

**OKIMAT 4 IPS**  
**OKIMAT 4 IPSe**  
**OKIMAT 4 EPS**  
**OKIMAT 4 EPSe**

**Installation Instructions**

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



# Foreword

Version	Datum	Änderung
1.0	03/2015	First Release
2.0	04/2016	Release II
3.0	05/2017	Release III
4.0	06/2018	Release IV
5.0	12/2018	Release V
6.0	02/2020	Release VI
7.0	05/2020	Ratings plate, toggle, declaration of incorporation and of conformity

## Disclaimer and exclusion of liability

DewertOkin is not responsible for damage resulting from:

- failure to observe these instructions,
- changes made to this product which have not been approved by DewertOkin, or
- the use of replacement parts which have not been approved or manufactured by DewertOkin.

## Creation of a complete operating instruction manual for the entire end product

These instructions are only intended to be used by the end-product manufacturer. They should not be given to the operator of the end product. The factual information contained within may be used as a basis when creating the end-product manual.

The warning and danger notices are best suited for use in the end product's manual. However it is not sufficient to simply follow these notices. You should also carry out an internal risk assessment for your end product. This can then be used as the basis for the safety notices in your manual.

These installation instructions do not contain all information required to safely operate the end product. They only describe the installation and operation of the drive as partially completed machinery.

The instructions are intended for the technicians responsible for manufacturing an end product and not for the operators of the end product.

## Notice for customers in EU nations

### German Inspection Authority (TÜV SÜD Product Service) testing label

The construction of the OKIMAT 4 has been inspected by the German TÜV SÜD Product Service Inspection Authority. TÜV SÜD Product Service also monitors the production of the OKIMAT 4. The official German TÜV SÜD Product Service certifies this construction inspection and production monitoring.



Figure 1 TÜV SÜD Product Service Safety Mark

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# 1. General Information

- ▶ The name "OKIMAT 4" shall be used to refer to the models OKIMAT 4 IPS, OKIMAT 4 IPSe and OKIMAT 4 EPS and OKIMAT 4 EPSe, unless there is a reference to a specific model.

These installation instructions must be followed closely in order to install this drive successfully and safely in the end product. These instructions are not an operating manual for the end product.

These instructions will help you to minimize danger, repair costs and down times. They will also help you to maximize the reliability and lifespan of the end product.



## CAUTION

The notices in these instructions must be followed! Following the guidelines during installation and connection procedures will help to minimize:

- the risk of accident and injury, and
- damage to the drive system or the end product.

These installation instructions have been written with due care and attention. However, we cannot guarantee that the data, images and drawings are complete and correct nor do we accept any liability for the information contained therein, unless required by law.

### Availability of this document

As manufacturer of the end product, you are obligated to comply with Machinery Directive 2006/42/EC. This directive stipulates that the installation instructions must be kept on file for governmental inspection purposes.

## 1.1 Safety notices within the installation instruction and the operating instructions for the entire machine

The manufacturer of the end product is only permitted to operate the OKIMAT 4 drive (by itself an incomplete machine)

- when the end product (for which the OKIMAT 4 drive is intended) is in compliance with all protective measures specified in the Machinery Directive 2006/42/EC, and
- when the manufacturer expressly declares the compliance of the end product.

The manufacturer of the end product must create a manual for the users of that product. The safety notices in the end-product manual must be written based on the end product's risk assessment.

## 1.2 Conventions used

Notices which do not relate to safety are indicated in these instructions with a triangle:

- ▶ Triangular notice symbol

### Safety notice explanations



#### **CAUTION**

CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

#### **NOTICE**

NOTICE is used to address practices which are not related to personal injury but may result in damage to the product or surroundings.



## 2. Safety notices

### 2.1 Proper and intended usage

The OKIMAT 4 drive is meant to be installed in beds.

- They provide motor adjustment capabilities for movable reclining bed parts. They should be used in conjunction with suitable brackets and mechanics.



#### CAUTION

##### Risk of accident

This drive should only be used for the applications described above. Any other use is forbidden. Improper usage can lead to accidents or destruction of the unit. Such non-approved applications will lead immediately to the expiration of all guarantee and warranty claims on the part of the end-product manufacturer against the manufacturer.

#### Improper usage

Be sure to follow the notices below concerning improper usage. You should include them in your product manual in order to inform the users of your end product.

The OKIMAT 4 drive should not be used:

- in any environment where combustible or explosive gases or vapours (e.g., anaesthesiology) may be present,
- in a moist environment,
- outdoors,
- in any application that will be cleaned with an automated washing system,
- with forces which exceed those specified on the ratings plate.

The OKIMAT 4 drive can be used by children of 8 years and older, persons with reduced physical, sensory or mental capabilities, or persons with lack of experience or knowledge when they are supervised or instructed concerning the safe use of the device and when they understand the resulting risks. Do not allow children to play with this device. The cleaning and user maintenance must not be carried out by children without supervision.

- ▶ You should only use spare parts which have been manufactured or approved by DewertOkin. Only these parts will guarantee a sufficient level of safety.

**Optional: battery-operated reset function****NOTICE**

The battery-operated reset function is not a safety system and does not avert danger.

DewertOkin does not guarantee that the drive will function in the event of a power outage.

If the end-product manufacturer chooses to guarantee the functionality of the end product during a power outage, then the end-product manufacturer is responsible for arranging a mechanism to ensure this functionality.

**2.2 Selection and qualification of personnel**

The installation of the drive in the end product may only be performed by qualified personnel.

### 2.3 OKIMAT4 (IPS / IPSe) ratings plate

- ▶ The ratings plates shown are examples; the specifications for your drive may differ from this illustration.

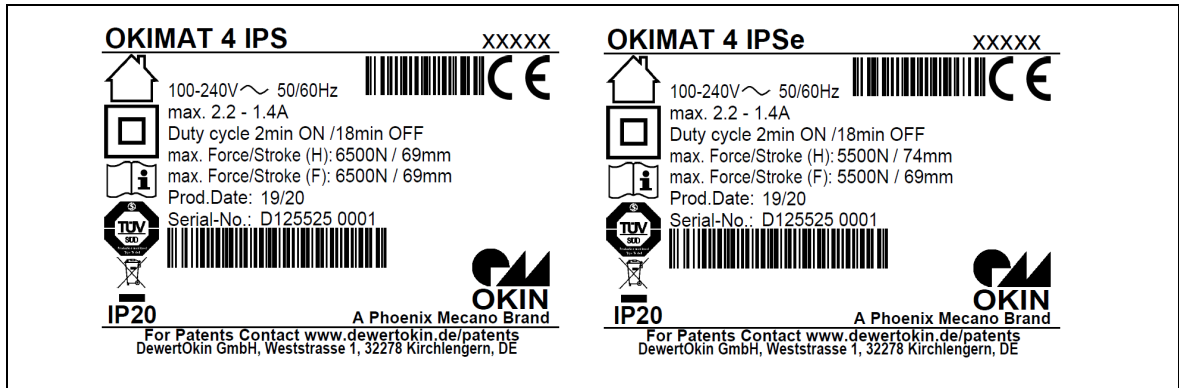


Figure 2 Ratings plates (examples)

OKIMAT 4 IPS OKIMAT 4 IPSe	Model name
xxxxxx	Article number
100-240V ~ 230-240V ~	Input voltage
50/60Hz	Frequency
Max. 2.2 - 1.4A	Current consumption
Duty cycle: 2 min ON / 18 min OFF	Intermittent duty / power-on time
Max. force/stroke (H)	Pushing force and stroke (head end)
Max. force/stroke (F)	Pushing force and stroke (foot end)
Prod.date	Calendar week / year
Serial No.	Serial number for your drive
IP20	Protection degree
	Use in dry rooms only!
	Protection class: II
	Always follow the instructions in the manual!
	Follow all special disposal instructions!
	Conformity mark

## 2.4 OKIMAT4 (EPS / EPSe) ratings plate

- ▶ The ratings plates shown are examples; the specifications for your drive may differ from this illustration.

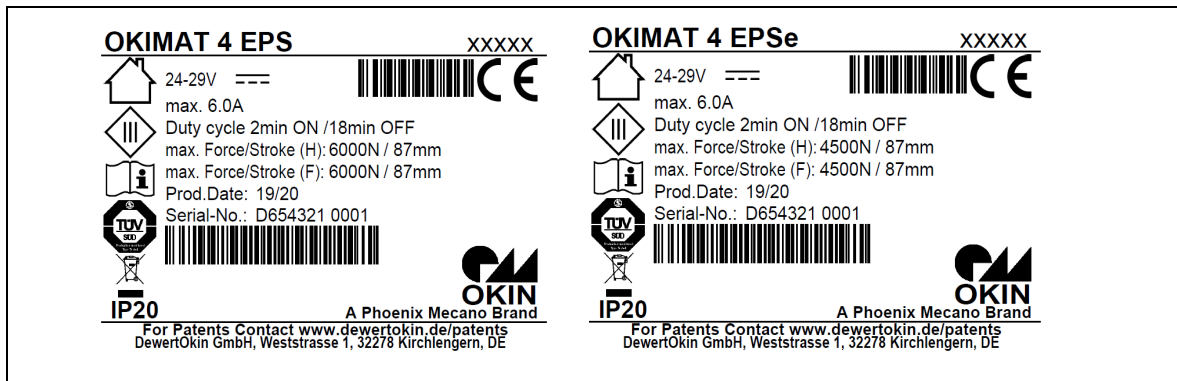







Figure 3 Ratings plates (examples)

OKIMAT 4 EPS OKIMAT 4 EPSe	Model name
XXXXX	Article number
24 – 29V ≡	Input voltage
Max. 6.0A	Current consumption
Duty cycle: 2 min ON / 18 min OFF	Intermittent duty / power-on time
Max. force/stroke (H)	Pushing force and stroke (head end)
Max. force/stroke (F)	Pushing force and stroke (foot end)
Prod.date	Calendar week / year
Serial No.	Serial number for your drive
IP20	Protection degree
	Use in dry rooms only!
	Protection class: III
	Always follow the instructions in the manual!
	Follow all special disposal instructions!
	Conformity mark

### 3. Possible combinations

The OKIMAT 4 drive can be combined for use with other DewertOkin components. The following basic combinations are possible:

- OKIMAT 4 with cable-bound handset
- OKIMAT 4 with built-in RF wireless receiver and RF hand-held remote control
- OKIMAT 4 with external RF wireless receiver and RF hand-held remote control

Systems can be customized by combining drives and OKIN control units. The system components must be connected in a specific order. The mains plug should only be plugged in after all other components are connected.

