



ASSEMBLY  
MANUAL

# DESK FRAME 1



Dear User,

We are delighted that you have chosen a sit-stand desk that uses LINAK<sup>®</sup> components.

We are sure that your height-adjustable table will give you many years of problem-free operation.

Before our products leave the factory, they undergo full function and quality testing. Should you nevertheless experience problems with your table, you are always welcome to get in-touch with your local contact.

Changes in installation and use of LINAK products/systems can affect the operation and durability of the products/systems. The products are not to be opened by unauthorized personnel.

The assembly manual has been written based on our present technical knowledge. We are constantly working on updating the information and we therefore reserve the right to carry out technical modifications.

Requests for information or replacement parts should be directed to the equipment manufacturer.

Contact information is generally found on the manufacturer's label or in your user manual. LINAK supplies manufacturers only. We do not provide technical support to end-users or service companies.

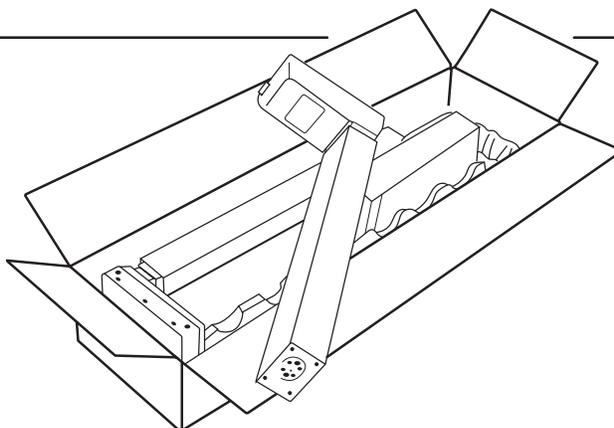
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# What is Included in the Box

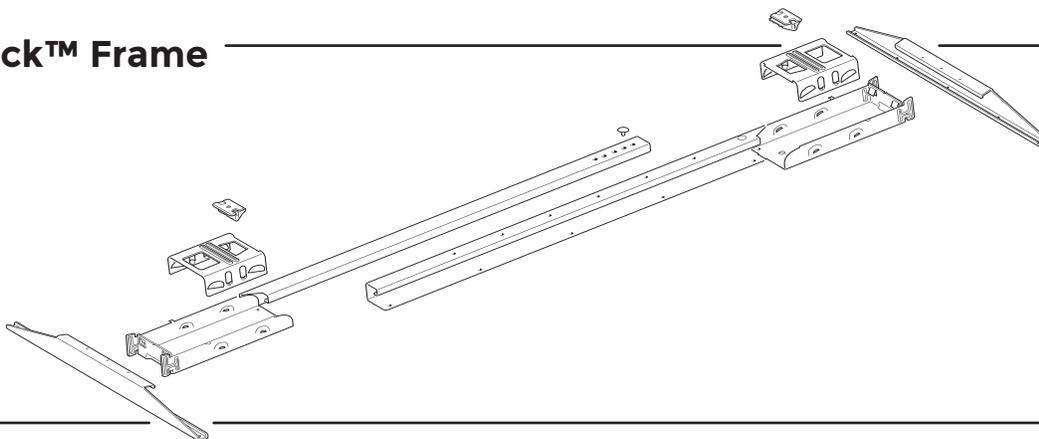
## A. DESKLIFT™ SetPack

Setpack Desk Legs



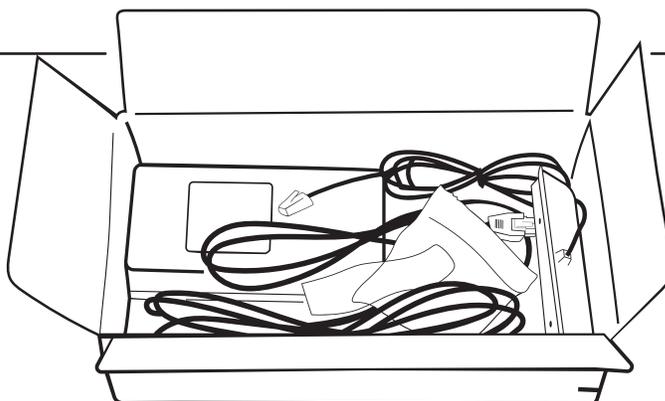
## B. Kick & Click™ Frame

1. Clamp
2. Kick Lock
3. (2) Cantilevers
4. Inner Rail
5. Outer Rail
6. (2) Clips



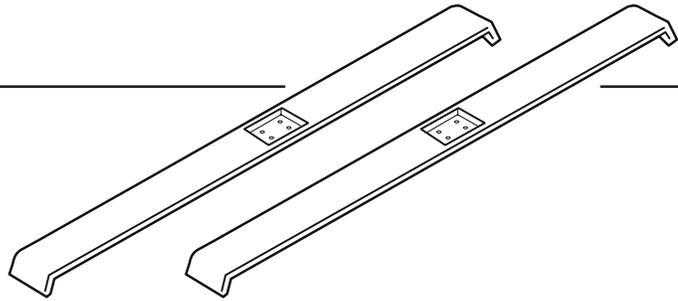
## C. Electronics Kit

- Control Box
- Desk Switch
- Cables
- Hardware pack
- Anticollision Desk Sensor



## D. Feet

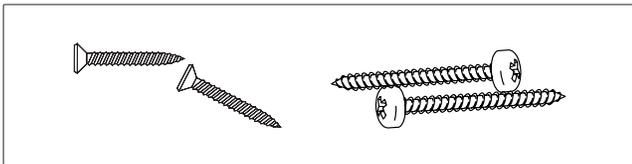
T-Feet



## E. Hardware Pack

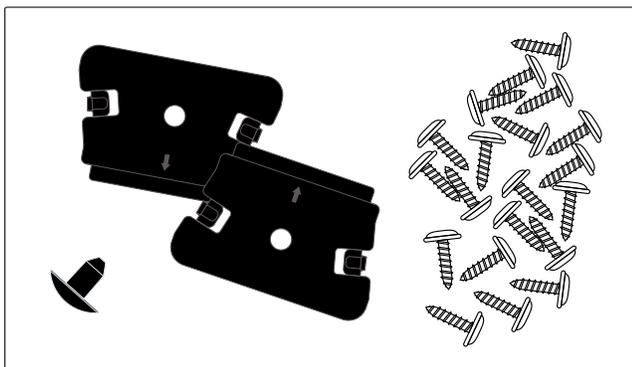
### 1: Electronics Hardware Pack:

- (2) Desk Switch Flathead screws, black finish
- (2) Control Box screws, silver finish



