. Align the P11 (Control Box Cable Cover Plate) with the embedded nut holes on the desktop, and secure it using H4 (M6 x 10mm Machine Screws).

When using a Vernal brand desktop: H4-M6x10 When using a non-Vernal brand desktop without pre-installed nut holes for alignment: H9-ST4.8x13.5



Step 19 - Install Wire Management Tray Hook

Most Vernal desktops have four embedded nuts near the rear of the desktop for installing the included P12 (Wire Management Tray Hook). Before installation, ensure the P12 (Wire Management Tray Hook) is positioned correctly, as shown in the diagram.

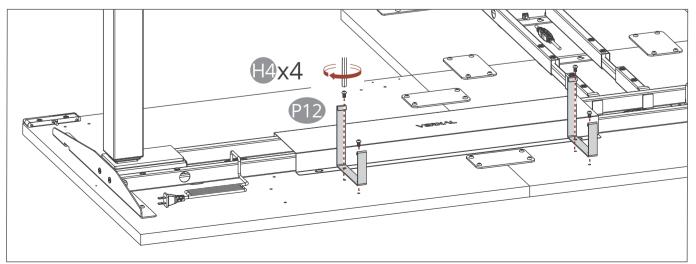
(The longer hook side should be closer to the P9 (Control Box) side.)

A. Align the P12 (Wire Management Tray Hook) with the embedded nut holes on the desktop, and secure it using H4 (M6 x 10mm Machine Screws).



When using a Vernal brand desktop: H4-M6x10

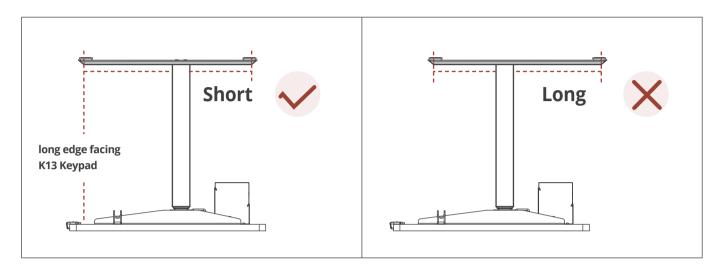
When using a non-Vernal brand desktop without pre-installed nut holes for alignment: H9-ST4.8x13.5



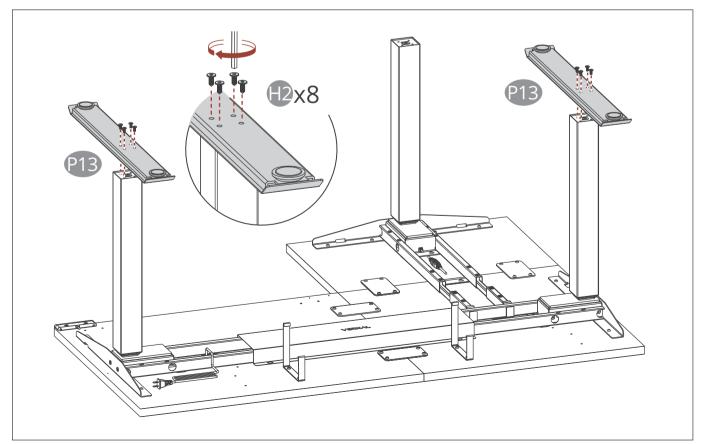
Instructions for Installing the Feet

Step 20 - Install C-Foot

Note: Ensure the long end of the desk feet faces forward (toward the P8 (K13 Keypad)) and aligns with the long end of the P3 (C-Side Bracket L/R). The bottom of the P1 (Leg) should fit into the rectangular slot of the desk foot.



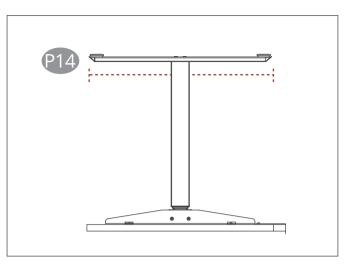
- A. Place one P13 (C-Foot) on top of a P1 (Leg) as shown in the diagram.
- B. Insert four H2 (M6 x 14mm Flat Head Screws) into the screw holes of the P13 (C-Foot) and thread them into the end of the P1 (Leg), but do not fully tighten them yet.
- C. Once all four screws are in place, use the H1 (M6 Allen Wrench) to fully tighten them.
- D. Perform a final tightening of all desk foot screws. Properly secured foot screws will significantly improve desk stability.
- E. Repeat these steps to install the second P13 (C-Foot).

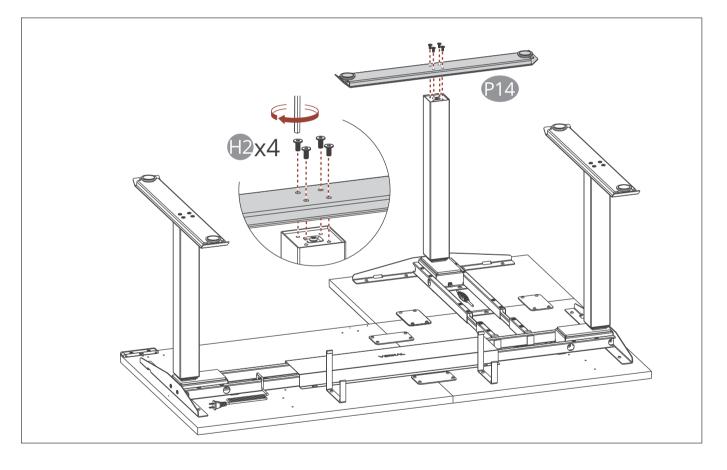


Instructions for Installing the Feet

Step 21 - Install T-Foot

- A. Place one P14 (T-Foot) on top of the P1 (Leg) in the T-frame, as shown in the diagram.
- B. Insert four H2 (M6 x 14mm Flat Head Screws) into the screw holes of the P14 (T-Foot) and thread them into the end of the P1 (Leg), but do not fully tighten them yet.
- C. Once all four screws are in place, use the H1 (M6 Allen Wrench) to fully tighten them.
- D. Perform a final tightening of all desk foot screws. Properly secured foot screws will significantly improve desk stability.

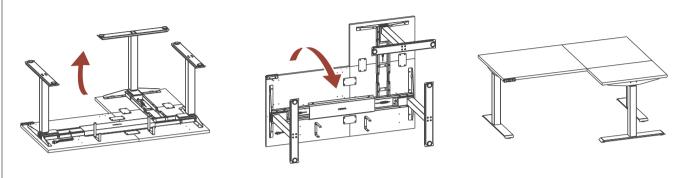




Accessory Installation Instructions

Step 22 - Flip the Desk Over

The weight of the desk varies depending on the size you purchased. Ensure at least two people are involved in flipping the desk to avoid injury or damage. Be mindful of the flipping direction and take care not to press down on the P8 (K13 Keypad) during the process.

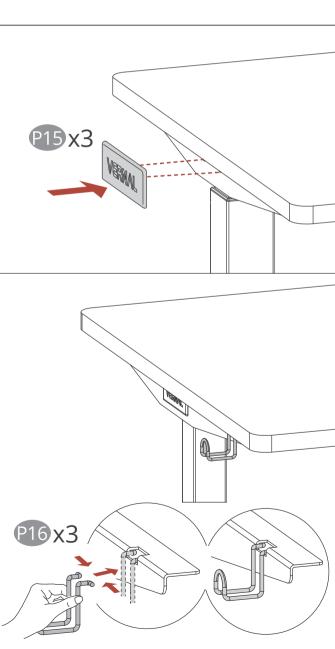


Step 23 -Install Logo Plate and Tray Hook

A. The P15 (Logo Plate) has two near-circular openings in the magnetic patch on the inner side, designed to align with the screws on the front of the side bracket. The P15 (Logo Plate) is used to cover these two screws.

