



DEWETRON

▼

DW2-UPS-250-DC

TECHNICAL REFERENCE MANUAL

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WELCOME TO THE WORLD OF DEWETRON!

Congratulations on your new device! It will supply you with accurate, complete and reproducible measurement results for your decision making.

Look forward to the easy handling and the flexible and modular use of your DEWETRON product and draw upon more than 25 years of DEWETRON expertise in measurement engineering.

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ISO9001



THE MEASURABLE DIFFERENCE.

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Thank you!

Thank you very much for your investment in DEWETRON's unique data acquisition systems. These are top-quality instruments which are designed to provide you years of reliable service. This guide has been prepared to help you get the most from your investment, starting from the day you take it out of the box, and extending for years into the future.

This guide includes important startup notes, as well as safety notes and information about keeping your DEWETRON system in good working condition over time.

We strongly suggest that you read this entire manual, especially the safety and care sections, as well as to avoid damaging your DEWETRON system.

What is the DW2-UPS-250-DC?

The DW2-UPS-250-DC is an external UPS and multi-battery charger with an isolated DC input for DEWE2 instruments, delivering a total output power of 250 W. The DW2-UPS-250-DC is mechanically compatible with DEWE2-A4/M4 but for flexible use, there are longer cables available.

The DW2-UPS-250-DC comes with 3 x 89 Wh batteries as well as an external 115 / 230 VAC adaptor for charging the batteries.

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PREFACE

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Training

DEWETRON offers training at various offices around the world several times each year. DEWETRON headquarters in Austria have a very large and professional conference and seminar center, where training classes are conducted on a regular basis starting with sensors and signal conditioning, A/D technology and software operation. For more information about training services, please visit:

<http://www.dewetron.com/services/dewetron-academy/>

Dewetron Inc. in the USA also has a dedicated training facility connected to its headquarters, located in Rhode Island. For more information about training services in the US, please visit:

<http://www.dewetron.us/service-support/system-training-usa/>

Calibration

Every instrument needs to be calibrated at regular intervals. The standard norm across nearly every industry is annual calibration. Before your DEWETRON data acquisition system is delivered, it is calibrated at our DEWETRON headquarter. Each of this system is delivered with a certificate of compliance with our published specifications. Detailed calibration reports from our calibration system are available for purchase with each order. We retain them for at least one year, so calibration reports can be purchased for up to one year after your system was delivered.

Support

DEWETRON has a team of people ready to assist you if you have any questions or any technical difficulties regarding the system. For any support please contact your local distributor first or DEWETRON directly.

For Asia and Europe, please contact:

DEWETRON GmbH
Parkring 4
8074 Grambach
AUSTRIA
Tel.: +43 316 3070
Fax: +43 316 307090
Email: support@dewetron.com
Web: <http://www.dewetron.com>

The telephone hotline is available
Monday to Friday between
08:00 and 17:00 CET (GMT +1:00)

For the Americas, please contact:

DEWETRON, Inc. (HQ USA)
2850 South County Trail, Unit 1
East Greenwich, RI 02818
U.S.A.
Tel.: +1 401 284 3750
Toll-free: +1 866 598 3393
Fax: +1 401 284 3755
Email: us.support@dewetron.com
Web: <http://www.dewetron.us>

The telephone hotline is available
Monday to Friday between
08:00 and 4:30 EST

Service/repairs

Only the team of DEWETRON is allowed to perform any kinds of repairs to your system to assure a safe and proper operation in future. For information regarding service and repairs please contact your local distributor first or DEWETRON directly.



Any spare parts (screws, backplanes, cables,...) must be obtained from DEWETRON only.



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Warranty Information

A copy of the specific warranty terms applicable to your DEWETRON product and replacement parts can be obtained from your local sales and service office.

Restricted Rights Legend

Use austrian law for duplication or disclosure.

DEWETRON GmbH
Parkring 4
A-8074 Grambach / Austria

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Safety conventions



Observe precautions for handling electrostatic sensitive devices!



This icon denotes a caution, which advises you of precautions to take to avoid injury, data loss, or a system crash. When this symbol is marked on the product, refer to the technical reference manual.



Indicates hazardous voltages.



Indicates the chassis terminal

WARNING *Calls attention to a procedure, practice, or condition that could cause bodily injury or death.*

CAUTION *Calls attention to a procedure, practice, or condition that could possibly cause damage to equipment or permanent loss of data.*

WARNINGS

The following general safety precautions must be observed during all phases of operation, service, and repair of this product. Failure to comply with these precautions or with specific warnings elsewhere in this manual violates safety standards of design, manufacture, and intended use of the product. DEWETRON GmbH assumes no liability for the customer's failure to comply with these requirements.

SAFETY INSTRUCTIONS

Your safety is our primary concern! Please be safe!



General safety and hazard warnings for all DEWETRON systems

- > Use this system under the terms of the specifications only to avoid any possible danger. If the unit is used in a manner not specified by the manufacturer the protection can be impaired!
- > This product is intended for use in industrial locations. As a result, this product may cause interference if used in residential areas. Such use must be avoided unless the user takes special measures to reduce electromagnetic emissions to prevent interferences to the reception of radio and television broadcasts.
- > Maintenance will be executed by qualified staff only.
- > During the use of the system, it might be possible to access another parts of a more comprehensive system. Please read and follow the safety instructions provided in the manuals of all other components regarding warning and security advices for using the system.
- > With this product, only use the power cable delivered or defined for the host country.
- > DO NOT connect or disconnect sensors, probes or test leads, as these parts are connected to a voltage supply unit.
- > The system is grounded via a protective conductor in the power supply cord. To avoid electric shocks, the protective conductor has to be connected with the ground of the power network. Before connecting the input or output connectors of the system, make sure that there is a proper grounding to guarantee potential free usage. For countries, in which there is no proper grounding, please refer to your local legally safety regulations for safety use.

DC systems: Every DC system has a grounding connected to the chassis (yellow/green safety banana plug).

- > Please note the characteristics and indicators on the system to avoid fire or electric shocks. Before connecting the system, please carefully read the corresponding specifications in the product manual.
- > The inputs are not, unless otherwise noted (CATx identification), for connecting to the main circuits of category II, III and IV. The measurement category can be adjusted depending on module configuration.
- > The power cord separates the system from the power supply. Do not block the power cord, since it has to be accessible for the users.
- > Supply overvoltage category is II.
- > DO NOT use the system if equipment covers or shields are removed.
- > If you assume the system is damaged, get it examined by authorised personnel only.
- > Any use in wet rooms, outdoors or in adverse environmental condition is not allowed!
Adverse environmental conditions are:
 - > Moisture or high humidity
 - > Dust, flammable gases, fumes or dissolver
 - > Thunderstorm or thunderstorm conditions (except assembly PNA)
 - > Electrostatic fields, et cetera.
- > Any direct voltage output is protected with a fuse against short cut and reverse-polarity, but is NOT galvanically isolated (except it is explicit marked on the system).
- > The system must be connected and operated to an earthed wall socket at the AC mains power supply only (except for DC systems).
- > Any other use than described above may damage your system and is attended with dangers like shortcut, fire or electric shocks.