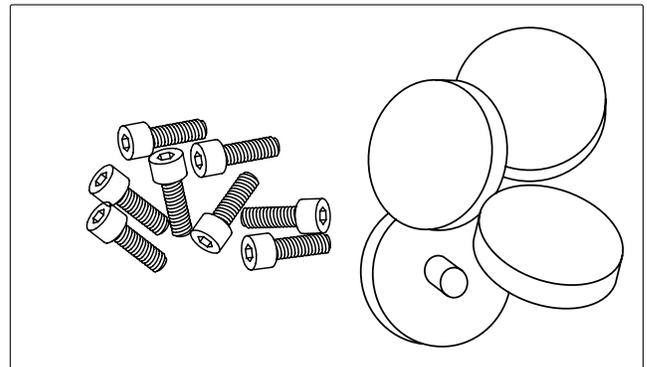
### 2: Desk Frame Hardware Pack

- (1) Locking Clip for Rails
- (2) Kick Locks
- (13-20) #8-15x0.75" Screws for table top

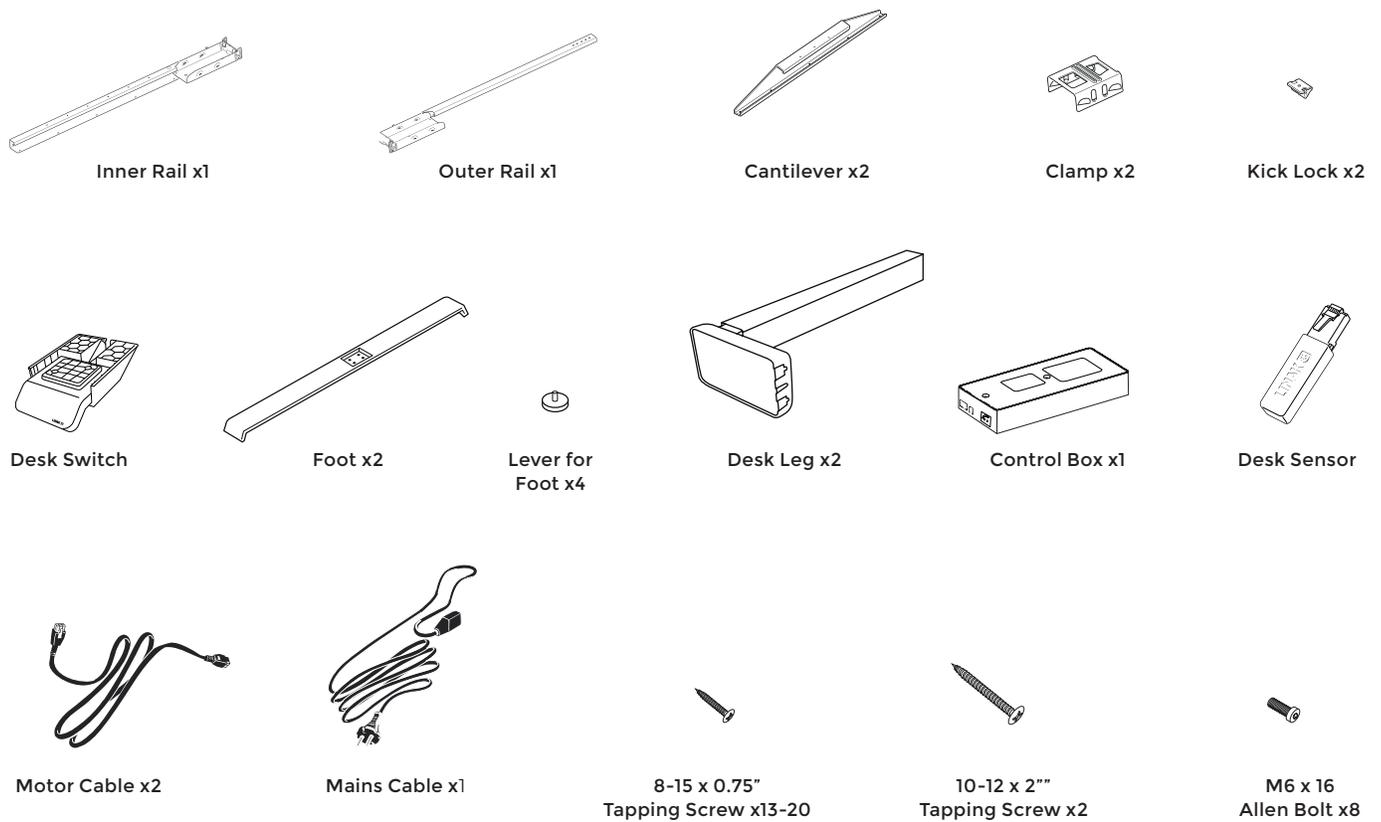


### 3: Desk Feet Hardware Pack

- (8) Mounting screws for the feet, M6 x 16
- (4) Levelers for feet



# Packing List



## Product Ratings

Weight limit for two-leg DL5/6 desk: 1600N (363 lbs including weight of the desk top).

Kick & Click Fixed Frame: Fits desks with 47.25"+ tops. (Actual frame width of 44.9")

Kick & Click Large Adjustable Frame: Fits desks from 54" to 84" (actual frame width of 52.75" to 76.3").

Kick & Click Short Adjustable Frame: Fits desks from 41" to 60" (actual frame width of 38.25" to 50").

### Application of the DESKLINE® DL5/6 system:

Irrespective of the load the **duty cycle 10% ~ 2 minutes of continuous use at full load, followed by 18 minutes of pause** stated in the data sheets, must **NOT** be exceeded as this will result in super heating of the motor, the brake and the spindle nut. Exceeding the duty cycle will result in a dramatic reduction of the life of the system.

