



UNOMAT

Installation Instructions

**(Translation of the original
Installation instructions)**



UNOMAT

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General Information

These instructions are intended for the manufacturer of the end product and are not designed for passing on to the operator of the end product. With regard to the specialist information contained herein, these instructions can well serve as a basis for drawing up the instructions for the end products.

It is essential to note the information contained in these instructions! In doing so, you can prevent mistakes being made in installing or connecting the system which could result in

- **injury and accidents** as well as
- **damage** to the drive system or the end product.

Use only DewertOkin drive control units!

The DewertOkin drive control units incorporate an earth-free circuit which is isolated from the supply mains by reinforced insulation or double insulation.

DewertOkin **accepts no liability** for damage caused as a result of ...

- non-observance of these instructions,
- alterations to the product not approved by DewertOkin or ...
- the use of spare parts not manufactured or approved by DewertOkin- these may not ensure adequate safety!

Due to the policy of ongoing product improvement, DewertOkin reserves the right to carry out technical changes at any time without prior notification!

1. Designated Use

The **UNOMAT** drive system is **designed for installing into furniture (e.g. bed systems)**...

- for the motorized adjustment of movable furniture parts **using suitable fittings/ mountings or mechanics.**

The **UNOMAT** drive system is **not intended for use ...**

- in an environment where **inflammable** or **explosive** gases or vapours (e.g. anaesthetics) are likely to occur.
- as an adjustment drive to be operated by young children or the infirm.
- to lifting and lowering of loads

2. Prerequisites

The installation steps described in these instructions must be performed by a **fully trained electrical engineer.**

- This being the case, you should never carry out this work **yourself** unless you are a **qualified electrical engineer** or
- **you should entrust this work to suitably qualified persons only.**

Conformity in accordance with EC Directives

The drive system is supplied ex factory as a **machine not ready for use** in accordance with the EC Machinery Directive. In other words, you may not put the drive system into operation until you have met the **safety objectives** of the Machinery Directive and issued a corresponding **Declaration of Conformity!**

The drive system with DewertOkin control units meets the safety objectives of the EC Directives concerning “**Low Voltage**” and “**Electromagnetic Compatibility (EMC)**”.

The drive is **not a medical product** - for installing into same, manufacture in **conformity** with the EC Directive for Medical Products or other regulations is the responsibility of the **manufacturer of the end product.**

3. Getting to Know the System

The **UNOMAT** drive system is intended for the German market and complies with the Law applicable in Germany in implementation of relevant EC Directives.

With regard to other variation options contact your after-sales service or take a look at the current catalogue. We will be happy to assist you with any special requests you may have.

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a) Technical Data

UNOMAT drive system

Rated voltage.....	24 - 29 V DC
Power consumption with rated load.....	max. 3,5 A DC
Torque at the fitting axle ¹⁾	max. 235 Nm
Operating mode ²⁾	Intermittent duty 2 min./18 min.
Protection classification.....	III
Noise level.....	65 dB(A)
Drive type.....	Single drive
Type of load.....	Push
Stroke ³⁾	81 mm (optional 66 mm)
Adjustment Speed ⁴⁾	approx. 5 mm/s (without load)
Protection category.....	IP20
Colours of the housing.....	black

Dimensions and Weights

Length x width x height of the drive.....	351 x 174 x 109 mm
Weight.....	approx. 2,0 kg

DewertOkin-DC Power Supply

Voltage supply.....	230 V AC 50Hz (country-specific)
Operating mode ²⁾	Intermittent duty 2 min./18 min.
Protection classification.....	II
Protection category.....	IP20

Ambient conditions for operation, storage and transport

Transport / storage temperature.....	from -20 °C to +50 °C from -4 °F to +122 °F
Operating temperature.....	from +10 °C to +40 °C from +50 °F to +104 °F
Relative humidity.....	from 30% to 75%
Air pressure.....	from 800 hPa to 1060 hPa
Altitude.....	< 2000m

¹⁾ It is necessary to use appropriate fittings.