SAFETY INSTRUCTIONS

- > The whole system must not be changed, rebuilt or opened (except for changing TRION™ modules).
 - > If you assume a more riskless use is not provided anymore, the system has to be rendered inoperative and should be protected against inadvertent operation. It is assumed that a more riskless operation is not possible anymore, if
 - > the system is damaged obviously or causes strange noises.
 - > the system does not work anymore.
 - > the system has been exposed to long storage in adverse environmental.
 - > the system has been exposed to heavy shipment strain.
 - > DO NOT touch any exposed connectors or components if they are live wired. The use of metal bare wires is not allowed. There is a risk of short cut and fire hazard!
 - > Warranty void if damages caused by disregarding this manual. For consequential damages NO liability will be assumed!
 - > Warranty void if damages to property or persons caused by improper use or disregarding the safety instructions.
 - > Unauthorized changing or rebuilding the system is prohibited due to safety and permission reasons (CE). Exception: changing TRION™ modules.
 - > The assembly of the system is equivalent to protection class I. For power supply, only the correct power socket of the public power supply must be used, except the system is DC powered.
 - > Be careful with voltages $>25 V_{AC}$ or $>35 V_{DC}$! These voltages are already high enough in order to get a perilous electric shock by touching the wiring.
 - > Maximum input voltage for measuring cards are $70 V_{DC}$ and $46.7 V_{PEAK}$
 - > The product heats during operation. Make sure there is adequate ventilation. Ventilation slots must not covered!
 - > Only fuses of the specified type and nominal current may be used. The use of patched fuses is prohibited.
 - > Prevent using metal bare wires! Risk of short cut and fire hazard!
 - > DO NOT use the system before, during or shortly after a thunderstorm (risk of lightning and high energy overvoltage). An advanced range of application under certain conditions is allowed with therefore designed products only. For details please refer to the specifications.
 - > Make sure that your hands, shoes, clothes, the floor, the system or measuring leads, integrated curcuits and so on, are dry.
 - > DO NOT use the system in rooms with flammable gases, fumes or dust or in adverse environmental conditions.
 - > Avoid operation in the immediate vicinity of:
 - > high magnetic or electromagnetic fields
 - > transmitting antennas or high-frequency generators
- For exact values please refere to enclosed specifications.
- > Use measurement leads or measurement accessories aligned to the specification of the system only. Fire hazard in case of overload!
 - > Do not switch on the system after transporting it from a cold into a warm room and vice versa. The thereby created condensation may damage your system. Acclimatise the system unpowered to room temperature.
 - > Do not disassemble the system! There is a high risk of getting a perilous electric shock. Capacitors still might charged, even the system has been removed from the power supply.

SAFETY INSTRUCTIONS

- > Direct exposure of any DEWETRON product to strong sunlight or other heat radiation shall be prevented, as this could excessively heat up the product and lead to permanent damage of the product.
- > The electrical installations and equipments in industrial facilities must be observed by the security regulations and insurance institutions.
- > The use of the measuring system in schools and other training facilities must be observed by skilled personnel.
- > The measuring systems are not designed for use at humans and animals.
- > Please contact a professional if you have doubts about the method of operation, safety or the connection of the system.
- > Please be careful with the product. Shocks, hits and dropping it from already lower level may damage your system. For exact values please refer to enclosed specifications.
- > Please also consider the detailed technical reference manual as well as the security advices of the connected systems.

This product has left the factory in safety-related flawless and proper condition.

In order to maintain this condition and guarantee safety use, the user has to consider the security advices and warnings in this manual.

EN 61326-3-1:2008

IEC 61326-1 applies to this part of IEC 61326 but is limited to systems and equipment for industrial applications intended to perform safety functions as defined in IEC 61508 with SIL 1-3.

The electromagnetic environments encompassed by this product family standard are industrial, both indoor and outdoor, as described for industrial locations in IEC 61000-6-2 or defined in 3.7 of IEC 61326-1. Equipment and systems intended for use in other electromagnetic environments, for example, in the process industry or in environments with potentially explosive atmospheres, are excluded from the scope of this product family standard, IEC 61326-3-1.

Devices and systems according to IEC 61508 or IEC 61511 which are considered as “operationally well-tried”, are excluded from the scope of IEC 61326-3-1.

Fire-alarm and safety-alarm systems, intended for protection of buildings, are excluded from the scope of IEC 61326-3-1.

Maintenance

The information in this section is designed for use by qualified service personal.

Service interval:

Clean dust from the chassis exterior/interior and exchange filter foam based on the operating environment.

Cleaning:

Clean surface of the chassis with dry lintfree cloth.

Use a dry velocity stream of air to clean the chassis interior.



- > Disconnect all cables before servicing the unit!
- > Many components within the chassis are sensitive to static discharge damage. Always wear a ground wrist strap and service the unit only in static-free environment.
- > Do not use harsh chemical cleaning agents!

GENERAL INFORMATION



Environmental Considerations

Information about the environmental impact of the product.

Product End-of-Life Handling

Observe the following guidelines when recycling a DEWETRON system:



System and Components Recycling

Production of these components required the extraction and use of natural resources. The substances contained in the system could be harmful to your health and to the environment if the system is improperly handled at its end of life! Please recycle this product in an appropriate way to avoid an unnecessary pollution of the environment and to keep natural resources.

This symbol indicates that this system complies with the European Union's requirements according to Directive 2002/96/EC on waste electrical and electronic equipment (WEEE). Please find further information about recycling on the DEWETRON website
www.dewetron.com

Restriction of Hazardous Substances

This product has been classified as Monitoring and Control equipment, and is outside the scope of the 2011/65/EU RoHS Directive. This product is known to contain lead.

