# Wall Mounted Battery charger





## **Table of Contents**

General Information	3
Foreword	
Service and Support	
Manufacturer Information	
Definitions Used in this Manual	3
Intended Use	
Operational Life	3
Product Identification	
Safety Instructions	
Battery and Battery Charger Safety Practices	
Installation Instructions	
Preparation	
Installation	
How to Use the Charger	
Charging your Battery	
Troubleshooting	
Technical Specifications	
Technical Data	
Dimensions	
Electromagnetic Compatibility	
Electromagnetic Compliance	8
Electromagnetic Immunity	

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## **General Information**

Thank you for purchasing the Wall Mounted Battery Charger.

Your charger is part of a series of quality products made for hospitals, nursing homes and other health care uses.

Our goal is to serve your needs and provide you with the best products available. We also offer trainings that will bring your staff maximum benefit from every Arjo product.

Please contact us if you have any questions about usage or maintenance of your Arjo product.

### **Foreword**

Please read this manual in its entirety before using your charger. The information in this manual is crucial for the proper usage and maintenance of the charger. It will help to protect your product and make sure it performs to your satisfaction. This manual must be read and understood as it contains safety related topics that may help you to prevent injuries.

WARNING: Use only this product with Arjo designated parts to avoid any lack of performance or injuries.

If a serious incident occurs in relation to this medical device, affecting the user, or the patient then the user or patient should report the serious incident to the medical device manufacturer or the distributor. In the European Union, the user should also report the serious incident to the Competent Authority in the member state where they are located.

Modifications to any Arjo product may affect its safety. Arjo will not be held responsible for any incidents that occur as a result of any unauthorized modification to its products.

## **Service and Support**

For more information, contact your Arjo agent which can offer support to maximize the long-term reliability, safety and value of the product. Contact your local agent for product replacement. This product does not require maintenance, and have no parts that can be replaced.

You can get additional copies of this manual from your local agent. When ordering, include the *Instructions for Use* product number (see front page) and product part number.

### **Manufacturer Information**

This product is manufactured by: ArjoHuntleigh AB

Hans Michelsensgatan 10 211 20 Malmö, SWEDEN

≅: +46 (0) 10-335 45 00
∃: +46 (0) 413-138 76
♦: www.arjo.com

## **Definitions Used in this Manual**

#### **WARNING:**

Means: Failure to understand and follow these instructions may result in injury to yourself and others.

#### **CAUTION:**

Means: Failure to follow these instructions may cause damage to the product.

### NOTE:

Means: This is important information regarding the correct use of the equipment.

## **Intended Use**

The charger is intended for charging Arjo batteries according to instructions herein. All other uses must be avoided.

The charger is for indoor use only, under normal conditions (0 °C to 40 °C [32 °F to 104°F], 90 % RH max).

## **Operational Life**

The charger has been made and tested for a life span of ten (10) years based on a usage rate of two (2) complete recharge (8 hours) per day. The life span corresponds to the safe operating time period before the product replacement. Aging of the unit and frequency of use are factors that have an impact on the product's life span.

## **Product Identification**

The unit's identification number (specification, model, serial number) appears on a label attached to the charger (see Fig. 4).

## **General Information**

## **Symbols Used**

Symbols	Key to Symbols
<b></b>	This symbol points out the manufacturer's name and address. May also point out manufacturing date.
C€	CE marking indicating conformity with European Community harmonised legislation.
Ť	This symbol means that the product must be kept dry.
REF	This symbol points out the manufacturer's catalogue number.
LOT	This symbol points out the manufacturer's lot number.
	This symbol means that you must refer to the <i>Instructions for Use</i> .
Ž	Waste Electrical and Electronic Equipment (WEEE) - do not dispose of this product in general household or commercial waste.
	The device is meant to be operated indoors only.

Symbols	Key to Symbols
	Class II electrical equipment. This term refers to electrical equipment in which protection against electric shock does not rely on basic insulation only.
SI	This symbol means that the charging module is certified by the Slovenian Institute of Quality and Metrology.
	This symbol means that the charging module is certified by TUV Rheinland.
PSE	This symbol means that the charging module complies with Product Safety Appliance & Material Standards.
<b>⊕</b> ∪s	This symbol means that the charging module has been approved by the Canadian Standards Association.
222	This symbol means that the charging module complies with European Norms Electrical Certification.