**This product is intended for indoor use only.**

# Full Product Details

For full product details, see additional LINAK documentation:

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## Videos

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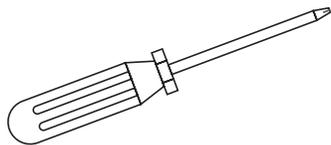
Assembling Your Desk Video



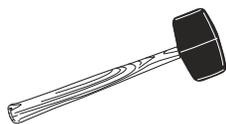
Using Your DPG1C



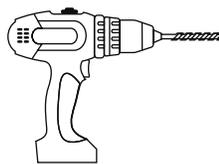
## Tools Needed (Not Included)



Phillips Head  
Screwdriver



Rubber Mallet  
(Optional)



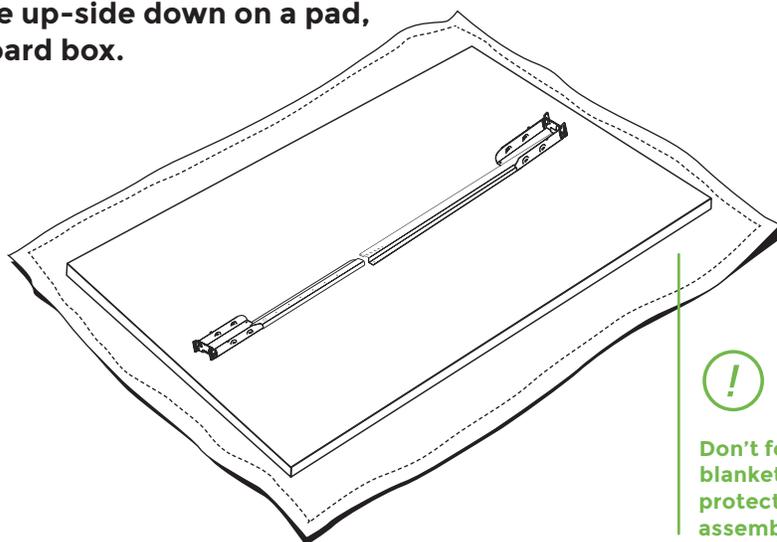
Cordless Drill  
(Optional)



Phillips Head  
Drill Bit (Optional)

## Assembly Process

1. Place work-surface up-side down on a pad, blanket, or cardboard box.



Don't forget to place a protective blanket, pad or cardboard box, to protect the desk top during floor assembly.

2. Gather all parts for Desk Frame.

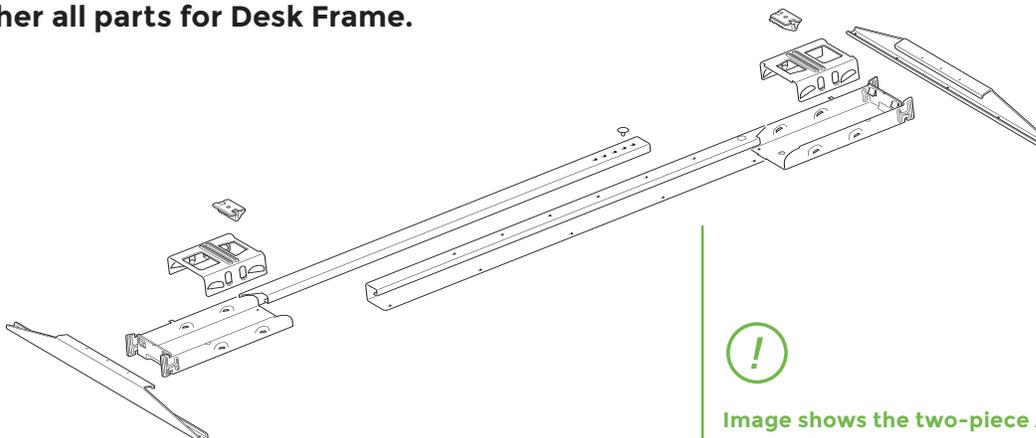
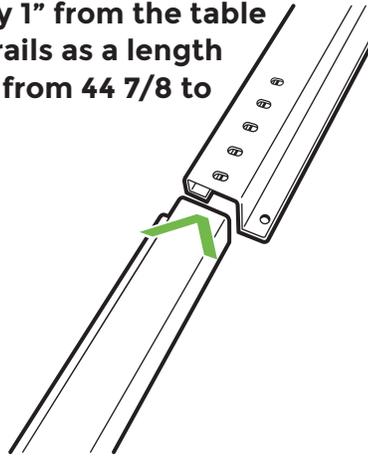


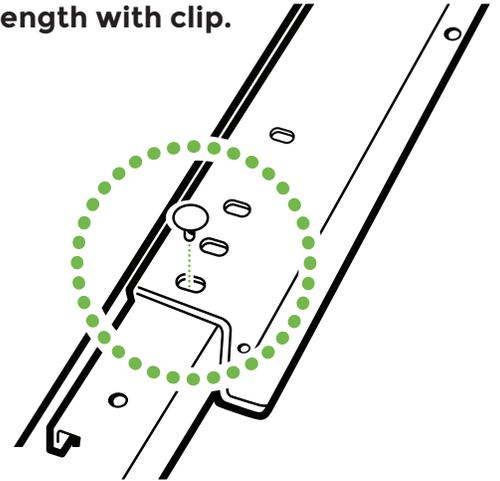
Image shows the two-piece Adjustable Length Frame. Some desks use a one-piece Fixed Length Frame. If the length of the frame is fixed, skip Step 3."

**3. Fix inner rail inside outer rail.**

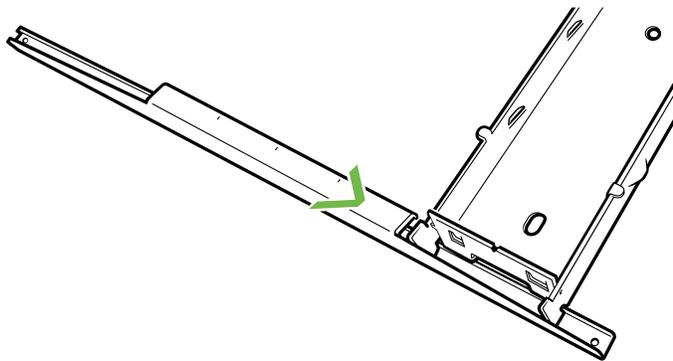
**3.1 Extend to approximately 1" from the table top end using holes on rails as a length indicator. (frame width from 44 7/8 to 76 3/8 inches)**



