

PP300

Installation Instructions

(Translation of the original installation instructions)

Foreword

Document revision history

Version	Date	Modification, change
1.0	06/2015	First release
2.0	01/2020	Installation PP300

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.

► We reserve the right to make unannounced technical changes in the course of our continual product improvement process!

Warranty

Rechargeable batteries, by their nature, have a limited lifespan and are characterized by gradual power loss over time. The normal depreciation and continual power loss exhibited by the battery are not covered by any warranty claims.

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

These instructions are only intended to be used by the endproduct 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 endproduct 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.

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1. General Information

These installation instructions must be followed closely in order to install this PP300 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. They will also help you to increase the reliability and lifespan of the device.



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 PP300 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 PP300 (by itself an incomplete machine)

- when the end product (for which the PP300 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 Instructions

2.1 Proper and Intended Usage

The PP300 is intended to be used as independent power supplies for suitable DewertOkin drive systems:

- It can be used for such applications as beds and chairs.



CAUTION

Risk of accident

This PP300 should only be used for the applications described above. Any other form of usage is not permitted and 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.

2.1.1 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 PP300 should not be used:

- in any environment where combustible or explosive gases or vapours (e.g., anaesthesiology) may be present,
- in the proximity of open fires or other heat sources (such as furnaces, ovens or direct sunlight),
- in any application that will be cleaned with an automated washing system,
- in a moist environment,
- outdoors
- as a power source for toys or games.

The PP300 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.

Battery-operated reset function

The PP300 has a 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 PP300 in the end product may only be performed by qualified personnel.

2.2.1 Creating a user's manual

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.

2.2.2 Shutting down the connected drive in case of emergency**CAUTION****Risk of accident**

An emergency stop can be achieved by pulling the connecting plug of the drive / control unit out off the PP300 and pulling out off the socket outlet. This power cable must be accessible at all times during operation so that the cable can be unplugged.

2.3 Type label

- ▶ The type label shown is an example; the specifications for your PP300 may differ from this illustration.

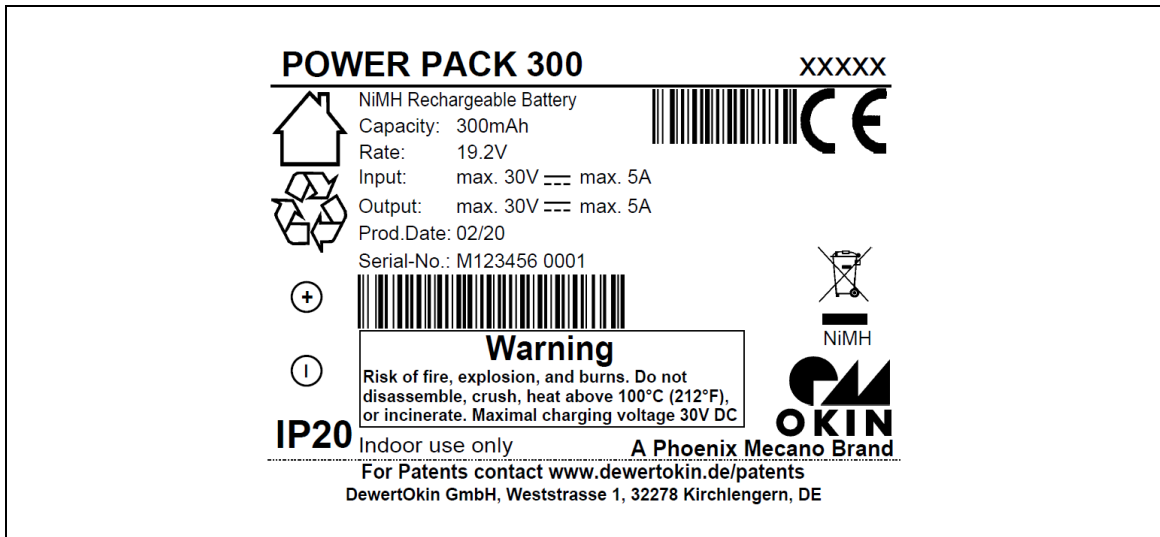






Figure 1 Type label PP300 (example)