DW2-UPS-250-DC - external UPS

- > DC power supply with 3 hot swappable batteries
- > 250 W power for one hour with internal batteries
- > Output voltage of 12 V_{DC} to 16 V_{DC} when running from batteries or 24 V_{DC} when powered from DC
- > Charge and discharge state via COM interface
- > Including external 115 / 230 V_{AC} adaptor

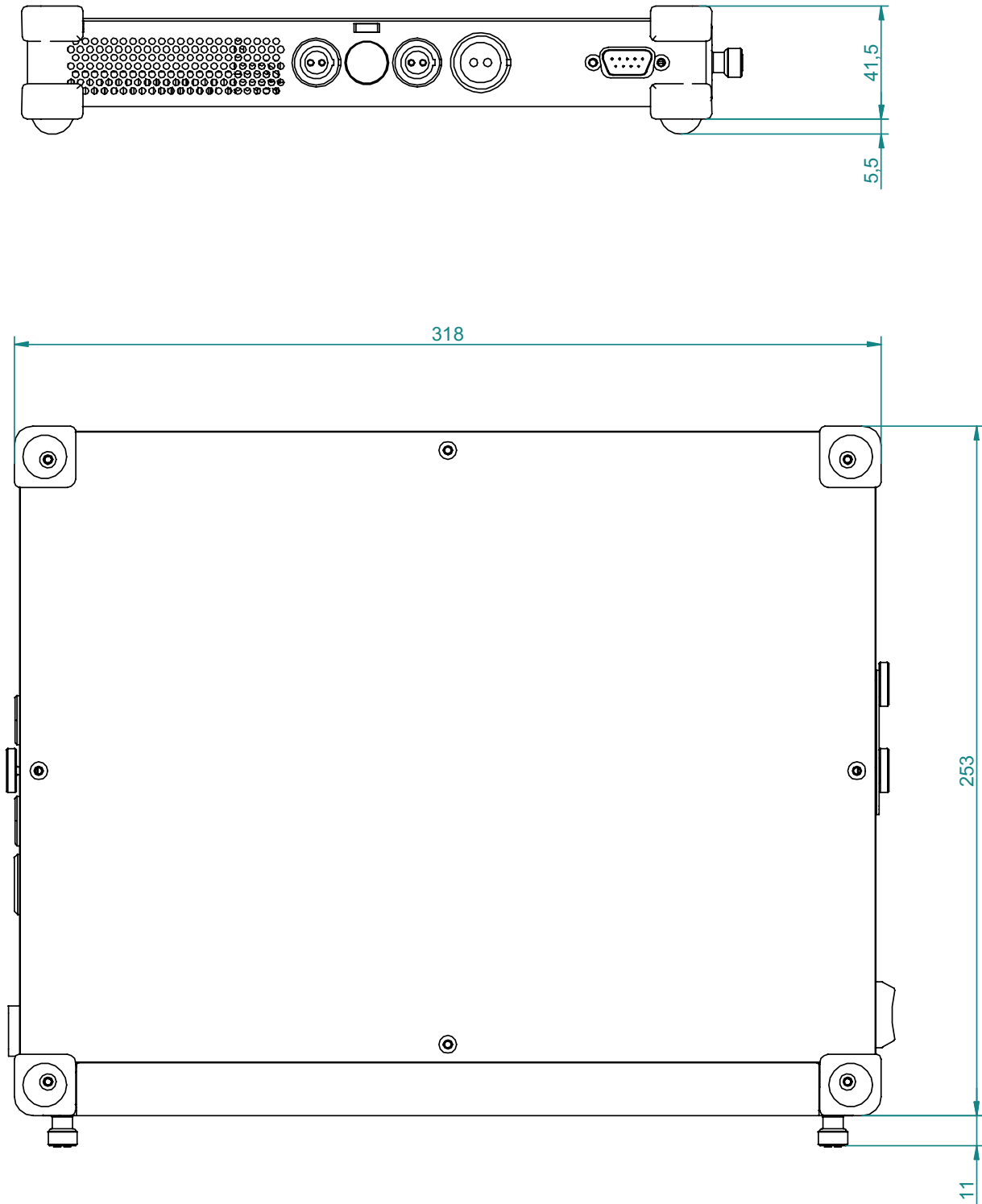


System specifications

DW2-UPS-250-DC		
Input		
Rated input voltage	11 to 32 V _{DC} (input galvanically isolated and protected against wrong polarity)	
Max. input current	34.7 A	
Max. input power	270 W	
Input connector	2-pin female LEMO connector (EGJ.3B.302)	
Output		
Output voltage	24 V _{DC} (when powered from DC) 12 to 16 V _{DC} (when running from internal batteries)	
Output power	max. 250 W (with 3 batteries installed)	
Output current	10.4 A (when powered from DC) 20.8 A (when running from internal batteries @ 12 V _{DC})	
Output connector	2-pin female LEMO connector (EGG.2B.302)	
Batteries		
Type	Li-ion NH2054HD31 (item code: BAT-89-WH)	
Nominal voltage	14.4 V	
Energy density	89 Wh (267 Wh with 3 batteries installed)	
Battery slots	3 battery slots available (3 batteries included with delivery)	
Expectable runtime with 3 batteries DEWE2-A4 TRIONet	depending on configuration: ~2 hours (average config.); ~1.2 hours (max. config.) depending on configuration: ~8 hours (average config.); 4.5 hours (max. config.)	
Environmental		
Operating temperature	0 °C to 50 °C when discharging batteries 0 °C to 45 °C when charging batteries	
Vibration test EN 60068-2-6	Shape	Sine
	Frequency range	10 - 150 Hz
	Acceleration	2 g
	Sweep rate	1 oct./min.
	Duration	20 Cycles
	Test in 3 directions	
Vibration test EN 60721-3-2 Class 2M2	Shape	Random
	Frequency range	10 - 200 Hz
	Power spectral density	1 m/s ² / Hz from 10 – 200 Hz
	Duration	30 Minutes per axis
Shocktests EN 60068-2-27	Shape	Half-sine
	Acceleration amplitude	15 g
	Duration	11 ms
	Test in 3 axis, 3 shocks in each axis and direction	
Dimensions (W x D x H)	approx. 318 x 253 x 47 mm (12.51 x 9.96 x 1.85 in.)	
Weight	2 kg (4.4 lbs) w/o batteries	

