ODP8000 Series Programmable DC Power Supply Quick Guide

■ ODP8353

■ ODP8354

For product support, visit:www.owon.com.hk/download

※:The illustrations, interface, icons and characters in the user manual may be slightly different from the actual product. Please refer to the actual product.

General Warranty

We warrant that the product will be free from defects in materials and workmanship for a period of 2 years from the date of purchase of the product by the original purchaser from our company. The warranty period for accessories is 12 months. This warranty only applies to the original purchaser and is not transferable to a third party.

If the product proves defective during the warranty period, we will either repair the defective product without charge for parts and labour, or will provide a replacement in exchange for the defective product. Parts, modules and replacement products used by our company for warranty work may be new or reconditioned like new. All replaced parts, modules and products become the property of our company.

To obtain service under this warranty, the customer must notify our company of the defect before the expiration of the warranty period. Customer shall be responsible for packaging and shipping the defective product to our designated service centre, a copy of the customer's proof of purchase is also required.

This warranty shall not apply to any defect, failure or damage caused by improper use or improper or inadequate maintenance and care. We shall not be obligated to furnish service under this warranty a) to repair damage resulting from attempts by personnel other than our company representatives to install, repair or service the product; b) to repair damage resulting from improper use or connection to incompatible equipment; c) to repair any damage or malfunction caused by the use of not our supplies; or d) to service a product that has been modified or integrated with other products when the effect of such modification or integration increases the time or difficulty of servicing the product.

Please contact the nearest sales and service offices for services.

Excepting the after-sales services provided in this summary or the applicable warranty statements, we will not offer any guarantee for maintenance definitely declared or hinted, including but not limited to the implied guarantee for marketability and special-purpose acceptability. We should not take any responsibilities for any indirect, special or consequent damages.

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1. General Safety Requirements

Before use, please read the following safety precautions to avoid any possible bodily injury and to prevent this product or any other connected products from damage. To avoid any contingent danger, ensure this product is only used within the ranges specified.

Only a qualified person should perform internal maintenance.

To avoid Fire or Personal Injury:

- **Use Proper Power Cord.** Use only the power cord supplied with the product and certified to use in your country.
- **Product Grounded.** This instrument is grounded through the power cord grounding conductor. To avoid electric shock, the grounding conductor must be grounded. The product must be grounded properly before any connection with its input or output terminals.
- **Check all Terminal Ratings.** To avoid fire or shock hazard, check all ratings and markings on this product. Refer to the user manual for more information about ratings before connecting to the instrument.
- **Do not operate without covers**. Do not operate the instrument with covers or panels removed.
- **Use the Proper Fuse.** Use only the specified type and rating fuse for this instrument.
- **Avoid exposed circuit**. Be careful when working on exposed circuitry to avoid risk of electric shock or other injury.
- **Do not operate if any damage.** If you suspect damage to the instrument, have it inspected by qualified service personnel before further use.
- **Use your instrument in a well-ventilated area.** Please keep well ventilated and inspect the intake and fan regularly.
- **Do not operate in damp conditions.** To avoid short circuiting to the interior of the device or electric shock, please do not operate in a humid environment.
- **Do not operate in an explosive atmosphere.** To avoid damages to the device or personal injuries, it is important to operate the device away from an explosive atmosphere.
- **Keep product surfaces clean and dry.** To avoid the influence of dust or moisture in air, please keep the surface of device clean and dry.

2. Safety Terms and Symbols

Safety Terms

Terms in this manual (The following terms may appear in this manual):



Warning: Warning indicates conditions or practices that could result in injury or loss of life.



Caution: Caution indicates the conditions or practices that could result in damage to this product or other property.

Terms on the product. The following terms may appear on this product:

Danger: Indicates an immediate hazard or injury possibility.

Warning: Indicates a possible hazard or injury.

Caution: Indicates potential damage to the instrument or other property.