POWER PACK 300	Model name
xxxxx	Article number
NiMH Rechargeable Battery	Rechargeable nickel-metal hydride battery.
Capacity: 300mAh	Capacity
Rate: 19.2V	Rated voltage
Input: max.30V ~ max. 5A	Input voltage and current
Output: max.30V ~ max. 5A	Output voltage and current
Prod.Date	Calendar week / year
Serial-No.	Serial number
IP20	Protection degree
	Use in dry rooms only!
 NiMH	Follow all special disposal instructions!
	Conformity mark
	Follow the special disposal instructions for recycling!

3. Description

The PP300 is used as a power supply for electrically adjustable applications. The PP300 has the following special features:

- The PP300 is used as a power supply unit if the mains voltage supply is disconnected from the electrical socket.
- The PP300 is used as a power supply at power failure.
- The PP300 is designed for a limited number of drive cycles. (depending on the construction of their application)
- ▶ We reserve the right to make unannounced technical changes in the course of our continual product improvement process!

3.1 Components

PP300 is a compact NiMH rechargeable battery to connect to a DewertOkin drive system. The PP300 can be used with a mounting plate.

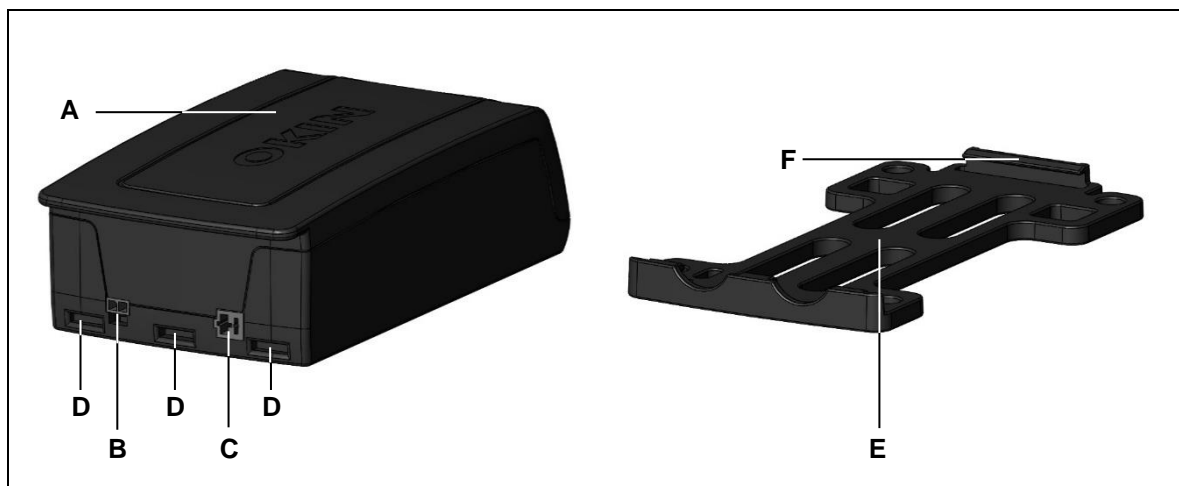


Figure 2 Components of the PP300

- | | |
|---|---|
| A PP300 | B Connection socket for the power supply |
| C Connection socket for the drive(s) | D Mounting groove for mounting plate |
| E Mounting plate | F Locking clips |

3.2 Connection of the PP300 to the drive system

The PP300 is integrated into a DewertOkin drive system as follows. Use special connecting cables to connect the individual components, ask your supplier/dealer. The PP300 has the following special features:

- The PP300 is integrated behind the power supply unit, e.g. POWER SUPPLY PD12 in the drive system.
- The PP300 is charged constantly by the power supply, e.g. POWER SUPPLY PD12, even when the drive is working.

