

## 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.
- 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.
- The charger should be switched off before the charger/battery plug is disconnected.
- It is related with real danger to touch any parts inside the charger. Do not do any repair work with the main switch ON and to be real sure disconnect the mains connector.

### General

The ABC Charger is suitable both for Freely Ventilated- (Wet) and Valve Regulated- (Dry) lead/acid batteries.

The charger is small and is very light and can therefore easily be fitted close to the battery. (The charger can be delivered with program compensating for the equipment base load).

The charger operates in high frequency and should be connected to a standard 230V mains connection with ground. The built in micro controller controls the charging process according to the chosen charging algorithm.

During charging the charging progress is displayed with a status indicator LED on the front panel. The micro-controller is also controlling the charging progress with regards to temperature in the charger and time. If a fault occurs in some cells or the temperature rises the charging current will be limited. If you have a special requirement of charging algorithm or application, please contact Primepower AB.

### Installation

The ABC Charger is mainly suited for indoor use.

It can be used positioned horizontally on a table or a shelf, hang on a wall using the free supplied bracket or as a built-in charger in the vehicle or machinery. When it is built in it has to be shock absorbed.

The charger can be with fixed connection to the battery or with conventional connectors.

Position the charger in such a way that the air supply will not be obstructed.

When the charger is fitted on a wall or mounted in a vehicle it should be horizontal to limit dust and moisture to enter it.

### Function

Check that battery type and size correspond to the setting of the charger. Also check that the polarity between the charger and the battery is right. Positive + to positive + and negative – to negative -.

Connect the battery to the charger and switch on the charger.

The charging starts after a few seconds and the status indicator, Orange LED, is lit up.

Orange LED remains on until the battery is fully charged.

Green LED, is lit up when the battery is ready to be used.

Maintenance charging will continue as long as the battery is connected.

ABC600/800: The charger will be reset as soon as the charger is switched off and then on.

1600W version is reset by the red knob on the front or by disconnecting the mains cable.

The charging time depends on the size of battery and the depth of discharge.

A freely ventilated battery (Wet) can be discharged to max. 80% and a valve regulated (Dry) with max 70%.



Switch off the charger before the battery is disconnected. If the battery is disconnected without switching of the charger, sparks may be produced.

## CHARGING CURVES

Primepowers ABC charger is extremely flexible when it comes to charging curves. When ordering a charger be sure to inform the specifications needed so we can deliver a charger programmed for your needs. If nothing is said, the charger will always be programmed to default. The charging curve for all battery topologies are available.

### Default program - vented / valve-regulated parallel consumption, J-program

Charging phase	Vented, open		Valve-regulated, Gel	
	Voltage level	Time	Voltage level	Time
I1-fas	>1,4V/cell	Max 12h	>1,4V/cell	Max 12h
U1-fas	2,4V/cell	Max 12h	2,35V/cell	Max 12h
U2-fas	2,3V/cell	Unlimited	2,3V/cell	Obegränsad

### Traktionary batteries (Gel/AGM), M-/B-program

Charging phase	Vented, open		Valve-regulated, Gel	
	Voltage level	Time	Voltage level	Time
I1-fas	>1,4V/cell	Max 12h	>1,4V/cell	Max 12h
U1-fas	2,4V/cell	Max 12h	2,35V/cell	Max 12h
I2-fas	Max 2,8V/cell	Min 1h max 4h	Max 2,8V/cell	Min 1h max 4h
U2-fas	2,26V/cell	Unlimited	2,26V/cell	Obegränsad

## CHANGING OF CHARGING CURVE

Chargers that are ordered with setting "0" works only after setting the correct battery capacity.