Safety Symbols

Symbols on the product. The following symbols may appear on the product:



Hazardous Voltage



Refer to Manual



Protective Earth Terminal



Chassis Ground



Public Ground

3. Quick Start

3.1 Front/Rear Panel and User Interface

This manual uses the four-channel example for illustration. For the three-channel version, please refer to the four-channel instructions.

3.1.1 Front Panel

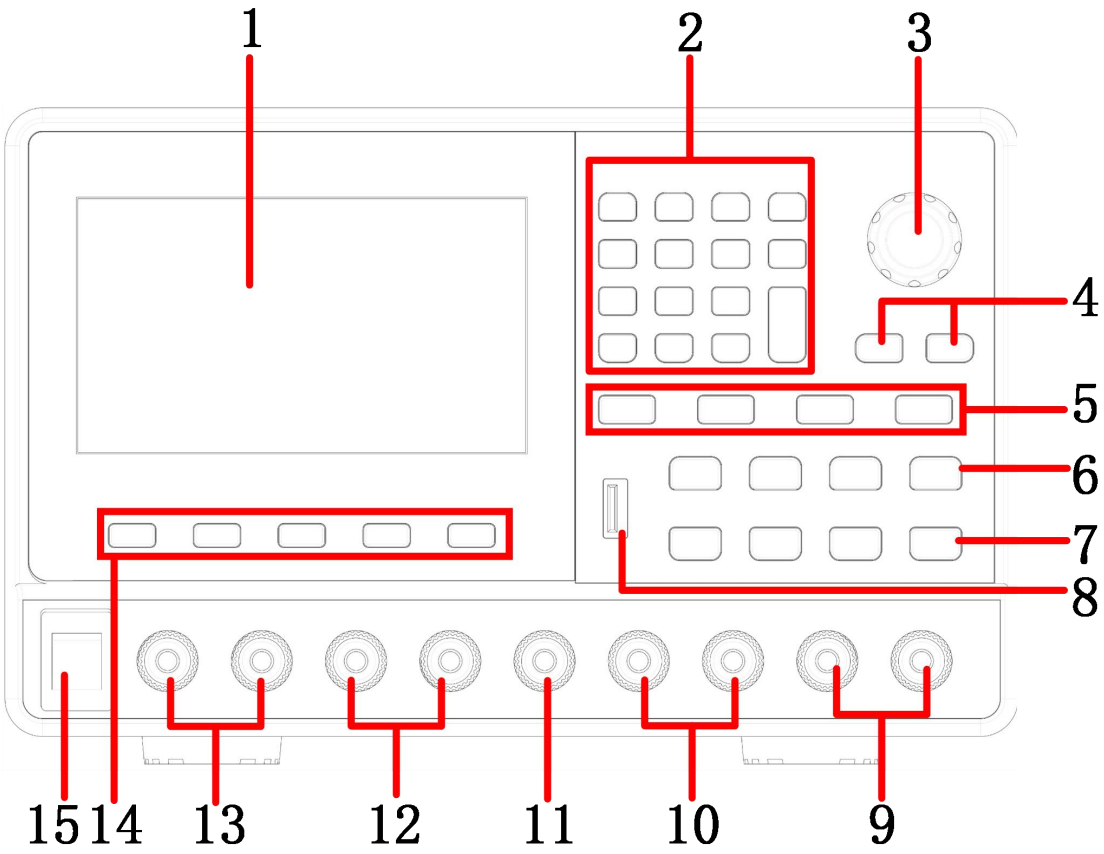


Figure 3- 1 Front panel overview

①	**LCD**	User interface display.
②	**Numeric keys area**	Parameter input, includes the numeric keys, decimal point and backspace key. **Up and down direction key:** Select sub menu. **Enter key:** Enter menu or confirm the parameter entered.

