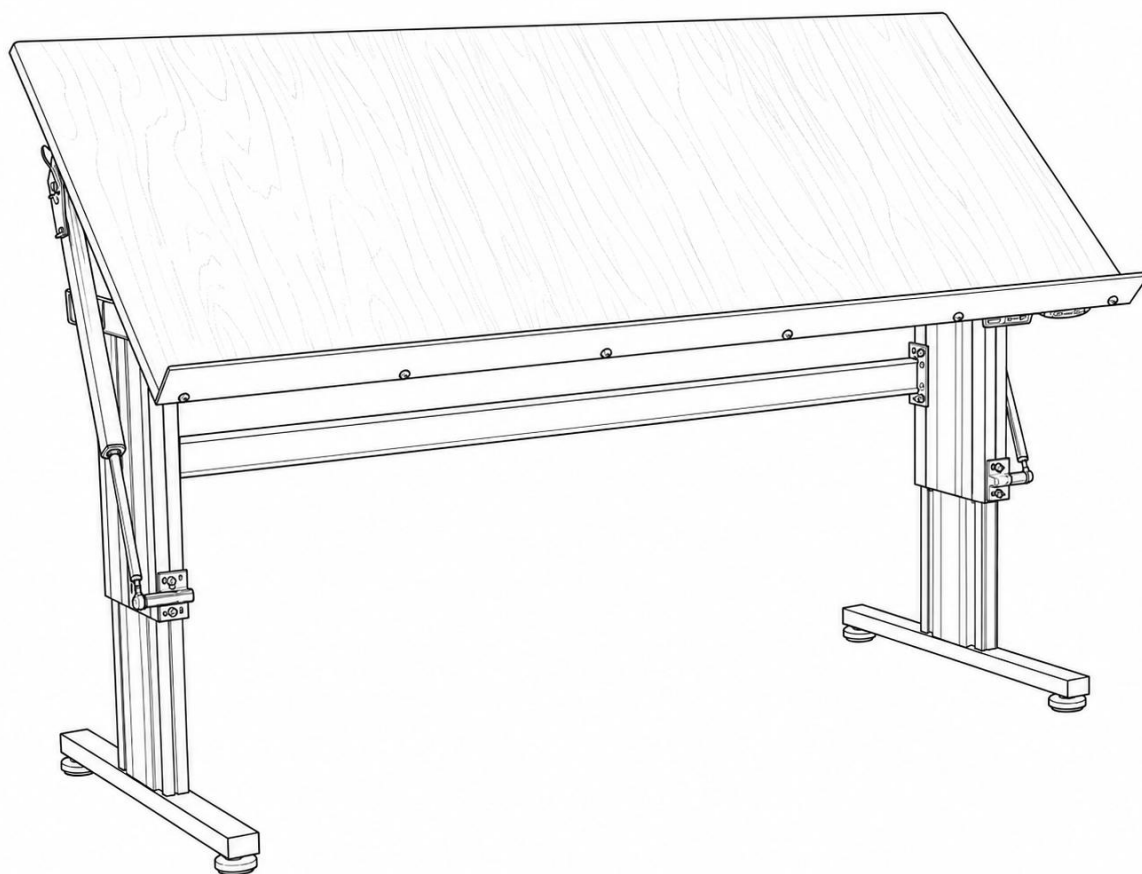


Operating Manual

Height-Adjustable and Tilting Worktable



Machine type: PETec BASIC KIPP

Drive: Electric 230 V

Manufacturer: PETec GmbH, Zum Osterfeld 6, 59872 Meschede, Germany

Version: 2026-07-30

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1 General

1.1 Introduction to the Operating Manual

The operator of the table is required to prepare operating instructions for the operating personnel in order to protect them from health hazards and other safety risks. PETec GmbH has therefore prepared this risk assessment to familiarize you with correct use. The operator must also instruct the operating personnel in the safe and proper operation, servicing, maintenance and correct use of the table.

This operating manual may be used as part of the operating instructions, but it is not itself a complete set of operating instructions. The operator must ensure that the operating personnel read and understand the operating instructions.

This operating manual is part of the table and an essential aid for successful and safe operation of the PETec GmbH table. It is intended to help maintain the table at a high level of performance throughout its long service life and to ensure the required accident-prevention measures are taken.

After assembly and before commissioning, the operator must arrange a test run including inspection of all safety devices to verify the operational safety of the table and the personnel's ability to operate it correctly and safely.

The table has been built in accordance with the state of the art and recognized safety regulations.

The operator is required to adapt the table to the latest applicable safety regulations. For further information, competent contacts are available at the following telephone number:
Customer Service and Spare Parts:
029195277807

1.2 Instruction

As the operator, you are required to inform and instruct the operating personnel about applicable legal and accident-prevention regulations and the safety devices fitted to the table.

The operating personnel must have understood the instruction, and compliance with it must be ensured.

Height-adjustable table Basic tilt Machine No.: (enter)

2 Safety Requirements

The safety instructions must be observed. If the system is operated improperly or not in accordance with its intended use, persons and property may be endangered.

Before installing and operating the lifting system, this operating manual must be read and understood. Keep the manual close to the system for future reference.

2.1 Explanations of Symbols and Notes

The following explanations of symbols and notes must be observed. They are classified in accordance with ISO 3864-2 (ANSI Z535.4).

DANGER



Indicates an imminent danger.
Failure to follow the information will result in death or severe physical injury (disability).

WARNING



Indicates a potentially hazardous situation.
Failure to follow the information may result in death or severe physical injury (disability).

WARNING – CRUSHING HAZARD



Indicates a potentially hazardous situation.
Failure to follow the information may result in death or severe physical injury (disability).

ATTENTION



Indicates a potentially hazardous situation.
Failure to follow the information may result in property damage and minor or moderate injury.



NOTE
Provides general information, useful user tips and work recommendations that do not affect the health and safety of personnel.

2.2 Intended Use

The table is intended for work performed on the tabletop.

The table may be loaded with a maximum of 350 kg (evenly distributed).

Any other use of the table is considered improper. The operator alone is liable for resulting damage. Intended use also includes compliance with the instructions on

- safety,
 - operation,
 - servicing and maintenance,
- described in this operating manual.

