

# Power Meter Test Fixture

GPM-001

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## USER MANUAL

GW INSTEK PART NO. 82PM-00100MB1



ISO-9001 CERTIFIED MANUFACTURER

**GW INSTEK**

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# INTRODUCTION

The GPM-001 power meter test fixture is an accessory designed by GW Instek for applying to the GPM-8213 and GPM-8310. It was designed for customers to handy use the four measurement terminals on the front panel of the GPM-8213 to test products, which eliminates the need for repetitive wiring as well as the trouble caused by wiring.

## Package Contents

Check the contents before using the instrument.

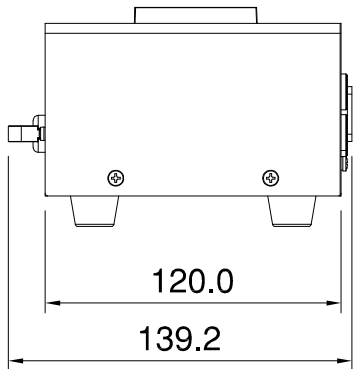
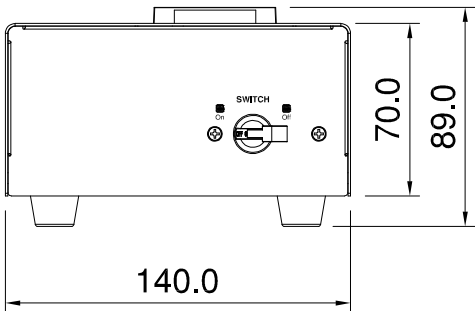
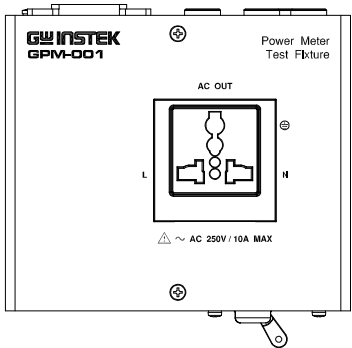
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### Contents

- Main unit
  - Test leads (red x2, black x2)
  - GTL-213 (blue x1, yellow x1)
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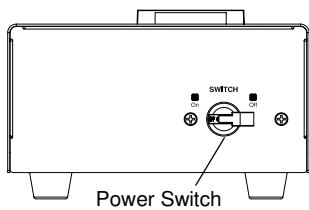


# Dimensions

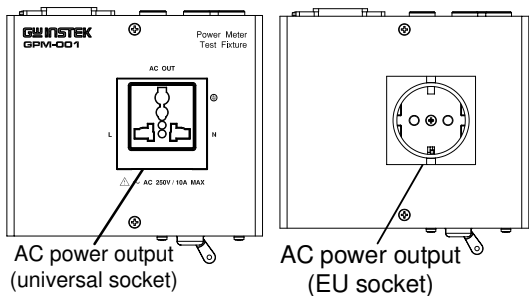


# Appearance

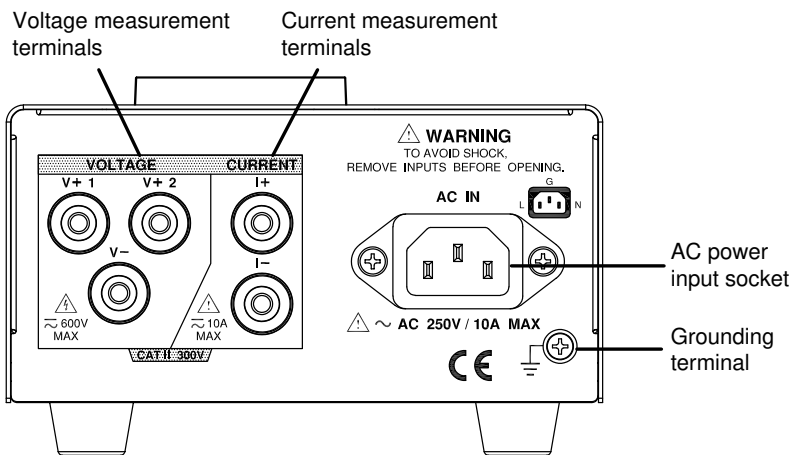
Front Panel



Upper Panel



Rear Panel



# CONNECT THE FIXTURE

Use the GPM-001 power meter test fixture to perform the AC input power consumption test of product. Connect the GPM-001 in series to the DUT and the mains. The wiring method is related to the test accuracy. Two kinds of wiring methods are suggested as below.

