













## Measurement Ranges and Accuracy (Accuracy guaranteed for 1 year, Post-adjustment accuracy guaranteed for 1 year)

### ● BT3563, BT3562 and 3561 Conditions of Guaranteed Accuracy

Temperature & humidity:

23 °C ±5 °C, 80% rh or less (non-condensating)

Zero-adjustment: After executing zero-adjustment

Warm-up time: At least 30 min.

Self-calibration:

Unless using SLOW sampling, execute self-calibration after warm-up and restrict temperature fluctuations to within ±2 °C after calibration.

### ● About Accuracy

Accuracy is calculated from the reading error (±% rdg.) determined by the measurement value and range, and the digit error (± dgt.).

#### Calculation Example

Measurement value: 1 Ω, Measurement range: 3 Ω

Specified accuracy (from table below): ±0.5% rdg., ±5 dgt.

(A) Reading error (±% rdg.): 1 [Ω] × 0.5% = ±0.005 [Ω]

(B) Digit error (± dgt.): ±5 dgt. = ±0.0005 [Ω] (at 0.0001 Ω resolution)

(C) Total error (A + B): ±0.0055 [Ω]

Applying total error (C) to the measurement value of 1 Ω gives an error limit of 0.9945 to 1.0055 Ω.

### ● BT3563 and BT3562 [Resistance Measurement]

Range	3 mΩ	30 mΩ	300 mΩ	3 Ω	30 Ω	300 Ω	3000 Ω
Maximum display Value	3.1000 mΩ	31.000 mΩ	310.00 mΩ	3.1000 Ω	31.000 Ω	310.00 Ω	3100.0 Ω
Resolution	0.1 μΩ	1 μΩ	10 μΩ	100 μΩ	1 mΩ	10 mΩ	100 mΩ
Measurement Current <sup>*1</sup>	100 mA	100 mA	10 mA	1 mA	100 μA	10 μA	10 μA
Measurement Current Frequency	1 kHz ±0.2 Hz						
Accuracy <sup>*2</sup>	±0.5% rdg. ±10 dgt.		±0.5% rdg. ±5 dgt.				
Temperature coefficient	(±0.05% rdg. ±1 dgt.) / °C		(±0.05% rdg. ±0.5 dgt.) / °C				
Open-Circuit Voltage	25 Vpeak		7 Vpeak	4 Vpeak			

\*1 Measurement current accuracy is ±10%.

\*2 30 mΩ to 3000 Ω ranges: Add ±3 dgt. for EX FAST, or ±2 dgt. for FAST and MEDIUM  
3mΩ range: Add ±30 dgt. for EX FAST, or ±10 dgt. for FAST, or ±5 dgt. for MEDIUM

### [Voltage Measurement]

Range	6 V	60 V	300 V (only BT3563)
Maximum display Value	±6.00000 V	±60.0000 V	±300.000 V
Resolution	10 μV	100 μV	1 mV
Accuracy <sup>*3</sup>	±0.01% rdg. ±3 dgt.		
Temperature coefficient	(±0.001% rdg. ±0.3 dgt.) / °C		

\*3 Add ±3 dgt. for EX FAST, or ±2 dgt. for FAST and MEDIUM

### ● 3561 [Resistance Measurement]

Range	300 mΩ	3 Ω
Maximum display Value	310.00 mΩ	3.1000 Ω
Resolution	10 μΩ	100 μΩ
Measurement Current <sup>*4</sup>	10 mA	1 mA
Measurement Current Frequency	1 kHz ±0.2 Hz	
Accuracy <sup>*5</sup>	±0.5% rdg. ±5 dgt.	
Temperature coefficient	(±0.05% rdg. ±0.5 dgt.) / °C	
Open-Circuit Voltage	7 Vpeak	

\*4 Measurement current accuracy is ±10%.