2.3 General Information

The basic functionality of a spindle lifting system SLA/SLG is the lifting and lowering of work surfaces, machine parts, profile systems, etc.

An operative spindle lifting System SLA/SLG consists of a minimum of following components:

- Linear unit SLA/SLG
- Control box SCT iSMPS
- Control Unit
- Country specific power cable

The linear unit SLA/SLG consists of a colorless anodized aluminium profile and a standpipe made of stainless steel, which is guided in a plastic guide (SLA) or in a bronze bushing (SLG). The standpipe is moved by an inline spindle drive. Up to 4 spindle lifting elements can be connected to one control box SCT4 iSMPS and be operated synchronously.

The high-performance control box SCTx iSMPS is equipped with two (SCT2) or four (SCT4) motor channels, which are adjusted synchronously by an encoder converter. Due to the optimised driving comfort, the end positions are gently approached as low-speed zones up to the standstill. An integrated tilt sensor reacts to the system tipping and can prevent potentially dangerous situations. Additional functions, such as the synchronisation of two control boxes or the connection of safety strips (squeezing protection) can be used.

With the hand switch Memory the lifting system can be operated comfortably, the work surface will be adjusted steplessly in its height.

The current height of the work surface is shown continuously on the display (in cm or inches). In addition, up to three different memory positions can be saved and approached individually. Errors that occur are also shown on the display.

2.4 Intended Use

System is designed for:	NOT intended for:
→ Height adjustment of worktops → Height adjustment of machine parts → Height adjustment of profile systems → ... the list is not exhaustive	→ Clamping toolor press → Security component → Lifting platforms / personnel transport only in consultation with the manufacturer

2.4.1 General Safety Instructions

ATTENTION	
	The safety instructions must be observed! If the system is operated improperly or not in accordance with the intended use, there may be a risk to persons and property!

The lifting system may be used if:

- it is located in closed rooms, in a dry and non-explosive environment.
- the ambient temperature is between +10 °C and +40 °C.
- the relative humidity range is between 30% and 85% (non-condensing).
- there are no strong electromagnetic fields nearby.
- This device can be used by children aged 8 and over and by persons with reduced physical, sensory or mental abilities or lack of experience and knowledge if they are supervised or have been instructed in the safe use of the device and the resulting dangers to understand.

The lifting system must not be:

- operated outside of the performance data (max. tensile, compressive, bending moment loads).
- subjected to impulse, impact and impact forces (e.g. setting down loads).
- operated with an incorrect mains voltage! Adhere to the type plate of the control box!
- designed for continuous operation (below the duty cycle).
- operated on unstable or sloping ground.
- operated with impermissible or non-designated components.
(e.g. different types of lifting elements; replacement of the control (control software))
- operated with damaged components.
- opened, reworked or rebuilt.
- operated if the power cable is not freely accessible. Disconnect the power cord in the event of a fault.
- Children must not play with the device. Cleaning and user maintenance shall not be made by children without supervision.

When installing and operating the lifting system, the intended use of the entire system must be adhered to. Commissioning is prohibited until the entire system complies with the provisions of the Machinery Regulation (EU) 2023/1230. For this purpose, it is essential to perform a risk analysis, so that possible residual hazards can be reacted to (e.g. through constructive measures or through instructions in the operating manual and/or through safety indication on the system). In the event of improper use, the liability and the general operating permit for the lifting system will expire.

2.5 Target Group and Prior Knowledge

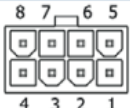
Before installing and operating the lifting system, this operating manual must be read and understood. The manual must be kept in close proximity to the system for future reference.

This operating manual addresses the following groups of people:

The **manufacturer of the overall system** who integrates this lifting system into an overall system and integrates this operating manual into the operating manual for the overall system.

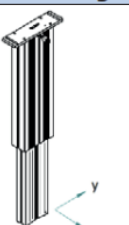
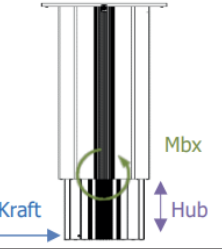
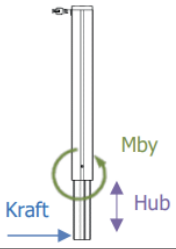
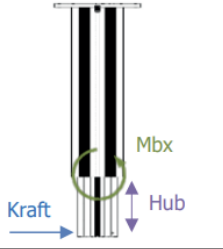
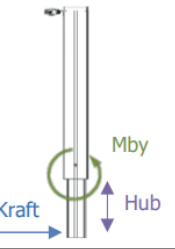
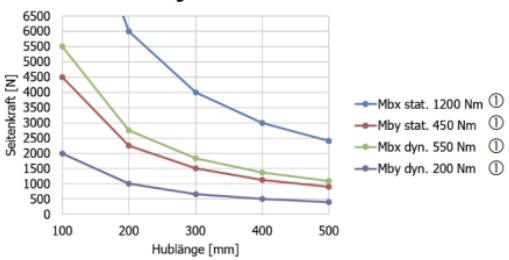
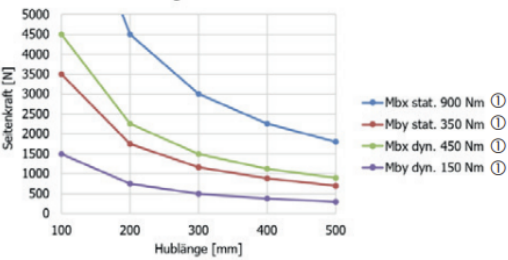
The **commissioning personnel** who install the lifting system in a workplace, a machine, etc. and put it into operation. For commissioning basic mechanical and electrical knowledge are required.

