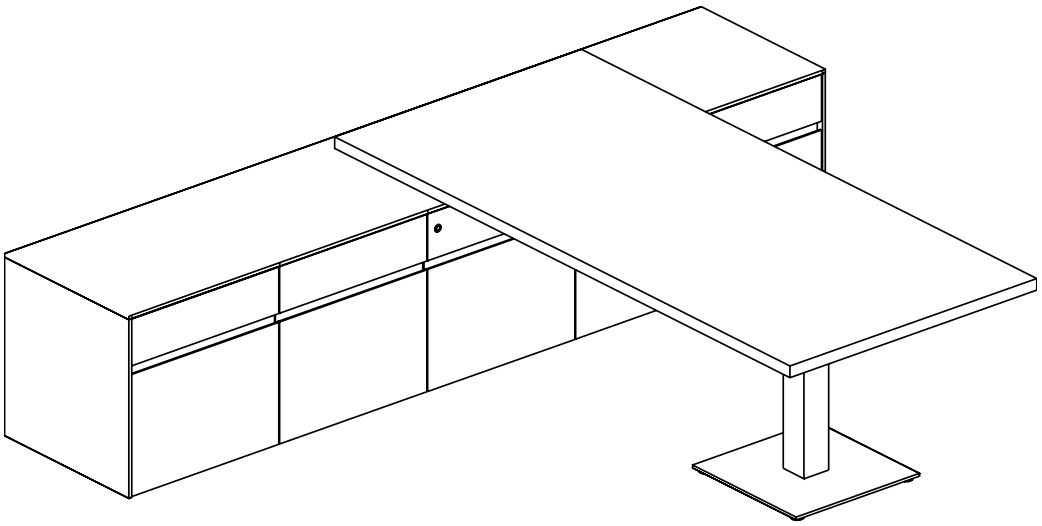
Sono



Assembly instruction
Operating manual

RENZ

This manual is valid for the following models:

K22 = Table top format 2200 x 1000mm
K23 = Table top format 2400 x 1000mm
K39 = Table top format K22/K23 2200/2400 x 1000mm + container K39

The enclosed assembly instruction and the operating instructions for the control unit and the manual switch from Vibradorm are binding properties of this operating manual.
Please keep the documents complete and easily accessible to all users at a generally known place of storage.

Table of Contents:

In the attachement:

1. Safety instructions, intended use

a.) The height adjustability of the undercarriage serves for the electrically operated adjustment of an individual working height for the optionally sitting or standing user of the table by the hand switch,considering the following notes.

b.) This product may only be used by children aged 8 years and older, as well as persons with physical, sensory, or mental disabilities or lack of experience and knowledge, if they are supervised or instructed by a responsible person and understand the resulting dangers. Children must not play with the device. Cleaning and user maintenance may not be performed by children without supervision.

c.) The factory-provided power strip may be charged up to a maximum of 3500 watts as documented with the label on the power strip mount.

d.) The maximum additional load of the height-adjustable table is 50kg.

e.) The operator must ensure that there are no persons or objects in the hazard area. There must be no objects higher than 610 mm below the table.

f.) The electrically height- adjustable desk SONO is determined for the use in office space, only in dry environment. Temperature range is +5°C to +40°C. Maximum duty cycle is ED 10% (S3, = 2 min. operation, 18 min. interruption)

Assembly according to the additional installation instructions!

g.) Precondition for the initiation of the table: Electrical installation, setup and initiation have to be done by qualified personnel in accordance to the assembly instruction. If parts of the system are visibly or otherwise appreciably damaged, the furniture must not be installed or put into operation. Please contact our service address immediately.

h.) It is important to ensure that cables have not been crimped or damaged in any way.
Check regularly all cables in the area of the flank legs if they have been pinched between the lower end of the leg and the ground.
Standing on soft floor coverings, the adjustable stands may gradually subside into the ground. At such pre-conditions, please provide additional ground clearance in the beginning.

ATTENTION:

In case of non-observance: risk of property damage and damage to persons by electric shock.
Adjust the height of the adjustable stands as follows: Ø of the biggest cable in mm + 4mm = ground clearance.
On soft floorings significantly more additional reserve is necessary because of the risk of subsidence. Retain the stands against unintentional readjustment by tightening/ fixing the nut against the base plate.

