

OKIN Motion Technologies GmbH

Friedrich-Ebert-Str. Im Campus 1

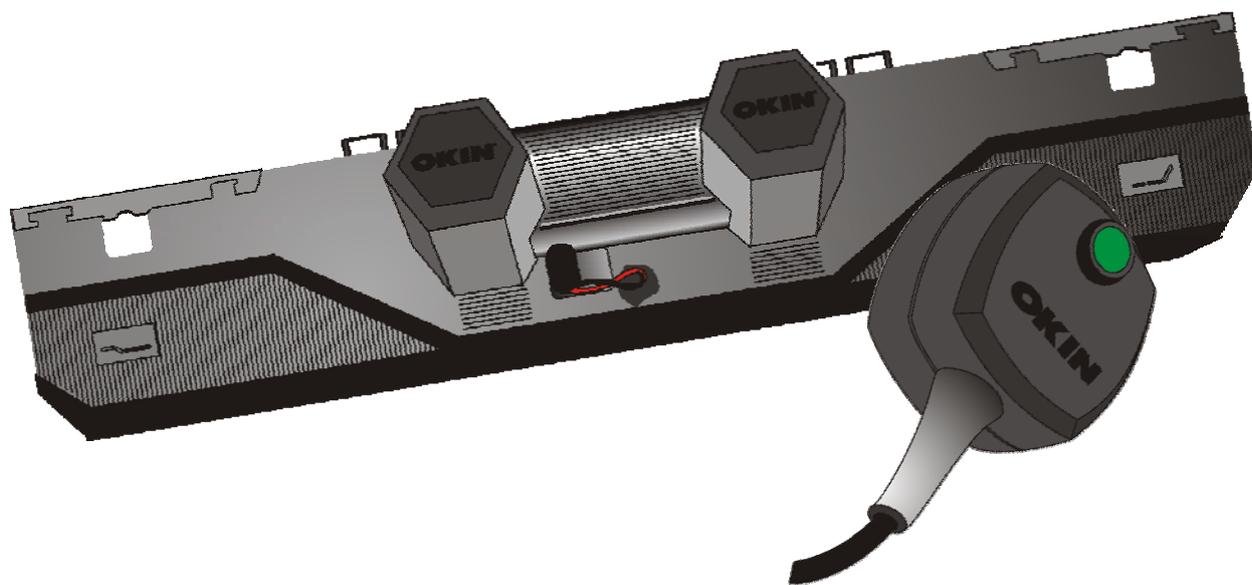
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A Phoenix Mecano Company



OKIMAT 2SL

OKIMAT-2SL

Version: 003 / 2011-12

***Mounting guideline for the
manufacturer of the final product***

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1. Note

This instruction is dedicated to the **manufacturer of the final product**.
Nevertheless it can be used as source for the creation of the end user instruction.
Keep these original documents for future references.

1.1. Manufacturer

OKIN Motion Technologies GmbH
Friedrich-Ebert-Str. Im Campus 1
51429 Bergisch Gladbach
Deutschland
info@okin.de / www.okin.de

1.2. Warranty terms

General terms, conditions of sale and delivery and conditions for technical service can be downloaded from our homepage (www.okin.de) in the area downloads.

The OKIN-Warranty applies to errors due to production and starts with the date of fabrication.

Please find the manufacturing date on the type plate. For further details regarding warranty times please ask your OKIN-retailer.

The warranty range is only the value of the respected OKIN-part. The OKIN-warranty is valid only, if usage was normal and maintenance has been correct.

Alterations must not be made. Improper handling releases from any warranty

1.3. Customer service

Our customer service organization is available to provide technical information. Moreover our employees are always interested in new information.

1.4. Limitation of liability

All information and instructions in this guideline have been compiled under due consideration of applicable standards and directives, the current state of technology, as well as our extensive knowledge gained in years of experience.

The manufacturer accepts no liability for damages due to:

- Failure to heed the instructions in the guide
- Non-intended use
- Deployment of untrained personnel
- Unauthorized conversions
- Technical changes
- The use of non-approved replacement parts

The actual scope of delivery can deviate from the explanations and presentations provided in this guide in the case of special versions, if additional options are ordered, or due to the latest technical changes.

In all other cases the obligations set forth in the supply contract, manufacturer's terms and conditions, as well as the valid legal regulations at the time the contract was concluded, apply.