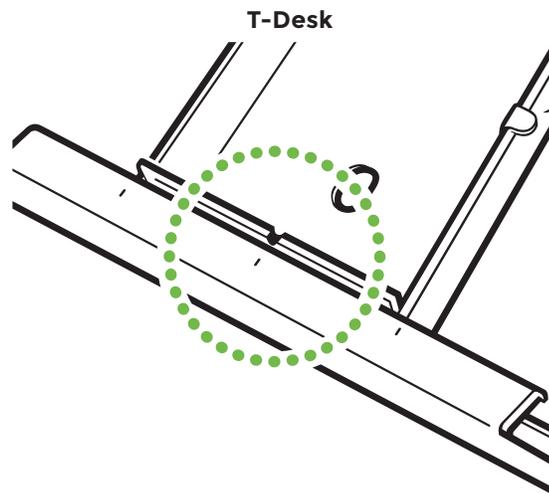
**3.2 Fix length with clip.**



**4. Slide cantilevers over inner and outer rail tabs.**



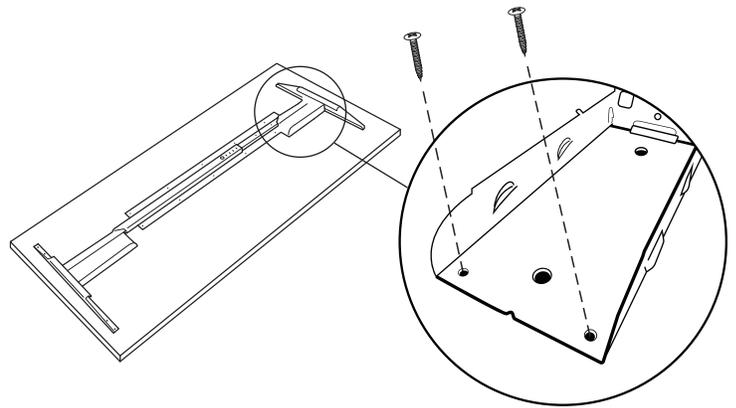
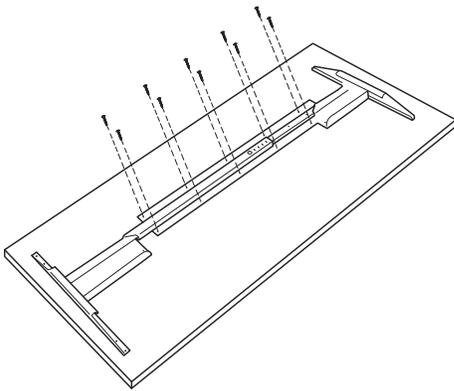
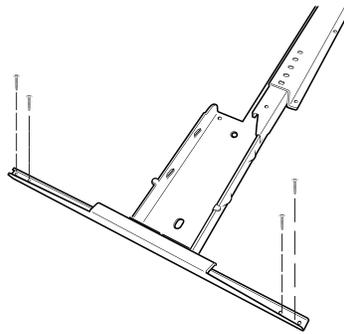
**5. Align cantilevers.**



Align middle marker on cantilever with center on inner/outer rail.

**6. Attach Kick and Click frame to table top approx 1" from each side while centering the frame to the desired desktop.**

**6.1 Screw cantilevers into top using tapping screw.**

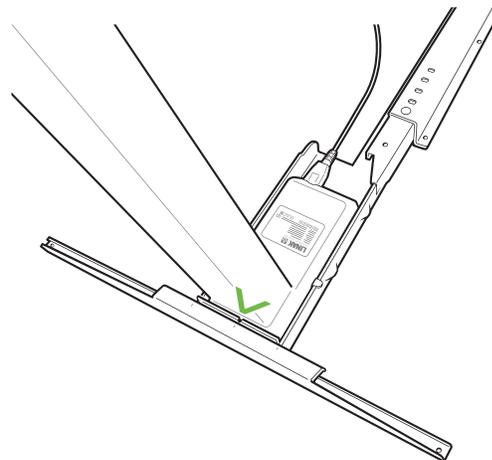
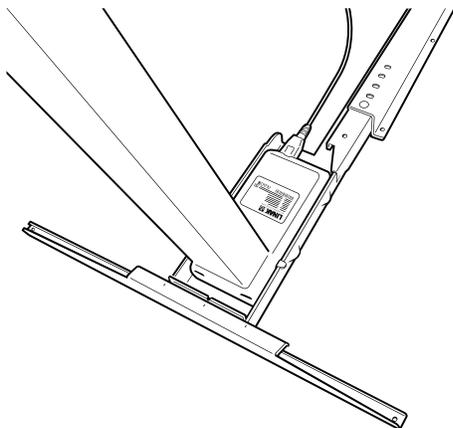


**6.2 Screw rails into top using tapping screws.**

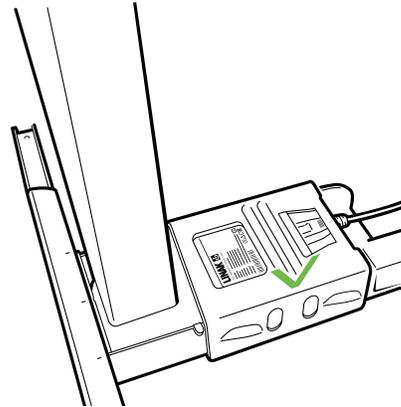
**6.3 Screw bases into top using tapping screws.**

**7. Attach desk legs to frame bases.**

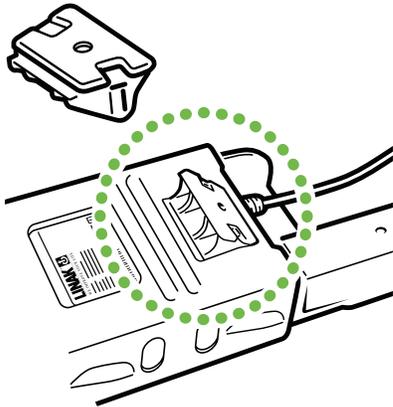
**7.1 Slide column backward into the base.**



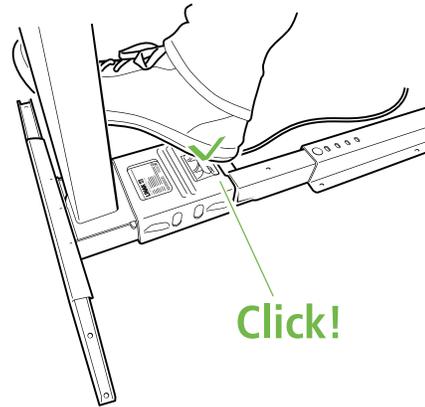
**7.2 Place clamp on Desk Leg Housing, press it down until it snaps into place. It will still be possible to move clamp a little after placement.**



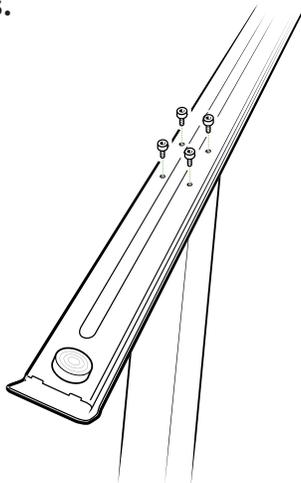
**7.3 Place kick lock in clamp. Arrow on kick lock must face arrow on clamp.**



