Workshop Charger

12/70 - 24/70

12/120



PRIMEPOWER™
PART OF MICROPOWER GROUP

TABLE OF CONTENT

MANUAL, ENGLISH 2
CRITICAL INFORMATION 2
USER MANUAL 2
General 3
Installation 3
Function 3
CONTROL LAMPS & ERROR DEXCRIPTIONS 4
CHARGING PROCESS 4
CHARGING CURVES 5
Charging curve: Standard batteries 5
Charging curve: GEL/AGM batteries 5
TECHNICAL SPECIFICATON 6
TYPES, CELLS & RATED CAPACITY 6
TROUBBLE SHOOTING 7
MAINTEANCE AND SERVICE 8
Regular inspections 8
Accessories 8
MOUNTING 9
WARRANTY 10
Warranty claim 10
INCLUDED IN THE PACKAGE 10

MANUAL, ENGLISH

CRITICAL INFORMATION

The technical data, information and illustrations have been carefully compiled and corresponds to the product status at the time of printing this manual. The manufacturer reserves the right to improve or modify the product, specifications and documentation at any time without prior notice, provided that it is not considered necessary for technical reasons.

Descriptions have been prepared very carefully and in detail, yet it is never possible to completely rule out wrong. Under no circumstances will the manufacturer be held responsible for errors or damages resulting from wrong use or from misinterpretation.

The content of this documentation may not be copied, reproduced, translated or otherwise passed on to third parties in any form without the express written consent of Primepower.



Warning!

Failure to follow these safety instructions could result in personal injury, property damage or impair the function of the charger.



Danger! High voltage!

Failure to follow this safety instruction can result in injury or death, or may damage or destroy the charger.



Important Information!

To avoid operator error, read this manual carefully before installing and using the product and follow the appropriate instructions. Keep this manual near the product so that it can be referred to later.



This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.

Children shall not play with the appliance

Cleaning and user maintenance shall not be made by children without supervision.

USER MANUAL

- Read this instruction before the charger is taken into use
- Keep this manual within easy reach for the user of this battery charger
- During charging, the batteries must be placed in a well-ventilated area
- Hydrogen gas will be produced when charging lead-acid batteries and hydrogen gas is explosive
- Open flames and sparks should be kept away from batteries they may produce explosions
- After charging, disconnect the battery charger from the supply mains, then remove the chassis connection and then the battery connection

General

Primepower Workshop Charger was developed for both mobile and stationary use for charging all types of lead acid batteries. The charger offers three important types of operation for daily use in workshops and when making service calls:

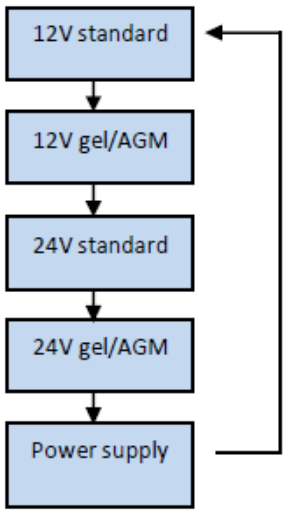
- Fully automatic charging of 12V lead acid batteries (Wet cell, GEL, AGM)
- Fully automatic charging of 24V lead acid batteries (Wet cell, GEL, AGM)
- Power supply function for supplying batteries that have been removed from the vehicle

Installation

Primepower Workshop Charger is intended as a portable charger for use in workshops and on service calls. However, depending on the application and field of use, it may also be practical to mount the charger on the wall in order to set up a stationary charging station. For this purpose, the device has feet with appropriate openings for mounting bolts. A 5 m battery charging cable can be delivered as an accessory (or as a special option when purchasing a new charger), which can easily be exchanged with the standard charging cable that may have been part of the original delivery package.

Function

Insert the power cable plug into a schuko socket that is part of your indoor power circuit to switch the charger on. After connection to the mains, one of the five operating LEDs will start to blink, signaling the current status of operation. Press the Mode key to switch from one type of operation and battery to another: press and hold the Mode key until the LED next to the desired position lights up. Then release the Mode key. After a few seconds, the charger will start in the program that has been selected.



If the voltage of the connected battery does not match the selection made, the orange LED and the red error LED lights will blink alternately to indicate an error.