Note

This installation instruction must be read carefully prior to starting any work on and with the device! The manufacturer accepts no liability for damage and malfunctions that arise from failure to heed the instructions in the installation instruction.

1.5. Copyright



Note

Content information, text, drawings, graphics, and other presentations are protected by copyright, and are subject to intellectual property rights. Any abusive utilization is punishable.

Duplication in any manner - including excerpts - as well as utilization and/or communication of the content are prohibited without manufacturer's written declaration. Offenders are liable for damages. The right to enforce additional claims remains reserved.

2. Safety instructions

Please keep these safety instructions!

Read the instructions and notes carefully before you put the device into operation. The safety instructions of the connected drive system have to be taken into consideration also.

Make sure that your staff, that is occupied with connection, mounting or usage, is sufficiently informed and has access to this installation instruction.



Warning – Danger by electrical current!

- By no means disassemble devices by yourself, bring them to our customer service if maintenance or repair works have to be done. In case of inappropriate assembly, electric shock or fire hazard can occur.
- The device must not be run with defective cable or plug. Damaged parts have to be replaced immediately.
- For mounting or maintenance separate the device from mains power supply to avoid electric shocks.
- The device must not be short circuit. A short can lead to overheat, burn and excessive current flow.



Note

- If necessary, devices within guarantee period should definitely be sent in for repair, as the guarantee is omitted for opened devices.



Caution – General danger!

Risk of injury by jamming

- Therefore drive product into basic position before mounting or maintaining it.



Caution – Damage of components!

- The electrical adjustment drive is not intended for use by small children or frail persons.
- The electrical adjustment drive isn't a toy for children!

Please observe during operation:

Watch for unusual sounds or irregular function. System must be shut down on strange behaviour.

The devices must not be dunked into water!

3. Technical Data

The OKIMAT-2SL is intended to be used with an electromotive bed in domestic surrounding.



This device must not be used:

- Within an environment, where flammable or explosive gases/vapours can be expected
- In a damp environment (offshore-facilities, seaside), or outdoor
- With a medical product, e.g. for the installation in a medical product
- In planes or other aircrafts
- In nuclear power plants

The manufacturer of the adjustable product is committed to take qualified precautions, to prevent persons from injuries and objects from damage, while their products are in use.

3.1. Survey

OKIMAT 2SL	
Dimensions	Axis center distance 581 mm (+/- 2mm) installation height 120 mm / axis diameter 25 mm
Adjustment speed (depending on push force)	3.5mm/sek. without load
Stroke	Back part: 48mm / 53mm / 69mm / 74mm / 87mm Leg part: 48mm / 53mm / 69mm / 74mm / 87mm
Intermittent duty	2/18 min. or 10 %, max. 5 switching cycles per minute
Special function:	emergency lowering (with 9V battery)
Ambient temperature	+ 5°C to + 40°C
Relative humidity	20-80%
Maintenance free 24V DC motors Protection class: II Protection type: IP 20	
Transformer	50 VA (optional 100VA)
Housing colour	Black (RAL 9005) Grey (RAL 7035) Light ivory (RAL 1015)
Country variants	EU / UK / JP / US / AUS / CH
Power supply	100V AC / 120V AC / 230V AC / 240V AC

<ul style="list-style-type: none"> - Connection for 1 handset - End switch-off by micro switches - Optional with emergency lowering 	
Control	Relais
Maximum Push force Back- /leg section	4000 N Optional 6000 N
No pull force for safety reasons	
Possible handsets	Baseline V0 R Softline +3 Smartline Swingline +3 R Topline +3 Vipline +3 R