Cleaning work, moving of the table:

Turn off the power supply for cleaning work at the table. For wet cleaning of floor covers: The power supply of the table is lead beneath the cladding of the table cheeks, invisible for outsiders. For cleaning workers the following orientation is essential.

„In the range of the table cheeks and the power connection water and cleaning agent must not be used flooding or in large amounts. Danger of death due to electric shock!“

ATTENTION:

Never move the table frame sideways!
Cables lead in a floor outlet or cables mounted onto the ground could be pinched or sheared off!
Danger of death due to electric shock!

Electrical and mechanical components:

a.) In case of damage of the electric cable, the device mustn't be operated any more. The damaged cable must be replaced by a new, special electric cable delivered by Wilhelm Renz GmbH + Co.KG. Install the new cable in the reverse order. The strain relief must be reattached.

b.) Owing to any further work or modification on the cabling, the height adjustment or any other parts of the table by others than the producer or his servicing, the CE declaration of conformity by Renz is lapsed.

c.) The power supply must be interrupted immediately if electrical components, drive or mechanics cause unu sual noise or odors during operation, or behave unexpectedly or atypically.

d.) In order to interrupt the power supply a freely accessible separator must be intended by customer. For examp le the deduction of a power plug, the operating of a switch or a fuse ensures that the power supply can be interrupted completely and as fast as possible.

ATTENTION:

The utilized separator has to provide a contact section opening width according to the terms of overvoltage category III for complete detachment. It has to be integrated into the static electric system according to the valid regulatory statues.

e.) The distance of movable table elements to permanent components (for example walls, columns, projections, windowsills, containers and sideboards (ancillaries) must be at least 500 mm, to prevent violent pressure.

f.) Objects and devices on the table must be protected against falling down, make sure that cables of equipment is long enough for highest / lowest position of the table . Use cord grips for traction relief.

g.) Keep in mind that movable furniture like swivel chairs (armrest, back support) or construction elements like casements might slew round into the area of movement of the table. Violent pressure or blocking of the height-adjustment may result.
Blocking of the height-adjustment may cause overload, toppling over or destruction of components.

h.) Persons or heavy objects must not be placed on the tabletop. Otherwise the height adjustment may be damaged or the table might tip over.

i.) The moving table might destroy objects (hazard of shivers) or cause violent pressure.

j.) Keep away beverages and other liquids from the electrification in the table top. Danger of death due to electric shock or danger of malfunction by spilling liquids into the power box or power strip.

2. Lifetime of the lifting columns

In normal use and in accordance with the intended use, in accordance with the respective technical standard, the service life of the lifting columns is designed for a maximum of 10 years.
If this period is exceeded, we strongly recommend replacement.
Under certain circumstances, the service life on which the standard is based can be affected by improper use or reduce excessive load. Warranty and guarantee claims remain unaffected by this.

WEEE-Reg.-Nr.: DE 75824099

3. Unintended use :

Unintended use, improper treatment or handling may cause risk or hazard to people or objects.

ATTENTION:

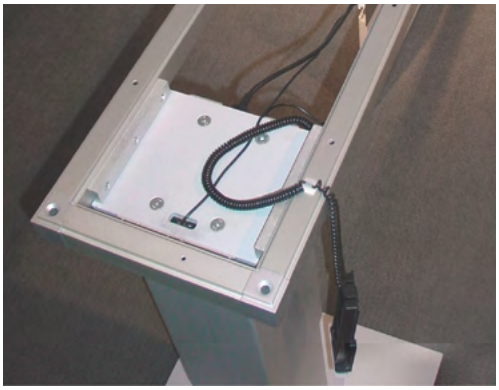
By unintended use the manufacturers liability and the general type approval will lapse. Modifications from the factory-made delivery status are not permitted and result into extinction of the liability of Wilhem Renz GmbH + Co.KG.