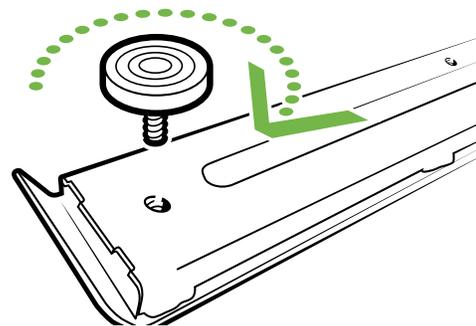
**7.4 Fix kick lock in clamp with your foot. When you hear a “click,” columns are correctly fixed in place.**



**8. Attach desk feet to legs using (4) M6 bolts.**

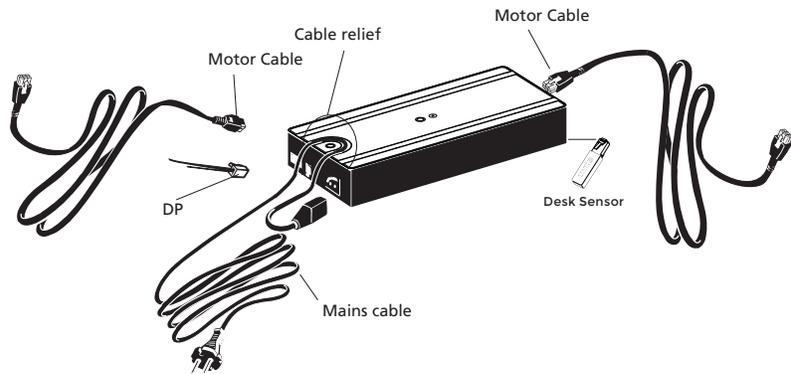


**8.1 Attach levelers for foot by screwing into desk feet.**

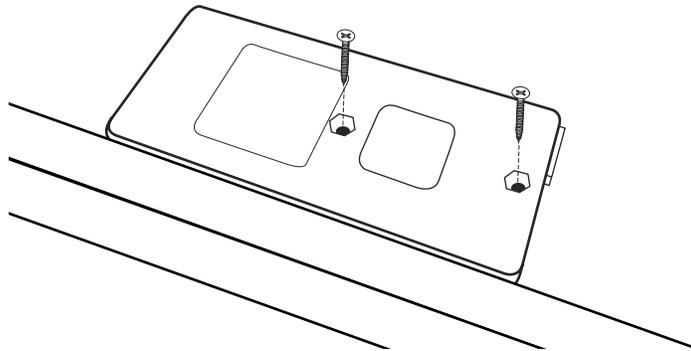


## 9. Electronics Assembly

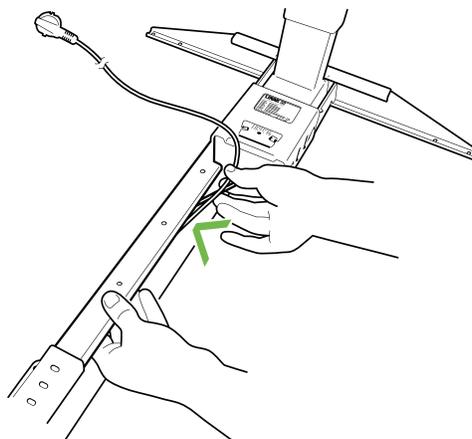
**9.1 Connect mains cable, motor cables, and desk switch cable to control box. Built in cable reliefs allow secure and flexible mounting options.**



**9.2 Attach control box to table top using 2" screws. Attach approximately in the middle of the desk top, close to the Kick and Click rails.**



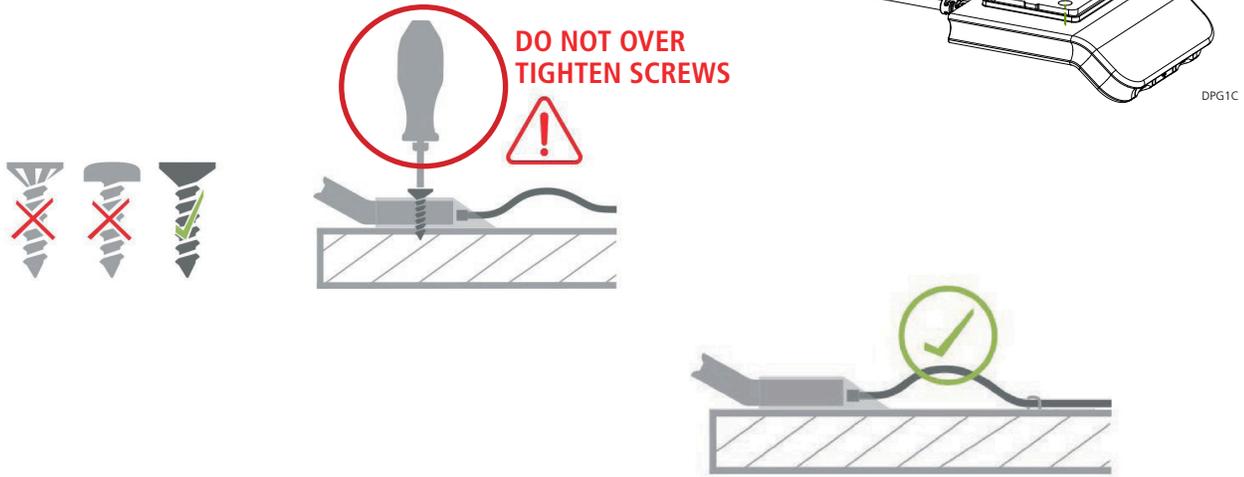
**9.3 Hide cables. Rails are designed so cables from columns and control box can be hidden inside rail.**



## 10. Installing desk switch.

### 10.1: Attach the desk switch to the table top.

Align desk switch with the edge of the table top.  
Pre-drill holes for screwing desk switch to top. Screw in desk switch, being careful not to over tighten screws.

