



## 3554 BATTERY HiTESTER

Field Measuring Instruments



Get a Complete Diagnosis of UPS Batteries  
with a Single Device



- Auto-hold and Auto-data storage
- Enhanced resistance against noise
- Store up to 4800 sets of data
- PC Interface
- User-exchangeable probe tip

**WIDE  
60V RANGE**  
Ideal for UPS  
Backup Batteries



### The New Standard for Assessing Deterioration of Lead-acid Batteries

Repeated recharging of a secondary battery can lead to battery deterioration and increase its internal resistance. Problems can intensify when there is a short-circuit in the internal cell leading to voltage drop, overheating and complete battery malfunction. Worst of all, short circuits as a result of battery corrosion can cause life-threatening fires and other accidents.



ISO 9001  
JMI-0216



ISO 14001  
JQA-E-90091



<http://www.hioki.co.jp/>

HIOKI company overview, new products, environmental considerations and other information are available on our website.

# HANDS FREE Data Capture Allows You to Focus on the Testing

**Fully Automatic Data Capture**

**Toggle between 4 different ways to save data**

**AUTO HOLD & AUTO MEMO** Automatically save data as soon as reading is stabilized

**TEST & SAVE**  
Press the **HOLD** then **MEMO** keys for whenever you need to save data

**AUTO MEMO**  
Instantaneously save measurement data with one touch using the **9466 Remote Control Switch** saddled to the test lead

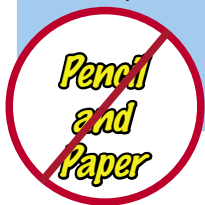
**AUTO HOLD** Check stabilized measurement value before saving with the **9466 Remote Control Switch**

Save up to **4800** Sets of Battery Data

## Quickly Download Data to a PC via USB Interface - Effortlessly Manage Using Bundled Software

The hassle-free measurement process is extended to data management and processing using the bundled data management software. All 4800 sets of data can be uploaded to the PC quickly and effortlessly via a USB cable, and displayed neatly in table format. Edit comparator tables and send them back to the 3554.

Store and edit up to **200** sets of comparator settings



**Not Required**



USB

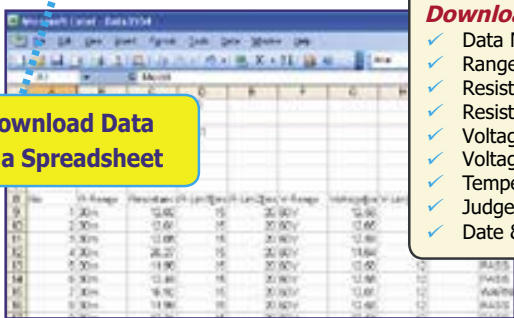
No.	Name	V Range	D Limit (mV)	F Limit (mV)	V Range	V Limit (mV)
1	Main Station 1	30v	1.00	12.00	60v	20.00
2	Main Station 2	30v	15.00	37.00	60v	24.00
3	Main Station 3	30v	5.00	34.00	60v	18.00
4	Main Station 4	30v	2.00	34.00	60v	18.00
5	Main Station 5	30v	1.00	34.00	60v	18.00
6	Main Station 6	30v	1.00	34.00	60v	18.00
7	Sub Station C-1	30v	1.00	12.00	60v	2.00
8	Sub Station C-2	30v	2.00	12.00	60v	2.00
9	Sub Station D-1	30v	15.00	37.00	60v	12.00
10	Sub Station D-2	30v	11.00	18.00	60v	12.00
11	Sub Station D-3	30v	22.00	37.00	60v	12.00
12	Backup A	30v	1.00	37.00	60v	12.00
13	Backup B	30v	1.00	37.00	60v	12.00
14	Backup C	30v	1.00	37.00	60v	12.00

**Edit and Send Comparator Settings**

**Automatically clear data from the 3554**

**Download Data to a Spreadsheet**

- Download:**
- ✓ Data Memory Number
  - ✓ Range
  - ✓ Resistance value
  - ✓ Resistance limits
  - ✓ Voltage value
  - ✓ Voltage limit
  - ✓ Temperature
  - ✓ Judgement
  - ✓ Date & time

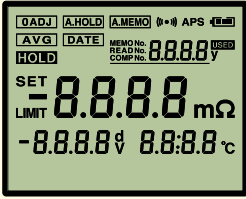






## Specifications

### Basic Specifications

<b>Measurement items</b>	: Resistance (AC four-terminal method), voltage, temperature (platinum temperature sensor, only when using 9460 leads)
<b>Display</b>	: LCD
<i>LCD All Segments Displayed</i>	
	