2.6 Performance Characteristics

	Hubsäule SL/SK 14xx	Hubsäule SM 14xx								
Querschnitt	260 x 60 mm	150 x 60 mm								
Standard Hublängen	300, 400 mm									
Einbaulänge	Hublänge + 230 mm Untere Block-Position = Hublänge + 227 mm									
Gewicht	SL 1430 = 9.7 kg SL 1440 = 11.0 kg SK 1430 = 9.8 kg SK 1440 = 11.2 kg	SM 1430 = 8.2 kg SM 1440 = 9.2 kg								
Max. zulässige Druckkraft	2'000 N									
Max. zulässige Zugkraft	F _{Zug stat.} 500 N ; F _{Zug dyn.} 50 N ①									
Stromaufnahme	4 A									
Nennspannung	24 V									
Hubgeschwindigkeit	12 mm/s									
Dauerschalldruckpegel	< 60 dBA									
Schutzklasse (DIN EN 60529)	IP 30									
Elektrischer Anschluss	Molex MiniFit Stecker 8 Pin Kabellänge 1'800 mm	 <table><tr><td>1 Motor +</td><td>5 Pulse 2</td></tr><tr><td>2 ES</td><td>6 SYN</td></tr><tr><td>3 5V Hall Sensor</td><td>7 GND Hall Sensor</td></tr><tr><td>4 Pulse 1</td><td>8 Motor -</td></tr></table>	1 Motor +	5 Pulse 2	2 ES	6 SYN	3 5V Hall Sensor	7 GND Hall Sensor	4 Pulse 1	8 Motor -
1 Motor +	5 Pulse 2									
2 ES	6 SYN									
3 5V Hall Sensor	7 GND Hall Sensor									
4 Pulse 1	8 Motor -									
Endschalter	Nein (Auslesung Encoder)									
Getestete Lebensdauer	10'000 Doppelhübe, bei 400 mm Hub, 2'000 N Belastung, ED 2/18 ②									

① stat. = bei Stillstand; dyn. = während der Hubbewegung

② ED = Einschaltdauer 2/18; Fahrzeit max. 2 min, Ruhezeit 18 min

Max. zul. Biegemomente – Hubsäule SL/SK		Max. zul. Biegemomente – Hubsäule SM	
	Mbx stat. 1'200 Nm ① Mby stat. 450 Nm ① Mbx dyn. 550 Nm ① Mby dyn. 200 Nm ①		Mbx stat. 900 Nm ① Mby stat. 350 Nm ① Mbx dyn. 450 Nm ① Mby dyn. 150 Nm ①
			
Mbx = Kraft x Hub	Mby = Kraft x Hub	Mbx = Kraft x Hub	Mby = Kraft x Hub
Biegekräfte Hubsäule SL 		Biegekräfte Hubsäule SM 	

① stat. = bei Stillstand; dyn. = während der Hubbewegung

2.6.1 Compact-3-eco Control Box

Elektrischer Anschluss	Stecker DIN 45329 Kabellänge: 1'700 mm	
Versorgungsspannung	5 VDC $\pm$ 10 %	
Bemessungs-Schaltstrom	50 mA	
Schutzklasse (DIN EN 60529)	IP 30	

2.6.2 System Data

# Hub- elemente	Max. System- Belastung [kg]	Hub- länge [mm]	Hub- element Typ	Steuerung Compact-3-eco		Hubgeschw. [mm/s]	⌚ ED [On/Off]
				230 V	110 V		
1	200	300	① 1430	V501	V551	12	2/18 min
		400	① 1440	V500	V550		
2	400	300	① 1430	V501	V551		
		400	① 1440	V500	V550		
3	400	300	① 1430	V501	V551		
		400	① 1440	V500	V550		

① Hubsäule SL, SK oder SM

② ED = Einschaltdauer 2/18; Fahrzeit max. 2 min, Ruhezeit 18 min

NOTE

The lifting system may be loaded unevenly provided that ...

- the max. load on the single lifting element is not exceeded,
- the max. bending torque of the lifting element is not exceeded,
- the entire system is located on sufficient safe ground

... and the entire plant has been constructed in accordance with the provisions of the mechanical equilibrium. → Carry out a risk assessment



ATTENTION



High pulse / impact forces due to setting down loads are not allowed.
(e.g. setting down loads in feed with crane or forklift)

3 Preparation for initial operation

ATTENTION



During mounting of the control box the power cable needs to be disconnected from the mains!

ATTENTION



Connecting homemade products to the control box is prohibited!
Only use supplied components.



NOTE

The control box has an integrated tilting sensor as standard. To ensure the smooth normal operation, the control box must be fixed rigidly to the system before initial commissioning.
(e.g. below the tabletop)



NOTE

In some cases, the lifting element must be equipped with an additional motor-to-control box adaptor cable.

1. Connect the motor cables to the control box in the correct order from 1 to 4.
(Automatic plug detection on all sockets)
2. Connect the hand switch to the control box.
If necessary, optional components can now be connected (e.g. safety strips, sync cable).
3. Connect the power cable to the control box.



NOTE

Before connecting the power cable to the mains the following must be verified:
→ Does the mains voltage correspond to the value on the name plate of the control box?
→ Are the plugs of the motor cable connected to the correct sockets (1 to 4)?
→ Is the entire lifting system assembled according to the assembly instructions?

4. Connect power cable to the mains.

4 Initial operation

ATTENTION



Danger of squeezing during height adjustment!

ATTENTION



It must be possible to fully retract the lifting element to its lower block position at any time (also in the operating state).

If the lifting element cannot retract completely and hits a stop before it reached its lower block position, the zero position is set incorrectly. This leads to a collision when moving up to the upper block position.

ATTENTION



The system may only be fully loaded after the initial operation has been completed. During the initial operation, the lifting system may be loaded with max. 50% of the system load.



NOTE

During the initial operation, the lifting system drives with half the speed.

1. Keep the buttons  and  pressed simultaneously to drive the lower block position. The system moves downwards at half speed. Upward movement is disabled.
2. After reaching the block position, the system will drive out a few millimeters. Afterwards the control box will emit 3 signal sounds.
3. let go of the buttons  and .

After reaching the block position, the lower and the upper position will be stored automatically. The initial operation is completed.



NOTE

The lower position is 3 mm (0.12") higher than the block position. The upper position depends on the lifting element type, resp. of the control box software.

4.1 Plug detection

The control box can detect whether a lifting element is plugged into the relevant socket. The control box only recognizes during the lifting movement whether a lifting element has been removed. After plugging out or replacing a lifting element the system must be reset to synchronize all connected lifting elements.

4.2 Duty cycle monitoring

The duty cycle monitoring checks the ratio between the operation time and standstill time. The control box protects itself from overheating by estimating the current operating temperature based on power consumption and limiting the travel time. After reaching the maximum travel time (see system data), a 18-minute operating break must be observed before the system can be used again.