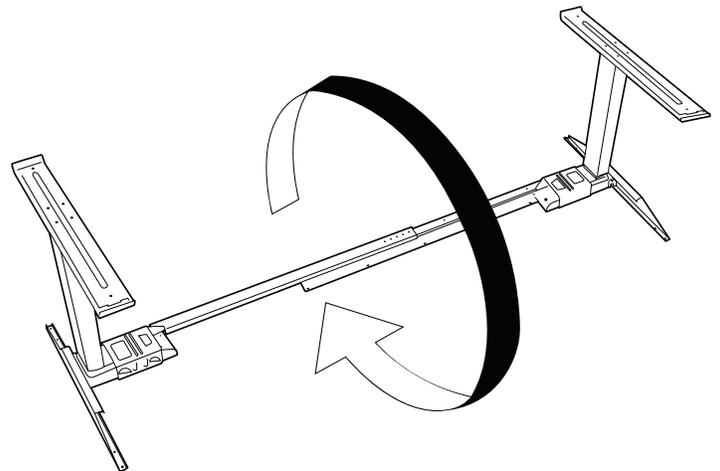


### 10.2: Plug the desk switch into the control box. This switch can be plugged into either port “A1” or “A2”.

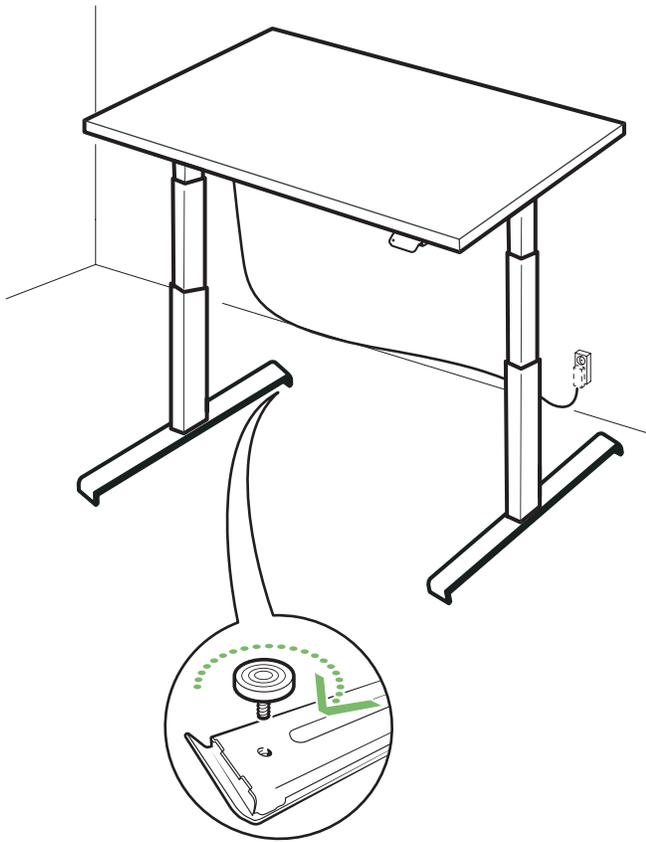
## 11. Flipping Your Desk Over

### Warning! 2 Person lift to avoid injury and damage to the product

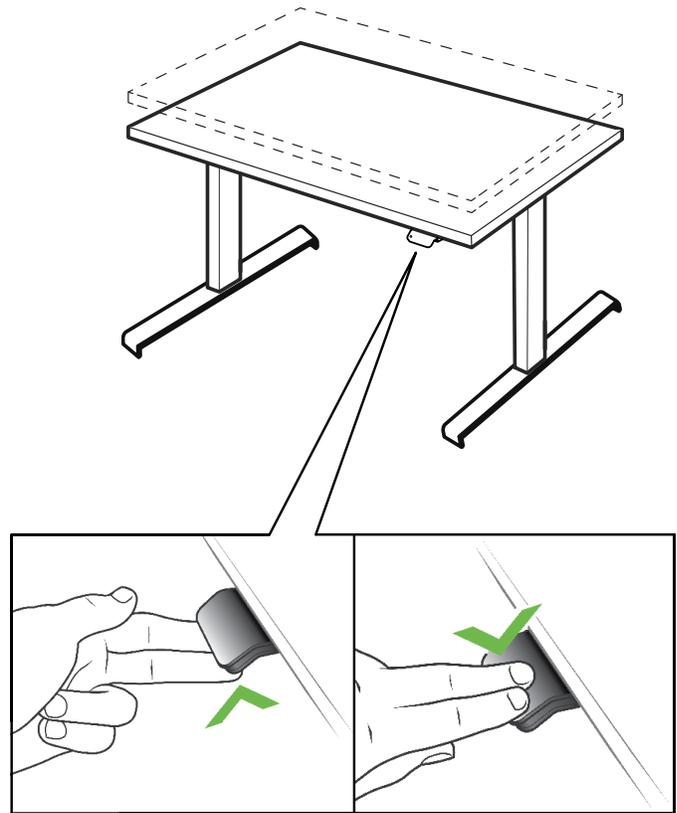
The desk switch sticks out the front edge of the desk, and can be damaged while flipping the desk over. Do NOT flip the desk in a way that could damage the desk switch. (or remove desk switch before flipping the desk).



## 12. Leveling Your Desk



## 13. Initializing Your Desk



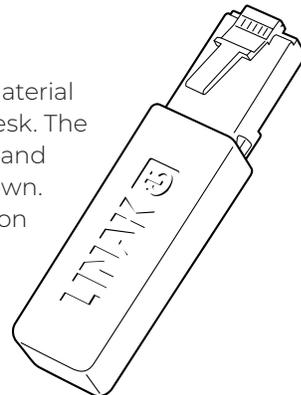
- 13.1 Hold DOWN on the desk switch until the desk reaches its lowest point. (If system does not lower, continue to next step)**
- 13.2 Release desk switch and press DOWN again. Hold for 5 seconds while the system initializes. If no movement, release and try again.**
- 13.3 Desk should run down into an end stop, then automatically runs approximately 5mm out again. Release desk switch.**
- 13.4 Hold UP on the desk switch and raise the desk to its full height. Be sure the mains cable can move freely.**
- 13.5 Hold DOWN to complete a cycle of the desk. Your initialization is now complete and your desk is ready to use.**



## Desk Sensor™:

The Desk Sensor™ 1 (DS1) is an Anti-Collision™ solution which can limit material damage to a desk or an object if a collision occurs during driving of the desk. The DS1 is a small, compact plug-in adapter based on gyroscope-technology, and it detects even a little tilting of the desk when the desk is driving up or down. Upon detected tilting, the system stops and drives in the opposite direction to avoid collision and damage to the desk or the object. The DS1 can detect both hard and soft obstacles.

The DS1 can be plugged into either port "A1" or "A2".



# Getting the Most Out of Your New Sit-Stand Desk:

## Sit-Stand Guide for a Healthy Working Routine.

Want to bring movement to the office and help your employees stay healthy? Below are a few tips on how electric sit-stand desks and motivational tools help create healthy office habits. Standing for eight minutes every 30 minutes makes a huge difference.

For every 30 minutes: Move for two minutes, stand for eight minutes, sit for 20 minutes

Several studies show that breaking up physical inactive periods will help minimize their negative health effects. Electric sit-stand desks bring movement in the office, and this is what it is all about. As it is neither healthy to stand nor to sit all day, the ideal situation is to switch between standing and sitting and to move around as much as possible throughout the day.