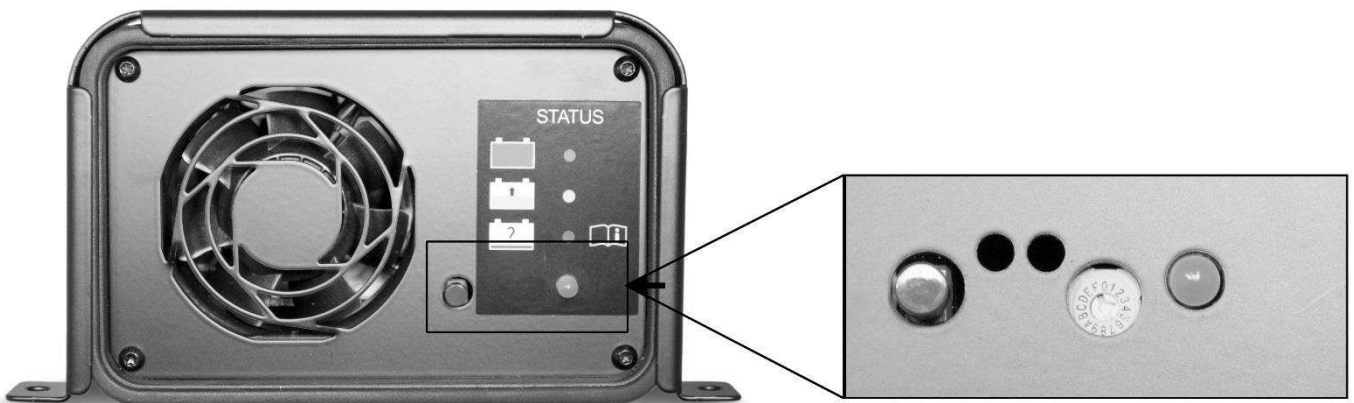
Switches for setting the charge curve is accessible on the front panel to the left of the LED.

ABC Charger is designed for charging any kind of battery, and is equipped with about 15 different charging curves.

Remove the sticker and screw the knob to the desired charging algorithm.

Please contact your dealer for the list of charging curves

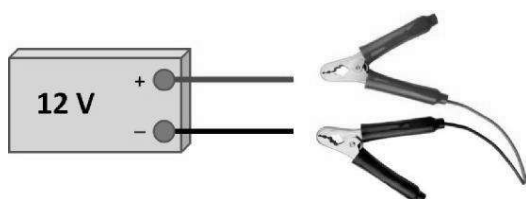
### Exempel of changing the charging curve on ABC 1600W



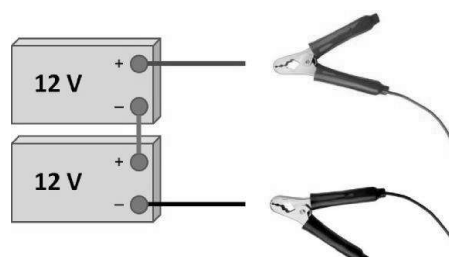
TECHNICAL SPECIFICATION

NAME	ABC 1600W	ABC 600/800W
Dimensions (L x W x H)	258 x 136 x 89 i mm	230 x 112 x 75mm
Weight	2,3Kg	1,5Kg
Ambient temperature	- 25°C > +40°C	- 25°C > +40°C
VAC Input	90 Volt - 255 Volt AC, 45 Hz - 400 Hz (<200V brings power limitations) The unit should be connected to fuse with "C" characteristics.	90 Volt - 255 Volt AC, 0-40 Hz - 400 Hz (<200V brings power limitations) The unit should be connected to fuse with "C" characteristics.
Output current	30A, 40A, 50A, 60A, 100A	10A, 15A, 20A, 25A, 30A, 50A
VDC Output	12V, 24V, 36V, 48V	12V, 24V, 36V, 48V, 72V, 96V
Mains cable	3 x 0,75 <sup>2</sup> Rubber cable. 1,5m	3 x 0,75 <sup>2</sup> Rubber cable 1,5m
Battery cable	2 m 10 mm <sup>2</sup> (2M 2x25mm <sup>2</sup> 12V 100A)	2 m 6 mm <sup>2</sup>
Protection class	Class I, grounded	Class I, grounded
IP Class	IP21 (horizontal mounted)	IP21 (alt. IP44)
Cover	Aluminium	Aluminium
Power factor	~1	~1
General	Protection against wrong polarity and short circuits. CE-certified in accordance with valid EN-standards. Can be used as a power supply (special program).	Protection against wrong polarity and short circuits. CE-certified in accordance with valid EN-standards. Can be used as a power supply (special program).