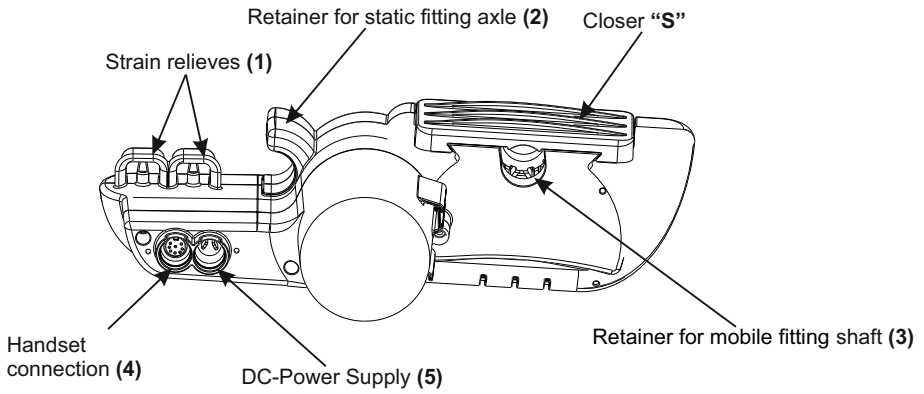
²⁾ Operating mode = **intermittent duty 2 min./18 min.**, i.e. run for a maximum of 2 min. under rated load, then observe a **rest period** of 18 min. Operational failure could otherwise result.

³⁾ Data deviating from these standard values can be established after consultation and depending on the application.

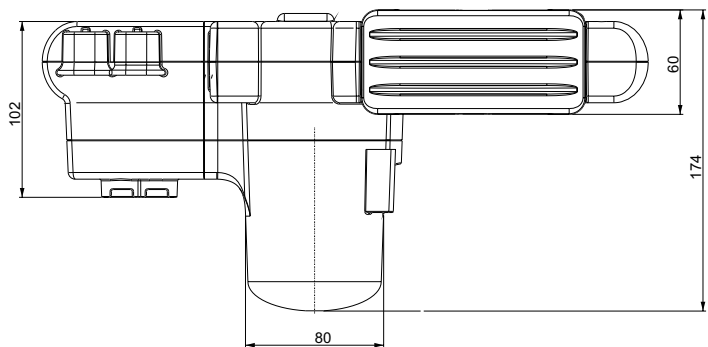
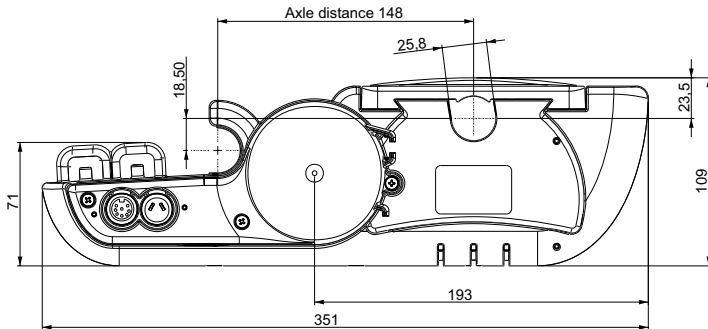
⁴⁾ Adjustment speed = **speed** at which the spindle block travels **without load** (speed varies according to the load).