To set the correct voltage, press the Mode key and hold it until the LED next to the desired 12V/24V type of battery, i.e. Standard or Gel/AGM lights up. Then release the Mode key. After just a few seconds, the charger will start the program that has been selected and charge the connected battery until it is fully charged. The program runs fully automatically. As soon as the battery is fully charged, the LED display will switch from orange to green and the charging voltage will be reduced to maintenance charging. The battery can now be disconnected or remain connected to the charger until it is required. During this time, the charger ensures that the battery remains fully charged, irrespective of how long it stays connected to the charger.

CONTROL LAMPS & ERROR DEXCRIPTIONS

The control lamps on the top of the charger indicate different operating and error statuses:

- Orange LEDs indicate the selected charger function
- Green LEDs indicate that the battery has finished charging
- The red LED indicates an error

LED	STATUS	DESCRIPTION	ACTION
	Blinking	Charger setting for this LED has been selected	
	Alternate blinking	Incorrect battery voltage has been selected	Set the correct battery voltage (see page 6)
	Steady light, orange dimmed	Charging program has been selected, but no battery is connected	Connect battery or set power supply function
	Steady light	Battery is fully charged	Battery can be disconnected and used

CHARGING PROCESS

Batteries are charged fully automatically, monitored by a micro-processor with a three-stage IU1oU2 charge characteristic for optimum and gentle treatment of the batteries. After connecting the battery to the PWC, the charging parameters for the battery can be adjusted by selecting the type of battery (standard or gel/AGM).

Charging with constant current (I-phase, orange LED lights up)

The maximum charging current is used to charge the battery, depending on its charged status, so as to store as much energy as quickly as possible in the battery. If a battery that has been totally discharged is attached to the charger, the charger will start charging with reduced energy to avoid damaging the battery. Once the main charging voltage has been reached (14.4 (28.8) to 14.7 (29.4) V, depending on the type of battery) the charger switches to the next charging phase.

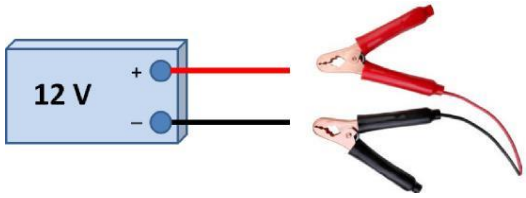
Charging with constant voltage (U1-phase, orange LED lights up)

The battery becomes fully charged in this phase. Voltage is maintained at 14.4 (28.8) V (when set to gel/AGM) or 14.7 (29.4) V (when set to standard). As the charge increases, the current continuously decreases and approaches a lower limit that depends on the type and size of the battery. As soon as it drops below this value or exceeds the set minimum charging period the charger switches to phase 3.

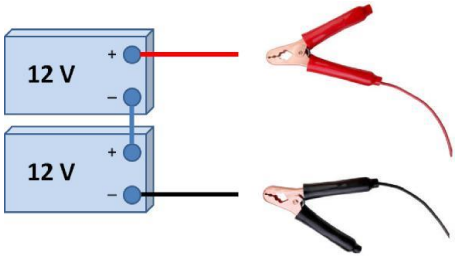
Maintenance charging with reduced voltage (U2-phase, green LED lights up)

The charging voltage is reduced to 13.6 (27.2) V (when set to gel/AGM) or 13.8 (25.6) V (when set to standard) in order to maintain the charge for an unlimited period of time, whereby the physically induced self-discharge is compensated and the battery is maintained in a fully charged state until it is disconnected.

12V Battery (singel battery)



