

BAT 490

Charging characteristics

Battery charger	Charging characteristics	Course of charging over time
BAT 490 "Standard"	I ₁ U ₁ I ₂ aI ₃ aI ₃ ...	
BAT 490 "Expert"	IU ₁ oU ₂ ...	

I Constant current characteristic curve
 U Constant voltage characteristic curve
 W Falling characteristic curve

a Automatic shutoff
 e Automatic reactivation
 t Charging time (resistance characteristic curve)
 o Autonomous switchover

BAT 490 accessory



Transport cart

1 687 012 102

Technical data	
Color	black
Dimensions (W x H x D)	685 x 1,135 x 550 mm
Weight	approx. 20.0 kg

Please contact Bosch Distributor for more information related to other battery service equipment.

What drives you, drives us.

For over 125 years, Bosch innovations have been keeping vehicles on the road and getting people to and from their destinations while improving safety and peace of mind along the way.

Bosch Automotive Aftermarket offers workshops and retailers a comprehensive portfolio of products that is unmatched worldwide:

- ▶ Efficient diagnostics
- ▶ Innovative workshop equipment
- ▶ Quick, reliable delivery
- ▶ The world's most comprehensive range of both new and remanufactured spare parts
- ▶ Workshop concepts to meet every requirement
- ▶ Comprehensive training
- ▶ Targeted sales and marketing support
- ▶ A competent service hotline
- ▶ 24-hour online workshop services

When it comes to scheduling, organising, and finding results, our solutions are combined with additional services to ensure your needs will be perfectly met, helping you to maximise your potential.

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Professional battery service equipment BAT 131 tester and BAT 490 charger/support unit

 **BOSCH**
 Invented for life

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BAT 131 – Battery Tester from Bosch

for 6 V and 12 V starter batteries

The portable battery tester BAT 131 is suitable for a wide range of vehicle applications and testing norms



The multitalent:

BAT 490



Perfect: Easy and comfortable testing of batteries

The new portable battery tester BAT 131 from Bosch is perfectly suitable for testing 6 V and 12 V starter batteries (Lead acid, gel, AGM and EFB).

The load free test procedure provides fast, precise and reliable measurement results. The battery tester has a robust housing specially designed considering workshop requirements. The enhanced user interface enables simple and intuitive operation.

BAT 131: Key features

- ▶ Menu guided intuitive operation, with results on large LCD screen
- ▶ Optimised test algorithm to test new/unused/in-stock batteries
- ▶ Extended test for 12 V and 24 V starting/charging system. The tester supports the optional use of a current clamp, which also improves the test results
- ▶ Stores up to 100 test reports; USB port for report downloads and future software updates
- ▶ Integrated printer provides “easy to understand” graphical printouts
- ▶ 3 m replaceable cable enables “flexibility” during battery and starter/alternator diagnosis

Benefits to the workshop

- ▶ Easy to use; robust housing; fast and accurate test results
- ▶ Wide range of vehicle applications and testing norms
- ▶ Maintain history of service records for future follow up with customers
- ▶ Various menu languages, “easy to understand” printouts for end customers
- ▶ Updating of software is possible with USB port



BAT 131 with integrated printer. The graphical printout includes detailed test results.



BAT 131: Other features

- ▶ Custom workshop information in printout header
- ▶ Possible to view/print last test results
- ▶ Printout in selected menu language
- ▶ Displays wrong polarity message when not connected properly
- ▶ Date and time stamp available
- ▶ Activity counters for all battery/starter/charging system test results



Technical data	BAT 131
Battery nominal voltage	6 V / 12 V
Application	Pass. car / comm. veh., motorcycle, marine
Battery types	Lead acid, gel, AGM & EFB
Test standards	CCA, JIS, EN, DIN, SAE, IEC, EN2
Battery size (in acc. with CCA)	100 – 2000 A
Starting/charging system test	12 V / 24 V
Printer	Integrated thermal printer
Menu languages	21
Dimensions (B x W x T)	approx. 270 x 113 x 50 mm
Weight	approx. 700 g
Operating temperature	0 °C - 40 °C

Special accessory

Optional amp clamp can measure starting current from 0 to 700 A.

Part numbers

BAT 131	0 684 400 731
Amp clamp	1 681 354 034

Compact and solid high-frequency charger with versatile application. An “all-rounder” for the workshop, service station, and battery retail outlets.

The powerful battery charger is suitable for charging all 12 V or 24 V lead-acid batteries, particularly batteries with fixed electrolyte gel batteries or AGM.

The floating-mode operation of the BAT 490, with intensities of current up to 90 A, stabilizes the vehicle electrical system during diagnosis and reprogramming of control units, this making the device essential in every modern workshop.

Product features of high-frequency charger BAT 490

- ▶ Charging mode for 12 V / 24 V lead-acid batteries
- ▶ Automatic detection of 12 V or 24 V System
- ▶ Variable charge current intensity in the expert mode (0–90 A)
- ▶ Shorter charging times due to optimized charging process
- ▶ Infinitely variable, regulated charging current
- ▶ Charging at vehicle electrical system
- ▶ Floating-mode operation and backup mode
- ▶ Sawtooth trickle charge
- ▶ Protection against polarity inversion, overcharge and short circuits
- ▶ Solid housing

Efficient work is enabled by the new working modes:

- ▶ Standard program for simple and rapid charging
- ▶ Expert program with flexible charge parameters

Radio codes and control unit programming remain unaffected.

Technical data	
Charge current intensity	Max. 90 A
Length of the charging cable	2 x 3 m
Cross-section charging cable	10 mm ²
Power input	1,600 W
Weight	10.5 kg
Charging characteristic “Standard”	I ₁ U ₁ I ₂ aI ₃ aI ₃ ...
Charging characteristic “Expert”	IU ₁ oU ₂
Final charge voltage, standard (temperature-controlled)	
12 V	14.0 V – 14.4 V
24 V	28.0 V – 28.8 V
Backup mode	12.0 V / 24.0 V max. 10 A
Floating-mode operation	13.5 V / 27.0 V max. 90 A / 45 A
Function temperature range	0°C–40°C
Mains voltage / density	230 V, 50 / 60 Hz
Battery nominal voltage	12 V / 24 V
Protection type (DIN 40050)	IP 20 D
Safety class (DIN 40530)	I
Dimensions (W x H x D)	300 x 200 x 390 mm
Emitted interference level	DIN 40839 emitted interference level I

Part numbers

BAT 490

0 687 000 049