DW2-UPS-250-DC

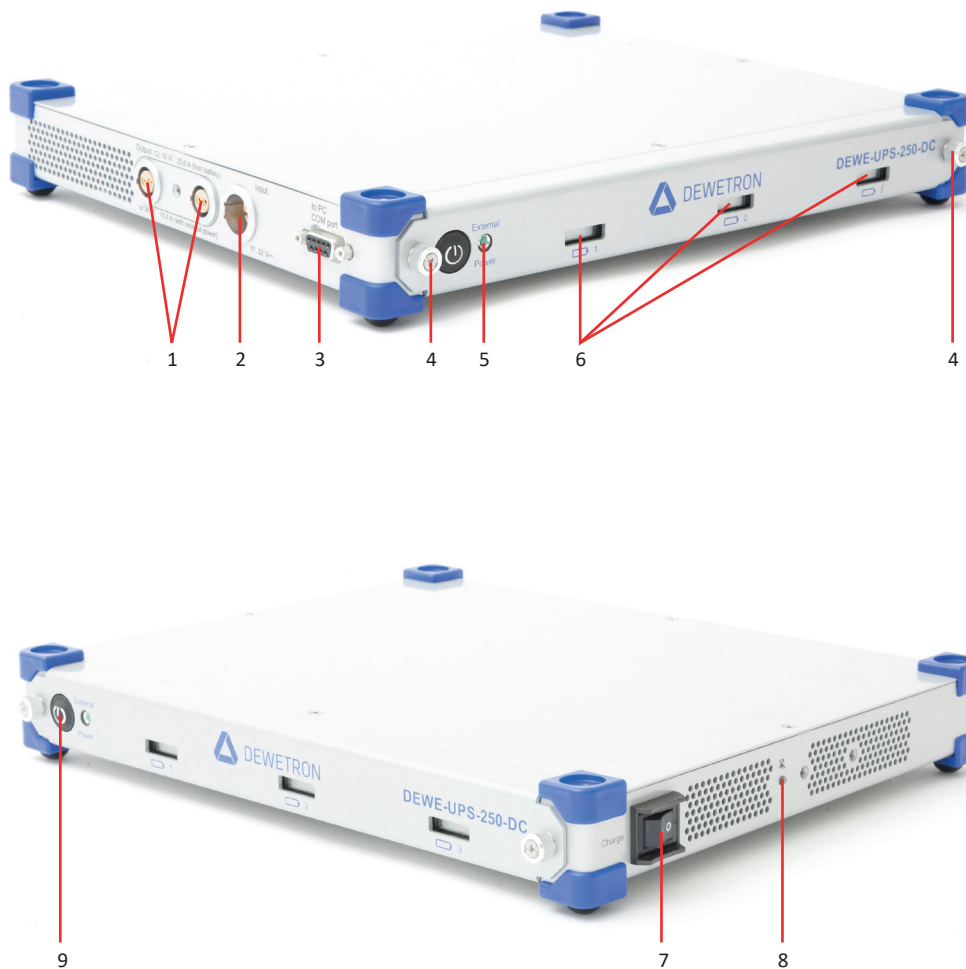
Dimensions *



* Dimensions in mm
(25.4 mm = 1 inch)

DW2-UPS-250-DC at a glance

The DW2-UPS-250-DC is an external UPS and multi-battery charger with an isolated DC input offering a wide rated input range of 11 to 32 V_{DC} (max. 9 to 36 V_{DC}). If an external DC power supply is connected, the output voltage is fixed at 24 V_{DC} with a maximum output power of 250 W. If running in battery mode (no DC power supply connected) the output voltage ranges between 12 and 16 V_{DC} (= battery voltage).



- 1 Power supply output connectors (LEMO EGG.2B.302)
- 2 Power supply input connector (LEMO EGJ.3B.302)
- 3 COM interface (to PC COM port)
- 4 Knurled-head screws for battery cover
- 5 External power LED
- 6 Cutout for LCD battery status
- 7 Charger ON/OFF switch
- 8 Push-button for battery alarm
- 9 ON/OFF push-button with integrated power LED

DW2-UPS-250-DC

1 Power supply output connector (x2)

The DW2-UPS-250-DC outputs a voltage between 12 and 16 V_{DC} when running on batteries or 24 V_{DC} with external power supply connected.

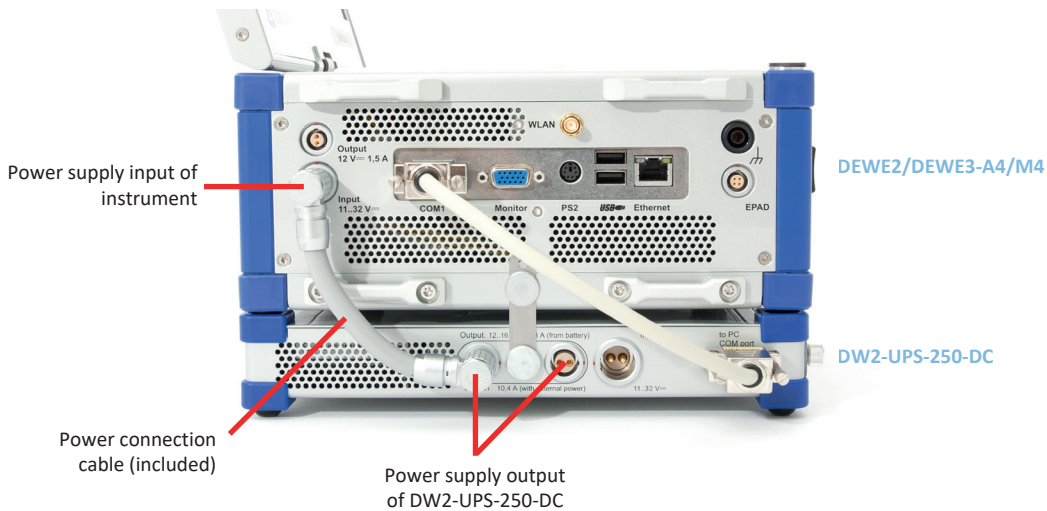
Power supply output pin assignment:



Lemo EGG.2B.302

Connection example:

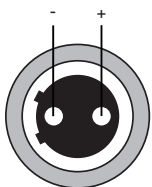
Connecting a DEWE2-A4/M4 or DEWE3-A4/M4 to the DW2-UPS-250-DC. Connect the power supply output of the DW2-UPS-250-DC with the power supply input of the DEWE2-A4/M4 or DEWE3-A4/M4. The DW2-UPS-250-DC comes with a cable set of ~25 cm for DEWE2/DEWE3-A4/M4. Longer cables for flexible use are optionally available.



2 Power supply input connector

The power supply input supports a voltage range from 11 to 32 V_{DC}. The input is galvanically isolated and protected against wrong polarity.

Power supply output pin assignment:



Lemo EGJ.3B.302

3 COM interface

The COM interface connector meets standard COM pin assignment. This interface connects e.g. a DEWE2/DEWE3-A4/M4 with the DW2-UPS-250-DC. With the plugin "BatMan" it is possible to access information about the charging state, condition and capacity of the batteries.



4 Knurled-head screws for battery cover

To access the batteries, loosen the screws at the front panel and remove the battery cover. The knurled-head screws are attached to the battery cover to prevent them from getting lost.



