ΗΙΟΚΙ

BATTERY TESTER BT3554-50





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.

Measurement parameters









Z3210

Carrying

Case C1014

Protector

Z5041

Standard

accessories

Z3210

0 Adj Board

Neck strap

USB cable

Fuse Set

Z5050

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

2



Register site informations in advance.

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

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.





AA alkaline battery

(LR6) × 8

GENNECT One

Software CD

User Manual

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

2

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.



'n 630 mm [24.80"]) L: Total length B: 164 mm (6.46")

Tip Pin



Tip Pin 9465-90 L2020/9465-10 tip

9772-90 9772 tip pin pin replacement replacement

B: 176 mm (6.93") L: 1941 mm (76.42") (red) L: 1883 mm (74.13") (red)



9451S L: 100 mm (3.94")

Temperature Probe 9451 L: 1500 mm (59.06")

515 mm [20.28"])

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)

Fuse Set

For BT3554, BT3554-50

Z5050

Sensor 9460 A: 300 mm (11.81") B: 106 mm (4.17") L: 2268 mm (89.29")

Separate surface fastener required

Set of 5

if affixing to carrying case 0 Adj Board Z5038 For L2020, 9465-10, and 9772

A: 300 mm (11.81") B: 116 mm (4.57") 1360 mm (53.54") Max. clip diameter: approx. ¢29 mm



For BT3554 and BT3554-50

Z5041





Hold and save measured val-

Cable length: approx. 2 m (78.74")

ues by pressing the button

Carrying Case C1014 Hard case

3

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 V 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 × 132H × 60.6D mm (7.83"W × 5.20"H × 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

Accuracy guaranteed conditions	Accuracy guarantee duration: 1 year 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°×0.1)(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	Maximur display	¹ Resolution	M	leasurement accuracy		acy Measurement current		
	3 mΩ	3.100 m	Ω 1 μΩ	2	±1.0% rdg ±8 dgt*		* 160 mA		
	30 mΩ	31.00 m	Ω 10 μΩ	2		160 mA			
	300 mΩ	310.0 m	Ω 100 μΩ	2	±0.8% rd	16 mA			
Resistance	3 Ω	3.100	Ω 1 mΩ	2			1.6 mA		
measurement 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 \pm 5 dgt When using 9460 \pm 16 dgt When using 9202 \pm 6 dgt When using 9467 \pm 5 dgt When using 9772 \pm 1 dgt								
	*Use the included zero-adjustment board or the Z5038 0 Adj. Board to perform zero adjustment with the 9465-10, L2020, or 9772.								
Voltage	Range	Maximum display		Resolution		Measurement accuracy			
measurement accuracy	6 V	±6.000 V			1 mV +0.089		3% rdg ±6 dgt		
	60 V	±60.00 V 10 mV		10.00	5 % Tuy ±0 uyi				
Temperature measurement accuracy	Measure rang			Resol		ution	Measurement accuracy*2		
	-10°C to	60°C	60.0°C		0.1°C		±1.0°C		
	14°F to 1	140°F	140.0°F		0.1	°F	±1.8°F		
	 *² When using the Clip Type Lead with Temperature Sensor 9460. *² When using the Temperature Probe 9451, add ±0.5°C (±0.9°F) (cable length: 1.5 m [59.1"]). *² When using the Temperature Probe 9451S, add ±0.5°C (±0.9°F) (cable length: 0.1 m [3.94")). 								

Functional Specifications

Memory functionality	Operation Save, load, and delete measurement data Save and delete <i>profile</i> 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 2. Resistance value, voltage value, and temperature 3. Comparator threshold value and judgment result (2) Profile information 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.) 1. Profile numbers: 1 to 100 The same number cannot be used twice Data (2), (3), and (4) below are saved for each <i>profile</i> number 2. Location: 72-byte string (example: 72 single-byte alphanumeric characters) User-defined comment such as location of UPS 3. Device information: 72-byte string (example: 72 single-byte alphanumeric characters) User-defined comment such as UPS management number 4. 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 <i>Profile</i> 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 <i>profile</i> 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							
Comparator		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							
	1							

Operating precautions

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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BT3554-50 standalone accuracy with simulated input: ±0.5°C (±0.9°F)

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