③	**Knob**	Select menu or change the value, pressing it has the same effect as pressing the enter key.
④	**Left and right direction key**	Set sub menu or move the cursor.
⑤	**Function keys**	**Utility** key: Menu of output mode, utility, info, port settings. **Record** key: Manual record, auto record, view setting and view recording. **Program** key: Programmable output. **All On/Off** key: Short press this key to enable/disable all channels output. Press and hold this key for 5 seconds to lock the panel keys. Unlock method: Press and hold the key for more than 5 seconds, and release.
⑥	**Channel button**	CH1, CH2, CH3, CH4 channel button, press it to select this channel.
⑦	**On/Off button**	Press the On/Off button of the corresponding channel to turn the channel output on or off.
⑧	**USB Host port**	Connect as a "host device" with an external USB device, such as connect a USB disk to the instrument.
⑨	**CH4 output terminals**	Channel 4 output connectors.
⑩	**CH2 output terminals**	Channel 2 output connectors.
⑪	**Ground terminal**	Channel ground connector.
⑫	**CH1 output terminals**	Channel 1 output connectors.

⑬	**CH3 output terminals**	Channel 3 output connectors.
⑭	**Menu selection button**	Include 4 buttons, press it to select corresponding menu.
⑮	**Power button**	Turn on/off the instrument

Instructions for panel key indicator

ON/OFF key: Press the button, and the channel light and the button light will turn on.