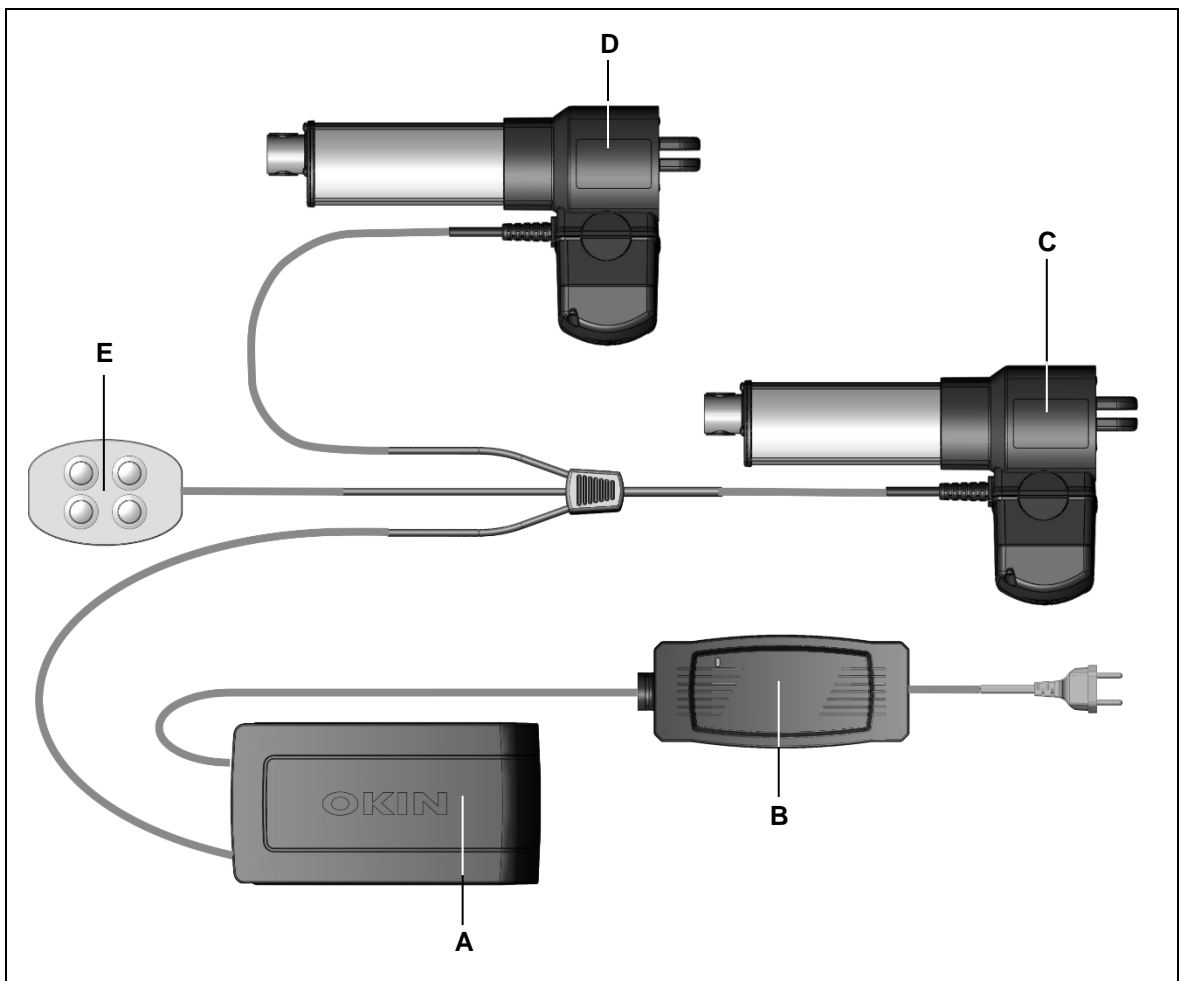


Figure 3 Connection variant (example)

