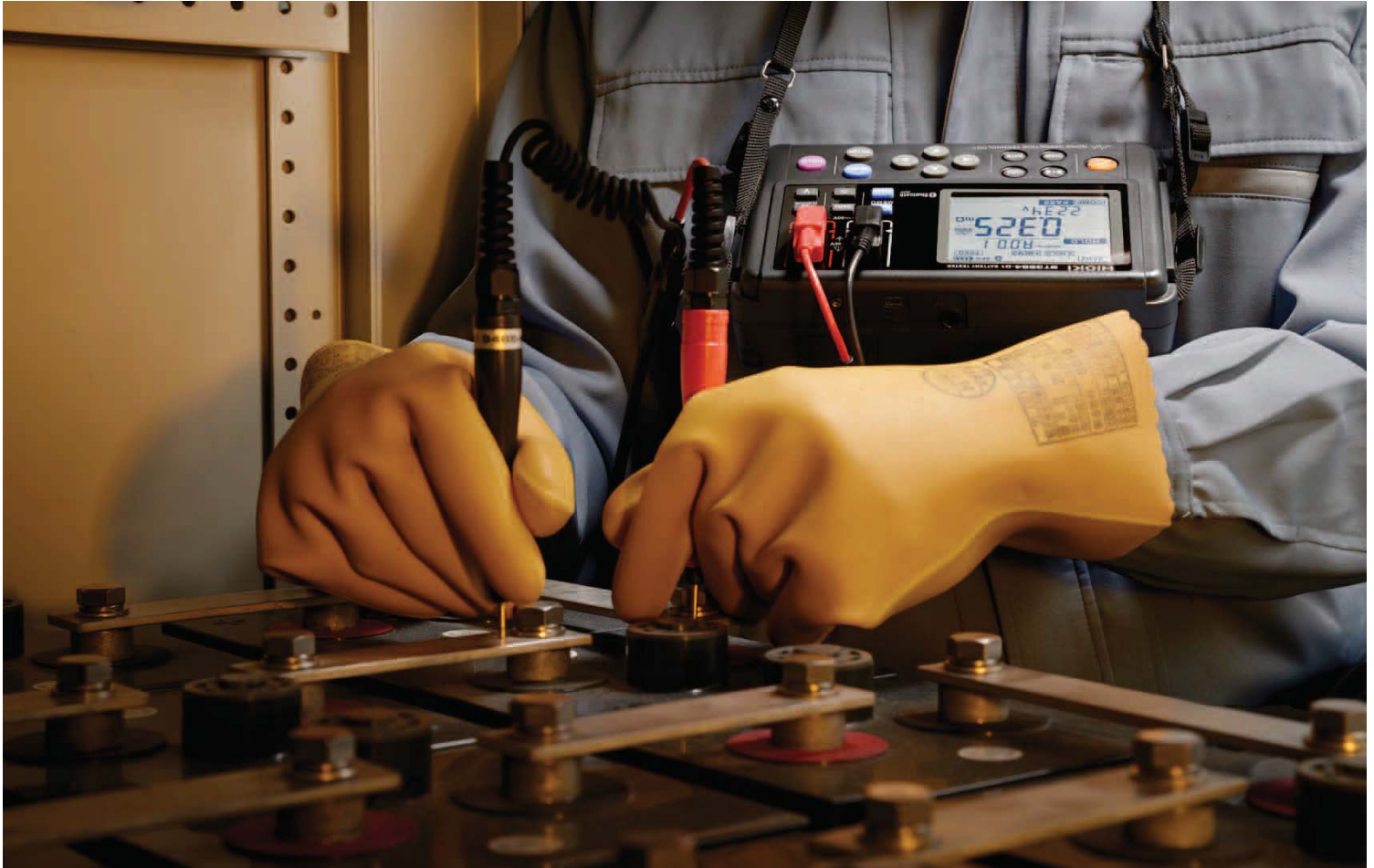


### Even Speedier Diagnosis of the Deterioration of Lead-acid Batteries

Measure and save data in as fast as 2 seconds, a 60% improvement from the legacy 3554  
Easily create reports on your tablet or smartphone