b) Assembly of the UNOMAT Single Drive

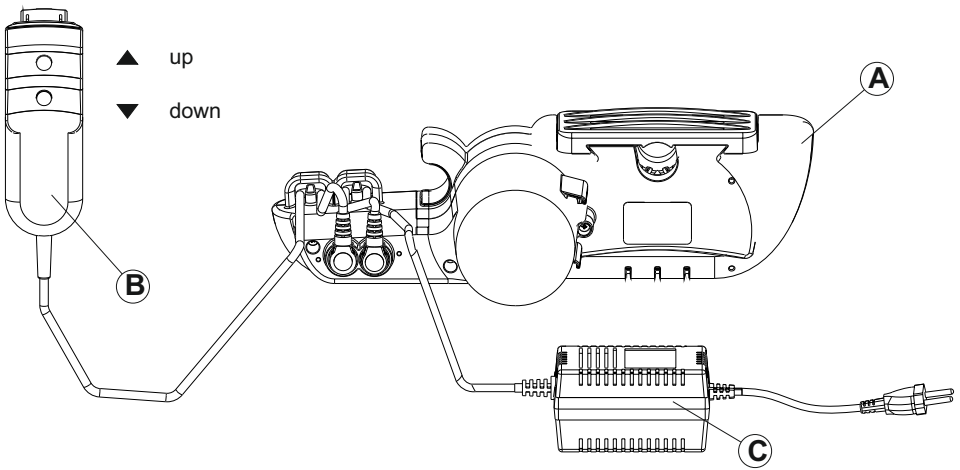


Dimensions



UNOMAT

C) Assembly of the UNOMAT drive system



Only connect the components as shown!

Pos.	Part Designation	Description
A	DewertOkin- main drive	UNOMAT
B	DewertOkin- handset	CLASSIC
C	DewertOkin- DC power supply	Voltage supply

We will be happy to advise you in selecting suitable components.

4. Fitting

a) Installation (see illustration)

Check that all the supplied drive components (**see page 6**) are complete. Check that the supply package contains genuine DewertOkin components only ensuring that the high safety standard of the product is guaranteed.

The **UNOMAT** is supplied ready-to-install in the home position and is installed in this position. In all cases the specified sequence of installation must be observed.

Caution!

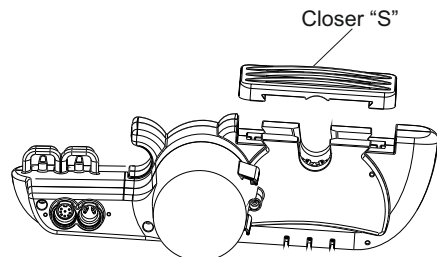
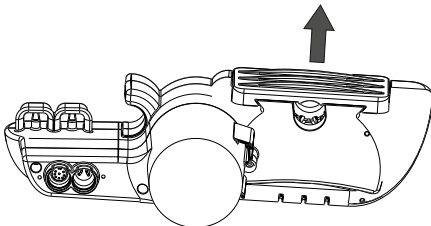
Only ever connect or disconnect electrical components when they are voltage-free.

b) Checking the home position (see page 5)

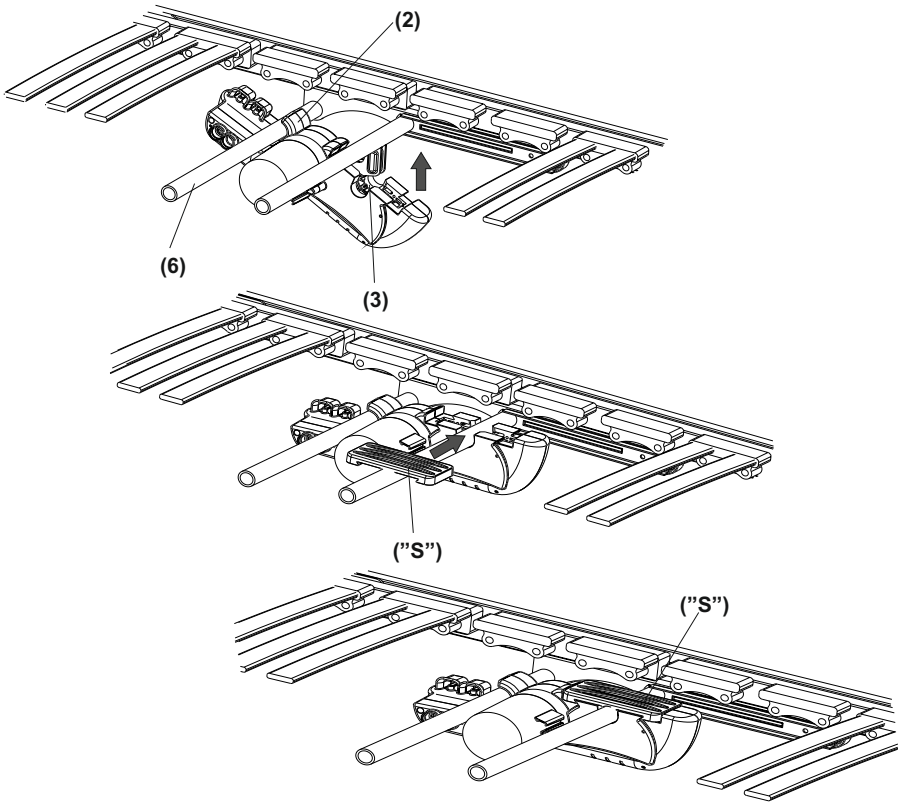
- Connect the DewertOkin handset to the **handset connection (4)**.
- Connect the DewertOkin DC power supply to the **DC power supply connection (5)** on the **UNOMAT**.
- Connect the mains plug to the domestic voltage supply.
- Press the "down" handset button.
- Motor does not run: → home position.
- Motor runs: → continue to press until motor stops → home position.
- Disconnect the mains plug of the DC power supply from the domestic voltage supply!
- Disconnect the DewertOkin DC power supply from the **DC voltage supply (5)**.
- Disconnect the DewertOkin handset from the **handset connection (4)**.
- Slide out **closer "S"** to the side making the opening for the fitting accessible.