12V Battery (singel battery)



24V Battery (two batteries in series)



## INCLUDED IN THE PACKAGE

### PRIMEPOWER ABC USER MANUAL



### PRIMEPOWER ABC 600/800W



### PRIMEPOWER ABC 1600W



## WARRANTY

**WARNING!**

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

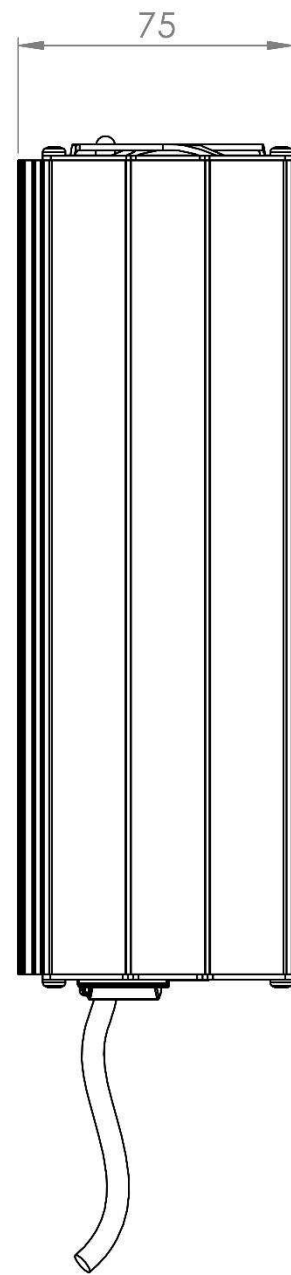
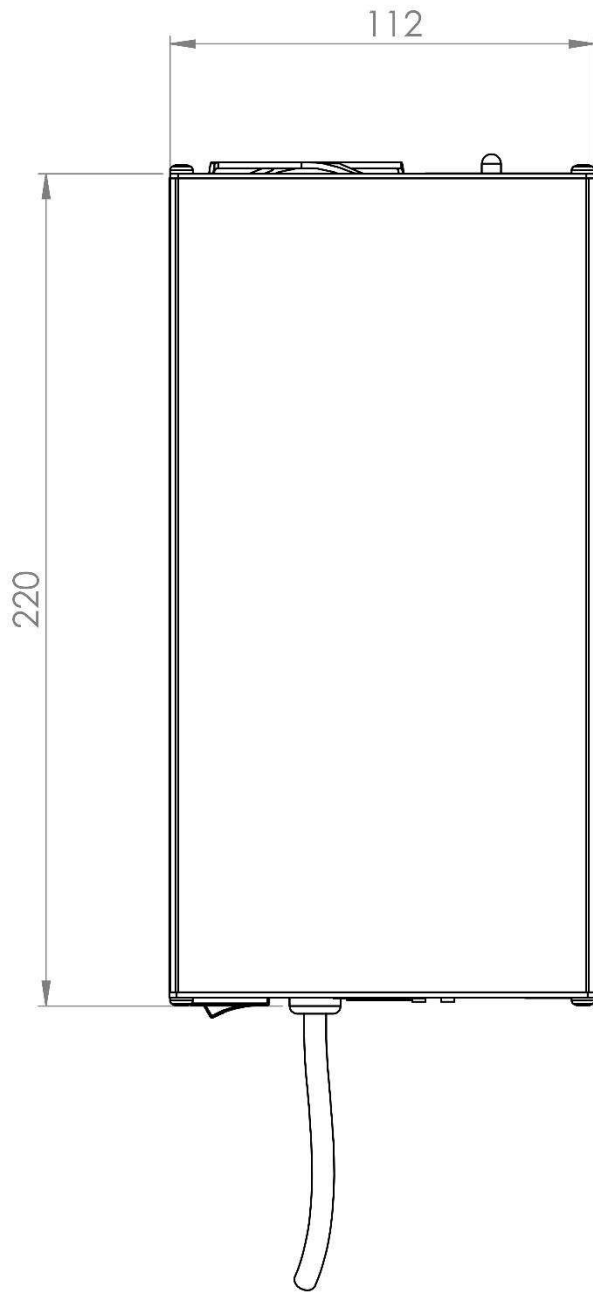
- Primepower warranty applies only to original purchaser within a period of 24 months from the date of delivery.
- Primepower guarantees that the product is in excellent condition upon delivery, unless comes full refund.
- If the user has not conducted a proper installation or used the product incorrectly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