<b>Sampling rate</b>	: Once per second
<b>Averaging Function</b>	: OFF, 4, 8, or 16 times
<b>Input overflow</b>	: [OF] is displayed
<b>Constant current fault detection</b>	: [----] is displayed
<b>Open-circuit terminal voltage</b>	: 5 VMax
<b>Auto power off</b>	: Auto power off after 10 minutes unless during data transmission
<b>Comparator Settings</b>	: First and second resistance limits, and lower voltage limit
<b>Number of Comparator Settings</b>	: 200 Sets
<b>Comparator Output</b>	: LCD display of PASS, WARNING, or FAIL. Select beeper to sound on PASS/WARNING or FAIL.
<b>Operating temperature and humidity</b>	: 0 to 40°C (32°F to 104°F), 80% rh or less (no condensation)
<b>Absolute maximum input voltage</b>	: 60V DC, No AC input allowed
<b>Withstand voltage</b>	: Between input terminals and output terminals ( including EXT. HOLD/MEMO, and USB terminals): 1.5 kV AC rms for 15 seconds
<b>Maximum rated power consumption</b>	: 2 VA
<b>Continuous operating time</b>	: 10 hours (using alkaline batteries)
<b>Power supply</b>	: AA (LR6) Alkaline Batteries x 8

The standard 3554 Package comes bundled with one 9465-10 Pin type Lead, one USB Cable, data management PC software, tough carrying case, zero-adjustment board, eight AA batteries, and one spare fuse.

<b>Dimensions and mass</b>	: Approx.192W x 121H x 55D mm, 790 g (including batteries)
<b>Accessories</b>	: Model 9465-10 PIN TYPE LEAD x 1, USB cable x 1, Application Software CD x 1, Strap x 1, Carrying case x 1, Zero adjustment board x 1, LR6 alkaline batteries x 8, Fuse x 1



### Functions

<b>HOLD</b>	: (1) Pressing the HOLD key (2) Inputting signals to the EXT.HOLD/MEMO terminal (3) Stabilizing measured values (when the auto-hold feature is on)
<b>Data Storage</b>	: While the measured values are being held, pressing MEMO key will save them to internal memory. When the auto-memory feature is on, measured values will be saved to the instrument's internal memory when held. <b>Saved items:</b> Date, time, resistance value, voltage value, temperature, comparator setting values, and comparator judgement. <b>Maximum storable data:</b> 4800 sets. Memory structure: 400 data sets per unit (12 units)
<b>Reading data</b>	: Read stored data on instrument or with PC application□
<b>PC Interface</b>	: USB
<b>PC Software</b>	: Windows compatible, using USB interface
<b>Application</b>	: <b>PC to 3554:</b> transfer comparator tables edited on Excel, delete data from 3554, initialize the 3554, make clock settings. <b>3554 to PC:</b> transfer data stored in memory (save files on PC in CSV format)

### Measurement Accuracy (Guaranteed Accuracy Period: 1 Year)

Guaranteed Accuracy : 23°C± 5°C (73°F± 9°F), non-condensating, after zero-adjustment, warm-up time not required

#### Resistance Measurement

Temperature coefficient : ±0.01 %rdg.±0.8 dgt./°C  
Measurement current frequency : 1 kHz±30 Hz  
Measurement current reliability : ±10 %

Range	Max. display	Resolution	Measurement Current	Accuracy
3 mΩ	3.100 mΩ	1μΩ	150 mA	±1.0 %rdg.±8 dgt.
30 mΩ	31.00mΩ	10μΩ	150 mA	
300 mΩ	310.0 mΩ	100μΩ	15 mA	
3 Ω	3.100 Ω	1 mΩ	1.5 mA	

#### Voltage Measurement

Temperature coefficient : ±0.005 %rdg.±0.5 dgt./°C

Range	Max. display	Resolution	Accuracy
6 V	±6.000 V	1 mV	±0.08 %rdg.±6 dgt.
60 V	±60.00 V	10 mV	

#### Temperature Measurement

Measurement Range	Resolution	Accuracy
10°C to 60°C	0.1°C	±1.0°C

#### To Our Valued Customers:

The thresholds for determining the pass/fail condition of a battery depends on the specifications and standards of the battery manufacturer, battery type, capacity, etc. It is important and necessary to always conduct battery testing against the internal resistance and terminal voltage of a new or reference battery. In some cases, it may be difficult to determine the deterioration state of sealed lead acid batteries which demonstrates smaller changes in internal resistance than traditional open type (liquid) lead-acid or alkaline batteries.

## Options

*Bundled with standard 3554*

**9465-10** Pin-type Lead  
**9454** Zero Adjustment Board

**9460** Clip-type Lead with Temperature Sensor  
**9772** Pin-type Lead  
**9466** Remote Control Switch  
**9467** Large Clip Type Lead (no CE mark)  
**9465-90** Tip Pin (to replace the tip on Model 9465-10)  
**9772-90** Tip Pin (to replace the tip on Model 9772)

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