c) Installing into the bed system (see page 8)

- Slide out **closer "S"** to the side making.
- Insert the **UNOMAT** with **retainer for fitting (2)** into the **fitting axle (6)**.
- Swivel the **UNOMAT** into the **retainer for fitting (3)**.
- Slide **closer "S"** back on at the side until it engages.



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d) **Connect components (see page 5,6)**

- Connect the **handset (B)** to the **handset connection (4)**.
- Plug the **DC power supply (C)** into the **DC power supply connection (5)** on the **UNOMAT**.



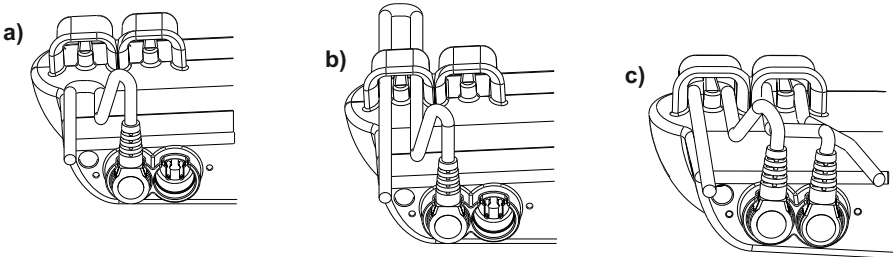
The mains plug of the DewertOkin DC power supply must remain accessible so that in an emergency the drive system can be easily disconnected from the mains at any time.

e) Routing the handset and DC power supply cable on the drive



When routing the cable, make sure that the leads cannot get damaged by moving parts! It is important that the electric leads do not get crushed or trapped!

- Loop the cable **(a)**.
- Push through the strain relief **(b)**.
- Pull the cable firmly around the rerouting guide **(c)**.



f) Setting-up operation

Connect mains plug to domestic power supply. The drive system is now ready for use.

g) Electrical Connection

In the **Operating Instructions** to be issued by you, point out to the operator that the leads, in particular the **connection lead**, could be damaged if **driven over**. **Mechanical loads should also be avoided**.

When routing the leads make sure that they:

- cannot get caught up or trapped,
- are not subjected to mechanical loads (i.e. do not pull, apply pressure or bend),
- cannot get damaged in any other way.

h) Dismantling



Each time before dismantling, always disconnect the mains plug from the domestic voltage supply!