5 Operation

- Control unit for height adjustment
- Control unit for tilting the work surface

5.1 Set Working Height and Save Positions

Use this control unit to set the height of the work surface. You can also save preferred heights and recall them at any time.

Detailed operation of the height adjustment: see page 12.



5.2 Set Tilt and Save Positions

Use this control unit to set the tilt of the work surface. You can also save preferred tilt positions and recall them at any time.

Detailed operation of the tilt adjustment: see page 22.

**NOTE**

If your worktable is equipped with a control unit other than the one shown here, the appropriate operating manual, including the relevant error codes, is available at:
<https://www.petec-gmbh.de/bedienungsanleitungen-fuer-petec-tische/>

5.3 Detailed Operation of Height Adjustment



5.3.1 Drive Up / Down

This function is used for easy height adjustment of the system.

Press the button  or .

Keep the button pressed until the desired working height is reached.

5.3.2 Saving and approaching a memory position

This function allows you to save a specific position/height and recall it at a later time with the press of a button. Using the 3 memory buttons and 4 memory levels, up to 12 different positions can be saved and recalled.

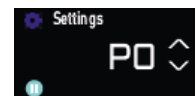
1. Press and hold the **M** button for 3 seconds.
2. You will then enter the individual memory levels (**P0-P3**).

- Up to 3 positions can be stored per level.
- The levels are color-coded on the side (left):
 - P0: no color
 - P1: yellow
 - P2: orange
 - P3: purple

The color coding allows you to easily identify the active memory level at any time.

3. Use the  or  buttons to select the desired level, then press the **M** button.
4. Move to the desired position and press the **M** button three times briefly.

5. Within 5 seconds, press one of the memory buttons . After the saving process, the control unit emits one signal tone.



The position is now stored under the selected button and can be overwritten at any time using the same procedure.

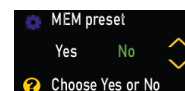
Approaching a memory position:

Press and hold the selected memory button  until the desired working height is reached.

5.3.3 Restore memory positions to factory settings «M-Pre»

With this function it is possible to set all changed memory positions back to factory settings.

1. Press and hold   and  buttons simultaneously for 4 seconds.
→ The display shows «Use».
2. Use the  or  buttons to select «M-Pre».
3. Confirm the selection «M-Pre» by pressing the **M** button.
4. Use the  or  button to select «Yes» or «No».
5. Confirm with the **M** button.
6. Press the   or  buttons to exit the mode.



5.3.4 Limit the Stroke Length (Container Stop/Shelf Stop)

These two features can be used to limit the travel range of the lifting system (e.g. if a cabinet is located under the table).



NOTE

The Shelf Stop position limits the upper end position.
The Container Stop position limits the lower end position.



NOTE

To delete a Shelf Stop position, define a new Shelf Stop position using the same procedure.
To delete a Container Stop position, define a new Container Stop position using the same procedure.

5.3.4.1 Upper - Shelf Stop «Upper»

To define a Shelf Stop position, proceed as follows:

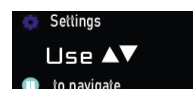
1. Press and hold buttons and for 4 seconds.
→ The display shows «Use».
2. Use the or buttons to select «Upper».
3. Confirm «Upper» with the M button.
4. Use the or buttons to move to the desired Shelf Stop height.
5. Confirm with the M button.
6. Press buttons or to exit the menu.



5.3.4.2 Lower - Container Stop «Lower»

To define a Container Stop position, proceed as follows:

1. Press and hold buttons and for 4 seconds.
→ The display shows «Use».
2. Use the or buttons to select «Lower».
3. Confirm «Lower» with the M button.
4. Use the or buttons to move to the desired Container Stop height.
5. Confirm with the M button.
6. Press buttons or to exit the menu.



5.3.5 Setting the shown height on the display «Height»

The displayed height can be adjusted with this feature.

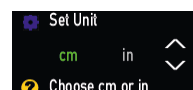
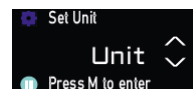
1. Keep the buttons   and  pressed simultaneously for 4 seconds.
→ The display shows «Use».
2. Press the button  or  until «Height» is selected.
3. Confirm the selection «Height» with the button **M**.
→ The display shows the current height.
4. Measure the height of the table.
5. Press the button  or  to adjust the measured height.
6. Confirm with the button **M**.
7. Press the buttons   or  to leave the menu mode.



5.3.6 Changing the displayed unit of measurement (cm/inch) «Unit»

This function can be used to change the height unit on the display from «cm» to «inch» or from «inch» to «cm».

1. Keep the buttons   and  pressed simultaneously for 4 seconds.
→ The display shows «Use».
2. Press the button  or  until «Unit» is selected.
3. Confirm the selection «Unit» with the button **M**.
→ The display blinks «cm» or «inch».
4. Press the button  or  to select the desired measurement unit.
5. Confirm with the button **M**.
6. Press the buttons   or  to leave the menu mode.



The unit of measurement on the display has now been changed from centimeters (cm) to inches (inch) or from inches to centimeters (2.54 cm = 1 inch).

5.3.7 Deactivating / activating the tilt sensor «Sens»

The control box has an integrated tilt sensor, which is activated by default.

The 0° inclination of the control is initialized during initial operation or reset. If the inclination of the control exceeds 2.5° (e.g. inclined table), the control box stops the lifting movement.

After triggering the tilt sensor, the system moves back by 10 mm (0.4"). If the inclination cannot be corrected (e.g. by driving in the opposite direction), a «Reference Run» must be performed.

ATTENTION



The tilt sensor is not a safety element!
There is still a risk of injury before the tilt sensor triggers.

NOTE

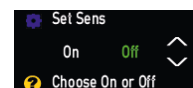
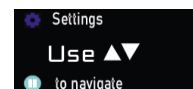
In addition to a collision, the tilt sensor can be triggered by various causes. Therefore, the following should be observed:



- Install the control box rigidly before initial operation or reset.
→ So that the inclination of 0° is properly initialized.
- After the system is moved, the tilt sensor should be reinitialized
→ Perform a «Reference Run» (see chapter 5.3.13).
- For mobile applications (e.g. table on castors), the tilt sensor should be deactivated.