B. Hold the P16 (Tray Hook) on both sides. First, tilt one end of the hook into the square opening of the side bracket, then squeeze the other end to deform the hook and insert it into the square opening as shown in the diagram.

Note: Ensure the P16 (Tray Hook) is installed in the correct direction, as illustrated.



Accessory Installation Instructions

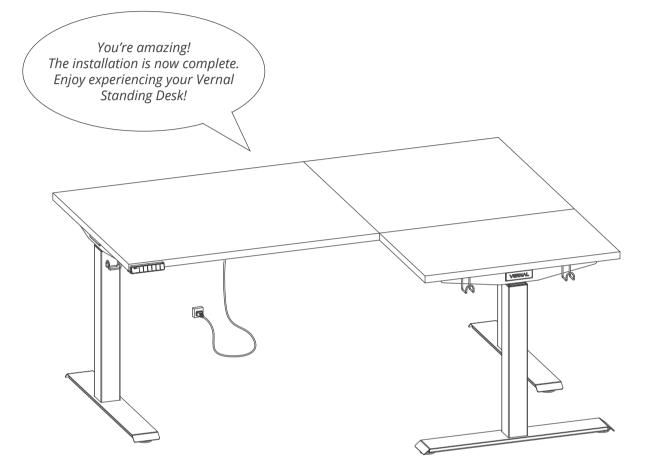
Step 24 - Bend and Install Wire Management Tray

- A. Carefully bend the P17 (Wire Management Tray) along the dotted lines. Apply even pressure to avoid uneven deformation of the metal panel.
- B. To install the P17 (Wire Management Tray), raise the desk before proceeding. Connect the desk to a power source, but make sure the desk height does not interfere with other objects in your home.



C. Hang the bent P17 (Wire Management Tray) onto the P12 (Wire Management Tray Hook) to complete the installation.





Left Installation Method





Step 1 - Parts List

A. Pre-Assembly Preparation

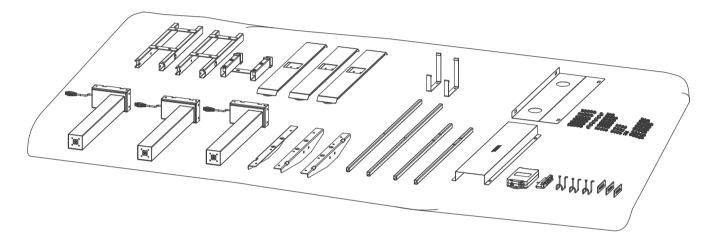
Hey there! To make things easier (and safer), we recommend having 2-3 people help out with the assembly. Before you start, think about where the desk will go and make sure there's enough room to set it up. Since the desk is pretty big and needs to be flipped over after assembly, double-check that the space is large enough. If not, you might need to move the desk somewhere else after putting it together. Because this is a height-adjustable desk, make sure it's got plenty of clearance from anything that could get in the way when it moves up or down – like shelves or cabinets on the wall. If you're using the P8 (K13 Keypad), you can set height limits to avoid bumping into stuff.

B. Protecting the Floor and Desktop

To keep your floors or desktop from getting scratched, we recommend setting up the desk on a carpet or blanket – just something soft and free of debris.

C. Check Parts and Packaging

Before you toss out any packaging, make sure you've got all the parts and hardware. Lay everything out from the boxes and double-check that all the pieces and numbers match the "Packing List" in this manual.

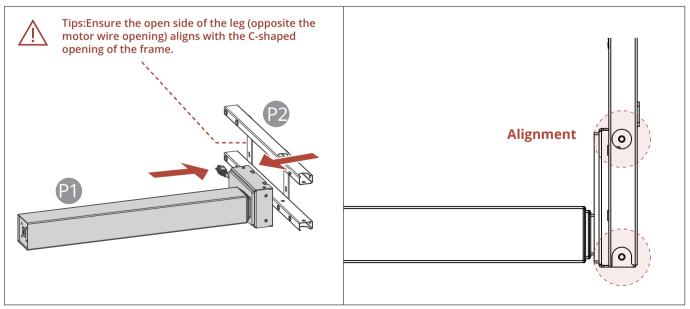


Instructions for Assembling the Frame and Legs

Step 2 - Install Crossbar End

A. Lay one of the P1 (Legs) and the P2 (Crossbar End) on their sides, as shown in the diagram.

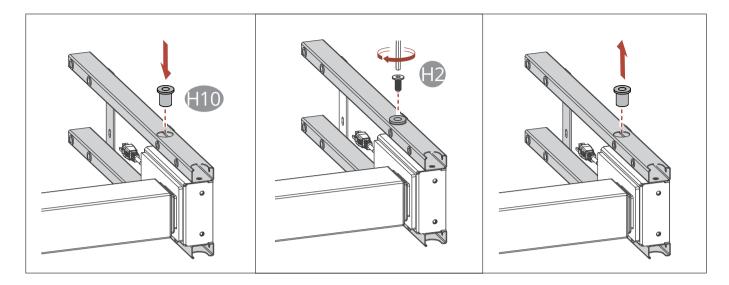
B. Align the motor box screw holes on one of the P1 (Legs) with the screw holes on the side of the frame. Make sure to use the correct alignment holes, as indicated in the diagram.



C. Using the Allen Wrench (H1), insert 4 M6x18 Flat Head Screws (H2) through the holes in the crossbar end and into the leg. Do not fully tighten the screws at this stae.

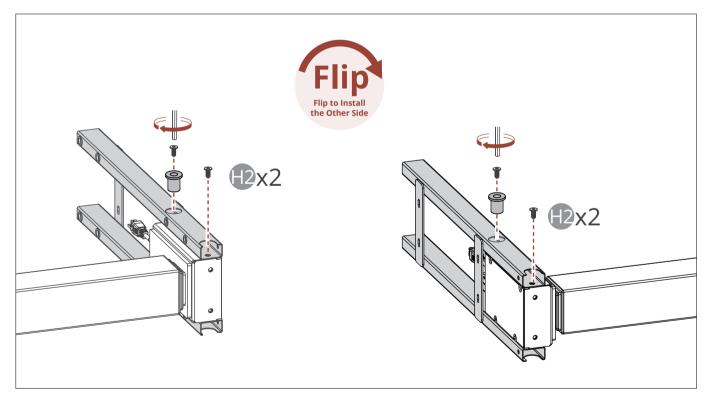


Tips: To prevent Screws from repeatedly falling into the P2 (Crossbar End) tube, use the H10 (Screw Guide Sleeve) during assembly. Insert the sleeve as shown, then remove it and reuse it on the opposite round opening.



D. Once all 4 screws are in place, fully tighten them using the H1 (M6 Allen Wrench).

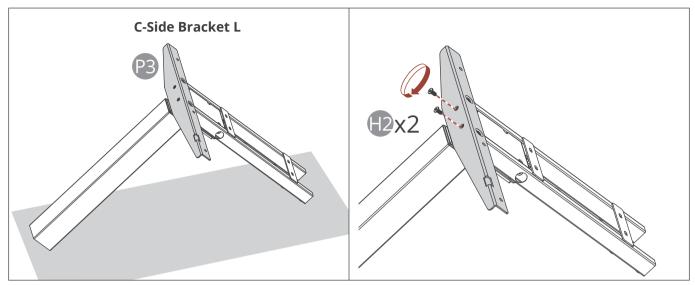
E. Repeat this process for the remaining 2 P1 (Legs).