- Dismantling takes place in the home position (bed horizontal) in order to avoid any risk of entrapment. Checking that the bed is in the home position (**see page 7, Pt. b**).
- Disconnect the DewertOkin DC power supply from the **DC voltage supply (6)** (**see page 6**).
- Disconnect the DewertOkin handset from the handset connection.
- Open the **closer "S"**.
- Swing the **UNOMAT** out and downwards and pull off from static fitting axle.
- Then slide the **closer "S"** back in again.

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5. Operation

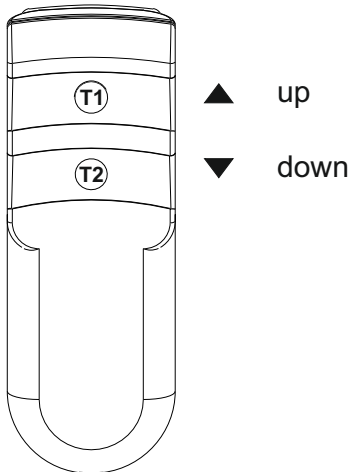
For drawing up the Operating Instructions for the end product, you can use the specialist information described herein. Please bear in mind that these instructions are intended for you as a specialist and not for the possibly non-technically trained operator of the end product.

Attention!

- The electric adjustment drive is not intended to be used by small children or the unsupervised infirm.
- The electric adjustment drive is not a toy for children to play with.

b) Handset (example)

The handset (CLASSIC type) is equipped with 2 adjustment keys. The control elements are assigned as follows:



Key	Function
T1	Motor up
T2	Motor down

Example: CLASSIC with 2 adjustment keys

**b) Maintenance and Repairs**

At regular intervals carry out the inspections in accordance with the BGV A3 (Instruction of the Professional Trade Association). The inspections must be performed by an electrical specialist.

The recommended inspection period is: **6 months**

In addition to the above, the following checks should be carried out at shorter intervals:

- **Regular visual checks** for damage of all kinds
Check the housing for **cracks** and **fractures** and the connection lead for signs of **pinching** and **shearing-off**. Also check the **strain relief** with **kink protection**, in particular after each case of mechanical loading. Any **damaged connection leads** of equipment must be replaced by **the manufacturer or persons qualified** to do so (see page 3) in order to exclude hazards.

Check the limit switches by using the drive travel to the end-of-travel positions.

Caution!**For Your Own Safety!**

Shutdown in an emergency is achieved by pulling the mains plug out of the DewertOkin DC Power supply! The **mains plug** must therefore be accessible **at all times** when the system is in operation to ensure it can be quickly pulled out of the wall socket in an emergency.

Movement of the drive takes place via a fitting axle. Please bear this in mind when designing your product:

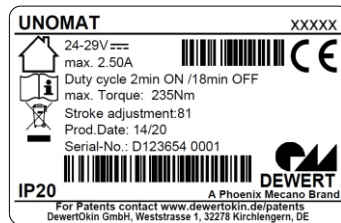
- After installing the **UNOMAT** make sure that no shearing or trap/crush zones are accessible from the outside.

In the Operating Instructions to be drawn up by yourselves, it is essential that you draw the operator's attention to the points mentioned here.

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6. Type Label (Example)

Each drive component carries an identification plate stating the exact model, item number and technical specifications (see following figure as an example).



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Xxxxx

24-29V

max. 2.50A

Duty cycle 2min ON / 18 min OFF

max. Torque

Stroke adjustment

Prod.Date

Serial-No.

IP20



Article type designation

Article number

Input voltage

Current consumption

Intermittent operations: 2 minutes / 18 minutes

Torque

Stroke adjustment

Week / Year

Serial number

Protection category

Use in dry rooms only!

Follow all special disposal instructions!

Mark of CE conformity



7. Troubleshooting

The following table has been developed to help you detect and eliminate faults and errors. If you come across a fault/error that is not listed here, please contact your supplier. All of these faults/errors may only be investigated and rectified by specialists holding the qualifications as described on page 3.

