

User Manual

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SMARTneo



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1 PREFACE

The product documentation consists of this manual and a data sheet.

This document is intended to enable assembly personnel safe working with the products. Assembly personnel must therefore have the complete documentation available at all times. The document must be complete and legible without problems. Please observe the notes listed in this document in order to avoid hazards and damage to the products.

The information in this document was compiled with great care. Even though regular revision and updating is used to attempt ensuring correctness and completeness of the content, no guarantee can be given for complete absence of errors and for completeness.

If you experience problems or have questions regarding the documentation, please contact our technical documentation department.

1.1 COPYRIGHT

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1.2 ROYALTY-FREE USE OF IMAGES AND TEXT

After the purchase and complete payment of the product, the running texts and graphics in Chapter 9 “Operation” of this documentation may be used by the customer to create the end customer documentation for the height-adjustable desktop, in which SMARTneo is installed, for 10 years after delivery at no cost. This licence does not include logos, design and page layout elements of LOGICDATA. The customer may make all necessary changes to the texts and graphics in order to adjust them to the purpose of the end customer documentation. The texts and graphics must not be – changed or unchanged – sold, published digitally or sublicensed. A transfer of this licence to third parties without the permission of LOGICDATA is also precluded. The complete property rights and copyright for the texts and graphics remains with LOGICDATA. Texts and graphics are offered in the current state without warranties or promises of any kind.

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1.4 SYMBOLS AND SIGNAL WORDS USE

 DANGER	Imminent threat to the lives of individuals Warns against a dangerous situation. Failure to observe the warning will result in death or severe personal injury.
 WARNING	Risk of personal injury (serious injuries) and additional material damage Warns against a dangerous situation. Failure to observe the warning can result in severe personal injury.
 CAUTION	Danger of material damage and additional low risk of injury Warns against a dangerous situation. Failure to observe the warning can result in injuries or material damage.
NOTICE	Notice that facilitates the handling or understanding of the product.
	Damage from electrostatic discharge (ESD)



2 SAFETY

2.1 GENERAL SAFETY REGULATIONS AND OBLIAGTIONS

Generally, the following safety regulations and obligations apply to handling the product:

- The product must be operated only in perfect and clean state.
- It is prohibited to remove, change, bridge or circumvent any protection, safety or monitoring equipment.
- It is prohibited to convert or change the product without the written release of LOGICDATA.
- In case of malfunctions or damage, the product must be replaced immediately.
- Repairs are prohibited. Defective products must be replaced as a whole.
- Hardware replacements or changes to the system configuration are permitted only in non-energized state.
- Only qualified persons may carry out work on the system.
- The national employee protective conditions as well as national safety and accident prevention regulations apply to system operation.



2.2 RESIDUAL HAZARDS

Even with maximum diligence during the design and construction of the components and taking into consideration all safety-relevant issues, there can be residual hazards which were evaluated using a risk assessment.

WARNING

Danger of electric shock

Never open the control box.
There is a danger of electrical shock.

DANGER

Danger due to incorrect mains voltage

The control box must be operated only with mains voltage and the frequency ranges marked on the type plate of the mains adapter must not be exceeded. There can be electrical hazards otherwise.

DANGER

Disconnect the mains supply

Disconnect the mains supply before removing or connecting any components. There can be electrical hazards otherwise.

**⚠ DANGER****Don't change or convert components**

The components must never be changed or converted.

⚠ DANGER**Danger of collision when changing the desktop height**

There is a collision hazard if the desktop height is changed. Therefore always make sure that there are no items or persons in the danger zone and that no one reaches into the danger zone.

⚠ DANGER**Risk of explosion**

Do not operate the components in a potentially explosive atmosphere.

⚠ WARNING**Usage by children and persons with restriction**

This device can be used by children above the age of 8 years as well as by persons with reduced physical, sensorial or mental capacities or a lack of experience and knowledge if they are supervised or were instructed in the safe use of the device and understand the resultant hazards. Children may not play with the device.

⚠ DANGER**Danger in case of damage**

When an electrical line is damaged, it must be replaced immediately through the manufacturer or by the customer service in order to prevent further damage. Recommissioning must not be done until the fault removal has taken place.

⚠ WARNING**Danger in case of humidity**

Do not use the control box outside or in wet areas!

NOTICE

Ensure ESD-oriented handling during the unpacking.

Errors that can be attributed to electrostatic discharge will void warranty claims.

⚠ DANGER**Danger due to liquids or heated surfaces**

Never dip the connection cable or parts of the hand control into liquids and keep the connection cable away from heated surfaces.

**⚠ WARNING****Danger due to continuous operation**

The control box is not designed for continuous operation. Changing the desktop height without disruption must not exceed the duty cycle specified on the type plate!

⚠ DANGER**Danger due to defective mains supply cable**

Always use a standardized mains supply cable. Ensure that the mains supply cable is not damaged. Operation of the control box with a damaged mains supply cable is prohibited.

⚠ DANGER**Danger due to self-built products**

Connecting self-built products to the control box is prohibited. Use only components suitable for LOGICDATA control box as the device may otherwise be damaged or destroyed.

⚠ DANGER**Disconnect from mains supply before plugging**

Before plugging control box in and out, you have to pull the mains supply cable from the mains plug without fail.

⚠ DANGER**Danger due to malfunction**

With a malfunction (e.g. if the control box continues to run independently when a movement key is stuck), the mains plug must be pulled immediately.

⚠ DANGER**Danger due to humidity**

Protect the control box against moisture, dripping and spray water!

⚠ DANGER**Danger due to changes to control box**

Conversions or changes to control box and control element are prohibited.