3.2. Dimensions:

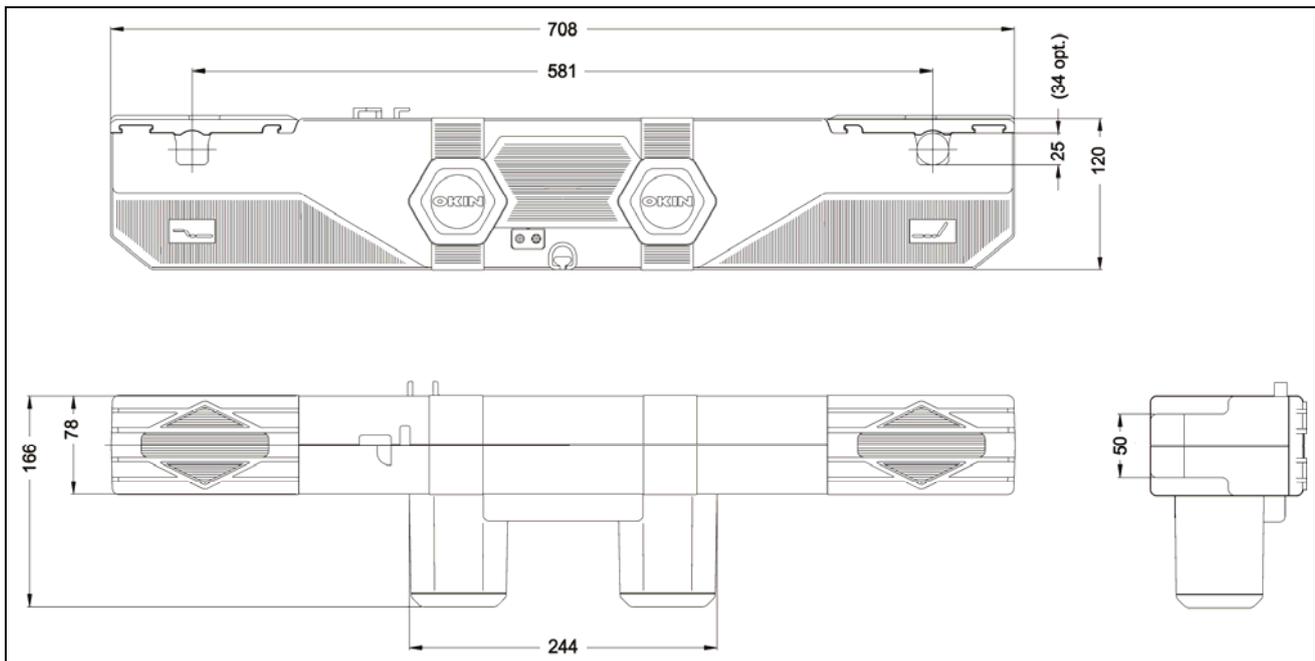


Abb. 1: External dimensions (mm)

3.3. Type plate

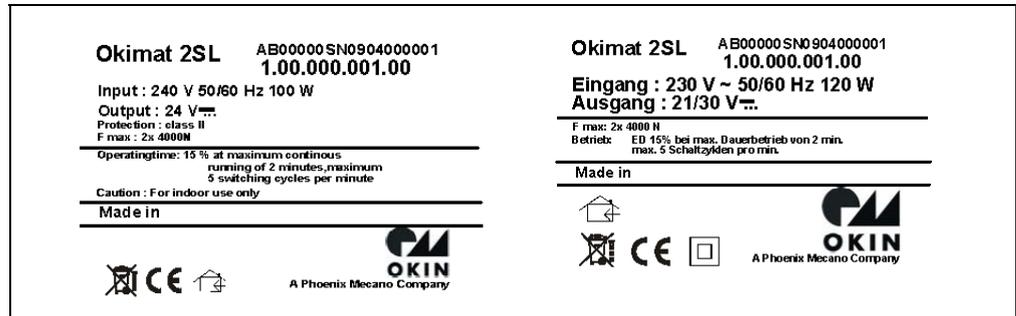


Abb. 2: Sample type plates

3.4. Explanation of signs on the device:

Sign	Explanation
	Usage in dry rooms only!
	Protective insulation (Protection class II)
	Declaration of conformity (Product complies to applicable european guidelines)
	„Waste of Electrical and Electronic Equipment” (WEEE-Richtlinie rules the collection, separation and handling of electronic waste)

4. Transport, unpacking and storage

4.1. Transport

Keep the original packaging in order to ship the device if there should be a guarantee case. Protect the device from severe mechanical stress during transport. Always transport the device in the original packaging. The installed components are sensitive to impact and strong vibration.

4.2. Unpacking

Proceed as follows to unpack the device:

- We recommend inspecting the device for transport damage immediately after it is delivered. Only acknowledge receipt with reservation (for example on the freight document), if there is reason to suspect damage. Note the presumed damage on the freight document and inform the manufacturer.
- Carefully remove the packaging. If there is no appropriate agreement concerning the take-back of packaging material, the packaging remains with the customer.



