

BTD 101 low- and high-pressure tightness tester for electric vehicles

The user-friendly Bosch BTD 101 for battery modules operates with automatic pressure regulation and comprehensive data management

BTD 101: Precise tightness testing

The BTD 101 tightness tester is designed to work precisely, efficiently, and reliably with electric vehicles. With user-friendly features, automatic pressure regulation, and comprehensive data management, it is the essential tool for workshops committed to excellence.

BTD 101: Testing automatically many module types

The BTD 101 tests the tightness of a wide range of modules such as battery packs, liquid cooling plates, and motor driven boxes. In this way it supports the safe travel of electric vehicles. Running an Android 4.4.2 operating system with a user-friendly interface on a 10.1-inch display it offers easy touch operation. The BTD 101 automatically adjusts the pressure according to the set target pressure, and then inflates the product. As soon as the target pressure is reached, it automatically sets on hold and starts performing the leak detection.

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.



BTD 101 battery tightness tester – featuring automatic online updates, safe connection and detailed test reports



Advantages for the workshop:

- **Fast magnetic connection:** Quick and secure test head attachment preventing device damage caused by accidental disconnections
- **Automatic pressure regulation:** Precise pressure adjustments for reliable and consistent test results thanks to servo motor control
- **Dual pressure testing:** Suitable for various components like battery packs and motor drive boxes by supporting low- and high-pressure tests
- **Easy setup and use:** Reduced field setup time through pre-installed operating system and guided start-up
- **Convenient online updates:** No need for a PC through automatic checks and software updates via WiFi
- **Comprehensive logging and reporting:** Support of troubleshooting and customer documentation by operational data logs and detailed test reports

Testing the tightness of HV battery pack modules in the workshop

The BTD 101 tightness tester is an essential tool for workshops involved in maintaining or optimizing battery packs of electric vehicles:

- Enhanced diagnostic accuracy:** The BTD 101 provides precise and reliable airtightness testing for critical components like battery packs and cooling systems, helping to detect even the smallest leaks. The high level of accuracy ensures thorough and effective repairs boosting the safety and performance of the serviced vehicles.
- Improving efficiency and productivity:** Automatic pressure regulation and user-friendly interface streamline the testing process. The BTD 101 quickly adjusts to the required pressure settings and performs tests with minimal manual intervention, allowing technicians to focus on other tasks and save time.
- Reduce risk of damage:** The magnetic connection ensures that the test head disconnects safely if the test trachea is pulled abruptly. This prevents accidental damage to both the device and the vehicle components, saving from costly repairs and downtime.
- Up-to-date with technology:** The online update capability via a USB-WIFI stick ensures the equipment to always run the latest software – benefitting from the latest features, bug fixes, and improvements without the need for additional hardware or complex update procedures.
- Comprehensive data management:** Easy storage, management, and export of test results with the BTD 101's robust data handling features. The ability to generate detailed PDF reports and save extensive test parameters simplifies documentation and enhances transparency and building trust with the customers.
- Versatile and cost-effective:** Supporting both low and high-pressure tests, the BTD 101 effectively performs the functions of multiple devices in one compact unit. This versatility not only saves space but also reduces the need for additional equipment, making it a cost-effective solution for the workshop.
- Future-proof operations:** As the automotive industry evolves towards more advanced and eco-friendly technologies, having the BTD 101 equips the workshop to handle the latest in electric vehicles. Integrating the BTD 101 tightness tester into the workshop, ensures top-notch service quality, enhances operational efficiency, and maintains a competitive edge in the ever-evolving automotive industry are ensured.
- BTD 101 battery tightness tester**



- 1 Air outlet
- 2 Air intake (for 0.4–0.8 MPa gas source)
- 3 USB port (for memory stick,
- 4 WiFi stick or barcode scanner)
- 5 Alternative port (Micro USB)
- 6 Power adapter 24V/DC

Technical data	
Pressure range	<ul style="list-style-type: none"> High pressure range: 10–500 kPa Detection accuracy: 0.05 % FS Low pressure range: 0–10 kPa Detection accuracy: 0.05 % FS
Automatic pressure regulation range	0–500 kPa
Range of testing time	0–9999 s
Detection standard display resolution	0.1 Pa
Display	10" LCD touchscreen
Operating system	Android 4.4.2
Processor	ARM Cortex-A9 Tetranuclear S5P 4418 1.4 GHz
Random access memory	1 GB DDR3
Hard disk space	16 GB EMMC
Language	English
Ingress protection standard	IP41
Certification information	CE, RoHS
Power adapter	AC 110–240 V, 50–60 Hz
Operating temperature range	0–50 °C
Humidity requirements for operation	10–90 % (+25 °C)
Air pressure requirements for operation environment	80–108 kPa
Dimensions (L x W x H)	413 x 238 x 253 mm
Weight	5.3 kg

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.

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