⚠ DANGER**Danger of collision**

In the event of a malfunction (motor or module error), it can happen that the desktop moves a bit with every attempt to start before the safety shutdown engages. Please note the increased collision hazard hereby!

**⚠ DANGER****Danger due to inactive collision protection**

With all reset processes (Chapter 9.4 Manual reset), the collision protection (ISP) is inactive. Please note the increased collision hazard hereby!

⚠ DANGER**Disconnect from mains supply before cleaning**

The control box must be cleaned exclusively with a dry, soft cloth. Before cleaning, you must pull the mains supply cable from the mains plug without fail.

⚠ DANGER**Cleaning by children without a supervision**

Cleaning may not be carried out by children without supervision.

⚠ DANGER**Danger of collision**

There is a collision hazard if the desktop height is changed. Therefore make sure that there are no items or persons in the danger zone and that no one reaches into the danger zone.

⚠ WARNING**Increased safety risk**

The firmware is delivered with deactivated double-click function. If you activate the function, the grading of the safety functions according to EN ISO 13849-1 PL b, Category B, loses its validity. The legal requirements from the standard are no longer met with this function.

To use the double-click function, you have to carry out a new assessment of the higher safety requirements according to EN 60335-1 which cannot be met by this product. LOGICDATA is not liable for injuries or damage which can result from the activation of the double-click function.

⚠ DANGER**Various dangers when exceeding the carrying capacity**

Ensure that the maximum load of the desktop specified by the desktop manufacturer is not exceeded.

⚠ DANGER**Use compatible hand control**

For the HS socket, use only LOGICDATA-compatible hand control cables. Especially comparable cables must not be connected to the control box.



⚠ DANGER

Check for visual damage

Check the control box for visual damage prior to commissioning. The control box must not be put into operation if a visual damage to the housing has been found. Contact the customer service in this case.

2.3 QUALIFIED PERSONS

Products of LOGICDATA may be installed and commissioned only by qualified persons who are authorised to plan installation, install, commission or maintenance/repair and who have read and understood the product documentation. Qualified persons have, because of their training, professional experience and timely professional activity, the required technical knowledge to be able to test, evaluate and handle electrical and mechatronic products and systems according to the generally valid standards and the guidelines of electrical engineering and furniture production. They know and observe the basic regulations for industrial safety and accident prevention and the basic and specialised standards applicable to the special application.

All safety standards and guidelines relevant for the application must be taken into consideration. The furniture manufacturer carries out a safety review of the overall system and is responsible for the certification of the overall system.

2.4 LIABILITY

The information in this documentation describes the characteristics of the products without assuring them.

The products comply with the state of the art as well as the applicable safety and health regulations. But there can still be hazards through faulty operation or incorrect use.

LOGICDATA is not liable for damage resulting from:

- Inappropriate use of products
- Failure to observe the documentation
- Unauthorised changes to the products
- Unprofessional work performed on and with the product
- Operation of a product even though it is damaged
- Wear parts
- Incorrectly carried out repairs
- Unauthorised, inappropriate change of operating parameters
- Disaster situations, external influences or force majeure.

The manufacturer of the height-adjustable desktop into which the LOGICDATA products are installed is responsible for the LOGICDATA products in the specific application and the compliance with the corresponding guidelines, standards and laws. LOGICDATA is not liable for damage that can be attributed directly or indirectly to the delivery, performance or use of this document.



3 PRODUCT

3.1 DESCRIPTION

SMARTneo is a control box for electrically height-adjustable desktops. There are four versions of the control box available:

SMARTneo-2-YYY-EU

- Designed for the European mains supply.
- The double-click function is not permissible in Europe.
- Two motors can be controlled by the control box.
- Two control boxes can be connected together with one cascading cable LOG-CBL-SMARTneo-SYNC-1000 in order to actuate up to four motors.

SMARTneo-1-YYY-EU

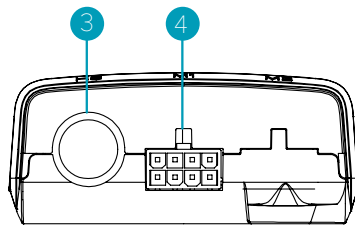
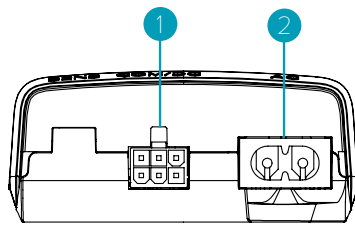
- Designed for the European mains supply.
- The double-click function is not permissible in Europe.
- One motor can be controlled by the control box.
- Two control boxes can be connected together with one cascading cable LOG-CBL-SMARTneo-SYNC-1000 in order to actuate up to two motors.

SMARTneo-2-YYY-US

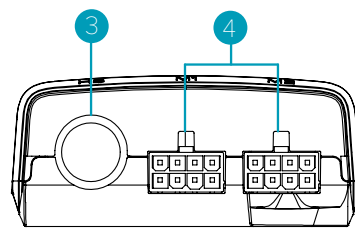
- Designed for the north American mains supply.
- The double-click function can be activated in the parameters.
- Two motors can be controlled by the control box.
- Two control boxes can be connected together with one cascading cable LOG-CBL-SMARTneo-SYNC-1000 in order to actuate up to four motors.

SMARTneo-1-YYY-US

- Designed for the north American mains supply.
- The double-click function can be activated in the parameters.
- One motor can be controlled by the control box.
- Two control boxes can be connected together with one cascading cable LOG-CBL-SMARTneo-SYNC-1000 in order to actuate up to two motors.