In fact, experts claim that the ideal sit-stand balance for every 30 minutes is to:

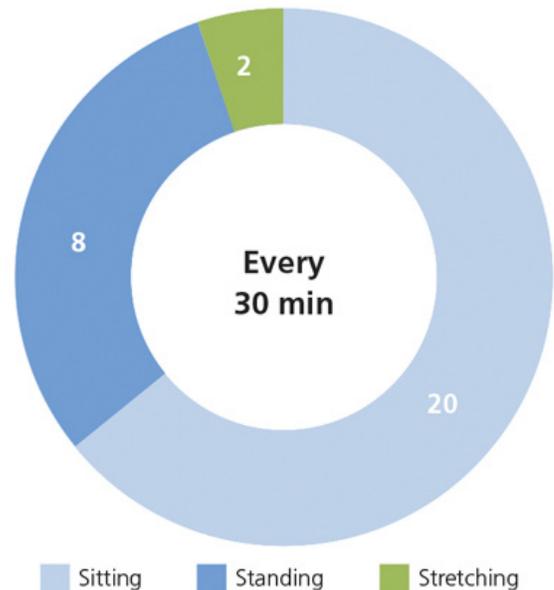
- Stand for eight minutes
- Move/stretch for two minutes
- Sit in neutral positions for 20 minutes

### Choose a desk system designed to help office workers stay active

Changing habits is not an easy task. But there are ways to help develop healthy habits. To support office workers, LINAК made an extra effort to design user-friendly office desk systems and motivating desk accessories.

### The desk switch with integrated sit-stand reminders

The most visible part of a sit-stand desk is the desk switch. If a desk is easy to control, changing postures during the day becomes an easier task. Most LINAК desk switches include memory position functions, allowing users to store their favorite desk heights, and making it easier to switch between their preferred sit and stand position.



For intuitive desk handling, LINAК designed the desk switch DPG series. It is designed for operating without the use of buttons. Advanced models include sit-stand reminder functions via an integrated LED diode / light strip – its color indicating to the user when it is time to stand up.

### Personal sit-stand statistics and tracking via mobile devices

Most LINAК desk systems also allow users to receive sit-stand reminder notifications and to follow his/her personal statistics via their mobile device, using the free Desk Control™ App. It works via Bluetooth® wireless technology and is available for Android and iOS devices.

### Download the Apps in stores:



# Benefits of Moving



Using LINAK lifting columns and linear actuator systems brings numerous benefits when integrated with adjustable office desks, industrial and technical workstations, and kitchens.

It is difficult to accommodate a diverse workforce with a standard “one size fits all” desk. Adjustable desks give users the option to choose a working position that is best suited to their body. This helps eliminate discomfort caused by a “desk that does not fit” – insufficient leg space and keyboards/monitors that are in a position that is too high for the user.

## **Increase the productivity of your staff**

People need to get out of their chair and move at least five minutes per hour. Micro-breaks reduce fatigue. Many employees do not have the flexibility to get away from their workstations every hour. Using a sit-stand desk allows employees to take a break from their static posture without leaving their area.

## **Create flexible workstations**

Electric adjustable desks allow users to comfortably and quickly adjust to the task at hand by the touch of a button. For instance, if a colleague or a customer drops by, it is no problem... you can adjust the desk to a group working level and meet in comfort. As an added bonus, when you stand you can keep meetings and “on the fly” interruptions shorter.

## **Improve employee health and wellbeing**

Studies have shown that alternating between sitting and standing results in less discomfort and reduces the amount of fatigue many people feel at the end of the workday.

Workplace physical activity programs have also been shown to reduce sick days by up to 32 percent (source: James A Levine, MD, PhD, Mayo Clinic and Selene Yeager).

A study from the Mayo Clinic shows you can burn an additional 340 calories a day if you spend two hours of your workday standing instead of sitting.

## **Prevent injuries**

Fitting the workstation to your individual needs can reduce the causes of work-related stress. Alternating between sitting and standing and reduces these risks much further by avoiding problems caused by static posture or positions.

# Troubleshooting

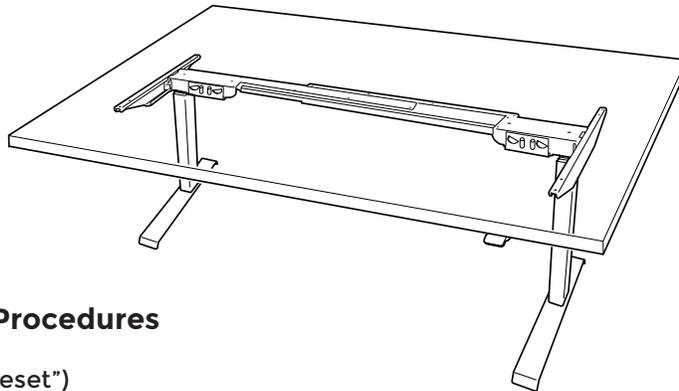
## Glossary of Common Terms

- **Components**

- » **Desk leg (DL)** – The lifting columns, typically with powder coated steel profiles, responsible for lifting the working load of the application.
- » **Control box (CBD6S)** – Both the computer and power supply of the system.
- » **Desk switch (DP)** – The user interface. Depending on the model, it is used to activate the application, set memory positions, display the height, display error codes, connect to mobile apps, and give reminders to the user.
- » **Motor cable** – Transmits low voltage power (18-39 VDC) from the control box to the desk legs, and also transmits PIEZO signals when available from the desk leg.
- » **Mains cable** – Transmits high voltage power (120 VAC in US and Canada) to the control box.

- **Other**

- » **Initialize** – Procedure to reset all desk legs to the fully retracted position so that the control box knows where they are.
- » **Reference** – Any group of desk legs that run in parallel when an Up or Down command is sent to the control box. It is possible to have a custom control box configuration that allows for more than one Reference. [Example: Two (2) desk legs on Reference #1 (Channels #1 and #2) to lift a work surface, and one (1) LA31 on Reference #2 (Channel 3) to adjust a monitor array.]



## Standard Troubleshooting Procedures

### P1 - Initialize the control box ("reset")

Note: This is commonly the solution when a complaint is that a desk will move down but not up. When a control box requires initialization, this is how the system is programmed to behave.

- STEP 1.** Hold Down button on desk switch to ensure the desk is retracted to its lower limit (whether it's the fully retracted hard stop, or a configured lower limit).
- STEP 2.** Briefly release Down
- STEP 3.** Press and hold Down for 5 seconds, wait until all desk movement has stopped, then release
  - a. If initialization is successful, you should see a slight up/down "handshake" movement of the desk legs
  - b. If you have a desk switch with display, you should also see E01 during this part of the procedure.