A PP300

B POWER SUPPLY PD12

C ALPHADRIVE AD2

D ALPHADRIVE ADZ

E HS PURE

4. Technical Specifications

Input voltage	min. 28V DC – max. 30V DC
Rated voltage (cell pack)	19.2V DC
Permitted input current	max. 5A
Capacity	300mAh
Overcurrent protection (cell pack)	3A (PTC)
Protection degree	IP20
Battery type	NiMH
Charging time	approx. 24 hours
Self-discharging	after approx. 6 months
Dimensions and weight	
Length x width x height	147mm x 77mm x 42mm
Weight	approx. 460 g
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	< 2000 m

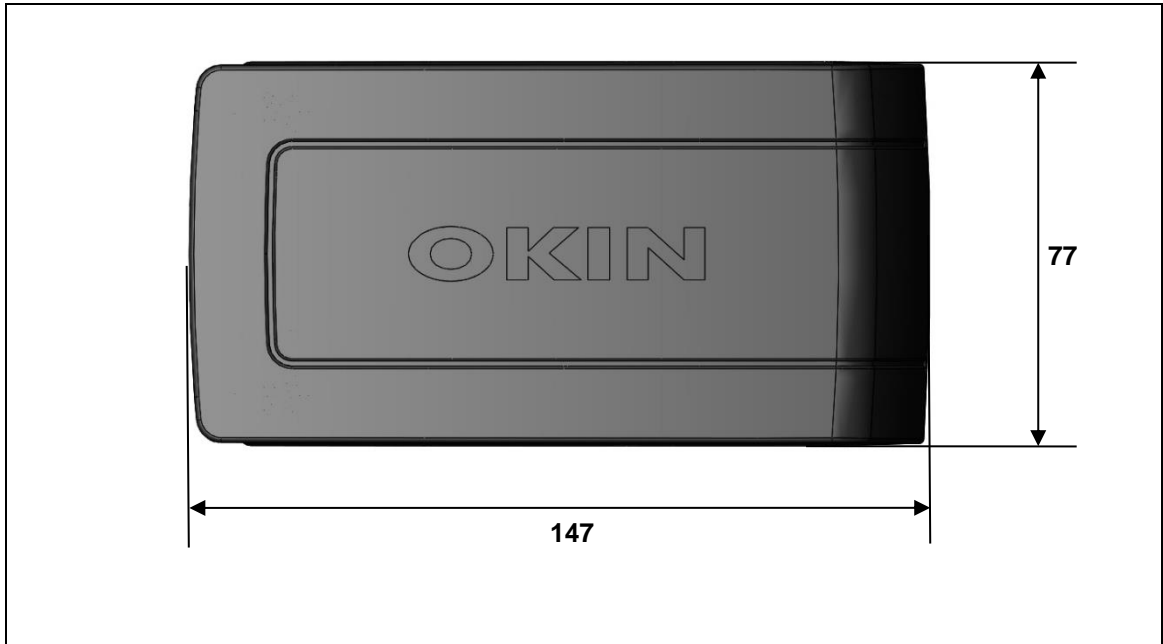


Figure 4 Dimensions of the PP300, top view (in mm)

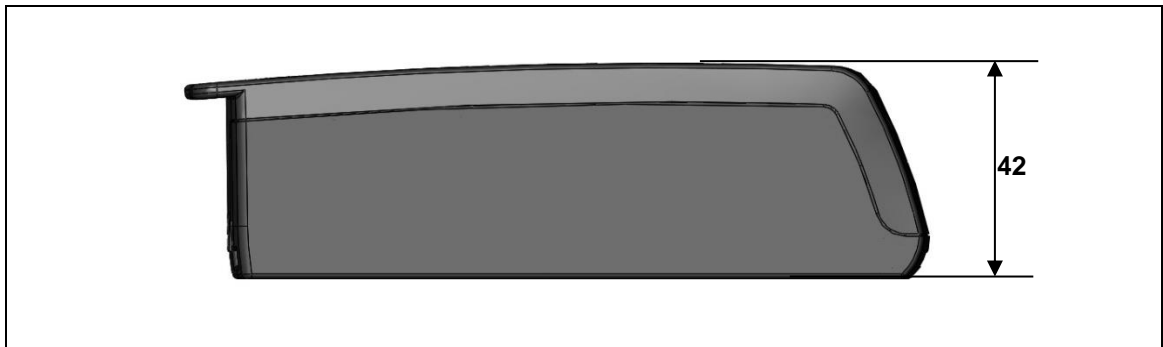


Figure 5 Dimensions of the PP300, side view (in mm)

5. Installation

5.1 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 PP300.