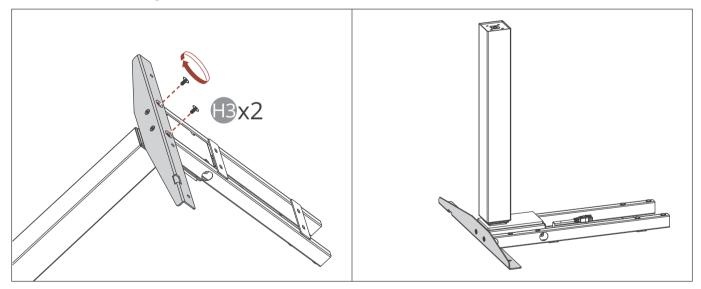
Step 3 - Install C-Side Bracket (Left)

Once all 4 screws from Step 3 are inserted, use the H1 (M6 Allen Wrench) to fully tighten them.

A. Align the side screw holes of the P3 (C-Side Bracket) with the holes on the side of the P1 (Leg) near the motor. Insert two H2 (M6 x 18mm Flat Head Screws) as shown in the diagram.



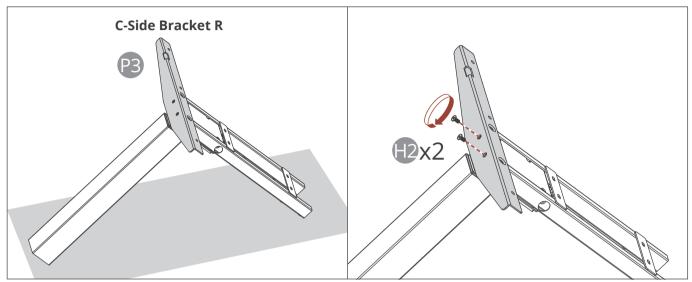
B. Align the top screw holes of the P3 (C-Side Bracket) with the holes on top of the P2 (Crossbar End). Insert two H3 (M6 x 18mm Flat Head Screws) as shown in the diagram.



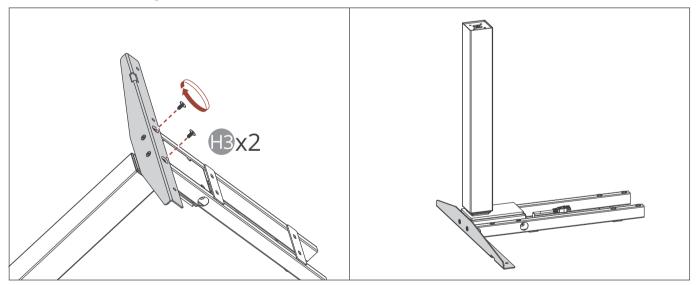
Step 4 - Install C-Side Bracket (Right)

Once all 4 screws from Step 4 are inserted, use the H1 (M6 Allen Wrench) to fully tighten them.

A. Align the side screw holes of the P3 (C-Side Bracket) with the holes on the side of the P1 (Leg) near the motor. Insert two H2 (M6 x 18mm Flat Head Screws) as shown in the diagram.



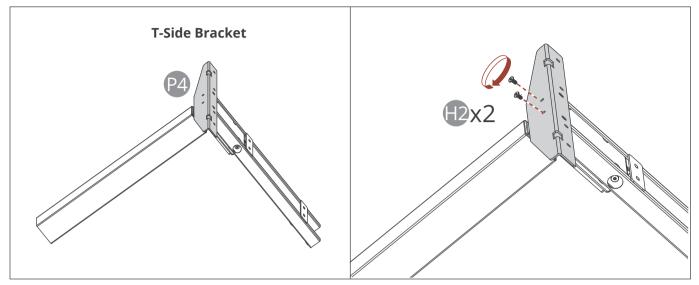
B. Align the top screw holes of the P3 (C-Side Bracket) with the holes on top of the P2 (Crossbar End). Insert two H3 (M6 x 18mm Flat Head Screws) as shown in the diagram.



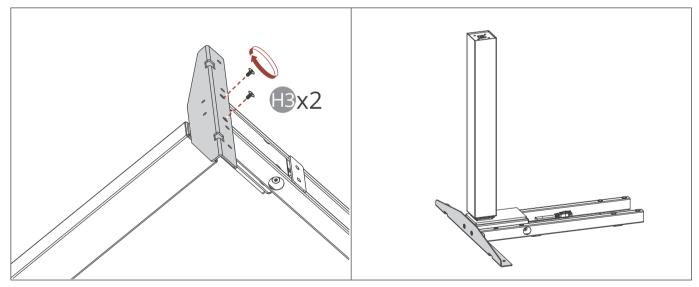
Step 5 - Install T-Side Bracket

Once all 4 screws from Step 4 are inserted, use the H1 (M6 Allen Wrench) to fully tighten them.

A. Align the side screw holes of the P4 (T-Side Bracket) with the holes on the side of the P1 (Leg) near the motor. Insert two H2 (M6 x 18mm Flat Head Screws) as shown in the diagram.



B. Align the top screw holes of the P4 (T-Side Bracket) with the holes on top of the P2 (Crossbar End). Insert two H3 (M6 x 18mm Flat Head Screws) as shown in the diagram.



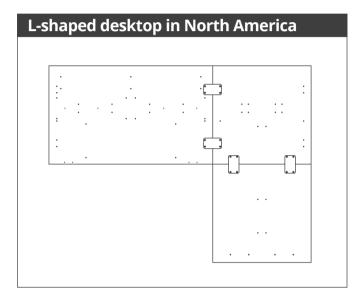
Side Corner Crossbar Mounting Holes and Identifying the Desktop

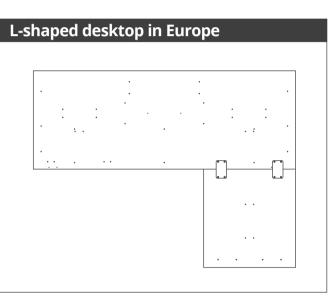
Step 6 - Identify Desktop Configuration

hank you for purchasing the Vernal L-Standing desk.

- A. If you chose a desktop from Vernal, place the side with the exposed embedded nuts facing up this will be the surface you use to assemble the desk.
- B. If you purchased an L-Standing desk with an L-shaped desktop in North America, your desktop will consist of three parts: Main desktop (T1), Extension desktop (T2), and Return (T3).
- C. If you purchased an L-Standing desk with an L-shaped desktop in Europe, your desktop will consist of two parts:
- In the UK, you will receive the Main desktop (T1) and Return (T2).
- In Germany, you will receive the Haupttischplatte (T1) and Erweiterungsplatte (T2).

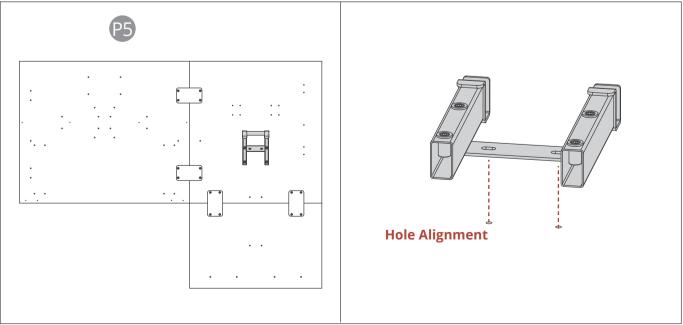
Assemble the left or right L-Standing desk according to your needs before proceeding with the next steps to connect the frame to the desktop. Follow the corresponding installation method based on the desktop configuration you have.





Step 7 - Align Side Corner Crossbar Mounting Holes

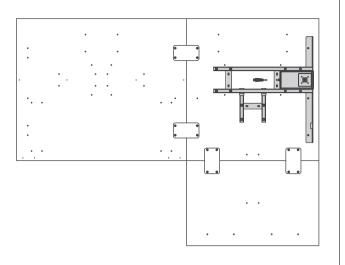
US: A. Align the P5 (Side Corner Crossbar) with the holes on the T2 (Extension desktop). **UK:** A. Align the P5 (Side Corner Crossbar) with the holes on the T1 (Main desktop).