DewertOkin has separate system instruction manuals containing all information and instructions needed for these systems.

- ▶ Only a DewertOkin device should be used to control the drive since they have already been verified to work together.

## 4. Description

The drive is powered by electrical motors. The back and leg sections of a bed can be adjusted depending on the drive options. The drive is controlled by means of an OKIN control unit.

The drives differ in their:

- motor power,
- optional reset function,
- different stroke variants,
- optional built-in RF radio receiver,
- country-specific mains power cable and plug.
- optional variant with an external switched-mode power supply (EPS / EPSe),

### 4.1 Components

The components have a compact design – with two linear adjusting units and a control unit located within an enclosed housing. To facilitate the tool-free assembly process, the two sliders on the side (the shutters) can be removed from the housing.



#### CAUTION

##### Risk of accident

Please follow these operating instructions carefully. You could be injured by fire or electrical shock if you do not follow these assembly instructions.

The appropriate pluggable power supply cord is included, depending on the regional version (USA, continental Europe EURO flat plug, the UK, Australia or Japan).

#### NOTICE

Only use the proper power cable that is permitted in your country. Be sure to use the correct plug adapter, as shown in the following illustration. Follow the specifications on the ratings plate.

- ▶ There is a delay after the supply voltage is applied before the device actually turns on. Wait at least two seconds before beginning the commissioning.



#### CAUTION

##### Risk of accident

Electrical components should be connected or disconnected only when the power supply cord is unplugged.

**4.1.1 Option: Built-in switched-mode power supply (IPS / IPSe) with pluggable power supply cord**

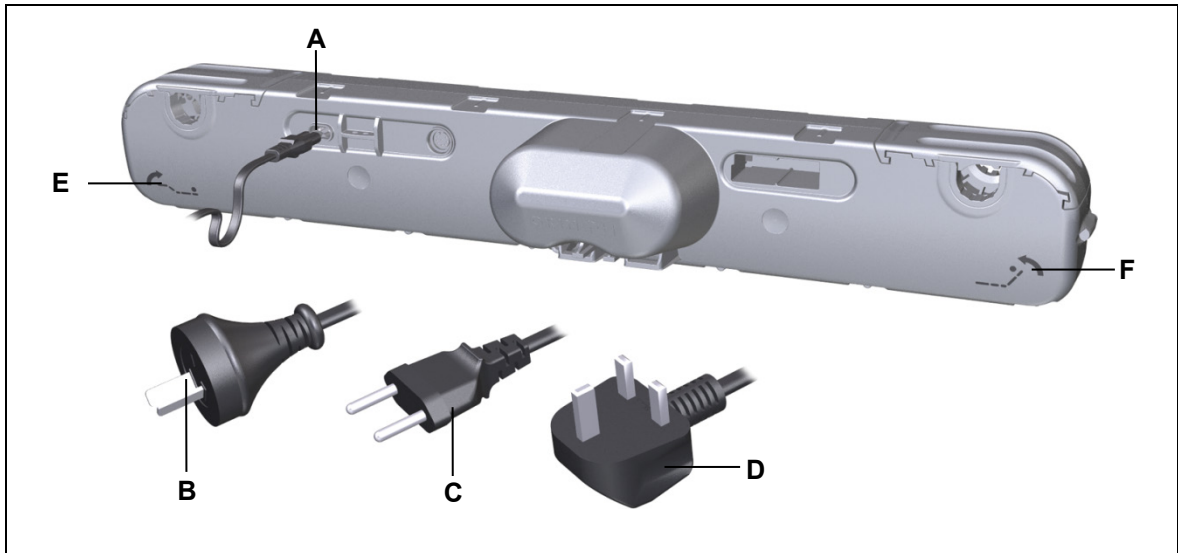


Figure 4 Pluggable power supply cord

- |                                 |                                      |
|---------------------------------|--------------------------------------|
| <b>A</b> Power socket (C8)      | <b>B</b> Power plug (Australia)      |
| <b>C</b> Power plug (EURO flat) | <b>D</b> Power plug (United Kingdom) |
| <b>E</b> Foot side              | <b>F</b> Head side                   |

**4.1.2 Option: External switched-mode power supply (EPS / EPSe)**

A port on the OKIMAT 4 EPS / EPSe permits the corresponding power supply to be connected (e.g. the Power Supply PD12/PD13).

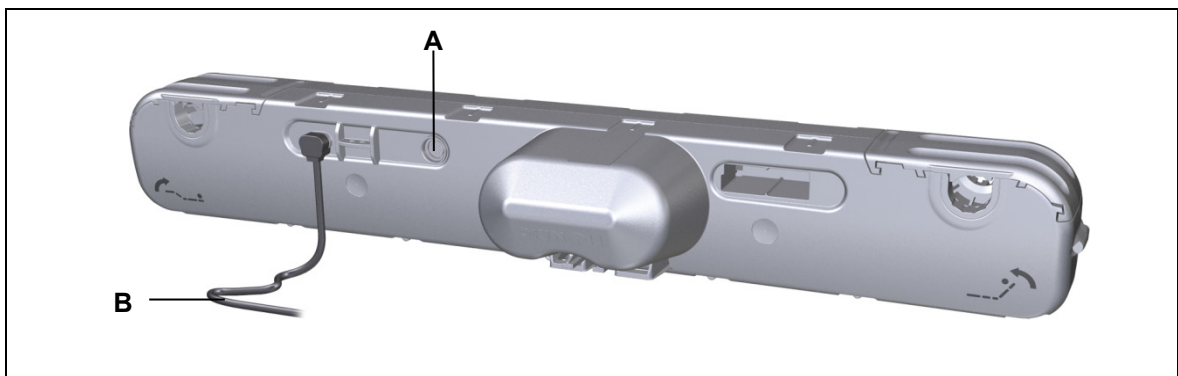


Figure 5 External switched-mode power supply

- |                         |  |
|-------------------------|--|
| <b>A</b> Handset socket | <b>B</b> Connecting cable for the power supply (e.g. Power Supply PD12/PD13) |
|-------------------------|--|

## 5. Technical specifications

	OKIMAT 4 IPS	OKIMAT 4 IPSe
Connection to mains power (AC)	100 - 240 V AC, 50/60 Hz 230 - 240 V AC, 50/60 Hz	
Current	Max. 2.2-1.4 A Max. 1.4 A	
Standby	≤ 0.5 W	
Permitted push force	Max. 6500 N	Max. 5500 N
Adjustment speed	Max. 3.3 mm / second	Max. 4.0 mm / second
Mode of operation <sup>1</sup> under max. rated load.	Intermittent duty 2 min./18 min.	
Protection class	II	
Wireless frequency (optional)	2.4 GHz band	
Transmitting power (optional)	< 10 mW e.i.r.p	
Drive type	Double drive	
Protection degree	IP20	
Stroke <sup>2</sup>	87, 74, 69	
Colours	Black	
Length x width x height (in mm)	720 x 136 (163) x 105	720 x 136 x 105
Axle gap distance	581 mm (+/- 1mm)	
Gap to pivot lever	Min. 480 mm (+ 2mm); refer to Figure 7	
Axle receptacle diameter	Ø 25 mm (optional Ø 34 mm)	Ø 25 mm
Weight	Approx. 3.2 kg	
<b>Optional: battery-operated reset function</b>		
Voltage	One or two nine-volt batteries (type 6LR61) depending on version	
<b>Ambient conditions for operation, storage and transport</b>		
Transport and 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	
Height	< 2000 m	

<sup>1</sup>) Mode of operation: intermittent duty 2 min./18 min. This means that after the unit is operated with its rated load for up to two minutes it must then be paused for 18 minutes. The system can malfunction if this pause is not observed!

<sup>2</sup>) Safety extra low voltage

<sup>3</sup>) Other stroke distances are available on request.



OKIMAT 4 EPS		OKIMAT 4 EPSe
Input voltage (DC)	24 - 29 V	
Current	Max. 6.0 A	
Standby	≤ 0.5 W	
Permitted push force	Max. 6000 N	Max. 4500 N
Adjustment speed	Max. 3.3 mm / second	Max. 4.0 mm / second
Mode of operation <sup>1</sup> under max. rated load.	Intermittent duty 2 min./18 min.	
Protection class <sup>2</sup>	III	
Wireless frequency (optional)	2.4 GHz band	
Transmitting power (optional)	< 10 mW e.i.r.p	
Drive type	Double drive	
Protection degree	IP20	
Stroke <sup>3</sup>	87, 74, 69	
Colours	Black	
Length x width x height (in mm)	720 x 136 (163) x 105	720 x 136 x 105
Axle gap distance	581 mm (+/- 1mm)	
Gap to pivot lever	Min. 480 mm (+ 2mm); refer to Figure 7	
Axle receptacle diameter	Ø 25 mm, (optional Ø 34 mm)	Ø 25 mm
Weight	Approx. 3.1 kg	
<b>Optional: battery-operated reset function</b>		
Voltage	One or two nine-volt batteries (type 6LR61) depending on version	
<b>Ambient conditions for operation, storage and transport</b>		
Transport and storage temperatures	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	
Height	< 2000 m	

<sup>1)</sup> Mode of operation: intermittent duty 2 min./18 min. This means that after the unit is operated with its rated load for up to two minutes it must then be paused for 18 minutes. The system can malfunction if this pause is not observed!

<sup>2)</sup> Safety extra low voltage

<sup>3)</sup> Other stroke distances are available on request.

