

# USER MANUAL

**GF - 470**





## SAFETY FIRST

Your safety and the safety of others is very important. Please familiarize yourself with all instructions and safety warnings before operating the desk. Please keep this manual for future reference.

The vendor is not liable for damage to people, animals or objects caused by improper or unauthorised use. This also applies for damage caused through disregard or insufficient consideration of the safety criteria contained in this user manual, or through alteration of the product or use of unsuitable spare parts.

To help you make informed decisions about safety, we have provided operating procedures and other information on labels and in this user manual. This information alerts you to potential hazards that could hurt you or others. To avoid these situations please use your own good judgment. You will find important safety information in a variety of forms. Safety messages are preceded by a safety alert symbol and one of three signal words: **DANGER**, **WARNING** or **CAUTION**. These safety messages are listed in order of severity, identify the general risks and actions to avoid these risks. The signal words used in this manual are listed below:



### **DANGER**

Indicates an imminent hazard with a high risk of serious injury or death.



### **WARNING**

Indicates a potentially hazardous situation that if not avoided may result in serious injury or death.



### **CAUTION**

Indicates a potential hazardous situation which may result in minor or moderate injury. It may also be used to alert against unsafe practices.



### **NOTICE**

Indicates an alert to call attention to proper instructions or operation procedures to assure correct equipment function and to avoid equipment damage or wear.

Note that the information and specifications included in this manual may have changed since the time of approval for printing. No revision service is applied. Please contact your vendor for any updated manual revisions.

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# 1. IMPORTANT SAFETY INSTRUCTIONS

## SAVE THESE INSTRUCTIONS

Your safety and the safety of others is very important. Please read all instructions before using the table.



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

- *Improper usage, abuse, or misuse of the control box, handset, motors and other electrical components may result in an electrical shock injury or possible death.*
- *Do not open the control box or handset under any circumstances. The control box and handset contain no serviceable parts.*
- *Do not modify or make any changes to the control box, handset or other electrical devices.*
- *During installation, repair, cleaning, or maintenance work, the power cable must be disconnected from the outlet.*
- *Connect this desk to a proper outlet only.*
- *The control box unit may only be operated with voltage as specified on the label.*
- *Only use the power cord supplied with the control box (Flexible cord 2-pol SJT-2 2x18AWG 105°C 300V VW-1 CSA). Make sure that the cord is not damaged before usage. Do not operate the control box if the power cord is damaged. A damaged cord shall only be changed by authorised personnel.*
- *Do not expose the control box, handset or other electrical device to water or other liquids including moisture, drips, splashes or spills.*
- *Do not operate the control box, handset or other electrical device in a potentially explosive atmosphere. Do not operate where aerosol spray products are being used or where oxygen is being administered.*
- *Do not use the product if it has been dropped or damaged. Contact the manufacturer for examination or repair.*
- *The desk must not be structurally or technically altered or modified in any way.*



**WARNING** - *To reduce the risk of burns, fire, electric shock, or injury to persons*

- *This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision unless they are supervised by a person responsible for their safety.*
- *Use this desk only for its intended use as described in these instructions. Do not use attachments not recommended by the manufacturer.*
- *Keep the cords away from heated surfaces.*
- *Never drop or insert any object into any opening.*
- *Do not use outdoors.*
- *Do not exceed the maximum intended load.*
- *To minimize the risk of squeezing or pinching ensure that there is at least 2,5 cm (one inch) safety margin between the desk top and items above or below the desk top. As a safety margin for body or head use a minimum of 40 cm (16 inch) between static objects and moving surfaces.*
- *During the lowering or rising of the desktop, the operator must ensure that no person or object risk being harmed by the operation.*
- *The desk must only be operated while in an upright position.*
- *Keep children away from moving parts and underneath the desk.*
- *Children must be supervised at all times.*
- *The desk may not be used to lift people. Do not sit or stand on a desk while it is raised or lowered.*

 **CAUTION**

- *The motors control unit is not designed for continuous operation. Changing the desktop position without interruption must not exceed the intended duty cycle, see 1.2 Product Specifications. The unit is thermally protected and will temporarily shut down if use exceeds the duty cycle.*

## 2. GENERAL INFORMATION

### 2.1 Designated Use

This stand is intended for use for electrical height adjustment of a sit-stand workstation commercially or in home environments. Any other uses are viewed as improper. The stand shall only be operated indoors in dry, enclosed environments. For maximum intended load and additional specifications see 1.2 Product Specifications.