## **Safety Instructions**

# **Battery and Battery Charger Safety Practices**

- The charger must be placed in a low traffic area to prevent it from being hit.
- When plugging / unplugging the charger's power cord, grip the plug itself. Do not pull on the cord.
- Attach any loose power cord to prevent cable wear and to avoid strangulation.
- Install the charger away from heat sources or direct sunlight.
- The charger has been made for dry surroundings. It must not be installed in bathrooms, or other humid areas.
- Only use the charger in well ventilated areas.
- The charger must not be covered or exposed to dust or water. The metal contacts must be kept clean.
- The charger is for use only with Arjo 24V lead-acid battery type, as supplied with the lift.

- The battery pack may remain connected to the charger unit when it is fully charged without damage.
- Do not short-circuit the battery pack.
- Do not crush, puncture, open, dismantle or otherwise mechanically interfere with the batteries.
- The power socket must be easily accessible. If a faulty condition occurs, switch off the power by removing the plug from the wall socket.
- Do not store battery packs at a temperature higher than 40 °C (104 °F). Should the battery pack casing crack and cause contents to come in contact with skin or clothing, rinse immediately with water. If content comes in contact with eyes, rinse immediately with plenty of water and seek medical attention.
- The "Pb" symbol appears next to the recycling and trash bin symbols on the battery pack label.
   This means that the battery contains lead and that it must not be disposed of, but recycled.

## **Installation Instructions**

## **Preparation**

- Mount the charger on a suitable wall close to an electrical outlet.
- Check if wall plugs or anchors are needed. No hardware is supplied with the kit.
- Use anchors, plugs and screws (4) able to bear the weight of the charger with a battery in it. Each anchor point must resist to a pull force of 110 N (25 lb). Holes in mounting plate are 5 mm (3/16 in) diameter.

## Installation

 Use the charger mounting plate, as a template, to mark the four screw's location on the wall. Make sure the charger is held straight.

- 2) Drill holes (at markings) into the wall. Fit wall plugs into the wall if needed.
- 3) Hold charger to wall, fit and tighten screws, see Fig. 1.
- Plug the charger using the power cord supplied with the kit.
- 5) Attach loose power cord.

**WARNING:** Precaution shall be taken, especially in home care environment, to prevent strangulation risks by routing cables properly avoiding loops.

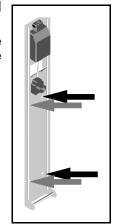


Fig. 1

## How to Use the Charger

## **Battery Pack**

Battery life is variable (2-3 years) and mainly depends on proper charging practices.

Recharge the batteries on a regular basis to prolong their life span. Avoid the batteries from reaching a low charge state.

Remove the battery pack from the lift when it is not used for a long period.

NOTE: Batteries must be charged for at least 8 hours prior to the initial use in order to reach optimal life time.

## **Charging your Battery**

Insert the battery pack into the charger unit and push it in firmly (see Fig. 2).

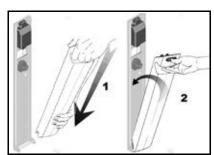


Fig. 2

WARNING: Hold the battery pack firmly to ensure it does not drop. Dropping can cause damages resulting in personal injuries.

- 2) Connect the charger into an AC outlet using the proper power cord.
- 3) The charger's LED turns amber during charging. The battery pack is ready for use when the LED turns green. A depleted battery pack can take up to eight hours to reach full charge state.

4) When the batteries are fully charged, remove the pack from the charger. To do so, press the red button and pull the battery pack towards you (see Fig. 3). The LED remains green to show that the charger is powered.



Fig. 3

NOTE: It is recommended to unplug the charger when it is not being used.

CAUTION: Refer to your local regulation for recycling and disposal of battery packs.