**Dimensions of housing**

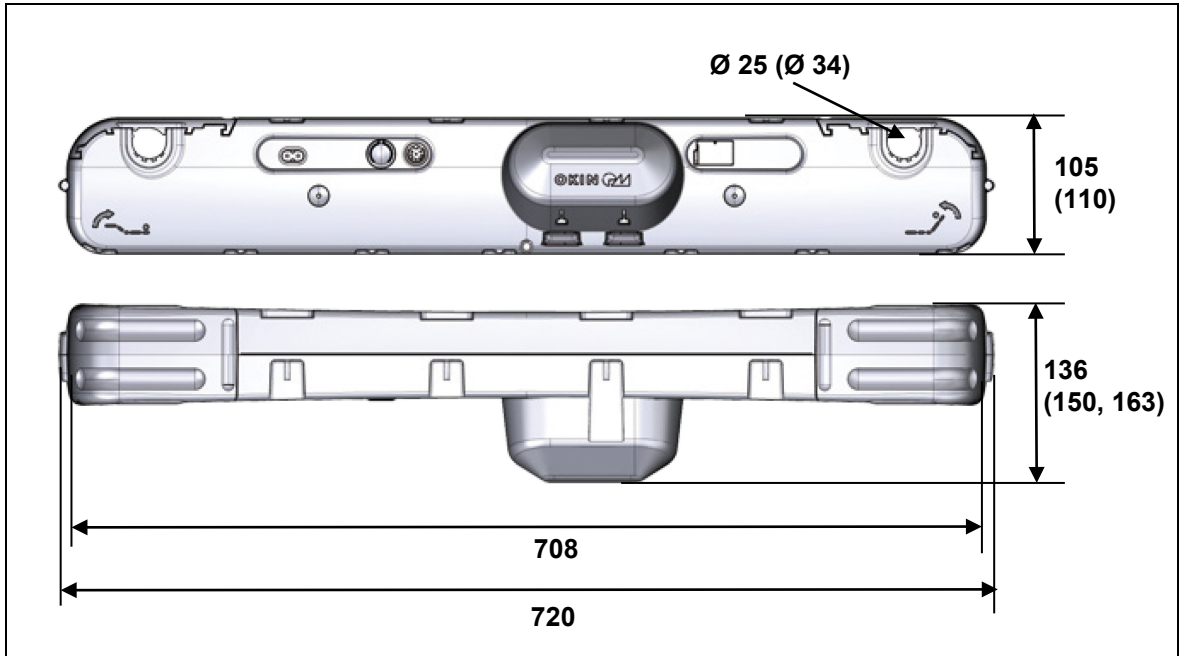


Figure 6 OKIMAT 4 (specified in mm)

**Dimensions of the pivot lever**

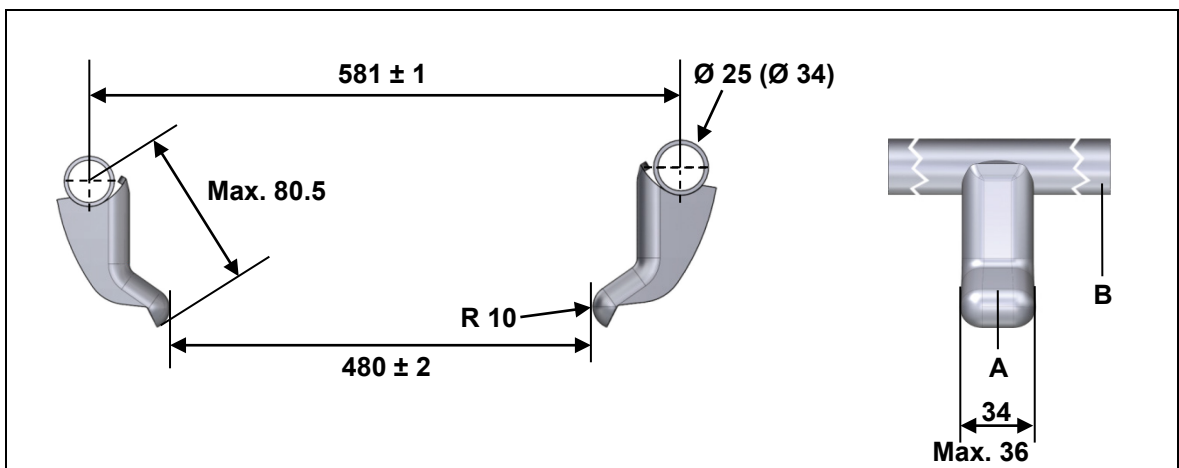


Figure 7 Pivot lever position, in mm

**A** Pivot lever (OKIN)

**B** Axle support

- ▶ Make sure that you consider the amount of torque that is generated by the drive when you design the weld between the bracket and the end product.
  - Version 4500 N: Max. torque: 325 Nm.
  - Version 5500 N: Max. torque: 396 Nm.
  - Version 6500 N: Max. torque: 468 Nm.
- ▶ We recommend: the OKIN pivot lever (ID number 2.00.718.108.00)

## 6. Installation

### 6.1 Safety notices to observe during installation

Basic safety rules must be followed in order to ensure that the end product can be continually operated in a safe manner. These rules must be observed while using the end product and while installing the drive.

#### **Avoiding fatigue fractures**

Drives that are incorrectly installed can undergo fatigue fractures which then create a risk of injury.

- Install the drive in the end product so that it is properly aligned. This will help prevent shear stress.
- Do not position the drive at a slanted angle when installing it in the end product. A slanted angle between the intended direction of movement of the end product and the drive's direction will create shear stress and could lead to a fatigue fracture.

#### **Avoiding a pinching hazard**

When designing your product, you should take the drive adjustment movement into account with passive safety mechanisms and with the appropriate safety notices in your operating instructions.

- Installation methods for ensuring passive safety: Install the OKIMAT 4 drive so that none of the positions where shear and pinch hazards exist are accessible externally.


Make sure that your operating instructions inform the user of these safety points.

## 6.2 Installation procedure

### 6.2.1 An installation example

Before installing the drive, make sure that you are observing all of the safety notices found in the "Safety notices to observe during installation" section.

- 1 Move your product into a position where it is supporting no load.

 <b>CAUTION</b>
<p><b>Danger of pinching/crushing injuries!</b></p> <ul style="list-style-type: none"> <li>• Be sure to carry out work on the drive in a position so that no loads are bearing on it. Only in this way can you be sure to avoid any risks of crushing or injury.</li> <li>• Disconnect the nine-volt battery if you are using the battery-operated reset function.</li> </ul>

- 2 Pull the shutters firmly to the side (**A**). The slots (**B**) for the brackets (**D**) are now uncovered.

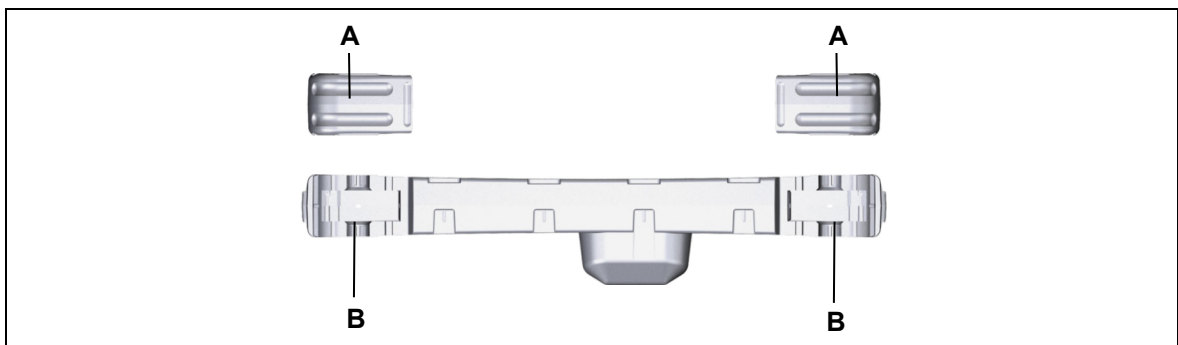


Figure 8 Installing the drive

**A** Shutters

**B** Fitting mounts

- 3 Align the OKIMAT 4 next to your product. The slots for the back and leg sides must be properly aligned with the correct brackets on your end product (refer to the symbols on the OKIMAT 4 as described in Figure 4).

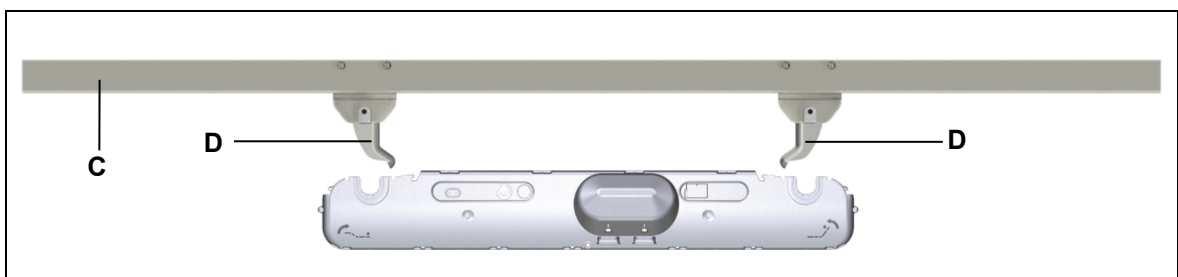


Figure 9 Installing the drive

**C** End product (bed)

**D** Brackets with pivot lever

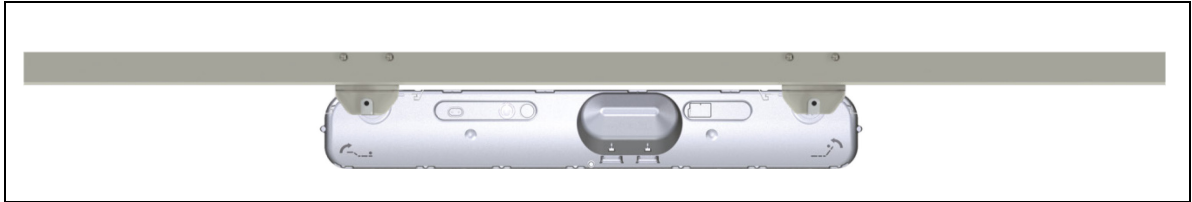


Figure 10 Installing the drive

- 4 Push the drive in so that the brackets (**D**) fit into the slots (**B**). Press in until the tubes snap into the brackets.
- 5 Close the shutters (**A**) on the drive by snapping them back in. The OKIMAT 4 is now securely attached to the end product.
- 6 Disconnect all additional components (handset, etc.) from their sockets.
- 7 Now connect the drive to the power supply.

Please note, after the power supply has been connected:

- ▶ There is a delay after the supply voltage is applied before the device actually turns on. Wait at least two seconds before beginning the commissioning.