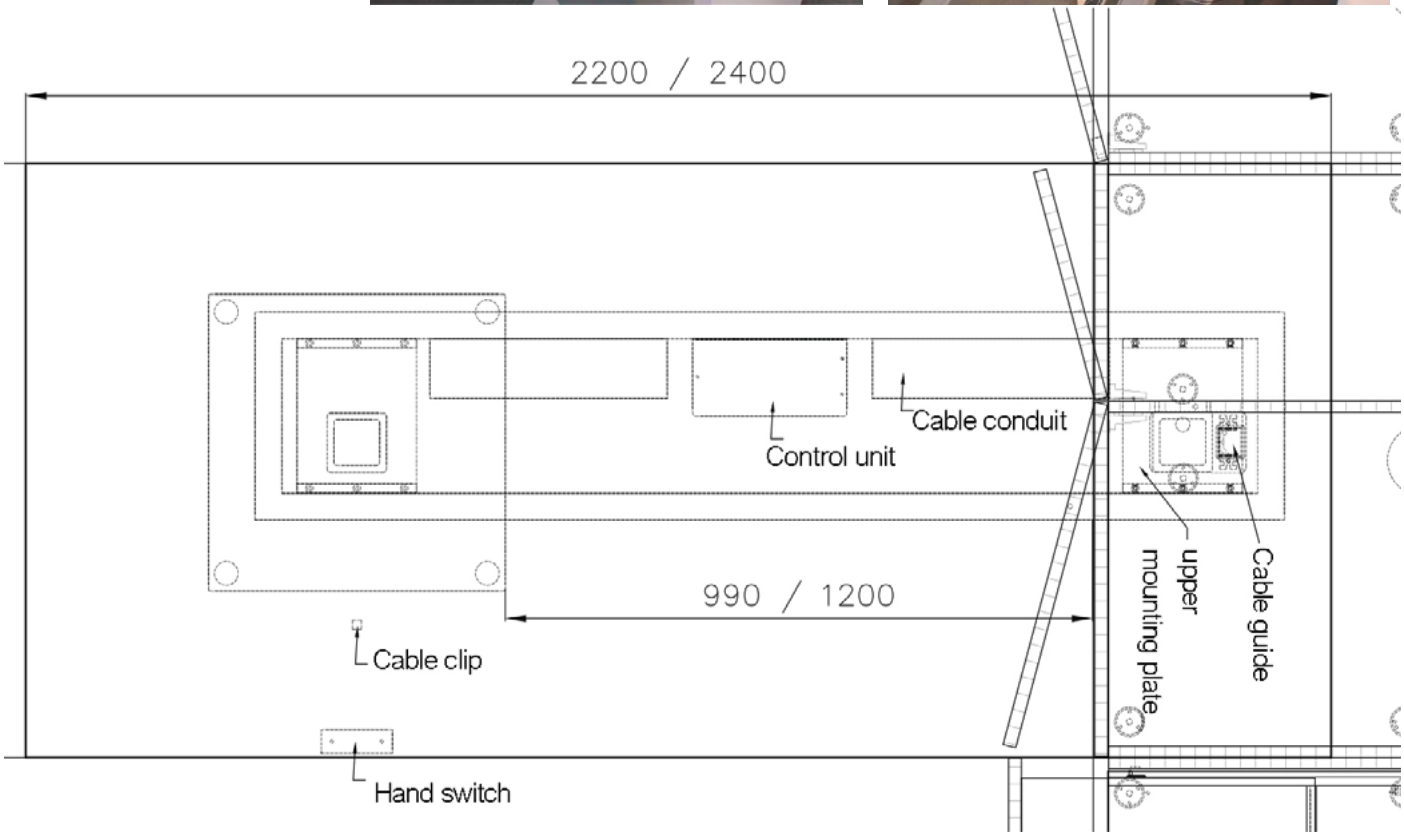
a.) The desk must not be used in humid or corrosive areas or areas exposed to explosion hazards.
b.) The desk must not be used for hoisting or lowering people or objects. Do not block the mechanism.
c.) Never use the desk for ascension, never stand onto the desk.
d.) By barriers in the movement range that might block the height adjustment, people or objects could be tipped over, torn down, pinched, bruised or damaged in any other way.
e.) Barriers might even block the height adjustment and overcharge mechanical and electrical components. Overcharging of electrical components causes fire hazard.
f.) The hand control switch must not be mounted in another position.
g.) The operation of the desk is not allowed in case of:
- non-observance of safety instructions
- the absence of a free accessible separator, provided by customer (see 5/f.)