Note

Environmentally responsible disposal must be ensured in accordance with applicable disposal guidelines.

4.3. Storage



Caution – Condensation of water!

Condensation of water is possible due to temperature fluctuations. This can destroy the device or subsequent malfunctions can result.

Therefore:

- After storage or transport in cold weather, or if there are extreme temperature fluctuations, the device must slowly adjust to the ambient temperature at the implementation site before it is started up.
- If condensation has formed, the device should only be placed in service after a waiting period of 12 hours.

The following guidelines apply for storage:

- Relative humidity: Max. 85 %
- Ensure that packages are not stored outside
- Store in a dust-free environment
- Storage temperature -20 to +70 °C
- Avoid mechanical impact and damage

5. Survey OKIMAT 2SL

This mounting guideline refers to the OKIMAT. It is designated for electrically driven adjustable beds in domestic surrounding.

5.1. Survey

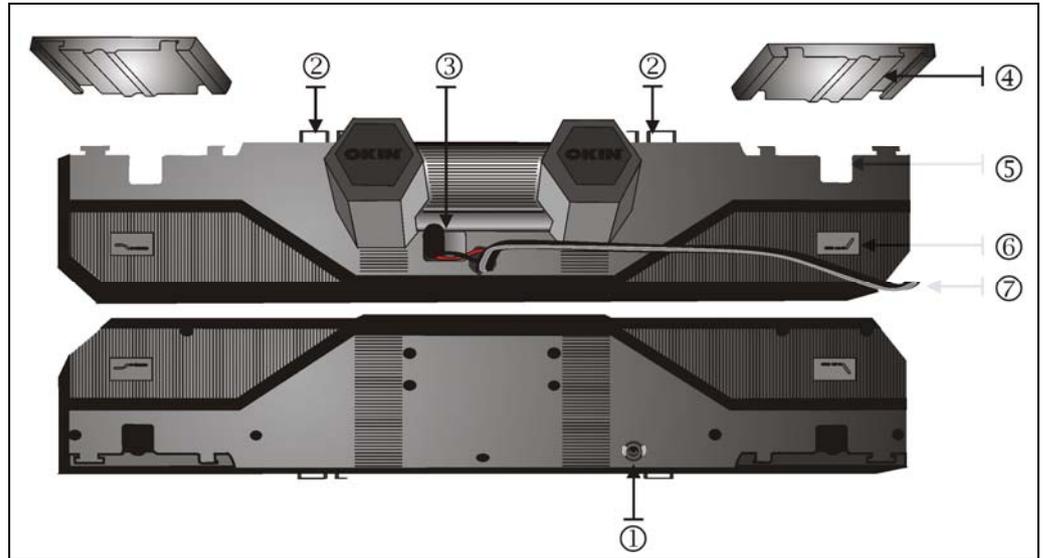


Abb. 3: Front- and backview

- ① Port for handset
- ② Strain relief
- ③ Connection 9V block battery (if available)
- ④ Sliding covers
- ⑤ Pipe holder
- ⑥ Symbol: Motor for back- and leg-part
- ⑦ Power cord

5.2. Accessories

Handsets

There are different matching versions of handsets (Please contact your distributor).

5.3. Optional accessories

Extension cable for handset (angular)	5.00.4V0.008.30
Extension cable for handset (straight)	5.00.4V0.011.30
Adapter cable for operating two OKIMATS 2SL parallel with one handset	3.00.402.220.30
Adapter cable for operating one OKIMAT 2SL with two handsets	3.00.402.189.30
Adapter cable for operating two OKIMATS 2SL with two handsets	3.00.402.374.30

6. Commissioning the OKIMAT 2SL

6.1. Mounting

The OKIMAT is delivered „ready-for-installation“. For easier fitting put the slatted frame upside down so that the steel pipes point up.

- ➔ Remove the sliding covers (⑦)
- ➔ Take the OKIMAT and push it firmly until the pipes (⑧) snap into the pipe holder (⑥).
- ➔ Then shut the sliding covers again.