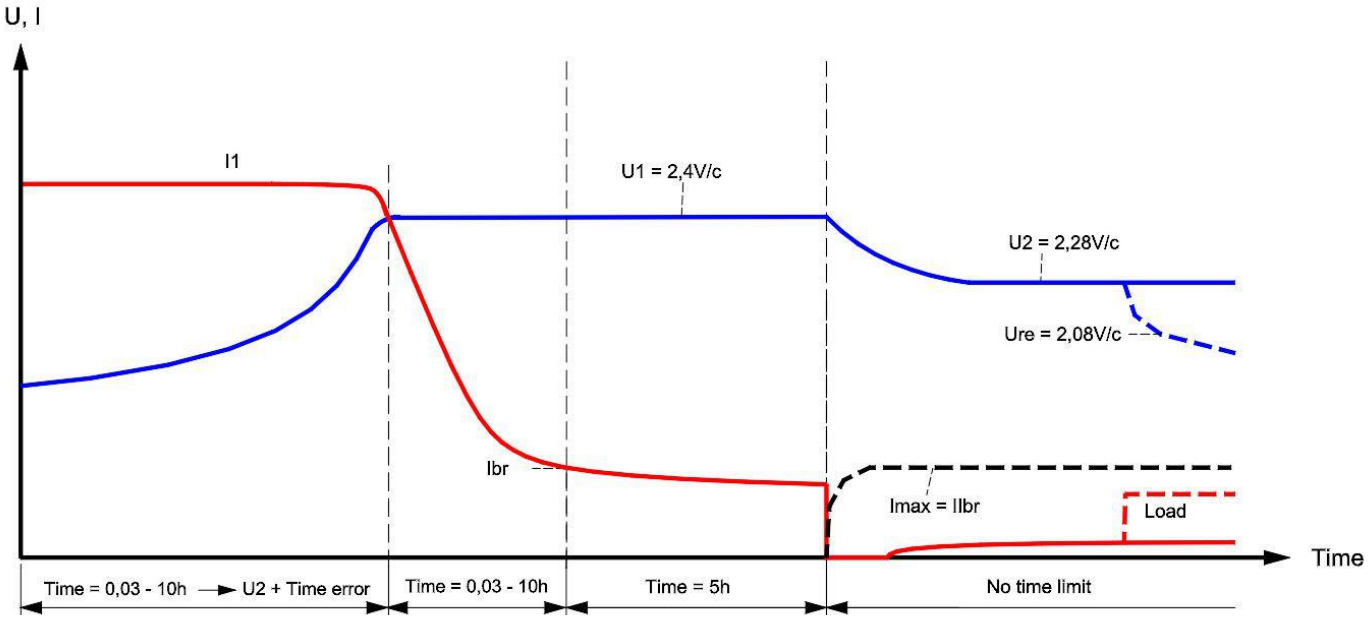
24V Battery (two batteries in series)