5.1.1 Avoiding electrical faults

The PP300 is connected via connecting cable to the components. When sizing your end product, remember that the connecting cable must never be squashed (e.g. by moving over it) during operations. Also ensure that no tension, compression or bending forces are acting on it.

5.1.2 Ensuring operational reliability during installation

The safety and reliability of the end product containing DewertOkin components can be ensured by using the proper construction methods described below.

5.2 Installation procedure

Before installing and connecting the PP300, make sure that you are observing all of the safety notices found in the "Safety notices to observe during installation" section.

The PP300 can be inserted into the mounting plate that is attached to the end product.

5.2.1 Mounting the PP300 to the end product

Four screws should be used at the four mounting points to attach the PP300 mounting plate to the end product. The mounting plate should be mounted so that it lies flat against its supporting base. In the end product, no mechanical forces (such as torsion) should be put on the mounting plate or the PP300. Such forces could lead to damage (such as cracks) in the housing.



CAUTION

Risk of accident

Work on electrical components should be conducted only when the mains power connection is unplugged.



CAUTION

Risk of accident

You should only connect and disconnect the cables when they are completely disconnected from any live current!

NOTICE

The following information is important when mounting the PP300:

- Charge the PP300 completely (for at least 24 hours) before first use.
- The installed batteries achieve their full capacity only after a few discharge cycles.

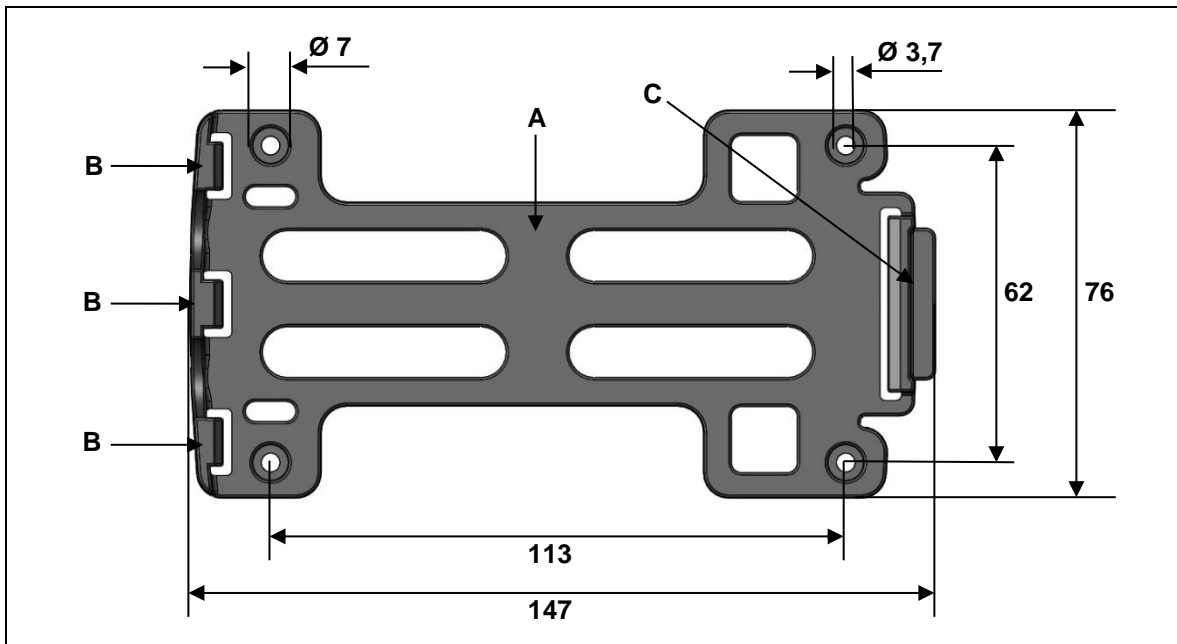


Figure 6 Mounting points on the mounting plate (specifications in mm)