DW2-UPS-250-DC

5 External power LED

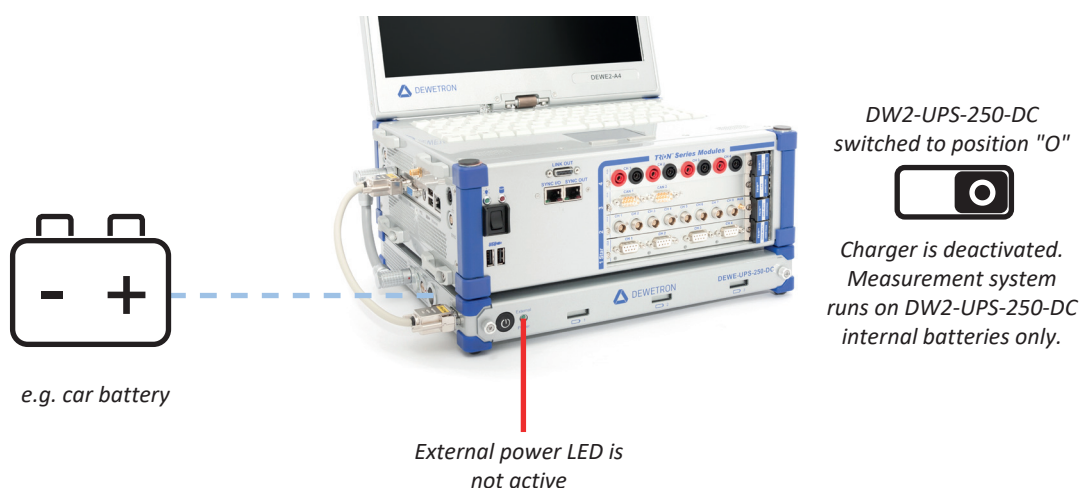
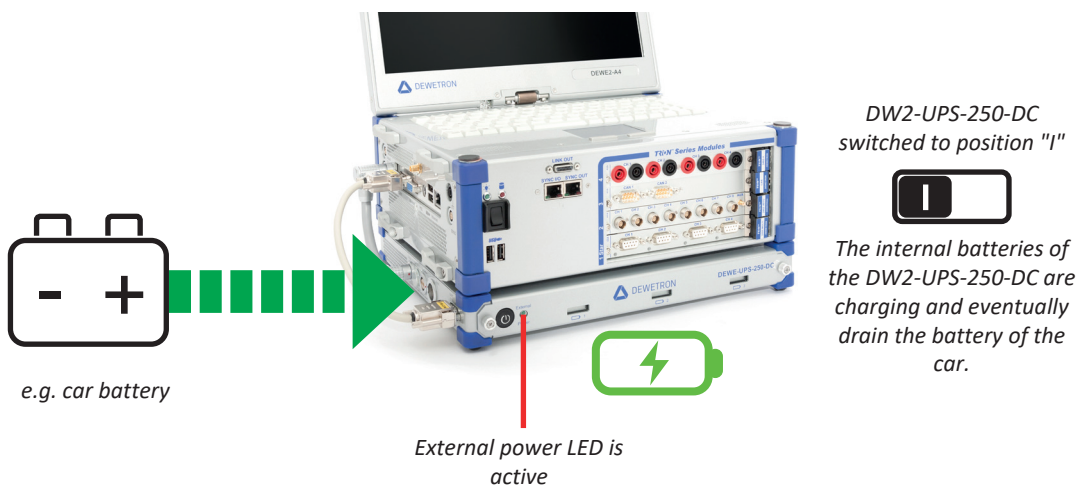
The external power LED indicates that there is an external power supply connected and the batteries in the DW2-UPS-250-DC are charging. The LED is only active when the Charger Power ON/OFF switch (7) is switched to position "I".

6 Cutout for LCD battery status

To have a quick look at the battery status at any given time, the DW2-UPS-250-DC provides some cutouts for the 5 segment LCD charge level indicator of the installed battery packs. Further information regarding the 5 segment LCD charge level indicator please refer to chapter "[Smart battery packs](#)".

7 Charger ON/OFF switch for vehicle testing

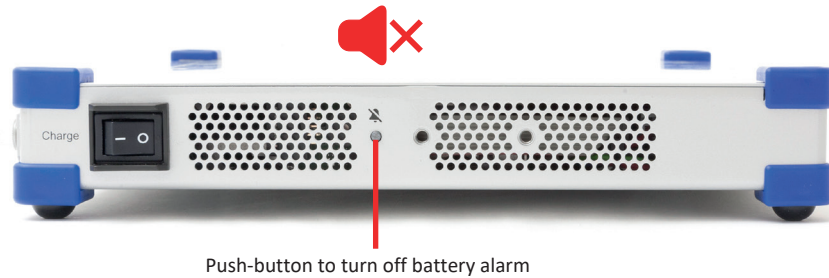
To prevent the vehicle battery from draining, the DW2-UPS-250-DC charger can be switched off manually. During the charger is deactivated, the measurement system does not draw any power from the vehicle battery. This prevents from deep discharging the car battery e.g. when parked during weekend.



8 Push-button for battery alarm

If the battery charge level drops below 10 %, the battery alarm will activate and give an audible warning. This warning can be acknowledged by pressing the button on the right side of the instrument.

If the charge level drops under 3 % the alarm starts again and can't be deactivated by pressing the button. In that case there are 60 seconds left to change the battery or connect an external supply. If time is up, the output is deactivated to protect the batteries from damage.



If the battery charge level reaches above 10 % (by charging or replacing the batteries), the charge monitoring is reactivated and starts again when the charge level drops below 10 % .

9 ON-OFF push-button with integrated power LED

Press the button briefly: power on the output
Press the button 5 seconds: power off the output instantly

The system can be also switched off remotely. In this case the DW2-UPS waits until the power drops under a certain limit for more than 1 minute before powering off the output. That allows the computer to reboot in case of a system update. To reactivate the system press the button.