This function can be used to deactivate the active tilt sensor or to reactivate the deactivated tilt sensor.

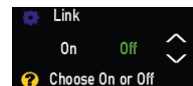
1. Keep the buttons   and  pressed simultaneously for 4 seconds.
→ The display shows «Use».
2. Press the button  or  until «Sens» is selected.
3. Confirm the selection «Sens» with the button **M**.
4. Use the  or  buttons to select «on» or «off».
5. Confirm with the button **M**.
6. Press the button   or  to leave the menu mode.
7. If the tilt sensor is activated, the message «E dd» appears.
For the new initialization of the tilt sensor, a «Reference Run» must now be performed.



5.3.8 Deactivating / activating the link detection «Link»

Up to two controllers can be linked together (depending on the system combination). If automatic link detection is enabled or disabled in the motor configuration, the link function can be activated or deactivated accordingly via this setting.

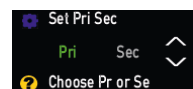
1. Keep the buttons   and  pressed simultaneously for 4 seconds.
→ The display shows «Use».
2. Press the button  or  until «Link» is selected.
3. Confirm the selection «Link» with the button **M**.
4. Use the  or  buttons to select «On» (activating) or «Off» (deactivating).
5. Confirm with the button **M**.
6. Press the button   or  to leave the menu mode.



5.3.9 Change controller status primary/secondary «Pri-Sec»

This service allows switching the controller status between *Primary* and *Secondary*. The user can define which controller functions as the main controller (*Primary*) and which as the secondary controller (*Secondary*). Operation of the unit is then possible only via the Primary controller.

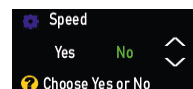
1. Keep the buttons   and  pressed simultaneously for 4 seconds.
→ The display shows «Use».
2. Press the button  or  until «Pri-Sec» is selected.
3. Confirm the selection «Pri-Sec» with the button **M**.
4. Use the  or  buttons to select «Pri» (primary) or «Sec» (secondary).
5. Confirm with the button **M**.
6. Press the button   or  to leave the menu mode.



5.3.10 Deactivating / activating max. speed under high load «Speed»

This service allows the maximum speed limit under high load to be enabled or disabled. If the upper limit of the control range is reached, the system reduces the speed according to the configuration settings when the function is disabled. When the function is enabled, the controller attempts to maintain the maximum possible speed. Under certain extreme conditions, however, this may not be possible. In such cases, error E7A is displayed. Use of this service is only permitted after consultation with customer support and in special cases.

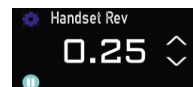
1. Keep the buttons   and  pressed simultaneously for 4 seconds.
→ The display shows «Use».
2. Press the button  or  until «Speed» is selected.
3. Confirm the selection «Speed» with the button **M**.
4. Use the  or  buttons to select «Yes» (activating) or «No» (deactivating).
5. Confirm with the button **M**.
6. Press the button   or  to leave the menu mode.



5.3.11 Query firmware (controller / hand switch)

This service allows the firmware version of both the controller and the hand switch to be easily read via the hand switch. This function provides the user with information, for example, when customer support requests the current firmware version to check the system status and provide targeted assistance.

1. Keep the buttons   and  pressed simultaneously for 4 seconds.
→ The display shows «Use».
2. Use the  or  buttons to select «Ctr Unit Rev» to query the firmware version of the controller, or «Handset Rev» to display the firmware version of the hand switch.
3. Press the button   or  to leave the menu mode.



5.3.12 Locking Movement (Child Lock)

The locking function locks the control panel to prevent unintended operation of the lifting system.

When the lock is active, the lifting system cannot be moved. Neither operation with the buttons  or  nor recall of a memory position    is possible.

The lifting system remains locked until the function is deactivated.

ATTENTION



The locking function is not a safety device and does not prevent hazards!

Activate:

- Press and hold buttons   and  for 5 seconds.
→ The control box emits an acoustic signal to confirm activation.
The lifting system is now locked and the display shows «E 65».

If any button on the control unit is pressed, a signal sounds and the lifting system does not move.

Deactivate:

- Press and hold buttons   and  for 5 seconds.
→ The control box emits an acoustic signal to confirm deactivation.
The lifting system is unlocked and can be moved again.

5.3.13 Reference Run – Referencing the end positions

ATTENTION



Before the reset, it must be ensured that:

- the lifting element can retract completely.
- the lifting system is loaded with a maximum of 50% of the maximum allowed system load.

If the lifting element cannot retract completely and hits a stop before it reached its lower block position, the zero position is set incorrectly. This leads to a collision when moving up to the upper block position.



NOTE

During the Reference Run, the lifting element moves at half speed.

1. If possible: Drive to lowest position with the button 
→ This saves time because the system only drives with half speed when doing a reset.
2. Keep the buttons  and  pressed simultaneously to drive the lower block position.
The system moves downwards at half speed. Upward movement is disabled.
3. After reaching the block position, the system will drive out a few millimeters.
Afterwards the control box will emit 3 signal sounds.
4. Let go of the buttons  and  and .

After reaching the block position, the lower and the upper position will be stored automatically.
The Reference Run is completed.

5.3.14 Basic Initialization «Init»

ATTENTION



Before restoring factory settings, ensure that:

- the lifting element can fully retract.
- the lifting system carries no more than 50% of the permitted maximum system load.

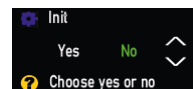
If the lifting element cannot retract completely and reaches a stop first, the zero position is set incorrectly. This causes a collision when moving to the upper block position.



NOTE

During the reset, the lifting element moves at half speed.
Restoring the factory settings reconfigures the entire system.
All settings, such as memory and end positions, are lost.

1. If possible, move to the lowest position using the button .
→ This saves time because the system moves at half speed during the reset.
2. If necessary, the system can now be rewired:
 - a) Disconnect the power cable.
 - b) Rewire the system: additional lifting elements, synchronization cables or safety strips can be connected.
 - c) Connect the power cable to the mains.
3. Press and hold buttons  and  for 4 seconds.
→ The display shows «Use».
4. Use the  or  buttons to select «Init».
5. Confirm «Init» with the M button.
→ The control box emits an acoustic confirmation signal.
6. Use the  or  buttons to select «Yes» or «No», then confirm with M.
7. Press buttons   or  to exit the menu.
→ The display shows «E dC».
8. Perform initial operation according to chapter 4.