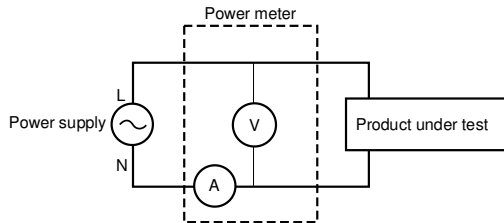
## Wiring method of GPM-8213

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When measuring a larger current Connect the voltage measurement terminal to the side of the load. Please use V+2 and V-terminal as voltage measurement terminals and I + and I- terminal as current measurement terminals.

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Connection



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$$\text{Power loss} = (\text{Input voltage}[V])^2 / 2.4M\Omega$$

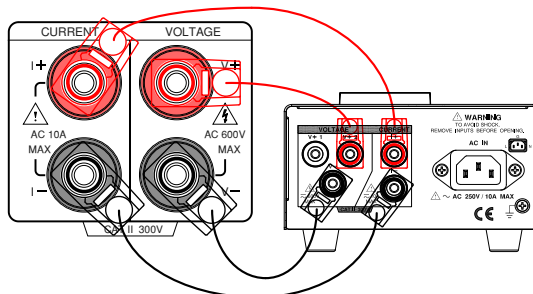
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Note

When switch is on and, without DUT wired, namely no load, V+2 and V- terminals are well connected, a current value, which is calculated by “Input Voltage/2.4MΩ”, will be generated.

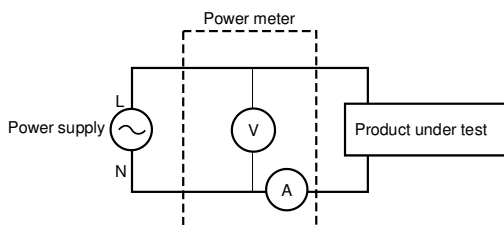
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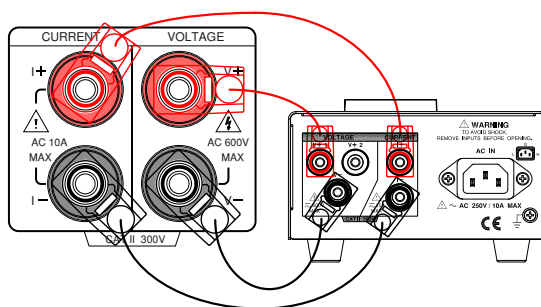
When measuring a smaller current

Connect the voltage measurement terminal to the side of power supply input. Please use V+1 and V-terminal as voltage measurement terminals and I + and I-terminal as current measurement terminals.

#### Connection



$$\text{Power loss} = (\text{Input current}[A])^2 \times 500\text{m}\Omega$$

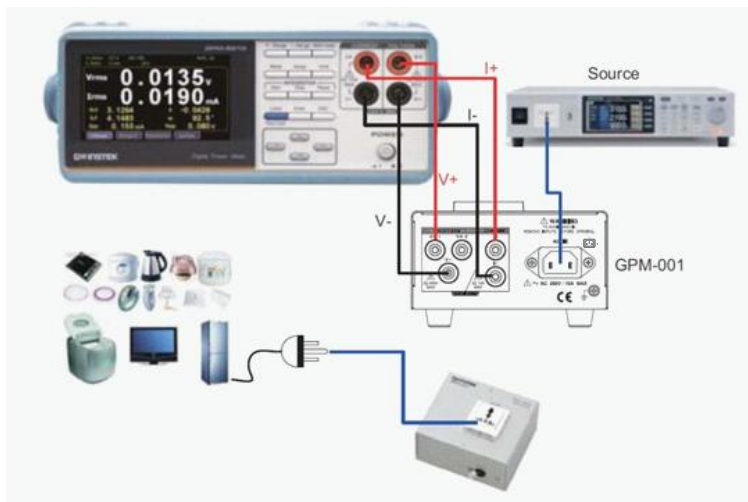


## Wiring method when using the test fixture

When using a fixture, there is no need to destroy the original plug. The wiring method is really simple and details steps are described as below.

