

Invented for life



**BOSCH**

# Bosch battery service equipment

Extensive quality and reliability when charging, testing and starting batteries



# Battery service equipment

## Overview

The battery service presents demanding challenges for the testers used today. No voltage spikes that can result in sensor malfunctions may occur during charging. Bosch battery chargers allow starter batteries to be charged carefully even while installed.

### Modern test equipment strengthens the workshop's expertise

The extent of complex electrical and electronic systems increases with every new vehicle generation. Such systems are increasingly replacing mechanical and hydraulic components. The additional driving comfort and product quality enjoyed by customers presents totally new demands on the capabilities of the automobile workshop.

### Reliability, speed and fairness

Bosch battery chargers and testers offer first class quality and high reliability for charging, testing and starting batteries. With extensive experience and expertise, Bosch has put together a broad product range that is technologically adapted to current market requirements.

### Spare parts, diagnostics and services

Bosch offers the battery business of workshops and retailers full support from a single source. This includes a complete range of batteries, efficient diagnostic devices and reliable services.



# Battery chargers BAT 645 and BAT 690

## Product range and details

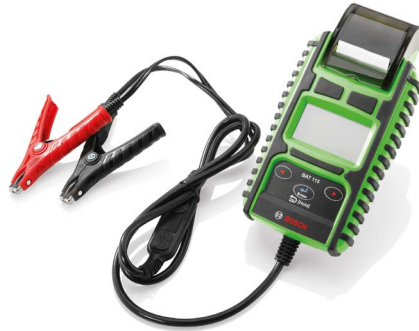


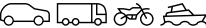
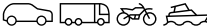
Technical data		BAT 645	BAT 690
Characteristics		The new battery charger BAT 645 is a universal device with a continuous output current of 45 ampere. The charger can be used for both 12 V passenger car and 24 V commercial vehicle electrical systems. Back-up and buffer operation is available. The USB port for software updates allows the installation of characteristics for new battery types and guarantees that the devices are always state-of-the-art.	The new battery charger BAT 690 is a universal device with a continuous output current of 90 ampere. The charger can be used for both 12 V passenger car and 24 V commercial vehicle electrical systems. Back-up and buffer operation is available. The USB port for software updates allows the installation of characteristics for new battery types and guarantees that the devices are always state-of-the-art.
Standard charging		45 A – for all lead acid battery types (standard, maintenance-free, gel, fleece, AGM, EFB) and new Li-Ion – lithium iron phosphate (LFP)	90 A – for all lead acid battery types (standard, maintenance-free, gel, fleece, AGM, EFB) and new Li-Ion – lithium iron phosphate (LFP)
Fully automatic charging		Fully automatic charging characteristics – universal for all battery types (UNI) and specific characteristics for WET, AGM, GEL, EFB and LFP and soft charging phase for deeply discharged batteries (automatic)	Fully automatic charging characteristics – universal for all battery types (UNI) and specific characteristics for WET, AGM, GEL, EFB and LFP and soft charging phase for deeply discharged batteries (automatic)
Max. charge current intensity	12 V	45 A	90 A
	24 V	22,5 A	45 A
Charging characteristic		I1U1I2aI3aI3...	I1U1I2aI3aI3...
Backup mode		12 V / 24 V max. 20 A	12 V / 24 V max. 30 A
Buffer mode		13 V / 26 V max. 45 A / 22.5 A	13 V / 26 V max. 90 A / 45 A
Operating temperature range		-5 °C – +45 °C	-5 °C – +45 °C
Voltage		230 V, 50/60 Hz	230 V, 50/60 Hz
Power consumption		Max. 800 W	Max. 1,600 W
Protection type (DIN 40050)		IP 20 D	IP 20 D
Dimensions (B x H x T)		220 x 115,5 x 296 mm	220 x 115,5 x 473 mm
Weight (without charging and power cable)		3.7 kg	6.6 kg
Charging cables		Detachable, 45 A, length 3 m – 6 mm <sup>2</sup> , optional 5 m – 6 mm <sup>2</sup>	Detachable, 90 A, length 3 m – 16 mm <sup>2</sup> , optional 5 m – 16 mm <sup>2</sup>
Advantages at a glance		<ul style="list-style-type: none"> <li>■ HMI with a dot matrix display – 18 languages</li> <li>■ Electronic protection management system</li> <li>■ USB port for SW updates</li> <li>■ Exchangeable charging and power cord cables</li> <li>■ Charger holder for wall mounting</li> </ul>	<ul style="list-style-type: none"> <li>■ HMI with a dot matrix display – 18 languages</li> <li>■ Electronic protection management system</li> <li>■ USB port for SW updates</li> <li>■ Exchangeable charging and power cord cables</li> <li>■ Charger holder for wall mounting</li> </ul>
Order number		0 687 000 164	0 687 000 169