## **Troubleshooting**

The charger's LED does not light up:

- Check if the power cord is plugged into the wall outlet and into the charger.
- Check if there is power in the wall outlet.

If the LED still not lit, contact your Arjo agent to replace the charger.

## **Technical Specifications**

### **Technical Data**

PRODUCT INFORMATION	Wall Mounted Battery Charger
Charger model	NDA8200
Charging module model	FW7318M/24 (FRIWO Geratebau GmbH)
Total weight of charger	2 kg
Compatible with battery type and part number	Arjo 24V lead-acid batteries part numbers: NDA0100 and NDA0200
Nominal input voltage, frequency, and current consumption	100-240 VAC, 50-60 Hz, 500-700 mA
Nominal output voltage and current	24 VDC, 1 A
Degree of protection	IP40
Insulation class	Class II
Operating temperature / humidity range	0 °C to 40 °C (32 °F to 104 °F), 90 % RH max
Storage temperature / humidity range	-40 °C to 70 °C (-40 °F to 158 °F), 10 % RH to 95 % RH
The charging module is compliant to IEC 60601-1	series including applicable collateral standards and national

The charging module is compliant to IEC 60601-1 series including applicable collateral standards and national deviations. The charging module is also compliant to EN 60335-1 and EN 60335-2-29.

**WARNING**: Portable RF communications equipment (including peripherals such as antenna cables and external antennas) should be used no closer than 30 cm to any part of the Wall Mounted Battery Charger, including cables specified by the manufacturer. Otherwise, performance degradation of this equipment could result. See "Electromagnetic Compatibility" section for more details.

**WARNING**: This equipment is not suitable for use in the presence of flammable anesthetic mixture with air or oxygen, or with nitrous oxide.

Safe Disposal at End of Life			
Package	Cardboard, recyclable		
Electrical and electronic componants	Charger systems having electrical and electronic components or an electrical cord should be disassembled and recycled per Waste of Electrical and Electronic Equipment (WEEE) or in accordance with local or national regulation.		

## **Technical Specifications**

### **Dimensions**

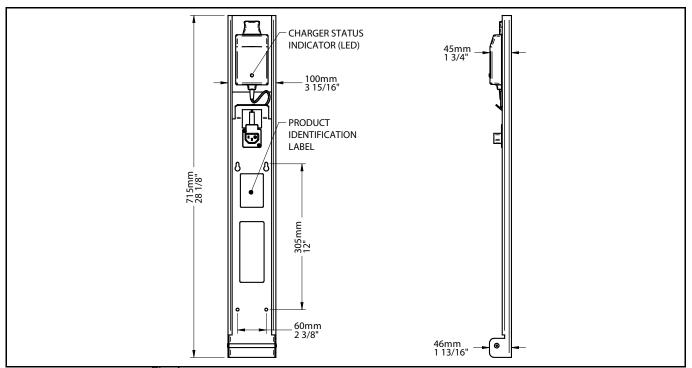


Fig. 4

### **UK SYMBOL EXPLANATION**

This section is only applicable to United Kingdom (UK) market when UK marking is applied to the Arjo medical device labelling.



UK marking indicating conformity with UK Medical Devices Regulations 2002 (SI 2002 No 618, as amended)

### **UK Responsible Person & UK Importer:**

### Arjo (UK) Ltd, ArjoHuntleigh House, Houghton Regis. LU5 5XF

Is the appointed UK Responsible Person as defined in UK Medical Devices Regulations 2002 (SI 2002 No 618, as amended).

For Northern Ireland (NI) CE marking will still apply until further amendment to applicable regulations.

## **Electromagnetic Compatibility**

## **Electromagnetic Compliance**

The Wall Mounted Battery Charger has been tested for compliance with current regulatory standards regarding its capacity to block EMI (electromagnetic interference) from external sources.

Nonetheless, some procedures can help reduce electromagnetic interferences:

- Ensure that other devices in patient-monitoring and/or life-support areas comply to accepted emissions standards.
- Maximize the distance between electro-medical devices. High-powered devices may produce EMI that can affect the charger.