### 2.2 Product Specifications

	<b>GF - 470</b>
<b>Maximum load*</b>	80 kg including worktop
<b>Stroke</b>	470 mm
<b>Speed**</b>	<30 mm/s
<b>Sound</b>	<50 dB(A)
<b><i>Electrical rating</i></b>	
<b>Input</b>	100-240VAC 50-60Hz, 3,2-1,5A
<b>Duty cycle</b>	1:9

### 2.3 Standards & Certificates

The complete stand/base is developed to harmonize with standard requirements:

EN 527-2:2016 Office furniture – Work tables – Part 2: Safety, strength and durability requirements

EN 1730 Furniture – Tables – Test methods for the determination of stability, strength and durability.

ANSI/BIFMA X5.5-2014 - Desk products - applicable paragraphs

The paint/surface of the stand is approved according to standard:

EN 12720:2009+A1:2013 Furniture – Assessment of surface resistance to cold liquids

EN 15186:2012 Furniture – Assessment of the surface resistance to scratching

The electronics are certified according to:

RoHs, Reach, EMC directive, UL962, CHINA RoHS

\*Load shall be evenly distributed

\*\*Speed may vary with load



## 2.4 FCC Information

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

## 2.5 User Information

When customer support is required the operator may ask for information stated on the product label. The product label is located on the house of the motor on one of the columns.

Example of product label



## 2.6 Before You Start

Check for and remove obstacles in path of the desk top. Before first use, the control unit must register the lowest point of elevation. Do reset as listed in section 4.2. Under normal conditions the system communicates internally and knows the position of each column. If there are differences in column height, please do a manual reset as listed in section 4.2.

## 3.2 System Procedure

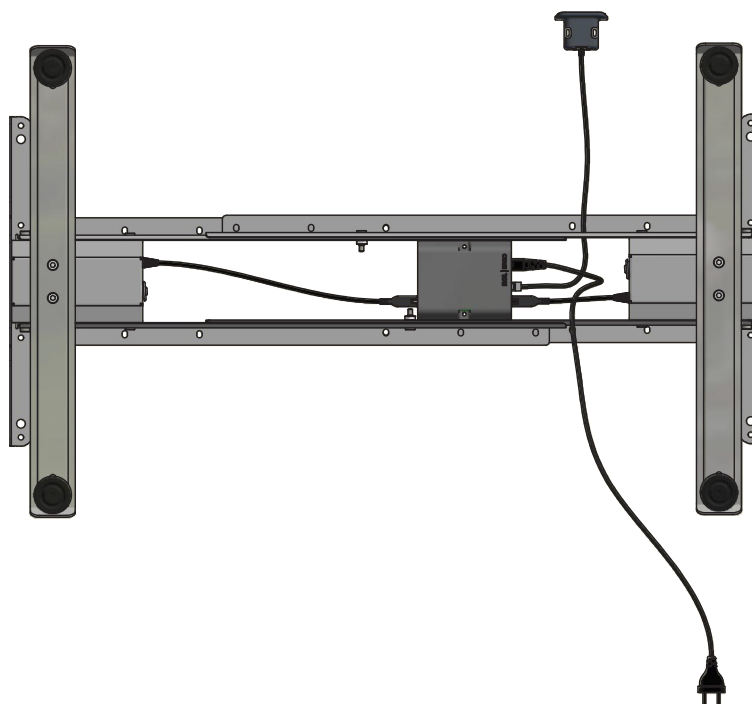
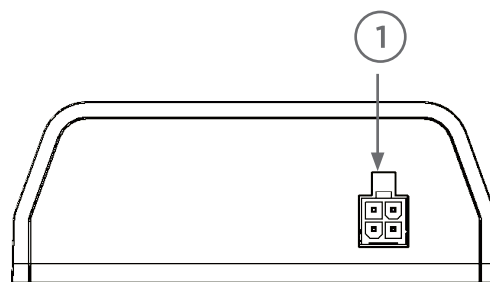
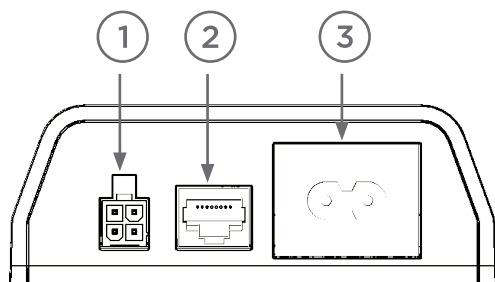


### WARNING

The main power cord must be unplugged during the setup.