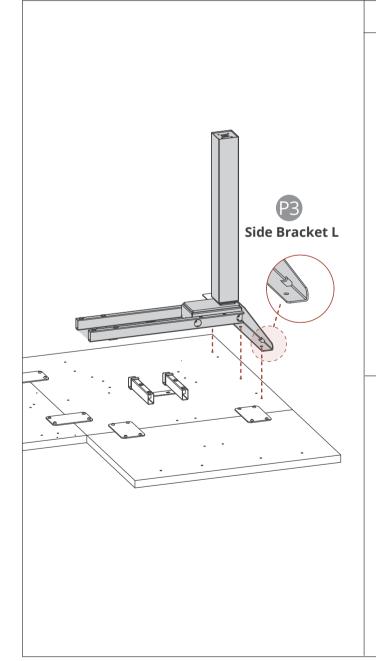


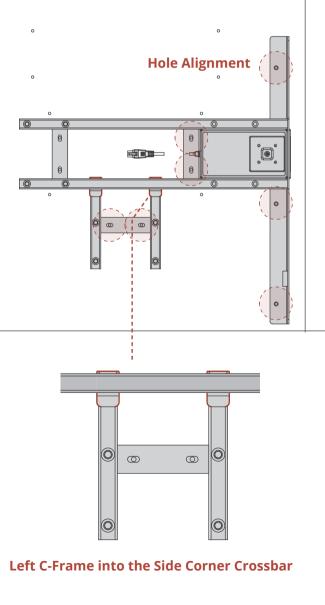
Step 8 - Press the Left C-Frame into the Side Corner Crossbar

For Left L-Standing Desk Desktop Configuration:

- A. Press the assembled left frame's P2 (Crossbar End) into the hooks of the P5 (Side Corner Crossbar).
- B. Ensure that the P5 (Side Corner Crossbar) aligns with the corresponding holes on the desktop.



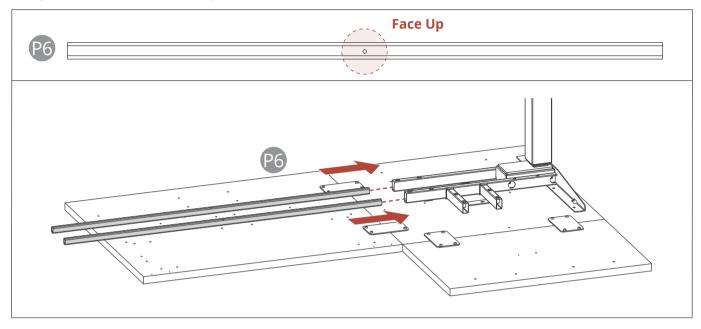




Step 9 - Insert C-Crossbar Rail

A. Slide the P6 (C-Crossbar Rail) into the P2 (Crossbar End) of the left C-frame leg assembly, as shown in the diagram.

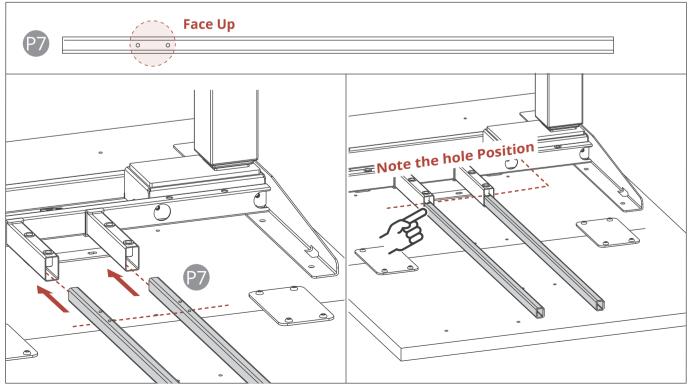
Important Note: The P6 (C-Crossbar Rail) is the longer rail designed for use with the C-frame on the T1 (Main desktop). Using the wrong rail will prevent further assembly of the desk.



Step 10 - Insert T-Crossbar Rail into the Side Corner Crossbar

A. Slide the P7 (T-Crossbar Rail) into the P5 (Side Corner Crossbar) of the leg assembly, as shown in the diagram.

Important Note: The P7 (T-Crossbar Rail) is the shorter rail designed for use with the T-frame on the T2 (Extension desktop) and desktop extensions. Using the wrong rail will prevent further assembly of the desk.



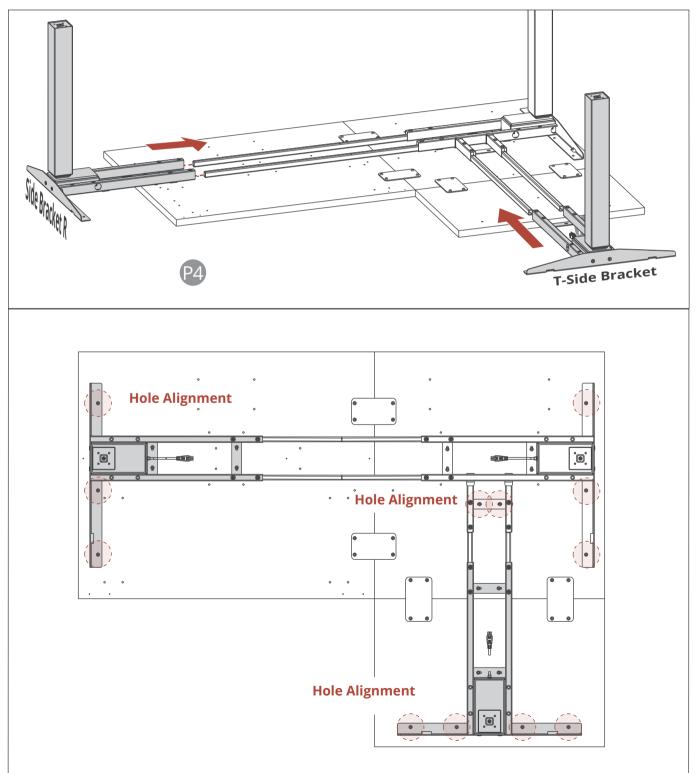
Step 11 - Place the T-Frame and Right C-Frame onto the Desktop and Insert the Crossbar Rail

A. Insert the P2 (Crossbar End) of the T-frame assembly into the P7 (T-Crossbar Rail) on the desktop, as shown in the diagram.

B. Align the P4 (T-Side Bracket) of the T-frame with the corresponding holes on the Return (T3-US)(T2-DE/UK).

C. For right L-Standing Desk Desktop Configuration:

Place the left C-frame assembly on the desktop and insert the P2 (Crossbar End) into the P6 (C-Crossbar Rail) on the desktop, as shown in the diagram.

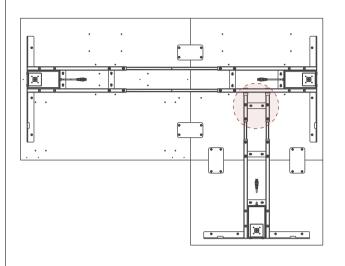


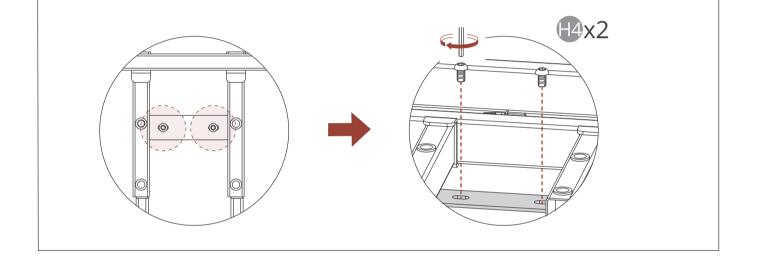
Step12 - Install Side Corner Crossbar

- A. Align the P4 (T-Side Bracket) of the T-frame with the corresponding holes on the T3 (Return) in the US or T2 (Return) in Germany/UK. Align the P5 (Side Corner Crossbar) with the corresponding holes, ensuring the T-frame remains perpendicular to the P5 (Side Corner Crossbar).
- B. Align the P5 (Side Corner Crossbar) with the corresponding holes and secure it by inserting two H4 (M6 x 10mm Machine Screws), as shown in the diagram.