**Fig. 1: Connections to the control box**

SMARTneo-1



SMARTneo-2

- ① 6-pin minifit for cascading cable (COM/DC)
- ② 2-pin C7 for mains supply (AC)
- ③ DIN for hand control (HS)
- ④ 8-pin minifit for actuators (M1, M2)

The mechatronic overall system for the vertical adjustment consists of the following products:

One motor driven desktop

- 1 control box SMARTneo
- 1 actuator, e. g.: SLIMdrive-500, SLIMdrive-660s
- 1 hand control e. g.: TOUCHfx, HSF or another LOGICDATA hand control, LOGIClink
- 1 mains cable with two-pin connection C8

Two motor driven desktop

- 1 control box SMARTneo
- 2 actuators, e. g.: SLIMdrive-500, SLIMdrive-660s
- 1 hand control e. g.: TOUCHfx, HSF or another LOGICDATA hand control, LOGIClink
- 1 mains cable two-pin connection C8

Four motor driven desktop

- 2 control boxes SMARTneo
- 1 cascading cable
- 4 actuators, e. g.: SLIMdrive-500, SLIMdrive-660s
- 1 hand control e. g.: TOUCHfx, HSF or another LOGICDATA hand control, LOGIClink
- 2 mains cable with two-pin connection C8



Only the listed products are compatible and may be connected to the control box.

Because of technical limits, the following restriction exists for the system configuration:

- Only system components released by LOGICDATA must be used.

3.2 INTENDED USE

SMARTneo is an electrical device for household use. It may be used only in dry interior spaces and according to the product description. The installation site must be level, vibration-free and free from contamination. It must be ensured that there is no extraordinary exposure through dust or toxic or caustic gases and vapours or through inadmissible heat exposure at the installation site.

This device can be used by children above the age of 8 years as well as by persons with reduced physical, sensorial or mental capacities or a lack of experience and knowledge if they are supervised or were instructed in the safe use of the device and understand the resultant hazards. Children may not play with the device. Cleaning may not be carried out by children without supervision.

After the mechatronic system has been installed in a desktop, the desktop manufacturer / customer is responsible for a risk analysis and assessment of the complete desktop and for creating a user documentation.

4 DELIVERY SCOPE

The delivery scope comprises control boxes, without cables or compatible products. The control boxes are packed in cartons. Fitting material is not included in the delivery scope.

5 UNPACKING

Proceed as follows to unpack:

1. Put on an antistatic bracelet.



Ensure ESD-oriented handling during the unpacking.
Errors that can be attributed to electrostatic discharge will void warranty claims.



2. Remove the packing material.
3. Check the contents of the package for completeness and damage.
4. Dispose of packaging material in an environmentally responsible way.

6 ASSEMBLY

Mount the SMARTneo control boxes on the underside of the desktop. For assembly you need the following tools and materials:

- 1 cross screwdriver
- 1 pencil
- 1 drilling machine (for predrilling)
- matching screws (not included in the delivery)

NOTICE

Assembly of the system is described in the corresponding customer manual.

⚠ WARNING

Unplugging mains cable

During installation of the system, the control box mains supply cable must be disconnected from the mains plug.

⚠ WARNING

Acclimation of the product

Before mounting and commissioning the SMARTneo, make sure that the product acclimatizes to the temperature and humidity values specified in the data sheet for operation.

To mount the SMARTneo control box, proceed as follows:

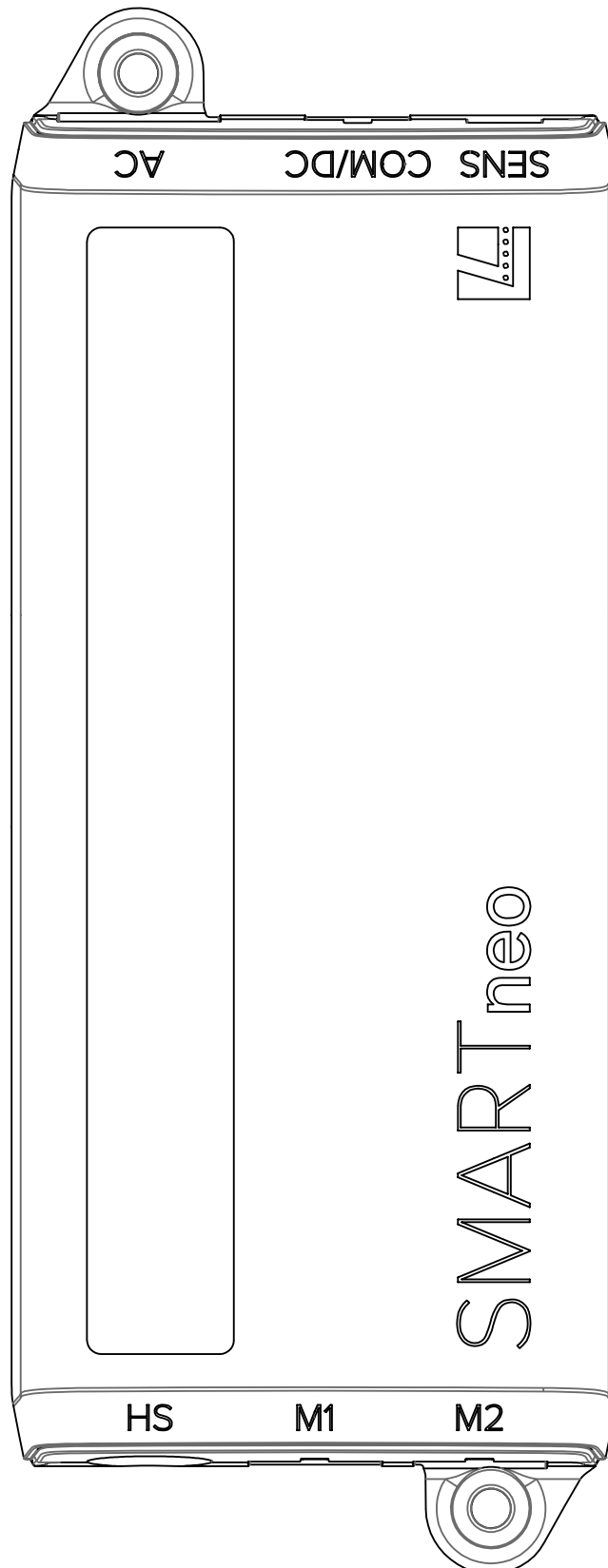
NOTICE

We recommend mounting with the aid of the drilling template. If you do not want to use the drilling template, please follow the instructions in detail.

1. Position the control box in the desired position on the desktop.
2. Mark the drill holes with a pencil.
3. Pre-drill these 2 drill holes.
4. Attach the SMART to the pre-drilled locations with 2 screws.
5. Tighten the screws.



Fig. 2: Drilling template



7 COMMISSIONING

The desktop system may be assembled only by qualified persons. The workplace must be clean, dry and ESD protected.

NOTICE



Ensure ESD-oriented handling during the unpacking. Errors that can be attributed to electrostatic discharge will void warranty claims.

⚠ WARNING

Mains supply cable connection

Plug in the mains supply cable only after all other electrical connections have been established. (Motors and hand control are connected to the control box, etc.)

⚠ DANGER

Commissioning only by knowledgeable staff

Commissioning of the control box may be carried out only by knowledgeable technical staff. Knowledgeable technical staff has the necessary electrotechnical training and is familiar with these operating instructions.

⚠ DANGER

Acclimation of the product

Before assembly and commissioning of the SMARTneo ensure that the product is acclimated for the temperature and humidity values specified in the data sheet.

Proceed as follows to commission the control box SMARTneo:

7.1 CONNECT DRIVES

Plug in the motor cables in the appropriate 8-pin motor socket (M1, M2).

NOTICE

While plugging in the motor cables, be mindful of the parametrisation of the control box.

NOTICE

While plugging in the motor cables, you must observe the sequence M1 and M2 without fail.



7.2 CONNECT HAND CONTROL

Insert the hand control in the DIN hand control socket (HS).

7.3 CASCADING

Cascading enables, through the connection of up to two control boxes, the operation of up to four synchronized drives.



NOTICE

It must be specified in advance via parameters whether a control box is used for cascading. Minor deviations from the functions of a single control box are possible.

NOTICE

For additional information regarding the cascading, please refer to the operating instructions for the cascading of control boxes. Operating instructions are available in the download area of the homepage www.logicdata.net

7.4 CONNECT MAINS SUPPLY



⚠ WARNING

Check before you connect the mains supply

Before you connect the mains supply cable, check again:

- whether the mains voltage complies with the type plate of your control box.
- whether all components are connected to the correct sockets. The control box SMARTneo is operational when the mains supply cable is connected.

NOTICE

Depending on the parameterisation of the control box SMARTneo, a reset or a calibration run can be necessary after the first connection of the mains supply cable.

7.5 SYSTEM CONFIGURATION (EXAMPLE)

The following figure shows a sample configuration:

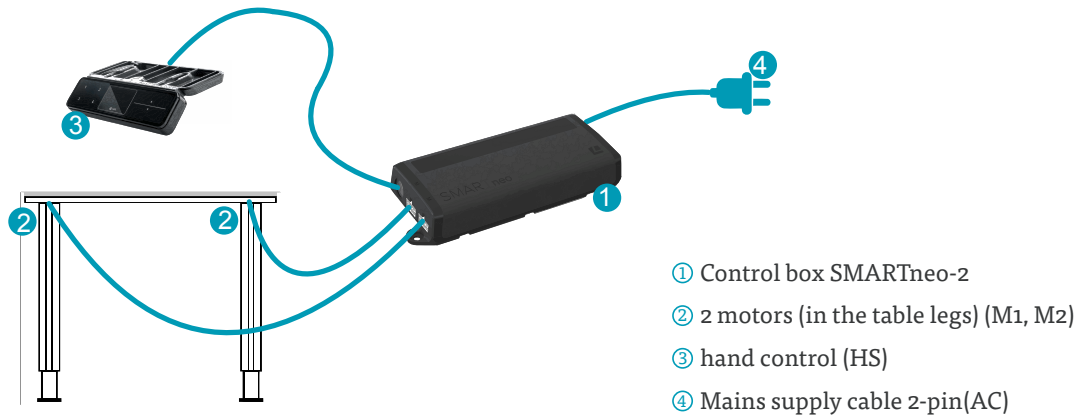


Abb. 3: Connections to the control box SMARTNeo

7.6 RESET DURING FIRST START-UP

During the first start-up, there is a compulsory reset in order to be able to commission the product.

The reset puts all columns on the same level. This ensures that the desktop is moved parallel to the basic level. In addition, the control box stores the connected components in the standard version.

After the reset, configuration changes are detected and rated as errors. The system no longer moves until the saved state has been restored.

⚠ DANGER

Danger of collision

With all reset processes (Chapter 9.4), the collision protection (ISP) is inactive. Please note the increased collision hazard hereby!

The execution of the manual reset is explained in chapter 9.4.

8 DISMANTLING

Proceed as follows for dismantling:

1. Disconnect the table's mains supply.
2. Disconnect all plug connectors from the control box.
3. Dispose of all parts within the scope of the valid shut-down in an environmentally responsible way and sorted according to material (see Chapter 14.2).