To set up the desk:

1. Connect the motor cables to the control box 4-pin motor connections.
2. Connect the handset to the control box.
3. Connect the power cord to the control box.
4. The desk is ready for use, connect the power cord to the outlet.





## **DANGER**

Improper power connection of the equipment can result in a risk of electric shock. Check with a qualified electrician for any concerns.

This product does NOT require grounding to earth. This product is double insulated and equipped with a non-polarized plug and 2-conductor cord. The plug must be plugged into an appropriate building outlet that is properly installed in accordance with all local codes and ordinances. Please read section 5.4 as well.



## **CAUTION**

When the power cord is plugged in, the electrical control devices are operational.



## **NOTICE**

When disconnecting components such as the control box, bus cable or the handset, the strain relief hook must be pressed before removing the connector. When inserting the connector, an audible “click” indicates that the strain relief hook has correctly re-engaged.

In case of a power failure or if the power cord is unplugged during the movement of the drives, a manual reset may be necessary. See section 4.2.

The control unit can be damaged by power surges. Unplug the power cord during a thunderstorm or if you do not intend to use the desk for a longer period.

## 4. OPERATION INSTRUCTIONS

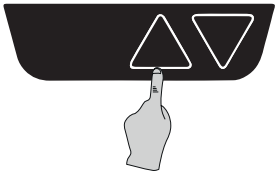
### 4.1 Basic Functions

#### NOTICE

Read the user manual carefully before installing or operating the control unit. If chosen handset is not covered in this user manual, please see separate user manual supplied with the handset.

#### 4.1.1 Upward Desktop Movement

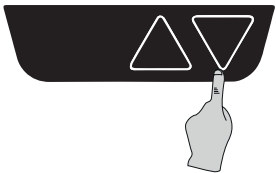
This function enables the upward adjustment of the work surface. To change its position, proceed as follows:



Press the handset up button and continue to hold until desired desktop height is reached.

#### 4.1.2 Downward Desktop Movement

This function enables the downward adjustment of the work surface. To change its position, proceed as follows:



Press the handset down button and continue to hold until desired desktop height is reached.

#### NOTICE

The desktop will continue moving upwards or downwards until you release the button or the maximum or minimum height is reached.

#### NOTICE

This system is equipped with an extra safety stop. To avoid the risk of pinching the desk will stop 10 mm above the lowest position. To reach the lowest position press and hold the down button for 5 seconds.