**Use Noise Reduction Technology**  
to Reliably Measure UPS Operation



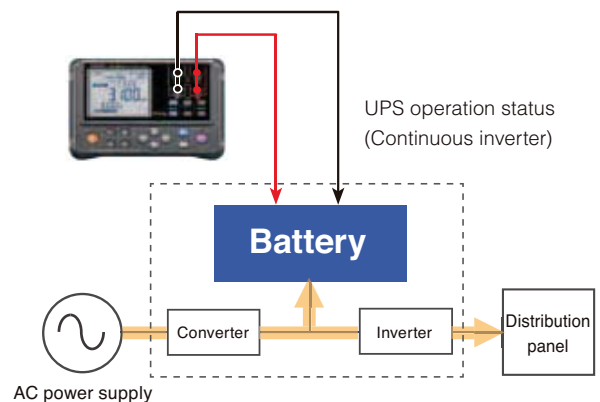
Voltage



Resistance

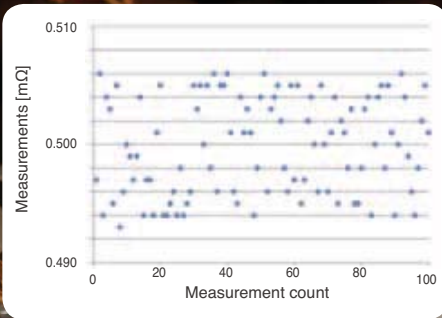


Temperature

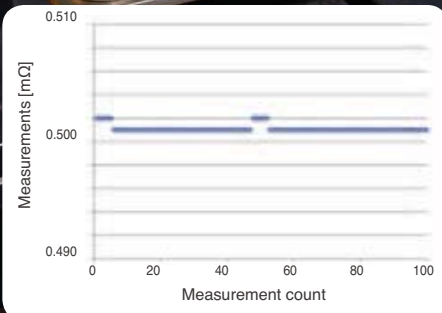


# Improved Noise Resistance

## Comparison of superimposed noise



Without noise reduction technology



With noise reduction technology

Backlight display that's easy to read, even in dim locations

## Use the New Test Lead for the Back of Distribution Panels and Other Hard-to-reach Places

The innovative L-shape design makes it easier to connect the test lead to electrode terminals, decreasing time spent measuring batteries.

### PIN TYPE LEAD L2020

(Optional accessory sold separately)

New  
Innovation



## Test Leads to Fit your Application

### PIN TYPE LEAD L2020

New  
Innovation



A: 70 mm (2.76 in) (Red), 150 mm (5.91 in) (Black, up to 630 mm (24.8 in))  
B: 164 mm (6.46 in), L: 1941 mm (76.42 in) (Red)

### TIP PIN 9465-90

(For the L2020, 9465-10)



### PIN TYPE LEAD 9465-10 (Bundled accessory)



A: 45 mm (1.77 in) (Red), 105 mm (4.13 in) (Black, up to 515 mm (20.28 in))  
B: 176 mm (6.93 in), L: 1883 mm (74.13 in) (Red)

### TIP PIN 9465-90

(For the L2020, 9465-10)



### PIN TYPE LEAD 9772



A: 45 mm (1.77 in) (Red), 105 mm (4.13 in) (Black, up to 515 mm (20.28 in))  
B: 173 mm (6.81 in), L: 1880 mm (74.02 in) (Red)

### TIP PIN 9772-90

(For the 9772)



### REMOTE CONTROL SWITCH 9466



Press the key to hold or save the measurement.  
Cable length: Approx. 2 m

### CLIP TYPE LEAD WITH TEMPERATURE SENSOR 9460



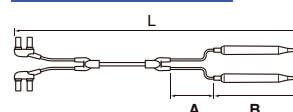
A: 300 mm (11.81 in)  
B: 106 mm (4.17 in)  
L: 2268 mm (89.29 in)

### LARGE CLIP TYPE LEAD 9467



A: 300 mm (11.81 in)  
B: 116 mm (4.57 in)  
L: 1360 mm (53.54 in)  
Large clip diameter:  
Approx.  $\phi$ 29 mm (1.14 in)

### Regarding probe length



A: Between split to probe, B: Probe length, L: Total length

# Quickly Save Data and Create Reports Right in the Field

Just connect the test lead to the terminal

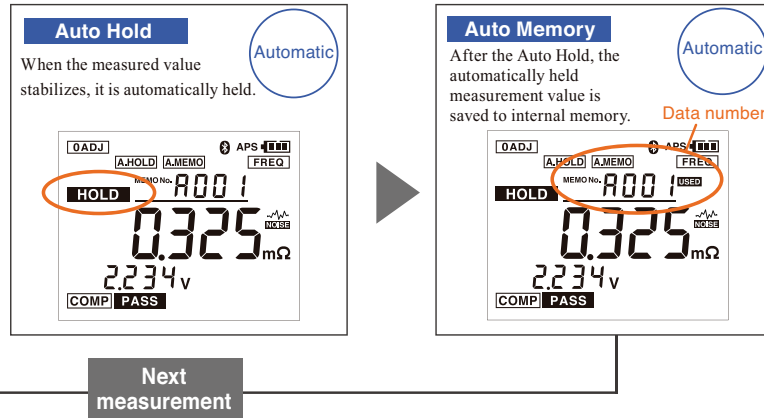
## Easily save data

Connect to the voltage terminal and measure



When the measured value stabilizes, save it automatically without having to operate the switch.