9 OPERATION

DANGER

Danger during a thunderstorm

During a thunderstorm or if you are absent for a longer period of time, pull the mains supply cable out of the socket. Otherwise, device damage may be caused by network-related overvoltage.

The control box SMARTneo provides a broad range of functions. However, the availability of some functions depends on the hand control used.

The basic functions that can be executed with each hand control intended for the control box SMARTneo are described in this section.



Fig. 4: User interface

The individual keys are represented as follows for further description:



Desktop up key



Desktop down key



Memory key



- | | |
|---|-----------------------|
| 1 | Memory position key 1 |
| 2 | Memory position key 2 |
| 3 | Memory position key 3 |
| 4 | Memory position key 4 |

9.1 ADJUSTING THE DESKTOP HEIGHTS

This function serves for easy adjustment of the desktop height up or down.

Proceed as follows to move the desktop up or down:



Desktop up key

Push the key until the required desktop height has been reached.



Desktop down key

Push the key until the required desktop height has been reached.



NOTICE

The desktop moves up or down until you release the key or the maximum or minimum desktop height has been reached.

⚠ DANGER

Danger of collision

There is a collision hazard if the desktop height is changed. Therefore always make sure that there are no items or persons in the danger zone and that no one reaches into the danger zone.

9.2 SAVING THE MEMORY POSITION

This function saves a defined desktop height (one desktop height per memory position key can be saved).

Proceed as follows to save the desktop height:



NOTICE

When the control box is switched on for the first time and the parameters of the control box were not adjusted appropriately, all saved positions will be equal to the lowest desktop height (lower desktop position).

NOTICE

The following functions of the control box SMARTneo can be used only if you have a comfort hand control with display, memory position keys and a memory key.



Move the desktop to the desired height.



The display shows the desktop height (e.g. 73 cm).



Press the **memory key**.



The display shows **S -**.



Press the required **memory position key**, e.g. 2.



The display shows **S 2**.



The control box clicks twice when the saving process is completed.
After about two seconds, the desktop height is displayed again.

9.3 ADJUSTING THE DESKTOP TO A SAVED POSITION

You can use this function to adjust the desktop to a saved height. Proceed as follows to adjust a saved desktop height:

NOTICE

Availability of the double-click function depends on the software configuration of the control box. The double-click function is available only for SMARTneo-2-YYY-US which is designed for the American market.



Version A (without double-click function)



Press the required **memory position key** (e.g. 2) and keep it

The desktop moves until the saved desktop height has been reached.

When you release the key before the saved desktop height is reached, the desktop stops and the saved desktop height is not reached.

The desktop has reached the saved desktop height. Release the memory position key now.



The display shows the current (saved) desktop height.



Version B (with double-click function)

2

Double-click the required **memory position key** (e.g. 2).

After the double-click, the desktop automatically moves to the saved desktop height.

073

The display shows the current (saved) desktop height.



⚠ DANGER

Danger of collision

There is a collision hazard with an automatic desktop height change. Therefore make sure that there are no items or persons in the danger zone and that no one reaches into the danger zone.

NOTICE

If you press another key during the automatic adjustment of the desktop to a saved position, the desktop will stop immediately. Then, you have to activate the automatic adjustment of the desktop to a saved height again.

⚠ DANGER

Increased safety risk

The firmware is delivered with deactivated double-click function. If you activate the function, the grading of the safety functions according to EN ISO 13849-1 PL b, Category B, loses its validity. The legal requirements from the standard are no longer met with this function.

To use the double-click function, you have to carry out a new assessment of the higher safety requirements according to EN 60335-1 which cannot be met by this product. LOGICDATA is not liable for injuries or damage which can result from the activation of the double-click function.

9.4 MANUAL RESET

If the actual desktop position is no longer used with the displayed desktop height or an already configured control box on another identically constructed electrically height-adjustable work station, you have to carry out an end position alignment of the lowest desktop height.



Press the **desktop down key**

Press the **desktop down key** until the desktop has reached the lowest desktop height (programmed desktop position).



Press the **desktop down key** (and continue to press it).

After about 5 seconds, the desktop is adjusted downward until the absolute lowest desktop height is reached.

Release the **desktop down key**. The electrically height-adjustable workplace can be used as usual again.



⚠ DANGER

Danger of collision

With all reset processes, the collision protection (ISP) is inactive. Please note the increased collision hazard hereby!

9.5 CORRECT HEIGHT DISPLAY

With this function, you can change the displayed height on the display but not the desktop height of the desktop. This function is available only for hand controls with integrated display.

Proceed as follows:



Press the **memory key**.



The display shows **S -**.



Press the **desktop down key** (arrow toward the bottom) for approx. 5 seconds.



The display starts to flash.



Now use the **desktop down key** (arrow toward the bottom) or **desktop up key** (arrow toward the top) to adjust the height display.



Press the **memory key**.

The height display is now set to the new desktop height.



NOTICE

Please note that the desktop height of the desktop is not changed with this setting process. Only the display changes.



10 SOFTWARE-DEPENDENT FUNCTIONS

The control box SMARTneo is parameterised with software before delivery. The following functions can be used only when the control box is parameterised appropriately.

10.1 SLOW SPEED RANGES

This function (low speed area) causes the speed to be slowed down automatically during the desktop adjustment before the following positions are reached:

- Highest and lowest desktop height
- All saved positions (e.g.: memory positions, container stop position)

10.2 SAFETY AREA

This function causes a safety stop at a defined desktop height (configured with software). The safety stop functions as follows:



Press the **desktop down key** (and continue to press it).
The desktop is adjusted to the start of the safety area.
The desktop adjustment is stopped above the safety area.