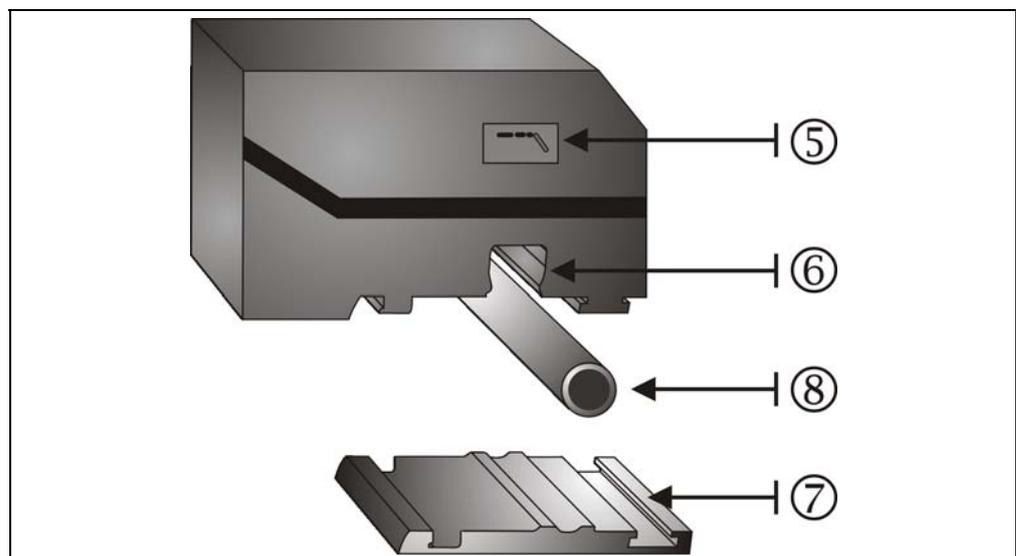


Abb. 4: Fastening to the pipe frame



Note

- Please mind looking for the correct mounting direction. The imprinted back-part symbol (⑤) must show in the direction of the back part. Otherwise the operating direction of the handset is inverted too.
- If the OKIMAT cannot be mounted the motors are not in mounting position. If you look into the pipe holder opening you can see the protruding central slider.
- In this case please connect the OKIMAT to power supply and move the motors to basic position by means of the handset.

6.2. Connecting the handset

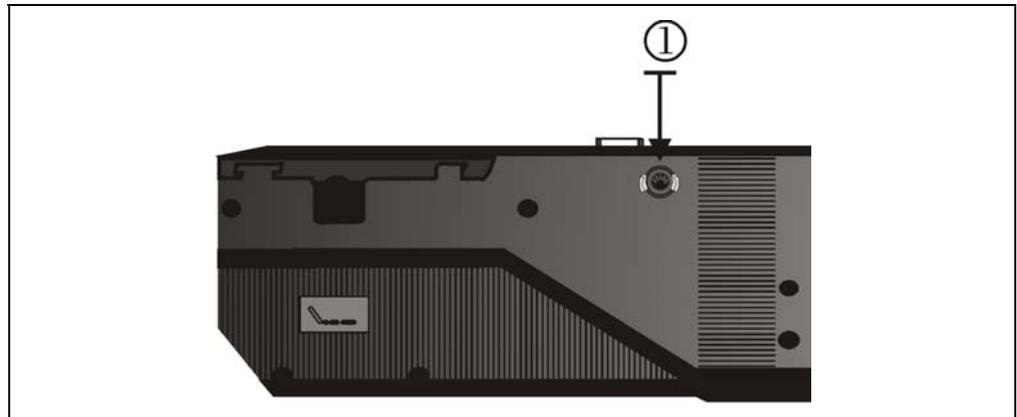


Abb. 5: Connecting port

- ➔ Push the plug of your handset into the port of the OKIMAT①.
- ➔ Pull the cable of the handset through the strain relief.

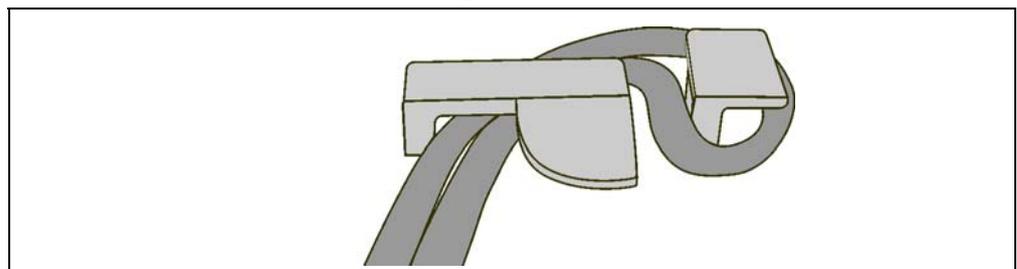


Abb. 6: Strain relief

- ➔ Now push the mains isolation plug into the power outlet –your system is ready for use.



