DARK

USER MANUAL

INSTALLATION MANUAL

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V2C

V2C bears the CE mark. The corresponding Declarations of Conformity are located at V2C.

This product meets the requirements of the ROHS Directive (2011/65/CE). The corresponding Declarations of Conformity are located at V2C.

Disposal Information

The above symbol, the crossed-out trash container, indicates that electric appliances and electronic devices including accessories (EEE), the electrical and electronic equipment of the electric charging station, as well as its accessories, shall be disposed of separately from general household waste. You will find more information about this directly on the product, in the operating manual or on the packaging. The materials are recyclable according to their labeling. Reuse, material recycling and other forms of reuse of recycling used equipment contribute considerably to protecting our planet.

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Dear customer,

V2C team wants to thank you for buying one of our electric vehicle charging box. Our passion in design and innovation makes our charging points leaders in technology and design. Do not hesitate to contact us at info@v2charge.com if you have any suggestion. We hope you enjoy your product.

Best regard, **The V2C Team**

1 IMPORTANT INFORMATION

1.1 SAFETY INTRUCTIONS

Warning!

Not observing the safety instructions can result in risk of death, injuries and damage to the device! V2C assumes no liability for claims resulting from this!

- Electrical hazard / fire hazard!

Never use damaged worn or dirty charging plugs. First time tuning on the electrical charging station must be carried out exclusively by competent and qualified technical personnel, fully responsible for compliance with the installation regulations and existing standards.

Never use damaged, worn or dirty charging connectors.

- The owner must ensure that the charging station is only ever operated in perfect condition:

- Repair work to the charging station is forbidden and may only be performed by the manufacturer (replacement of the charging station)!

- Do not carry out any unauthorized conversion work or modifications to the charging station!

- Do not remove any notices on the device, such as safety symbols, warning notices, rating plates, nameplates or cable markings!

- The charging station does not have its own power switch! The RCD circuit breaker and the line circuit breaker of the building installation serve as main connectors.
- No extension cables are permitted for connecting an electric vehicle to the power supply device for electric vehicles.

Only electrical vehicles or their chargers may be connected. No connection of other loads is permitted (electric tools etc.)!

- Read the information and instructions for your vehicle carefully before you charge the vehicle using the charging station.

- Ventilation: A number of vehicles require an external ventilation system in the interior areas due to the possible creation of toxic or explosive gases during the charging procedure.

- Unplug the charging cable by pulling on the connector, never on the cable.

Warning!

- Risk Damage!

Never clean the charging station with a jet of pressurized water.

1.2 INTENDED USE

DARK is a "charging station" for the indoor and outdoor area at which electrically operated vehicles can be charged (e.g. electric automobiles).

The electric charging station is designed for build in a wall.

The respective national regulations must be observed with regard to the installation and connection of the charging station.

The device was developed, manufactured, inspected and documented in compliance with the relevant safety standards. Therefore, the products do not pose any danger to the health of persons or a risk of damage to other property or equipment under normal circumstances, provided that the instructions and safety precautions relating to the intended use are properly observed.

The instructions contained in this manual must be followed precisely in all circumstances. Failure to do so could result in the creation of potential sources of danger or the disabling of safety devices. Besides from the safety instructions given in this manual, the safety precautions and accident prevention measures appropriate to the situation in question must also be observed.

1.3 ABOUT THIS MANUAL

This manual is valid for devices of the type: DARK.

This manual is intended for the following people:

- End customers (user of the electrical charging point)

Electric Technicians

1.4 OVERVIEW AND VERSIONS

MODEL	AMP	POWER	SUPPLY	CONNECTION
TYPE 1 20 AMP	6-20 Amp.	Up to 4,6 kW	1F+N+TT	SAE 1772
TYPE 1 32 AMP	6-32 Amp.	Up to 7,3 kW	1F+N+TT	SAE J1772
TYPE 2 32 AMP	6-32 Amp	Up to 22 kW	3F+N+TT	IEC 62196
TYPE 2 20 AMP	6-20 Amp	Up to 4,6 kW	1F+N+TT	IEC 62196
TYPE 2 32 AMP	6-32 Amp	Up to 7,3 kW	1F+N+TT	IEC 62196

2 USING THE CHARGING STATION
2.1 ELECTRIC CHARGING BOX WITH CABLE

1. Swith on the charging box (The normal operation of the wallbox is that it is always activated)
2. The charging box will start self-test mode for a few seconds. Immediately, the blacklight will be green.