# Battery testers BAT 115 and BAT 191

## Product range and details



Technical data	BAT 115	BAT 191
Characteristics	The BAT 115 battery tester is ideal for easy testing of 6 V and 12 V starter batteries. Lead-acid, EFB, Gel as well as AGM batteries (flat and spiral). 12 V and 24 V charging systems can also be tested. Various tests for 6 V and 12 V batteries as well as 12 V and 24 V starter and charging systems	The BAT 191 battery tester is ideal for testing 6 V, 12 V and 24 V starter batteries, both lead-acid, EFB, gel as well as AGM batteries (flat and spiral), LiFePO <sub>4</sub> and Harley-Davidson motorcycle batteries. With several programmed test sequences, the BAT 191 leads to fast, precise and reliable measurement results.
Battery nominal voltage	6 V/12 V	6 V/12 V/24 V
Application		
Test standards	EN, EN2, DIN, SAE, IEC, JIS, MCA	EN, EN2, DIN, SAE, IEC, JIS, MCA
Battery size (acc. to CCA)	40–2,000 A	CCA tolerances: 25~3,000 CCA: ±5 % 3,001~6,000 CCA: ±10 %
Start/charge system test	12 V/24 V	12 V/24 V
Printer	Integrated thermal printer	Integrated thermal printer
Menu languages	25	24
Dimensions (W x H x D)	approx. 250 x 130 x 60 mm	192 x 64 x 31 mm
Weight	1,100 g	240 g
Operating temperature	0 °C – +40 °C	0 °C – +50 °C
<b>Advantages at a glance</b>	<ul style="list-style-type: none"> <li>■ Various tests for 6 V and 12 V batteries as well as 12 V and 24 V starter and charging systems</li> <li>■ Micro-load tests for reliable measurement results</li> <li>■ Practical due to large LCD screen and user-friendly menus</li> <li>■ Integrated printer for printing the test results</li> <li>■ Menu-guided intuitive operation in 25 languages</li> <li>■ Large working radius due to 1.8 m test cable</li> <li>■ Robust housing, long-lasting technology</li> </ul>	<ul style="list-style-type: none"> <li>■ Optimized test algorithm for the testing of brand new, unused and stock batteries</li> <li>■ Extended test of the starting/charging system for 6 V, 12 V and 24 V batteries</li> <li>■ Saves up to 100 test results; USB port for downloading test results and software updates</li> <li>■ Replaceable, 3 m long cable for flexible working</li> <li>■ Bosch Connected Repair for networking with other Bosch devices in the workshop</li> <li>■ Suitable for hybrid vehicles</li> <li>■ Relative compression to the battery voltage during cranking</li> <li>■ Battery tests based on the internal resistance value (IR)</li> <li>■ Change between AA batteries (6 cells) or 18650x2 lithium batteries possible (battery holder included in the scope of delivery)</li> <li>■ Current clamp as special accessory</li> </ul>
Order number	0 687 000 115	0 687 000 191

# BAT 6120: battery charger and power box

## Product details

The Bosch BAT 6120 is a future-proof, professional, two-in-one battery support solution for automotive workshops. Functioning dependably as a smart and fast battery charger, for lead acid and lithium batteries, or as a 120 A continuous power supply.



### Advantages at a glance:

- **Intelligent and fast battery charger**, for lead-acid and lithium batteries or as a 120 A continuous power supply
- **With the ability to update the charging properties** via USB, workshops remain equipped for current battery technologies
- **Flexible operation on desk, bench or floor** (under vehicle in showroom) and wall mounted
- **Intuitive operation** thanks to the large, four-color, backlit LCD display with four buttons