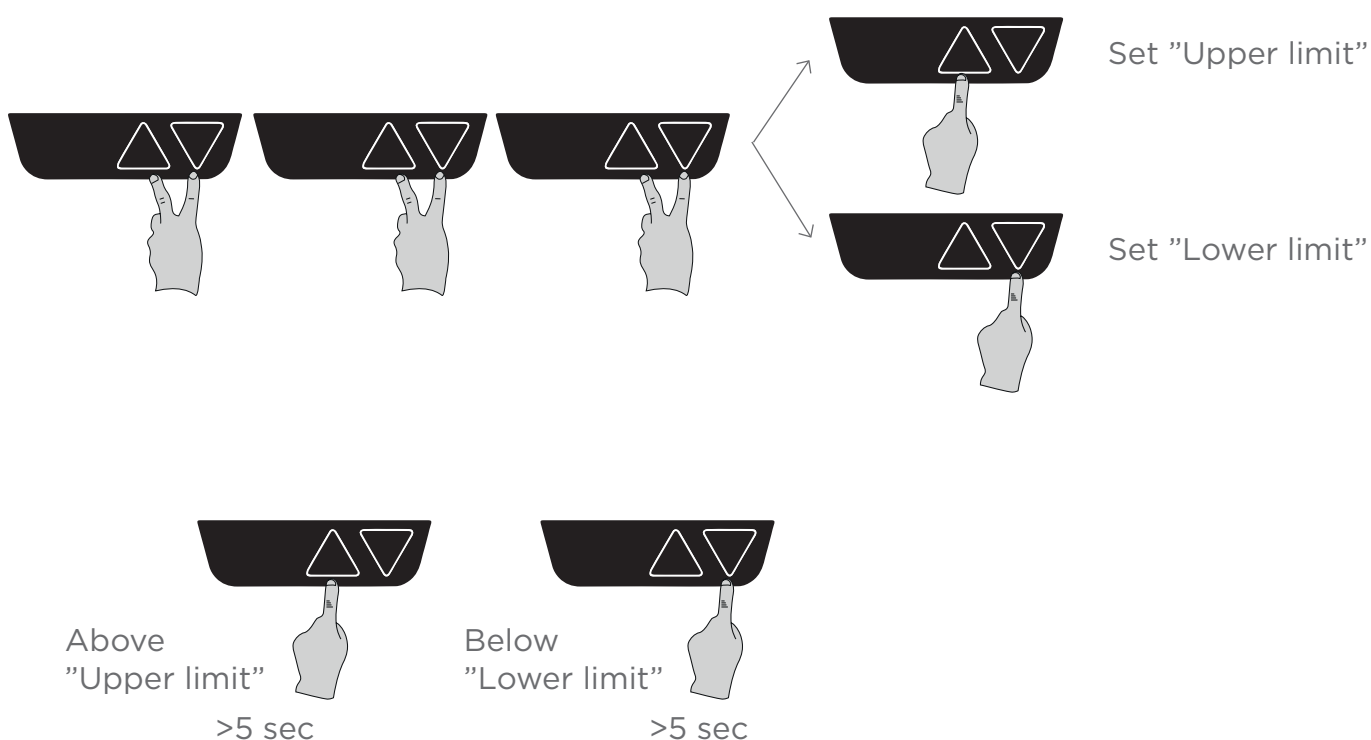
### 4.1.3 Simple memory

This handset has an editable memory for high and low (stand and sit) position. It could also be used to avoid collision with i.e. a cabinet or pedestal. When a memory position is set the desk will stop when the memory position is reached. To drive the desk outside the memory position press the up or down button for a minimum of 5 seconds.

How to set memory/end positions:

1. Drive your desk to the level you want to store.
2. Press both buttons 3 times (0.5-1 second between each pressing).
3. Then press "up" or "down" to set the position (0.5-1 second).
4. Do the same procedure for your second store.

To clear memory positions perform a reset as described in section 4.2.



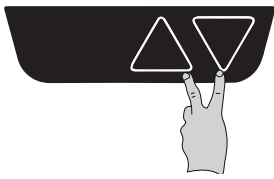
## CAUTION

Setting lower simple memory will replace the preset safety stop at 10 mm. To restore perform a reset.

## 4.2 Manual Reset

If a motor or other electronics have been disconnected from the column, during or after the assembly, a reset (homing) cycle **MUST** be performed. It is recommended to apply some pressure on the stand during the reset.

Perform a reset by:



Simultaneously press the up and down buttons. Within a few seconds the desk will start moving downwards. Keep holding the buttons and the desk will slowly move to the lowest point possible. The reset is complete when the desk has stopped at the lowest point.



The desk/stand is ready for normal use.

## 4.3 Collision Detection

This desk is equipped with a Collision Detection system designed to avoid possible severe injury due to pinching. When the desk detects a sudden change in resistance (force) the desk will stop the movement and reverse approximately 50 mm. The function is active both while driving up and down but needs at least 25 mm of travel to activate.



### **CAUTION**

Always remove the obstacle prior to operating the table again if Collision Detection have been triggered.

## 5. MAINTENANCE & REPAIRS

### 5.1 Cleaning, Inspection & Storage

Clean the desk stand by wiping it down with a dry microfiber cloth. Never use solvent, abrasive or corrosive compounds.

Products must be cleaned at regular intervals to remove dust and dirt and inspected for mechanical damage and normal wear and tear. Worn-out parts must be replaced.

Unplug the power cord if you do not intend to use the desk for a longer period.

Do not store desk or cables in direct sunlight.

### 5.2 User Maintenance

Products are closed units and require no internal maintenance. Columns must be inspected at the attachment points, the wires, the cabinet, and the plugs, check that columns function correctly.

- Inspect columns for loose connections and damaged plugs/wires.
- Inspect control box for loose connections and damaged plugs/wires.
- The control box and the handset are sealed and maintenance free.

### 5.3 Repairs

Check all screws and bolts after the first week of use and tighten screws and bolts where necessary to ensure safe operation of the desk. If the desk cannot be raised or lowered, check the cable connection between:

- The control box and the motor/motor house (column system).
- The handset and the control box.
- The control box and the power outlet.

If the desk still does not operate, the control system may have triggered the overheating or duty cycle protection. Please wait for at least 9 minutes and try again before proceeding.