4. Assembly

Please read the safety instructions carefully before assembly.

Set up, align and connect lifting column container K39 and all other containers.
- Also include the gliders next to the column.
- Place and fasten the Toolboard covering panel (M4x25 mm).
- Fasten the upper steel plate of the Toolboard column (4x M6x20 mm flat head screw).
- Mount vertical cable guide (2x M4x6 mm)
- Feed the power supply and any additional cables (RJ45, etc.) through the cable duct and secure at the bottom.
- When the column has been lowered, a loose cable loop must be formed.
- Position the free-standing column and align it exactly.
- Test the columns by connecting the columns and the hand switch to the control unit.
- Connect the power cable and make a test drive.
- Place the subframe and connect it first to only 1 column (M6x20 countersunk head).
- Check by a test drive whether both columns run up parallel, align if necessary.
- Vonnect the subframe to the 2nd column (M6x20 countersunk head).
- Place and connect the table top (M6x60). Guide the hand switch cable through the corresponding slot.
- Fasten the hand switch (M4x10).
- Stick the cable clips half way between the hand switch and the frame.
- Attach controls and cable guides, stow cables.





4. Function and operation, ergonomics

The height adjustable desk is is adjustable between 740 and 1140 mm by the hand control. The hand control is at the underside of the tabletop, on the right from the seat. The adjusted table height will be shown on the display.

a.) To raise the table, press the upward triangle push-button on the hand control. In the upper end position, the drive stops automatically.

b.) In order to bring the table down, press the downward triangle push-button on the hand control. At a height of 79cm, the drive switches off for safety reasons. (safety area)

ATTENTION:

At this point make sure there are no obstacles in the clamping area between the leg-panels and the floor.

By releasing and pressing the push-button again, the table moves down at a reduced speed to the end position.

c.) By holding down the M button and pressing one of the memory buttons, any desired height can be buffered (3 memories)

d.) The buffered height is approached by holding the assigned memory button.

Ergonomics

a.) Always adapt the table height to your respective working position.

b.) For screen handling make sure that the top line on the screen is below your horizontal view axis. An advantageous bearing results by a viewing direction 35° beneath the horizontal line. The screen surface ideally shows an angle of 90° with the viewing axis.

c.) The working height (for sitting and standing work) should be the height of your elbow at loose-hanging upper arms.

d.) For further detailed information we refer:
- Germany: Guideline for workplace design, published by the mutual indemnity association (Berufsgenossenschaft)
- Outside of Germany: Country-specific guidelines / regulations.

5. Troubleshooting

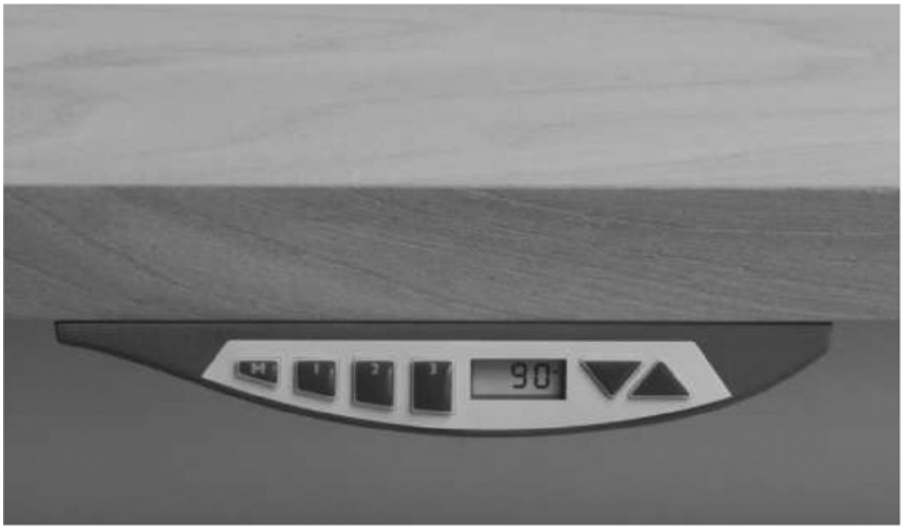
a.) The manuals for handset and control and the error code list (by manufacturer Vibradorm) are enclosed in the appendix. These documents are integral part of this operating manual.