### P2 - Check all cable connections

- STEP 1.** Mains cable, connected to both the control box and power outlet.
- STEP 2.** All motor cables, connected to both the control box and desk leg.
  - a. Assuming a standard control box configuration, these must be connected in channels 1 and 2, or channels 1, 2 and 3 for a 3-leg table. They can't be connected in channels 1 and 3 or 2 and 3 unless there is a configuration on the control box specifying this arrangement.
- STEP 3.** Desk switch cable, connected to the control box in either port A1 or A2 (doesn't matter which).

### P3 – Check for obstructions

**STEP 1.** Check under, above and on the sides of the desk for any obstructions that could prevent movement in either direction.

The next two procedures (P4 and P5) are for a two leg desk system. The same concepts can be used for a three leg system using Channel 3 and so forth.

### P4 – Check for faulty component(s) WITH error codes (digital display on desk switch, or on app via Bluetooth).

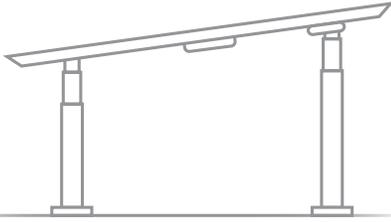
Notes: Check the error code list in the appendix of this troubleshooting guide for assistance. The code should read E##. Some error codes are channel-specific which can help pinpoint the problem.

Symptom	Procedure
System will move down but not up	<ol style="list-style-type: none"><li>1. Initialize <b>(P1)</b></li></ol>
System unresponsive (no power to display with any button is pressed). If any of these steps activates the digital display, initialize the system <b>(P1)</b> .	<ol style="list-style-type: none"><li>1. Check mains cable connection</li><li>2. Test power outlet using another device (lamp, phone charger, etc.)</li><li>3. Plug in a new switch and test</li><li>4. Connect all existing cables to a new control box and test</li></ol>
System is powered, but will not initialize	<ol style="list-style-type: none"><li>1. Try pressing and releasing the down button a few times before pressing and holding for 5 seconds.</li><li>2. Also, be aware if the control box has a special configuration: If the desk is programmed with a lower stroke limit, so as to avoid a collision with something like a file cabinet, it is possible that it also has a custom, longer Forced Initialization Time. This is the time required to hold Down before initialization begins. Sometimes this is 10 seconds or longer.</li><li>3. If you have a standard control box without a special configuration (i.e. "Plug &amp; Play"), try to initialize each leg in Channel 1 by itself, with nothing else plugged into the motor channels on the control box. Also, swap the motor cables so that a different motor cable is used to initialize Channel 1 by itself. The problem could be a faulty desk leg or a faulty motor cable.</li></ol>
Channel-specific error (Ex: E41 – Channel 1 overload) – Everything except PIEZO errors (E59-E63)	<ol style="list-style-type: none"><li>1. Swap the motor cable connections at the control box (Motor cable #1 from channel 1 to 2, motor cable #2 from channel 2 to 1). If it remains E41, there could be a problem with the application (load or obstruction on one side) or a bad control box. If the error changes to E42, go to step 2.</li><li>2. Swap the motor cable connections at the desk legs, so that the leg that was originally connected to Channel 1 is back in Channel 1, but with the motor cable that was originally connected to Channel 2. If it remains E42, it is most likely a bad motor cable, now connected to Channel 2. If it goes back to E41, it is most likely a bad desk leg, now connected to Channel 1.</li></ol>

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**Symptom**

Desk is uneven

**Procedure**

1. Initialize the desk. If both legs begin to run down, complete the initialization. If only one leg moves, stop and move to Step 2.
  2. Check motor cable connections. Check to ensure motor cables are not pulled during movement. With a standard, Plug & Play control box, it's possible that only one leg is connected, and connected to Channel 1. In this case, it will initialize and run Channel 1 only. If there is only one leg but it's connected to Channel 2, it will not initialize.
  3. If a motor cable was disconnected, try initializing again.
  4. If unsuccessful, connect the desk leg from Channel 2 into Channel 1, with nothing in Channel 2, and initialize.
  5. Try initializing the same leg that's in Channel 1, but with a different motor cable. If it still won't initialize, replace the desk leg.
- 

**P5 - Check for faulty component WITHOUT error codes (no digital display on desk switch, no Bluetooth)**

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**Symptom**

System will move down but not up

**Procedure**

1. Initialize (P1)

System will not initialize.  
OR  
System won't complete the full range of motion.

1. Check mains cable connection. Test power outlet using another device (lamp, phone charger, etc.)
  2. Plug in a new switch.
  3. Connect all existing cables to a new control box.
  4. Try pressing and releasing the down button a few times before pressing and holding for 5 seconds.
- 

**- After each of these steps, attempt to initialize (P1).**

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**5.** Also, be aware if the control box has a special configuration: If the desk is programmed with a lower stroke limit, so as to avoid a collision with something like a file cabinet, it is possible that it also has a custom, longer Forced Initialization Time. This is the time required to hold Down before initialization begins. Sometimes this is 10 seconds or longer.

**6.** If you have a standard control box without a special configuration (i.e. “Plug & Play”), try to initialize each leg in Channel 1 by itself, with nothing else plugged into the motor channels on the control box. Also, swap the motor cables so that a different motor cable is used to initialize Channel 1 by itself. The problem could be a faulty desk leg or a faulty motor cable.

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Desk is uneven

**1. Desk is uneven (P4)**

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## Appendix

### What is the Control Box Thinking?

There are many clever procedures, checks and measurements performed in the control box. Here is a brief description of what the control box is trying to accomplish while it is activating an application:

- **Safe activation of the application**

- o Parallel, even movement of all desk legs in the application is critical.
  - » The control box does not directly know the position of each desk leg. Instead, the position of each leg is constantly calculated via Hall pulses from each motor. The legs on a single reference are not allowed to be more than +/- 5 Hall pulses out of sync. For a standard DL, this amounts to +/- 0.55 mm.
  - » Motor cable disconnections are also detected as errors.
- o If PIEZO technology is present in the desk leg, the control box monitors for PIEZO “collision” signals from each channel. When a PIEZO signal is sensed, movement is immediately stopped and, if there is room, the system is ran in the opposite direction a small distance.
- o Anytime the control sees an incomplete signal, or more than one signal (multiple keys pressed, multiple desk switches activated at the same time), an error is determined and no movement is allowed at that moment. This is to prevent an action of movement that is not intended by the user.

- **Protection from equipment damage**

- o Internal temperature of the control box is monitored.
- o Maximum current draw for each motor channel, as well as the system as a whole, is measured. When the current exceeds an allowable limit, an error is presented.



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