

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.









Measurement parameters







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

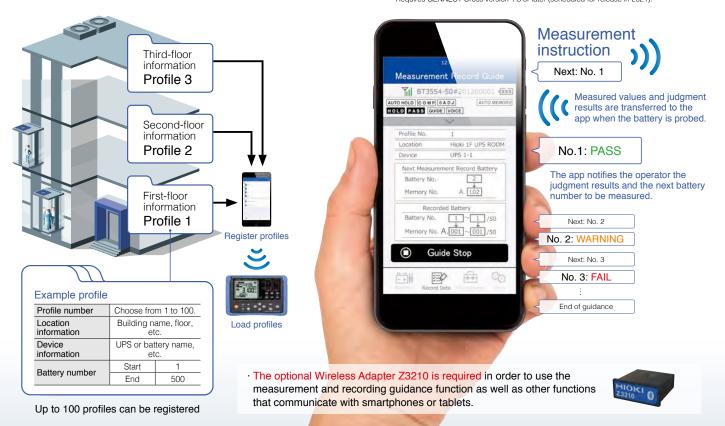
Register site informations in advance.

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

*Requires GENNECT Cross version 1.8 or later (scheduled for release in 2021).

Receive audio quidance 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. *Requires GENNECT Cross version 1.8 or later (scheduled for release in 2021).

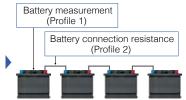


Applications other than diagnostics

ment data for management purposes.

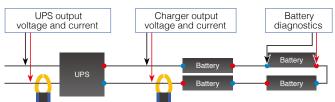
Manage battery connection resistance values too If you set up profile information for each measurement application, you can easily group readings with other measure-







data from Hioki clamp meters and other instruments. Access the QR code for sample data. >>















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

Standard accessories



Case C1014

Protector 75041



75050









 $(LR6) \times 8$ User Manual GENNECT One Software CD









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





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.



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

*Requires GENNECT Cross version 1.8 or later (scheduled for release in 2021).



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

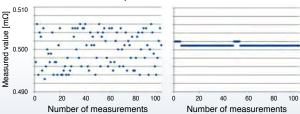
Up to 6,000 data sets can be saved

√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 effects of noise from nearby inverters.

Noise reduction technology

The effects of inverter noise are reduced to facilitate stable measurement



Management and analysis software

Free Mobile app

PC Software

Free











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. *Hioki plans to make this functionality available as part of an update to the









Access QR code for details

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).





Regarding probe length



L: Total length



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)



Temperature Probe 9451



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)



Fuse Set



Clip Type Lead with Temperature Sensor 9460

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



if affixing to carrying case 0 Adj Board

Z5038 For L2020, 9465-10, and 9772



Large Clip Type Lead 9467

A: 300 mm (11.81") B: 116 mm (4.57°) L: 1360 mm (53.54") Max, clip diameter; approx, ¢29 mm



Z5041 For BT3554 and BT3554-50



Remote Control Switch 9466

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



Carrying Case C1014

Protector



9465-90 L2020/9465-10 tip pin replacement



9772-90 9772 tip pin



9451S L: 100 mm (3.94")

L: 1500 mm (59.06")

Z5050 For BT3554, BT3554-50





Specifications

General Specifications

| | onioationo |
|--|---|
| 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) × 8 Rated supply voltage: 1.5 V DC × 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 \times 132H \times 60.6D mm (7.83"W \times 5.20"H \times 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 | Post-adjustment 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°x0.1)(measurement accuracy)+(measurement accuracy) n° = number of °C away from accuracy guarantee conditions | | | | |
| Measurement current accuracy: ±10 Measurement current frequency: 1 k With noise frequency avoidance fun | | | | 1 kHz ±30 Hz | 30 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 mΩ | 100 μΩ | ±0.8% rdg ±6 dgt | 16 mA |
| Resistance | 3 Ω | 3.100 Ω | 1 mΩ | | 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 | | | | |

Accuracy guarantee duration: 1 year

after performing zero adjustment. Test leads not manufactured by Hioki are not covered by the accuracy

guarantee or product support, and may not operate properly.

*Add values listed below if zero adjustment has not been performed.

When using 9465-10 ±5 dgt When using L2020 ± 6 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 measurement 6 V ±6.000 V 1 mV ±0.08% rdg ±6 dgt accuracy 60 V ±60.00 V 10 mV

Temperature measurement accuracy

| Measurement range | Maximum display | Resolution | Measurement accuracy*2 | | |
|-------------------|--------------------|------------|---------------------------|--|--|
| -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 | ±1.8°F | | |

²When using the Clip Type Lead with Temperature Sensor 9460. ²When using the Temperature Probe 9451, add \pm 0.5°C (\pm 0.9°F) (cable length: 1.5 m [59.1°]). ²When 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

| | Functional | Specifications |
|---|---|--|
| | | 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 functionality | (2) Profile information |
| | Turicuorianty | 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 | 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). |
| r | Navigator | 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 Resistance value | | |
|----------------------|-----------------------------------|----------|--------|
| | (low) | (medium) | (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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