

# Power Meter Test Fixture

GPM-001

---

## USER MANUAL

GW INSTEK PART NO. 82PM-00100MA1

This manual contains proprietary information, which is protected by copyright. All rights are reserved. No part of this manual may be photocopied, reproduced or translated to another language without prior written consent of Good Will company.

The information in this manual was correct at the time of printing. However, Good Will continues to improve products and reserves the rights to change specification, equipment, and maintenance procedures at any time without notice.



ISO-9001 CERTIFIED MANUFACTURER

**GW INSTEK**

Good Will Instrument Co., Ltd.  
No. 7-1, Jhongsing Rd., Tucheng Dist., New Taipei City 236, Taiwan.

## INTRODUCTION

The GPM-001 power meter test fixture is an accessory designed by GW Instek for applying to the GPM-8213. 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.

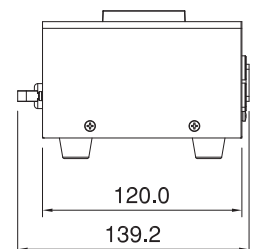
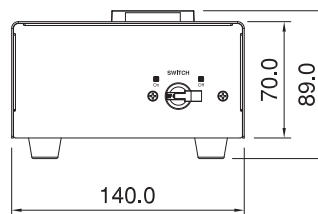
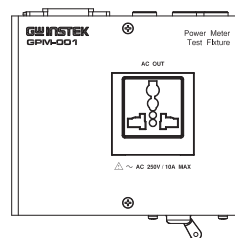
## Package Contents

Check the contents before using the instrument.

- | Contents                        |
|---------------------------------|
| • Main unit                     |
| • Test leads (red x2, black x2) |

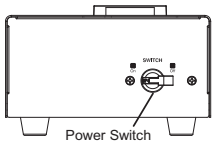


## Dimensions



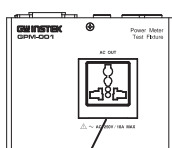
## Appearance

Front Panel

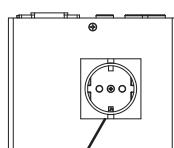


Power Switch

Upper Panel

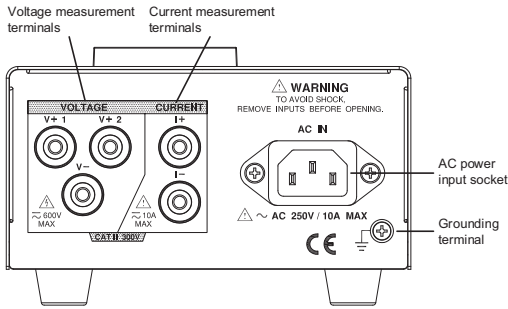


AC power output  
(universal socket)



AC power output  
(EU socket)

Rear Panel



Voltage measurement terminals

Current measurement terminals

**WARNING**  
TO AVOID SHOCK  
REMOVE INPUTS BEFORE OPENING.

VOLTAGE CURRENT

V+1 V+2 I+ I-

AC IN

AC 250V / 10A MAX

CE

GROUNDING terminal

3

## CONNECT THE FIXTURE

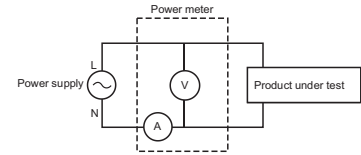
Use the GPM-001 power meter test fixture to perform the AC input power consumption test of product. Connect the GPM-001 in series to the DUT and the mains. The wiring method is related to the test accuracy. Two kinds of wiring methods are suggested as below.

### Wiring method

When measuring a larger current

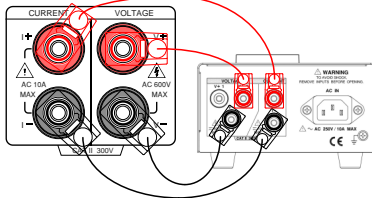
Connect the voltage measurement terminal to the side of the load. Please use V+2 and V-terminal as voltage measurement terminals and I+ and I-terminal as current measurement terminals.

Connection



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

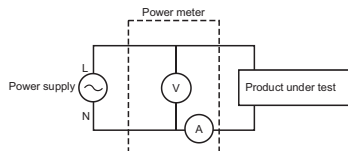
4



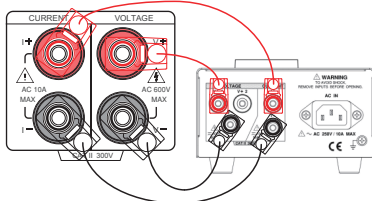
When measuring a smaller current

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



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



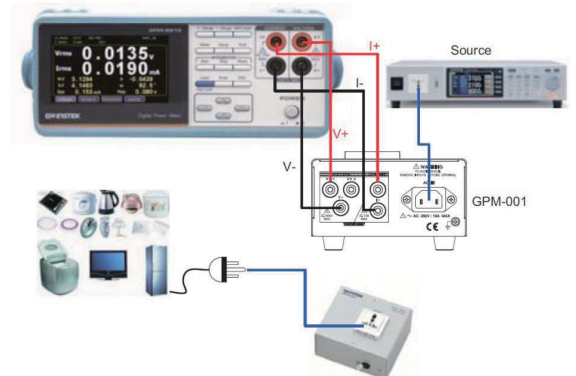
### Wiring method when using the test fixture

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.

5

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 GPM-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.



6