### Warranty claim

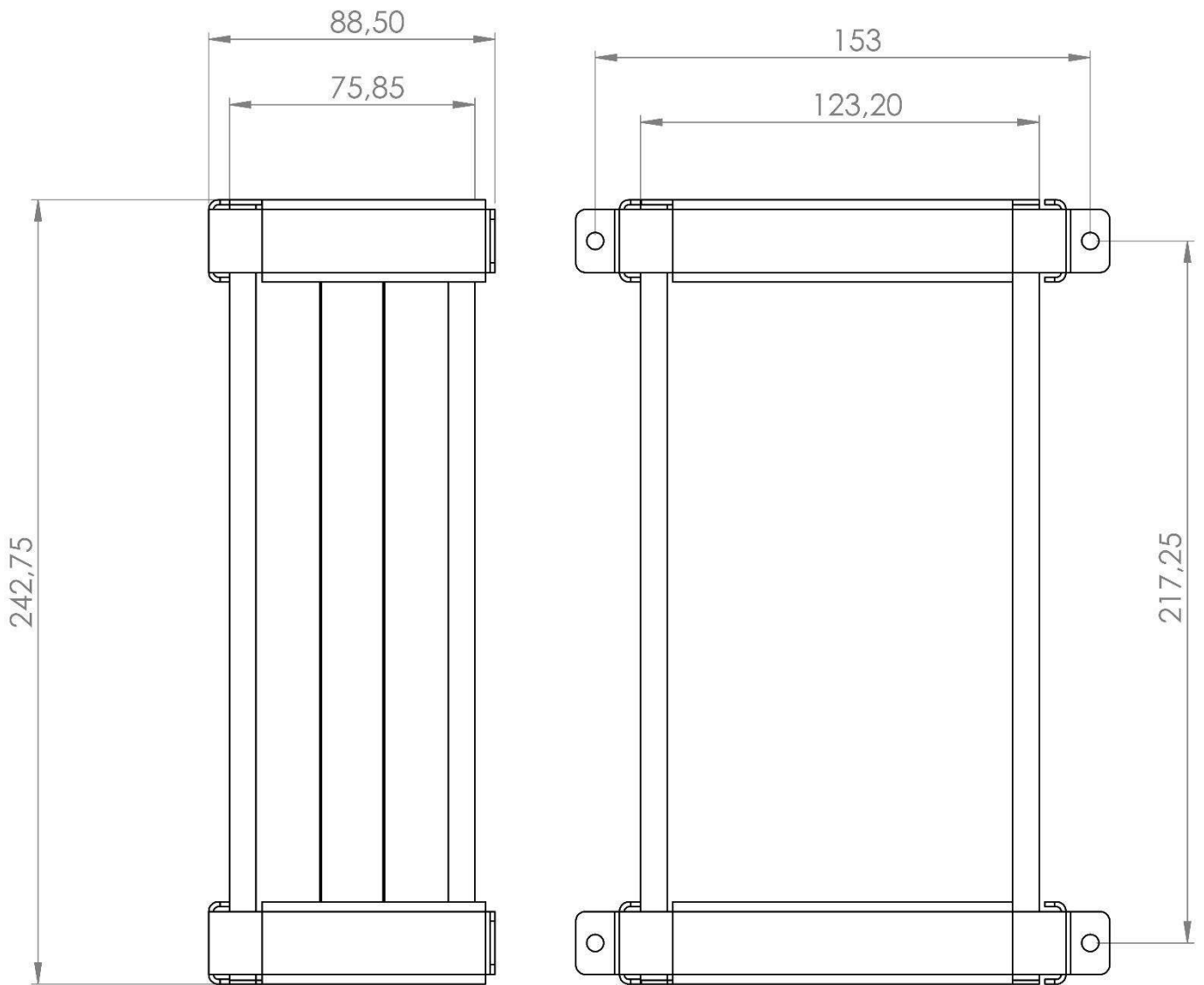
To take advantage of warranty please contact your retailer.

Please have following information available:

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



ABC 600 / 800W



ABC 1600W

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