For more information on how to manage the unit's RF electromagnetic environment, please consult the AMI TIR 18-1997 - Guidance on Electromagnetic Compatibility of Medical Devices for Clinical/Biomedical Engineers.

WARNING: Use of this equipment adjacent to or stacked with other equipment should be avoided because it could result in improper operation. If such use is necessary, this equipment and the other equipment should be observed to verify that they are operating normally.

WARNING: The equipment may cause radio interference or may disrupt the operation of nearby equipment. It may be necessary to take action, such as reorienting, relocating the equipment or shielding the location.

WARNING: Use of accessories, cables and spare parts other than those specified or provided by Arjo could result in increased electromagnetic emissions or decreased electromagnetic immunity of this equipment and result in improper operation.

## **Electromagnetic Emissions**

## Guidance and Manufacturer's Declaration - Electromagnetic Emissions - For all Equipment and Systems

The Wall Mounted Battery Charger is intended for use in the electromagnetic environment indicated below. The customer or the user of the Wall Mounted Battery Charger should assure that it is used in such an environment.

<b>Emissions test</b>	Compliance	Electromagnetic environment - guidance
RF emissions CISPR 11	Group 1	The Wall Mounted Battery Charger uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11	Class B	
Harmonic emissions IEC 61000-3-2	Class A	The Wall Mounted Battery Charger is suitable for use in all establishments, including domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic
Voltage fluctuations/flicker emissions IEC 61000-3-3	Complies	purposes.

## **Electromagnetic Compatibility**

## **Electromagnetic Immunity**

## Guidance and Manufacturer's Declaration - Electromagnetic Immunity - For all Equipment and Systems

The Wall Mounted Battery Charger is intended for use in electromagnetic environment specified below. The customer or the user of the Wall Mounted Battery Charger should assure that it is used in such an environment.

Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment - guidance
Electrostatic discharge (ESD) IEC 61000-4-2	±8 kV contact ±15 kV air	±8 kV contact ±15 kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.
Electrical fast transient/burst IEC 61000-4-4	±2 kV, AC Mains 100 kHz repetition frequency	±2 kV, AC Mains 100 kHz repetition frequency	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	±2 kV AC Mains, Lines to Ground ±1 kV, AC Mains, Line to Line	±2 kV AC Mains, Lines to Ground ±1 kV, AC Mains, Line to Line	Mains power quality should be that of a typical commercial or hospital environment.
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	0% <i>U</i> <sub>τ</sub> ; 0,5 cycle At 0°, 45°, 90°, 135°, 180°, 225°, 270° and 315°  0% <i>U</i> <sub>τ</sub> ; 1 cycle and 70% <i>U</i> <sub>τ</sub> ; 25/30 cycles  Single phase: at 0°  0% <i>U</i> <sub>τ</sub> ; 250/300 cycle	0% <i>U</i> <sub>T</sub> ; 0,5 cycle At 0°, 45°, 90°, 135°, 180°, 225°, 270° and 315°  0% <i>U</i> <sub>T</sub> ; 1 cycle and 70% <i>U</i> <sub>T</sub> ; 25/30 cycles  Single phase: at 0°  0% <i>U</i> <sub>T</sub> ; 250/300 cycle	Mains power quality should be that of a typical commercial or hospital environment.
Power frequency (50/ 60 Hz) magnetic field IEC 61000-4-8	30 A/m 50/60 Hz	30 A/m 50/60 Hz	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercials or hospital environment.

NOTE:  $U_T$  is the AC mains voltage prior to application of the test level.

# **Electromagnetic Compatibility**

(continued)

