

NEW





Streamline UPS and lead-acid battery diagnostics with measurement and recording guidance.

Measurement navigator

Audio guidance

Streamlined data management **Profiles**

From measurement to recording

As fast as 2 sec.

Accurately assess lead-acid battery deterioration using proprietary technology.

The new Battery Tester BT3554-50 sets a new standard for UPS and lead-acid battery diagnostics. Since the battery's internal resistance and voltage are measured using the impedance method, diagnostics can be performed while the battery is connected to its host device, without taking it offline. Proprietary noise reduction technology allows more accurate measurement, even in noisy environments.

Enjoy measurement guidance and easy data management functionality with the latest software.

When the BT3554-50 is paired with a dedicated mobile app (GENNECT Cross), the mobile device will provide audio guidance announcing the next battery number to be measured. This feature helps prevent erroneous measurements. You can also set up measurement locations informations and battery numbers in advance to create *profiles* to which measurement data and diagnostic results will be linked. This capability simplifies data management, even when performing diagnostic work on large numbers of batteries.















Simply follow the audio guidance to measure, record, and organize data.

1

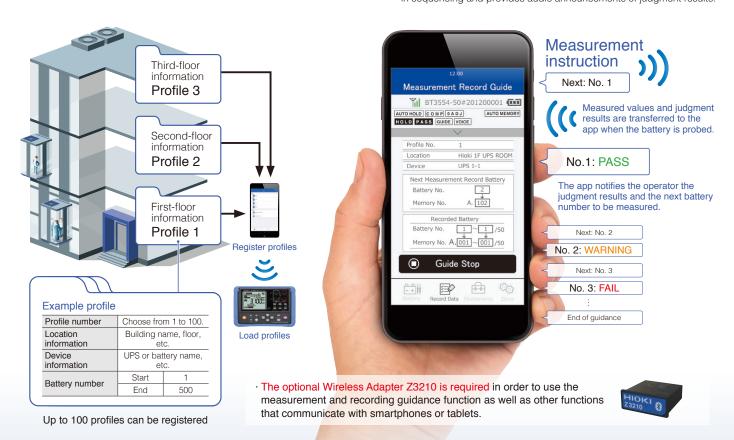
Register site informations in advance.

Register *profile* information for each measurement site using GENNECT Cross or GENNECT One and load it on the instrument.

2

Receive audio guidance about the measurement sequence.

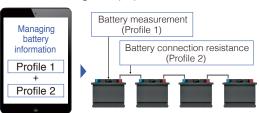
The app provides audio guidance about the battery measurement sequence based on *profile* information. This approach prevents mistakes in sequencing and provides audio announcements of judgment results.

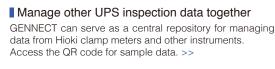


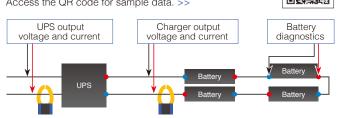
Applications other than diagnostics

■ Manage battery connection resistance values too

If you set up *profile* information for each measurement application, you can easily group readings with other measurement data for management purposes.



















Model No. (Order code)	BT3554-92	BT3554-91	BT3554-52	BT3554-51	BT3554-50
Special	Pin Type Lead L2020	Pin Type Lead 9465-10	Pin Type Lead L2020	Pin Type Lead 9465-10	-
Accessories	Wireless Adapter Z3210	Wireless Adapter Z3210	-	-	-
		•••••	• • • • • • • • • • • • • • • • • • • •	•	•••••••••••••••••••••••••••••••••••••••

Standard accessories



Case C1014

Protector

Z5041



Z5050









AA alkaline battery (LR6) × 8 User Manual

GENNECT One Software CD







For Bluetooth® wireless communications technology; required in order to communicate with mobile devices.

3

Record data automatically while probing.

Judgment results (PASS, WARNING, or FAIL) relative to comparator threshold values are recorded by the instrument along with measured values and transferred to your mobile device.



Manage data easily.

Measurement data is linked to profile information and saved. This approach lets you reduce the number of man-hours spent managing measured batteries.

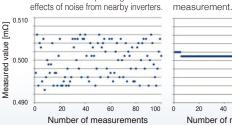


Profile number Location information Hioki first-floor UPS room Profile Information Device information **UPS 1-1** Battery number Memory number A 001 Date and time 2020/4/20 13:00:00 Third-floor •.••• mΩ Resistance value measurement data Measurement Voltage value ••.•• V data Second-floor Temperature ••.••°C measurement data Comparator • mΩ / • mΩ / • V Threshold value First-floor measurement data PASS / WARNING / FAIL Judgment result

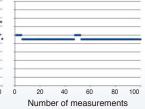
Up to 6,000 data sets can be saved

√M NOISE REDUCTION TECHNOLOGY Noise resistance that lets you measure even when the UPS is in operation

Measured values fail to stabilize while the UPS is operating due to the



The effects of inverter noise are reduced to facilitate stable





Free Mobile app

PC Software

Free











GENNECT One

Transfer measurement data to a smartphone

Transfer internal memory data to a computer

Optional functionality

Excel® Direct Input

Excel® Direct Input function allows you to input measurement values directly and automatically into an Excel file once the measurement Auto-hold function is activated. You can easily input the data into an existing Excel form.