3.1.2 Rear Panel

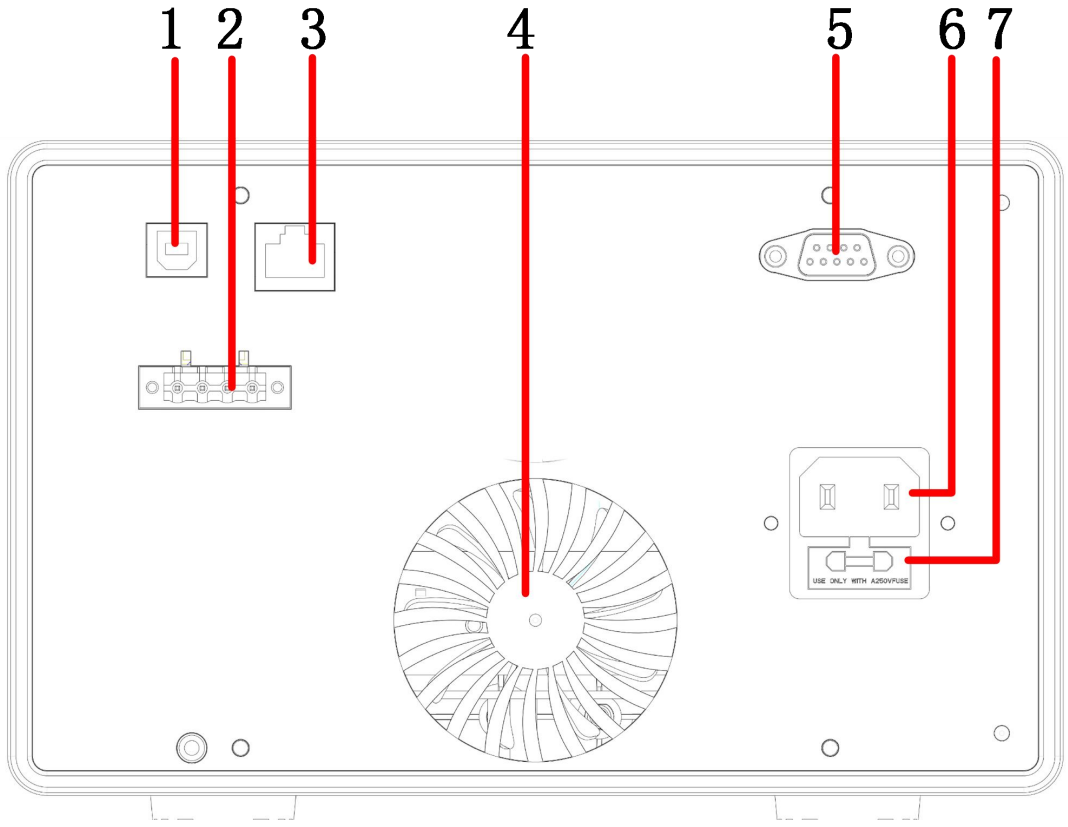


Figure 3- 2 Rear panel overview

①	**USB Device Connector**	Connect as a "slave device" with an external USB device, such as connect the instrument to a PC.
②	**S2+/S2-/S1+/S1- interface**	Remote compensation voltage for Channel 1 and Channel 2, sample signal input port.

③	**LAN interface**	The power supply can be connected to the network for remote control via this connector.
④	**Fan**	Fan inlet.
⑤	**RS232 interface**	Serial port for connecting the instrument to external devices.
⑥	**Power socket**	AC input connector.
⑦	**Fuse**	Power supply fuse.

3.1.3 User Interface

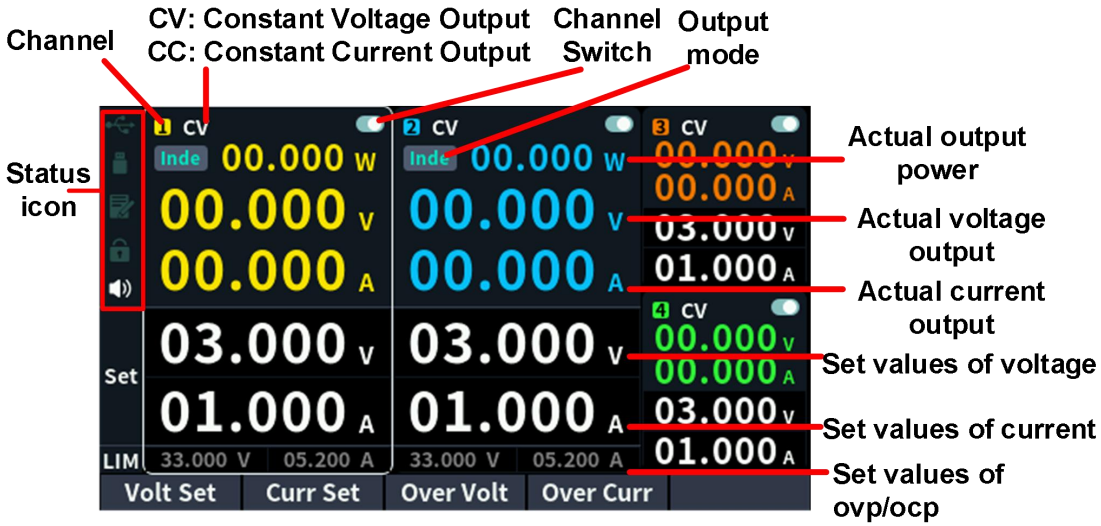


Figure 3- 3 User interface in All channel mode

Status Icons

Icons	Instruction
	USB Communication Port Priority
	USB Device Priority
	Recording the current output
	The panel keys are locked
	The beeper is turned on

3.2 General Inspection

When you receive your new power supply, it is recommended that you check the instrument following these steps:

1. **Check for transportation damage.**

   If it is found that the packaging carton or the foamed plastic protection cushion has suffered serious damage, do not throw it away first till the complete device and its accessories succeed in the electrical and mechanical property tests.

2. **Check the Accessories**

   The supplied accessories are described in the "Appendix A: " of this Manual. You can check whether there is any loss of accessories with reference to this description. If it is found that there is any accessory lost or damaged, please get in touch with the distributor of our responsible for this service or our local offices.

