

Invented for life



BOSCH

Battery Insulation Tester BIT 1000 for high-voltage system diagnostics

New!

Precise insulation measurement, reliable safety verification, and efficient diagnostics of high-voltage components in electric vehicles

BIT 1000: Versatile testing for EV workshops

The BIT 1000 provides AC/DC voltage testing up to 1,000 V, resistance measurement up to 60 MΩ, and insulation resistance up to 5 GΩ. Automatic voltage release ensures operator safety, while Bluetooth connectivity enables convenient data tracking and remote operation.

BIT 1000: Accurate and safe insulation testing

With selectable test voltages of 125 V, 250 V, 500 V, and 1,000 V, the BIT 1000 adapts automatically to the test object to deliver precise results. The device meets international safety and performance standards (RoHS, IEC/EN 61326-1, 61557-1/-2/-4, SRRC, and IEC 61010-1 Level 2).

BIT 1000: Smart thermal imaging and easy operation

The integrated non-contact infrared thermal imaging function measures temperatures between -20 °C and 260 °C without locking onto a hot spot, ensuring safe and efficient thermal diagnostics. A 3.5-inch color LCD and intuitive controls simplify operation in the workshop or on-site.



Advantages at a glance

- **Multifunctional testing device:** Combines high-voltage insulation testing, multimeter functions, and non-contact temperature measurement in one tool.
- **Wide measurement range:** Supports AC/DC voltage up to 1,000 V and insulation resistance up to 5 GΩ with automatic range adjustment.
- **High accuracy and fast response:** Ensures stable voltage, current, and resistance readings with rapid A/D switching for efficient diagnostics.
- **User safety protection:** Automatically releases capacitor voltage after testing to prevent accidental electric shock.
- **Non-contact temperature detection:** Measures surface temperature from -20 °C to 260 °C using infrared thermal imaging without the need of locking onto a hot spot.
- **Clear and intuitive operation:** 3.5-inch LCD color display and simple interface make operation easy in workshop and field environments.
- **Wireless data monitoring:** Bluetooth connection enables monitoring and data recording for efficient documentation and analysis.
- **Portable and robust design:** Compact housing and durable carrying case ensure convenient handling and long service life.

Testing and ensuring high-voltage insulation safety in the workshop



Practical helpers installed on the rear side of the BIT 1000:
Thermal imager, laser and work light



Multiple jacks are mounted at the bottom of the BIT 1000:
Positive input, communication input and insulation inputs

Testing and ensuring HV insulation safety

The Bosch BIT 1000 Battery Insulation Tester is an essential tool for workshops involved in maintaining, repairing, or diagnosing high-voltage systems in electric vehicles:

- **Reliable insulation verification:** Detects insulation degradation and leakage issues in high-voltage components to ensure safe and stable vehicle operation.
- **Comprehensive measurement capability:** Performs insulation resistance, voltage, current, and resistance tests with high precision across a wide measuring range.
- **Safe operation:** Automatic discharge of residual capacitor voltage and built-in protection functions safeguard the user during and after testing.
- **Flexible applications:** Suitable for testing battery packs, electric motors, power electronics, and other HV components in electric vehicle maintenance.

Efficient diagnostics and intelligent operation

- **Real-time monitoring:** Continuously monitors voltage, current, resistance, and insulation status to quickly identify potential faults and prevent unexpected failures.
- **User-friendly interface:** Simple operation with a 3.5-inch color LCD display, clear test navigation, and Bluetooth connectivity for control and data viewing.
- **Non-contact temperature measurement:** Integrated infrared thermal imaging allows safe temperature checks without touching live components.
- **Comprehensive reporting:** Automatically generates test and measurement reports for thorough analysis, record keeping, and sharing – supporting efficient maintenance and documentation.



The BIT 1000 comes with a battery, a power supply unit and all necessary accessories in a robust protective case.

Description	Order number
Multifunctional Insulation Tester BIT 1000	1 699 505 751
Li-Ion rechargeable battery 7.4 V	1 699 505 752
K-type thermocouple	1 699 505 753
K-type thermocouple socket	1 699 505 754
Pair of test leads	1 699 505 755
Remote control probe	1 699 505 756
Alligator clips	1 699 505 757
12 V F-type power adapter	1 699 505 758
Battery charger	1 699 505 759
Quick start guide	–