

## GCT-9040 AC Ground Bond Tester

### New Product Announcement

GW Instek rolls out 40A AC ground bond tester – GCT-9040 to augment the existing safety tester product line and to replace the legacy model GCT-630. The most unique feature is that GCT-9040 can be externally connected with existing GPT-9800/9900/9900A series to further augment the functionalities of current safety testers. Furthermore, GCT-9040 can be operated to implement simultaneous test so as to elevate production efficiency.



GCT-9040  
AC Ground Bond Tester  
(AC 40A)

In addition to the standalone ground bond test operation, GCT-9040, with 40A AC ground bond test capability, can also externally connect with GW Instek safety testers such as GPT-9800/9900/9900A series to augment users' product test requirements by the all-in-one test platform. For instance, GPT-9802 (AC/DC withstanding tester), via external connection, can be expanded to a safety tester system with three testing functionalities.

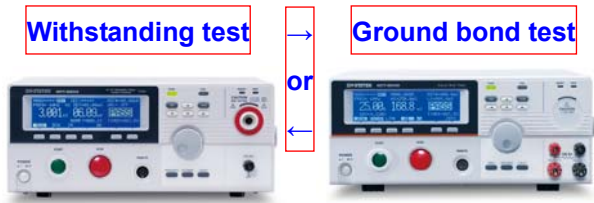
Additionally, after the safety tester system has been assembled, not only the sequential test function for the original all-in-one models can be executed, but also the simultaneous output test can be conducted. The simultaneous output test allows two testers to simultaneously test DUT so as to shorten the overall test time. Whether the safety tester system executes sequential test or simultaneous output test, GCT-9040 will automatically obtain control over two testers, including activation control, final status indication light, and pin signal output from Digital I/O etc. to avoid confusion caused by each tester's indication light.

GCT-9040 provides the maximum AC test current of 40A and adopts the PWM design the same as other models to ensure test efficiency and reliability. Other than that, large LCD display, 100 memory blocks from setting criteria, and programmable communications interface together deliver users with higher readability and convenience. Last but not least, GCT-9040, with respect to remote control and data retrieval, not only provides standard USB (optional GPIB) interface to control all functionalities but also controls connected safety testers (GPT-9800/9900/9900A series) via commands to read measurement results.

**Sequential test (schematic)**

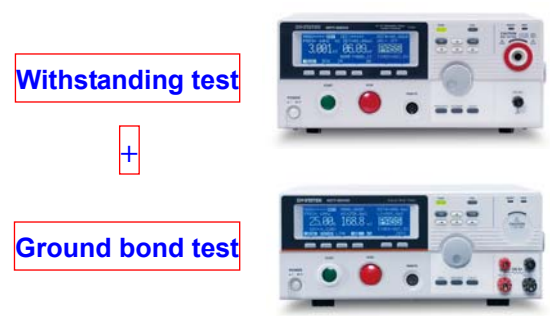
After the system is connected, the execution sequence can be determined by settings:

(W – G) : withstanding first – grounding next or  
(G – W) : grounding first – withstanding next