When using a Vernal brand desktop: H4-M6x10 When using a non-Vernal brand desktop without pre-installed nut holes for alignment: H9-ST4.8x13.5





Step 13-Secure C/T Frame

Tip: Choose the correct screws for installation based on the threaded metal inserts (embedded nuts) or pre-drilled holes in the desktop.

When using a Vernal desktop

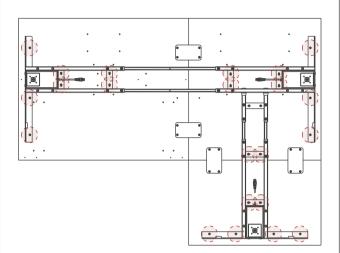
- A. Align the screw holes on the P3 (C-Side Bracket) and P2 (Crossbar End) with the embedded nuts on the desktop, as shown in the diagram.
- B. In the next steps, use H4 (M6 x 10mm Machine Screws) to secure the side bracket to the desktop. Do not fully tighten the screws yet wait until all screws from this step are inserted before tightening them completely.

When using a non-Vernal desktop without aligned embedded nut holes

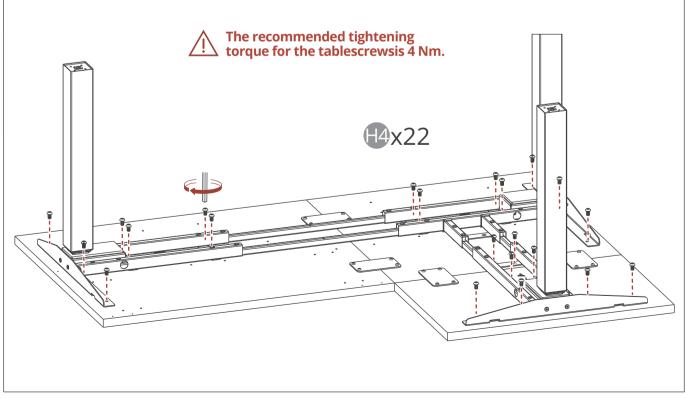
- A. Press the right C-frame into the hooks of the P5 (Side Corner Crossbar) and push it down firmly.
- B. Keep the side bracket level with the edge of the desktop and find a distance you like between the bracket and the desk edge. Once the position is set, mark the center of the screw holes on the desktop with a pencil. Remove the leg assembly and drill pilot holes using a 1/8-inch drill bit at the marked pencil points. Secure the frame using H9 (ST4.8 x 13.5mm Wood Screws).

Important Note: Do not drill through the top surface of the desktop. The hole depth must not exceed 1/2 inch. To ensure this, wrap a piece of tape 1/2 inch from the tip of the drill bit. Stop drilling when the tape is about to touch the desktop.



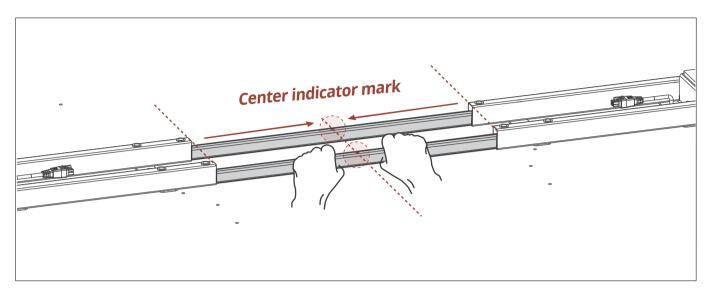


Although there are many screws to be installed next, let's work hard together, and we will definitely complete it smoothly!

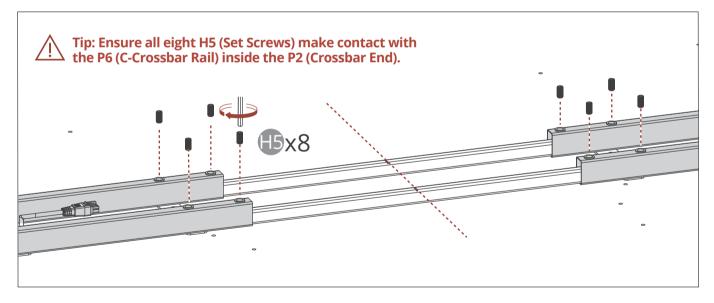


Step 14- Position C-Center Rail

A. Slide the P6 (C-Crossbar Rail) left or right until the center indicator mark is roughly positioned between the two P2 (Crossbar Ends).

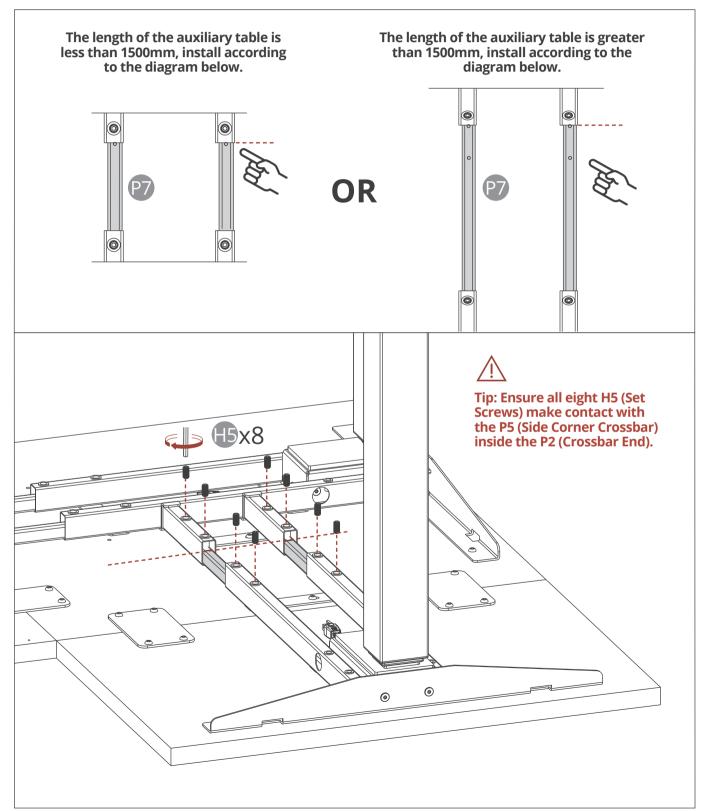


B. Insert four H5 (M8 x 16mm Set Screws) into each P2 (Crossbar End) and tighten them.



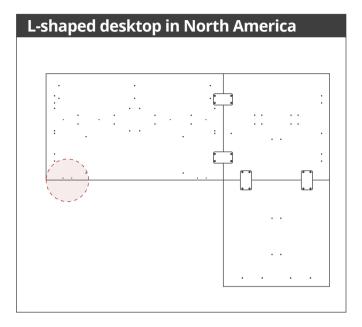
Step 15 - Position T-Center Rail

- A. Slide each P7 (Side Corner Crossbar) left or right within the T-frame until the indicator mark is roughly positioned between the P2 (Crossbar End) and the side of the P5 (Side Corner Crossbar).
- B. Insert four H5 (M8 x 16mm Set Screws) into each P2 (Crossbar End) and tighten them.