5.4 Detailed Operation of Tilt Adjustment



5.4.1 Drive Up / Down

This function is used for easy tilt adjustment of the system.

Press and hold the  button.

Keep the button pressed until the desired tilt is reached.

5.4.2 Saving and Recalling a Position

This function saves a specific position and recalls it later at the press of a button.

Up to 3 different positions can be stored using the 3 memory buttons.

1. Move to the desired position and briefly press the M button 3 times.

2. Press one of the buttons    within 5 seconds.
After saving, the control box emits one signal tone.

The position is now stored under the selected button.

To recall a stored position:

Press and hold the selected button    until the desired tilt is reached.

5.4.3 Limit the Stroke Length (Container Stop/Shelf Stop)

These two features can be used to limit the travel range of the lifting system (e.g. if a cabinet is located under the table).



NOTE

The Shelf Stop position limits the upper end position.
The Container Stop position limits the lower end position.



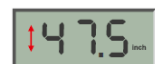
NOTE

To delete a Shelf Stop position, define a new Shelf Stop position using the same procedure.
To delete a Container Stop position, define a new Container Stop position using the same procedure.

5.4.3.1 Upper - Shelf Stop «S 04»

To define a Shelf Stop position, proceed as follows:

1. Press and hold buttons   and  for 4 seconds.
→ The display shows «S 01» with the «S» flashing.
2. Use the  or  buttons to select «S 04».
3. Confirm «S 04» with the M button.
→ The display stops flashing.
4. Use the  or  buttons to move to the desired Shelf Stop height.
5. Confirm with the M button.
→ The display shows «S 04».
6. Press buttons   or  to exit the menu.



5.4.3.2 Lower - Container Stop «S 05»

To define a Container Stop position, proceed as follows:

1. Press and hold buttons   and  for 4 seconds.
→ The display shows «S 01» with the «S» flashing.
2. Use the  or  buttons to select «S 05».
3. Confirm «S 05» with the M button.
→ The display stops flashing.
4. Use the  or  buttons to move to the desired Container Stop height.
5. Confirm with the M button.
→ The display shows «S 05».
6. Press buttons   or  to exit the menu.



5.4.4 Setting the shown height on the display «S 06»

The displayed height can be adjusted with this feature.

1. Keep the buttons   and  pressed simultaneously for 4 seconds.
→ The display shows «S 01», while the «S» is blinking.
2. Press the button  or  until «S 06» is selected.
3. Confirm the selection «S 06» with the button **M**.
→ The display shows the current height, while the «cm» is blinking.
4. Measure the height of the table.
5. Press the button  or  to adjust the measured height.
6. Confirm with the button **M**.
7. Press the buttons   or  to leave the menu mode.

S 01 inch

S 06 inch

40 inch

35

35 inch

5.4.5 Changing the displayed unit of measurement (cm/inch) «S 07»

This function can be used to change the height unit on the display from «cm» to «inch» or from «inch» to «cm».

1. Keep the buttons   and  pressed simultaneously for 4 seconds.
→ The display shows «S 01», while the «S» is blinking.
2. Press the button  or  until «S 07» is selected.
3. Confirm the selection «S 07» with the button **M**.
→ The display blinks «cm» or «inch».
4. Press the button  or  to select the desired measurement unit.
5. Confirm with the button **M**.
6. Press the buttons   or  to leave the menu mode.

S 01 inch

S 07 inch

S 07 inch

S 07 inch

The unit of measurement on the display has now been changed from centimeters (cm) to inches (inch) or from inches to centimeters (2.54 cm = 1 inch).

5.4.6 Deactivating / activating the tilt sensor «S 08»

The control box has an integrated tilt sensor, which is activated by default.

The 0° inclination of the control is initialized during initial operation or reset. If the inclination of the control exceeds 2.5° (e.g. inclined table), the control box stops the lifting movement.

After triggering the tilt sensor, the system moves back by 10 mm (0.4"). If the inclination cannot be corrected (e.g. by driving in the opposite direction), a «Reference Run» must be performed.

ATTENTION



The tilt sensor is not a safety element!
There is still a risk of injury before the tilt sensor triggers.

NOTE

In addition to a collision, the tilt sensor can be triggered by various causes. Therefore, the following should be observed:



- Install the control box rigidly before initial operation or reset.
→ So that the inclination of 0° is properly initialized.
- After the system is moved, the tilt sensor should be reinitialized
→ Perform a «Reference Run» (see chapter 5.4.9).
- For mobile applications (e.g. table on castors), the tilt sensor should be deactivated.

This function can be used to deactivate the active tilt sensor or to reactivate the deactivated tilt sensor.

1. Keep the buttons   and  pressed simultaneously for 4 seconds.
→ The display shows «S 01», while the «S» is blinking.



2. Press the button  or  until «S 08» is selected.



3. Confirm «S 08» with the M button.

The control gives an acoustic signal to confirm the change;

- If the tilt sensor has been deactivated, the control box will emit 3 signal sounds (short-short-long).
- When the tilt sensor has been activated, the control box will emit 1 signal sound.

4. If the tilt sensor is activated, the message «E dd» appears.
For the new initialization of the tilt sensor, a «Reference Run» must now be performed.



5.4.7 Restore Memory Positions to Factory Settings «S 13»

This function resets all memory positions changed by the user to the factory settings.



NOTE

The memory positions are reset to the pre-saved positions.

1. Press and hold buttons and for 4 seconds.
→ The display shows «S 01» with the «S» flashing.
2. Use the or buttons to select «S 13».
3. Confirm «S 13» with the M button.
→ The display stops flashing.
4. Press buttons or to exit the menu.

5.4.8 Locking Movement (Child Lock)

The locking function locks the control panel to prevent unintended operation of the lifting system.

When the lock is active, the lifting system cannot be moved. Neither operation with the buttons or nor recall of a memory position is possible.

The lifting system remains locked until the function is deactivated.

ATTENTION



The locking function is not a safety device and does not prevent hazards!

Activate:

- Press and hold buttons and for 5 seconds.
→ The control box emits an acoustic signal to confirm activation.