Wait time can be as short as only 2 seconds to auto-save from when the test leads make contact with the battery terminals, **cutting time by 60%** compared to the legacy product.



Instantly submit loaded data

## Create reports on-site

**Dedicated application available**

Data transfer

Transfer the data saved in the BT3554's internal memory to your tablet or PC via USB/Bluetooth®



Not only can you view the data you loaded from the BT3554 into a tablet, smartphone, or PC in ledger format, you can also graph the data to display it by cubicle (up to 500 data sets). Then, instantly create reports on-site.

Graph display

Report display



## How to download the application:

● Tablet or smartphone  
Download it from the App Store® for iPhone® or iPad®, or download it from the Google Play™ Store for Android™ devices.  
Just search for "GENNECT Cross".

● PC  
Bundled CD-R, Download from our homepage.

The battery function in the App for the iPhone® and iPad® will be released in August 2016.

## Interface specifications

USB	Transmission speed: USB 2.0, Connector: USB mini-B
	Bluetooth® 4.0LE
	Transmission distance: Approx. 10 m (32.81 ft), line-of-sight
	Supported OS: Android™ 4.3 or later, iOS 8 or later
Bluetooth® (BT3554-01 only)	<b>Supported Android™ devices:</b> Devices that support Bluetooth® SMART or SMART READY <b>Supported iOS devices:</b> iPhone® 5 or later, third-generation iPad® or later, first-generation iPad mini™ or later, fifth-generation iPod Touch® or later

- iPhone, iPad, iPad mini, and iPod Touch are registered trademarks of Apple Inc. in the United States and other countries.  
- iOS is a trademark of Cisco in the United States and other countries.

- Bluetooth® is a registered trademark of Bluetooth SIG, Inc., and is used by HIOKI E.E. CORPORATION under license.

- Android™ and Google Play™ are registered trademarks of Google, Inc.

**CALRIGHT INSTRUMENTS**

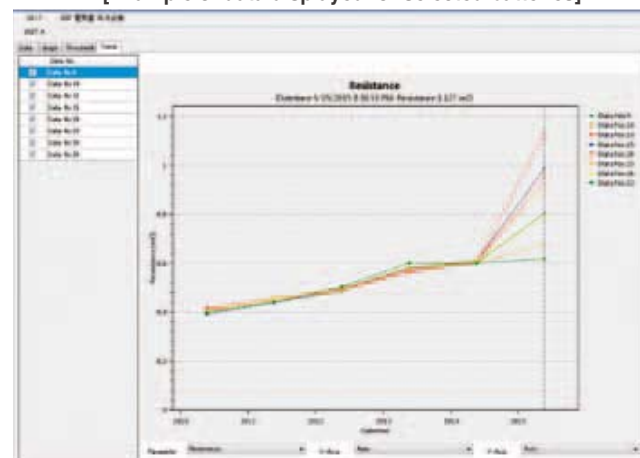
The Right Source For Your Test & Measurement Needs

## Trend display for past data\*

## Analyze in the office

Graphically display the trend of one cubical (max. 500 batteries) or the condition of selected batteries.

[Example of data displayed for selected batteries]



\*Trend display is only available with a PC application.

8715 Mesa Point Terrace San Diego, CA 92154

Toll Free: 1.866.363.6634 Tel: 1.619.429.4545 Fax: 1.619.374.7012

Email: sales@calright.com <http://www.calright.com>

## Product Name: BATTERY TESTER BT3554

Model No. (Order code)	Wireless transmission
BT3554	—
BT3554-01	Bluetooth® equipped

### Accuracy specifications

Accuracy guaranteed for 1 year, Post-adjustment accuracy guaranteed for 1 year  
 Temperature and humidity for guaranteed accuracy: 23°C ±5°C (73°F ±9°F), 80% RH or less, Warm-up time: None (Unnecessary), after zero-adjustment

### Resistance measurement accuracy

Measurement current frequency: 1 kHz ±30 Hz, With function for avoiding noise frequency enabled: 1 kHz ±80 Hz  
 Measurement current accuracy: ±10%

Range	Max. 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
3 Ω	3.100 Ω	1 mΩ		1.6 mA

\* If zero-adjustment was not performed, add the following values:

When model L2020 is used: ±5 dgt.  
 When model 9465-10 is used: ±6 dgt.  
 When model 9772 is used: ±1 dgt.  
 When model 9460 is used: ±16 dgt.  
 When model 9467 is used: ±5 dgt.