Instructions for Installing the K13 Keypad and Control Box

Step 16 - Install Keypad



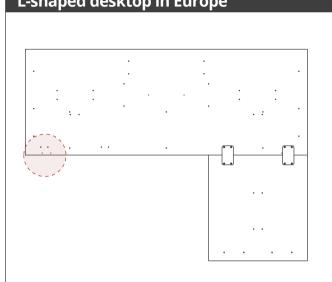
The desktop has two sets of pre-drilled holes on each side to allow for left or right placement of the P8 (K13 Keypad).

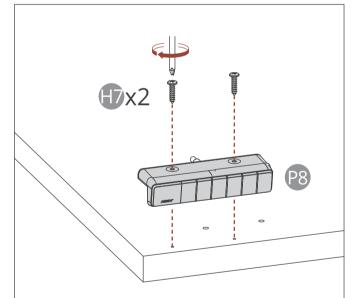
If your desktop does not have pre-drilled holes for installing the P8 (K13 Keypad), place the keypad in the approximate position shown in the diagram.

Refer to Step 5 to drill pilot holes for the keypad, but be careful not to drill through the top surface of the desktop.

- A. Choose the side of the desktop where you want to install the keypad. Keep in mind that the desk is currently upside down during assembly, so once flipped upright, the keypad will be on the opposite side.
- B. Align the keypad with the pre-drilled holes that best match the keypad mounting holes.
- C. Use a Phillips screwdriver to secure the keypad to the desktop with two H7 (ST3.5 x 15mm Wood Screws).

Avoid overtightening to prevent the screws from stripping.



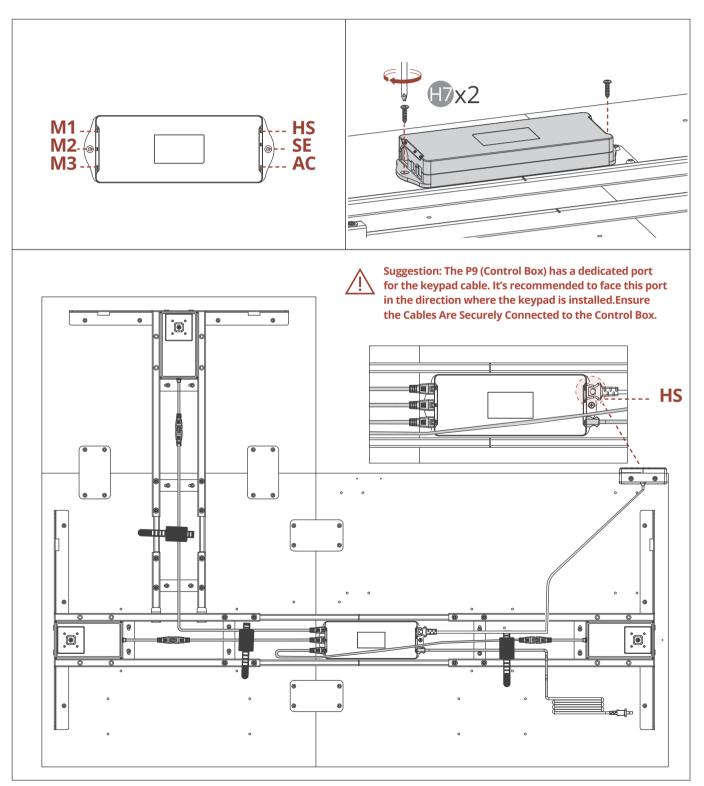


L-shaped desktop in Europe

Instructions for Installing the K13 Keypad and Control Box

Step 17 - Install Control Box

- A. The desktop has pre-drilled holes at the center of the adjustable frame for installing the P9 (Control Box). Use a Phillips screwdriver and secure the control box to the desktop with two H7 (ST3.5 x 15mm Wood Screws).
- B. Plug the P10 (Control Box Power Cable) into the port labeled "AC" on the P9 (Control Box).
- C. Connect both ends of the control box cable to the motor wires and the P9 (Control Box). (The cables connect the left and right legs to the control box, allowing the desk to function once powered.)
- D. Plug the keypad cable into the appropriate port on the P9 (Control Box).



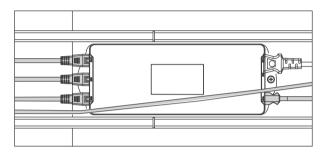
Accessory Installation Instructions

Tip: Use H8 (Cable Mounts) or other cable management solutions to organize any excess cables at this point.

Step 18 - Install Control Box Cable Cover Plate

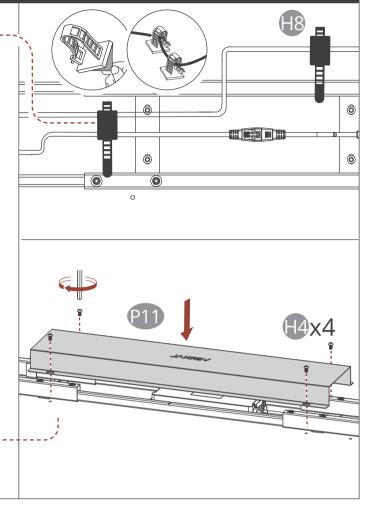
Before proceeding with installation, ensure the following connections are secure:

- Both motor cables are firmly connected to the P9 (Control Box).
- The keypad cable is securely plugged into the P9 (Control Box).
- The P10 (Control Box Power Cable) is properly connected to the P9 (Control Box).



A. Align the P11 (Control Box Cable Cover Plate) with the embedded nut holes on the desktop, and secure it using H4 (M6 x 10mm Machine Screws).

When using a Vernal brand desktop: H4-M6x10 When using a non-Vernal brand desktop without pre-installed nut holes for alignment: H9-ST4.8x13.5



Step 19 - Install Wire Management Tray Hook

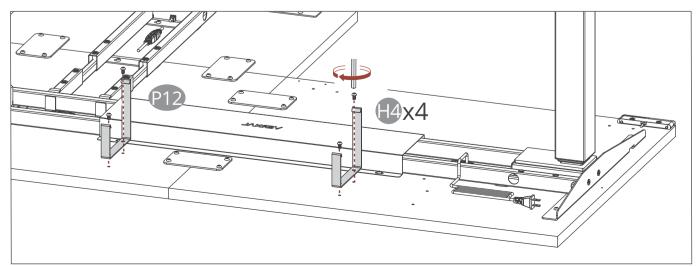
Most Vernal desktops have four embedded nuts near the rear of the desktop for installing the included P12 (Wire Management Tray Hook). Before installation, ensure the P12 (Wire Management Tray Hook) is positioned correctly, as shown in the diagram. (The longer hook side should be closer to the P9 (Control Box) side.)

A. Align the P12 (Wire Management Tray Hook) with the embedded nut holes on the desktop, and secure it using H4 (M6 x 10mm Machine Screws).



