High-voltage Battery Tester HBT3000 Series

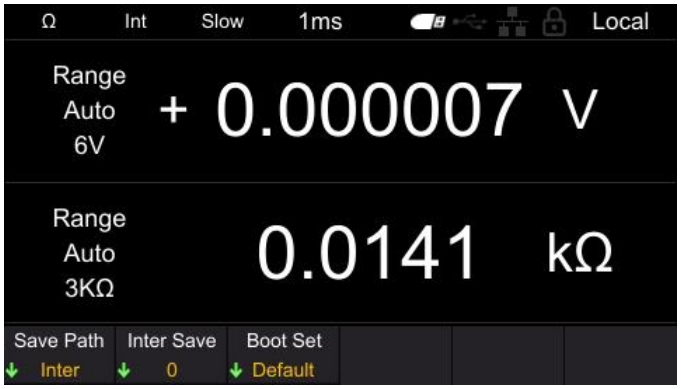
- 6 1/2-bit reader high-resolution internal resistance tester is a battery internal resistance tester with high accuracy and rapid measurement characteristics, and the measurement voltage range reaches 2000V.
- 0.1μΩ resistance resolution, 10μV voltage resolution, with high precision, high speed, suitable for various battery types.
- Standard RS232/485, LAN, EXT I/O, USB Host, USB Device, ANALOGOUTPUT interface, suitable for more testing scenarios.
- Using the AC 4-terminal method, impedance measurement is not affected by the impedance of the test line.
- It has independent comparison functions for resistance and voltage, while displaying the internal resistance and voltage of the battery.
- Short -circuit zero adjustment function, remove the bias voltage of the instrument or the error caused by the measurement environment.
- Support U disk screenshots to save functions, and you can upgrade the instrument program through the U disk.
- Sampling rate: Slow/Horotelic/Fast, with a maximum speed of approximately 40 ms for high-speed measurement.
- Internal impedance measurement range: 3mΩ/30mΩ/300mΩ/3Ω/30Ω/300Ω/3.6kΩ.
- The full range of voltage measurement covers: 1100V/1600V/2000V.
- Draw the normal distribution diagram to observe the normal distribution of the measurement results.
- The measurement results are easily saved into the U disk to facilitate subsequent data analysis and processing.

High precision and wide range

6 1/2, the voltage measurement range reaches 2100V, the resistance measurement range is 0 ~ 3.9kΩ, and the battery internal resistance testing internal resistance testing internal resistance test instrument with high accuracy and rapid measurement characteristics is covered. Field meets your needs

Comparator function

Resistance and voltage are independent, and the function of displaying and output the measurement results will help you better understand the working status of your circuit or equipment.



Save/Load Function

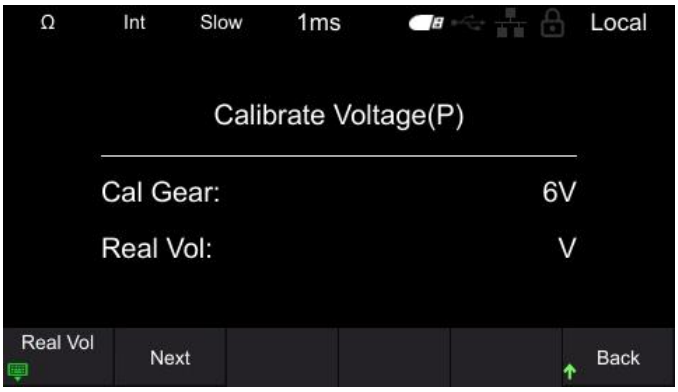
The startup settings can be saved to the internal or U disk. There is no need to perform tedious application settings every time you use. Press the corresponding power -on settings button to easily load the previously saved application settings.

Three-speed sampling rate

The sampling rate can be changed in three stages (Fast/Horotelic/Slow), and the appropriate sampling rate can be selected according to different testing needs. The fastest high-speed measurement can be about 40 ms. The lower the sampling rate, the higher the testing accuracy.

Correction function

The calibration is divided into voltage calibration and resistance calibration, which is used to compensate the bias voltage or gain drift of the internal circuit of the instrument to improve the test accuracy.



Statistical function

Calculating a variety of statistical indicators, including but not limited to Average, Max, Min,Parent Standard Deviation, etc., makes it easy to plot the normal distribution and helps you visualize the normal distribution of your measurements.