Guidance and Manufacturer's Declaration - Electromagnetic Immunity - For all Equipment and Systems				
Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment - guidance	
Conducted RF IEC 61000-4-6	3 V outside ISM bands between 0.15-80 MHz	3 V outside ISM bands between 0.15-80 MHz	<b>N1/A</b>	
	6 V inside ISM and amateur radio bands between 0.15-80 MHz	6 V inside ISM and amateur radio bands between 0.15-80 MHz	N/A	
Radiated RF IEC 61000-4-3	10 V/m 80 MHz to 2.7 GHz	10 V/m 80 MHz to 2.7 GHz	N/A	
Proximity fields from RF wireless communications equipment IEC 61000-4-3	380 - 390 MHz 27 V/m; PM 50%; 18 Hz	380 - 390 MHz 27 V/m; PM 50%; 18 Hz		
	430 - 470 MHz 28 V/m; (FM ±5 kHz, 1 kHz sine) PM; 18 Hz	430 - 470 MHz 28 V/m; (FM ±5 kHz, 1 kHz sine) PM; 18 Hz		
	800 - 960 MHz 28 V/m; PM 50%; 18 Hz	800 - 960 MHz 28 V/m; PM 50%; 18 Hz		
	1700 - 1990 MHz 28 V/m; PM 50%; 217 Hz	1700 - 1990 MHz 28 V/m; PM 50%; 217 Hz	N/A	
	2400 - 2570 MHz 28 V/m; PM 50%; 217 Hz	2400 - 2570 MHz 28 V/m; PM 50%; 217 Hz		
	5100 - 5800 MHz 9 V/m; PM 50%; 217 Hz	5100 - 5800 MHz 9 V/m; PM 50%; 217 Hz		
	704 - 787 MHz 9 V/m; PM 50%; 217 Hz	704 - 787 MHz 9 V/m; PM 50%; 217 Hz		

**AUSTRALIA** Arjo Australia Building B, Level 3 11 Talavera Road

Macquarie Park, NSW, 2113,

Australia

Phone: 1800 072 040

BELGIQUE / BELGIË Arjo Belgium Evenbroekveld 16 9420 Erpe-Mere

Phone: +32 (0) 53 60 73 80 Fax: +32 (0) 53 60 73 81 E-mail: info.belgium@arjo.com

Ario Brasil Equipamentos Médicos Ltda Rua Marina Ciufuli Zanfelice, 329 PB02

Galpão - Lapa

São Paulo - SP - Brasil CEP: 05040-000 Phone: 55-11-3588-5088

E-mail: vendas.latam@arjo.com E-mail: servicios.latam@arjo.com

#### CANADA

Arjo Canada Inc.

90 Matheson Boulevard West

Suite 350

CA-MISSISSAUGA, ON, L5R 3R3 Tel/Tél: +1 (905) 238-7880

Free: +1 (800) 665-4831 Fax: +1 (905) 238-7881 E-mail: info.canada@arjo.com

#### ČESKÁ REPUBLIKA

Arjo Czech Republic s.r.o. Na Strzi 1702/65 140 00 Praha Czech Republic

Phone No: +420225092307 E-mail: info.cz@arjo.com

#### DANMARK

Arjo A/S

Vassingerødvei 52 DK-3540 LYNGE Tel: +45 49 13 84 86

Fax: +45 49 13 84 87

E-mail: dk\_kundeservice@arjo.com

### DEUTSCHLAND

Arjo GmbH

Peter-Sander-Strasse 10 DE-55252 MAINZ-KASTEL Tel: +49 (0) 6134 186 0 Fax: +49 (0) 6134 186 160 E-mail: info-de@arjo.com

#### **ESPAÑA**

ARJO IBERIA S.L. Poligono Can Salvatella c/ Cabanyes 1-7 08210 Barberà del Valles Barcelona - Spain

Telefono 1: +34 900 921 850 Telefono 2: +34 931 315 999

**FRANCE** Arjo SAS

2 Avenue Alcide de Gasperi

CS 70133

FR-59436 RONCQ CEDEX Tél: +33 (0) 3 20 28 13 13 Fax: +33 (0) 3 20 28 13 14 E-mail: info.france@arjo.com

#### HONG KONG

Arjo Hong Kong Limited

Room 411-414, 4/F, Manhattan Centre, 8 Kwai Cheong Road, Kwai Chung, N.T.,

HONG KONG Tel: +852 2960 7600 Fax: +852 2960 1711

#### ITALIA

Arjo Italia S.p.A. Via Giacomo Peroni 400-402 IT-00131 ROMA Tel: +39 (0) 6 87426211 Fax: +39 (0) 6 87426222

