

# HiRange Series Brief Operation

## HRG 6010 Brief Operation

### IMPORTANT SAFETY INSTRUCTIONS

For your own safety and the safety of other people, and to prevent the product from damage, we suggest you following the instructions not only for operating and maintaining the product, but also for keeping it in storage.



### Environment

- \* The product is constructed for indoor use.
- \* Condensation may occur after the product has been shipped from cold to warm area. Await the product two hours or longer to be totally dry before powering on to it.
- \* Before performing any service, disconnect the product from the mains and await it until no harmful voltage remains at the terminals of bulk capacitors. **WARNING**
- \* Please replace the fuse only with the same ratings of amperage and voltage to avoid risk of fire.
- \* This is a Class A device which can cause RF interference within the home.
- \* The product is operated only when the case is securely closed and screwed up.
- \* While operating the product, the wearing of metal or other conducting jewelry such as chains, bracelets, rings, etc. is not recommended.
- \* Never place the product near water side or in wet area.
- \* Never place the product under direct sunlight or near heat source.
- \* Never block the ventilation openings at the enclosure of the product.
- \* Never place any heavy object on the product and severe impact or rough handling that could lead damage to it.

### Storage

- \* Location: indoor
- \* Relative humidity: <80%
- \* Temperature: -10°C ~ 70 °C

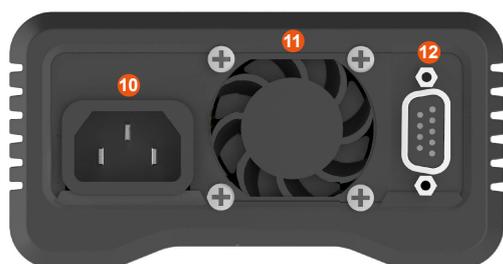
### Operation

- \* The product is rated at AC input 85~264V, 47~63Hz mains
- \* Connect the product to an earthed wall receptacle with an international safety approved power cord.
- \* Be careful. A power circuit changes from open to short could cause high current sparks to injure eyes. A power circuit changes from short to open instantly induce high voltage and arc, to shock people and injure their eyes. **DANGER**

### Service and maintenance

- \* The product operates with hazardous high voltage ( near DC 380V or AC 267V) inside. Only qualified personnel can carry out the service. **DANGER**
- \* The product still keeps hazardous voltage inside even after it has been switched off for a while. **WARNING**