Rich configuration interfaces

Standard RS232/485, LAN, EXT I/O, USB Host, USB Device, ANALOGOUTPUT interface.

Model		HBT3561A	HBT3562A	HBT3563A	HBT3564A	HBT3565A	HBT3566A
Voltage Measurement	Range	110V	210V	360V	1100V	1600V	2000V
	Max. Display	121V	231V	396V	1210V	1760V	2200V
	Resolution	1 μV			10 μV		

<table>
<tr><td colspan="2"></td><td>Accuracy</td><td colspan="6">±0.01% rdg ±3 dgt</td></tr>
<tr><td colspan="3" rowspan="8">ResistanceMeasurement</td><td rowspan="2">Range</td><td rowspan="2">Max. Display</td><td rowspan="2">Resolution</td><td rowspan="2">Measurement Current</td><td colspan="2">Accuracy</td></tr>
<tr><td>3 mΩ</td><td>30 mΩ or more</td></tr>
<tr><td>3 mΩ</td><td>3.6 mΩ</td><td>0.1 μΩ</td><td>100 mA</td><td rowspan="7">±0.5% rdg ±10 dgt</td><td rowspan="7">±0.5% rdg ±5 dgt</td></tr>
<tr><td>30 mΩ</td><td>36 mΩ</td><td>1 μΩ</td><td>100 mA</td></tr>
<tr><td>300 mΩ</td><td>360 mΩ</td><td>10 μΩ</td><td>10 mA</td></tr>
<tr><td>3 Ω</td><td>3.6Ω</td><td>100 μΩ</td><td>1 mA</td></tr>
<tr><td>30 Ω</td><td>36Ω</td><td>1mΩ</td><td>100 μA</td></tr>
<tr><td>300 Ω</td><td>360 Ω</td><td>10 mΩ</td><td>10 μA</td></tr>
<tr><td>3600Ω</td><td>3610Ω</td><td>100 mΩ</td><td>10 μA</td></tr>
<tr><td colspan="3">Measurement Method</td><td colspan="6">AC four-terminal method</td></tr>
<tr><td colspan="3">Measurement Frequency</td><td colspan="6">1 kHz</td></tr>
<tr><td colspan="3">Response Time</td><td colspan="6">5 ms approx.</td></tr>
<tr><td colspan="3">Open Terminal Voltage</td><td colspan="3">12 V peak</td><td colspan="3">15 V peak</td></tr>
<tr><td rowspan="3">Sampling Period
(Frequency: 50 Hz/60 Hz)</td><td>Meas. Speed</td><td colspan="2">Fast</td><td colspan="2">Medium</td><td colspan="2">Slow</td></tr>
<tr><td>ΩV</td><td colspan="2">60 ms</td><td colspan="2">300 ms</td><td colspan="2">600 ms</td></tr>
<tr><td>Ω or V</td><td colspan="2">40 ms</td><td colspan="2">200 ms</td><td colspan="2">400 ms</td></tr>
<tr><td rowspan="3">Allowable Total Line Res.(error detection)</td><td>Range</td><td>3 mΩ</td><td>30 mΩ</td><td>300 mΩ</td><td>3 Ω</td></tr>
<tr><td>Sense Line</td><td>3 Ω</td><td>3 Ω</td><td>20Ω</td><td>20Ω</td></tr>
<tr><td>Source Line</td><td>3 Ω</td><td>3 Ω</td><td>20Ω</td><td>200Ω</td></tr>
</table>

Function	Zero Adjustment	Yes
	Meas. Current Pulse Output	Pulse, Continuous
	Statistical Calculations	Mean, Maximum, Minimum, Standard Deviation, Sample Standard Deviation, Process Capability Index (Dispersion), Process Capability Index (Deviation)
	Delay Time	On/Off,1 ms to 9999 ms
	Average	1, 2, 4, 8 times
	Save/Load	Up to 1000
	Trigger	Internal, External, Manual
Interface	Standard	RS232/485, USB, LAN, I/O, Analog Output
	Optional	GPIB (HBT4000H series models only)
Display		4.3 inch LCD
AC Input		110 V ±10 % or 220 V ± 10 %, 47 to 63 Hz
Dimension(WxHxD)		Low voltage: 208.5mm*84.5mm*264mm High voltage: 208.5mm*84.5mm*344mm