Press the **desktop down key** again. The desktop is then adjusted to the lowest desktop height.



NOTICE

Saving the desktop height is not possible in safety areas.



10.3 CONTAINER-STOP AND SHELF-STOP POSITIONS

These two features can be used to limit the movement area of the desktop (if e.g. a container is below the desktop). A container stop position can be set in the lower half of the movement area, a shelf stop position in the upper half. If a container stop position is set, then this is used as the new bottom end position, a shelf stop position is equivalent to a new upper end position of the movement area. Proceed as follows to save a container stop / shelf stop position:



Put the desktop in the position that you want to use as new container stop / shelf stop position. Use the **desktop down key** or **desktop up key** until the required position is reached.



Press the **save key** for 10 seconds. The control box clicks **twice** when the position is saved.

or



With hand control equipped only with up and down key, the function can be carried out by pressing both the up and the down key simultaneously for 10 seconds.

&



simultaneously



NOTICE

A container stop position can be saved only in the lower half of the movement area and a shelf stop position only in the upper half of the movement area.
These steps must be carried out separately for a container stop position and for a shelf stop position.



Proceed as follows to **deactivate** a container stop / shelf stop position:



Put the desktop in a random position in the lower half of the movement area in order to deactivate the container stop. Put the desktop in a random height in the upper half of the movement area in order to deactivate the shelf stop.



Use the **desktop down key** or **desktop up key** until the required position is reached.



Press S for 10 seconds. The control box clicks **once** when the position is saved.

or



With hand control equipped only with up and down key, the function can be carried out by pressing both the up and the down key simultaneously for 10 seconds.

&



simultaneously

NOTICE

These steps must be carried out separately for a container stop position and for a shelf stop position.



10.4 PLUG DETECTION

The control box SMARTneo detects whether a motor is connected to the respective motor socket. The control box also detects whether a motor was replaced (the availability of this function depends on the control box type and the drives used). When a motor is missing or was replaced, the SMARTneo clicks three times. The display also shows an appropriate error code if the hand control is equipped with a display. Proceed as follows to remedy the error:

Possible situations:

A motor was removed from the SMARTneo while the control box was connected to the mains supply system.



Error code **E36, E37 or E38** is shown on the hand control display depending on which motor was removed.

Disconnect the mains supply of the SMARTneo and wait at least 5 seconds.

Reconnect the missing motor.

Reconnect the mains supply of the SMARTneo.

Carry out a **manual reset** (see Chapter 9.4).



10.5 AUTO DETECT NUMBER OF DRIVES

The SMARTneo can automatically detect the number of connected drives, it can thus be determined during commissioning whether e.g. 1 or 2 motors are to be controlled without having to change the parameterisation of the control box. In order to be able to use the SMARTneo again after the drive configuration change, proceed as follows:

Possible situations:

- First use of the SMARTneo
- After restoring the factory settings (So menu)

The error code E70 is shown on the hand control display.

Disconnect the mains supply of the SMARTneo and wait at least 5 seconds.

Connect the required number of motors.

Reconnect the mains supply of the SMARTneo.

Carry out a **manual reset** (see Chapter 9.4).

10.6 SLIMDRIVE-DETECTION

The SMARTneo can automatically detect the type of connected SLIMdrive drives; it can thus be determined during commissioning whether it is a SLIMdrive-500 or a SLIMdrive-660S drive. In order to be able to use the SMARTneo with SLIMdrive drives for the first time, proceed as follows:

Possible situations:

- First use of the SMARTneo
- After restoring the factory settings (So menu)
- Different SLIMdrive drive types were connected to the control box (e.g. a SLIMdrive-660S and a SLIMdrive-500).

The error code **E70** is shown on the hand control display.

Disconnect the mains supply of the SMARTneo and wait at least 5 seconds.

Connect the required number of similar SLIMdrive drives.

Reconnect the mains supply of the SMARTneo.

Carry out a **manual reset** (see Chapter 9.4).

In case that a SMARTneo is to be used for other drives than the previously used one (e.g. with a change from SLIMdrive-500 to SLIMdrive-660S drives), reset the control box to the factory settings and follow the instructions above again.

**NOTICE**

The function of automatic detection of drive types is available only for LOGICDATA SLIMdrive drives.

NOTICE

This function is available only for motor group 1.

NOTICE

The automatic detection function of the SLIMdrive drive types depends on the settings in the software parameters of the SMARTneo. Please contact LOGICDATA for additional information.

NOTICE

If the number or type of connected drives changes, the control box must be reset to the factory settings.

10.7 DUTY CYCLE MONITORING

The duty cycle monitoring causes the control box to be disabled for a defined period of time when a defined duty cycle is reached.

NOTICE

You can find the precise specification of the duty cycle in the data sheet.



10.8 CHANGE OF THE DISPLAY UNIT (CM OR INCHES)

This function can be used to switch the unit of the display of the memory hand control from centimetres to inches and vice versa. The desktop height itself is not changed by this function.

1

Simultaneously press the **memory position keys 1, 2** and the **desktop up key**. Hold the key combination for approx. 3 seconds. Then release the keys.

2

▲

S 7

The display shows **S and a number**, e.g. **S 7**.

▲

Press the **desktop up key** until the display shows **S 5**.

S 5

The display shows **S 5**.

SAVE

Press the **memory key**.

If the display was previously set to cm, it is now set to inches.