ATTENTION:

Error codes are shown in the display. The malfunction shown by the code can be corrected, as shown in the Troubleshooting list.

Instruction manual MODULdesk Mod.int.dep.

Instruction manual substructure hand switch UBS6-s-LCD



Buttons

- ► Button M: Save button to save the memory position or to activate/deactivate the child safety.
- ► Buttons 1, 2 and 3: You can save 3 memory positions.
- ► Arrow buttons: Direction buttons to drive up and down and also to make the reset-drive of the table.

Initial commissioning and error indication

At the first commissioning or when error code A64 is shown, it is necessary to make a reset drive down. It is important, that there are no obstacles f.e. on top of the functional elements, which could cause a false reset-position. As consecuence, the columns could drive up to the mecanical end position and damage the motor drive.

How to make a reset drive

Both at the first commissioning and also when the display shows code A64, you have to make a reset drive. This is important for the protection of the table.

Proceed as follows:

- ► Press both direction bottons ▼▲ and keep them pressed (*Important*: press them with different fingers, to make shure, that both buttons are pressed correctly):
  The columns drive slowly until the lowest mecanic end stop (blockdrive). The control confirms that with a soft acoustic signal.
  In case that the columns are in different height positions, keep the buttons pressed until ALL columns got to the end stop and the control confirms the position.
  I*mportant*:
  At every reset drive has to be controlled, that the table can not run into an obstacle because one of the columns could be saved in a higher position. This could cause the damage of a motor drive.

- ► The table can be driven normally now.
  Driving down the table moves up to the virtual limit switch, driving up it moves up to the programmed end position

- ► In order to drive the table or to get into a memory position, it is always necessary to keep the buttons of the handswich pressed.
  But: an „automatic drive“ can be programmed if required.

Save the memory position

- ► Manually drive up to the position to be saved.
- ► Press 3 x the M button to get into memory mode.
- ► Within 5 seconds press one of the buttons 1, 2 or 3 to save the position. The control confirms that with an acoustic signal.

Driving up as driving down the drive is stopped at the saved height.
The corresponding position button (M1, M2 or M3) has to be pressed in the same way like the direction buttons, until the saved position is reached.
The position remains saved also after a power failure.
To save a new position, repeat the desribed process.

Activate the child safety

- ► Keep pressed the M button during at least 10 seconds.
  Child safety is activated, the table can not be driven anymore.
- ► Press again the M button during at least 10 seconds.
  Child safety ist deactivated, the table can be driven normally now.

Disconnect the control from electricity for 1 hour, in order the trafo to be emptied completely.
Then do again a reset drive.

If this does not help, please contact the supplier.
If an error code is shown on the display, please keep that ready to communicate it.

IMPORTANT: Every time cables are changed or the control has been disconnected from electricity, a reset drive has to be done, even if the system does not demand it.

SCT2/SCT4

MDT2 + MDT2-f Series Control Units

Our new MDT2 series control unit features state-of-the-art technology and is preferred for electrically height-adjustable office desks and workbenches, TV lifters and small lifting tables. Three transformer sizes and two casing heights are available. Virtually all conceivable adjustment features can be implemented, e.g. memory, synchronised control, speed control, soft start and collision prevention.

Possible Features:

- Compact housing with mounting flanges
- Integral toroidal transformer with high power
- Automatic duty cycle limitation
- AC socket for exchangeable mains cord
- Pull relief for mains cord
- Designed for up to four 24VDC drives with hall sensor
- Short-circuit-proof outputs for the drives
- Microprocessor with flash technology
- Operation by PC possible (see page 44 / TMPC10)
- Later software update possible
- Saving of operation data possible
- Memory and synchronous function
- Soft start and soft stop function
- Programmable special sequence function
- Collision protection
- Travel monitoring to protect the system
- RJ45 socket (modular jack) to connect external sensor
- Programmable child safety device
- Switchable mains output for e.g. flatscreen TV
- 3 years guarantee
- Made in Germany