### 6.2.2 Mounting the adapter for the receiver and control unit (optional)

There are optional adapters available for the RF ECO BASIC and RF ECO BT / RF ECO BT M receivers, as well as the HE150 control unit. The receiver and the control unit can be placed in the adapter. The adapter is attached to the OKIMAT 4.

#### Mounting the adapter for the RF ECO BASIC

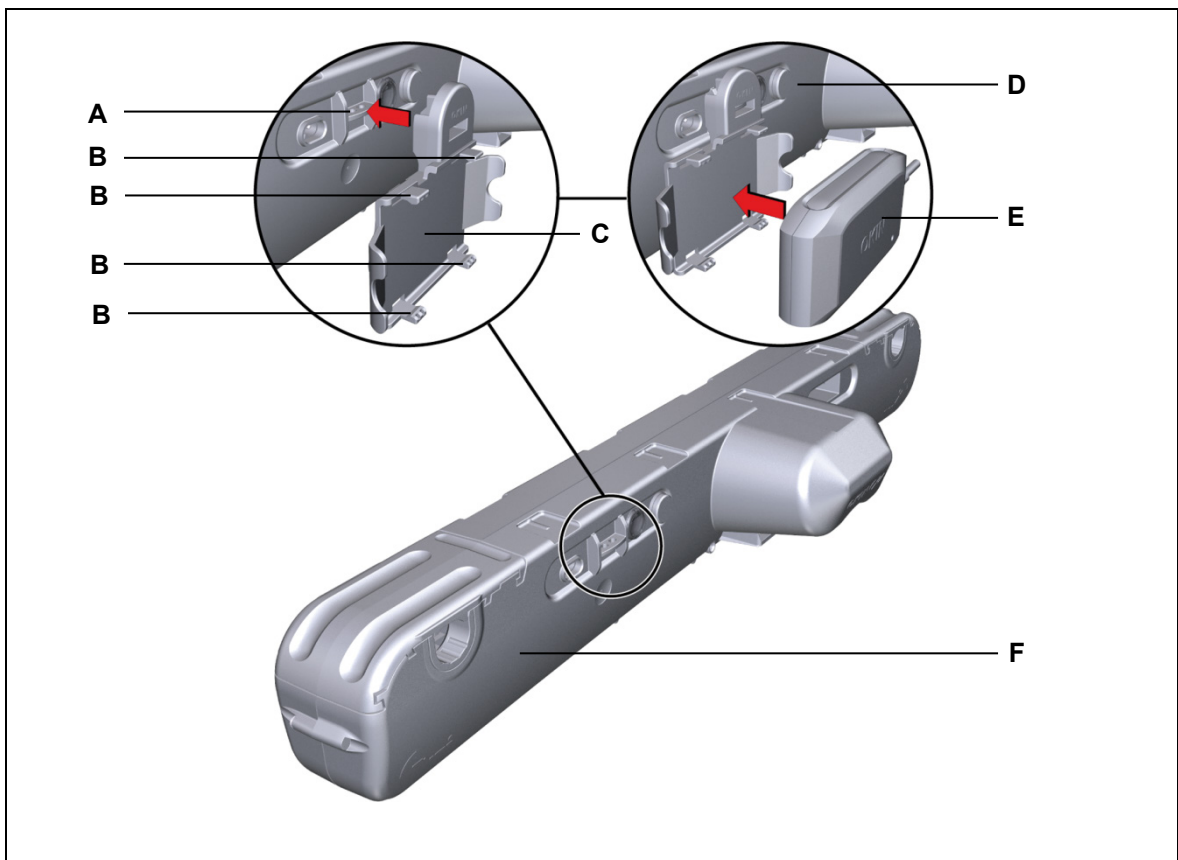


Figure 11 Mounting the adapter for the RF ECO BASIC

- |                              |                         |
|------------------------------|-------------------------|
| <b>A</b> Mounting attachment | <b>B</b> Locking clips  |
| <b>C</b> Adapter             | <b>D</b> Handset socket |
| <b>E</b> RF ECO BASIC        | <b>F</b> OKIMAT 4       |

- 1 Push the adapter's locking clip into the OKIMAT 4's mounting attachment until you hear the clip snap in.
- 2 You can put the RF ECO BASIC into the adapter after you have mounted the adapter.
- 3 Connect the plug from the RF ECO BASIC to the handset socket on the OKIMAT 4.

**Mounting the adapter for the RF ECO BT / RF ECO BT M**

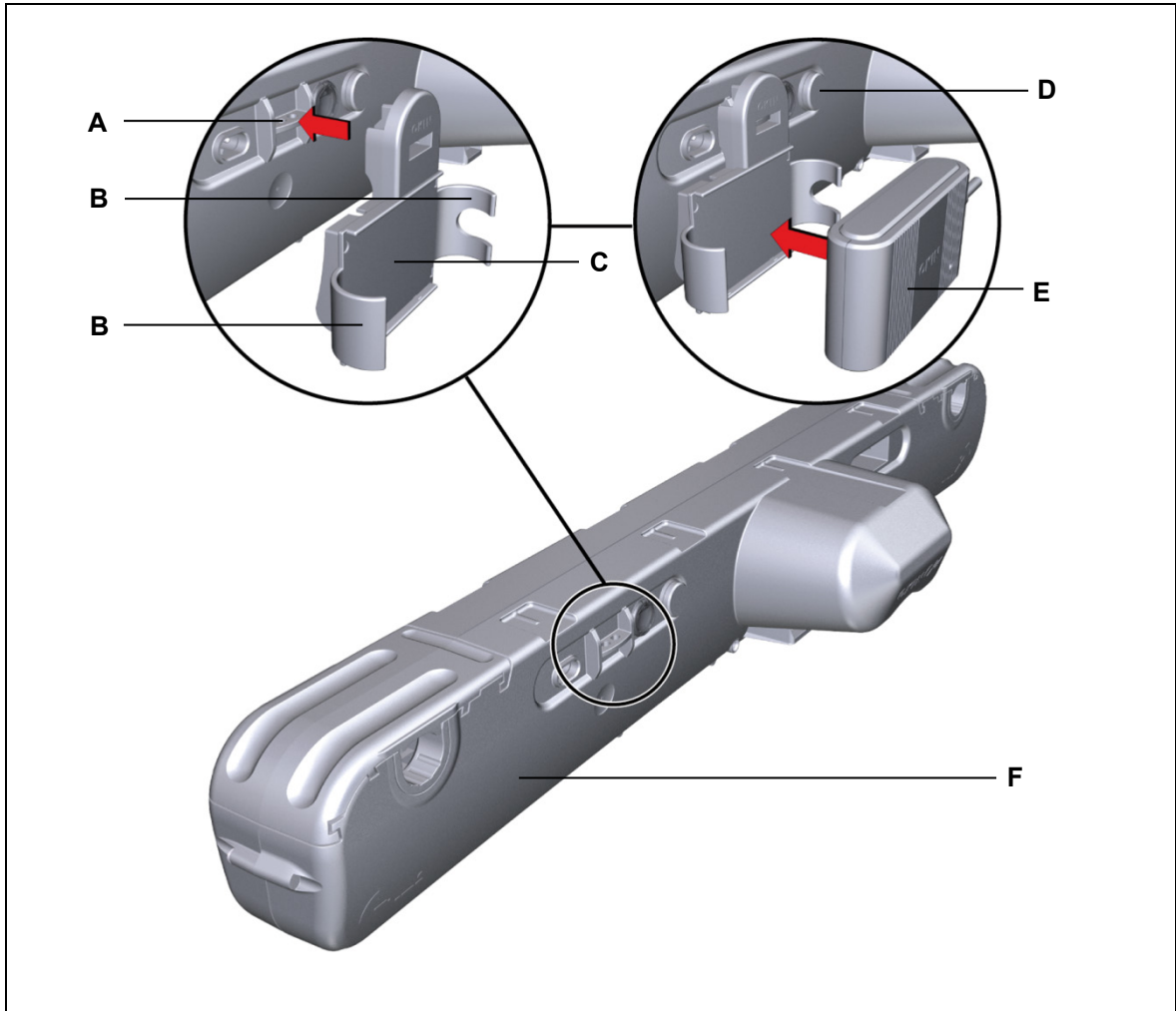


Figure 12 Adapter mount for the RF ECO BT / RF ECO BT M

- |                                  |  |
|----------------------------------|--|
| <b>A</b> Mounting attachment     | <b>B</b> Guide for the RF ECO BT / RF ECO BT M |
| <b>C</b> Adapter                 | <b>D</b> Handset socket                        |
| <b>E</b> RF ECO BT / RF ECO BT M | <b>F</b> OKIMAT 4                              |

- 1 Push the adapter's locking clip into the OKIMAT 4's mounting attachment until you hear the clip snap in.
- 2 You can put the RF ECO BT / RF ECO BT M into the adapter after you have mounted the adapter.
- 3 Connect the plug from the RF ECO BT / RF ECO BT M to the handset socket on the OKIMAT 4.