E-mail: Italy.promo@arjo.com

#### MIDDLE EAST

Arjo Middle East FZ-LLC Office 908, 9th Floor, HQ Building, North Tower, Dubai Science Park, Al Barsha South P.O. Box 11488, Dubai, United Arab Emirates Direct +971 487 48053 Fax +971 487 48072 Email: Info.ME@arjo.com

#### **NEDERLAND**

Arjo Nederland BV Biezenwei 21 4004 MB TIEL Postbus 6116 4000 HC TIEL

Tel: +31 (0) 344 64 08 00 Fax: +31 (0) 344 64 08 85 E-mail: info.nl@arjo.com

#### **NEW ZEALAND**

Ario Ltd 34 Vestey Drive Mount Wellington NZ-AUCKLAND 1060 Tel: +64 (0) 9 573 5344 Free Call: 0800 000 151 Fax: +64 (0) 9 573 5384

E-mail: nz.info@Arjo.com

#### NORGE

Arjo Norway AS Olaf Helsets vei 5 N-0694 OSLO Tel: +47 22 08 00 50 Faks: +47 22 08 00 51

E-mail: no.kundeservice@arjo.com

### ÖSTERREICH

Arjo Austria GmbH

Lemböckgasse 49 / Stiege A / 4.OG

A-1230 Wien Tel: +43 1 8 66 56 Fax: +43 1 866 56 7000

#### **POLSKA**

Arjo Polska Sp. z o.o. ul. Ks Piotra Wawrzyniaka 2 PL-62-052 KOMORNIKI (Poznań)

Tel: +48 61 662 15 50 Fax: +48 61 662 15 90 E-mail: arjo@arjo.com

#### **PORTUGAL**

Arjo em Portugal MAQUET Portugal, Lda. (Distribudor Exclusivo) Rua Poeta Bocage n.º 2 - 2G PT-1600-233 Lisboa Tel: +351 214 189 815 Fax: +351 214 177 413 E-mail: Portugal@arjo.com

### SUISSE / SCHWEIZ

Arjo Switzerland AG Fabrikstrasse 8 Postfach CH-4614 HÄGENDORF Tél/Tel: +41 (0) 61 337 97 77 Fax: +41 (0) 61 311 97 42

#### SUOMI

Arjo Scandinavia AB Riihitontuntie 7 C 02200 Espoo Finland

Puh: +358 9 6824 1260

E-mail: Asiakaspalvelu.finland@arjo.com

#### **SVERIGE**

Arjo International HQ Hans Michelsensgatan 10 SE-211 20 MALMÖ Tel: +46 (0) 10 494 7760 Fax: +46 (0) 10 494 7761 E-mail: kundservice@arjo.com

#### **UNITED KINGDOM**

Ario UK and Ireland Houghton Hall Park Houghton Regis UK-DUNSTABLE LU5 5XF Tel: +44 (0) 1582 745 700

Fax: +44 (0) 1582 745 745 E-mail: sales.admin@arjo.com

#### USA

Arjo Inc.

2349 W Lake Street Suite 250 US-Addison, IL 60101 Tel: +1 (630) 307-2756 Free: +1 (800) 323-1245 Fax: +1 (630) 307 6195 E-mail: us.info@arjo.com

#### JAPAN.

Arjo Japan K.K.

東京都港区虎ノ門三丁目7番8号 ランディック第2虎ノ門ビル9階 Tel: +81 (0)3-6435-6401 Fax: +81 (0)3-6435-6402 E-mail: info.japan@arjo.com

www.arjo.com

At Arjo, we believe that empowering movement within healthcare environments is essential to quality care. Our products and solutions are designed to promote a safe and dignified experience through patient handling, medical beds, personal hygiene, disinfection, diagnostics, and the prevention of pressure injuries and venous thromboembolism. With over 6500 people worldwide and 65 years caring for patients and healthcare professionals, we are committed to driving healthier outcomes for people facing mobility challenges.



ArjoHuntleigh AB Hans Michelsensgatan 10 211 20 Malmö, Sweden www.arjo.com



