

# Extremely high- voltage technology. Extremely safe diagnostics.



**AVL DiTEST**  
**HV SAFETY 2000**  
E-mobility diagnostic solutions



# Certainly the right decision.

## AVL DiTEST HV SAFETY 2000 – COME TO THE SAFE SIDE.

In the near future, every workshop will have to deal with a significant number of hybrid and electrically powered vehicles. High-voltage systems also carry a high safety risk. Guaranteeing the safety and reliability of high-voltage systems within the vehicles is one of the assignments to be performed in the future.

The processes of checking the isolation strength of high-voltage systems and the on-board isolation monitor are basic tests for each maintenance and repair activity regarding high-voltage vehicles. For test organizations, these measurements are becoming more and more important, since the isolation strength is subject to a certain process of ageing.



## ALL IN ONE

Developed specifically for the automotive industry, AVL DiTEST HV Safety 2000 – the high-voltage measurement module – guarantees the verification of all safety requirements for DC-HV circuits in the vehicle. AVL DiTEST HV Safety 2000 is the first „all in one“ device able to perform measurements according to UNECE R100. It supports the requirements of a measurement with 1 ampere and this exclusively using the standard USB port, without any additional power supply or batteries.

### ALL INNOVATIONS AT ONE GLANCE:

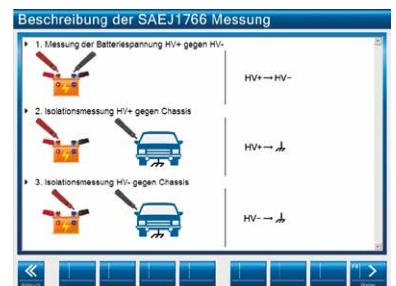
- › menu-guided measurement of the de-energized condition in DC circuits with continuous documentation
- › active isolation resistance measurement utilising integrated test voltage generator
- › integrated voltmeter up to 1,000V DC
- › equipotential bonding measurement according to UNECE R100
- › resistance, diode and capacitance measurement
- › guided diagnostics and measurement procedure
- › power supply via USB interface
- › can be calibrated for reproducible accuracy

The device is used in the workshop in order to be able to safely measure on the high-voltage systems of electrically powered and hybrid vehicles. The user benefits from being able to conduct a diverse range of measurements using just one convenient device: de-energized condition in DC circuits, isolation resistance, equipotential bonding conductor resistance. AVL DiTEST HV Safety 2000 offers a safe working environment for all users.

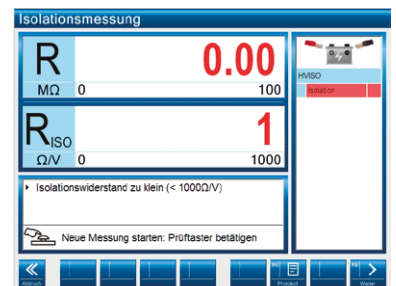
Menu-guided measurement, most comprehensive documentation



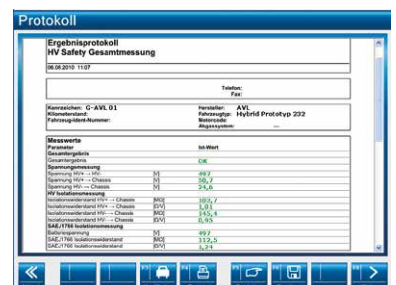
Measuring without any errors – automatic pre-setting



Maximum safety for human beings and the vehicle – menu-guided test instructions



Everything in view at all times – workshop-compatible presentation of the test conditions and measured results



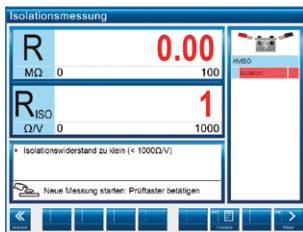
Quality assurance and obligation to produce proof under control – comprehensive logging and documentation



# FUNCTIONALITY, ECONOMIC EFFICIENCY, USER BENEFIT, FIELDS OF APPLICATION

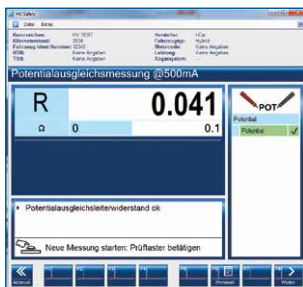
## MENU-GUIDED DETERMINATION OF THE DE-ENERGIZED CONDITION IN DC CIRCUITS WITH CONTINUOUS DOCUMENTATION.

The de-energized condition must be guaranteed, checked, and documented even for simple tests, service work, or repair work, and this during the entire duration of the work. AVL DiTEST HV Safety 2000 provides the technician with simple, guided instrumentation in order to check the de-energized condition in DC-HV circuits in a safe manner. The software records pertinent data every time the device is used, logging settings, instrument test, and test results. At the end of the measurement, a detailed test report is created that can be printed or saved.



### ACTIVE ISOLATION RESISTANCE MEASUREMENT BY MEANS IN INTEGRATED TEST VOLTAGE GENERATOR

In order to test the isolation strength of a vehicle, an external test voltage must be applied. This voltage must be within the range of the battery voltage of the electrically powered vehicle. HV Safety 2000 automatically and safely generates the required voltage without endangering the user. The entire test is also made available within the test report.



### EQUIPOTENTIAL BONDING MEASUREMENT ACCORDING TO UNECE R100

Upon completion of the work – e.g. component replacement – the high voltage must be restored without any errors. In order to check the high-voltage vehicle for safety, the process of testing the equipotential bonding resistance is defined within the standard UNECE R100. HV Safety 2000 supports this measurement with the specified current of 1 A.



### FURTHER MEASURING FUNCTIONS

HV Safety 2000 offers additional functions: diode, resistance, capacity and DC voltage measurement. The measured values are displayed on the screen of your PC in a well legible manner. This way, the workshop does not need different instruments.

### POWER SUPPLY VIA THE USB INTERFACE

No additional power supply or battery is required. The device is always ready-to-operate, including the generation of high voltage for isolation resistance measurement and of the 1 ampere current for measuring in accordance with UNECE R100.

#### Published by:

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