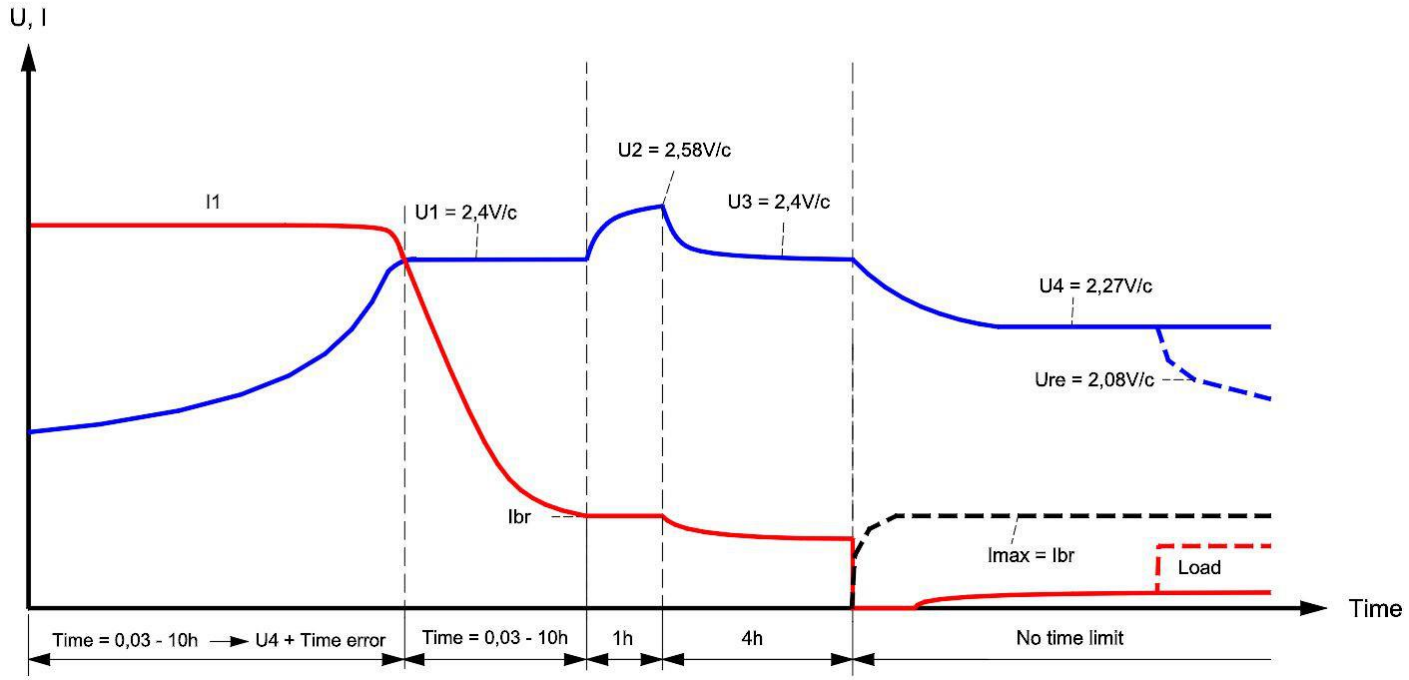
CHARGING CURVES

The Workshop Charger is designed for charging 12V & 24V open- and valve-regulated batteries of different sizes. You can easily choose charging curves on the “Mode” button.

Charging curve: Standard batteries



Charging curve: GEL/AGM batteries



TECHNICAL SPECIFICATON

Dimensions (L x W x H)	294 x 135 x 94.5 mm	
Weight	2,2 Kg (without cables)	
Ambient temperature	– 20°C > +50°C	
Mains voltage	90-270VAC – 0-400Hz	
Rated current 12V	120A resp. 70A (Depending on model)	
Rated current 24V	60A	
Fluctuation	< 3%	
Charging voltage AGM	14.4 VDC for 12V batteries	28.8 VDC for 24V batteries
Charging voltage Standard	14.7 VDC for 12V batteries	29.4 VDC for 24V batteries
Maintenance charging	13.8 VDC for 12V batteries	27.6 VDC for 24V batteries
Frequency on supply voltage (AC)	45 Hz to 65 Hz	
Standby current from the battery	< 2 mA	
Recommended mains fuses	C10	
Mains cables	Rubber cable with Neutrik coupler & Schuko plug. 1,5m	
Battery cables available	2 x 10mm^2 1,5m with terminal clamps 200A 2 x 10mm^2 5m with terminal clamps 200A	
Protection	Class I, grounded	
IP Code	IP21	
Housing	Aluminum	
General	Protection against wrong polarity and short circuits. CE-certified in accordance with valid EN-standards.	

