

BCB 5524 cell balancer for advanced voltage balancing of HV battery cells

The Bosch BCB 5524 cell balancer improves the performance and extends the service life of battery packs in electric vehicles.

BCB 5524: Balancing high-voltage battery cells

The BCB 5524 is a state-of-the-art cell balancer designed for electric vehicle battery packs. It excels in precise voltage balancing, improving the battery performance and a long service life.

BCB 5524: Essential for EV workshops

With its intelligent control, real-time monitoring, and comprehensive protection mechanisms, the BCB 5524 ensures safe and efficient operation. It works with various lithium battery types, supports single cell and independent channel balancing.

BCB 5524: Configures to the set voltage target

The BCB 5524 is used for large voltage deviations between cells and precisely configures the connected cells to the same voltage level according to the user's set voltage target. All these features make it an essential tool for EV workshops and battery maintenance.

Training requirements:

The BCB 5524 cell balancer should only be used by technicians with an appropriate HV qualification. Bosch recommends the **VSH33: High Voltage Battery Repair** course.



Bosch BCB 5524 cell balancer – featuring automatic online updates, situation alarm and detailed test reports



Advantages for the workshop:

- **Real time automatic voltage detection:** Fast status check of cell and wire connection through immediate voltage detection after the BCB 5524 has been connected
- **Independent balancing control:** Precise and efficient voltage balancing through independent management of each cell's balance
- **Real-time monitoring:** Continuous control of battery voltage, current and temperature for optimal performance and early identification of operational failures
- **Quick initialization:** Pre-installed software and guided start-up for fast and easy setup without the need for manual installation
- **Emergency protection and alarms:** An emergency stop button ensures immediate power cut-off to protect both users and equipment in critical situations along with multi-faulty alarms, to avoid damage to users and the equipment from improper operation.
- **Multiple protection mechanisms:** Safe operation through over-voltage, under-voltage, over-current, short circuit and over-temperature protections
- **Easy data management:** Generating, exporting and printing of detailed charging and discharging reports for convenient sharing and analysis

Maintaining and optimizing HV battery cell power in the workshop

The BCB 5524 cell balancer is an essential tool for workshops involved in maintaining or optimizing battery packs of electric vehicles:

- **Maximized battery performance:** Achieve precise voltage balancing across cells to enhance the overall performance and efficiency of your battery pack.
- **Extended battery service life:** Preventing of uneven wear and tear on cells, significantly extending the lifespan of batteries and reducing replacement costs.
- **Safe operation:** With built-in protection mechanisms against over-voltage, under-voltage, over-current, short circuits, and over-temperature, the BCB 5524 ensures the safe operation of battery systems.

- **Real-time diagnostics:** Monitoring voltage, current, and temperature in real-time to quickly identify and address potential issues, avoiding unexpected failures
- **User-friendly interface:** Easy setup and operation with guided initialization, pre-installed software, and intuitive controls enabling easy access even for those with minimal technical expertise
- **Comprehensive reporting:** Detailed charging and discharging reports for thorough analysis and sharing, supplying every information for maintenance and optimization.

Technical data	
Power input	AC 90 – 264 V/40 – 60 Hz 10 A
Display	10" LCD touchscreen
Embedded storage	32 GB
Dis/charging power	Max. 600 W
Dis/charge voltage	DC 1 – 5 V
Dis/charge current	0,1 – 5 A
Discharging/charging mode	CC-CV
Current control accuracy	±50 mA
Voltage control accuracy	±5 mV
Weight	17 kg



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Find out more about Bosch service trainings by scanning the QR code!

Bosch – know-how, test equipment and service training from a single source



Bosch workshop support on high-voltage systems

As a developer of innovative solutions and supplier of hybrid and electric drive technology for original equipment, Bosch is shaping technological change in the vehicle and workshop market. Bosch offers extensive workshop equipment and technical support in the aftermarket.

Fit for high-voltage with Bosch service trainings

For jobs on electric and hybrid vehicles, such as high-voltage battery repairs, extensive knowledge of complex high-voltage technology is necessary. Bosch therefore offers a range of service trainings and legally required qualification measures for workshops.

High-voltage battery repair kit

In case the HV battery is defective or aged, replacement is not the only possible solution. For Toyota Prius III, Yaris or Lexus CT 200h with aged HV modules, Bosch offers a repair-kit with new long-life Bosch nickel metal hydride modules – cost effective and saving valuable resources.