- A** Mounting plate
- B** Back locking clips
- C** Front locking clips

Proceed as follows to install the mounting plate:

- Mark the positions of the mounting points on your end product.
- Drill out the mounting points.
- Screw the mounting plate (**A**) into position using four mounting points. Use suitable screws (e.g. ISO 7049 ST3,5 x 16) to attach it to your end product. Make sure that the mounting plate lies completely flat against its supporting base. This will prevent mechanical forces such as torsion.

Proceed as follows to insert the PP300:

- Place the battery in the back locking clip (**B**) of the mounting plate (**A**). Then push the battery into the front locking clip (**C**) until the battery snap in.

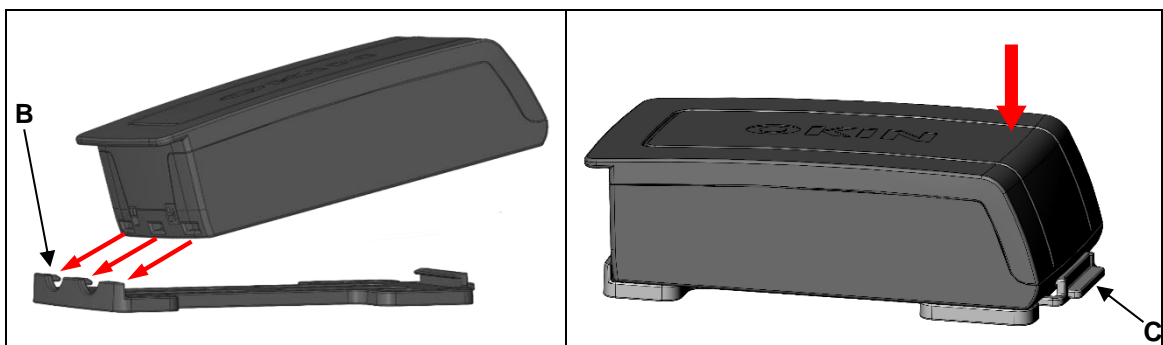


Figure 7 Insert the PP300 into the mounting plate

- B** Back locking clips
- C** Front locking clips

- You may now connect the connecting cables in the following order:
 1. Drive system (e.g. drive(s), control unit, handset,
 2. The PP300 to the drive system and the Power Supply (e.g. POWER SUPPLY PD12)
 3. Finally connect the mains plug of the power supply in the wall socket.

Proceed as follows to remove or change the PP300:

- You may now disconnect the connecting cables in the following order:
 1. Disconnect the mains plug of the power supply from the wall socket.
 2. The PP300 from the drive system and the Power Supply (e.g. POWER SUPPLY PD12)
 3. Drive system (e.g. drive(s), control unit, handset,)

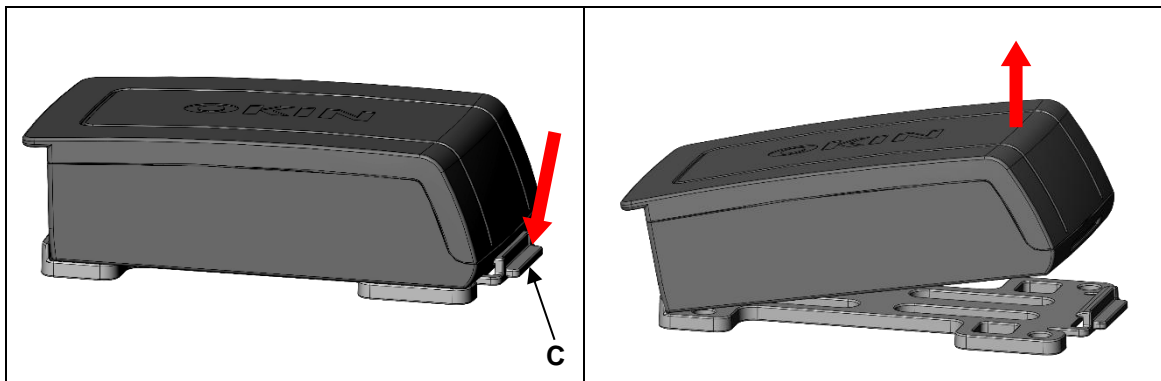


Figure 8 Remove or change the PP300 from the mounting plate

C Front locking clips

- Press on the locking clips (C) with a little force, the battery comes free and can be removed or replaced.