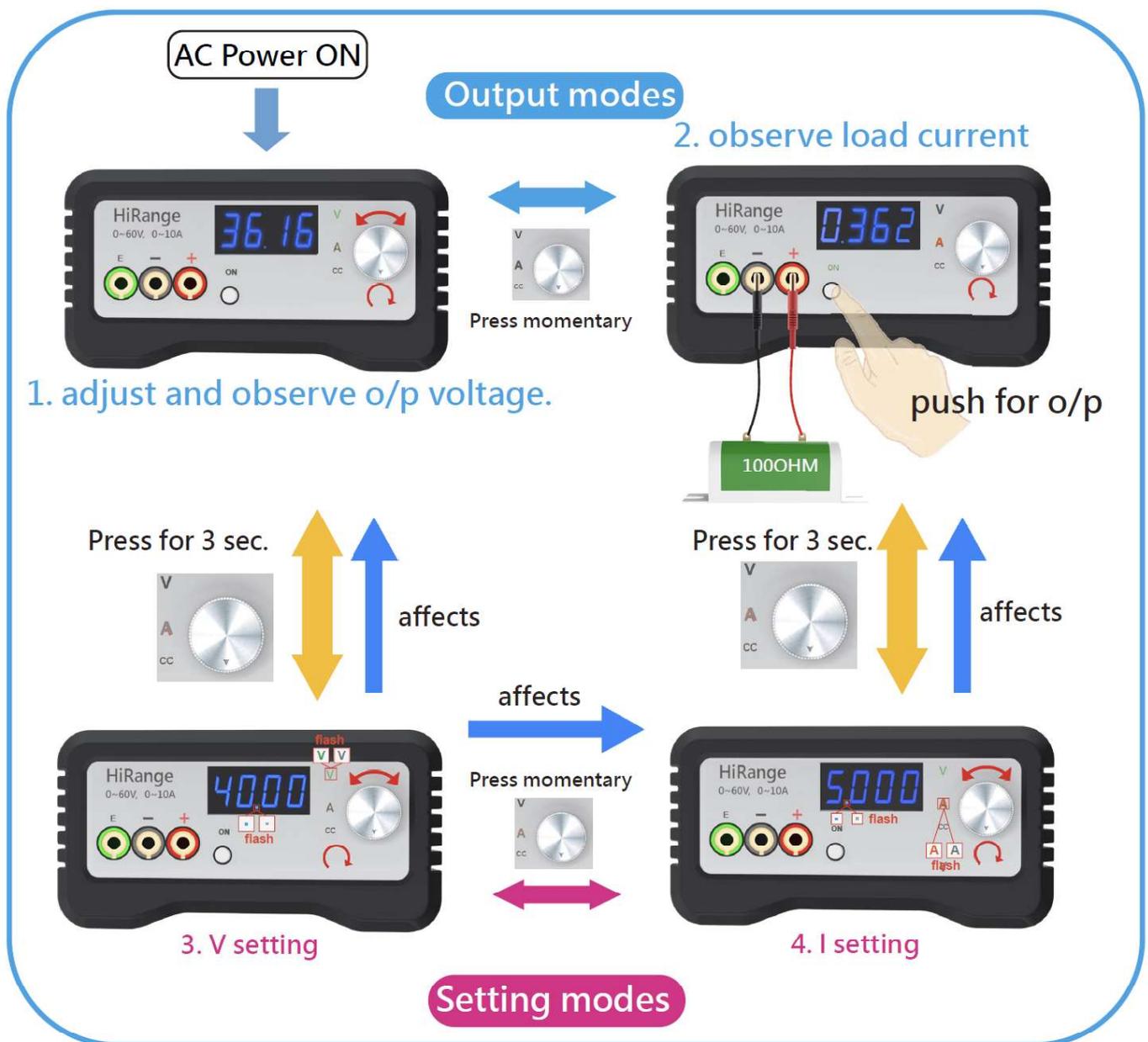
### Knowing about front / rear panel



1	7-segment LED module	4-digit meter measures and displays values of voltage and current. Also for auxiliary purpose of system parameters setup.
2	Output key	Press to turn the output on/off.
3	Knob enter key	Modes selection and input termination
4	Knob cw/ccw	Input increment/decrement
5	V-LED	Green "V" denotes unit = " VOLT" for meter display. Lit state : shows meter display in Reading mode. Blinking : shows meter display in Setting mode.
6	A-LED	Orange "A" denotes unit = " AMPERE" for meter display. Lit state : shows meter display in Reading mode. Blinking : shows meter display in Setting mode.
7	cc-LED	Red symbol "cc" . Off state : denotes output in constant voltage (CV) mode. Lit state: denotes output in constant current (CC) mode.
8	Output LED	Green symbol "ON" . Off state : denotes output Off. Lit state : denotes output On.
9	DC output	'Earth' terminal, '-' terminal and '+' terminal
10	AC input	IEC male socket
11	Cooling fan	Temperature control DC fan
12	Comm. port	RS-232 interface

## Brief Operation

When AC power turns on, HiRange enters into the Output mode with V lit. The 7-segment shows the voltage operated last time. But in your behalf, please go to the **Setting modes** first. The UUT can be protected from damages due to excessive voltage or current because Setting modes preset both voltage and current in a safe ranges.



## Setting modes

### 1. Voltage setting

Press 3 sec on the knob until hear of a beep sound, press momentarily on the knob to select blinking " **VV** ". Turn the knob CW/CCW to increase/decrease until the **7- segment** shows your values. The values usually are 5-10% more than the withstand voltage of your UUT.

### 2. Current setting

Continue from the last Voltage setting, press momentarily on the knob to select blinking " **AA** ". Turn the knob CW/CCW to increase/decrease until the **7- segment** shows your value. The value usually is 5-10% more than the rated current of your UUT.

Assumed all the above settings are correct, press 3 sec on the knob until hear of a beep sound, all the settings will be saved, HiRange leaves Setting mode and enters into the Output mode with **A** lit. Any presses momentarily on the knob will make system **V/A** back and forth.

## Output modes

### 3. Output voltage mode

Any momentary presses on the knob till the system enters output voltage mode with **V** lit. Turn the knob CW/CCW to increase/decrease until the **7- segment** shows your value. The value is the output voltage which is never excessive to the previous voltage setting value.

### 4. Output current mode

Please continue and press momentarily on the knob till the system enters output current mode with **A** lit. The **7- segment** shows the value of output current and the current is exactly the load current too. Its no way to adjust the current in this mode because the current is a function of the load and output voltage.

But the output current is never excessive to the current setting value. For the moment the current shown on the **7- segment** should be near to zero (0.000) as no load to connect. Next please make operation with a load,

- 4-1 connect a known load at the output terminals.
- 4-2 please press the output switch to **ON**.
- 4-3 observe the **7- segment** values which show the load current.

All parameters will be saved while power off and will be restored next time.

\*EOF\*