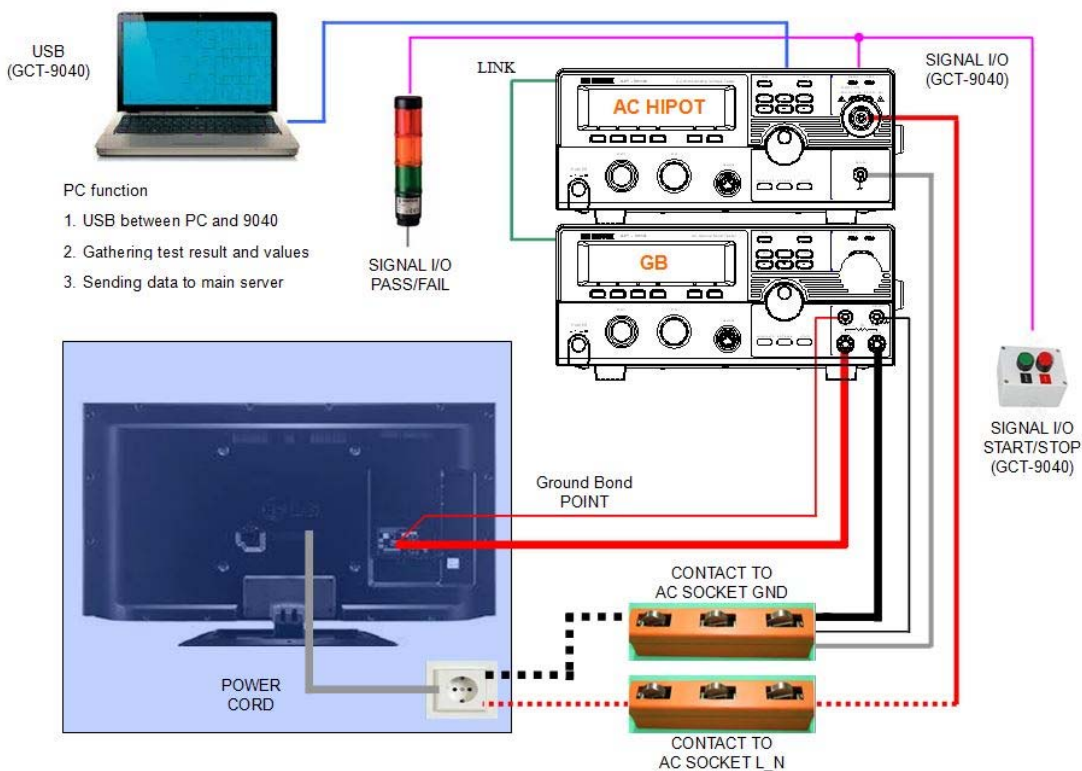
**Synchronized test (schematic)**

After the system is connected, the output mode can be set as G + W that will execute a synchronized withstanding and grounding test, which can effectively save test time.



**Sequential / Synchronized test (schematic diagram for connection)**

Once the system is linked, it is capable to execute sequential test or simultaneous output test with proper operation method selected, GCT-9040 will automatically obtain control over two testers, including activation control, final status indication light, and pin signal output from Digital I/O etc. to avoid confusion caused by each tester's indication light.

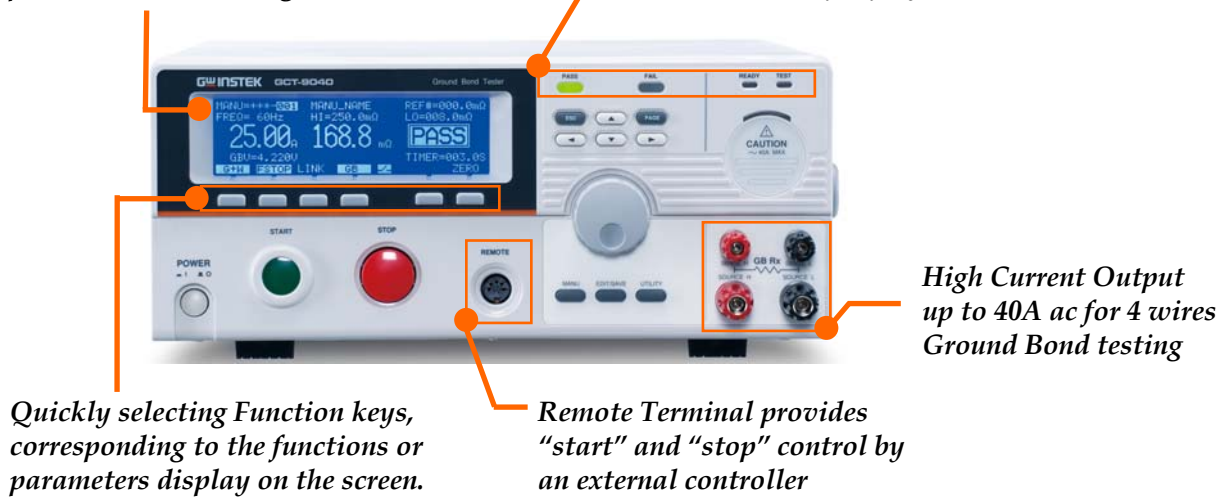


**FEATURES**

- AC 40A Ground Bone Tester
- Measuring Resistance from 1mΩ~650mΩ
- Connect with the GPT-9800/9900 series to become a multifunctional test or simultaneous test system
- 240x64 Ice Blue Dot Matrix LCD
- Function Key for quick selecting
- High intensity flash for Caution & Status indication
- PWM switching amplifier to enhance the power efficiency and reliable testing
- Max. 100 memory block for test condition setting.
- Remote terminal on the front panel for “start” and “stop” remote active
- Interface : USB device, Signal I/O and GPIB (optional)

