

# GLC-10000

## Leakage Current Tester

### FEATURES

- Suitable for Medical Electrical & General Electrical of Leakage Current Measurement
- 7" Touch Pane with Color LCD
- 12 Different Measurement Network to Simulate the Resistance of Human Body (Including IEC 60601-1:2020 3.2rd)
- The Measurement of Maximum Allowable Leakage Current is Up to 50mA
- External Terminal for Extension MD Connection
- MD OUT Terminal can be Connected to an Oscilloscope for Convenient Comparison of Measured Waveforms
- 30 Sets Memories for Test Parameter; 1000 Sets Memories for Measured Data.
- Test Parameter Export/Import Function Through USB Host
- USB Storage for Measurement Data/Screen Capture
- Various Standard Interfaces: RS-232C, USB Host & Device, LAN, Signal I/O and GPIB (Optional)

GW Instek launches a new leakage current tester—GLC-10000, which features 12 simulated human impedance networks that comply with related safety regulations so as to conduct leakage current test for electric equipment under normal condition or single fault condition. These 12 simulated human impedance networks are comprised of networks for medical electric equipment and general electric and electronic equipment to ensure that the product design and manufacture are in compliance with requirements of safety regulations including IEC, EN, UL, etc.

GLC-10000 provides test requirements for most IT products, household appliances and other electronic and electric equipment, and even medical electronics in the measurement of leakage current (or touch current), including the required measurement network, measurement bandwidth of various current forms are all in compliance with the requirements of the latest version of the applicable regulations. Furthermore, in order to comply with the leakage current flow paths under different regulations, GLC-10000 provides 20 measurement options to meet the requirements of the old and latest versions of the standards.

GLC-10000 is equipped with a 7-inch TFT LCD touch screen, which makes the operation more convenient and fast, and the large screen allows setting information and test results to be displayed on the LCD at the same time, improving the readability of information observation. In addition, users can select the front socket output (10A max.) or the rear terminal block output (up to 20A) to measure the leakage current according to the current consumption of the DUT. 30 sets of internal memory can be used to store the measurement settings of users' products. In addition, 1000 sets of measurement results can be stored to conduct subsequent analysis.

For the rear panel configuration, GLC-10000 also provides a reserved MD external terminal block (EXT+/EXT-), and users can self-define the required simulated impedance networks (only applicable to parallel RC combination) to measure the leakage current to meet the requirements of new MD in future regulations. In addition, GLC-10000 provides a variety of standard interfaces, such as RS-232C, USB device, LAN and Remote I/O, and even GPIB (optional) to meet the needs of system control and data acquisition.

## PANEL INTRODUCTION

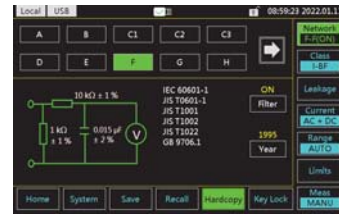


## A. SIMPLE AND INTUITIVE SYSTEM



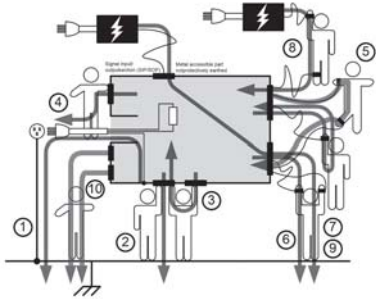
The color TFT touch screen makes operation intuitive and simple, whilst making it easier to observe test result.

## B. VARIOUS MEASUREMENT NETWORK



Nine Measurement Network are available for measuring the leakage current of electrical and medical equipment.

## C. VARIOUS LEAKAGE CURRENT MODE MEASUREMENT



Leakage current tests can be separated into 3 basic types: Earth Leakage current, Enclosure Leakage current and Patient Leakage current. The GLC-10000 complies with IEC, UL and other international electrical safety standards requiring leakage current measurement.

## D. VARIETY OF STANDARD INTERFACES

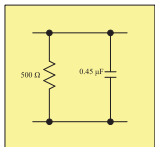


The variety of practical interfaces are equipped as standard making control convenient and flexible.

## MEASUREMENT NETWORK (MD)

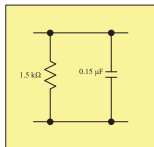
### MD-A

UL1563



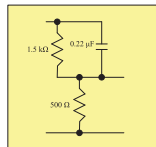
### MD-B

UL1492/1310



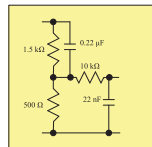
### MD-C1

IEC60990/61010-1



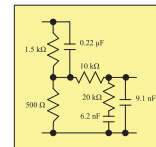
### MD-C2

IEC60990/60598-1



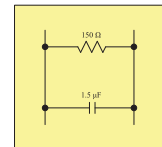
### MD-C3

IEC60990/62368-1



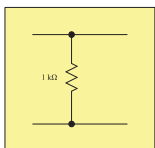
### MD-D

IEC60598-1/62608-1



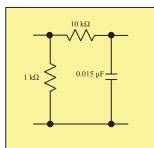
### MD-E

General application



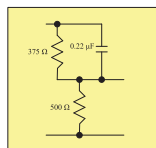
### MD-F

IEC60601-1/UL2601-1



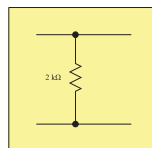
### MD-G

IEC61010-1/GB4793.1



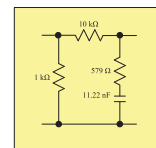
### MD-H

IEC61010-1/62368-1



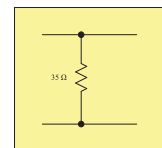
### MD-I

JIS B8561/UL554NP



### MD-PCC

MD - PCC



Note : The standard numbers that are listed are only example; the MD can be used with all applicable standards.