If the display was previously set to inches, it is now set to cm



NOTICE

The menu has a time-out of 5 seconds, which means that the menu is closed automatically and without saving the settings if no entry is made within 5 seconds.

NOTICE

When the menu appears, the display shows **S and a number**, e.g. **S 7**. The number depends on the parameters of the control box.

10.9 CHANGE NUMBER OF DRIVES

It is possible to adjust the number of drives which can be controlled by a SMARTneo. A SMARTneo can be controlled by one or two motors according to the chosen settings.

NOTICE

The factory settings are 2 motors for the SMARTneo.

⚠ DANGER

Only skilled technical staff

This function must be carried out only by skilled technical staff. An incorrect number of motors can lead to damage to the desktop.

NOTICE

A hand control with display and memory keys is required for this procedure.

In order to change the settings, you must proceed as follows:

1

Simultaneously press the **memory position keys 1, 2** and the **desktop up key**. Hold the key combination for approx. 3 seconds. Then release the keys.

2

▲

S 5

The display shows **S and a number**, e.g. **S 5**.

▲

Press the **desktop up key** until the display shows **S 8**.

S 8

The display shows **S 8**.

SAVE

Press the **memory key**.

The display now shows the currently set number of motors (1 or 2)

▼

Press the **desktop down key** in order to reduce the number of motors. The lowest possible number is 1.

or

▲

Press the **desktop up key** in order to increase the number of motors. The highest possible number is 2.

The display now shows the selected number of motors.

SAVE

Press the memory key to confirm the setting.



When **000** flashes on the display, a manual reset is necessary. This process is explained in Chapter 9.4.

NOTICE

The menu has a time-out of 5 seconds, which means that the menu is closed automatically and without saving the settings if no entry is made within 5 seconds.

NOTICE

When the menu appears, the display shows **S and a number**, e.g. **S 5**. The number depends on the parameters of the control box.

10.10 RESET CONTROL BOX TO FACTORY SETTINGS

With this function, you can reset the control box to its factory settings.

1

Simultaneously press the **memory position keys 1, 2** and the **desktop up key**. Hold the key combination for approx. 3 seconds. Then release the keys.

2



The display shows **S and a number**, e.g. **S 5**.



Press the **desktop up key** until the display shows **S 0**.



The display shows **S 0**.



Press the **memory key**.

The control box is reset to factory settings. The control box is now in the same state as it is during the first start-up.

NOTICE

The menu has a time-out of 5 seconds, which means that the menu is closed automatically and without saving the settings if no entry is made within 5 seconds.

NOTICE

When the menu appears, the display shows **S and a number**, e.g. **S 5**. The number depends on the parameters of the control box.





⚠ DANGER

Reset to factory settings

If the drives in a system are replaced, the control box must first be reset to the factory settings and a manual reset carried out without fail.

If a hand control is used with only one up and down key each, proceed as follows:

Disconnect the mains supply of the SMARTneo and wait at least 5 seconds.



&



&



&



While the control box is disconnected from the mains supply, simultaneously press the **desktop up key** and **desktop down key**. Keep holding this key combination.

Keep holding this key combination **desktop down key** and **desktop up key** while you connect the control box to the mains supply.

Keep holding this key combination **desktop down key** and **desktop up key** until the control box starts to click twice every second. Release both keys as long as the control box click twice every second.

The control box is reset to factory settings. The control box is now in the same state as during the first start-up.



⚠ DANGER

Reset to factory settings

If the drives in a system are replaced, the control box must first be reset to the factory settings and a manual reset carried out without fail.



11 COLLISION PROTECTION

11.1 INTELLIGENT SYSTEM PROTECTION (ISP)

ISP is an electronic state-of-the-art protection system developed by LOGICDATA. It also substantially reduces the damage to the system in case of a collision.

NOTICE

The ISP-sensitivity and the ISP-cutoff value depend on the entire system (mechanical and electrical components). In order to determine the ISP suitability of a height-adjustable desktop, contact LOGICDATA.

NOTICE

For optimal function of the collision protection ISP, please note the following requirements:

In order to ensure the best possible collision protection, a mechanical brake must be integrated that is effective on the down movement of the height-adjustable workplace.

NOTICE

Without a mechanical brake, a reduced shutdown sensitivity with a loaded desktop must be expected. However, if there is no load on the desktop, ISP will function properly even without a brake.

NOTICE

As soon as the collision protection ISP has braked the height-adjustable desktop, the first movement of the desktop top can only be in the opposite direction after the collision protection ISP action (not in the direction with which the collision protection ISP was triggered).

NOTICE

The ISP-cutoff can be adjusted by control box parameters.



11.2 DRIVE BACK



NOTICE

The function Drive back is active only if collision protection (ISP, sensor unit) is activated.

After a safety function is triggered by ISP, the desktop automatically moves a defined distance in the opposite direction. This immediately prevents any possible risk of pinching.



⚠ DANGER

Increased safety risk

In exceptional cases however, there can be a collision hazard despite the collision protection since not only the control box is responsible for the motor shutdown, but the interoperation of mechanical equipment and electronics. Furthermore, the shutdown sensitivity is influenced by mechanical equipment, motor and environmental conditions.

LOGICDATA as control box manufacturer can therefore not completely rule out this residual risk and does not assume and liability.

12 MAINTENANCE

SMARTneo is maintenance-free for the entire service life. If cleaning should be necessary, wipe the housing of SMARTneo with a soft, dry cloth.

13 FAULT REMOVAL

With technical problems, contact our support at:

Tel.: +43 (0)3462 5198 0

Fax: +43 (0)3462 5198 1030

E-mail: office.at@logicdata.net

Always provide the product name and the revision status according to the type plate with any support request. In case of a defect, replace the SMARTneo as a whole.





