



## Dual Port isolated USB Charger

3A – R-net cable

P010-61

3A – DX cable

P010-62

### Contact & Product

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**User & Installation manual**

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## Important information about this Manual

Congratulations for choosing a mo-Vis product! If you would like to learn more about mo-Vis and its products, we invite you to visit our website: [www.mo-vis.com](http://www.mo-vis.com).

Before you install or begin using this product, it is important that you read and understand the content of these installation and operating instructions, the safety instructions in particular.

The installation instructions will guide you as an installer through the options and possibilities with the mo-Vis product.

The operating instructions are primarily intended to acquaint you with the functions and characteristics of the mo-Vis product and how you can use it in the best manner possible. They also contain important safety and maintenance information, as well as describe possible problems that can arise during use. Always keep the operating instructions handy in connection with your wheelchair, since the need for important information can arise concerning its use, safety and maintenance.

All information, pictures, illustrations and specifications are based on the product information that was available at the time of printing. Pictures and illustrations shown in these instructions are representative examples and are not intended to be exact depictions of the various parts of the product.

We reserve the right to make changes to the product without prior notice.

### **Ordering documentation**

You can download additional copies of this User & Installation manual on the mo-Vis website: [www.mo-vis.com](http://www.mo-vis.com).



### **Important to know !**

*You can always find and download the latest version of all our manuals from our website at*

<http://www.mo-vis.com/en/support/downloads>

## Support, scrapping and spare parts

### ***Technical support***

In case of technical problems, we advise you contact your dealer.

If the dealer is not available, or unknown, please contact mo-Vis bvba by email [support@mo-vis.com](mailto:support@mo-vis.com) or by phone +32 9 335 28 60.

Always state the device serial number when contacting mo-Vis. This ensures you are provided with the correct information.

### ***Spare parts and accessories***

Spare parts and accessories must be ordered by the dealer at mo-Vis bvba.

### ***Scrapping & recycling***

For scrapping, adhere to your local waste legislation.

Dispose of obsolete electronic parts responsibly in accordance with local recycling regulations.

# Warranty

mo-Vis bvba warrants the unit to be free from defects in material and workmanship for a period of 2 years under proper use, care and service. All warranties only cover parts and do not extend beyond the initial purchaser from an authorised mo-Vis dealer.

## ***Start of the warranty period***

Each warranty shall begin on the date the product is first delivered to the customer.

## ***Repair and replacement***

For warranty service, we advise you contact the dealer from whom the product was purchased. In the event of a defect in material or workmanship, the dealer must obtain a return authorisation (RA) number from mo-Vis and the product must be shipped to a service centre designated by mo-Vis. mo-Vis will repair or, at mo-Vis' option, replace any product covered by the warranty.

## ***Disclaimer and Limitations of Remedies***

The express warranties set forth in this agreement are in lieu of all other warranties of merchantability or fitness of purpose. In no event shall mo-Vis be liable for any direct, indirect, incidental or consequential damages resulting from any defect in this product. Warranty of parts subject to "normal wear and tear" (e.g. pads, joystick balls, batteries ...) are not covered in the warranty except as it applies to defects in material or construction.

## ***Amendments***

No person is authorised to alter, extend or waive the warranties of mo-Vis.

## ***Voiding of warranties***

The foregoing warranties are contingent upon the proper installation, use, maintenance and care of the product. The warranty will be void if the product has been installed or used improperly, or if it has been repaired or any part replaced by persons other than mo-Vis or an authorised dealer. The unit is considered as a non-serviceable part.

The addition of equipment or features that are not manufactured or recommended by mo-Vis could affect the intended function of the mo-Vis product and may invalidate the warranty.

## **Understanding usage**

The health care professional (authorised installer) is responsible for understanding the intended use of the mo-Vis equipment, the specifications and its programming parameters. mo-Vis cannot be held responsible for damage caused by incorrect installation or incorrect use of the product. Misuse, mishandling, or storage is not covered by this warranty.

## **Safety precautions**

### **General**

The Dual Port isolated USB Charger, 3A with R-net / DX cable is intended to be fitted on any power wheelchair with R-net/ DX.

Incorrect use or installation may lead to risk of injury to the user and damage to the wheelchair or other property.

In order to reduce these risks, you should carefully read this instruction manual, paying particular attention to the safety instructions and warning texts.

Only install this product on a wheelchair where the wheelchair manufacturer allows the installation of third party parts.

Any unauthorised use of the product may lead to increased risk of accident. Carefully follow the recommendations in this manual in order to prevent accidents from use.

The Dual Port isolated USB Charger, cable included, is a non-serviceable part.

In case of doubt for alterations and adjustments, always contact a qualified service engineer.