When using test leads that are not listed above, or test leads whose length has been extended, accuracy is guaranteed only after zero-adjustment is performed.

### Voltage measurement accuracy

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

### Temperature measurement accuracy

Measurement range	Max. display	Resolution	Measurement accuracy
-10 to 60°C	60°C	0.1°C	±1.0°C

### Comparator function

Compares setting values (Resistance: 2 levels, Voltage: 1 level) and measured values  
 Determination method: Following chart, beeping sound, red backlight lights up with beeping sound  
 Savable settings: 200 tables

Savable settings: 200 tables		Value for warning		Value for failure	
		▼		▼	
		Resistance (low)	Resistance (medium)	Resistance (high)	
Value for warning	Voltage (high)	PASS	WARNING	FAIL	
	Voltage (low)	WARNING	WARNING	FAIL	

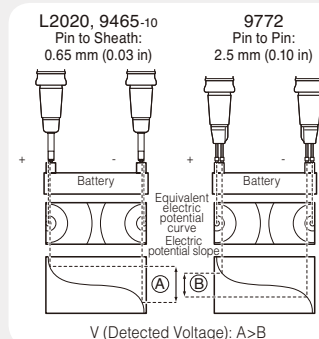
## The Advantages of 4-Terminal Measurement The Quality of Your Test Lead CAN Make a Difference

### -Explanation-

When measuring certain batteries such as lead-acid cells, the resulting measurement value may differ depending on the test leads used to conduct the measurement. This difference is due to the shape of the probe tip as well as the dimensions of the 4-terminal test leads used for measurement. However, despite a difference in value given by different test leads, it is safe to assume that each specific value reflects the correct value obtainable by the respective test leads.

**Based on this principle, when diagnosing battery deterioration in a time series, it is particularly important to use test leads having the same tip shape and dimensions in order to maintain measurement consistency.**

The difference in the measurement values obtained by different test leads is a physical phenomenon caused by the difference in distance between the SOURCE and SENSE pins of the test leads. This is more significant when the battery terminal contains a resistance higher than the internal resistance of the battery under test. The figure on the right demonstrates how even minute physical differences between the SOURCE and SENSE pins for two types of test leads can affect the detected voltage level of the battery.



## General specifications

Measurement types	Internal resistance measurement for batteries (AC four-terminal method) Terminal voltage measurement for batteries (DC voltage) Temperature measurement (when using the 9460)
Display update rate	Approx. 3 times/s
Absolute maximum input voltage	±60 V DC max (No AC input allowed)
Operating environment	Indoors, pollution degree 2, altitude up to 2000 m (6562 ft)
Operating temperature and humidity	0°C to 40°C (32°F to 104°F), 80% RH or less (no condensation)
Storage temperature and humidity	-10°C to 50°C (14°F to 122°F), 80% RH or less (no condensation)
Power supply	AA (LR6) Alkaline Batteries x 8
Continuous operating time	Approx. 8.5 hours (When using alkaline batteries)
Auto power save	Auto power off after 10 minutes unless during data transmission
Dielectric strength	1.5 kV AC for 1 minute, between all measurement terminals and the USB terminal
Applicable standards	Safety: EN 61010 EMC: EN 61326
Dimensions	Approx. 192 mm (7.56 in) W x 121 mm (4.76 in) H x 55 mm (2.17 in) D
Mass	Approx. 790 g (27.9 oz) (including batteries) BT3554 Approx. 800 g (28.2 oz) (including batteries) BT3554-01
Accessories	PIN TYPE LEAD 9465-10, ZERO ADJUSTMENT BOARD, PC Software Application CD, Power-on option sticker, Neck strap, AA (LR6) alkaline batteries x 8, Fuse, USB cable, Carrying case, Instruction manual, Cautions for using radio waves (BT3554-01 only)

## Functions

HOLD	(1) Hold measured value by pressing the HOLD key or when shorting the EXT. HOLD terminal (2) Automatically hold measured value after it stabilizes
Memory storage	Saving, loading, and deleting measured values Saved items: Date, resistance, voltage, temperature, comparator threshold, judgment Storable data: 6000 sets (500 data sets per unit) Memory structure: 500 data sets per unit (12 units)
Auto-Memory function	Automatically saves measured values to memory when they are held
Memory loading	Load stored data on instrument or with PC application in order

"The thresholds for determining the pass/fail condition of a battery depend 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 traditional open type (liquid) lead-acid or alkaline batteries, which demonstrate smaller changes in internal resistance than sealed lead acid batteries.