Technical data:

Supply voltage primary:	230VAC/50Hz
Primary fuse:	3,15A
Standby current (primary) standard type:	typ. 2,0W
Standby current (primary) powersave type:	typ. 0,9W
Operating voltage electronics:	5VDC
Output voltage for drives:	24 ... 38VDC
Output power at duty cycle10% 1/9 min.:	200VA (340VA)
Output current each drive (theoretical)	max. 8,0A
Output voltage for hall sensors:	6VDC
Minimum pulse width:	3ms
Microcontroller:	8 Bit Flash
Memory positions:	3 (optional 6)
Data recovery:	by EEPROM
Connection socket for the drives:	8-pole DIN41524
Connection socket for the handset	6-pole DIN45322
Housing material:	PC
Protection class:	II
Protection grade:	IP30
Weight (dep. on transformer):	approx. 2,4kg (3,1kg)
Storage temperature:	-10°C to 50°C
Operating temperature:	0°C to 40°C
Manufactured according to:	EN60950 and UL60950

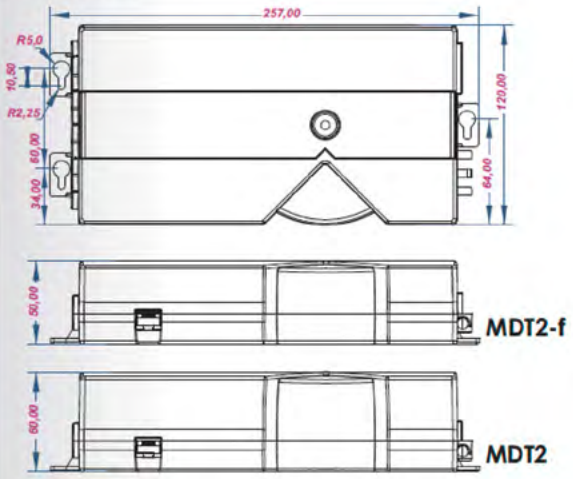
Typical Applications:

- Electrically adjustable office desks
- Electrically adjustable heavy load / packing tables
- Electrically adjustable conference tables
- Electrically extensible TV lifters
- Electrically adjustable kitchen furniture
- Electrically extensible cupboards and counters

Accessories:

- Desk handsets THM/UBM series (page 36/37)
- Desk handsets UBS/EBS series (page 38-41)
- Desk handsets THD series (page 42/43)
- Infrared transmitters CDs series (page 12/13)
- Infrared transmitters CD and CDM series (page 14/15)
- Infrared transmitters CD-F and CDM-F series (page 16-19)
- Infrared receiver PA-38100 (page 46)
- Software desk handset TMPC10 (page 44)
- Desk diagnosis tool (page 45)
- File program interface (page 45)
- Safety sensor and safety switch

Dimensions:



Inquiry MDT2 and MDT2-f series control units:

A wide range of options is available for this series. In order to make it as easy as possible for you to place your enquiry, we would ask you to simply mark the required functions on the form and/or to complete the boxes as appropriate. We will then assemble the ideal set for your purposes.

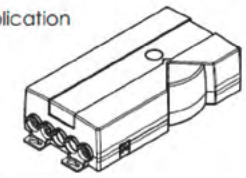
Number of drives (1 - 4) ☐

Type/name of drive: _____

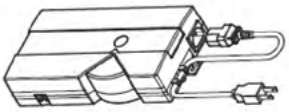
Single drive 24VDC ☐
Small pillar drive (current consumption max. 5A) ☐
Heavy load pillar drive (current consumption max. 10A) ☐

Drive manufacturer: _____

For office furniture application ☐
For home furniture application ☐
For kitchen furniture application ☐
For light industrial application ☐
For treatment or cosmetic application ☐
For other furniture application ☐
Memory function ☐
Synchronous function ☐
Soft start / soft stop ☐
Output for Height indication ☐
Special sequence function ☐
Connection socket for ext. safety sensor ☐
Connection socket for ext. safety switch ☐
Switchable mains output (AC socket) ☐
Internal transformer cutoff ☐
Powersafe type ☐