### Euro 5 reprogramming

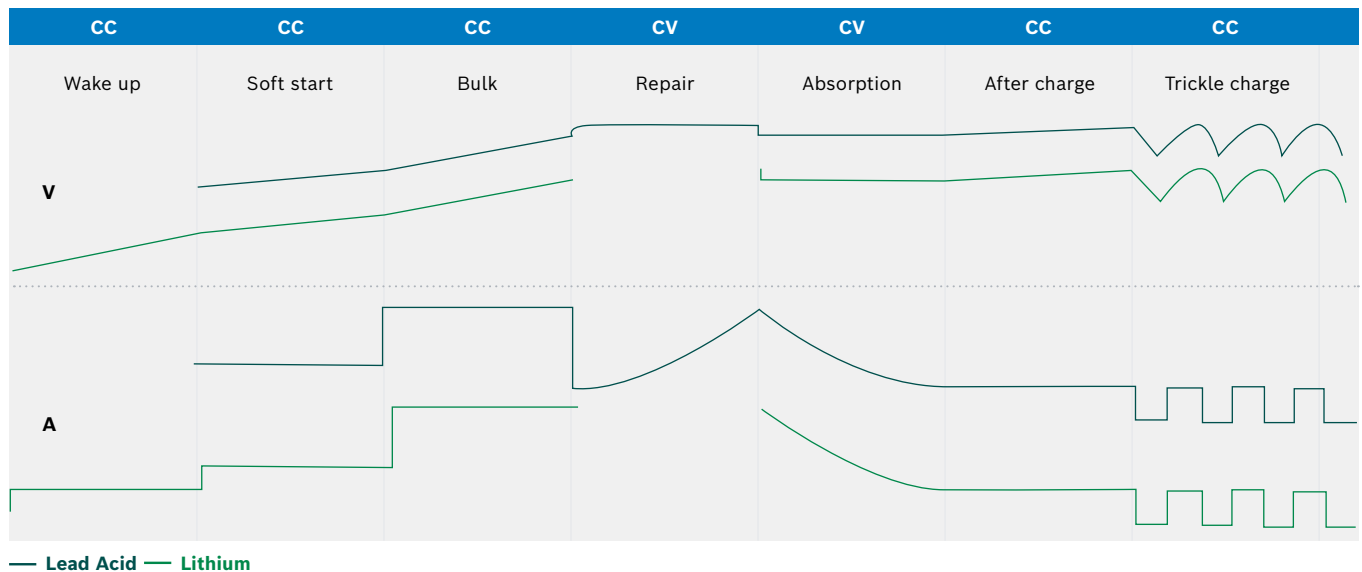
Since 2009, the Euro 5 Standard has required that vehicle manufacturers provide technical repair information via their online portals for all independent workshops. **It is important to ensure sufficient battery voltage on the vehicle. Reprogramming requires up to 90 ampere during continuous operation.** An interruption of the connection during the Bosch Euro 5 installation or the reprogramming can damage the control unit!

# BAT 6120: battery charger and power box

## Technology

Technical data	BAT 6120
Battery nominal voltage	12 V
Battery types	UNI, WET, EFB, AGM, VRLA/GEL, LFP (LiFePO4)
Battery size (in acc. with CCA)	10 – 450 A
Display	Screen size 3", 4 different backlight colours, 180°-rotation feature (wall hanging)
Menu languages	26
Operating temperature	0 °C – +40 °C
Diameter of the charging cable	25 mm
Length of charging cable	3 m (twin cable))
Protection class (DIN 40050)	IP 20 D
Dimensions (W x H x D)	329 x 116 x 433 mm
Weight (without charging/power cable)	8,5 kg
Order number	0 687 000 149

### Efficient battery charging curves



### Safety and comfort

#### BAT 6120 with wall mount

Tools should be safely stored when not in use and easily accessible when needed. That's why there is a sturdy bracket for the BAT 6120 for mounting on the workshop wall.

# Accessories

## Battery service

No fig.



Technical data	Battery pliers (no fig.)	Battery pliers	Battery pliers
Characteristics	Load current up to 1,000 A. Connection to charge line up to 50 mm² via thread socket. Especially strong red brass pliers, fully insulated. Copper band for better conductivity.	Load current up to 20 A. Connection to charging line up to 4 mm² soldered. Surface nickel-plated.	Load current up to 600 A. Connection to charge line up to 25 mm² via cable shoes A 6. Steel plate pliers, reinforced shoes, surface leaded, full insulated. Copper band for better conductivity.
Order number	<b>Red handle:</b> 8 787 955 003 <b>Blue handle:</b> 8 787 955 004	<b>Red handle:</b> 8 784 490 027 <b>Black handle:</b> 8 784 490 026	<b>Red handle:</b> 8 787 955 013 <b>Blue handle:</b> 8 787 955 014

Technical data	Current clamp with voltage probe
Characteristics	Load current 0.6 A – 990 A. Battery life of approx. 100 operating hours, suitable for cables up to 27 mm diameters.
Battery status	Red LED for low battery
Battery type	9 V (006P or IEC6E22)
Output socket	For jack plug 3.5 mm
Signal	1 mV/A
Order number	1 687 010 871



### Flexible battery testing

**Bosch battery test equipment**  
When testing the state of the battery, flexibility is decisive: Bosch battery testers allow both 12-V starter batteries and alternators with a rated output of 12 V to be tested quickly and easily.

# What drives you, drives us

Bosch technologies are used in most vehicles worldwide.  
People, and assuring their mobility, is what we are focused on.

Therefore, we have dedicated over 130 years of pioneering spirit  
and expertise in research and manufacturing to achieving this.

We provide the aftermarket and workshops worldwide with modern diagnostic and workshop  
equipment and a wide range of spare parts for passenger cars and commercial vehicles:

- solutions for efficient vehicle repairs
- innovative workshop equipment and software
- one of the world's most comprehensive ranges of new and exchange parts
- large network of wholesale customers, for quick and reliable parts supply
- competent hotline support
- comprehensive educational and training offers
- targeted sales and marketing support

**Find out more at:**  
[boschaftermarket.com](https://boschaftermarket.com)

**Robert Bosch GmbH**

Auf der Breit 4  
76227 Karlsruhe  
Germany