Access QR code

App and software functionality

Easily create reports

Create easy-to-read graphical reports with measurement results and photographs instantly.





Display trends for accumulated data

Display data for selected batteries and generate trend graphs by cubicle (up to 500 units).



Options

Regarding probe length



L: Total length



Pin Type Lead L2020

A: 70 mm (2.76") (red), 150 mm (5.91") (black, max. 630 mm [24.80"]) B: 164 mm (6.46") L: 1941 mm (76.42") (red)



Pin Type Lead 9465-10

A: 45 mm (1.77°) (red), 105 mm (4.13°) (black, max 515 mm [20.28"]) B: 176 mm (6.93") L: 1883 mm (74.13") (red)



Pin Type Lead 9772

A: 45 mm (1.77") (red), 105 mm (4.13") (black, max. 515 mm [20.28"]) B: 173 mm (6.81") L: 1880 mm (74.02") (red)



Separate surface fastener required

with Temperature

Sensor 9460

A: 300 mm (11.81")

B: 106 mm (4.17")

if affixing to carrying case

0 Adj Board



Large Clip Type Lead 9467

A: 300 mm (11.81") B: 116 mm (4.57") 1360 mm (53.54") Max. clip diameter: approx. φ29 mm



Protector



Remote Control Switch 9466

Hold and save measured values by pressing the button. Cable length: approx. 2 m (78.74")



Carrying Case C1014 Hard case



9465-90 L2020/9465-10 tip pin replacement



Order code 9451-01 Temperature Probe 9451S

L: 100 mm (3.94")



Temperature Probe 9451 L: 1500 mm (59.06")



Fuse Set

Z5050 For BT3554, BT3554-50

Z5038 For L2020, 9465-10, and 9772

For BT3554 and BT3554-50

Specifications

General Specifications

Measurement parameters	Battery internal resistance measurement Battery terminal voltage measurement (DC voltage only) Temperature measurement (when using 9460, 9451, or 9451S)
Measurement time	100 ms
Response time	Approx. 1.6 sec.
Location of use	Indoors, Level 2 pollution, maximum elevation of 2000 m (6562 ft.)
Operating temperature and humidity range	Temperature: 0°C to 40°C (32°F to 104°F) Humidity: 80% RH or less (non-condensing)
Storage temperature and humidity range	Temperature: -10°C to 50°C (14°F to 122°F) Humidity: 80% RH or less (non-condensing)
Power supply	Size AA alkaline battery (LR6) \times 8 Rated supply voltage: 1.5 \vee DC \times 8 (Nickel metal hydride batteries may be used. However, the battery life display is not supported in this configuration.)
Continuous operating time	About 8.3 hr. (without Z3210 installed) About 8.2 hr. (with Z3210 installed and wireless communications active)
Standard compliance	Safety: EN 61010-2-030 EMC: EN 61326-1
Dimensions	199W x 132H x 60.6D mm (7.83"W x 5.20"H x 2.39"D) (with Protector Z5041 installed)
Mass	960 g (33.9 oz.) (including batteries and Protector Z5041)
Communications interface	USB Wireless communications (when Z3210 installed)
Product warranty	3 years
Fuse	250 V, F 630 mAH (Littelfuse model 216.630) (1 fuse is built into each BT3554-50.)

Accuracy Specifications

	guaranteed conditions	Accuracy guarantee temperature and humidity range: 23°C ±5°C (73°F ±9F°), 80% RH or less Warm-up time: none						
	Temperature Characteristics	For measurement within the operating temperature range but outside of the accuracy guaranteed temperature range: (n°x0.1)(measurement accuracy)+(measurement accuracy) n° = number of °C away from accuracy guarantee conditions						
		Measurement current accuracy: ±10% Measurement current frequency: 1 kHz ±30 Hz With noise frequency avoidance function enabled, 1 kHz ±80 Hz.						
		Range	Maximum display	Resolution	Measurement accuracy	Measurement current		
		3 mΩ	3.100 mΩ	1 μΩ	±1.0% rdg ±8 dgt*	160 mA		
		30 mΩ	31.00 mΩ	10 μΩ		160 mA		
		300 mΩ	$310.0~\text{m}\Omega$	100 μΩ	±0.8% rdg ±6 dgt	16 mA		
	Resistance	3 Ω	3.100 Ω	1 mΩ		1.6 mA		

Accuracy guarantee duration: 1 year

measurement accuracy

Accuracy

When using test leads other than recommended accessories or optional models, or when using extended test leads, accuracy is only guaranteed after performing zero adjustment. When a test lead other than those made by Hioki is used, the accuracy

and proper operation cannot be guaranteed.