13.1 POSSIBLE FAULTS AND REMEDIES

Problem	Possible cause	Remedy
Drives not working	Mains supply cable not plugged in	Plug in the mains supply cable of control box
	Drives not connected	Plug the motor cable into the control box
	Poor plug contact	Plug in motor cable, mains supply cable and hand control properly
	Control box defective	Contact the customer service
	Hand control defective	Replace the hand control
Drives running in one direction only	Electricity failure during the run or mains supply cable disconnected during the run	Manual reset*)
	Control box defective	Contact the customer service
	Hand control defective	Replace the hand control
	Drive defective	Contact the customer service
Control box or hand control does not work	Mains supply cable not plugged in	Plug in the mains supply cable of control box
	Hand control not plugged in	Plug in the hand control
	Control box defective	Contact the customer service
	Mains cable defective	Contact the customer service
	Hand control defective	Replace the hand control
	Poor plug contact	Plug in motor cable, mains supply cable and hand control properly
	Contact with liquids	Replace the hand control

*) If drives move only downwards



13.2 ERROR MESSAGES ON THE DISPLAY OF THE HAND CONTROL

Problem	Cause	Remedy
 The display shows HOT.	The control box SMARTneo is equipped with overheating protection. This overheating protection was activated because of overheating.	Wait until the control box has cooled off and the message HOT on the display goes out. The control box SMARTneo is then operational again.
 The display shows E and an error number.	There is an internal fault in the SMARTneo control box.	Proceed according to the following error list.



Number	Description	Remedy
00	Internal error channel 1	Unplug the control box. Contact the customer service.
01	Internal error channel 2	
12	Defect channel 1	Unplug the control box.
13	Defect channel 2	Remedy the external short circuit. or Plug in the correct motor at the affected socket. Start the control box again.
24	Overcurrent motor M1	Remove the clamped objects from the movement area. Desktop overload -> Remove the load from the desktop. Contact the customer service.
25	Overcurrent motor M2	
48	Overcurrent motor group 1	
60	Collision protection	
62	Overcurrent of the control box	Plug in the correct motor at the affected socket. Carry out a manual reset.
36	Plug detection at motor socket M1	
37	Plug detection at motor socket M2	
61	Motor replaced	Remove the load from the desktop. Carry out a manual reset. If the error is still displayed after the manual reset, contact the customer service.
55	Synchronisation of motor group 1 not possible	
67	High voltage	Disconnect the mains supply cable and contact the customer service.
60	Collision protection	Remove the clamped objects from the movement area. Desktop overload -> Remove the load from the desktop. Contact the customer service.
70	Motor configuration changed	Disconnect the mains supply for 5 seconds. Connect the required motors and plug the mains supply back in. Carry out a manual reset. (see chapter 10.5)



81	Internal error	Carry out a manual reset. Disconnect the mains supply cable and plug it back in after a few seconds. If this error occurs frequently, disconnect the mains supply cable and contact the customer service.
93	Connection error in cascaded combination The error is shown for 15 seconds on the display; the control box then switches to the reset mode with flashing display ooo , if necessary.	Check all cable connections and try to carry out a drive reset. If the drive reset is not possible, disconnect the mains supply of all control boxes. Wait for at least 5 sec. and connect all control boxes with the mains supply again. Try to carry out the drive reset again. If a drive reset is still not possible, contact the customer service.

NOTICE

The PowerFail Detection detects power failures and saves all relevant data before the voltage drops below a critical level. In a few exceptional cases, this saving is not possible and during the next start-up of the control box, **E81** is displayed and the control box clicks three times. Remedial of this error requires a manual reset (see Chapter 9.4).

NOTICE

If there is a power failure during the vertical adjustment or if the mains cable is unplugged, a manual reset may be necessary.





13.3 CLICK-CODES

As soon as the SMARTneo is supplied with current, the control box uses the installed relays to inform the user acoustically about the system status as well as the reason for the last shut-off. The following desktop shows how the number of clicks correlates with the different information.

Number of clicks	Status information
2x	Normal operation: The system is working without problems
1x	Emergency operation: The system is in emergency operation mode, the drives cannot be used. Check the LEDs and/or the error code on the display of the hand control.
3x – 6x	Last shut-off incomplete / forced reset: Check the error code on the display of the hand control. If the control box could not complete a data savings process before e.g. there was a power failure, it will click 4–5 times during renewed commissioning and go into the reset mode, but without displaying the error code 81 in this case.



14 ADDITIONAL INFORMATION

14.1 TECHNICAL SPECIFICATIONS

You can find the technical data of your control box in the corresponding data sheet.

14.2 DISPOSAL



The SMARTneo is an electrical and electronic device which must be disposed of separately from household trash in accordance with the WEEE guideline 2012/19/EU. The products are labelled with the symbol shown on the left.

Before the disposal of materials and components, check their recyclability. Recycle all parts, if possible.

Dispose of all materials and parts according local guidelines and regulations. Ensure that the disposal is lastingly compatible for humans and nature.

MOTION FOR YOUR LIFE

LOGICDATA
Electronic & Software Entwicklungs GmbH
Wirtschaftspark 18
8530 Deutschlandsberg
Austria

Phone: +43 (0)3462 5198 0
Fax: +43 (0)3462 5198 1030
E-mail: office.at@logicdata.net
Internet: <http://www.logicdata.net>

LOGICDATA North America, Inc.
1525 Gezon Parkway SW, Suite C
Grand Rapids, MI 49509
USA

Phone: +1 (616) 328 8841
E-mail: office.na@logicdata.net



www.logicdata.net