## SPECIFICATIONS

Ranges	Range	Resolution	Accuracy		
<b>DC</b>					
50.00mA	4.00mA~50.00mA	10 $\mu$ A	$\pm(2\%rdg+6dgt)$		
5.000mA	0.400mA~5.000mA	1 $\mu$ A	$\pm(2\%rdg+6dgt)$		
500.0 $\mu$ A	40.0 $\mu$ A~500.0 $\mu$ A	0.1 $\mu$ A	$\pm(2\%rdg+6dgt)$		
50.00 $\mu$ A	4.00 $\mu$ A~50.00 $\mu$ A	0.01 $\mu$ A	$\pm 2.0\%fs$		
<b>AC / AC+DC</b>					
			0.1Hz $\leq f \leq$ 15Hz	15Hz $< f \leq$ 100kHz	100kHz $< f \leq$ 1MHz
50.00mA	4.00mA~50.00mA	10 $\mu$ A	$\pm(4.0\%rdg+10dgt)$	$\pm(2.0\%rdg+6dgt)$	$\pm(2.0\%rdg+10dgt)$
5.000mA	0.400mA~5.000mA	1 $\mu$ A	$\pm(4.0\%rdg+10dgt)$	$\pm(2.0\%rdg+6dgt)$	$\pm(2.0\%rdg+10dgt)$
500.0 $\mu$ A	40.0 $\mu$ A~500.0 $\mu$ A	0.1 $\mu$ A	$\pm(4.0\%rdg+10dgt)$	$\pm(2.0\%rdg+6dgt)$	$\pm(2.0\%rdg+10dgt)$
50.00 $\mu$ A	4.00 $\mu$ A~50.00 $\mu$ A	0.01 $\mu$ A	$\pm 4.0\%fs$	$\pm 2.0\%fs$	$\pm 2.0\%fs$
<b>AC PEAK</b>					
			15Hz $\leq f \leq$ 10kHz	10kHz $< f \leq$ 100kHz	100kHz $< f \leq$ 1MHz
75.0mA	5.0mA~75.0mA	100 $\mu$ A	$\pm(2.0\%rdg+6dgt)$	$\pm 5.0\%fs$	$\pm 15\%fs$
7.500mA	0.500mA~7.500mA	1 $\mu$ A	$\pm 2.5\%fs$	$\pm 5.0\%fs$	$\pm 15\%fs$
750.0 $\mu$ A	40.0 $\mu$ A~750.0 $\mu$ A	0.1 $\mu$ A	$\pm 4\%fs$	$\pm 5.0\%fs$	$\pm 20\%fs$
<b>EUT Voltage/Current Monitor</b>					
300V	85V~300V	0.1V	$\pm(5\%rdg+10dgt)$		
20A	0.5A~20A	0.1A	$\pm(2\%rdg+5dgt)$		
<b>POWER SUPPLY</b>					
For GLC-10000		AC 100V~240V $\pm 10\%$ , 50/60Hz; Power consumption : Max. 50VA			
For EUT IN		AC 100V~240V, 50/60Hz, 20A			
EUT OUT (Front)		AC 100V~240V, 50/60Hz, 10A			
EUT OUT (Rear)		AC 100V~240V, 50/60Hz, 20A			
<b>INTERFACE</b>					
RS-232C, USB host & device, LAN, Signal I/O and GPIB (Optional)					
<b>DIMENSIONS &amp; WEIGHT</b>					
342 (W) x 133.87 (H) x 348.51 (D) mm; Approx. 7.5kg					

Specifications subject to change without notice. GLC-10000\_E\_D1BH

## ORDERING INFORMATION

**GLC-10000** Leakage Current Tester

### ACCESSORIES

Power cord x 1, Test lead(GTL-207A) x 2, CD x 1 (Complete user manual), Alligator clips(GLC-01) x 1 (Red x 2/Black x 2), Foil probe(GLC-02) x 1, Power Cord for EUT (GLC-03) x 1, Input & output terminal cover (GLC-04) x 1

## OPTIONAL

**GLC-10KG1** GPIB Card

### OPTIONAL ACCESSORIES

**GTL-232** RS-232C Cable  
**GTL-240** USB Cable, USB 2.0, A-B Type (L Type), 1200mm  
**GTL-246** USB Cable, USB 2.0 A-B TYPE CABLE, 4P  
**GTL-248** GPIB Cable (2.0m)

**GTL-207A** Test Lead  
Approx. 0.8m



**GLC-01** Alligator Clips



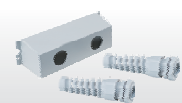
**GLC-02** Foil Probe



**GLC-03** Power Cord for EUT  
Approx. 1.8m



**GLC-04** Input & Output Terminal Cover



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