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- Steps
1. Insert the input terminal of DUT to the AC universal socket of the GPM-001 power meter test fixture.
  2. The voltage terminal and the current terminal will be assigned automatically from the AC socket through the GMP-001 power meter test fixture. Connect the voltage and the current terminals of the fixture to the corresponding input terminals on the front panel of the GPM-8213 with test leads.
  3. Connect AC power to the AC outlet on the rear panel of the GPM-001 power meter test fixture.
  4. Turn on the AC power switch on the front panel of the GPM-001 power meter test fixture to start testing.



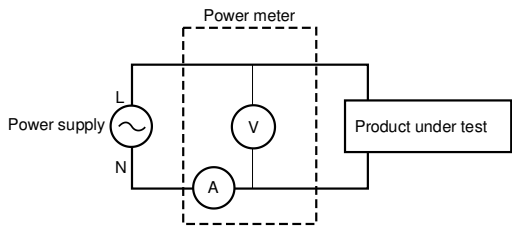


# Wiring method of GPM-8310

When measuring a larger current

Connect the voltage measurement terminal to the side of the load. Please use V+2 and V-terminal as voltage measurement terminals and I + and I- terminal as current measurement terminals.

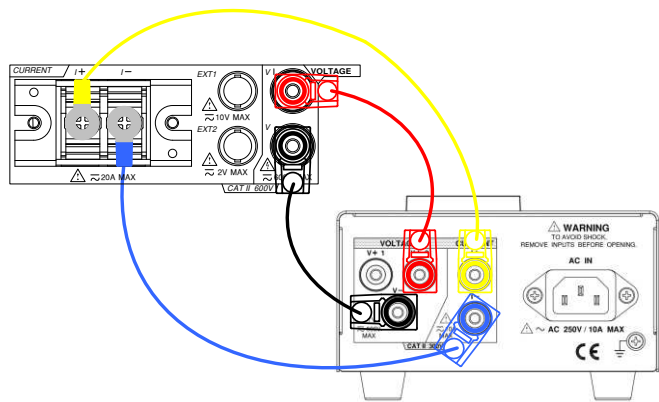
Connection



$$\text{Power loss} = (\text{Input voltage}[V])^2 / 2M\Omega$$

 Note

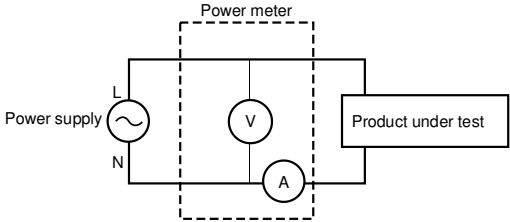
When switch is on and, without DUT wired, namely no load, V+2 and V- terminals are well connected, a current value, which is calculated by “Input Voltage/2.4MΩ”, will be generated.



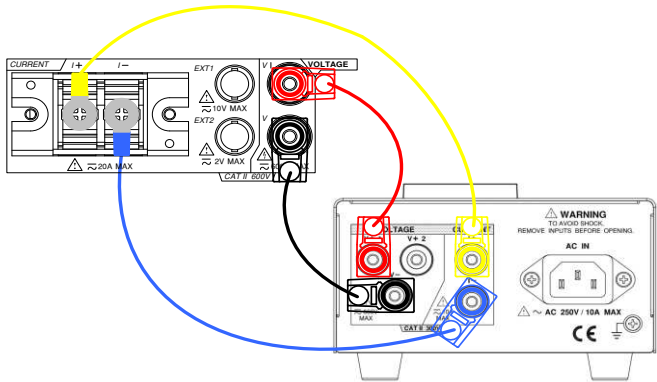
When measuring a smaller current

Connect the voltage measurement terminal to the side of power supply input. Please use V+1 and V-terminal as voltage measurement terminals and I + and I- terminal as current measurement terminals.

Connection



Power loss = (Input current[A])<sup>2</sup> x 505mΩ



## Wiring method when using the test fixture

When using a fixture, there is no need to destroy the original plug. The wiring method is really simple and details steps are described as below.

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- Steps
1. Insert the input terminal of DUT to the AC universal socket of the GPM-001 power meter test fixture.
  2. The voltage terminal and the current terminal will be assigned automatically from the AC socket through the GMP-001 power meter test fixture. Connect the voltage and the current terminals of the fixture to the corresponding input terminals on the rear panel of the GPM-8310 with test leads.
  3. Connect AC power to the AC outlet on the rear panel of the GPM-001 power meter test fixture.
  4. Turn on the AC power switch on the front panel of the GPM-001 power meter test fixture to start testing.