5.2.2 Electrical connection

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,
- or
- 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. Note: operating information

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 components (as defined in the Machinery Directive as a "partially assembled piece of machinery").

6.1 General information

- ▶ Only components that have been approved from DewertOkin should be connected to the PP300; only such approved components have been verified to work together. Ask your customer representative for more information.

CAUTION

The connecting cable for the PP300 must remain easily accessible during all operating situations!

Inspecting before the initial commissioning and after external impacts

Heavy mechanical impacts (which may occur during transport or by dropped objects) can sometimes result in electrical malfunctions.

CAUTION

In order to improve the operational reliability, take the following steps before the initial commissioning and after any extreme mechanical loads:

Check if the housing is damaged. If the housing shows signs of damage or if the device heats up excessively,

- Unplug the PP300 from the drive or control unit and take the drive system out of service.

Avoiding electrical risks

CAUTION

Make sure that all live (current-carrying) parts of the drive system and power supply cannot be touched. In particular, be sure that unused power and control unit connections are covered adequately.

Deep-discharge protection

The PP300 deactivated whenever the voltage of the PP300 has reached the shutdown threshold level. This deep discharge monitor protects the rechargeable battery from damages by deep discharge.

- When the rechargeable batteries are empty, the PP300 switches itself off.
- If the drive system is isolated from the input voltage (e.g. POWER SUPPLY PD12) for approximately 20 – 36 h, the PP300 switches itself off.(e.g. power failure, disconnect the power plug from the socket)
- After shutdown, the PP300 will be taken back into operation, a charging time of min. 4 h has to be considered

Shutting down the connected drive in case of emergency

**CAUTION**

Shutting down in an emergency is done by pulling out the connecting cable to the drive from the PP300 and the mains supply plug out of the socket. This connecting cable / power cable must be accessible at all times during operation so that the cable can be unplugged.

Avoiding cable damage

Be sure that your operating instructions inform the user about the possible cable risks.

**CAUTION**

The cables (particularly the connecting cable) should not be run over. In order to prevent injuries or damage to the PP300, no mechanical strain should be placed on the cables.

6.2 Information about commissioning the PP300

- Connect the PP300 with the drive system.
- Charge the AG7/AG9 completely (for at least 24 hours) before first use.(e.g. with POWER SUPPLY PD12)

6.3 Safety instructions for operating and charging the PP300

- As long as the power supply (e.g, POWER SUPPLY PD12) is supplied with the mains voltage and the PP300 is connected, the automatic charging circuitry ensures that the battery will always be ready.
- After mains independent usage of the drive system, the PP300 should be immediately re-charged by reconnecting the mains connection.
- The drives may be moved at the same time that the PP300 is being charged.

6.4 Instructions for operating and charging the PP300

- Do not open or destroy the PP300.
- Do not expose the PP300 to heat or to an open flame. Avoid storage in direct sunlight.
- If the batteries leak and you contact the leaked fluid, wash with plenty of water and seek medical attention immediately.
- Only use the PP300 for its originally intended purpose.
- Do not store the PP300 within reach of children.
- Do not throw the PP300 into fire or open it. Do not solder or weld on the PP300.
- Follow the applicable law and regulations governing the disposal of rechargeable batteries. Batteries may not be disposed with household waste.

6.5 Charging the PP300

The PP300 is charged by the power supply (e.g. POWER SUPPLY PD12) that it is connected to.

NOTICE

The PP300 should only be charged by power supply from DewertOkin since they have already been verified to work together.