When using a Vernal brand desktop: H4-M6x10

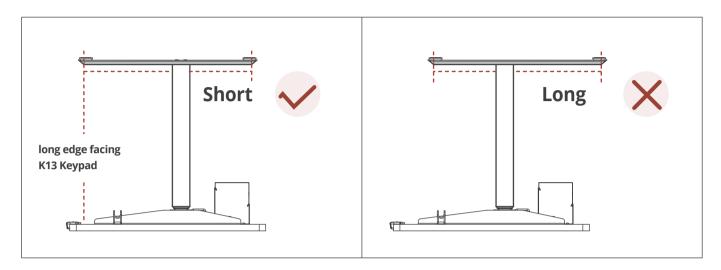
When using a non-Vernal brand desktop without pre-installed nut holes for alignment: H9-ST4.8x13.5



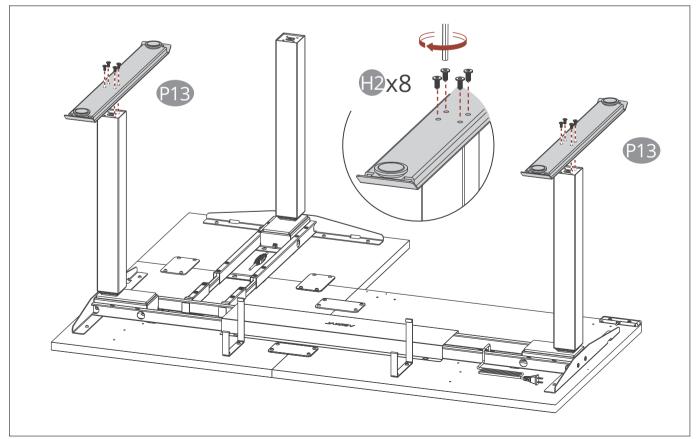
Instructions for Installing the Feet

Step 20 - Install C-Foot

Note: Ensure the long end of the desk feet faces forward (toward the P8 (K13 Keypad)) and aligns with the long end of the P3 (C-Side Bracket L/R). The bottom of the P1 (Leg) should fit into the rectangular slot of the desk foot.



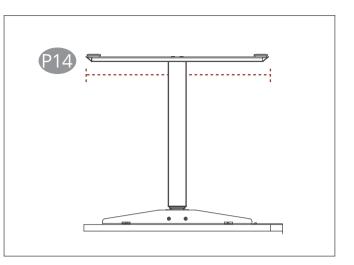
- A. Place one P13 (C-Foot) on top of a P1 (Leg) as shown in the diagram.
- B. Insert four H2 (M6 x 14mm Flat Head Screws) into the screw holes of the P13 (C-Foot) and thread them into the end of the P1 (Leg), but do not fully tighten them yet.
- C. Once all four screws are in place, use the H1 (M6 Allen Wrench) to fully tighten them.
- D. Perform a final tightening of all desk foot screws. Properly secured foot screws will significantly improve desk stability.
- E. Repeat these steps to install the second P13 (C-Foot).

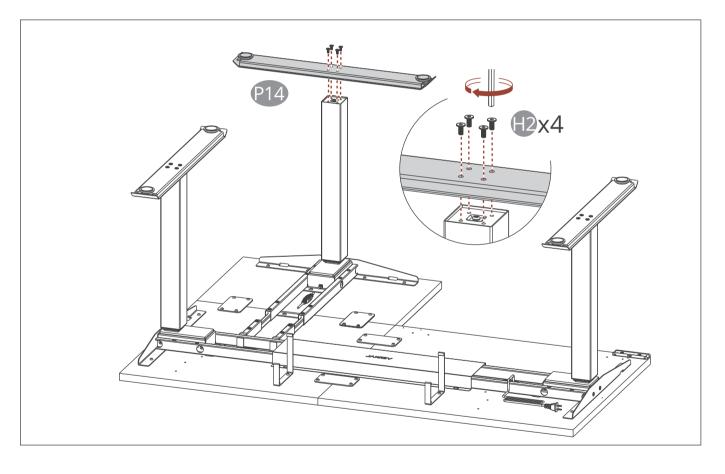


Instructions for Installing the Feet

Step 21 - Install T-Foot

- A. Place one P14 (T-Foot) on top of the P1 (Leg) in the T-frame, as shown in the diagram.
- B. Insert four H2 (M6 x 14mm Flat Head Screws) into the screw holes of the P14 (T-Foot) and thread them into the end of the P1 (Leg), but do not fully tighten them yet.
- C. Once all four screws are in place, use the H1 (M6 Allen Wrench) to fully tighten them.
- D. Perform a final tightening of all desk foot screws. Properly secured foot screws will significantly improve desk stability.

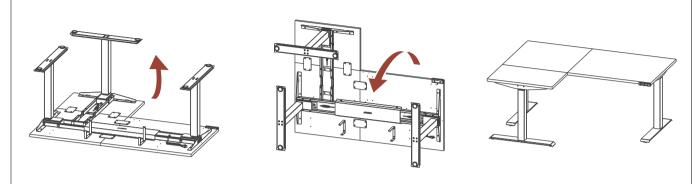




Accessory Installation Instructions

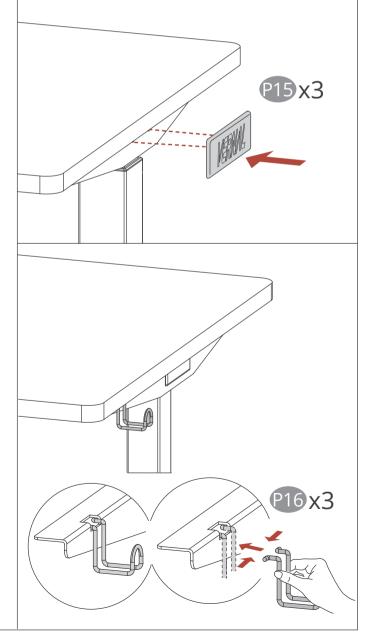
Step 22 - Flip the Desk Over

The weight of the desk varies depending on the size you purchased. Ensure at least two people are involved in flipping the desk to avoid injury or damage. Be mindful of the flipping direction and take care not to press down on the P8 (K13 Keypad) during the process.



Step 23 -Install Logo Plate and Tray Hook

A. The P15 (Logo Plate) has two near-circular openings in the magnetic patch on the inner side, designed to align with the screws on the front of the side bracket. The P15 (Logo Plate) is used to cover these two screws.



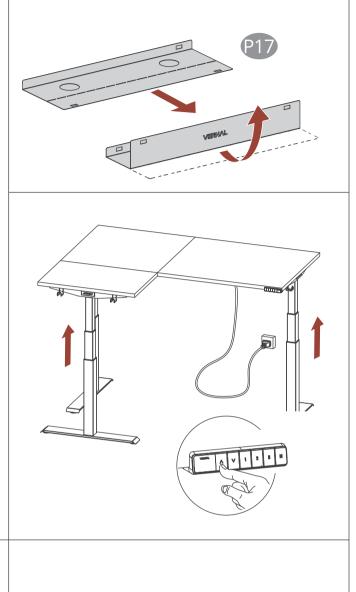
B. Hold the P16 (Tray Hook) on both sides. First, tilt one end of the hook into the square opening of the side bracket, then squeeze the other end to deform the hook and insert it into the square opening as shown in the diagram.

Note: Ensure the P16 (Tray Hook) is installed in the correct direction, as illustrated.

Accessory Installation Instructions

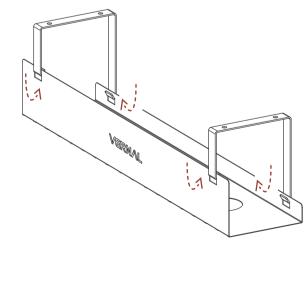
Step 24 - Bend and Install Wire Management Tray

- A. Carefully bend the P17 (Wire Management Tray) along the dotted lines. Apply even pressure to avoid uneven deformation of the metal panel.
- B. To install the P17 (Wire Management Tray), raise the desk before proceeding. Connect the desk to a power source, but make sure the desk height does not interfere with other objects in your home.



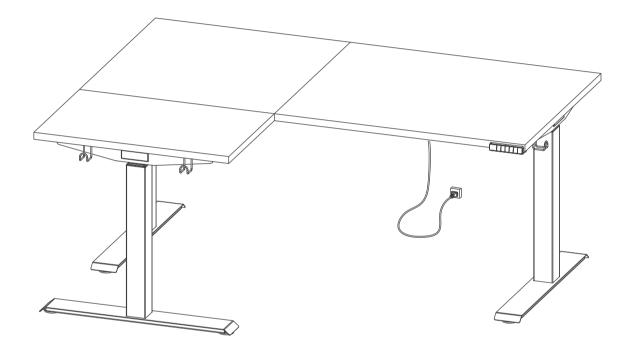
C. Hang the bent P17 (Wire Management Tray) onto the P12 (Wire Management Tray Hook) to complete the installation.