If a control unit is replaced, a manual reset is required. Follow the steps as shown in section 4.2.

See Appendix for troubleshooting. If the desk is still not operational, please contact your vendor for further assistance.

The control system is equipped with safety features; the intermittency function, the overheating protection and memory function:

- Duty cycle function – The duty cycle factor of the desk 1:9 meaning 1 minute of operation must be followed by 9 minutes of inactivity. If this limitation is exceeded, the desk will become inoperable until the control box resets automatically.
- Overheating protection – The desk will become inoperable if the overheating protection is triggered and will return to operation automatically once the heat has dissipated sufficiently.
- Memory function – The control system (each column) will retain information regarding the elevation of the desk at all times. This information will remain stored even in case of power failure or if the power cable is disconnected from the power outlet.

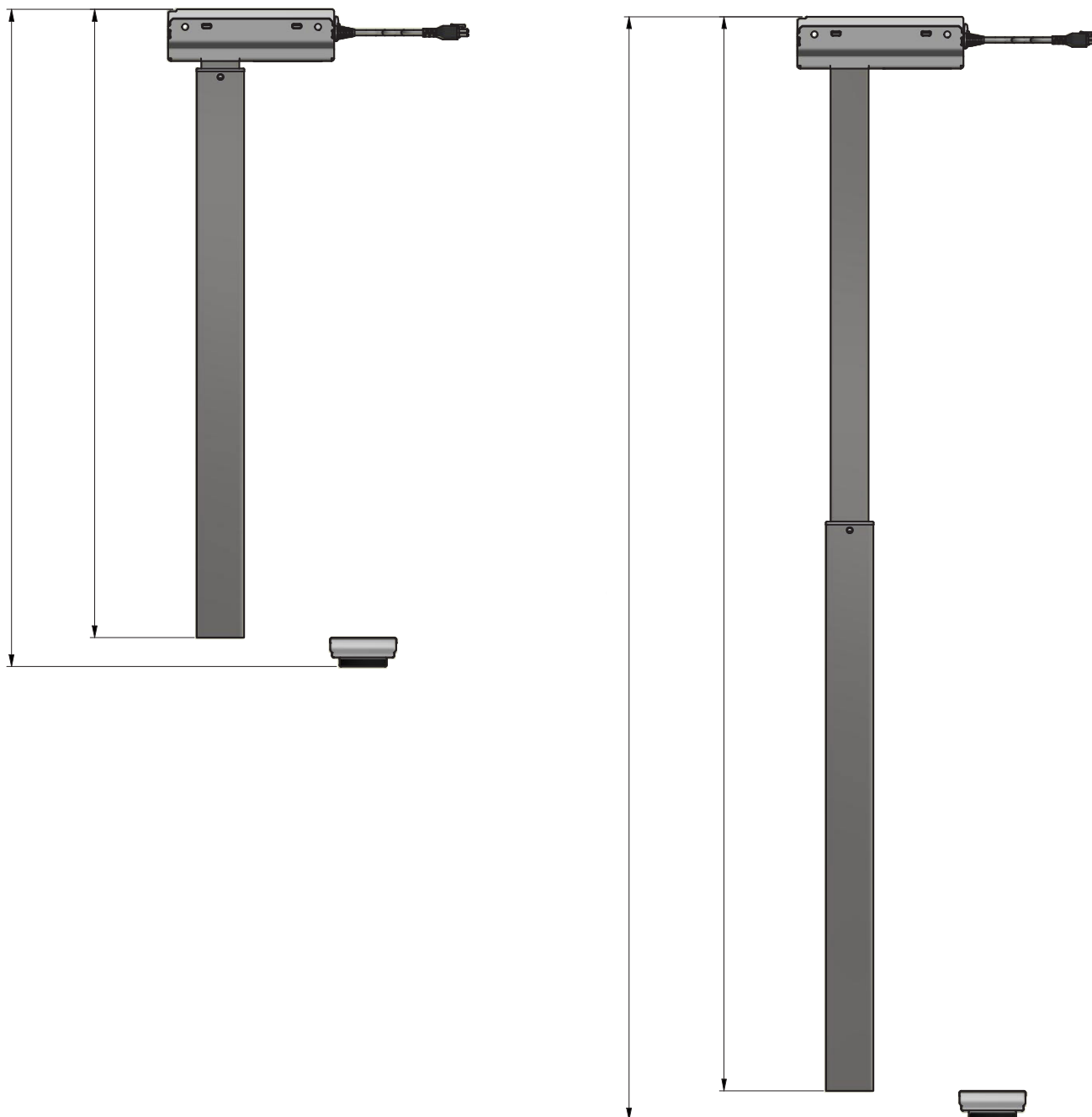
## 5.4 Servicing of Double-Insulated Products