### Mounting the adapter for the HE150 control unit

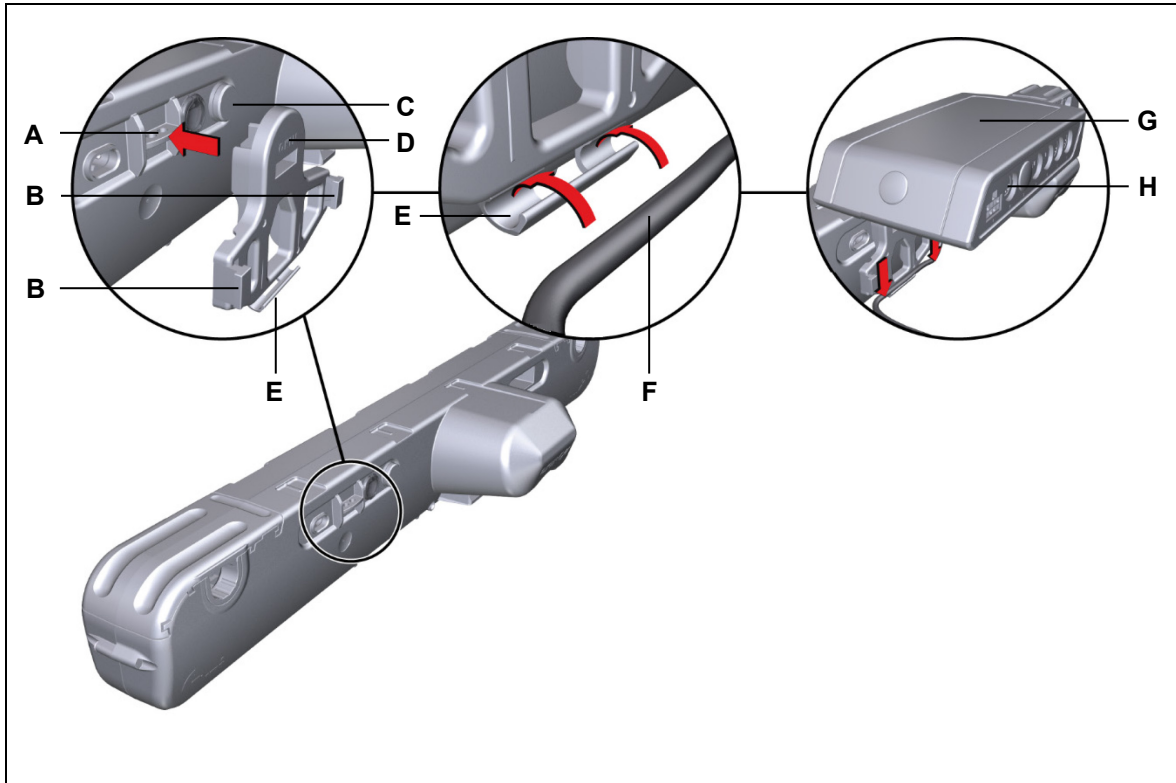


Figure 13 Mounting the adapter for the HE150

- |  |   |
|--|---|
| <b>A</b> Mounting attachment           | <b>B</b> Guide for the HE150            |
| <b>C</b> Connecting socket in OKIMAT 4 | <b>D</b> Adapter                        |
| <b>E</b> cable guide                   | <b>F</b> Connecting cable               |
| <b>G</b> HE150 control unit            | <b>H</b> Connecting socket of the HE150 |

- 1 Push the adapter's locking clip into the OKIMAT 4's mounting attachment (**A**) until you hear the clip snap in.
- 2 Connect the connecting cable plug to the connecting socket of the OKIMAT 4 (**C**).
- 3 Route the connecting cable (**F**) in the cable guide (**E**) of the adapter.
- 4 Put the HE150 control unit (from the top downwards) into the adapter's guide (**B**).
- 5 Connect the connecting cable plug to the connecting socket on the HE150 (**H**).



### Removing the adapter

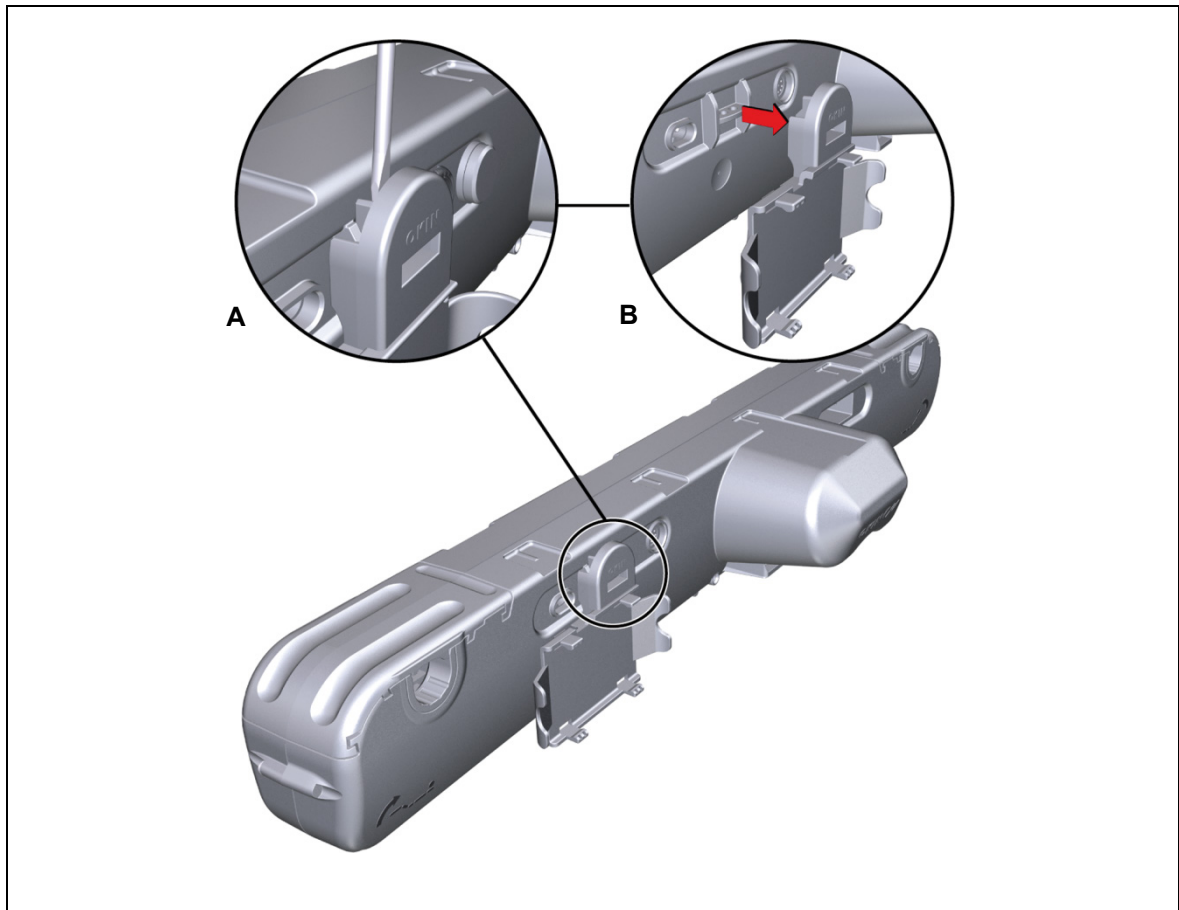


Figure 14 Removing the adapter (an example)

- 1 Disconnect the plug of the receiver or HE150 control unit from the handset socket.
- 2 Take the receiver or control unit (RF ECO BASIC, RF ECO BT / RF ECO BT M, RF-M-BT or HE150) out of its adapter.
- 3 To remove the adapter, use a screwdriver to carefully unlock the locking clip (as shown in Figure A). Then pull out the adapter (B).

### Threading the handset cable, power cable and connecting cable into the strain relief mechanism

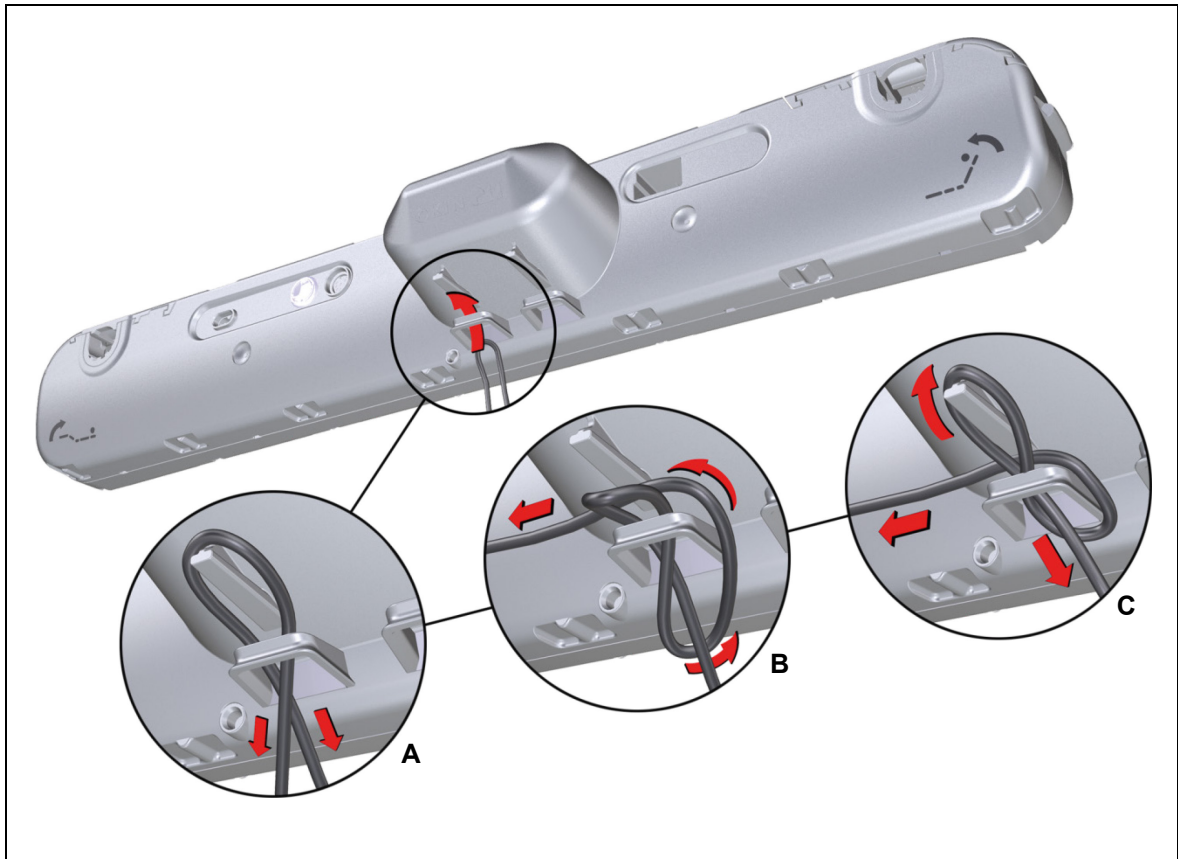


Figure 15 Looping the cable through the strain relief mechanism

**A** Cross over the looped-in cable

**B** Guide one cable end back behind the loop

**C** Secure cable to strain relief

#### CAUTION

##### Risk of accident

Electrical components should be connected or disconnected only when the power supply cord is unplugged.

