

IT-E185 Power Meter Fixture User Manual



Model: IT-E185
Version: V2.0

Notices

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Safety Notices

CAUTION

A CAUTION sign denotes a hazard. It calls attention to an operating procedure or practice that, if not correctly performed or adhered to, could result in damage to the product or loss of important data. Do not proceed beyond a CAUTION sign until the indicated conditions are fully understood and met.

WARNING

A WARNING sign denotes a hazard. It calls attention to an operating procedure or practice that, if not correctly performed or adhered to, could result in personal injury or death. Do not proceed beyond a WARNING sign until the indicated conditions are fully understood and met.



NOTE

A NOTE sign denotes important hint. It calls attention to tips or supplementary information that is essential for users to refer to.

Certification and Quality Assurance

IT-E185 completely reaches nominal technical indicators in the manual.

Warranty service









ITECH Company will provide one-year warranty services for the product materials and manufacturing (excluding the following limitations).








- When warranty service or repair is needed, please send the product to the service unit specified by ITECH Company.
- When the product is sent to ITECH Company for warranty service, the customer must pay the one-way freight to the maintenance department of ITECH, and ITECH will be responsible for return freight.
- If the product is sent to ITECH for warranty service from other countries, the customer will be responsible for all the freight, duties and other taxes.

Limitation of Warranty




- Warranty service does not apply to the damage caused in the following circumstances:
- Damage resulting from customer-wired circuits or customer-supplied parts or accessories;
- Product which has been modified or repaired by the customer;
- Damage caused by the circuit installed by the customer or damage caused by operation of the product in non-specified environment;
- The product model or serial number is altered, deleted, removed or made illegible by customer;
- Damage caused by accidents, including but not limited to lightning, water, fire, abuse or negligence.

Safety signs

	Direct current		ON (power)
	Alternating current		OFF (power)
	Both direct and alternating current		Power-on state
	Protective earth (ground) terminal		Power-off state

	Earth (ground) terminal		Reference terminal
	Caution		Positive terminal
	Warning (refer to this manual for specific Warning or Caution information)		Negative terminal
	A chassis terminal	-	-

Regulation tag

	The CE tag shows that the product complies with the provisions of all relevant European laws (if the year is shown, it indicates that the year when the design is approved).
	This instrument complies with the WEEE directive (2002/96/EC) tag requirements. This attached product tag shows that the electrical/electronic product cannot be discarded in household waste.
	This symbol indicates that no danger will happen or toxic substances will not leak or cause damage in normal use within the specified period. The service life of the product is 10 years. The product can be used safely within the environmental protection period; otherwise, the product should be put into the recycling system.

Waste electrical and electronic equipment (WEEE) directive



Waste electrical and electronic equipment (WEEE) directive,

2002/96/EC

The product complies with tag requirements of the WEEE directive (2002/96/EC). This tag indicates that the electronic equipment cannot be disposed of as ordinary household waste.

Product Category

According to the equipment classification in Annex I of the WEEE directive, this instrument belongs to the “Monitoring” product.

If you want to return the unnecessary instrument, please contact the nearest sales office of ITECH.

Compliance Information

Complies with the essential requirements of the following applicable European Directives, and carries the CE marking accordingly:

- Electromagnetic Compatibility (EMC) Directive 2014/30/EU
- Low-Voltage Directive (Safety) 2014/35/EU

Conforms with the following product standards:

EMC Standard

IEC 61326-1:2012/ EN 61326-1:2013 ¹²³

Reference Standards

CISPR 11:2009+A1:2010/ EN 55011:2009+A1:2010 (Group 1, Class A)

IEC 61000-4-2:2008/ EN 61000-4-2:2009

IEC 61000-4-3:2006+A1:2007+A2:2010/ EN 61000-4-3:2006+A1:2008+A2:2010

IEC 61000-4-4:2004+A1:2010/ EN 61000-4-4:2004+A1:2010

IEC 61000-4-5:2005/ EN 61000-4-5:2006

IEC 61000-4-6:2008/ EN 61000-4-6:2009

IEC 61000-4-11:2004/ EN 61000-4-11:2004

1. The product is intended for use in non-residential/non-domestic environments. Use of the product in residential/domestic environments may cause electromagnetic interference.
2. Connection of the instrument to a test object may produce radiations beyond the specified limit.
3. Use high-performance shielded interface cable to ensure conformity with the EMC standards listed above.