The button also shows the output state of the DW2-UPS:

- Green illuminated: Output is on
- Not illuminated: Output is off

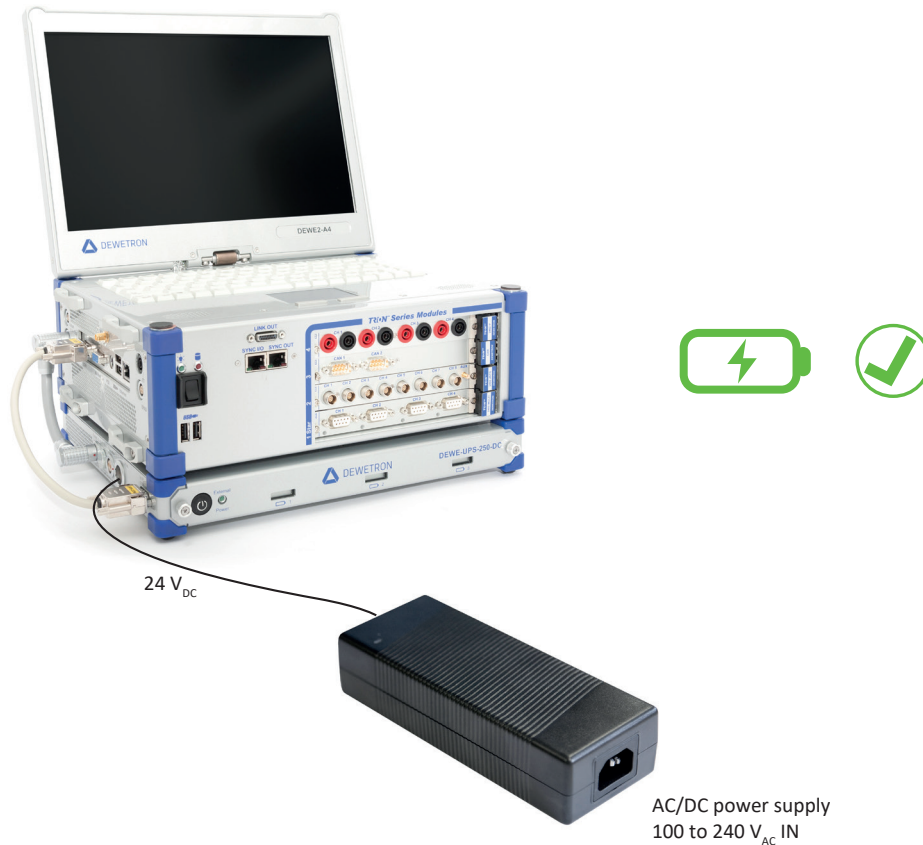
This is independent from the battery charger!

▼ DW2-UPS-250-DC

Power supply

Standard power supply

The DW2-UPS-250-DC comes with a standard external 115 / 230 V_{AC} power supply for charging batteries.

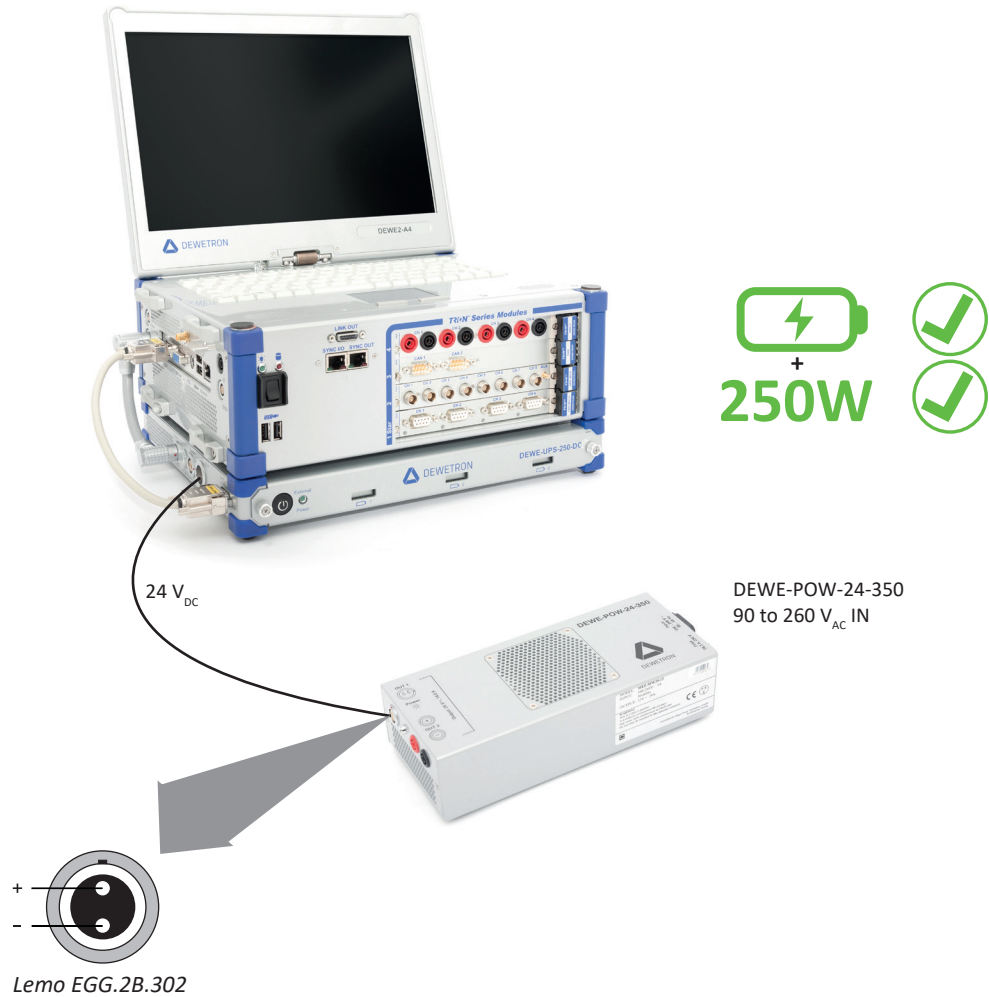


To reach the DW2-UPS-250-DC's full potential, an optional available power supply (DEWE-POWER-24-350) with at least 350 W is recommended.

DW2-UPS-250-DC

Optional external AC/DC power supply (DEWE-POW-24-350)

To charge the batteries while having the full output power of the DW2-UPS-250-DC (250 W) available, DEWETRON recommends the optional available DEWE-POW-24-350 power supply.