Problem	Possible cause	Remedy
Drives fail to run	<ul style="list-style-type: none">- No mains voltage- No voltage supply - Thermoswitch has been activated- Drive system defective	<ul style="list-style-type: none">- Connect to the mains- Check the connection leads and, if necessary, connect (see page 6)- Leave the drive system for approx. 20-30 min. in the rest position- Contact your supplier/dealer

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8. Cleaning

Please clean the **UNOMAT** drive only with dry cloth.

Before cleaning, always pull out the mains plug from the power supply!

Never clean the drive system in a wash tunnel or with a **high-pressure cleaner nor spray liquids onto it**. The drive is not water proof. You otherwise risk damaging the equipment!

When **cleaning**, take care not to damage the drive system's **connection lead!**

The drive system meets the requirements of the IP20 protection category.

Do not use any solvents such as **benzene, alcohol** or similar substances.

9. Disposal

The **UNOMAT** drive consists of electronic components, cables and metal and plastic parts. You should observe all corresponding national and regional environmental regulations when disposing of the **UNOMAT** drive.

The disposal of the product is regulated in Germany by Elektro-G, internationally by the EU Directive 2012/19/EC (WEEE), or by any applicable national laws and regulations.



The **UNOMAT** drive system may not be disposed of with the normal household waste!

Declaration of Incorporation

According to Appendix II of the EU Machinery Directive 2006/42/EC

The manufacturer:

**DewertOkin GmbH
Weststraße 1
32278 Kirchlengern
Deutschland - Germany**

declares that the incomplete machines described below

UNOMAT with DewertOkin DC Power Supply

complies with the following basic requirements of the Machinery Directive (2006/42/EC):

Sections:

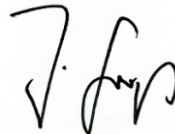
1.1.3; 1.3.3; 1.3.4; 1.3.7; 1.5.1; 1.5.2; 1.5.5; 1.5.6; 1.5.7; 1.5.8; 1.5.9; 1.5.10; 1.5.13

You may only operate this incomplete machine after you have confirmed that the end product (into which this machine will be installed) complies with the Machinery Directive 2006/42/EC.

On reasonable request, the manufacturer is obliged to send the special documentation accompanying the partially completed machinery in electronic form to the appropriate national institution. The special technical documents corresponding to the machine have been created according to Appendix VII, part B.

For preparation of the technical documentation is authorized:

**DewertOkin GmbH
Weststraße 1
32278 Kirchlengern
Tel.: 05223 979-0
Deutschland - Germany**



Kirchlengern, Germany 30 March 2020

Dr.-Ing. Josef G. Groß
Managing Director

UNOMAT

EU Declaration of Conformity

In compliance with Appendix IV of the EMC-Directive 2014/30/EU

In compliance with Appendix IV of the LVD-Directive 2014/35/EU

In compliance with Appendix VI of the EU RoHS Directive 2011/65/EU (incl. Commission delegated Directive (EU) 2015/863)

The manufacturer:

**DewertOkin GmbH
Weststraße 1
32278 Kirchlengern
Deutschland - Germany**

declares that the following product

UNOMAT with DewertOkin DC Power Supply

meets the requirements of the following EU directives:

Electromagnetic Compatibility Directive 2014/30/EU

Low Voltage Directive 2014/35/EU

COMMISSION DELEGATED DIRECTIVE (EU) 2015/863 of 31 March 2015 amending Annex II to Directive 2011/65/EU of the European Parliament and of the Council as regards the list of restricted substances.

Applied standards:

EN 60335-1:2012/A11:2014

EN 55014-1:2006/A1:2009/A2:2011

EN 55014-2:1997/A1:2001/A2:2008

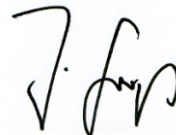
EN 61000-3-2:2014

EN 61000-3-3:2013

EN 62233:2008

This declaration of conformity is no longer valid if constructional changes are made which significantly change the drive system (i.e., which influence the technical specifications found in the instructions or the intended use)!

Kirchlengern, Germany 30 March 2020



Dr.-Ing. Josef G. Groß
Managing Director

Notes

Notes

UNOMAT

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