In case any serious incident occurs in relation to this device, this should be reported immediately to mo-Vis and the competent authority of the Member State in which the user is established.

### **Warning labels**

This manual contains the following warning labels, which are intended to draw attention to situations that could lead to unwanted problems, e.g. personal injury or damage to the wheelchair.



**CAUTION!**

*Please use caution where this symbol appears.*



**WARNING!**

*Please use extreme caution where this warning symbol appears. Failure to observe warnings can lead to personal injury or property damage.*

**CAUTION!****Limited liability**

*mo-Vis accepts no liability for personal injury or damage to property that may arise from the failure of the user or other persons to follow the recommendations, warnings and instructions in this manual.*

**CAUTION!****EMC Requirements**

*The electronics of a power wheelchair and its options can be affected by external electromagnetic fields (e.g. from mobile telephones). Similarly, the electronics of the wheelchair or options themselves can also emit electromagnetic fields that can affect the immediate surroundings (for example certain alarm systems in businesses).*

*The limit values for Electromagnetic Compatibility (EMC) with respect to power wheelchairs are set in the harmonised standards for the EU in the Medical Devices Directive, No. 93/42/EEC. The Dual Port isolated USB Charger complies with these limit values.*

**WARNING!****Assembly**

*The unit should only be installed or adjusted by a qualified service engineer or someone with adequate knowledge to perform the adjustment in an expert manner.*

**Maintenance and service**

*Carry out only the service and maintenance activities specified in this manual, as long as you comply with the demands stated in this manual for a specific action. All other service, alterations to and interventions on the Dual Port isolated USB Charger must be carried out by a qualified service engineer or someone with adequate knowledge to perform the adjustment in an expert manner. In case of doubt, contact a qualified service engineer or mo-Vis.*

*Use only spare parts or accessories approved or recommended by mo-Vis. All other use could lead to changes which might impair the function and safety of the product. It could also lead to the warranty becoming void.*

## Design and function of the Dual Port isolated USB Charger

### **Intended use**

The Dual Port isolated USB Charger can be used to charge any USB-powered device with a power consumption of up to 3 A. The unit is powered by the wheelchair (24 V) and will transform the 24 V input voltage to an USB output voltage.

Dual Port isolated USB Charger 3A exists in two versions:

- R-net (P010-61): for wheelchairs with R-net
- DX (P010-62): for wheelchairs with DX

### **Dual port**

The Dual Port isolated USB Charger has 2 ports. One port is specifically designed for Apple devices, one port for Samsung and other devices.

### **Integrated safety**

There is no danger to connecting a device to a wrong USB port. Integrated safety circuits will prevent the device to be overcharged. It is possible that the device will not charge, or will charge slowly. In that case, insert the device loading cable into the other USB port.

### **Multiple devices**

You may plug in multiple devices to the Dual Port isolated USB Charger 3A, as long as the max. power consumption of all plugged-in devices does not exceed 3A. Exceeding this limit will result in slow or no charging.

### **Indicator light**

A green LED on the unit indicates when the unit is powered. The USB charger can function in 2 different ways :

- Only powered when the wheelchair electronic is switched on (default setting).

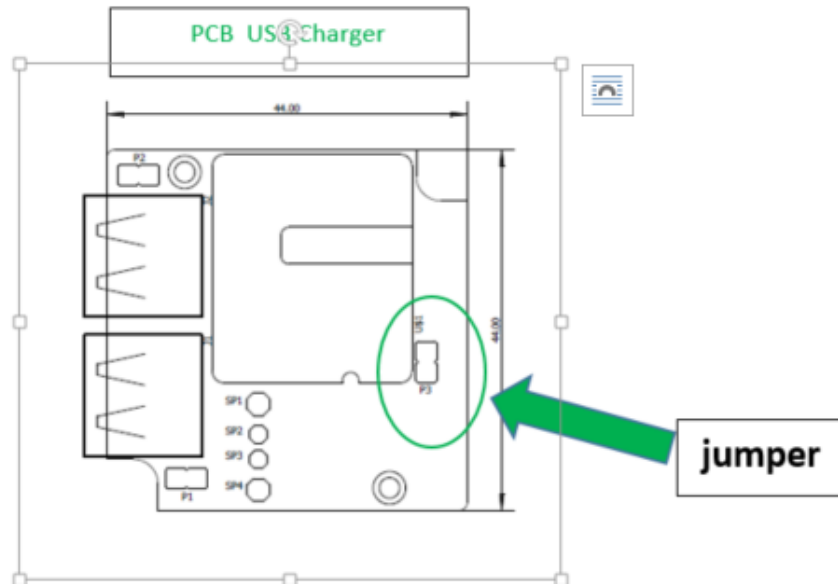


- Continuously powered : power chair powered on or powered off makes no difference. The charger is always powered and the indicator led is always On.