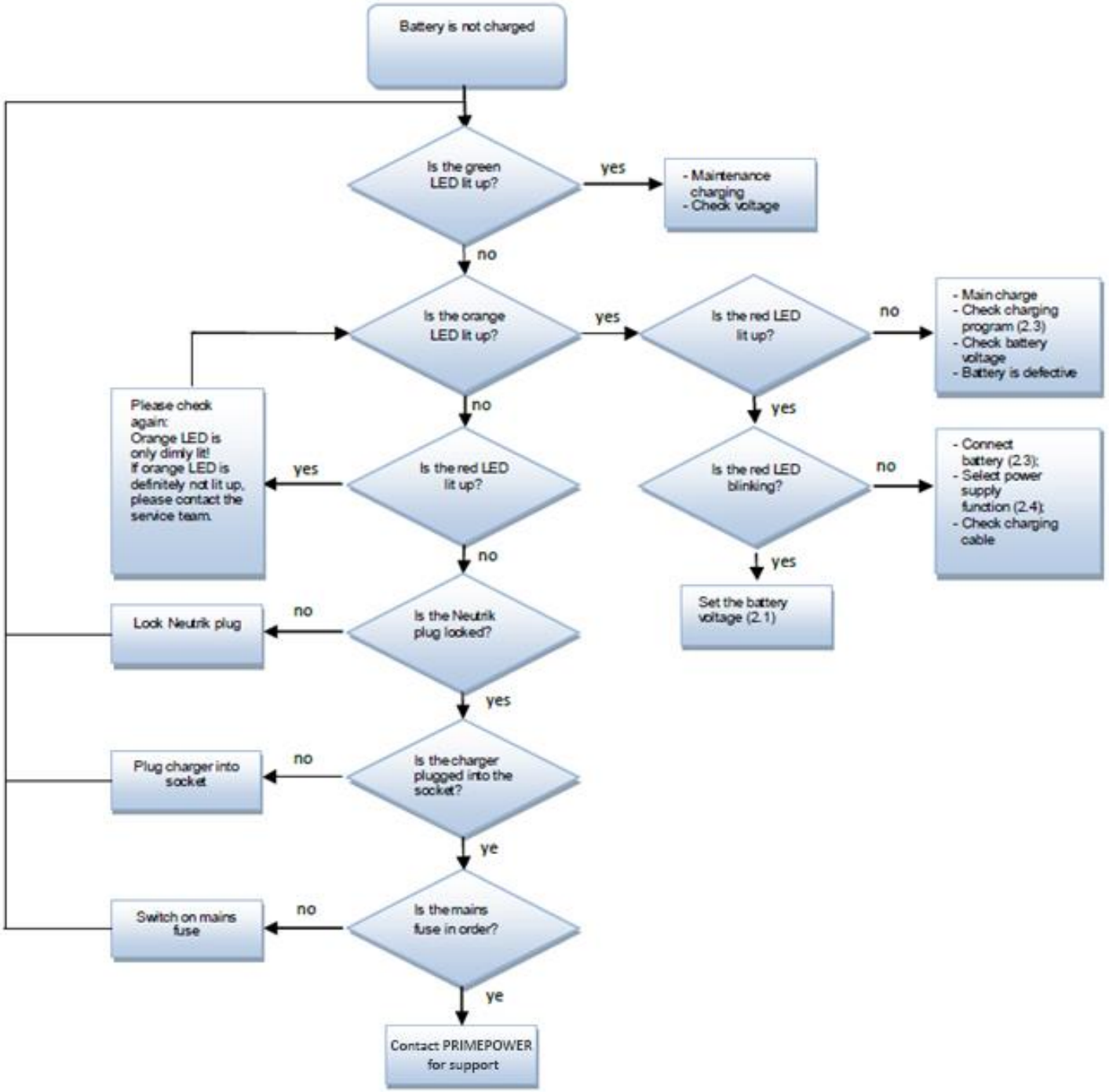
TYPES, CELLS & RATED CAPACITY

CHARGER	BATTERY TYPE	NUMBER OF CELLS	RATED CAPACITY
Workshop Charger 12/24V 70A	Lead acid batteries	6/12	40-1000Ah
Workshop Charger 12V 120A	Lead acid batteries	6	50-1500Ah

TROUBBLE SHOOTING

If the Workshop Charger should ever not function as desired, please first try to locate the error by following the steps set out below. If this proves to be unsuccessful, please contact your local dealer or PRIMEPOWER. Have the serial number and date of purchase at hand and be ready to describe the error in as much detail as possible so that we can provide fast assistance

LED display on the charger. The figures in brackets refer to the corresponding chapters in this manual.



MAINTEANCE AND SERVICE

Regular inspections

Please check the charger as follows before every use:

- Are mains cable and plug undamaged?
- Are charger cable and charging clips undamaged?
- Is the charging cable securely fastened to the charger?
- Is the charger externally undamaged and unopened?
- Have you ensured that the charger is not in contact with water, oil or other liquids?

WARNING!

Always check the charger and the cable for damage each time before using the device!

Do not use a damaged device or a device with a damaged attachment cord. Have this fixed immediately!

Always have the device checked if it has come into contact with liquids!

Have the device checked regularly by a trained electrician! If necessary, any repairs that are required should only be carried out by Primepower!

Accessories

The following accessories can be ordered from Primepower's service team at

support@primepower.se

Please include the part number in your order.