Note the following information when charging:

- Charge the PP300 completely (for at least 24 hours) before first use.

7. 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.

Problem	Possible cause	Solution
The drive system has no function.	The drive system is defective.	Please contact your supplier or sales agent.
	There is no battery voltage.	If necessary, connect the PP300.
		If necessary, charge the PP300.
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.	Please contact your supplier or sales agent.
The battery-operated reset function of the drive system is not working.	A cable has been disconnected (to a drive or control keypad).	Check the cables and contacts and reinsert them, if required.
	The Deep discharge protection mechanism may have triggered.	If necessary, charge the PP300.
The battery-operated reset function of the drive system is not working.	The rechargeable battery is empty.	Charge the battery.
	The battery is not connected.	Connect the battery.
	The battery is defective.	Connect a new battery and dispose of the defective battery properly

8. Cleaning and Maintenance

8.1 Cleaning

- ▶ Clean the PP300 as needed using a dry antistatic cloth.

NOTICE

- Always disconnect the mains power plug from the power supply and the battery plug from the PP300 before you start to clean the unit!
- Never clean the PP300 in an automated washing system or with a high-pressure cleaner. Do not allow fluids to penetrate the drive. 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 connecting cable.

8.2 Note on maintenance and care

8.2.1 Maintenance information

- Plastic surfaces (such as the housing surface) should only be cleaned with a dry antistatic cloth.
- Charge the PP300 before using it. Always use a power supply from DewertOkin, e.g. POWER SUPPLY PD12.
- After the unit has been in storage for a long time, it may be necessary to charge the battery more than once before the complete capacity is restored.
- The storage time should not be longer than six months at the recommended storage temperature. The battery should be charged again after this interval. At higher storage temperatures, the battery should be recharged more frequently. This will help to prevent a complete discharge of the battery, which would damage it irreparably.

8.2.2 Care instructions

The NiMH batteries are maintenance-free. As with any rechargeable battery, the lifespan of the PP300 is limited. The actual lifespan is very dependent on the battery maintenance. In order to achieve the maximum lifespan for the battery, observe the battery level indicator and charge the batteries after any prolonged storage time (6 months storage should not be exceeded).

- Always keep the PP300 clean and dry. Do not short-circuit the PP300. Store the PP300 so that the terminals cannot be shorted to each other or other metallic objects.
- The PP300 should not be exposed to mechanical vibrations.
- Only to be used with PD12 POWER SUPPLY.
- Do not use organic solvents (thinning solvents, alcohol, oil, rust inhibitors or surface-active agents such as chemical cleaners, etc.) on the PP300.
- Retain the original documents for any future inquiries.
- The PP300 can perform optimally when the product is being used at normal room temperatures from 20°C to 25°C.
- Do not submerge the PP300 in water or store it in a humid location. It should be kept in a cool, dry place. The recommended temperature range for long-term storage is between +10 °C and +30 °C, at a relative humidity of 50%.
- Only use the PP300 for its specified, intended purpose.

9. Disposal

9.1 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)).

9.2 PP300 components

The PP300 consists of electronic components, cables and metal and plastic parts. You should observe all corresponding national and regional environmental regulations when disposing of the PP300.

The disposal of the end 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 PP300 components should not be disposed of with normal household waste!

9.3 Batteries

The disposal of the rechargeable battery is regulated in the EU by the 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 PP300 should not be disposed of with normal household waste!

EG-Konformitätserklärung

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

DewertOkin GmbH
Weststraße 1
32278 Kirchlegern
Deutschland - Germany

erklärt hiermit, dass das Produkt

EU Declaration of Conformity

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

declares that the following product

PP300¹⁾

die Anforderungen folgender EG-Richtlinien erfüllt:

Niederspannungsrichtlinie 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.

Angewendete Normen

- EN 62233:2008
- EN 62133:2017

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!

meets the requirements of the following EU directives:

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:

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 27 January 2020



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

¹⁾ mit DewertOkin Antriebssystem / with DewertOkin drive system

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