Country versions
EU (230V/50Hz) ☐
UK (240V/50Hz) ☐
US (115V/50-60Hz) ☐



Operating unit / handset: _____

Other requests: _____

Trouble Shooting List

Table systems with VIBADORM motors not moveable:
Possible causes and solutions of those

- **Power-on duration limitation is reached**
  Table has been running too intensively, Overheat protection comes into operation and blocks the control for 9 to 18 minutes
  Indicator: motion commands are rejected with short signal tone status code A201 (AC9) in handswitch-display.
  Solution: wait during blocking time (recommended) or disconnect control from currency during 5s.

- **Reset obligation**
  Tablesystem has not been initialized correcty or has been disconnected from the current while moving or the height distance of the motors is too big due to incorrect operation.
  Indicator: motion commands are rejected by pressing the botton with a signal tone, status code A100 (A64) in handswitch-display.
  Solution: To ensure that the motors and the cables are correctly connected to the current, check that the tables are not loaded with too much weight.
  Make a reset-drive: Press both direction bottons and keep them pressed until both motors get to the bottom position.

- **Children's safety active**
  Children's safety was activated by pressing the „M"-botton during 10 seconds.
  Indicator: motion commands are resigned and rejected with a double tone. Status code A101 (A65) ind handswitch-display
  Solution: Deactivate children's safety by pressing „M"- botten during 10seconds.

- **Connection error**
  Handswitch, motors, external collision sensor or power supply are not correctly connected tot he control
  Indicator: Different symptoms
  Solution: Check if the components are connected correctly, assure, that all plug connections are plugged in to the top.

Overview Errors and status codes:

4 digits LCD	3 digits LCD (HEX)	Definition	Signal tone (F7)	Signal tone (F5 F6)
A0	A0	LINK-Error (only with LINK-Systems)	5x	-
A100	A64	RESET obligation	Continuously during driving command	1x
A101	A65	Children's safety active	2x	2x
A105	A69	Safety bar (external sensor) not connected	4x	1x
A111	A6F	Speed control Pulse-difference of the motors too big	-	-
A201	AC9	Power-on duration limitation is reached	1x	1x
E212	ED4	Overcurrency hallsensor GND	8x	1x
E215	ED7	Overcurrency / short circuit motor current	10x	1x

EC Declaration of Conformity

In the sense of the EC Machinery Directive 2006 / 42 / EG, Annex II 1. A

We hereby declare that the following products in the versions marketed by us comply with the following directives. This declaration shall lose its validity in the event of modification or improper use.

Manufacturer:	**Wilhelm Renz GmbH + Co. KG** **Hanns-Klemm-Straße 35** **71034 Böblingen**
Community resident who is authorized to take the technical to compile documents (authorized representative):	**Eckart Renz** **Hanns-Klemm-Straße 35** **71034 Böblingen** **07031 / 21880** **info@renz.de**

Product : **Electric height-adjustable office desks, SONO series**

Model:
K22 = Table frame/table top format 2200 x 1000 mm
K23 = Table frame/table top format 2400 x 1000 mm
K39 = Table frame/table top format K22/K23 Format 2200/2400 x 1000 mm
+ Container K39

Description:
Electrically height-adjustable office desk.
Adjustment range (height of worktop) = 740 to 1140mm
Vmax= 38 mm/s; load capacity max. 50kg
Electrical connection = 220-240V - I 50Hz / 3500W
Duty cycle factor (DCF) = 10% S3

Applied standards:
DIN EN 527-2: 2016+A1:2019
(Office furniture - Office desks - Part 2:
Safety, strength and durability requirements)

EN 60335-1:2012 + A11:2014 + A13:2017 + A1:2019 + A2:2019 + A14:2019
Internal cables, mains connection and external cables, improper operation
(operation under blocking conditions)

Böblingen, March 20, 2021

Managing Director:

Eckart Renz

Wilhelm Renz GmbH + Co. KG
Hanns-Klemm-Straße 35
71034 Böblingen
Germany

T +49 (0)7031.21880
F +49 (0)7031.218850
info@renz.de
www.renz.de