*Add the following values to the measurement accuracy as influence values if zero adjustment has not been performed in the 3 m Ω range (reference values).

When using 9465-10 ±5 dgt When using 9772 ±1 dgt

When using 9772 ±1 dgt

When using 9460 ±16 dgt When using 9467 ±5 dgt

*Use the included zero-adjustment board or the Z5038 0 Adj. Board to perform zero adjustment with the 9465-10, L2020, or 9772.

Range Maximum display Resolution Measurement accuracy Voltage

accuracy	60 V Measurer		±60.00 V Maximum		10 mV	±0.0	8% rdg ±6 dgt Measurement
	range		display	Res		ution	accuracy*2

Temperature measurement accuracy

-10°C to 60°C 60.0°C 0.1°C ±1.0°C 14°F to 140°F 140.0°F 0.1°F

When using the Clip Type Lead with Temperature Sensor 9460. When using the Temperature Probe 9451, add \pm 0.5°C (\pm 0.9°F) (cable length: 1.5 m [59.1°]). When using the Temperature Probe 9451S, add \pm 0.5°C (\pm 0.9°F) (cable length: 0.1 m [3.94°]). BT3554-50 standalone accuracy with simulated input: ±0.5°C (±0.9°F)

Functional Specifications

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	Operation Save, load, and delete measurement data Save and delete profile information Number of data sets: 6000 Memory architecture: 500 data sets per unit (12 units)
	Saved data Saved measurement data is linked to <i>profile</i> information.
	(1) Measurement data (Data can be saved, loaded, and deleted by operating the instrument.) 1. Date and time
	Resistance value, voltage value, and temperature Comparator threshold value and judgment result
Memory	(2) Profile information
functionality	Profile information can be saved, loaded, and deleted using a supported application (GENNECT Cross or GENNECT One). (Profile information cannot be saved, loaded, or deleted by operating the instrument.)
	Profile numbers: 1 to 100 The same number cannot be used twice Data (2), (3), and (4) below are saved for each profile number
	Location: 72-byte string (example: 72 single-byte alphanumeric characters) User-defined comment such as location of UPS
	Device information: 72-byte string (example: 72 single-byte alphanumeric characters) User-defined comment such as UPS management number
	Battery number: 1 to 500 (start number, end number) Number assigned to measurement target; number used for audio measurement and recording guidance
Auto memory function	Automatically saves measured values once they are held.
Auto-hold function	Automatically holds measured values once resistance measured values stabilize.
Measurement Navigator	Operation Announces the next battery number to be measured via a screen display and audio guidance. Audio output is generated by a connected mobile device when using the Z3210 and a supported application (GENNECT Cross).
	Preparations Profile information that's been registered with a supported application (GENNECT Cross or GENNECT One) must be transferred to the instrument.
Auto power-off	The instrument turns off automatically when a no-operation state or measurement current anomaly detection state continues for at least 10 min. (except when sending or receiving data or when using measurement and recording guidance).
PC Software (GENNECT One)	Load/delete memory data (USB) Edits and transfers comparator tables (USB) Edits and transfers <i>profile</i> information (USB) Creates reports
Smartphone / tablet app (GENNECT Cross)	Loads/deletes memory data (Z3210) Edits and transfers comparator tables (Z3210) Edits and transfers profile information (Z3210) Measurement and recording guidance (Z3210) Creates reports

Comparator Function

Compares measured values with set threshold values to make judgments and reports them to the user

Judgment notification method: Results are displayed as shown below (segment) and beeping tones sound

	Resistance value (low)	Resistance value (medium)	Resistance value (high)	
Voltage value (high)	PASS	WARNING	FAIL	
Voltage value (low)	WARNING	WARNING	FAIL	

If the judgment result is WARNING or FAIL, the audio tone is accompanied by a red backlight.

User-selectable voltage judgment method ABS (absolute value judgment)

POL (polarity judgment)

Savable settings: 200 tables

Operating precautions

Comparator

Pass/fail judgment threshold values vary with factors including the battery's manufacturer, type, and capacity. The internal resistance and terminal voltage of a new or known-good battery must be measured first. It may be difficult to determine the deterioration state of traditional open type (liquid) lead-acid or alkaline batteries which demonstrate smaller changes in internal resistance than sealed lead acid batteries.

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HEADQUARTERS

81 Koizumi. Ueda, Nagano 386-1192 Japan https://www.hioki.com/