- 1 To attach the handset cable: Connect the plug from the handset to the handset socket on the OKIMAT 4.
- 2 Push the cable in a loop through the strain relief (as shown by **A** in Figure 15).
- 3 Run the right cable strand first under the left strand and then behind and through the loop (as shown by **B** in Figure 15).
- 4 Place the loop over the peg on the drive and pull the loop back slightly (as shown by **C** in Figure 15).
- 5 In order to secure the power cable: Connect the power cable plug to the power socket on the OKIMAT 4. Repeat steps 2 through 4 with the power cable using the second strain relief.

### 6.2.3 Electrical connection

**CAUTION****Risk of accident**

Electrical components should be connected or disconnected only when the power supply cord is unplugged.

- ▶ There is a delay after the supply voltage is applied before the device actually turns on. Wait at least two seconds before beginning the commissioning.

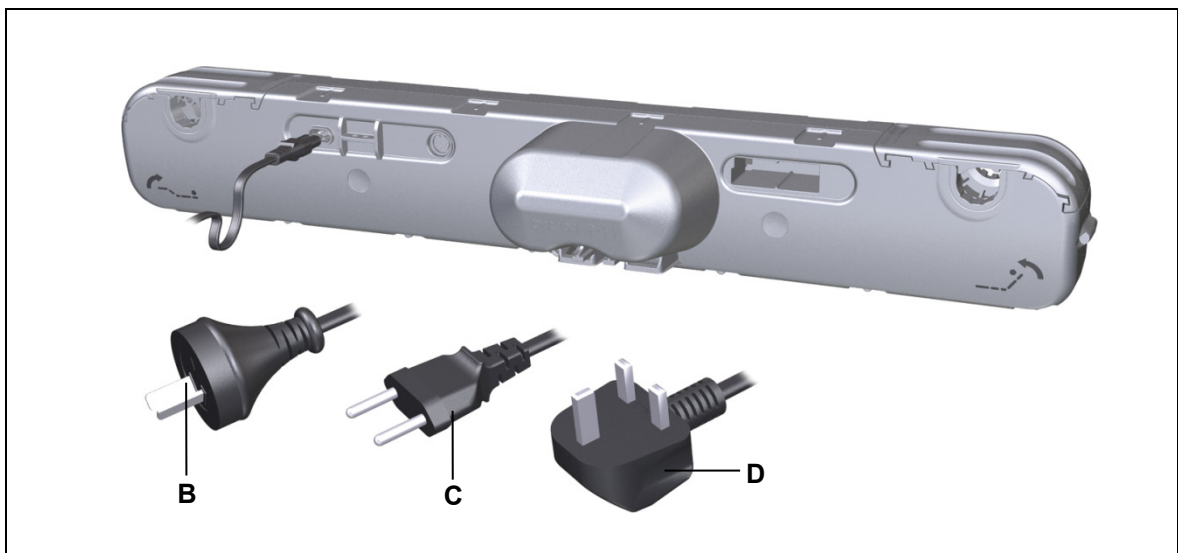
**Option: Pluggable power cable (OKIMAT 4 IPS / IPSe)**

Figure 16 Pluggable power supply cord

**B** Power plug (Australia)

**C** Power plug (EURO flat)

**D** Power plug (United Kingdom)

**Option: Connecting the OKIMAT 4 EPS / EPSe to an external power supply**

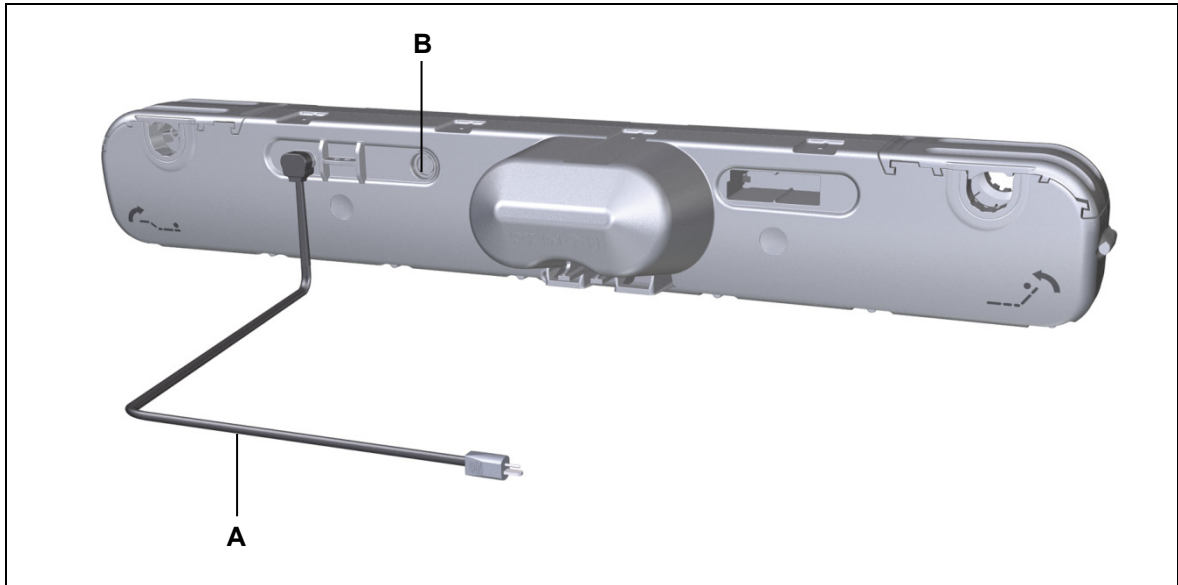


Figure 17 External switched-mode power supply (SMPS)

**A** Cable for the external power supply

**B** Handset socket

**Optional: battery-operated reset function**  
**Connecting the nine-volt battery**

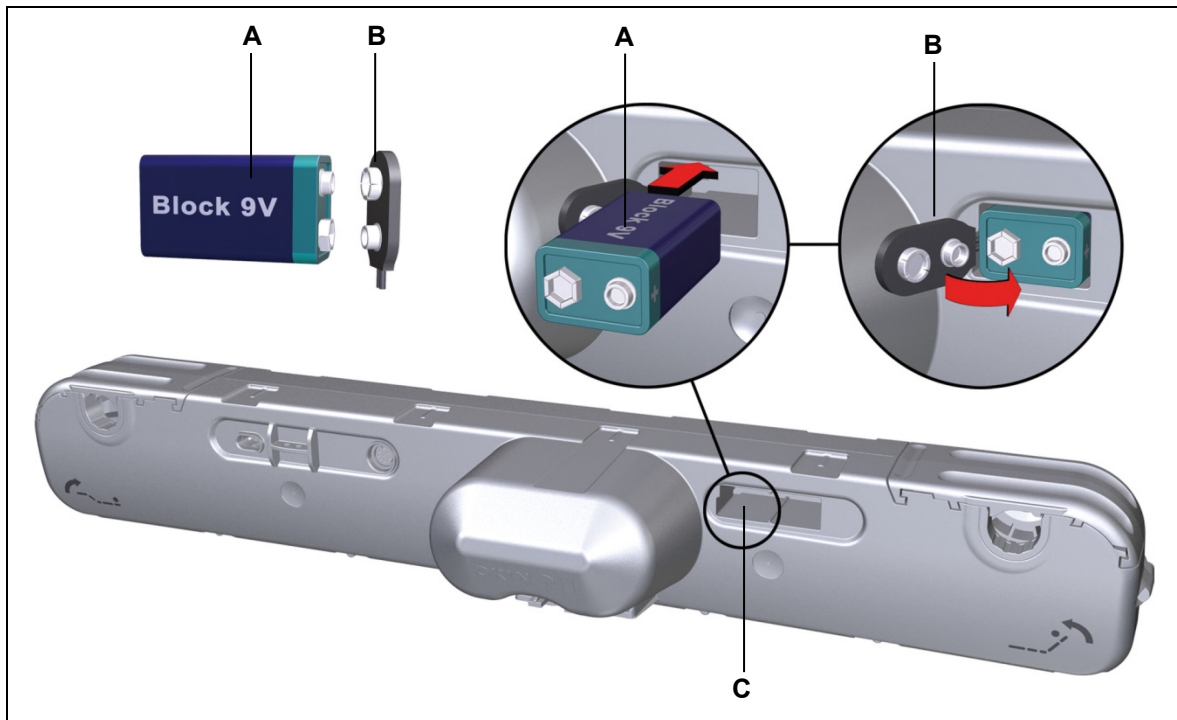


Figure 18 Connecting the nine-volt battery

**A** Nine-volt battery (type 6LR61)

**B** Battery clip

**C** Battery compartment for 1 or 2 batteries

**NOTICE**

For the RF radio variants, the nine-volt battery may discharge whenever the mains voltage is not connected.

**Routing the electrical cables**

When routing the cables, be sure that:

- the cables cannot get jammed,
- no mechanical load (such as pulling, pushing or bending) will be put on the cables, and
- the cables cannot be damaged in any way.

Fasten all cables (especially the mains cable) to the end product using sufficient strain relief and kink prevention methods. Be sure that the design of the end product prevents the mains cable from coming into contact with the floor during transport.

6.2.4 Dismantling

<p><b>⚠ CAUTION</b></p> <p><b>Risk of accident</b></p> <ul style="list-style-type: none"> <li>• Electrical components should be connected or disconnected only when the power supply cord is unplugged.</li> <li>• Disconnect the nine-volt battery if you are using the battery-operated reset function.</li> </ul>
--

► Certain details may change because of technical changes.

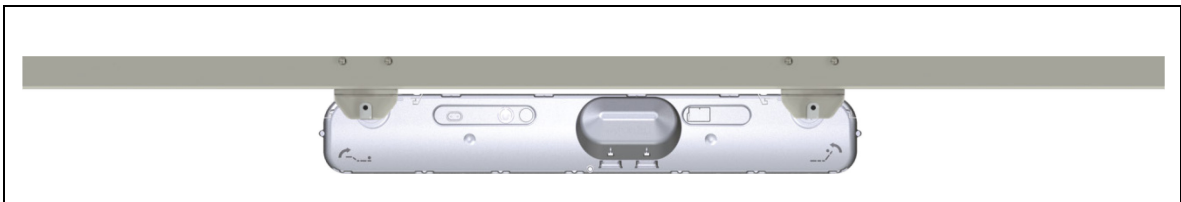


Figure 19 Removing the drive

1 Move your product into a position where it is supporting no load.

<p><b>⚠ CAUTION</b></p> <p><b>Danger of pinching/crushing injuries!</b></p> <p>Be sure to carry out work on the drive in a position so that no loads are bearing on it. Only in this way can you be sure to avoid any risks of crushing or injury.</p>
--

- 2 Disconnect the OKIMAT 4 from the power supply!
- 3 Disconnect the connecting cables from all additional components (e.g. handsets) from their sockets.
- 4 Be sure to support the drive's weight to prevent it from falling.
- 5 Pull strongly on the shutters (A) sideways until they are completely out.