Start Charge

1. Select Amp Rated.
With the buttons, you can choose the Amp Rated for Charging.

2. Connect the connector to the car.
It will turn white. The white color of the backlight will be activated while the car is connected to the recharging point and the car does not give you permission to recharge.

3. When the car is charging the Blacklight will be blue, and car will begin to charge. In the display you can check that the car is charging.

Ending the charging procedure

The charging procedure is ended by unplugging the charging cable at the vehicle. For details, please refer to the instructions of the vehicle manufacturer.

1. Do not use force to pull out a mechanically locked plug!

Keep save charging connector / charging cable

RETROILUMINATION LIGHT SIGNALS

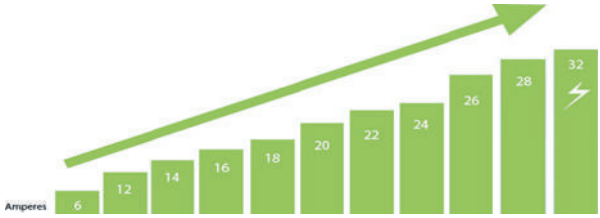
The EVSE is connected and is waiting to connect electric vehicle.

The EVSE is ready to charge. The EVSE is connected to the car but is waiting the authorization of the car.

The EVSE is charging. The cable is connected to the vehicle.

2.2 CHARGE AMPS SELECTION

The vehicle will charge at that recharging speed or lower depending on the maximum recharging capacity that the vehicle has and the% of load it is in. The maximum speed selected must be in accordance with the installation performed.



The circuit breaker you need to install and the supply section must be selected by a specialist electrical technician. See point 5.

2.3 ACCESS TO THE CHARGER MENU

To access the menu we will follow the following procedure:
Without connecting the electric vehicle (idle mode), press the 2 buttons simultaneously.

Press 3-4 seconds until the menu is accessed

You can scroll through the menu with the right - left buttons. To exit the menu simply press the button on the right until we automatically exit the menu. To access it again follow the procedure we just explained above.

1st Parameter: By default the equipment does not allow to modify the load intensity when the equipment is loading the vehicle. Modifying this parameter will allow you to modify the curve of the load intensity while the vehicle is charging. (The vehicle must be compatible with this option so that the charging intensity will wash while it is being charged.)

By default the charging current will be fixed. To change to NO, press the right button for 3-4 sec.

2nd Parameter: Allows you to select the language of the product screen

Pressing the right button for 3-4 seconds allows you to change the language

3rd Parameter: It allows to turn off the led lighting of the equipment. By default the LED lighting is activated, if it is deactivated, no load status will be seen in the LEDs.

If you press the right button for 3-4 seconds, you can activate/deactivate the LED lighting, whether you want the LEDs to light up or not.

3. TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE - SOLUTION
LED does not light up	No voltage supply – Check RCD circuit breaker and line circuit breaker and switch on if necessary. Defective – please contact your service partner Deactivated function in menu.
Charging procedure is not started	The plug is not inserted correctly - Pull out the plug and insert the plug again. The charging procedure was not performed correctly – follow the instructions in Chapter "Starting/ending the charging procedure". The plug may possibly be dirty in the locking area or damaged – clean the plug or have it replaced. The vehicle does not need any power or has an error – check the vehicle.
Vehicle not fully charged Elevated charge time	- The charging procedure was not ended correctly by the vehicle – end the charging procedure according to the instructions of the vehicle manufacturer. - Protect the vehicle and the charging station from direct sunlight during the charging process (porch, parking, garage ...) - Visual check for dirt, wear or damage of the connection device. If necessary, contact your technical assistance service. Incorrect enabling by external control device (power supplies, photovoltaic installation...)
The connector can't be unplug from the car	The charging procedure was not ended correctly by the vehicle – end the charging procedure according to the instructions of the vehicle manufacturer. The plug may possibly not be able to be unlocked under tension – press the plug in and connect to vehicle again. Then end the charging procedure again.

4 INSTALLATION

4.1 GENERAL CRITERIA FOR THE SITE SELECTION

The charging station was constructed for the indoor and outdoor area. Accordingly it is necessary to ensure the installation conditions and the protection of the device at the installation area.