The lifting system is now locked and the display shows «E 65».

If any button on the control unit is pressed, a signal sounds and the lifting system does not move.

Deactivate:

- Press and hold buttons and for 5 seconds.
→ The control box emits an acoustic signal to confirm deactivation.

The lifting system is unlocked and can be moved again.

5.4.9 Reference Run – Referencing the end positions

ATTENTION



Before the reset, it must be ensured that:

- the lifting element can retract completely.
- the lifting system is loaded with a maximum of 50% of the maximum allowed system load.

If the lifting element cannot retract completely and hits a stop before it reached its lower block position, the zero position is set incorrectly. This leads to a collision when moving up to the upper block position.



NOTE

During restoring to the factory settings, the lifting system drives with half the speed.

1. If possible: Drive to lowest position with the button .
→ This saves time because the system only drives with half speed when doing a reset.
2. Keep the buttons  and  pressed simultaneously to drive the lower block position.
The system moves downwards at half speed. Upward movement is disabled.
3. After reaching the block position, the system will drive out a few millimeters.
Afterwards the control box will emit 3 signal sounds.
4. Let go of the buttons  and  and .

After reaching the block position, the lower and the upper position will be stored automatically.
The Reference Run is completed.

5.4.10 Basic Initialization «S 00»

ATTENTION



Before basic initialization, ensure that:

- the lifting element can fully retract.
- the lifting system carries no more than 50% of the permitted maximum system load.

If the lifting element cannot retract completely and reaches a stop first, the zero position is set incorrectly. This causes a collision when moving to the upper block position.



NOTE

During the reset, the lifting element moves at half speed.
Restoring the factory settings reconfigures the entire system.
All settings, such as memory and end positions, are lost.

1. If possible, move to the lowest position using the button .
→ This saves time because the system moves at half speed during the reset.
2. If necessary, the system can now be rewired:
 - d) Disconnect the power cable.
 - e) Rewire the system: additional lifting elements, synchronization cables or safety strips can be connected.
 - f) Connect the power cable to the mains.
3. Press and hold buttons   and  for 4 seconds.
→ The display shows «S 01» with the «S» flashing.
4. Use the  or  buttons to select «S 00».
5. Confirm «S 00» with the M button.
→ The control box emits an acoustic confirmation signal.
6. Press buttons   or  to exit the menu.
→ The display shows «E dC».
7. Perform initial operation according to chapter 4.

S 01

S 00

E dC

6 Synchronizing Two Control Boxes

6.1 Cable Connections

Up to four lifting elements can be connected to one SCT iSMPS control box.

By cascading (synchronizing) multiple control boxes, they can be operated simultaneously using only one control unit.



Two control boxes can be connected and synchronized with the SCT SYNC-2 cable (124.00183).
The SYNC-2 cable is 4,000 mm long.

The SYNC cable cannot be extended.
If required, extend the motor cables instead!

6.2 Initial Operation of the Synchronized System

1. Connect the lifting-element motor cables to the control boxes in the correct order from 1 to 4.
(Automatic plug detection on all sockets)
2. Connect the two control boxes using the SYNC-2 cable.
3. Connect the control unit to the desired control box.
Only one control unit may be used. The control box with the control unit is the primary control box;
the other control box is subordinate to it.
4. Connect the power cables to the control boxes.



NOTE

Before connecting the power cable to the mains, check the following:

→ Does the supply voltage match the value on the control-box rating plate?

→ Are the motor-cable plugs inserted in the correct sockets (1 to 4)?

→ Has the complete lifting system been assembled correctly according to the assembly instructions?

5. Connect the power cable to the mains.
6. Perform initial operation according to chapter 4.

7 Safety strip – Squeezing protection

ATTENTION

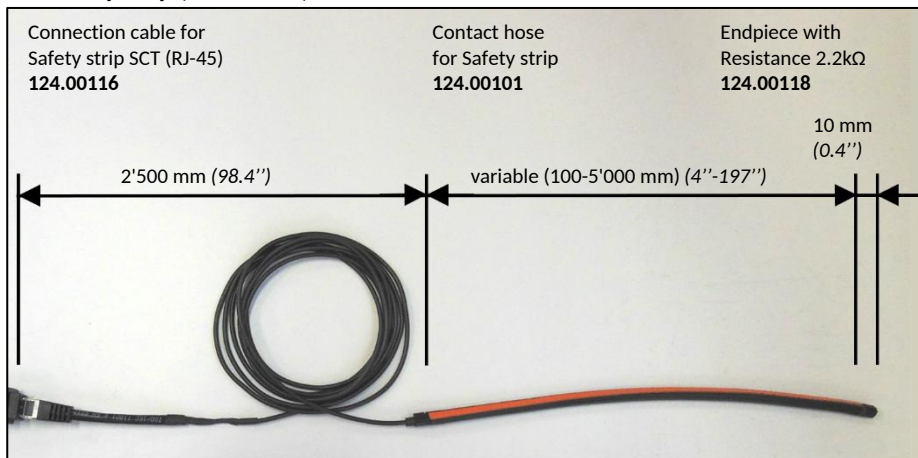


With lifting systems it is important to make sure that no objects or people are trapped during the lifting movement.

Danger of squeezing during lifting movement!

Attach the safety strip to an assumed squeeze zone. If the safety strip gets squeezed while the system moves, the motor will stop instantly and turn back for 5 motor rotations (ca. 15 mm (0.6'')).

The safety strip (124.00157) consists of:

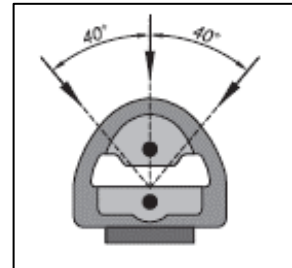
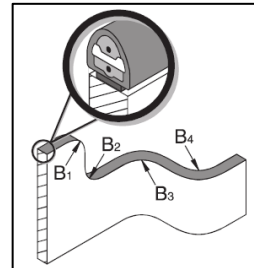


Functional properties of the contact tube

Contact angle	< 80 °
Switching pressure	< 25 N bei 23 °C
Switching travel	< 2 mm bei 23 °C
Minimum bending radius	B1 120 mm / B2 150 mm B3 20 mm / B4 20 mm
Max. tensile load	20 N

Electrical properties

Terminal resistance	2.2 kΩhm
Max. switching capacity	250 mW
Max. voltage	DC 24 V
Current min. / max.	1 mA / 10 mA



7.1 Commissioning

Gluing the contact tube in the squeeze zone

1. Clean and degrease the contact face.
2. Remove 10-15 cm (4'' to 6'') of protective film from the adhesive surface.
3. Place it on the contact face and press on well.
4. Repeat steps 2 and 3 until the contact tube is completely glued on.
5. Maximum adhesion is reached after 24 h.