DW2-UPS-250-DC

Optional external power supply specifications

AC/DC power supply	DEWE-POW-24-350
Input:	
Rated input voltage:	100 to 240 V _{AC} (max. 90 to 264 V _{AC})
Input frequency:	47 to 63 Hz
Input current (typ.):	2 A @ 230 V _{AC} / 4 A @ 115 V _{AC}
Inrush current (typ.):	44 A @ 230 V _{AC} / 22 A @ 115 V _{AC}
Leakage current:	<2 mA @ 240 V _{AC}
P.F.C. (typ.):	0.95 @ 230 V _{AC} / 0.98 @ 115 V _{AC}
Output:	
Output voltage:	24 V
Min. load:	0 A
Rated load (free / fan):	12.5 A / 14.6 A
Output tolerance:	±2 %
Ripple & Noise (max.):	150 mV
Efficiency (typ.):	88 %
Output connector:	Banana jacks and LEMO EGG.2B.302
Protection:	
Overload:	105 % to 130 % constant current limiting, auto recovery
Over voltage:	26.7 to 32.4 V; Hiccup mode, auto recovery after fault has been removed
Over temperature:	> 80°C ±5°C detect on heat sink of power transistor Shutdown, auto recovery after temp. has fallen
Short circuit:	Yes
Setup time:	<2000ms @ 230V _{AC} / 4000ms @ 115V _{AC}
Rise time:	<100ms @ 230 V _{AC} / 100ms @ 115 V _{AC}
Holdup time:	16ms @ 230 V _{AC} / 16ms @ 115 V _{AC}
Withstand voltage:	I/P-O/P:3 KV _{AC} , I/P-FG:1.5 KV _{AC} , O/P-FG:0.5 KV _{AC} / 1 minute
Isolation resistance:	I/P-O/P, I/P-FG, O/P-FG: 500 V _{DC} / 100 MOhm
Switching frequency:	100 kHz
Temperature:	
Operating:	-10 to 65°C
Derating:	45 to 60°C: 2 %/°C (3.5 & 5 V: 40 to 65°C: 2 %/°C)
Storage:	-40 to 85°C
Humidity:	
Operating:	20 to 90 % RH
Storage:	10 to 95 % RH (non condensing)
M.T.B.F.:	> 106 K hours (according to MIL-HDBK-217F at 25°C environment)
Safety:	Approved: UL 60950-1 / TÜV EN60950-1
EMC:	
EMI	EN55022 Class B / EN61000-3-2,3
EMS	EN61000-4-2,3,4,5,6,8,11 / ENV50204
Dimensions (W x D x H):	248 x 106 x 62 mm (9.8 x 4.2 x 2.4 in.)
Weight:	1.7 kg (3.7 lbs)

Modes of operation

Operation with DC power



DC source,
e.g. car battery



DW2-UPS-250-DC acts as battery
buffer, e.g. start of engine



Instrument,
e.g. DEWE2-A4

Independent operation (up to one hour of operation)



DW2-UPS-250-DC



Instrument,
e.g. DEWE2-A4

Operation with AC power



DW2-UPS-250-DC acts as a battery buffer, e.g.
interruption of AC power supply



Instrument,
e.g. DEWE2-A4

▼ DW2-UPS-250-DC



optional DEWE-POW-24-350



DW2-UPS-250-DC



*Instrument,
e.g. DEWE2-A4*

Recharging batteries



*DW2-UPS-250-DC acts as a battery buffer, e.g.
interruption of AC power supply*

WARNING: DO NOT COVER THE LOUVERS! THIS COULD CAUSE OVERHEATING AND DAMAGING YOUR SYSTEM!



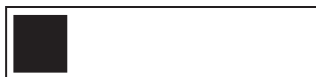
Smart battery packs



Smart battery packs are equipped with an integrated circuit which stores information (such as manufacturer, serial number, production date etc.) and monitors the current battery status in terms of discharge rate, predicted remaining capacity, temperature, voltage etc. The battery packs supplied with the DW2-UPS-250-DC (3 items) are even capable of displaying their charge state without a separate device. The 5 segment LCD charge level indicator is always active unless the battery is in shutdown mode.

5 segment LCD charge level indicator

Charge level indicator



Between 1 and 20 % charge, 1 LCD segment is filled



Between 21 and 40 % charge, 2 LCD segments are filled



Between 41 and 60 % charge, 3 LCD segments are filled



Between 61 and 80 % charge, 4 LCD segments are filled



Between 81 and 100 % charge, all 5 LCD segments are filled

The LCD charge level indicator will also flash the most significant segment during charge.

An intelligent battery controller, integrated in our DEWETRON systems, takes care of the charging and discharging process in order to ensure maximum battery performance and life time.

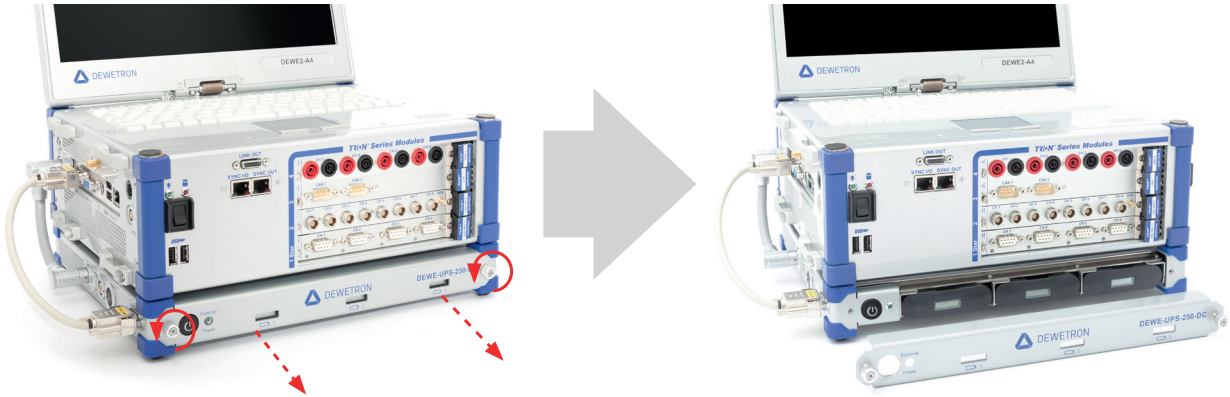
WARNING: *Only use original batteries or replacements from DEWETRON to avoid damages!
(Li-ion NH2054HD31; item code 'BAT-89-WH')*



DW2-UPS-250-DC

Changing batteries

The batteries of the DW2-250-UPS-DC are exchangeable during operation. To access the batteries, loosen the screws at the front panel and remove the battery cover of the DW2-UPS-250-DC as shown in the pictures below.



NOTE:



Disconnect supplied devices from the DW2-UPS-250-DC output when they are powered off! Store the batteries separately if the system is unused for more than two weeks, otherwise they will deep discharge and could get damaged.

Power limitations

The DW2-UPS-250-DC is capable of 250 W output power with 3 batteries installed. By removing a battery the output power drops to 180 W.



3 batteries installed =

250 W



2 batteries installed =

180 W

External battery charger (optional)

External battery charger	CH5000A/E/U
Power supply:	
Input voltage:	90 to 260 VAC, 24V
Input current:	2.5 A
Mains Cord:	CH5000E - 220 V European 2-pin connector with ground recess
Dimensions (WxDxH):	180 mm x 92 mm x 58 mm
Weight:	ca. 250 g
Mating connector:	5-blade standard battery connector

From time to time, due to the aging process of the batteries, it is necessary to recalibrate the battery in order to retain the accuracy and reliability of the charge level indicator. This can be achieved with an external battery charger (BAT-CHARGER) which is optionally available. Another advantage of the BAT-CHARGER is that additional batteries can be recharged without being in the measurement unit. This allows the measurement unit to run non-stop without being connected to the power net, thanks to the hot-swap capability of the battery packs.