POS.	DESCRIPTION	CHARGER	ART. NUMBER
1	Charging cable 2x 10 mm2, 1.5 m with terminal clamps 200 A	12/24V 70/60A	0360063
2	Charging cable 2x 10 mm2, 5 m with terminal clamps 200 A*	12/24V 70/60A	0360064
3	Powercord NEUTRIK 230VAC 1.5M	All Workshop chargers	2810029
4	Powercord NEUTRIK 230VAC 5M	All Workshop chargers	2810031
5	NEUTRIK Connector NAC3FCA 230V/20	All Workshop chargers	2870010
6	Workshop Charger Wall Mount	All Workshop chargers	1740080

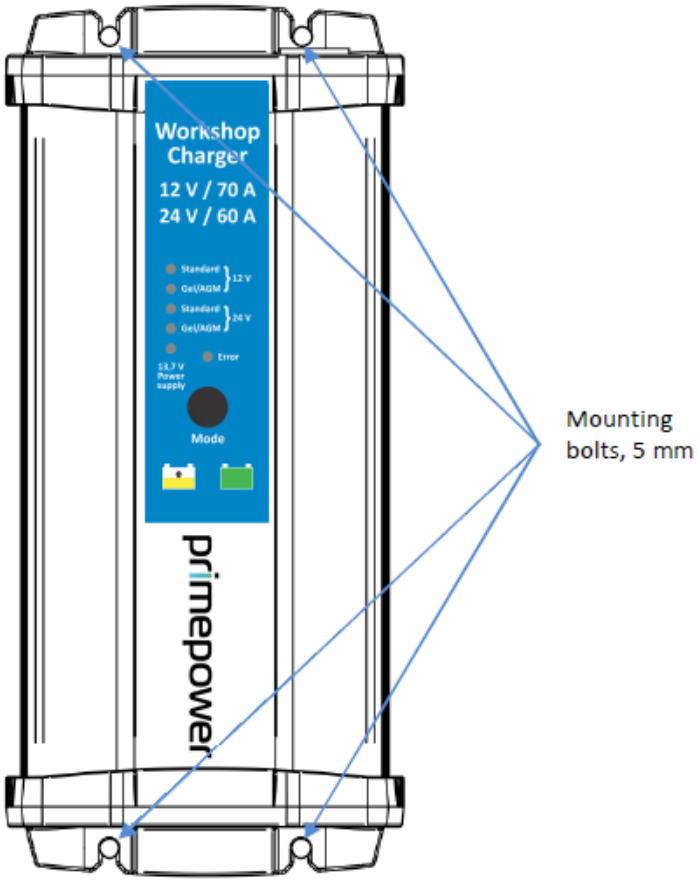
MOUNTING

If the charger is to be mounted, please ensure that the following conditions for the surrounding area have been fulfilled:

- Dry, well-ventilated and dust-free assembly site
- Shortest possible distance to the batteries to enable short cable lengths to be used
- Do not install the charger directly next to or above the batteries.
- The charger must be protected against the effects of dust and moisture.
- Ensure that the fan can freely suck in cooling air.
- Do not install the charger directly next to or above flammable materials.

Mount the charger on an even, horizontal or vertical surface. The four openings on the rubber feet are used for mounting the charger. Please use bolts of 5 mm diameter.

Example of mounting the charger vertically



IMPORTANT INFORMATION!

Irrespective of whether the charger is mounted horizontally or vertically, the built-in fan ensure optimum cooling.

WARRANTY

WARNING!

Do not use this product without reading the entire manual! Incorrectly installed or use of the product can sincerely damage the user, destroy the product or connected equipment. If the product is used the wrong way, warranty may be void.

- Primepower warranty applies only to original purchaser within a period of 24 months from the date from delivery.
- Primepower guarantees that the product is in excellent condition upon delivery, unless comes full refund.
- If the user has not conducted a proper installation or used the product incorrectly applies no warranty.

Warranty claim

To take advantage of warranty please contact your retailer.