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



## 6. APPENDIX


### 6.1 Dimensions leg system: Series GF with 470 stroke



## 6.2 Troubleshooting

Problem	Suggested correction	
The desk is not able to move.	<p>Make sure that all cables are connected.</p> <p>Unplug the desk from the wall socket for roughly one minute and reconnect.</p>	Connect the cables. Follow install instructions and perform a reset.
Only one column is moving.		Perform a reset. If there's still only one column moving, replace the column that is moving.
Both columns are moving but at different speeds.	It is possible to move the slower column by pulling/pushing.	Replace the column that is moving slower than the other.
	It is not possible to move the slower column by pulling/pushing.	Replace the column that is moving faster than the other.
The desk only moves short distances.	Make sure that the desk is not overloaded.	Unload the desk. If the problem remains replace the control box.
The desk stops and reverses during operation.	Make sure that nothing is blocking the table movement.	Remove the obstacle. If the problem remains replace the whole underframe.
<p>The desk is not able to drive all the way up or all the way down.</p> <p>The desk can only drive in one direction (up or down).</p> <p>The desk is not horizontal.</p>		Perform a reset.
During reset, only one column is moving downwards.		Motor or actuator damaged. Change the column that is not moving.

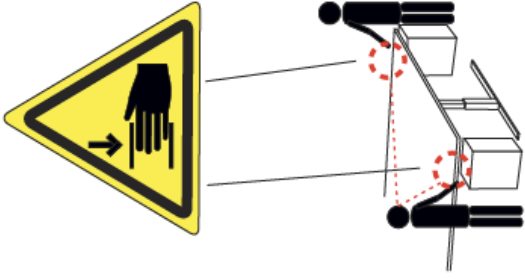
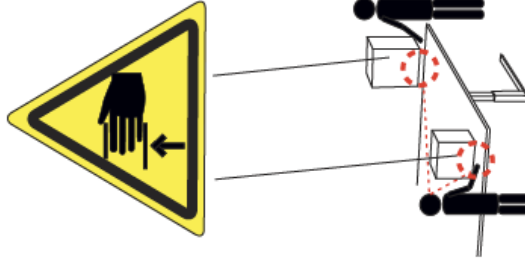
*This tag should be placed on the table during the initial installation.*



**Important**

Ce document doit être enlevé par l'utilisateur final uniquement. (ne pas enlever pendant l'installation)


Pour une utilisation correcte et sûre de ce produit électrique, veuillez lire la notice d'utilisation avant sa mise en oeuvre.

**AVERTISSEMENT:** risque de choc électrique, d'incendie et de blessure.

Consultez les instructions d'assemblage pour confirmer que les composants critiques appropriés et des accessoires sont utilisés avec l'ameublement

Veuillez placer ce document sur le plan de travail après installation

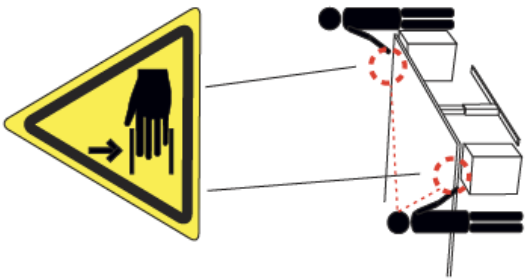
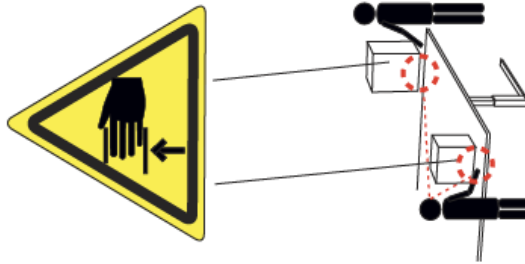


**Important**

This tag should be removed by the final user (Do not remove during installation)

For safe and correct use of this electrically operated product, please review the user manual prior to operating

The manual may be located under the work surface

**WARNING:** Risk of Electric Shock, Fire, and Injury.

Review the assembly instructions to confirm that the appropriate critical components and accessories are being used with the furnishing

Please put this tag on desktop after assembly