**CAUTION!**

*There is continuous battery consumption.*



Open the housing of the charger, position the jumper over the 2 pins of the 2 pin header and the charger will work continuously.

**USB covers**

The USB connections of the Dual Port isolated USB Charger have protective covers to avoid the intrusion of dust or moist.



**CAUTION!**

*Before inserting a connector, remove the protective cover.*



**CAUTION!**

*Always keep the protective cover in case the connections are not used.*

## Parts and accessories

### *Available versions*

- Dual Port isolated USB Charger 3A – R-net (P010-61): for powered wheelchairs with R-net
- Dual Port isolated USB Charger 3A – DX (P010-62): for powered wheelchairs with DX

### *Not included*

USB output cables are not included.

## Installation instructions

### Preparations

#### *Qualified service engineer*

Only a qualified service engineer may install the Dual Port isolated USB Charger.

#### *Serial number sticker*

The additional serial number sticker that can be found in the package should be adhered to the back of this manual.

### Installing the Dual Port isolated USB Charger

Install the Dual Port isolated USB Charger as follows:

1. Connect the R-net or DX plug of the charger to the wheelchair R-net or DX socket.
2. Secure the Dual Port isolated USB Charger to the wheelchair with screws. Insert the screws at both sides of the unit through the pre-fitted openings.  
You may also use double-sided tape or Velcro at the backside of the unit.
3. Default setting : Switch on the R-net or DX interface. A green indicator LED on the unit turns on.  
Continuous setting : the green Led indicator is always on.
4. Connect the USB cable of the device to the Dual Port isolated USB Charger.

**CAUTION!**

*Before inserting a connector, remove the protective cover.*

5. Guide and secure all cabling on the wheelchair.

**WARNING!**

*Mind damaging the unit and wiring. Make sure the cabling is mounted in such a way the excessive wear and tear is avoided.*

## Using the Dual Port isolated USB Charger

### Use conditions

The Dual Port isolated USB Charger is intended for use as installed by the dealer, in accordance to the installation instructions in this manual.

The foreseen use conditions are communicated by the dealer or service engineer to the user and/or attendant during the first time use.

### Troubleshooting

Below, is a list of possible problems and their probable cause.

Problem	Possible cause	Remedy
indicator LED is off.	Wheelchair not powered on (only with 'default setting' : see page 7 : indicator light).	Power on the wheelchair.
	Disconnected R-net or DX plug.	Plug the cable into the R-net / DX socket of the wheelchair.
	Faulty USB cable, causing short-circuit.	Replace the USB cable
Indicator LED is on and device has no power.	Disconnected USB cable.	Reconnect the USB cable.
	Device plugged into the wrong inlet.	Connect device to the other inlet.

Problem	Possible cause	Remedy
Device does not charge or charges too slow.		ATTENTION: <i>both inlets have different loading protocols (Apple/Samsung). It is advised to match the inlet with the device, but in some cases, a better charging may be obtained by using the other inlet.</i>
	Multiple devices connected and consume more than 3A	Disconnect one or more devices.
	Problem with the device.	Disconnect device and check device.

If the problem persists after intervening, please contact your local dealer or mo-Vis to attend to the problem.

# Maintenance

## *Cleaning*

- Gently remove dust and dirt with a damp cloth.
- The use of non-aggressive disinfectant cleaning agents is allowed.



## **WARNING!**

*Do not immerse the Unit in water or use excessive amounts of liquid.*

## *Unit maintenance*

The Dual Port isolated USB Charger is maintenance-free. Under regular use circumstances, the unit does not require additional maintenance.

## Technical data

### ***Name***

- Dual Port isolated USB Charger, 3 A – R-Net cable (P010-61)
- Dual Port isolated USB Charger, 3 A – DX cable (P010-62)

### ***Power consumption***

- In off mode (wheelchair is switched off): 0.08 mA
- in unloaded mode: 40 mA
- maximum load (3 A) : 720 mA

### ***Output current***

- maximum continuous peak: 3.3 A

### ***Isolation voltage***

- 2250 Vdc

### ***Connections***

- R-net plug (female connector) (P010-61), with 25 cm (9.84 in)cable  
DX plug (female connector) (P010-62), with 100 cm (3.28 ft)cable
- Universal USB 2.0 connection
- Apple USB 2.0 connection

### ***Dimensions***

20 mm X 66 mm x 50 mm (HxWxD)

0.79 in x 2.60 in x 1.97 in (HxWxD)



Installation date: . . / . . / . . . .

Dealer: . . . . .

***Dealer stamp:***



***Serial number sticker***