Assembly instruction (DEWE2/DEWE3-A4/M4)

The DW2-UPS-250-DC can be used with a lot of instruments but the footprint has been designed and developed to match DEWE2-A4/M4 or DEWE3-A4/M4 instruments prepared with a mechanical connection.

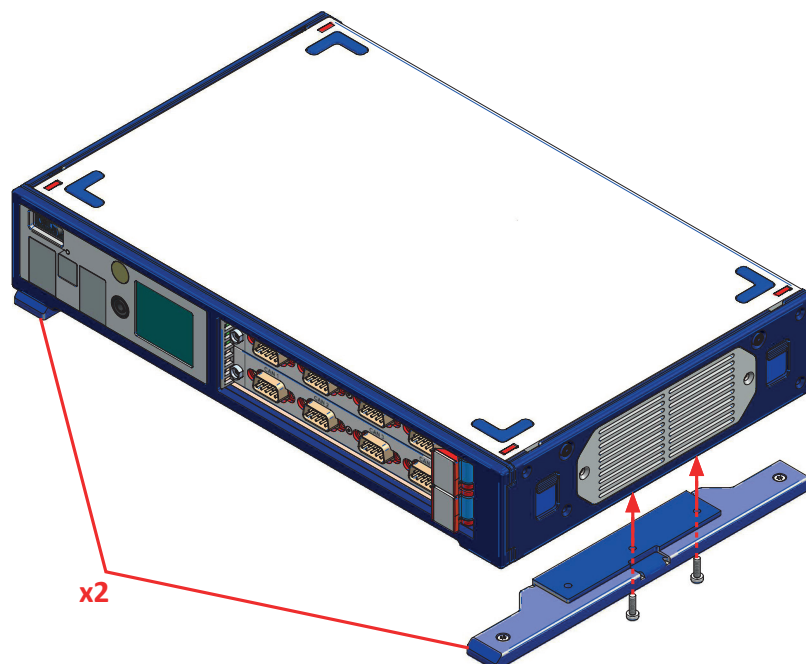
To do so, place your DEWE2/DEWE3-A4/M4 on the DW2-UPS-250-DC. Make sure it is exactly positioned upon the DW2-UPS-250-DC and fasten the screws of the fixing aid on the right and the left side of the system (included).



Assembly instruction (TRIONet)

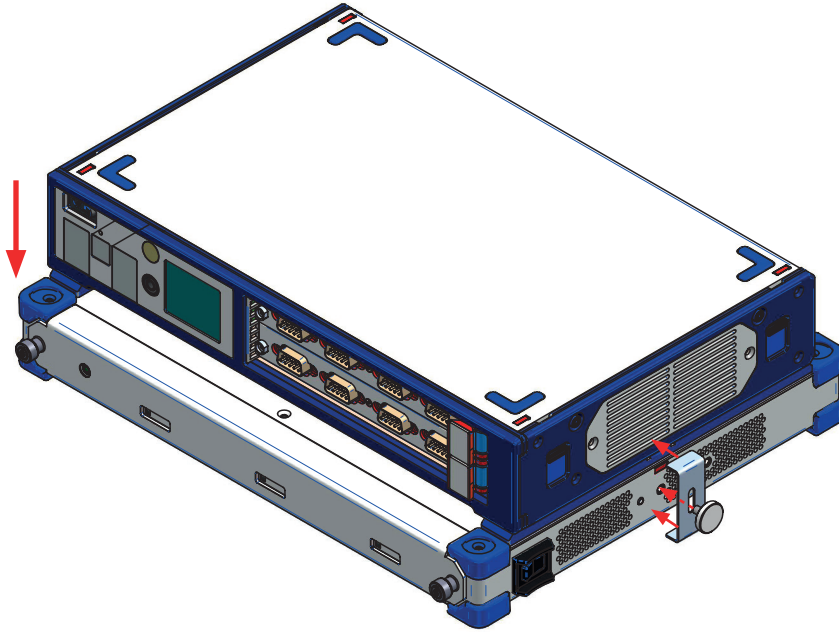
A TRIONet can also be mounted on a DW2-UPS-250-DC with the appropriate mounting kit available with your TRIONet.

First of all, fix the two assembly rails with the included screws at the bottom of the TRIONet.



DW2-UPS-250-DC

Place the TRIONet upon the DW2-UPS-250-DC as shown in the schematic below and secure it by applying the metal clamp provided. Fasten the metal clamp with the knurled screws on each side of the TRIONet.



TRIONet on top of DW2-UPS-250-DC

Accessories

POW-CBL-3B302F-B-2

DC power supply cable Lemo FGJ.3B.302 to two male 4 mm banana plugs, 2 m
Applicable to DEWE2-M13s and DEWE2-A7 / -A13 and DEWE2-F13s
with option DW2-PS-DC-300 and DW2-UPS-250-DC

BAT-89WH

Lithium-Ion battery, 14.4 V, 89 Wh, max. 8 A



BAT-CHARGER-1

Desktop battery charger for 1 battery, incl. external AC adaptor

BAT-CHARGER-4

Desktop battery charger for 4 batteries, incl. external AC adaptor



DEWE-POW-24-350

External 115 / 230 V_{AC} power supply 24 V_{DC}, max. 350 W



Battery Management Tool v1.6

Free windows based software tool that shows battery stage and allows configuring power down behavior.

Can be downloaded from DEWETRON CCC portal.

▼

DW2-UPS-250-DC

Notes

CE-Certificate of Conformity



Manufacturer:

DEWETRON GmbH

Address:

**Parking 4
8074 Grambach, Austria**

Tel.: +43 316 3070 0

Fax: +43 316 3070 90

e-mail: sales@dewetron.com

http://www.dewetron.com

Name of product:

DW2-UPS-250-DC

Kind of product:

UPS and battery charger

The product meets the regulations of the following EC-directives:

2014/35/EU

"Directive of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to the making available on the market of electrical equipment designed for use within certain voltage limits"

2014/30/EU

"Directive of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to electromagnetic compatibility (recast)"

The accordance is proved by the observance of the following standards:

L V E M C	Safety	IEC 61010-1:2011	
	Emissions	EN 61000-6-4	EN 55011 Class B
	Immunity	EN 61000-6-2	Group standard

Graz, June 05, 2017

Place / Date of the CE-marking

Ing. Thomas Propst / Manager Total Quality

▼
NOTES