Abb. 7: Mains isolation (functionality see chapter. Mains isolation)

7. Mains isolation

If the OKIN mains isolation is activated it prevents alternating magnetic and electrical fields in the bed, no stand-by trafo is needed.

The bed is completely free of current except when pressing a key on the handset.

A DC-loaded capacitor in the drive supplies the 2-pole relay in the mains isolation with current and switches the transformer in the drive. By the way the capacitor is charged and ready for the next demand.

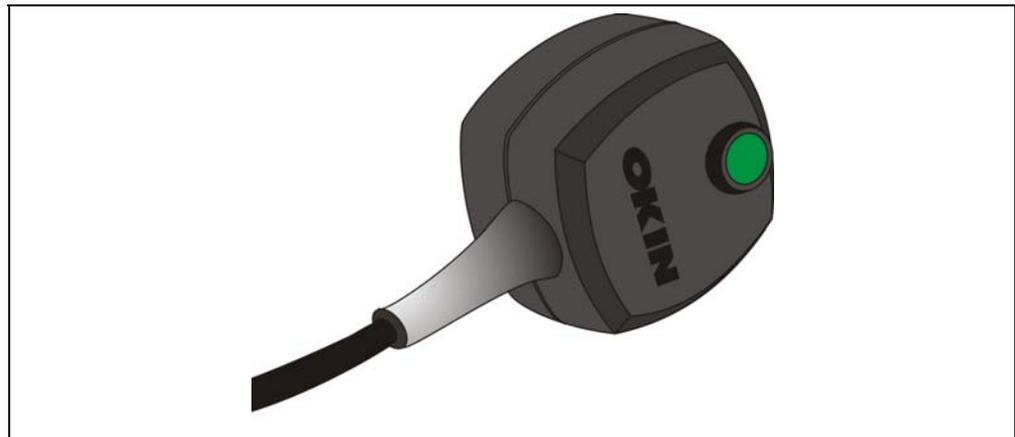


Abb. 8: Mains isolation



Note

- After a longer time of non use, the condensator can loose it's voltage. The built in 9V battery for quick-lowering also buffers the condensator for the mains isolation.
- If in case of need the battery should also be empty, still smooth operation is possible. Press the green button of the mains isolation. The condensator is charged immediately, the mains isolation is ready for use.

8. Emergency lowering (optional)

Emergency lowering permits the “drive-in” to basic position of the system in the event of a power failure.

Depending on the type, the drive is supplied with power from either one or two 9-volt batteries. The batteries are positioned in the OKIMAT itself. The batteries are shipping locked and must be connected correctly to the battery clip before initial operation.

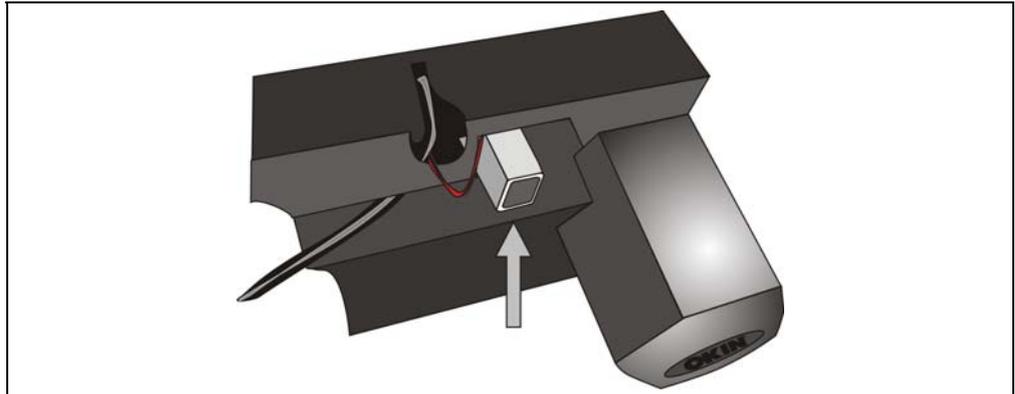


Abb. 9: Battery in the OKIMAT



Note

- As a result of the reduced capacity of batteries, the system movement is restricted to a single emergency operation.
- In particular, please note that batteries must have full capacity.