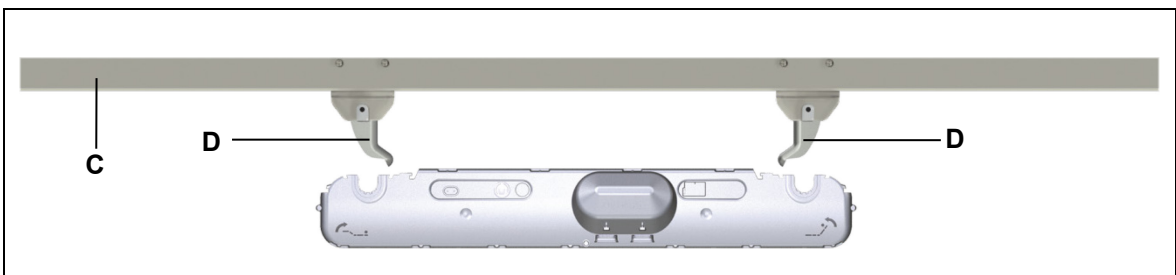


Figure 20 Removing the drive

C End product (bed)

D Brackets

- 6 Pull out the OKIMAT 4 far enough so that the brackets (D) are out of the slots (B). The OKIMAT 4 is now unattached and can be removed.

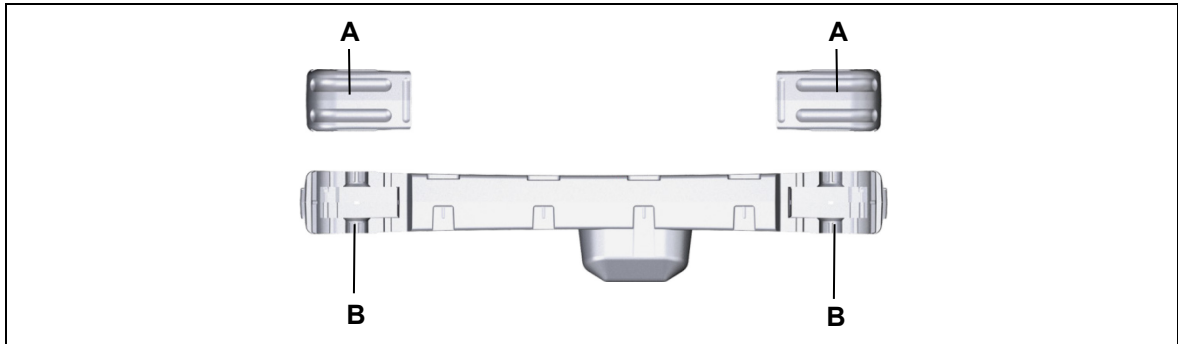


Figure 21 Removing the drive

**A** Shutters

**B** Fitting mounts

- 7 Push the shutters (A) back onto the OKIMAT 4 so that they are not lost during transportation.

## 7. Information about creating your Operating Manual

The factual information contained within may be used when you are creating the end-product manual. The installation instructions do not contain all information required for the safe operation of the end product. They only describe the installation and operation of the drive as a partially assembled piece of machinery.

- ▶ When creating the operating instructions, remember that the installation instructions are intended for qualified specialists and are not for typical users of the end product.

### 7.1 General information

- ▶ Only a DewertOkin device should be used to control the drive since they have already been verified to work together.

#### Delayed start-up

After plugging the power plug into the power outlet:

- ▶ There is a delay after the supply voltage is applied before the device actually turns on. Wait at least two seconds before beginning the commissioning.

#### Power-on time / intermittent operations

The OKIMAT 4 drive has been designed for intermittent operations. Intermittent operation is an operational mode where the drive must pause after a specified maximum period of operation (power-on time). This protects the drive from overheating. Extreme overheating can cause a malfunction.

- ▶ The ratings plate specifies the maximum power-on time and the required pause intervals.

#### Avoiding toggle operations

You should avoid switching from one direction of travel to the opposite direction without first stopping the motor. Make sure that you pause between motions! A pause (motor stop time) can be activated using the controls.

<b>NOTICE</b>
You should always avoid a quick change (toggling) of directions.

#### Shutting off the drive

To shut off the drive, first disconnect the system from the power supply and then disconnect the battery. The power supply must always be accessible during operations so that the system can be shut off.



## 7.2 Handset / hand-held remote control

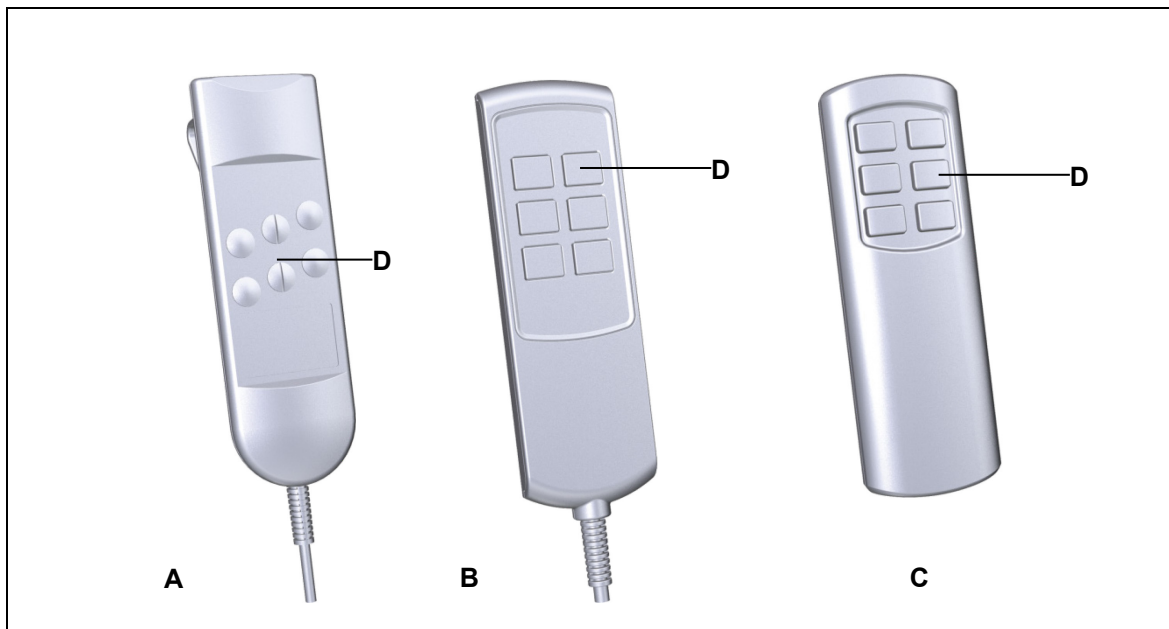


Figure 22 Examples of handset / hand-held remote control

**A** Baseline handset

**B** Topline handset

**C** RF ECO hand-held remote control, for external or internal wireless reception (RF)

**D** Adjustment keys

- ▶ The adjustment motions are carried out by pressing on the corresponding symbol keys on the handset/hand-held remote control.

### 7.2.1 Configuring the RF ECO hand-held remote

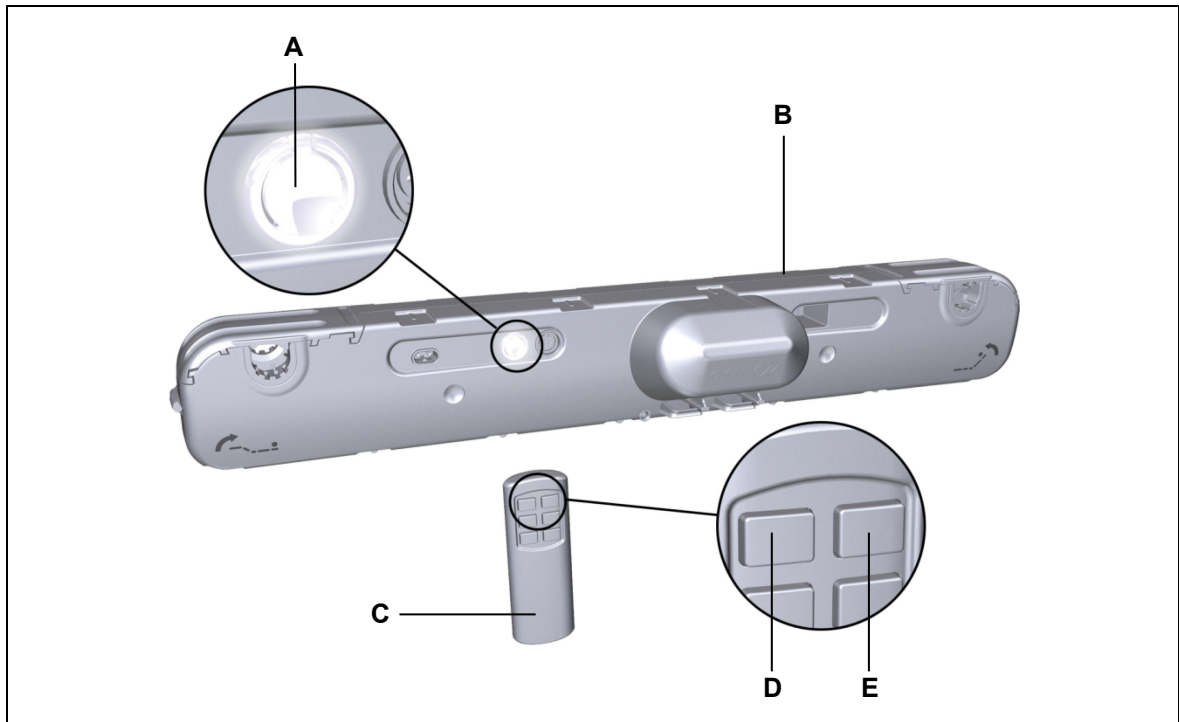


Figure 23 Example: Configuring the RF ECO hand-held remote

**A** Button

**B** OKIMAT 4 with built-in RF

**C** RF ECO hand-held remote

- 1 Press the function key on the drive (**A** in Figure 23) twice (a quick double click). The drive will now be in the teach-in (configuration) mode for approximately 10 seconds. The LED on the function key lights up.
- 2 Press the (**E**) and (**D**) keys simultaneously on the RF ECO hand-held remote. Hold down both keys until the function key's LED starts to blink. The RF ECO remote is now configured and ready to use.