*240 x 64 Ice Blue Matrix LCD display, supporting a grater view of setting parameters and testing results.*

*High Intensity LED Indictors to show the status of safety tester.*



*Quickly selecting Function keys, corresponding to the functions or parameters display on the screen.*

*Remote Terminal provides “start” and “stop” control by an external controller*

*High Current Output up to 40A ac for 4 wires Ground Bond testing*

*Signal I/O port, provides PLC “start” and “stop” control, or monitoring the status of tester; also supports Interlock feature for connecting to external protective device*

*LINK port for system connection*



*USB communication ports facilitate the easy & convenient communication.*

*GPIB interface (Optional)*

## Key Dates for Product Announcement

1. Distributor Announcement & Demo Unit Order and Shipping (7<sup>th</sup> of August)
2. Global Market Announcement & Mass Quantity Order Fulfillment (15<sup>th</sup> of August)

## Service Policy

1. **2 year warranty**
2. **Service Support**

The service instructions in the Service Manual will help distributors repair defective units promptly. Should the board replacement is necessary to fix the defective unit, the board swapping service support is provided by Good Will Instrument to facilitate the repair jobs done at the distributor's site.

3. GW Instek continually provides the after-sales support through its website. The most up-to-date version of service manual and Marcom material of GCT-9040 will be posted on the distributor zone of GW Instek Website at <http://www.gwinstek.com>

## SPECIFICATIONS

### General



#### NOTE

- The specifications apply when the GCT-9040 is warmed up for at least 30 minutes and works in operation temperature : 15°C ~35°C.

Display	240 x 64 Ice Blue Dot Matrix LCD
Memory	100 sets for panel setting save and recall
Power Source	AC 100 V / 120 V / 220 V / 230 V ±10%
Line Frequency	50/60Hz
Consumption	700VA (max)
Dimensions	330(W) x 148(H) x 460(D) mm
Weight	Approx. 17kg (max)

### AC Ground Bond

#### GROUND BOND

Output-Current	03.00A~ 40.00A ac
Output-Current Resolution	0.01A
Output-Current Accuracy	3A ≤ I ≤ 8A : ± (1% of setting + 0.2A) 8A < I ≤ 40A : ± (1% of setting + 0.05A)
Test-Voltage	8Vac max (open circuit)
Test-Voltage Frequency	50Hz/60Hz selectable
Resistance Measurement Range	1.0mΩ ~ 650.0mΩ
Resistance Measurement Resolution	0.1mΩ
Resistance Measurement Accuracy	± (1% of reading + 2mΩ)
Window Comparator Method	Yes
TIMER (Test Time)	0.5s~999.9s
GND	OFF (fix)
Test Method	Four Terminal

#### MEMORY

Single Step Memory                      MANU : 100 blocks

#### INTERFACE

LINK	For system connection
USB	Standard
GPIB	Option
Remote Terminal (Front)	Standard
Signal I/O	Standard
Display	240 x 64 Ice Blue Dot matrix LCD

#### POWER SOURCE & COMSUMPTION

Source	AC 100 V / 120 V / 220 V / 230 V ±10%, 50/60Hz
Consumption	Max. 700VA

#### DIMENSIONS & WEIGHT

330(W) x 148(H) x 460(D) mm; Approx. 17kg max.

[ NOTE ] Output Limitation in AC Ground Bond Testing as below

	Output Range	Pause	Output Time (max)
Ground	20A < I ≤ 40A	At least as long as the output time	999.9s
Bond	3A ≤ I ≤ 20A	No Necessary	999.9s

## OUTLOOK



Front



Rear

## ORDERING INFORMATION

**GCT-9040 40A AC Ground Bond Tester**

### Accessories

Quick Start Guide x 1, Power cord x 1, Test lead GTL-215 x 1,  
LINK cable GTL-132 x 1, USB cable GTL-247 x 1,  
REMOTE terminal male plug x 1, Interlock key x 1,  
CD x1(completed user manual)

### Optional

Opt.1 GPIB card

### Optional Accessories

GTL-248 GPIB cable, approx. 2m  
GTL-251 GPIB-USB-HS (High Speed) adaptor  
GRA-417 RACK Adapter Panel (19", 4U)

Should you have any questions about the GCT-9040 announcement, please don't hesitate to contact us.

**Sincerely yours,**

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