Initial operation of control box with the safety strip

1. Wire the control box according to chapter 0.
2. The safety strip is connected in step 2.
3. Perform an initial operation according to chapter 4.

Adding the safety strip to existing control box

1. Perform a Basic Initialization («Init» or «S 00») according to chapter 5.3.14 or 5.4.10.
2. The safety strip is connected in step 2.b.

8 Error Codes and Troubleshooting

8.1 Error Codes on the Display

E 60	Motor supply voltage below the permissible minimum	Check the power supply. Connect the power cable.
E 61	Total current exceeded the programmed limit	System overloaded → Remove load from the system System jammed → Remove the trapped object Motor not connected correctly → Connect the motor cable correctly
E 62	User input is invalid. (Container Stop or Shelf Stop cannot be set)	The Container Stop must be below the Shelf Stop, and the Shelf Stop must be above the Container Stop. (see chapter 5.3.4 or 5.4.3)
E 63	Inconsistent or damaged motor-control parameters detected	Reprogram the control box. → Contact customer service
E 64	Tilt sensor triggered (tilt too high)	1) Correct the tilt, e.g. by moving in the opposite direction. 2) Perform a Reference Run (see chapter 5.3.13 or 5.4.9)
	Movement locked (child lock)	
E 66		Remove the trapped object
	Safety strip missing	
E 6F	Movement monitoring	System overloaded → Remove load from the system System jammed → Remove the trapped object Motor not connected correctly → Connect the motor cable correctly
	Hall sensor → wrong motor direction	
E 73		Check that all motor cables are plugged in correctly
E 74	SYNC cable not detected	1) Check that the SYNC cable is plugged in. 2) Perform a Basic Initialization «Init» or «S 00» (see chapter 5.3.14 or 5.4.10)
E 78	Overcurrent on a motor	System overloaded → Remove load from the system System jammed → Remove the trapped object Motor not connected correctly → Connect the motor cable correctly
E 79	Synchronization error (connection error)	1) Check that the SYNC cable is plugged in. 2) Perform a Basic Initialization «Init» or «S 00» (see chapter 5.3.14 or 5.4.10)
E 80	Battery check in progress	Wait a few seconds; operation can then be resumed.
E 7A	Motor position difference	Perform a Reference Run (see chapter 5.3.13 or 5.4.9)
E 7C	The control box has the secondary role. Motor commands are not possible.	Perform a Basic Initialization «Init» or «S 00» (see chapter 5.3.14 or 5.4.10)
E C9	Locked by duty-cycle monitoring. The maximum operating time has been reached.	To prevent overheating, operation is locked for the next few minutes.

		Wait a few minutes until the drive has cooled down; the system is then ready for operation again.
E CC	Motor runs faster than expected by the control box	Contact customer service
E D5	Motor position is not transmitted to the control box	1) Connect the motor cable. 2) Perform a Reference Run (see chapter 5.3.13 or 5.4.9)
E D7	Short circuit on one or more motor channels	Contact customer service
E D9		Contact customer service
E DB		Contact customer service
E DC	Basic Initialization is required	Perform a Basic Initialization «Init» or «S 00» (see chapter 5.3.14 or 5.4.10)
E DD	A Reference Run is required	Perform a Reference Run (see chapter 5.3.13 or 5.4.9)

ATTENTION



Do not open any system components if the system malfunctions!

Risk of electric shock!

Contact customer service.

9 Control Box Setup

1. Anschluss Bedienteil Kippmechanismus



2. Anschluss Hubsäulen Kippmechanismus

3. Anschluss Hubsäulen Höhenverstellung



4. Anschluss Bedienteil Höhenverstellung

5. Anschluss 230V Kippmechanismus

6. Anschluss 230V Höhenverstellung

7. Anschluss 230V Kippmechanismus und Anschluss 230V Höhenverstellung zusammengeführt



10 Maintenance, Cleaning and Disposal

The lifting system is maintenance-free during normal operation throughout its entire service life.

ATTENTION



The control box and control unit may only be cleaned with a dry or slightly damp cloth. Disconnect the power cable from the mains before cleaning. No liquid may enter the plug connections.

Repairs may only be carried out by qualified specialists. Only original spare parts may be used. During all repair work, the system must always be unloaded and de-energized.

ATTENTION



The control box must never be opened. There is a risk of electric shock.

When decommissioning and disposing of the lifting system, the electronic components must be disposed of separately. The system consists of fully recyclable components and is therefore environmentally safe. The electronic components comply with the RoHS Directive.

The lifting system is not covered by the German Electrical and Electronic Equipment Act (WEEE Directive 2012/19/EU). Lifting systems are intended for installation in an overall system (e.g. an assembly table) and are classified as partly completed machinery in accordance with the Machinery Regulation (EU) 2023/1230. These systems are therefore not intended for private use.

11 EC Declaration of Conformity



Original Declaration of Conformity



Manufacturer / Authorized Representative:

Company name: PETec GmbH

Street: Zum Osterfeld 6

City: 59872 Meschede

Country: Germany

Person authorized to compile the
technical documentation:

Name, function, company name:

Christian Plett, Managing Director

Street: Zum Osterfeld 6

City: 59872 Meschede

Country: Germany

Product:

Electrically Height-Adjustable

Worktable Type BASIC KIPP

We hereby declare that the machine described above complies with all relevant provisions of DIN EN 527 and DIN EN ISO 12100. Further applied directives and harmonized standards:

General principles for design – Risk assessment and risk reduction

For the electrical version of the height-adjustable heavy-duty table: EN 60204-1

Safety of machinery control systems according to EN 13849-1

Place, date

Christian Plett / Managing Director

Meschede, 02 June 2026

First name, surname, function