Installation Successful

You're amazing! The installation is now complete. Enjoy experiencing your Vernal Standing Desk!



(K13 Keypad) Hand Controller User Instructions			
	VERNAL BBB A V 1 2 3 M		
Reset Function	Press and hold the " 🕑 " button for 5 seconds to automatically enter the initialization mode. The desk will move to the lowest position at 50% speed. Press any button to stop the initialization. When the initialization is complete, the buzzer will sound, indicating a successful reset. Note: After resetting, the upper and lower limit settings will be canceled, and the memory buttons will return to the factory defaults.		
Height Adjustment Function	Press and hold the " 🔕 " or " 💟 " button to adjust the height.		
Set Memory Button	Press and hold the "		
Memory Button Operation	Press memory button " 1 ", " 2 " or " 3 ", and the desk will automatically move to the preset height. The factory default settings are: memory button " 1 " for the lowest height, memory button " 2 " for a height of 950mm, and memory button " 3 " for the highest height.		
Set Upper and Lower Limits	 1.When the desk's displayed height is above 98.5cm(38.8in), setting the height limit means the desk will be set to the maximum height limit. 2.When the desk's displayed height is below 98.5cm(38.8in), setting the height limit means the desk will be set to the minimum height limit. Press and hold the " " " " " button to adjust to the desired limit height. Then, press and hold both the " " " and " " " buttons for 5 seconds. You will hear a beep, indicating the limit position has been successfully stored. If the desk is in the upper half of its range, the upper limit is set. If the desk is in the lower half, the lower limit is set. 		
Cancel Height Limits	Method 1: Reset the system, and the upper and lower limits will be canceled. Method 2: Move the desk to the limit height (upper or lower), then press and hold both the " 🔊 " and " 🕥 " buttons for 5 seconds. You will hear a beep, indicating the limit position has been successfully canceled.		

Child Lock	Lock: Press and hold both the " M " and " " buttons for 5 seconds. When the display shows "Loc," the system is locked, and height adjustment operations are disabled. Unlock: Press and hold both the " M " and " " buttons for 5 seconds. When the display changes from "Loc" back to normal numbers, the system is unlocked.	
Set Timer	Press the " 1 " + " 3 " buttons on the hand controller. The display will show "x.xh." At this point, you can adjust the timer by pressing the " " " o " " " buttons, changing it in 0.5-hour increments. After setting, it will automatically exit after 2 seconds. When the hand controller turns off, a decimal point will blink to indicate that the timer is running. When the set time is reached, the buzzer will sound 5 times, and the hand controller will automatically wake up.	
Set Display Unit and Sensitivity	 Press and hold the " " button on the hand controller for 5 seconds to enter the settings menu. The display will show "S-x," and "x" will flash, indicating the parameter group. At this point, press " " " to enter the parameter group and set the corresponding parameter. Press " " " " to return to switch between parameter groups. After setting the parameters, press " " " " to return to the operation interface. S-1: Unit display switch: 0 for metric display, 1 for imperial display. S-2: Obstacle detection sensitivity for upward movement: 0 for off, 8 for most sensitive, 1 for least sensitive. S-3: Current detection sensitivity for upward movement: 0 for off, 8 for most sensitive, 1 for least sensitive. S-4: Current detection sensitivity for downward movement: 0 for off, 8 for most sensitive, 1 for least sensitive. 	

FAQ(Frequently Asked Questions)			
Error Codes on Hand Controller	 Possible Causes: System malfunction. Firmware or connection issues. Solutions: Check all cables to ensure they are securely plugged in, and perform the reset procedure mentioned above. Power off for 30 seconds, then power on again and perform the reset procedure mentioned above. 		
Desk Lifting is Not Smooth	 Possible Causes: The desktop is overloaded. The connections between different parts of the desk are not tight. Solutions: Check if the items on the desktop are too heavy, and reduce the load to restore normal lifting. Check and tighten all screws and connectors to ensure the desk structure is stable. 		
Controller Malfunction or Unresponsive	 Possible Causes: Power is not properly connected. Controller has poor contact or is faulty. Power module malfunction. Solutions: Check if the power cable is securely connected, and ensure the plug is properly inserted into the power outlet. Disconnect and reconnect the controller, making sure the plug is fully inserted into the socket. If the issue persists, contact after-sales service to replace the controller. 		
Desk is Tilted or Unbalanced	 Possible Causes: Uneven load on one side of the desk, causing one side to drop. The desk encountered an obstacle while rising or lowering. Solutions: Remove heavy objects from the desk and perform the reset procedure mentioned above to restore the desktop to a level position. Check for obstacles above and below the desk, clear them, and perform the reset procedure mentioned above to restore the desk to a level position. 		
Unusual Noise from Standing Desk	 Possible Causes: 1.Loose screws or friction between components. 2.Motor malfunction. Solutions: 1.Check all screws and fasteners to ensure they are properly tightened. 2. If the noise persists, it may be a motor issue. Contact after-sales service for inspection and replacement. 		

Error Code	Description	Solution
E01	Main power voltage exceeds 45V.	Unplug and replug the power cord.
E02	The height of the two desk legs is inconsistent.	Reset the system.
E04	Hand controller connection or communication error.	Disconnect and reconnect hand control- ler cable.
E05	Obstacle detected.	Release the button and restart operation.
E06	Main power startup unsuccessful, voltage below 20V.	Unplug and replug the power cord. power cord or contact our custumer service team.
E07	Main power protection activated during operation, voltage below 20V.	Unplug and replug the power cord.
E08	Desk is tilted while running.	Reset the system.
НОТ	Power temperature too high, or continuous operation exceeding 2 minutes within 18 minutes.	Unplug the power cord for 18 minutes, then plug it back in.
E11	Motor 1 disconnected.	Disconnect and reconnect the cables between the control box and the legs.
E12	Motor 1 current sampling channel error.	Please contact our custumer service team.
E13	Motor 1 phase missing, a phase wire is disconnected.	Please contact our custumer service team.
E14	Motor 1 Hall error, or Hall wire disconnected.	Swap the legs or swap the cables between the control box and the legs.
E15	Motor 1 internal short circuit.	Please contact our custumer service team.
E16	Motor 1 stall.	Reset the system.
E17	Motor 1 running in the wrong direction.	Please contact our custumer service team.
E18	Motor 1 load too large, overloaded.	Reduce the load and reset the system.

Error Code	Description	Solution
E21	Motor 2 disconnected.	Disconnect and reconnect the cables between the control box and the legs.
E22	Motor 2 current sampling channel error.	Please contact our custumer service team.
E23	Motor 2 phase missing, a phase wire is disconnected.	Please contact our custumer service team.
E24	Motor 2 Hall error, or Hall wire disconnected.	Swap the legs or swap the cables between the control box and the legs.
E25	Motor 2 internal short circuit.	Please contact our custumer service team.
E26	Motor 2 stall.	Reset the system.
E27	Motor 2 running in the wrong direction.	Please contact our custumer service team.
E28	Motor 2 load too large, overloaded.	Reduce the load and reset the system.
E40	Controller in series dropped connection.	Discconnect and reconnect the extension cables.
E41	Series signal error.	Discconnect and reconnect the extension cables or contact our custumer service team.
E42	Memory error.	Please contact our custumer service team.
E43	Obstacle detection sensor error.	Please contact our custumer service team.