Please have following information available:

- Receipt
- Model number
- Product serial number
- A brief description of the problem

INCLUDED IN THE PACKAGE

PRIMEPOWER WORKSHOP MANUAL



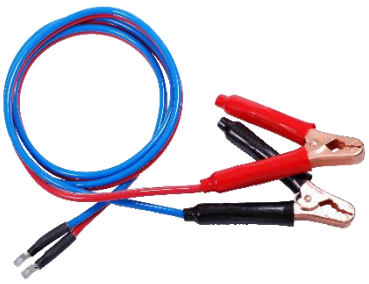
PRIMEPOWER WORKSHOP CHARGER

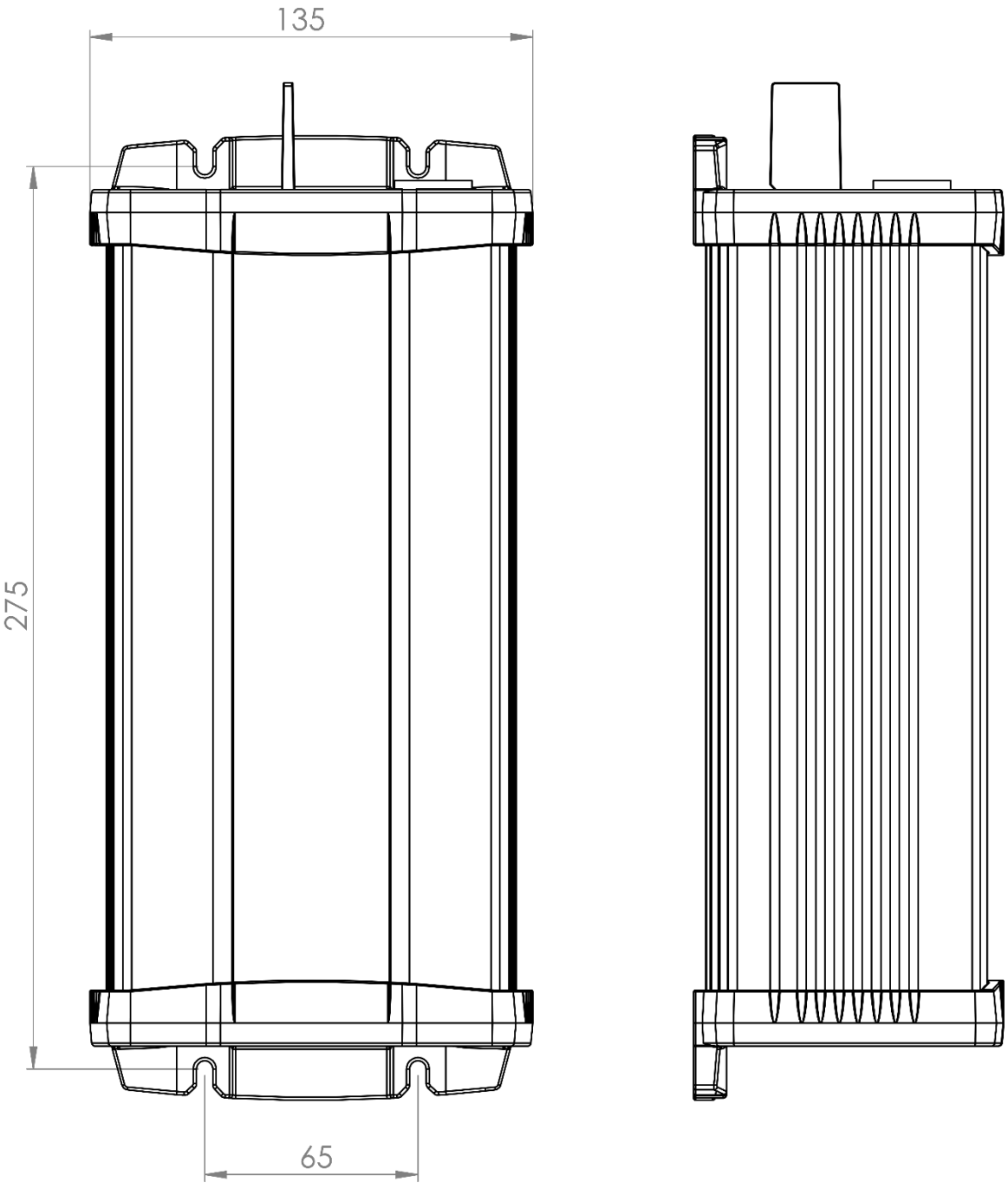


NEUTRIK COUPLER WITH SCHUKO PLUG



2 X 10MM2 1,5M WITH TERMINAL CLAMPS





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