8.1. Operating emergency lowering

- ➔ Just press the lowering key as usual, your system will move to basic position.

9. Maintenance and repair

9.1. Maintenance notes

All components and cables have to be examined for mechanical defects and wearing by sight. During continuous use the maintenance rate should be at least every six months.

The surfaces should be cleaned with a wet cloth.
Check the connectors to be plugged correctly

The inner parts of the device do not need any maintenance, if not specifically recommended.



Danger – due to electrical current!

- Separate the supply from mains power to avoid electric shocks during maintenance or cleaning



Caution – Damage of components!

- Don't use solvents or detergents
- Intrusion of moisture can cause short circuit
- Do not clean with a pressure washer.



Caution – General dangers!

- In case of malfunction the OKIMAT must be exchanged immediately.

9.2. Table for recognition and elimination of faults

To support you in your search for usual faults and their elimination, this table has been developed. If a fault should occur which is not listed in this table, please contact your distributor.



Note

- First Step in case of an error is to **check the batteries!**
- All faults must be analyzed and eliminated by a electrical specialist only.

Problem	Possible reason	Solution
Handset doesn't respond	No supply voltage	Check power supply
	Handset defective	If possible, change the handset and try again Please contact your distributor
Suddenly the drives don't move	Check power supply Is mains voltage available?	Put the mains plug in the power socket Connect other electrical devices to the power socket and check if voltage is available

	Handset defective?	Leave the system idle for 20 to 30 minutes, then try again If possible, change the remote and try again Please contact your distributor
No stroke movement of the system visible, but motor noise audible (motor rotates)	Gear defective (worm gear/motor shaft defective)	Please contact your distributor
System cannot lift the max. adm. Load, motor noise audible (motor rotates)	Gear defective (worm gear/motor shaft /spindle defective)	Please contact your distributor

9.3. Repairs

If repair is necessary, devices within guarantee period should definitely be sent in, as the guarantee is not applicable for opened devices.

The danger of secondary damages cannot be excluded, if technical changes or modifications are implemented.

If appointed with our service department, in case of need spare parts can be sent. Please give the number of the specification plate.

10. Decommissioning and disposal



Note

This product complies with RoHS 2002/95/EC



Note

This product must not be disposed with domestic waste!

- This product contains electronic components, cables, metals and synthetic materials. It must not be disposed with domestic waste.
- This product must be disposed of in accordance with the current disposal regulations of your area / country / state as electronic waste

11. Declaration of conformity



EC Declaration of conformity

according to appendix III of the Directive 2006/95/EC Low Voltage
according to appendix IV of the Directive 2004/108/EC Electromagnetic Compatibility

The manufacturer:

OKIN Motion Technologies GmbH
Friedrich-Ebert-Str. Im Campus 1
51429 Bergisch Gladbach

hereby declares, that the following listed products

Adjustment actuator:	Power supply / Control box:	Controls:	
OKIDRIVE	Power supply DP, TK, TD, SMPS,	SWINGLINE	BASELINE
PICODRIVE	CBX, RK	PROLINE	SOFTLINE
DELTADRIVE	Plug-in charger	TOPLINE	LIGHTLINE
OMEGADRIVE	Power Pack	SMARTLINE	VIPLINE
BETADRIVE		STALINE	FORLINE
Z-DRIVE		VARIOLINE	
OKIMAT		FROLEXUS	HÄSTENS
BELTDRIVE		RF-System	IR-System
DESKDRIVE		Inside Handle Switch	
VIBRADRIVE		Touch Sensor	BK
INLINEDRIVE		FOOTCONTROL	CHAIRCONTROL

regarding their design and concept, as well as the type of design supplied by the manufacturer, are conform to the Directives:

Directive 2006/95/EC Low Voltage
Directive 2004/108/EC Electromagnetic Compatibility

Applied harmonized standards:

EN 60335-1
EN 55014-1
EN 55014-2

Any modification or change of the product without the approval of the manufacturer, which affect the technical data as well as the designated use, in other words which change the drive system in a considerable way, void the validity of this declaration.

Bergisch Gladbach, 23.04.2010


Dr.-Ing. Josef G. Groß
Managing Director

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