### 7.2.2 Deactivating the RF ECO hand-held remote

You can interrupt communications between the hand-held remote and the drive; this is useful if you wish to decommission the remote or if the programming for the remote was unsuccessful. Take the following steps:

- 1 Press the function key on the drive (**A** in Figure 23) four times quickly.
- 2 Then press the function key (**A**) one more time. The RF ECO remote is now deactivated.

## 7.3 Notice for operating with optional configuration

### 7.3.1 Optional: battery-operated reset function

The battery-operated reset function allows the drive system to be operated during a power outage. One or two nine-volt batteries are used to power the OKIMAT 4 in the event of an outage. The batteries are not connected by default since they have very limited capacity. They can only be used once to power the reset function. The used batteries should then be replaced and properly disposed of.

<b>NOTICE</b>
The battery-operated reset function is not a safety system and does not avert danger.

When working with radio units (RF), first disconnect the drive system from the power supply! Connect the nine-volt battery first when you would like to perform a battery-operated reset. The battery may only be used to power the reset function one time. Take out the battery and dispose of it properly after the reset function has been carried out.

- ▶ If the end product is under a heavy load which prevents the reset function from operating, the strain or load on the end product must first be removed before a reset can be carried out.

### 7.3.2 Additional operating controls

For more information on operating other controls, refer to the separate instructions for these control units.

## 8. Troubleshooting

This chapter describes troubleshooting methods for fixing problems. If you experience an error that is not listed in this table, please contact your supplier.

- ▶ Only qualified specialists who have received electrician training should carry out troubleshooting and repairs.

Problem	Possible cause	Solution
The handset or drive system is not functioning.	There is no mains supply voltage.	Connect the mains power.
	The hand switch or drive system is defective.	Please contact your supplier or sales agent.
The drive is suddenly not capable of movement.	The overheating protection or system protection has been triggered.	Remove the overload (change or remove the load). Allow the system to rest for 20 to 30 minutes with the mains power unplugged. If this does not resolve the problem, contact your supplier or distributor.
	The unit's fuse may have been triggered or may be broken.	Please contact your supplier or sales agent.
	There is no mains supply voltage.	Connect the mains power.
	A lead-in connection has been interrupted (mains power, hand switch or auxiliary drive).	Check the cables and reinsert them, if required.
The battery-operated reset is not functioning.	The battery is empty.	Check the battery and replace if necessary.
	Battery is not connected.	Connect the battery.

## 9. Maintenance

### 9.1 Maintenance

- ▶ The OKIMAT 4 drive requires no maintenance.

### 9.2 Cleaning and care

- ▶ Clean the OKIMAT 4 drive as needed using a dry anti-static cloth.

**NOTICE**

- Always disconnect the power supply before you start to clean the drive system!
- Disconnect the nine-volt battery if you are using the battery-operated reset function.
- Never clean the OKIMAT 4 in an automated washing system or with a high-pressure cleaner. Do not allow fluids to penetrate the unit. Damage to the system could result.
- Do not use a cleanser that contains benzene, alcohol or similar solvents.
- Make sure that you do not damage the drive's connecting cable.

## 10. Disposal

### 10.1 Packaging material

The packaging material should be sorted into recyclable components and then disposed of in accordance with the appropriate national environmental regulations (in Germany according to the recycling law KrWG from 01.06.2012; internationally according to the EU Directive 2008/98/EC (Waste Framework Directive WFD as of 12.12.2008)).

### 10.2 Drive components

The OKIMAT 4 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 OKIMAT 4 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 OKIMAT 4 drive should not be disposed of with normal household waste!

The disposal of the nine-volt batteries is regulated in the EU by Battery Directive 2006/66/EC, in Germany by the BattG battery law of 25.6.2009, and internationally by any applicable national laws and regulations.



The battery should not be disposed of with normal household waste!

## Einbauerklärung

nach Anhang II der EU-Maschinenrichtlinie  
2006/42/EG

Der Hersteller

## 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

erklärt hiermit, dass nachstehend beschriebene  
unvollständigen Maschinen

*declares that the incomplete machines described  
below*

**OKIMAT 4 IPS**  
**OKIMAT 4 IPSe**  
**OKIMAT 4 EPS**  
**OKIMAT 4 EPSe**

die folgenden grundlegenden Anforderungen der  
Richtlinie Maschinen (2006/42/EG) erfüllt:

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

Abschnitt:

*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

Die unvollständige Maschine darf erst dann in Be-  
trieb genommen werden, wenn festgestellt wurde,  
dass die Maschine, in die die unvollständige Ma-  
schine eingebaut werden soll, den Bestimmungen  
der Richtlinie Maschinen (2006/42/EG) entspricht.

*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.*

Der Hersteller verpflichtet sich, die speziellen Unter-  
lagen zur unvollständigen Maschine einzelstaatli-  
chen Stellen auf begründetes Verlangen elektronisch  
zu übermitteln. Die zur Maschine gehörenden  
speziellen technischen Unterlagen nach Anhang VII  
Teil B wurden erstellt.

*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.*

Für die Zusammenstellung der technischen Unter-  
lagen ist bevollmächtigt: DewertOkin GmbH  
Weststraße 1  
32278 Kirchlengern  
Tel.: 05223 979-0  
Deutschland - Germany

*For preparation of the technical documentation is  
authorized: DewertOkin GmbH  
Weststraße 1  
32278 Kirchlengern  
Phone: +49 5223 979-0  
Deutschland - Germany*



Kirchlengern, Germany 11 May 2020

Dr.-Ing. Josef G. Groß  
Geschäftsführer / Managing Director

## EG-Konformitätserklärung

Nach Anhang IV der EMV-Richtlinie 2014/30/EU

Nach Anhang IV der EU-Niederspannungsrichtlinie 2014/35/EU

Nach Anhang VI der RoHS-Richtlinie 2011/65/EU (inkl. Delegierte Richtlinie (EU) 2015/863)

Der Hersteller

## 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 Kirchlegern  
Deutschland - Germany

erklärt hiermit, dass das Produkt

*declares that the following product*

**OKIMAT 4 IPS**  
**OKIMAT 4 IPSe**  
**OKIMAT 4 EPS**  
**OKIMAT 4 EPSe**

die Anforderungen folgender EG-Richtlinien erfüllt:

*meets the requirements of the following EU directives:*

**Richtlinie über elektromagnetische Verträglichkeit 2014/30/EU**

**Electromagnetic Compatibility Directive 2014/30/EU**

**Niederspannungsrichtlinie 2014/35/EU**

**Low Voltage Directive 2014/35/EU**

**DELEGIERTE RICHTLINIE (EU) 2015/863 DER KOMMISSION vom 31. März 2015 zur Änderung von Anhang II der Richtlinie 2011/65/EU des Europäischen Parlaments und des Rates hinsichtlich der Liste der Stoffe, die Beschränkungen unterliegen.**

**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.**

Angewendete Normen

*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

Konstruktive Änderungen, die Auswirkungen auf die in der Montageanleitung angegebenen technischen Daten und den bestimmungsgemäßen Gebrauch haben, das Produkt also wesentlich verändern, machen diese Konformitätserklärung ungültig!

*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)!*



Kirchlegern, Germany 11 May 2020

Dr.-Ing. Josef G. Groß  
Geschäftsführer / Managing Director



## EG-Konformitätserklärung

(Ausführung 2,4GHz)

Nach Anhang VI der RED-Richtlinie 2014/53/EU

Nach Anhang VI der RoHS-Richtlinie 2011/65/EU  
(inkl. Delegierte Richtlinie (EU) 2015/863)

Der Hersteller

## EU Declaration of Conformity

(Version 2.4GHz)

*In compliance with Appendix VI of the RED-Directive  
2014/53/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

erklärt hiermit, dass das Produkt

*declares that the following product*

**OKIMAT 4 IPS**  
**OKIMAT 4 IPSe**  
**OKIMAT 4 EPS**  
**OKIMAT 4 EPSe**

die Anforderungen folgender EG-Richtlinien erfüllt:

*meets the requirements of the following EU directives:*

**Richtlinie 2014/53 über die Harmonisierung der  
Rechtsvorschriften der Mitgliedstaaten über die  
Bereitstellung von Funkanlagen auf dem Markt**

***RED Directive 2014/53/EU***

**DELEGIERTE RICHTLINIE (EU) 2015/863 DER  
KOMMISSION vom 31. März 2015 zur Änderung  
von Anhang II der Richtlinie 2011/65/EU des Euro-  
päischen Parlaments und des Rates hinsichtlich  
der Liste der Stoffe, die Beschränkungen  
unterliegen.**

***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.***

Angewendete Normen

*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
- EN 50663: 2017
- ETSI EN 300440 V2.1.1
- ETSI EN 301489-1 V1.9.2

Konstruktive Änderungen, die Auswirkungen auf die  
in der Montageanleitung angegebenen technischen  
Daten und den bestimmungsgemäßen Gebrauch  
haben, das Produkt also wesentlich verändern,  
machen diese Konformitätserklärung ungültig!

*This declaration of conformity is no longer valid if  
constructional changes are made which significantly  
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technical specifications found in the instructions or  
the intended use)!*



Kirchlengern, Germany 11 May 2020

Dr.-Ing. Josef G. Groß  
Geschäftsführer / Managing Director





DewertOkin GmbH  
Weststrasse 1  
Kirchlengern 32278, Germany  
Tel: +49 (0)5223/979-0  
Fax.: +49 (0)5223/75182  
<http://www.dewertokin.de>  
[Info@dewertokin.de](mailto:Info@dewertokin.de)

ID No.: 81425