Safety Standard

IEC 61010-1:2010/ EN 61010-1:2010

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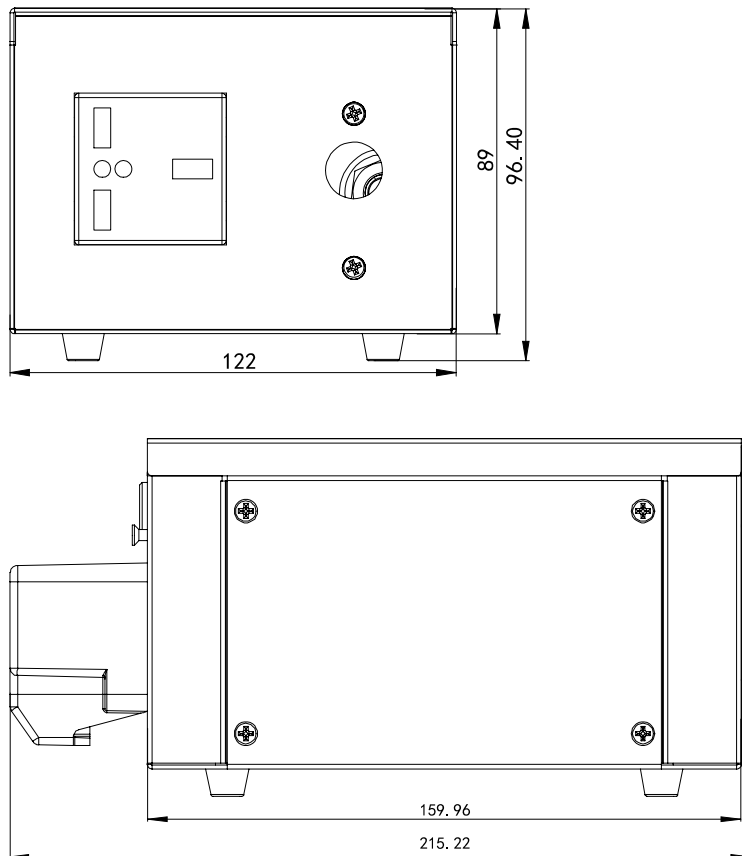
About IT-E185

IT-E185 is an optional accessory for the User of ITECH, which is mainly for convenient wiring during test with IT9121/IT9121E power meter. See the figure below for IT-E185:



Dimension

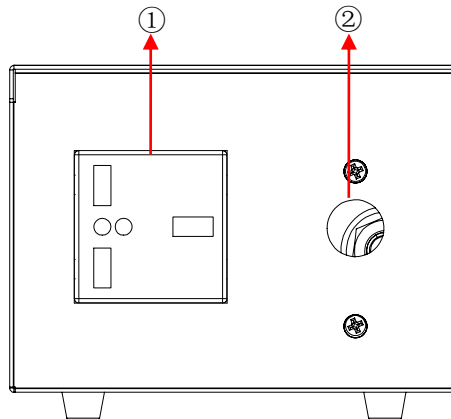
IT-E185 dimension figure is as follows:



Unit:mm

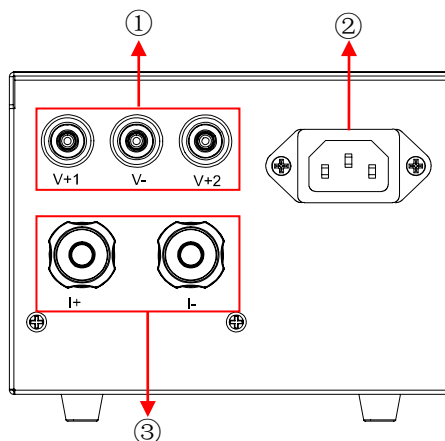
Introduction of Front Panel and Rear Panel

IT-E185 Front Panel



- ① Three core socket
- ② Power Switch

IT-E185 Rear Panel



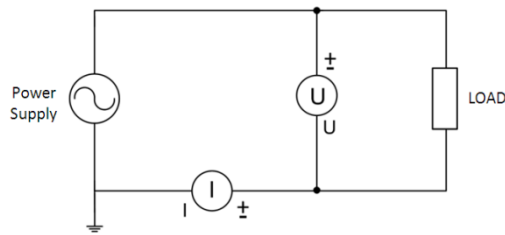
- ① Voltage input terminals
- ② AC power input socket
- ③ Current input terminals