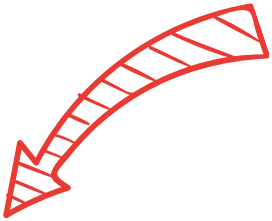
- According to the product standard, the charging station must be located at a height between 0.4 m and 1.5 m. We recommend installing the charging station (height of the socket or parking bay) at a height of 1.2 m. Observe that national regulations can limit this height. It must be taken in consideration that, in the case of placement in parking, put it at a height, which in case of accidental collision, does not damage the recharging point.
- The device must not be exposed to direct spray water (e.g. neighboring manual car wash facility, highpressure cleaner, garden hose..).
- The device should be protected against direct rain as far as possible to prevent icing, hail damage or similar.
- The device should be installed in a way that it is protected from direct sunlight as far as possible to prevent reduction of the charging current or interruption of the charging due to excessive temperatures of the charging station components.

- When set up unprotected against the weather (e.g. outside at a parking space), the charging current specification is reduced to 16 A if the maximum permitted temperature is exceeded. We strongly recommend to switched off the device.

Observe the internationally valid installation standards (e.g. IEC 60364-1 and IEC 60364-5-52) and comply with the nationally applicable installation standards and regulations.

4.2 INSTRUCTIONS FOR ELECTRICAL CONECTION

Selection of the RCD circuit breaker:
Each charging station must be connected to a separate RCD circuit breaker. No other circuits may be connected to this RCD circuit breaker. A nominal IN current suitable for the magnetothermal switch must be selected. For the Renault ZOE, a Superimmunized type differential is selected.



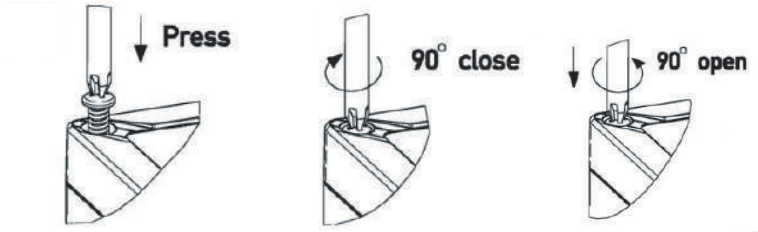
Dimensioning the Line circuit breaker:
When dimensioning the line circuit breaker also observe the increased environmental temperatures in the switching cabinet! Under certain circumstances, this may require a reduction of the pre-adjusted charging current setting to increase the system availability.
Maximum value according to the type plate data matching to the amp rate DARK selected.

Dimensioning of the mains supply line:
When dimensioning the mains supply line also observe possible reduction factors and the increased environmental temperatures in the interior connection area of the charging station
Determine the nominal current according to the rating plate data, according to the chosen load power and the supply line.

Disconnection device:
The charging station does not have a power switch. The differential switch and the circuit-breaker on the power supply line act as a mains connection device. The recharging point can always be turned on, turning off only in case of not regular use.

4.3 PLACE EVSE

The screws are spring bolts, which require only 90º to open.



1. Mark the 4 holes in the wall, taking into account the measurements indicated behind the box. 238mmx130mm
2. Fixing materials are not included in the recharging point. Those that are considered most suitable for the material to be fixed should be used. In case of concrete or brick it is recommended to use a block and a screw.
3. Fix the EVSE to the wall.

4.4 CABLE INSERTION

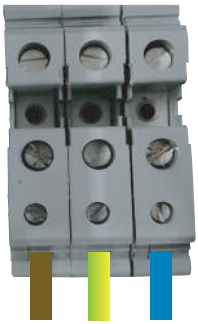
Take the electric hose to the recharge point through the supplied press. Make sure it is securely fastened. Peel the hose leaving the phases exposed.

Every recharging point comes with gray colored terminals or contactor (in case of three-phase) Calculate the distance so that you can easily enter and cut the excess cable.

The terminals allow up to 10 mm2 of section.

One Phase Wallbox

The single-phase connection is made through the terminals. To do this, you must enter, L1, Neutral and Earth in their corresponding terminals. We will be indicated on the plate, or through the color of the output cables. (Neutral: Blue, L1: Brown or Gray, TT: Yellow and Green)



3Phase Wallbox

The 3 Phase cable conection is directly on the Power Relay. To do this, you must enter, L1, L2, L3, Neutral in their corresponding contacts. We will be indicated on the plate, or through the color of the output cables. (Neutral: Blue, L1, L2, L3: Brown or Gray or Black). The earth connection will be connected to the corresponding terminal block.

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