3. **Check the Complete Instrument**

   If it is found that there is damage to the appearance of the instrument, or the instrument can not work normally, or fails in the performance test, please get in touch with our distributor responsible for this business or our local offices. If there is damage to the instrument caused by the transportation, please keep the package. With the transportation department or our distributor responsible for this business informed about it, a repairing or replacement of the instrument will be arranged by us.

3.3 Power-On Check

(1) Connect the instrument to the AC supply using the supplied power cord.



Warning:

To avoid electric shock, the instrument must be grounded properly.

(2) Push the **power button** on the front panel, the screen will show the startup screen.

3.4 Output Inspection

Output inspection is to ensure that the instrument can achieve its rated outputs

and properly respond to operation from the front panel.

3.4.1 Voltage Output Inspection

The following steps verify basic voltage functions without load:

(1) When the instrument is under no load, select a channel and ensure the output current setting for this channel is not at zero.

(2) Turn on the channel output, then ensure the channel is in Constant Voltage output mode.

(3) Set some different voltage values on this channel; check if the actual voltage value displayed is close to the set voltage value, and also that the actual current value displayed is nearly to zero.

(4) Check that if the output voltage can be adjusted from zero to the maximum rating.

3.4.2 Current Output Inspection

The following steps check basic current functions with a short across the power supply's output:

(1) Connect a short across (+) and (-) output terminals with an insulated test lead on this channel. Use a wire size sufficient to handle the maximum current.

(2) Set the output voltage to the maximum rating on this channel.

(3) Turn on the channel output. Ensure the channel you used is in Constant Current output mode.

(4) Set some different current values on this channel; check if the actual current value displayed is close to the set current value, and to check if the actual voltage value displayed is nearly zero.

(5) Check that if the output current can be adjusted from zero to the maximum rating.

(6) Turn off the channel output and remove the short circuit from the output terminals.

4. Troubleshooting

1. **The instrument is powered on but no Display.**
   - Check if the power is connected properly.
   - Check if the fuse which is below the AC Power socket is used appropriately and in good condition (the cover can be pried open with a straight screwdriver).
   - Restart the instrument after the steps above.
2. **The output is abnormal:**
   - Check if the output voltage is set to 0V. If so, set it to other value.
   - Check if the output current is set to 0A. If so, set it to other value.
   - When in programmable output status, check if there is any voltage/current value is set to 0. If so, set it to other value.
3. **Cannot identify the USB device correctly:**
   - Check if the system settings prioritize USB devices. If you want to use a USB flash drive, set USB devices as the priority.
   - Check if the USB device is in good condition.
   - Check if the used USB device is a flash device, note a hard disk cannot be supported.
4. **USB cannot communication:**
   - Check if USB communication is prioritized in the system settings. If you want to use USB communication, set USB communication as the priority.

Check if the used USB device is a flash device, note a hard disk cannot be

If you encounter any other issues, please try restarting. If the product still does not function properly, please contact us so we can assist you.

5. Appendix

5.1 Appendix A: Packaging

(The accessories subject to final delivery.)

Standard Accessories:



Power Cord



User Manual



USB Cable



Fuse

Options:



Banana plug to crocodile clip test leads

5.2 Appendix B: General Care and Cleaning

General Care

Do not store or leave the instrument where the liquid crystal display could be exposed to direct sunlight for long periods of time.

Caution: To avoid any damage to the instrument, do not exposed it to any sprays, liquids, or solvents.

Cleaning

Inspect the instrument as often as operating conditions require.
To clean the instrument exterior, perform the following steps:

1. Wipe the dust from the instrument surface with a soft cloth. Take care not to scratch the transparent LCD protection screen when cleaning.
2. Disconnect power before cleaning your instrument. Clean the instrument with a damp soft cloth (not dripping with water). It is recommended to clean with soft detergent or fresh water. To avoid damage to the instrument, do not use any corrosive chemical cleaning agents.

Warning: Before re applying power, ensure that the instrument is completely dry, avoiding any electric shock or electrical short circuit resulting from moisture.

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