Connecting Fixture

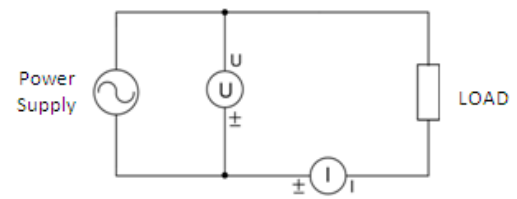
During AC input power consumption test of AC-DC adapter, the IT-E185 is required to connect IT9121/IT9121E to the adapter and grid lines in series.

When the measured current is relatively large, connect the voltage input terminal to the side that is closest to the load. When the measured current is relatively small, connect the current input terminal to the side that is closest to the load. both circuit figures are as follows:

Measuring higher current:



Measuring lower current:

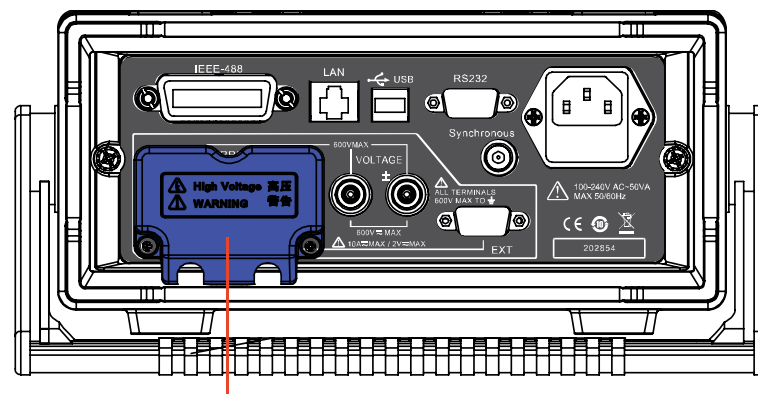


- Voltage input terminal
The terminals are safety banana jacks (female). Only insert a safety terminal whose conductive parts are not exposed into a voltage input terminal.
- Current input terminal
The terminals are binding posts, and the screws are M6. Either wind a wire around a screw or pass a crimped terminal through the screw axis, and then tighten firmly with the terminal knob.

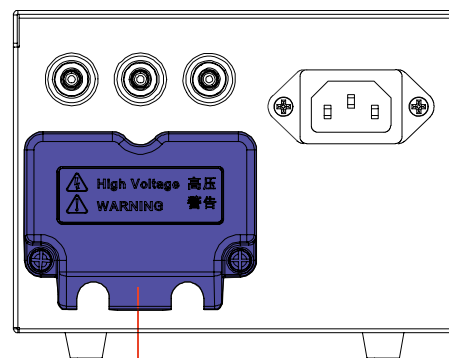
Connecting Method

The connection method for measuring the low-current measurement circuit is as follows:

1. Open the current terminal protection covers of the power meter and the device.

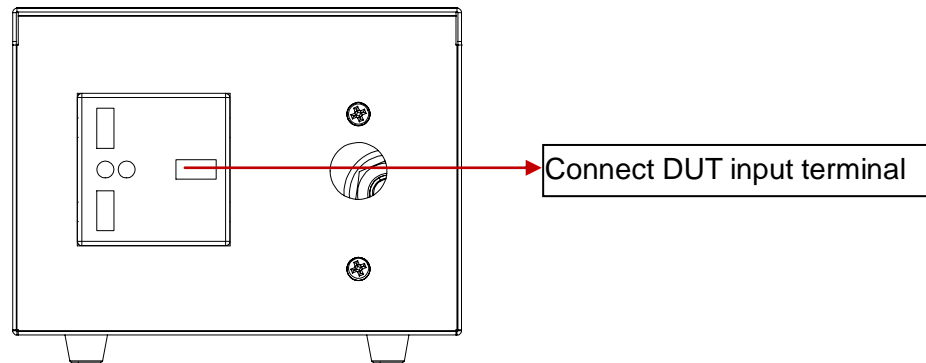


Protective Cover

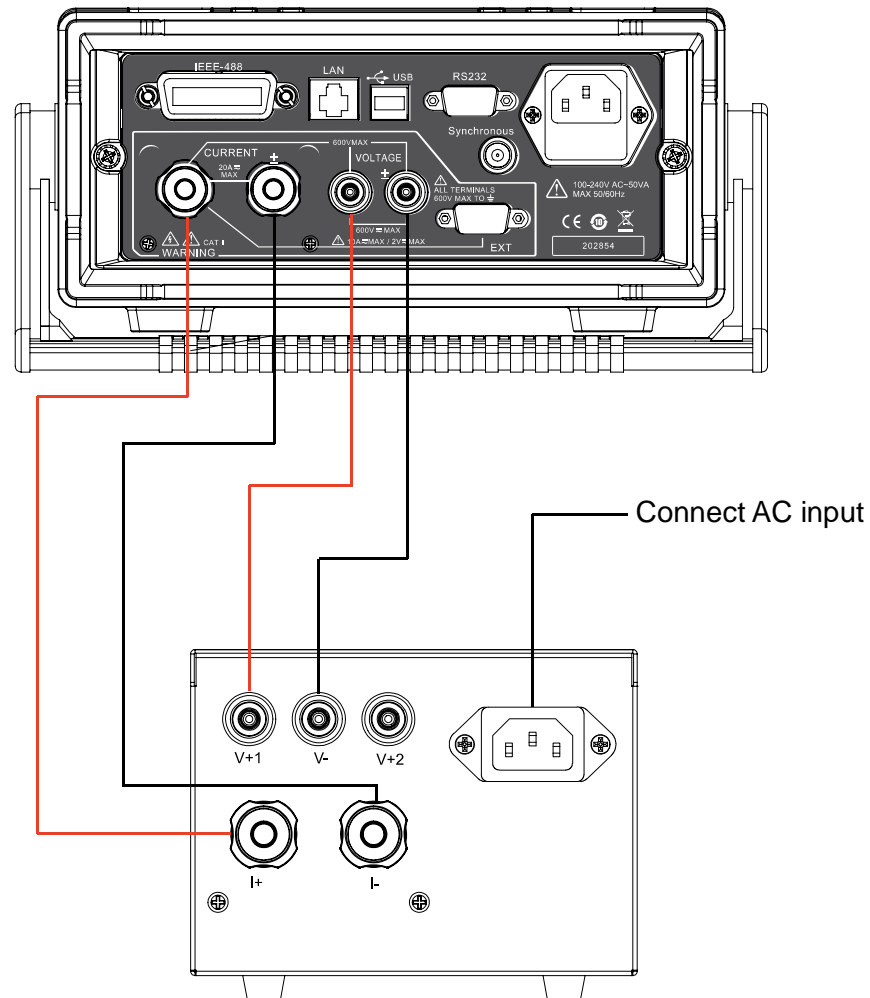


Protective Cover

- Put the DUT input terminal to the three-core socket on the front panel.



- Connect the voltage and current terminals of IT9121/IT9121E power meter to the corresponding terminals on the rear panel, as shown below:



NOTE

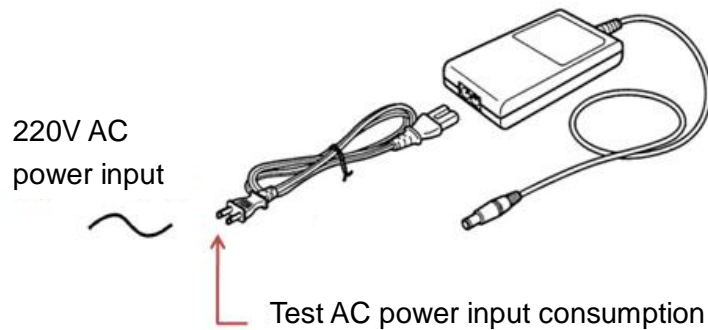
Connect the voltage positive terminal of the power meter to the V+2 terminal on the rear panel and put the V+1 suspended when high current is measured.

- Connect the AC power input socket of the rear panel to the 220 V AC input, as show above.
- To guarantee personal safety, after the measurement circuit is connected,

please install the current terminal protection cover to avoid touching the current terminal during measurement.