\*5 Add ±3 dgt. for EX FAST, or ±2 dgt. for FAST and MEDIUM

\*6 Add ±3 dgt. for EX FAST, or ±2 dgt. for FAST and MEDIUM

### ● 3561 [Voltage Measurement]

Range	20V
Maximum display Value	±19.9999 V
Resolution	0.1 mV
Accuracy <sup>*6</sup>	±0.01% rdg. ±3 dgt.
Temperature coefficient	(±0.001% rdg. ±0.3 dgt.) / °C

# Main unit

**Model : BATTERY HiTESTER BT3563**  
 Model No. (Order Code) (Note)  
**BT3563**  
**BT3563-01** (Built in GP-IB and analog output)

**Model : BATTERY HiTESTER BT3562**  
 Model No. (Order Code) (Note)  
**BT3562**  
**BT3562-01** (Built in GP-IB and analog output)

**Model : BATTERY HiTESTER 3561**  
 Model No. (Order Code) (Note)  
**3561**  
**3561-01** (Built in GP-IB interface)

- Measurement leads are not included. Purchase the appropriate lead option for your application separately.
- The male (system side) of the EXT I/O connector is also available. Please inquire with your HIOKI distributor.



## Options (measurement leads)

**Measurement lead (for measuring high voltage batteries with Models BT3563 and BT3562)**

**PIN TYPE LEAD L2110**  
 A: 750 mm (29.53 in), B: 215 mm (8.46 in), L: 1880 mm (9.17 ft), for high voltage battery measurements, 1000 V DC max.

**PIN TYPE LEAD L2100**  
 A: 300 mm (11.81 in), B: 172 mm (6.77 in), L: 1400 mm (4.59 ft), for high voltage battery measurements, 1000 V DC max.

**Zero adjustment board (for L2110, L2100 only)**

**0 ADJ BOARD Z5038**  
 For L2110, L2020, 9465-10, 9772

Cannot be used for zero adjusting the 9770 and 9771 Pin Type Leads

**For tip replacement (Common to L2110, L2100)**  
**TIP PIN 9772-90**  
 To replace the tip on the Pin type lead 9772, L2100/L2110, (one piece)

**Measurement leads (for measuring batteries up to 60 V with BT3563, BT3562, or 3561)**

**CLIP TYPE LEAD L2107**  
 A: 130 mm (5.12 in), B: 83 mm (3.27 in), L: 1100 mm (3.61 ft), 60 VDC

**FOUR TERMINAL LEAD 9453**  
 A: 280 mm (11.02 in), B: 118 mm (4.65 in), L: 1360 mm (4.46 ft), 60V DC

**LARGE CLIP TYPE LEAD 9467**  
 A: 300 mm (11.81 in), B: 131 mm (5.16 in), L: 1310 mm (4.30 ft), tip  $\phi$  29 mm (1.14 in), 50 V DC

**Mainly for Small Secondary Batteries (with very small terminals)**

1.8 mm dia. single-axis type for measuring small electrodes

0.2 mm parallel pyramid-type pins for measuring at thru holes and sub-millimeter objects

**PIN TYPE LEAD 9770**  
 A: 260 mm (10.24 in), B: 140 mm (5.51 in), L: 850 mm (2.79 ft), 60V DC

**9770 tip shape**

**PIN TYPE LEAD 9771**  
 A: 260 mm (10.24 in), B: 138 mm (5.43 in), L: 850 mm (2.79 ft), 60V DC

**9771 tip shape**

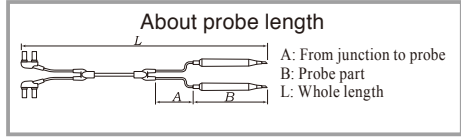
**Measurement leads (3561 only)**

**CLIP TYPE LEAD 9452**  
 A: 220 mm (8.66 in), B: 197 mm (7.76 in), L: 1360 mm (4.46 ft)

**9452 tip shape**

**Measurement leads (for maximum precision, 3561 only)**

**PIN TYPE LEAD 9455**  
 A: 260 mm (10.24 in), B: 136 mm (5.35 in), L: 890 mm (2.92 ft), Not CE marked.  
 Note: The 9455 is a precision instrument. Exercise appropriate care when handling it.



## Options (Interface Cables)

**Interface (RS-232C and GP-IB) Connection cables**

**RS-232C CABLE 9637**  
 For the PC, 9pin - 9pin, cross, 1.8m (5.91 ft) length

**GP-IB CONNECTOR CABLE 9151-02**  
 2 m (6.56 ft) length

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