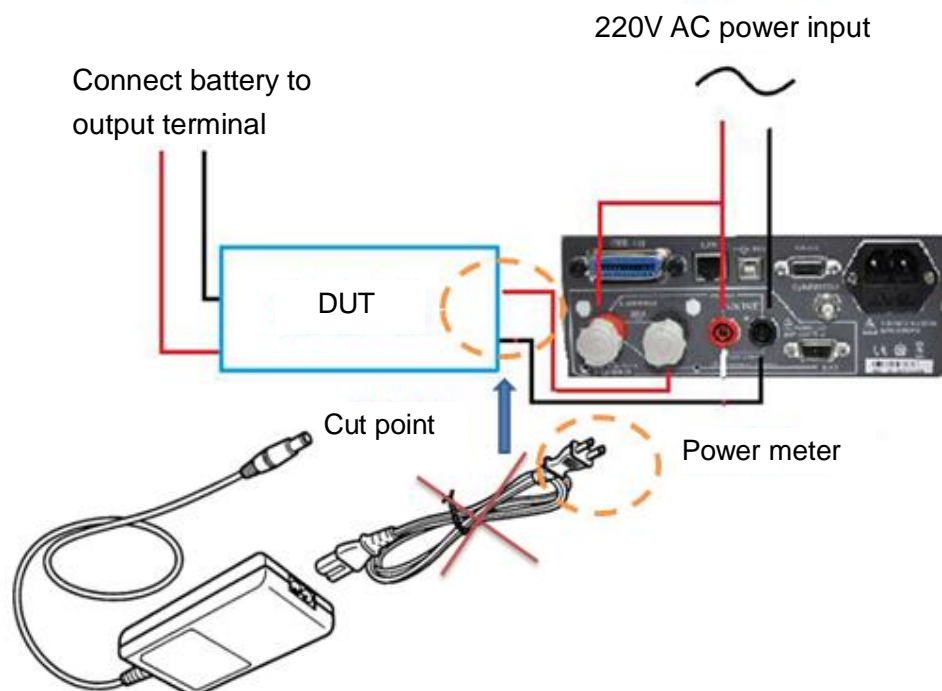
Application Case

When testing the AC input power consumption of AC-DC adapter, IT9121/IT9121E is required to be connected to the adapter and grid lines in series.



Without Fixture

When the device is not used, cut off the plug that connects to the grid lines and lead out the internal L, N and GND wires. Connect the voltage and current terminals of the power meter to the circuit following the principles of voltage parallel circuit and current series circuit.



Use Fixture

When the fixture is used, the wiring is simple without damaging the original plug. Wiring steps are as follows:

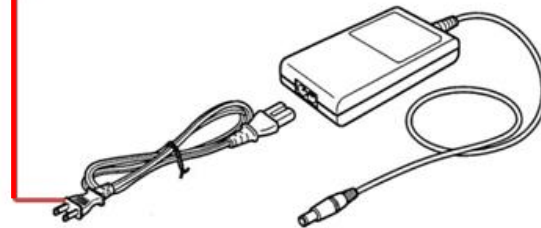
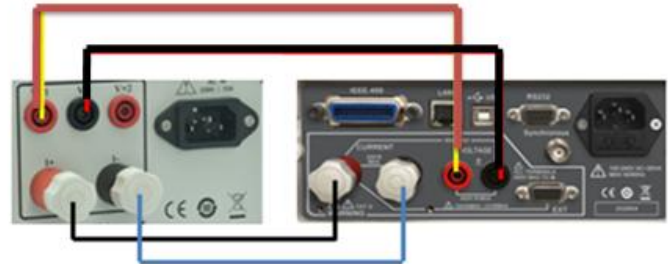
1. Put the DUT input terminal to the three-core socket on the front panel.

- It is not necessary to cut off the plug. After the current passes through the device, the device will automatically strip the voltage and current terminals from the three-core plug. Connect the corresponding voltage and current terminals to the terminals on IT9121/IT9121E power meter.

The front panel
of IT-E185



The rear panel
of IT-E185





YOUR POWER TESTING SOLUTION



Contact US

Thank you for purchasing ITECH products. If you have any doubt about this product, please contact us as follow.

1. Please refer to the CD-ROM of related user's manual in package.
2. Click www.itechate.com or scan the right two-dimension code to visit the ITECH website.
3. Select the most convenient contact method for further consultancy.
4. Send E-mail to fae@itech.sh or dial the service hot-line in China: 4006025000

